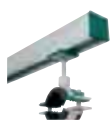


Know-how ■ Innovation ■
System-thinking ■ Quality ■ Service



Walraven Catalogue

Installation Technique



Project Engineering

From the experts at Walraven

Experience solving technical problems

Working with fixing and fire protection systems can be complex due to advancing technology and changing building requirements. When preparing or executing a project you may encounter a problem that you cannot solve yourself. Walraven Project Engineering has vast experience in solving technical problems.

From engineering to onsite construction support

Around our products we offer a wide range of technical consultancy in the areas of:

- Support for pipe work, air ducts or cable ducts
- Support for technical installations on rooftops (such as solar panels, climate installations)
- Secondary constructions
- Clamp fixing advice and plans
- Pipe and cable penetrations through fire rated separations
- Prefabrication service
- Calculations
- Assembly instructions
- Onsite construction support



Our expertise is available to you!

Based on your individual requirements our Project Engineering staff deliver you a proposal, well grounded with detailed calculations, AutoCAD drawings and parts lists.

www.walraven.com

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Walraven Group

The Walraven Group is one of Europe's leading manufacturers of fixing, sanitary and fire protection systems for HVAC and sanitary installations.

Since its foundation in 1942 the family owned company has expanded into an international business with its own sales and production companies and around 1250 employees.

Walraven is dedicated to serving the installation industry through full partnership with professional distributors.

Head office

J. van Walraven Holding B.V.
Mijdrecht (NL)



Market served by:

- Walraven companies*
- Agents*

18 Sales companies

Mijdrecht (NL)

Walraven B.V.
The Netherlands

Mijdrecht (NL)

Walraven International
Other countries

Tienen (BE)

Walraven BVBA
Belgium - Luxembourg

Bayreuth (DE)

Walraven GmbH
Germany - Austria - Switzerland
Italy - South East Europe

Grenoble (FR)

Walraven France Eurl
France

Banbury (UK)

Walraven Ltd.
United Kingdom - Ireland

Mladá Boleslav (CZ)

Walraven s.r.o.
Czech republic - Slovak republic

Kraków (PL)

Walraven Sp. z o.o.
Poland - Lithuania - Latvia
Estonia

Kyiv (UA)

Walraven Ltd.
Ukraine

Barcelona (ES)

Walraven Iberia S.L.
Spain - Portugal

Detroit (US)

Walraven, Inc.
United States of America
Canada

Moscow (RU)

Walraven LLC
Russia

Shanghai (CN)

Walraven Shanghai, Ltd.
China

Malmö (SE)

Walraven Nordic AB
Sweden - Denmark - Norway -
Finland - Iceland

Dubai (AE)

Hira Walraven
Middle East

Budapest (HU)

Walraven Kft.
Hungary - Romania

Mumbai (IN)

Diamond Walraven
India

Singapore (SG)

Walraven Pte. Ltd.
Singapore - Indonesia - Malaysia
Thailand - Vietnam - Cambodia
Brunei - Laos Myanmar - Australia
New Zealand



11 Production companies

Mijdrecht (NL)

J. van Walraven B.V.

Cista (CZ)

Suchánek & Walraven s.r.o.

Horka (CZ)

Suchánek & Walraven s.r.o.

Barcelona (ES)

Walraven Iberia S.L.

Banbury (UK)

Walraven Ltd.

Istanbul (TR)

Jefleks Plastik Kauçuk

Gramsbergen (NL)

Loko Gramsbergen B.V.

Horka (CZ)

SWO Tooling s.r.o.

Changshu (CN)

Walraven Metal Products
(Changshu) Co. Ltd

Detroit (US)

Walraven, Inc.

Mumbai (IN)

Diamond Walraven

Quality

Production

The Walraven Group has production facilities in various countries, with modern machines which are often designed in-house. Each production company has its own speciality so that products can be manufactured in the most efficient manner.

Almost all of our tooling and moulds are produced in our own tool making facility. Walraven then manages the entire process - from product development to manufacture - and can quickly respond to developments in the market.

Innovation

The development of new products is always our priority. With our primary focus being on customer satisfaction. Think of comfort, time-saving during assembly and the highest degree of reliability when operational. A large number of innovations and patents is the result. Our innovation is not just limited to product development. Also our marketing is pushing the boundaries.

We develop and produce customer-specific or project-related products too. In addition, many of our standard products can be supplied in a special size or with a special surface treatment.

Quality

Our organization is ISO 9001:2015 certified. This way we continuously improve operational processes, and thus the quality of the entire organization.

Our products meet the highest quality standards and are approved by many international institutes, such as:



Our fire protection products meet the highest international quality standards and are approved by many European certification institutes.



Our frames have been tested for load capacity and corrosion resistance in accordance with European standards.



RAL – Safe Connection

RAL-Quality hallmark

Walraven is one of the initiators of the 'Gütegemeinschaft Röhrbefestigung' (Safe Connection). The most important producers of pipe fixing systems have set up univocal product quality guidelines in this quality association. The 'Gütegemeinschaft Röhrbefestigung' has become acknowledged in 2003 by the RAL, the German institute for quality guarantees.

Benefits

The technical properties of the products, like the maximum safe working load, are established and published by means of a standardised measuring method.

Within the measuring method the maximum allowed load is calculated, taking a maximum deflection into consideration.

With the RAL-mark the quality of the pipe fixing products, like clamps and fixing rails of the participating manufacturers becomes clear and are easily comparable.

Currently four measuring methods for the load capacity of pipe fixing products under normal temperatures have been published:

- pipe clamps (RAL-GZ 655/B)
- fixing rail (RAL-GZ 655/C)
- rail accessoires (RAL-GZ 655/D)
- cantilever arms (RAL-GZ 655/E)

Also one measuring method for the load capacity of pipe clamps during fire:

- pipe clamps (RAL-GZ 656)

The maximum safe working loads which are mentioned in the tables are based on:










- 1) A Walraven developed measuring method;
- 2) The measuring method prescribed in the testing prescriptions RAL-GZ 655 and RAL-GZ 656, which is set up by the 'Gütegemeinschaft Röhrbefestigung'. If the product is provided with the 'RAL-Gütezeichen', the test results are checked by an independent testing institute.

The 'RAL-Gütezeichen' is exclusively given to products which satisfy high quality standards and is an evidence of quality. This gives the users of pipe fixings certainty and trust!

Certified products are recognisable by:



RAL-GZ 655 and 656 Certified Products

									
		Part No.	Connection nut	Catalogue page	Dimension (mm)	RAL-GZ 655/B Cert. No.	Dimension (mm)	RAL-GZ 656 Cert. No.	
	BISMAT® Flash Zinc plated	337 3 XXX	M8	A 05 04	15 - 63	2010-23	15 - 63	2011-09	
		337 4 XXX	M8/10	A 05 04	15 - 63	2010-23	15 - 63	2011-09	
		-	-	-	-	-	-	-	-
	BISMAT® 2000 'S' Zinc plated	341 4 0XX	M8	A 05 32	15 - 63	2005-08	15 - 63	2011-11	
		340 4 0XX	M8/10	A 05 32	15 - 63	2005-08	15 - 63	2011-11	
		-	-	-	-	-	-	-	-
	BISMAT® 2000 Zinc plated	341 3 0XX	M8	A 05 16	15 - 63	2010-22	15 - 63	2011-10	
		340 3 XXX	M8/10	A 05 16	15 - 63	2010-22	15 - 63	2011-10	
		340 3 XXX	M8/10	A 05 24	57 - 141	2005-08	57 - 114	2011-10	
	BIS HD1501 BIS UltraProtect® 1000	3313 8 0XX	M8/10	A 10 04	15 - 64	2011-12a	15 - 64	2011-14	
		3314 8 XXX	M10/12	A 10 04	65 - 227	2011-12a	65 - 227	2011-14	
		3316 8 XXX	M16	A 10 06	159 - 509	2011-12a	159 - 227	2011-14	
		3317 8 XXX	G½"	A 10 09	15 - 509	2011-12a	15 - 227	2011-14	
	BISMAT® 5000 Zinc plated	348 3 0XX	M8	A 25 05	16 - 50	2010-24	-	-	
		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
	BIS HD500 BIS UltraProtect® 1000	3303 8 0XX	M8/10	B 10 04	15 - 71	2011-13a	15 - 71	2011-05	
		3304 8 XXX	M10/12	B 10 04	72 - 227	2011-13a	72 - 227	2011-05	
		3306 8 XXX	M16	B 10 06	159 - 509	2011-13a	-	-	
		3307 8 XXX	G½"	B 10 09	15 - 509	2011-13a	15 - 227	2011-05	
	BIS Bifix® 300 SSt. Stainless Steel	301 7 XXX	M8	M 10 05	72 - 118	2004-09	-	-	
		302 7 XXX	M10	M 10 05	62 - 219	2004-09	-	-	
		-	-	-	-	-	-	-	-

For the max. allowed load (Fa,z) per part number and RAL-certificate we refer to the product page or our webcatalogue on www.walraven.com.



		Part No.	Dimension (mm)	For Rail	Catalogue page	RAL-GZ Cert. No.	
	BIS RapidRail® Fixing Rail Pre-galvanized	650 5 X00	WM0 (27 x 18 x 1.20)	-	G 04 05	655/C	2012-03
		650 5 X01	WM1 (30 x 15 x 2.00)	-	G 04 05	655/C	2012-03
		650 5 51X	WM1 (30 x 15 x 2.00)	-	G 04 05	655/C	2012-03
		650 5 X15	WM15 (30 x 20 x 1.75)	-	G 04 05	655/C	2012-03
		650 5 X02	WM2 (30 x 30 x 2.00)	-	G 04 05	655/C	2012-03
		650 5 X30	WM30 (30 x 45 x 2.00)	-	G 04 05	655/C	2012-03
	BIS RapidStrut® Fixing Rail Pre-galvanized	650 5 X24	41 x 21 x 1.5	-	H 04 10	655/C	2012-04
		650 5 X22	41 x 21 x 2.0	-	H 04 10	655/C	2012-04
		650 5 X25	41 x 21 x 2.5	-	H 04 10	655/C	2012-04
		650 5 X44	41 x 41 x 1.5	-	H 04 10	655/C	2012-04
		650 5 X42	41 x 41 x 2.0	-	H 04 10	655/C	2012-04
		650 5 X45	41 x 41 x 2.5	-	H 04 10	655/C	2012-04
	BIS RapidStrut® Fixing Rail BIS UltraProtect® 1000	6501 8 X27	41 x 21 x 2.5	-	H 04 13	655/C	2015-02
		6501 8 X42	41 x 41 x 2.0	-	H 04 13	655/C	2015-02
		6501 8 X47	41 x 41 x 2.5	-	H 04 13	655/C	2015-02
	BIS RapidRail® Stainless Steel Fixing Rail Stainless steel	650 7 002	WM2 (30 x 30 x 2.0)	-	M 20 05	655/C	2012-07
		-	-	-	-	-	-
		-	-	-	-	-	-
	BIS RapidRail® Ball Swivel Hangers Zinc plated	652 0 X00	M8	WM1, 2, 15, 30	G 30 60	655/D	2012-11
		652 0 X10	M10	WM1, 2, 15, 30	G 30 60	655/D	2012-11
		-	-	-	-	-	-
	BIS RapidRail® Connector Zinc plated	654 3 001	200 mm	WM1, 2, 15, 30	G 35 35	655/D	2012-08
		-	-	-	-	-	-
		-	-	-	-	-	-
	BIS RapidRail® T-Connector Zinc plated	658 4 090	-	WM1, 2, 15, 30	G 35 45	655/D	2012-08
		-	-	-	-	-	-
		-	-	-	-	-	-
	BIS RapidRail® X-Connector Zinc plated	658 4 091	-	WM1, 2, 15, 30	G 35 45	655/D	2012-08
		-	-	-	-	-	-
		-	-	-	-	-	-
	BIS RapidRail® Connectors 90° Zinc plated	658 4 00X	WM0 - 35	WM1, 2, 15, 30	G 35 05	655/D	2012-09
		658 4 011	WM0 - 35	WM1, 2, 15, 30	G 35 05	655/D	2012-09
		-	-	-	-	-	-
	BIS RapidRail® Connectors 135° Zinc plated	658 4 05X	WM0 - 35	WM1, 2, 15, 30	G 35 10	655/D	2012-09
		-	-	-	-	-	-
	BIS RapidRail® Cross Connectors Zinc plated	658 4 150	27 x 18	WM0, 1, 15	G 35 50	655/D	2012-10
		658 4 151	30 x 15	WM0, 1, 15	G 35 50	655/D	2012-10
		658 4 152	30 x 20	WM0, 1, 15	G 35 50	655/D	2012-10
	BIS RapidRail® Rail Suspension Bracket Zinc plated	679 3 008	M8	WM1, 2, 15, 30	G 20 40	655/D	2012-09
		-	-	-	-	-	-
		-	-	-	-	-	-

RAL-GZ 655/C: for the max. allowed load (Fa,z) per part number and RAL-certificate we refer to the product page, the loading tables or our webcatalogue on www.walraven.com

RAL-GZ 655/D: for the max. allowed load (Fa,z) per part number and RAL-certificate we refer to the product page or our webcatalogue on www.walraven.com

Introducing Walraven for smart installation solutions

Walraven has been in the M&E fixings business for 75 years. Our products are known for their quality and are considered by our customers to be innovative and market leading. Our products are designed to work together to offer total system solutions to installers.

Pipe Clamps

starQuick®, BIS Bifix®
and BIS Heavy Duty Clamps



Rail

BIS RapidRail®, BIS RapidStrut®
and Maxx Rail



Rooftop Supports

BIS Yeti® 480, BIS Yeti® 335
and BIS Ursus®



Fixing Accessories

Rail Accessories,
Light and Heavy Duty Anchors



Britclips®

Beam Clips, Cable Run Clips
and Conduit Clips



Fire Protection

Pacifyre® MK II, Pacifyre® EFC and
Pacifyre® A and S



To find out more, visit walraven.com

Explanation Max. Allowed Load

Maximum allowed load:

From most of our products a maximum allowed load is included in the article tables. Stated values are determined by:

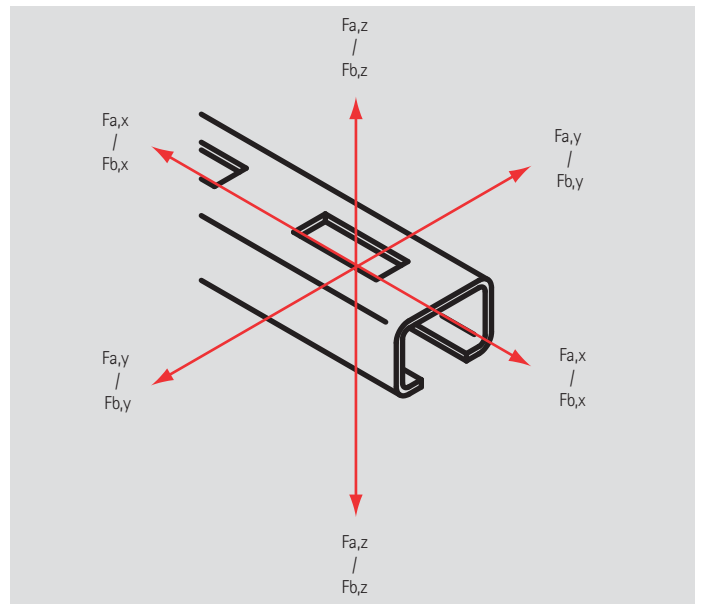
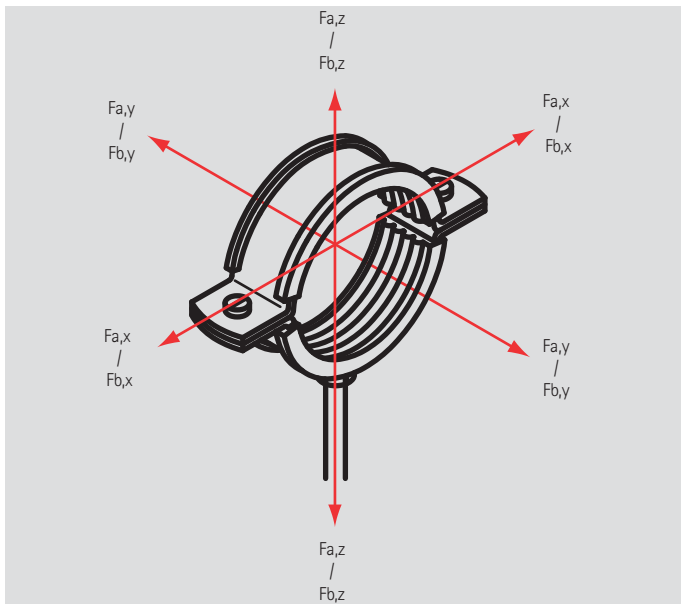
- a by Walraven developed measuring method
- the measuring method described in the testing prescriptions RAL-GZ 655, which is set up by the 'Gütegemeinschaft Rohrbefestigung'. If the product is provided with the 'RAL-Gütezeichen', the test results are checked by an independent testing institute.

For plastic clamps the breaking load is included.

Force directions (F) x, y and z (at 20 °C)

Fa = maximum allowed load

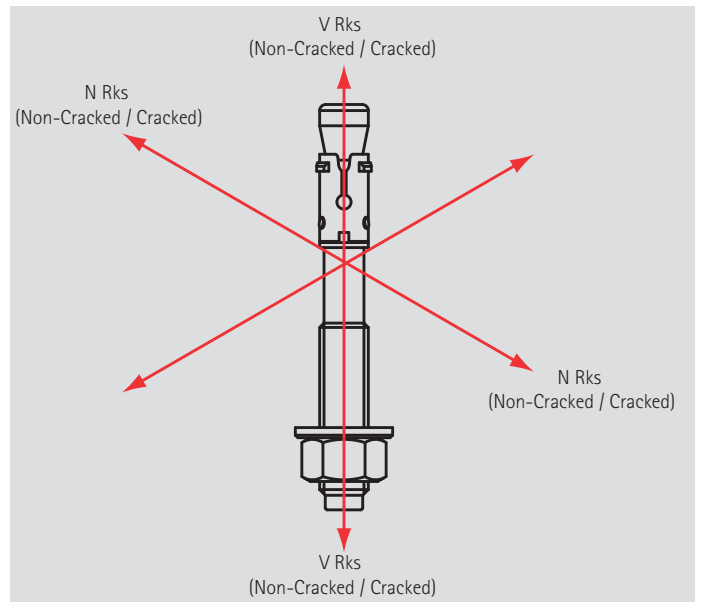
Fb = breaking load



Force directions Anchoring

V Rks = Characteristic resistance value in non cracked or cracked concrete (kN) shear load with standard embedment depth

N Rks = Characteristic resistance value in non cracked or cracked concrete (kN) tension load with standard embedment depth



BIS UltraProtect® 1000

Support system for indoor and outdoor use



Corrosion resistance

- C1 - C4 / ISO 12944-2

Salt spray test

- 1000 hours / ISO 9227*

Complementary system


- Perfectly combines with other products




* Until the occurrence of maximum 5% red rust.


Highlights

BISMAT® Flash Clamps for metal pipes





RAL-GZ 655/B
(BISMAT® Flash)



RAL-GZ 656
(BISMAT® Flash)

337 X XXX	A 05 04
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Bifix® G2 with Lining (BUP1000)



31X X XXX	A 05 44, A 05 52, A 05 72
-----------	------------------------------

Bifix® 5000 G2 (BUP1000) Clamps for plastic pipes



318 8 XXX	A 25 09
-----------	---------

BIS RapidRail® Fixing System



Chapter G	G XX XX
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BIS RapidStrut® Fixing Rail DS 5 (BUP1000)



6505 8 X52	H 04 05
------------	---------

Maxx Heavy Rail Profile and accessories



XXX X XXX	H2 05
-----------	-------

BIS Yeti Support System / 335 Frame Set for Rooftop Installations



6768 5 XXX	I 04 XX
------------	---------

Heavy Duty Anchors WDI1 Drop-in Anchor



610 3 0XX	L 03 05
-----------	---------

BIS Pacifyre® MK II Fire Sleeve



215 X XXX XXX	U XX XX
---------------	---------

A BIS Metal Pipe Clamps with Lining



BIS Clamps

BISMAT® Flash	14
BISMAT® 2000 (M8, M8/10)	16
BISMAT® 2000 (M8/10, M10)	17
BISMAT® 2000 'S'	19
BISMAT® 2000 'S'	21
Bifix® G2 with Lining (M8) (BUP1000)	22
Bifix® G2 with Lining (M8/10) (BUP1000)	23
Bifix® G2 with Lining (M10) (BUP1000)	24
BIS KSB1 Clamp (M8, M8/10)	25
KSB2 Clamp (M8/10)	26
2S Clamp with Lining (M8)	27
2S Clamp with Lining (M8/10)	28



BIS Industrial Clamps

BIS Heavy Duty Clamp HD1501 (M8/10, M10/12) (BUP1000)	29
BIS Heavy Duty Clamp HD1501 (M16) (BUP1000)	30
BIS Heavy Duty Clamp HD1501 (1/2") (BUP1000)	31
BIS Single Band Pipe Clamp	33



BIS Double Clamps

BIS Duplo Double Clamp with Lining	34
BIS Double Wall Clamp with Lining	35
BIS Duplo KSB1	36



BIS Clamps for Plastic Pipe

BISMAT® 5000	37
Bifix® 5000 G2 (BUP1000)	38



BIS Clamps for Stand Pipes

BIS Stand Pipe Bracket	40
BISMAT® 1000 Stand Pipe Clamp	41
BISMAT® SX Socket Clamp	42
BISMAT® SL Guidance Clamp	43



BIS Rubber Profiles

BIS Rubber Profile	44
BIS Rubber Moulding Part	45
BIS Silicon Profile	46

(A 05 04)

BISMAT[®] Flash

for metal pipes 15 - 63 mm

M8 - M8/10



Features and Benefits

- single screw clamp
- with BISMAT[®] Flash quick locking system
- clamp easy to close with one hand
- the locking screw can be secured without use of tools
- material: steel
- zinc plated
- noise insulating lining, EPDM rubber, black
- age resistant lining
- sound insulating lining according DIN 4109
- optimised noise insulation due to soft closing without tools
- noise reduction according to ISO 3822-1 up to 23 dB(A)
- tested for fire safety



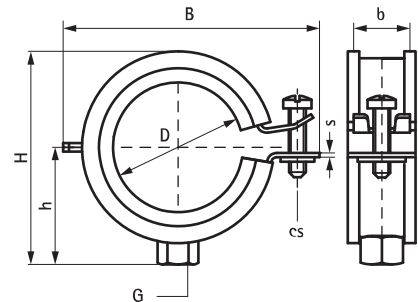
RAL-GZ 655/B
Cert.Nr. 2010-23



RAL-GZ 656
Cert.Nr. 2011-09

Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	RAL	Pack 1
3373018	15 - 18	3/8	10	M8	49	38	22	20 x 1.00	M6	500	RAL ²	50
3373023	20 - 23	1/2	15	M8	54	39	23	20 x 1.00	M6	500	RAL ²	50
3373028	25 - 28	3/4	20	M8	59	44	26	20 x 1.00	M6	500	RAL ²	50
3373035	32 - 35	1	25	M8	65	51	30	20 x 1.00	M6	500	RAL ²	50
3373043	40 - 43	1 1/4	32	M8	74	60	34	20 x 1.25	M6	700	RAL ²	50
3373051	48 - 51	1 1/2	40	M8	82	66	37	20 x 1.25	M6	700	RAL ²	50
3373056	53 - 56	-	-	M8	85	76	42	20 x 1.25	M6	700	RAL ²	50
3373063	57 - 63	2	50	M8	91	82	45	20 x 1.25	M6	700	RAL ²	50
3374018	15 - 18	3/8	10	M8/10	49	44	30	20 x 1.00	M6	500	RAL ²	50
3374023	20 - 23	1/2	15	M8/10	54	47	31	20 x 1.00	M6	500	RAL ²	50
3374028	25 - 28	3/4	20	M8/10	59	52	34	20 x 1.00	M6	500	RAL ²	50
3374035	32 - 35	1	25	M8/10	65	59	38	20 x 1.00	M6	500	RAL ²	50
3374043	40 - 43	1 1/4	32	M8/10	74	68	42	20 x 1.25	M6	700	RAL ²	50
3374051	48 - 51	1 1/2	40	M8/10	82	74	45	20 x 1.25	M6	700	RAL ²	50
3374056	53 - 56	-	-	M8/10	85	84	50	20 x 1.25	M6	700	RAL ²	50
3374063	57 - 63	2	50	M8/10	91	90	53	20 x 1.25	M6	700	RAL ²	50

RAL² = tested, certified and monitored by a third party according to RAL-GZ 655/B and RAL-GZ 656. For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.





Complementary

- 151 BIS RapidRail[®] Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

RAL Information BISMAT® Flash

Max. allowed load (Fa,z) according to RAL-GZ 655/B and RAL-GZ 656

				 Cert. No. 2010-23	 Cert. No. 2011-09								
Part No.	Ø (mm)	Connec-tion nut	Cata-logue page	RAL-GZ 655/B	RAL-GZ 656								
				F0	F30		F60		F90		F120		
				Fa,z (N)	Fa,z (N)	Deformation (mm)	Fa,z (N)	Deformation (mm)	Fa,z (N)	Deformation (mm)	Fa,z (N)	Deformation (mm)	
337 3 XXX	15 - 35	M8	A 05 05	500	230	24	100	27	-	-	-	-	
337 3 XXX	40 - 63	M8	A 05 05	700	360	26	190	26	-	-	-	-	
337 4 XXX	15 - 35	M8/10	A 05 05	500	230	24	100	27	-	-	-	-	
337 4 XXX	40 - 63	M8/10	A 05 05	700	360	26	190	26	-	-	-	-	

The max. allowed load (Fa,z) according to RAL-GZ 655/B is calculated using specific statistical methods related to the breaking load and taking into account a deflection of 1,5 mm or 2% of the maximum nominal clamp diameter.

According to the RAL requirements, the test results from above mentioned RAL certified articles are monitored by an independent test institute.

BISMAT[®] 2000

(A 05 16)

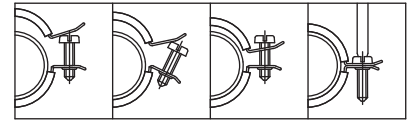
for metal pipes 11 - 63 mm

M8 - M8/10



Features and Benefits

- single screw clamp
- with BISMAT[®] quick locking system
- clamp easy to close with one hand
- material: steel
- zinc plated
- noise insulating lining, EPDM rubber, black
- age resistant lining
- sound insulating lining according DIN 4109
- noise reduction according to ISO 3822-1 up to 23 dB(A)
- tested for fire safety



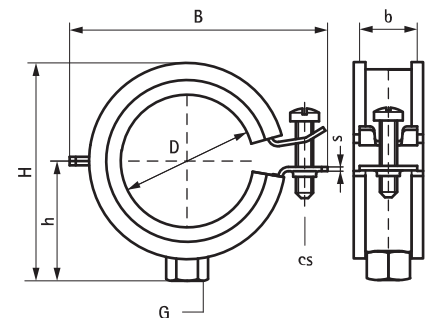
RAL-GZ 655/B
Cert.Nr. 2010-22



RAL-GZ 656
Cert.Nr. 2011-10a

Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	RAL	Pack 1
3413014	11 - 14	1/4	8	M8	48	32	20	20 x 1.00	M6	600	-	50
3413018	15 - 18	3/8	10	M8	48	36	22	20 x 1.00	M6	600	RAL ²	50
3413023	20 - 23	1/2	15	M8	55	39	23	20 x 1.00	M6	600	RAL ²	50
3413028	25 - 28	3/4	20	M8	60	44	26	20 x 1.00	M6	600	RAL ²	50
3413035	31 - 35	1	25	M8	67	51	30	20 x 1.00	M6	600	RAL ²	50
3413043	40 - 43	1 1/4	32	M8	75	60	34	20 x 1.25	M6	800	RAL ²	50
3413053	48 - 51	1 1/2	40	M8	85	66	37	20 x 1.25	M6	800	RAL ²	50
3413054	53 - 56	-	-	M8	89	72	40	20 x 1.25	M6	800	RAL ²	50
3413063	57 - 63	2	50	M8	94	78	43	20 x 1.25	M6	800	RAL ²	50
3403018	15 - 18	3/8	10	M8/10	48	44	30	20 x 1.00	M6	600	RAL ²	50
3403023	20 - 23	1/2	15	M8/10	55	47	31	20 x 1.00	M6	600	RAL ²	50
3403028	25 - 28	3/4	20	M8/10	60	52	34	20 x 1.00	M6	600	RAL ²	50
3403035	31 - 35	1	25	M8/10	67	59	38	20 x 1.00	M6	600	RAL ²	50
3403043	40 - 43	1 1/4	32	M8/10	75	68	42	20 x 1.25	M6	800	RAL ²	50
3403053	48 - 51	1 1/2	40	M8/10	85	74	45	20 x 1.25	M6	800	RAL ²	50
3403054	53 - 56	-	-	M8/10	89	80	48	20 x 1.25	M6	800	RAL ²	50
3403063	57 - 63	2	50	M8/10	94	86	51	20 x 1.25	M6	800	RAL ²	50

RAL² = tested, certified and monitored by a third party according to RAL-GZ 655/B and RAL-GZ 656. For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



Complementary

- 151 BIS RapidRail[®] Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

Alternative

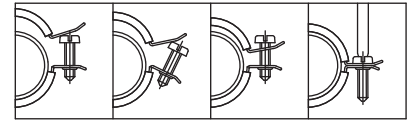
- 14 BISMAT[®] Flash

BISMAT[®] 2000

for metal pipes 57 - 219 mm

M8/10 - M10

(A 05 24)



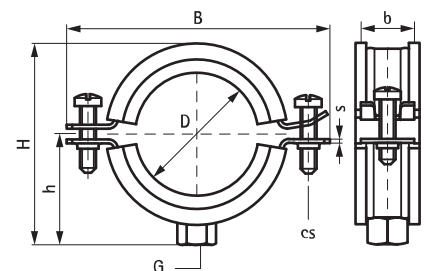
Features and Benefits

- two-screw clamp
- with BISMAT[®] quick locking system
- from Ø 159 mm: with quick locking system
- material: steel
- zinc plated
- noise insulating lining, EPDM rubber, black
- age resistant lining
- sound insulating lining according to DIN 4109
- noise reduction according to ISO 3822-1 up to 23 dB(A)
- tested for fire safety



Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	RAL	Pack 1
3403064	57 - 64	2	50	M8/10	107	90	52	23 x 2.00	M6	520	RAL ²	50
3403070	64 - 70	-	-	M8/10	115	99	56	23 x 2.00	M6	520	RAL ²	50
3403080	73 - 80	2½	65	M8/10	126	109	61	23 x 2.00	M6	520	RAL ²	50
3403091	83 - 91	3	80	M8/10	137	121	67	25 x 2.50	M6	935	RAL ²	25
3403105	100 - 105	-	-	M8/10	152	135	74	25 x 2.50	M6	935	RAL ²	25
3403114	108 - 114	4	100	M8/10	160	144	79	25 x 2.50	M6	935	RAL ²	25
3403119	116 - 119	-	-	M8/10	165	149	81	25 x 2.50	M6	935	RAL ¹	25
3403125	122 - 125	-	-	M8/10	173	157	85	25 x 2.50	M6	935	RAL ¹	25
3403141	133 - 141	5	125	M8/10	189	170	92	25 x 2.50	M6	935	RAL ¹	25
3423168	159 - 168	6	150	M10	233	198	102	25 x 3.00	M8	1,220	-	10
3423210	200 - 210	-	-	M10	273	239	122	25 x 3.00	M8	1,220	-	10
3423219	210 - 219	8	200	M10	284	250	128	25 x 3.00	M8	1,220	-	10

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/B.
 RAL² = tested, certified and monitored by a third party according to RAL-GZ 655/B and RAL-GZ 656.
 From Ø 159 mm: with quick locking system.
 For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.





Complementary

- 151 BIS RapidRail[®] Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

RAL Information BISMAT[®] 2000

Max. allowed load (Fa,z) according to RAL-GZ 655/B and RAL-GZ 656

				 Cert. No. 2010-22									 Cert. No. 2011-10
Part No.	Ø (mm)	Conne- tion nut	Cata- logue page	RAL-GZ 655/B	RAL-GZ 656								
				F0	F30		F60		F90		F120		
				Fa,z (N)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	
341 3 OXX	15 - 35	M8	A 05 10	600	250	21	100	23	-	-	-	-	
341 3 OXX	40 - 63	M8	A 05 10	800	370	24	160	29	-	-	-	-	
340 3 XXX	15 - 35	M8/10	A 05 10	600	250	21	100	23	-	-	-	-	
340 3 XXX	40 - 63	M8/10	A 05 10	800	370	24	160	29	-	-	-	-	
340 3 XXX	57 - 80	M8/10	A 05 15	520	460	29	250	42	-	-	-	-	
340 3 XXX	83 - 114	M8/10	A 05 15	935	720	36	340	50	-	-	-	-	
340 3 XXX	116 - 141	M8/10	A 05 15	935	-	-	-	-	-	-	-	-	

The max. allowed load (Fa,z) according to RAL-GZ 655/B is calculated using specific statistical methods related to the breaking load and taking into account a deflection of 1,5 mm or 2% of the maximum nominal clamp diameter.

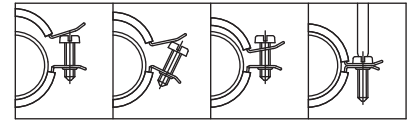
According to the RAL requirements, the test results from above mentioned RAL certified articles are monitored by an independent test institute.

BISMAT[®] 2000 'S'

(A 05 32)

for steam pipes 15 - 63 mm

M8 - M8/10



Features and Benefits

- single screw clamp
- with BISMAT[®] quick locking system
- clamp easy to close with one hand
- material: steel
- zinc plated
- noise insulating lining of silicone rubber, reddish brown, heat resistant up to 200 °C
- age resistant lining
- sound insulating lining according DIN 4109
- tested for fire safety



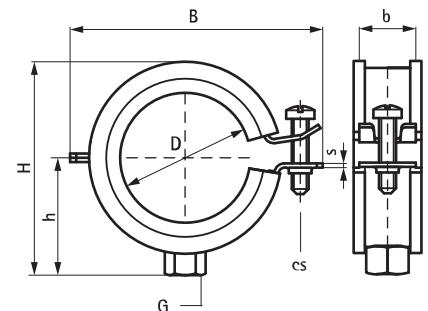
RAL-GZ 655/B
Cert.Nr. 2010-22



RAL-GZ 656
Cert.Nr. 2011-11

Part No.	D (mm)	D (")	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	RAL	Pack 1
3414018	15 - 18	3/8	10	M8	48	44.5	22	20 x 1.00	M6	600	RAL ²	50
3414023	20 - 23	1/2	15	M8	55	48.5	23	20 x 1.00	M6	600	RAL ²	50
3414028	25 - 28	3/4	20	M8	60	53.5	26	20 x 1.00	M6	600	RAL ²	50
3414035	31 - 35	1	25	M8	67	60.5	30	20 x 1.00	M6	600	RAL ²	50
3414043	40 - 43	1 1/4	32	M8	75	60.5	34	20 x 1.25	M6	800	RAL ²	50
3414053	48 - 53	1 1/2	40	M8	85	68.5	45	20 x 1.25	M6	800	RAL ²	50
3414063	57 - 63	2	50	M8	94	79.5	51	20 x 1.25	M6	800	RAL ²	50
3404018	15 - 18	3/8	10	M8/10	48	44.0	30	20 x 1.00	M6	600	RAL ²	50
3404023	20 - 23	1/2	15	M8/10	55	47.0	31	20 x 1.00	M6	600	RAL ²	50
3404028	25 - 28	3/4	20	M8/10	60	52.0	34	20 x 1.00	M6	600	RAL ²	50
3404035	31 - 35	1	25	M8/10	67	59.0	38	20 x 1.00	M6	600	RAL ²	50
3404043	40 - 43	1 1/4	32	M8/10	75	68.0	42	20 x 1.25	M6	800	RAL ²	50
3404053	48 - 53	1 1/2	40	M8/10	85	74.0	45	20 x 1.25	M6	800	RAL ²	50
3404063	57 - 63	2	50	M8/10	94	86.0	51	20 x 1.25	M6	800	RAL ²	50

RAL² = tested, certified and monitored by a third party according to RAL-GZ 655/B and RAL-GZ 656.
For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.





Complementary

- 151 BIS RapidRail[®] Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

RAL Information BISMAT® 2000 'S'

Max. allowed load (Fa,z) according to RAL-GZ 655/B and RAL-GZ 656

				 Cert. No. 2005-08	 Cert. No. 2011-11								
				RAL-GZ 655/B	RAL-GZ 656								
Part No.	Ø (mm)	Conne- tion nut	Cata- logue page	F0	F30		F60		F90		F120		
				Fa,z (N)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	
341 4 OXX	15 - 35	M8	A 05 20	600	250	21	100	23	-	-	-	-	
341 4 OXX	40 - 63	M8	A 05 20	800	370	24	160	29	-	-	-	-	
340 4 XXX	15 - 35	M8/10	A 05 20	600	250	21	100	23	-	-	-	-	
340 4 XXX	40 - 63	M8/10	A 05 20	800	370	24	160	29	-	-	-	-	

The max. allowed load (Fa,z) according to RAL-GZ 655/B is calculated using specific statistical methods related to the breaking load and taking into account a deflection of 1,5 mm or 2% of the maximum nominal clamp diameter.

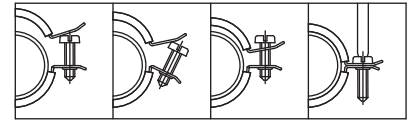
According to the RAL requirements, the test results from above mentioned RAL certified articles are monitored by an independent test institute.

BISMAT[®] 2000 'S'

for steam pipes 73 - 141 mm

M8/10

(A 05 36)

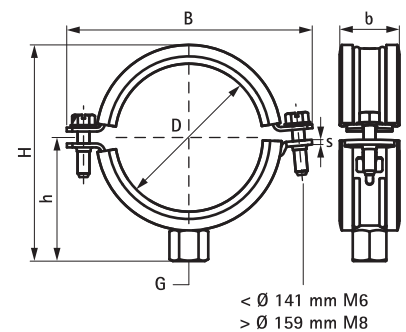


Features and Benefits

- two-screw clamp
- with BISMAT[®] quick locking system
- clamp easy to close with one hand
- material: steel
- zinc plated
- noise insulating lining of silicone rubber, reddish brown, heat resistant up to 200 °C
- age resistant lining
- sound insulating lining according DIN 4109
- tested for fire safety



Part No.	D (mm)	D (")	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
3404080	73 - 80	2½	65	M8/10	126	109	61	23 x 2.00	930	50
3404091	83 - 91	3	80	M8/10	137	121	67	25 x 2.50	930	25
3404114	108 - 114	4	100	M8/10	160	141	79	25 x 2.50	930	25
3404141	133 - 141	5	125	M8/10	189	170	92	25 x 2.50	930	25



Complementary

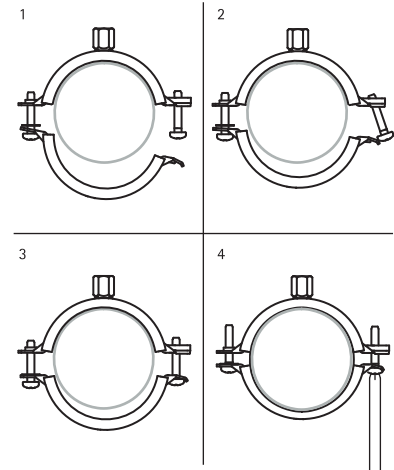
- 151 BIS RapidRail[®] Fixing System
- 401 BIS Fixing Accessories

Bifix® G2 with Lining (M8) (BUP1000)

(A 05 44)

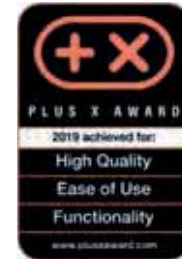
for steel, copper, cast iron and plastic (multilayer) pipe 10 - 83 mm

M8

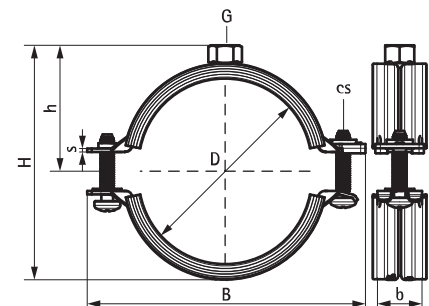


Features and Benefits

- two-screw clamp
- quick closing mechanism for easy locking of the clamp with one hand
- 2 component rubber lining provides easy positioning of the pipe during installation
- when the clamp is closed, the pipe rests on soft black rubber lining for increased noise reduction
- suitable for steel, copper, cast iron and plastic (multilayer) pipe
- material: steel
- temperature resistance from -30 °C to +120 °C
- sound insulating lining according DIN 4109
- noise reduction according to ISO 3822-1 up to 23 dB(A)
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	Pack 1
31185014	10 - 14	1/4	8	M8	59	34	21	20 x 1.25	M6	700	50
31185019	15 - 19	3/8	10	M8	63	38	23	20 x 1.25	M6	700	50
31185023	20 - 23	1/2	15	M8	68	43	25	20 x 1.25	M6	700	50
31185028	25 - 28	3/4	20	M8	74	49	28	20 x 1.25	M6	700	50
31185035	31 - 35	1	25	M8	80	55	31	20 x 1.25	M6	700	50
31185039	36 - 39	-	-	M8	84	59	33	20 x 1.25	M6	700	50
31185045	40 - 45	1 1/4	32	M8	91	66	37	20 x 1.25	M6	700	50
31185052	48 - 52	1 1/2	40	M8	97	72	40	20 x 1.25	M6	700	50
31185058	54 - 58	-	-	M8	104	79	33	20 x 1.25	M6	700	50
31185064	60 - 64	2	50	M8	109	84	46	20 x 1.25	M6	700	50
31185070	66 - 70	-	-	M8	118	92	50	20 x 1.50	M6	800	50
31185079	75 - 79	2 1/2	65	M8	125	100	54	20 x 1.50	M6	800	50
31185083	80 - 83	-	-	M8	131	106	57	20 x 1.50	M6	800	50

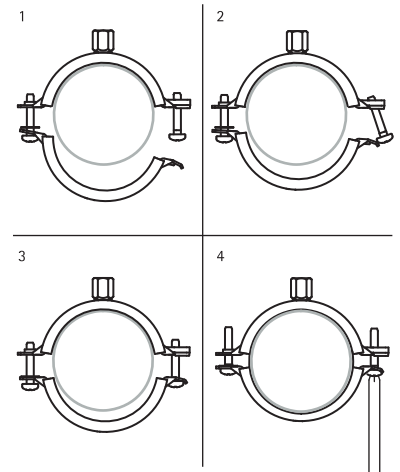


Bifix® G2 with Lining (M8/10) (BUP1000)

(A 05 52)

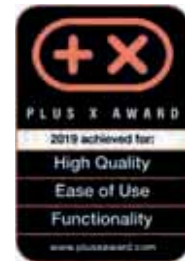
for steel, copper, cast iron and plastic (multilayer) pipe 10 - 169 mm

M8/10

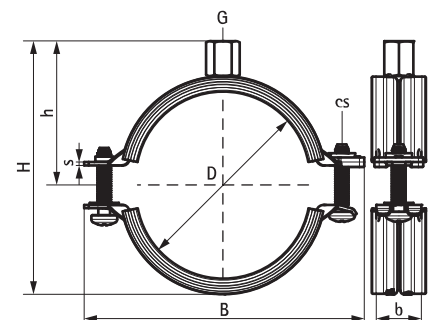


Features and Benefits

- two-screw clamp
- quick closing mechanism for easy locking of the clamp with one hand
- 2 component rubber lining provides easy positioning of the pipe during installation
- when the clamp is closed, the pipe rests on soft black rubber lining for increased noise reduction
- material: steel
- temperature resistance from -30 °C to +120 °C
- sound insulating lining according DIN 4109
- noise reduction according to ISO 3822-1 up to 23 dB(A)
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	Pack 1
31085014	10 - 14	1/4	8	M8/10	59	42	30	20 x 1.25	M6	700	50
31085019	15 - 19	3/8	10	M8/10	63	46	31	20 x 1.25	M6	700	50
31085023	20 - 23	1/2	15	M8/10	68	51	33	20 x 1.25	M6	700	50
31085028	25 - 28	3/4	20	M8/10	74	57	36	20 x 1.25	M6	700	50
31085035	31 - 35	1	25	M8/10	80	63	39	20 x 1.25	M6	700	50
31085039	36 - 39	-	-	M8/10	84	67	41	20 x 1.25	M6	700	50
31085045	40 - 45	1 1/4	32	M8/10	91	74	45	20 x 1.25	M6	700	50
31085052	48 - 52	1 1/2	40	M8/10	97	80	48	20 x 1.25	M6	700	50
31085058	54 - 58	-	-	M8/10	104	87	51	20 x 1.25	M6	700	50
31085064	60 - 64	2	50	M8/10	109	92	54	20 x 1.25	M6	700	50
31085070	66 - 70	-	-	M8/10	118	100	58	20 x 1.50	M6	800	50
31085079	75 - 79	2 1/2	65	M8/10	125	108	62	20 x 1.50	M6	800	50
31085083	80 - 83	-	-	M8/10	131	114	65	20 x 1.50	M6	800	50
31085091	88 - 91	3	80	M8/10	142	123	70	23 x 2.00	M6	1,700	25
31085097	92 - 97	-	-	M8/10	147	132	73	23 x 2.00	M6	1,700	25
31085105	100 - 105	-	-	M8/10	155	137	77	23 x 2.00	M6	1,700	25
31085115	108 - 115	4	100	M8/10	163	145	81	23 x 2.00	M6	1,700	25
31085130	125 - 130	-	-	M8/10	180	162	89	23 x 2.00	M6	1,700	25
31085140	133 - 140	5	125	M8/10	189	171	94	23 x 2.00	M6	1,700	25
31085160	152 - 160	-	-	M8/10	208	190	102	23 x 2.00	M6	1,700	25
31085169	165 - 169	6	150	M8/10	225	203	111	25 x 2.50	M8	2,000	10

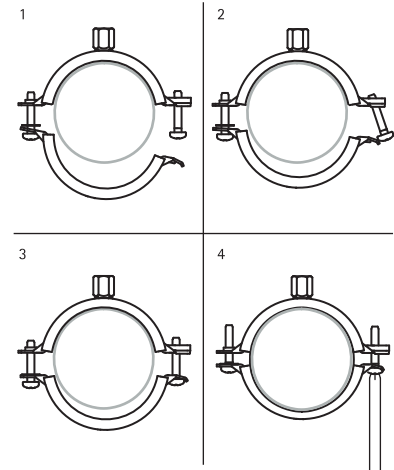


Bifix® G2 with Lining (M10) (BUP1000)

(A 05 72)

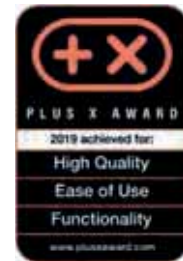
for steel, copper, cast iron and plastic (multilayer) pipe 10 - 225 mm

M10

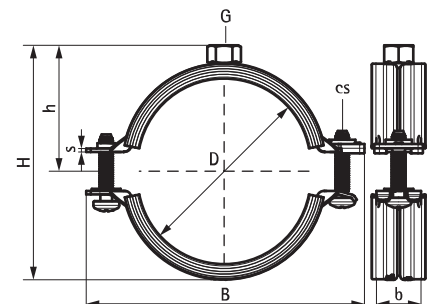


Features and Benefits

- two-screw clamp
- 2 component rubber lining provides easy positioning of the pipe during installation
- when the clamp is closed, the pipe rests on soft black rubber lining for increased noise reduction
- suitable for steel, copper, cast iron and plastic (multilayer) pipe
- material: steel
- temperature resistance from -30 °C to +120 °C
- sound insulating lining according DIN 4109
- quick closing mechanism for easy locking of the clamp with one hand
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- noise reduction according to ISO 3822-1 up to 23 dB(A)



Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	Pack 1
31285014	10 - 14	1/4	8	M10	59	34	21	20 x 1.25	M6	800	50
31285019	15 - 19	3/8	10	M10	63	38	23	20 x 1.25	M6	800	50
31285023	20 - 23	1/2	15	M10	68	43	25	20 x 1.25	M6	800	50
31285028	25 - 28	3/4	20	M10	74	49	28	20 x 1.25	M6	800	50
31285035	31 - 35	1	25	M10	80	55	31	20 x 1.25	M6	800	50
31285039	36 - 39	-	-	M10	84	59	33	20 x 1.25	M6	800	50
31285045	40 - 45	1 1/4	32	M10	91	66	37	20 x 1.25	M6	800	50
31285052	48 - 52	1 1/2	40	M10	97	72	40	20 x 1.25	M6	800	50
31285058	54 - 58	-	-	M10	104	79	43	20 x 1.25	M6	800	50
31285064	60 - 64	2	50	M10	109	84	46	20 x 1.25	M6	800	50
31285070	66 - 70	-	-	M10	118	92	52	20 x 1.50	M6	1,000	50
31285079	75 - 79	2 1/2	65	M10	125	100	56	20 x 1.50	M6	1,000	50
31285083	80 - 83	-	-	M10	131	106	59	20 x 1.50	M6	1,000	50
31285091	88 - 91	3	80	M10	142	115	64	23 x 2.00	M6	1,800	25
31285097	92 - 98	-	-	M10	147	123	73	23 x 2.00	M6	1,800	25
31285105	100 - 105	-	-	M10	155	129	71	23 x 2.00	M6	1,800	25
31285115	108 - 115	4	100	M10	163	137	75	23 x 2.00	M6	1,800	25
31285130	125 - 130	-	-	M10	180	154	83	23 x 2.00	M6	1,800	25
31285140	133 - 140	5	125	M10	189	163	88	23 x 2.00	M6	1,800	25
31285160	152 - 160	-	-	M10	208	182	97	23 x 2.00	M6	1,800	25
31285169	165 - 169	6	150	M10	225	195	103	25 x 2.50	M8	2,500	10
31285180	176 - 180	-	-	M10	238	201	109	25 x 2.50	M8	2,500	15
31285200	192 - 200	-	-	M10	257	230	119	25 x 2.50	M8	2,500	15
31285210	205 - 210	-	-	M10	269	241	125	25 x 2.50	M8	2,500	10
31285225	219 - 225	8	200	M10	283	257	132	25 x 2.50	M8	2,500	10

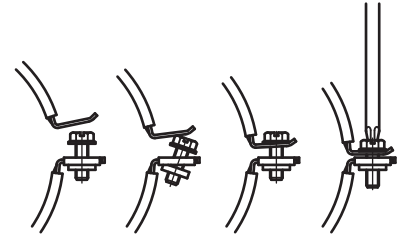


BIS KSB1 Clamp

for metal pipes 13 - 63 mm

M8 - M8/10

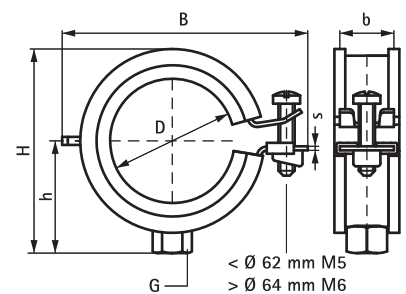
(A 05 108)



Features and Benefits

- single screw clamp
- with quick locking system, type KSB
- clamp easy to close with one hand
- material: steel
- zinc plated
- noise insulating lining, EPDM rubber, black
- age resistant lining
- sound insulating lining according DIN 4109

Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
3363014	13 - 14	1/4	8	M8	46	38	23	20 x 1.00	450	100
3363018	15 - 18	3/8	10	M8	46	38	23	20 x 1.00	450	100
3363023	20 - 23	1/2	15	M8	51	43	25	20 x 1.00	450	100
3363028	25 - 28	3/4	20	M8	57	48	28	20 x 1.00	450	100
3363035	32 - 35	1	25	M8	63	55	31	20 x 1.00	450	100
3363043	40 - 43	1 1/4	32	M8	72	63	35	20 x 1.25	600	100
3363051	48 - 51	1 1/2	40	M8	80	71	39	20 x 1.25	600	50
3363054	53 - 56	-	-	M8	85	76	42	20 x 1.25	600	50
3363062	59 - 62	2	50	M8	91	82	45	20 x 1.25	600	50
3362018	15 - 18	3/8	10	M8/10	46	46	31	20 x 1.00	450	100
3362023	20 - 23	1/2	15	M8/10	51	51	33	20 x 1.00	450	100
3362028	25 - 28	3/4	20	M8/10	57	56	36	20 x 1.00	450	100
3362035	32 - 35	1	25	M8/10	63	63	39	20 x 1.00	450	100
3362043	40 - 43	1 1/4	32	M8/10	72	71	43	20 x 1.25	600	100
3362051	48 - 51	1 1/2	40	M8/10	80	79	47	20 x 1.25	600	50
3362054	53 - 56	-	-	M8/10	85	84	50	20 x 1.25	600	50
3362062	59 - 63	2	50	M8/10	91	90	53	20 x 1.25	600	50



Complementary

- 151 BIS RapidRail® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

Alternative

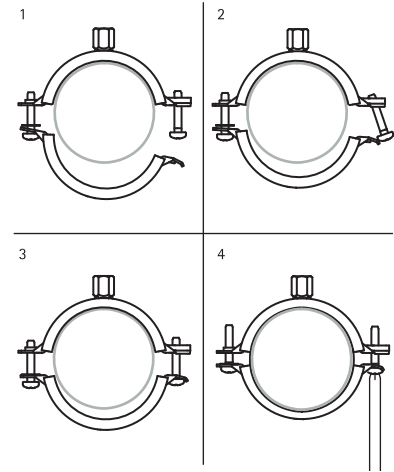
- 16 BISMAT® 2000

KSB2 Clamp

(A 05 116)

for steel, copper, cast iron and plastic (multilayer) pipe 10 - 225 mm

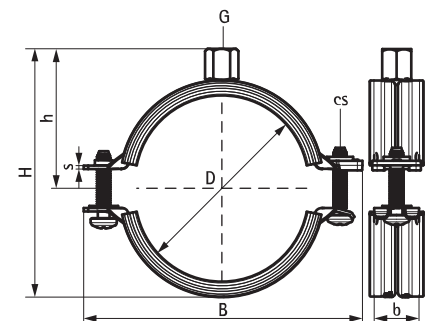
M8/10



Features and Benefits

- two-screw clamp
- quick closing mechanism for easy locking of the clamp with one hand
- full range from 10 to 225 mm
- material: steel
- temperature resistance from -30 °C to +120 °C
- zinc plated
- age resistant lining
- noise insulating lining, EPDM rubber, black and green
- sound insulating lining according DIN 4109
- noise reduction according to ISO 3822-1 up to 21 dB(A)

Part No.	D (mm)	D (")	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	Pack 1
3396014	10 - 14	1/8 - 1/4	8	M8/10	59	42	30	20 x 1.25	M6	400	100
3396019	15 - 19	3/8	10	M8/10	63	46	31	20 x 1.25	M6	400	100
3396023	20 - 23	1/2	15	M8/10	68	51	33	20 x 1.25	M6	400	100
3396028	25 - 28	3/4	20	M8/10	74	57	36	20 x 1.25	M6	400	100
3396035	31 - 35	1	25	M8/10	80	63	39	20 x 1.25	M6	400	100
3396039	36 - 39	-	-	M8/10	84	67	41	20 x 1.25	M6	400	100
3396045	40 - 45	1 1/4	32	M8/10	91	74	45	20 x 1.25	M6	400	100
3396052	48 - 52	1 1/2	40	M8/10	97	80	48	20 x 1.25	M6	400	50
3396058	54 - 58	-	-	M8/10	104	87	51	20 x 1.25	M6	400	50
3396064	60 - 64	2	50	M8/10	109	92	54	20 x 1.25	M6	400	50
3396070	66 - 70	-	-	M8/10	118	100	58	20 x 1.50	M6	400	50
3396079	75 - 79	2 1/2	65	M8/10	125	108	62	20 x 1.50	M6	715	50
3396083	80 - 83	-	-	M8/10	132	114	65	20 x 1.50	M6	715	50
3396091	88 - 91	3	80	M8/10	142	123	70	23 x 2.00	M6	715	50
3396105	100 - 105	-	-	M8/10	155	137	77	23 x 2.00	M6	1,230	50
3396115	108 - 115	4	100	M8/10	164	145	81	23 x 2.00	M6	1,230	25
3396130	125 - 130	-	-	M8/10	181	162	89	23 x 2.00	M6	1,230	25
3396140	133 - 140	5	125	M8/10	189	171	94	23 x 2.00	M6	1,230	25
3396160	152 - 160	-	-	M8/10	209	190	102	23 x 2.00	M6	1,230	25
3396169	165 - 169	6	150	M8/10	225	203	111	25 x 2.50	M8	2,390	20
3396180	176 - 180	-	-	M8/10	238	209	117	25 x 2.50	M8	2,390	15
3396200	192 - 200	-	-	M8/10	257	238	127	25 x 2.50	M8	2,390	15
3396210	205 - 210	-	-	M8/10	269	249	133	25 x 2.50	M8	2,390	10
3396225	219 - 225	8	200	M8/10	283	265	140	25 x 2.50	M8	2,390	10

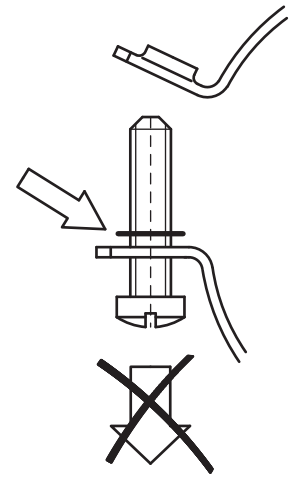


2S Clamp with Lining (M8)

(A 05 132)

for steel, copper, cast iron and plastic (multilayer) pipe 10 - 67 mm

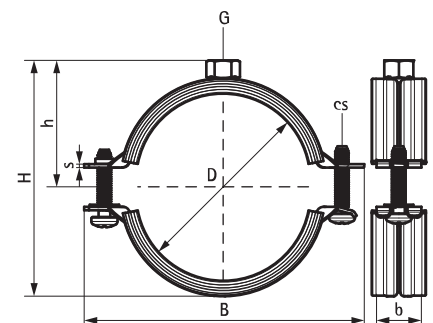
M8



Features and Benefits

- gapless range
- rubber lining grips in steel parts to prevent sliding of the lining
- anti loss washers prevent screws from falling out during installation
- material: steel
- temperature resistance from -30 °C to +120 °C
- zinc plated
- noise insulating lining, EPDM rubber, black
- age resistant lining
- sound insulating lining according DIN 4109

Part No.	D (mm)	D (")	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	Pack 1
33335014	10 - 14	1/8 - 1/4	M8	51	32	20	20 x 1.00	M5	330	50
33335019	15 - 19	3/8	M8	56	37	22	20 x 1.00	M5	330	50
33335024	20 - 24	1/2	M8	62	43	25	20 x 1.00	M5	330	50
33335030	25 - 30	3/4	M8	69	50	29	20 x 1.00	M5	330	50
33335037	31 - 37	1	M8	75	56	32	20 x 1.00	M5	330	50
33335046	38 - 46	1 1/4	M8	84	66	37	20 x 1.25	M5	500	50
33335052	47 - 52	1 1/2	M8	93	75	41	20 x 1.25	M5	500	50
33335061	53 - 61	2	M8	99	81	44	20 x 1.25	M5	500	50
33335067	62 - 67	-	M8	106	87	47	20 x 1.25	M5	500	50

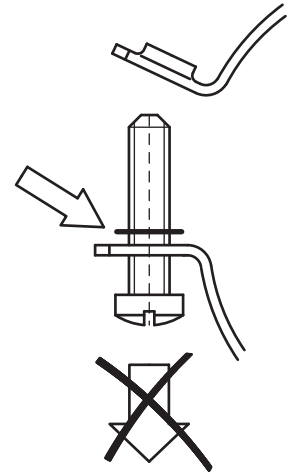


2S Clamp with Lining (M8/10)

(A 05 136)

for steel, copper, cast iron and plastic (multilayer) pipe 10 - 225 mm

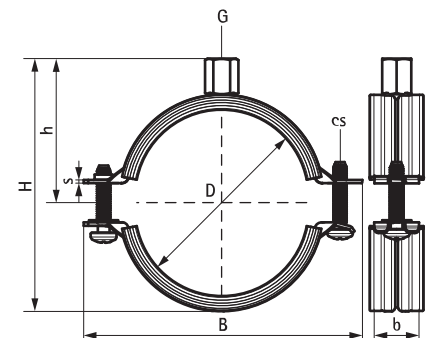
M8/10



Features and Benefits

- gapless range
- rubber lining grips in steel parts to prevent sliding of the lining
- anti loss washers prevent screws from falling out during installation
- temperature resistance from -30 °C to +120 °C
- material: steel
- zinc plated
- noise insulating lining, EPDM rubber, black
- age resistant lining
- sound insulating lining according DIN 4109

Part No.	D (mm)	D (°)	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	Pack 1
33435014	10 - 14	1/8 - 1/4	M8/10	51	40	28	20 x 1.00	M5	330	50
33435019	15 - 19	3/8	M8/10	56	45	30	20 x 1.00	M5	330	50
33435024	20 - 24	1/2	M8/10	62	51	33	20 x 1.00	M5	330	50
33435030	25 - 30	3/4	M8/10	69	58	37	20 x 1.00	M5	330	50
33435037	31 - 37	1	M8/10	75	64	40	20 x 1.00	M5	330	50
33435046	38 - 46	1 1/4	M8/10	84	74	45	20 x 1.25	M5	500	50
33435052	47 - 52	1 1/2	M8/10	93	83	49	20 x 1.25	M5	500	50
33435061	53 - 61	2	M8/10	99	89	52	20 x 1.25	M5	500	50
33435067	62 - 67	-	M8/10	106	95	55	20 x 1.25	M5	500	50
33435074	68 - 74	-	M8/10	118	103	60	20 x 1.50	M6	850	50
33435081	75 - 81	2 1/2	M8/10	124	109	63	20 x 1.50	M6	850	50
33435087	82 - 87	-	M8/10	130	115	66	20 x 1.50	M6	850	50
33435095	88 - 95	3	M8/10	143	127	72	23 x 2.00	M6	1,000	50
33435103	96 - 103	-	M8/10	153	136	76	23 x 2.00	M6	1,000	50
33435112	104 - 112	-	M8/10	159	142	79	23 x 2.00	M6	1,000	25
33435118	113 - 118	4	M8/10	168	151	84	23 x 2.00	M6	1,000	25
33435127	119 - 127	-	M8/10	178	161	89	23 x 2.00	M6	1,000	25
33435137	128 - 137	-	M8/10	185	168	92	23 x 2.00	M6	1,000	25
33435144	138 - 144	5	M8/10	194	177	97	23 x 2.00	M6	1,000	25
33435153	145 - 153	-	M8/10	203	186	101	23 x 2.00	M6	1,000	25
33435162	154 - 162	-	M8/10	211	194	105	23 x 2.00	M6	1,000	15
33435172	163 - 172	6	M8/10	227	210	114	25 x 2.50	M6	2,350	15
33435183	173 - 183	-	M8/10	239	221	120	25 x 2.50	M6	2,350	15
33435194	184 - 194	-	M8/10	249	232	125	25 x 2.50	M6	2,350	15
33435205	195 - 205	-	M8/10	260	243	130	25 x 2.50	M6	2,350	15
33435216	206 - 216	-	M8/10	271	253	136	25 x 2.50	M6	2,350	10
33435225	217 - 225	8	M8/10	279	261	140	25 x 2.50	M6	2,350	10



BIS Heavy Duty Clamp HD1501 (BUP1000)

(A 10 04)

for metal pipes 15 - 227 mm

M8/10 - M10/12



Features and Benefits

- two-part clamp with two locking bolts
- up to and including 5": locking nut is captive, hidden in plastic holder
- heavy design
- bolts secured with anti-loss washer
- with CO₂ welded connection nut
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
- surface protection:
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- noise insulating lining, EPDM rubber, black
- also available: noise insulating lining of silicone rubber (reddish brown), heat resistant up to +200 °C (A 35 15)
- age resistant lining
- sound insulating lining according DIN 4109
- tested for fire safety



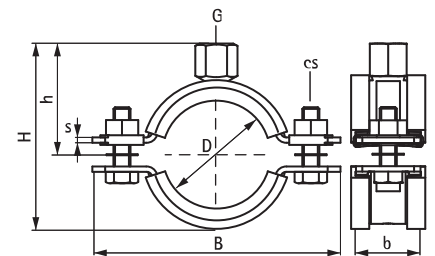
RAL-GZ 655/B
Cert.Nr. 2011-12a



RAL-GZ 656
Cert.Nr. 2011-14

Part No.	D (mm)	D (")	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	RAL	Pack 1
33138019	15 - 19	3/8	10	M8/10	81	55	35	30 x 2.5	M8	1,500	RAL ²	25
33138023	19 - 23	1/2	15	M8/10	84	58	37	30 x 2.5	M8	1,500	RAL ²	25
33138029	25 - 29	3/4	20	M8/10	91	64	40	30 x 2.5	M8	1,500	RAL ²	25
33138035	30 - 35	1	25	M8/10	98	70	43	30 x 2.5	M8	1,500	RAL ²	25
33138045	40 - 45	1 1/4	32	M8/10	109	80	48	30 x 2.5	M8	1,500	RAL ²	25
33138051	46 - 51	1 1/2	40	M8/10	115	86	51	30 x 2.5	M8	1,500	RAL ²	25
33138059	53 - 59	-	-	M8/10	122	93	55	30 x 2.5	M8	1,500	RAL ²	25
33138064	59 - 64	2	50	M8/10	129	99	57	30 x 2.5	M8	1,500	RAL ²	25
33148071	65 - 71	-	-	M10/12	136	116	71	30 x 3.0	M8	2,300	RAL ²	25
33148078	72 - 78	2 1/2	65	M10/12	144	123	74	30 x 3.0	M8	2,300	RAL ²	25
33148085	79 - 85	-	-	M10/12	152	130	78	30 x 3.0	M8	2,300	RAL ²	25
33148092	86 - 92	3	80	M10/12	159	136	81	30 x 3.0	M8	2,300	RAL ²	25
33148109	101 - 109	-	-	M10/12	175	154	90	30 x 3.0	M8	2,300	RAL ²	25
33148116	108 - 116	4	100	M10/12	182	160	93	30 x 3.0	M8	2,300	RAL ²	25
33148133	125 - 133	-	-	M10/12	200	178	102	30 x 3.0	M8	2,300	RAL ²	25
33148140	132 - 140	5	125	M10/12	207	184	104	30 x 3.0	M8	2,300	RAL ²	15
33148169	159 - 169	6	150	M10/12	254	223	124	38 x 4.0	M10	3,800	RAL ²	15
33148188	178 - 188	-	-	M10/12	274	242	133	38 x 4.0	M10	3,800	RAL ²	15
33148204	194 - 204	-	-	M10/12	290	258	141	38 x 4.0	M10	3,800	RAL ²	15
33148213	203 - 213	-	-	M10/12	299	267	146	38 x 4.0	M10	3,800	RAL ²	15
33148227	217 - 227	8	200	M10/12	322	282	152	38 x 4.0	M12	3,800	RAL ²	2

RAL² = tested, certified and monitored by a third party according to RAL-GZ 655/B and RAL-GZ 656. For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



Complementary

- 219 BIS RapidStrut® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

Complementary

- 46 BIS Silicon Profile

BIS Heavy Duty Clamp HD1501 (BUP1000)

(A 10 06)

for metal pipes 159 - 509 mm

M16



Features and Benefits

- two-part clamp with two locking bolts
- heavy design
- bolts secured with anti-loss washer
- with CO₂ welded connection nut
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
- surface protection:
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
 - noise insulating lining, EPDM rubber, black
 - also available: noise insulating lining of silicone rubber (reddish brown), heat resistant up to +200 °C (A 35 15)
 - age resistant lining
 - sound insulating lining according DIN 4109
 - tested for fire safety



RAL-GZ 655/B
Cert.Nr. 2011-12a



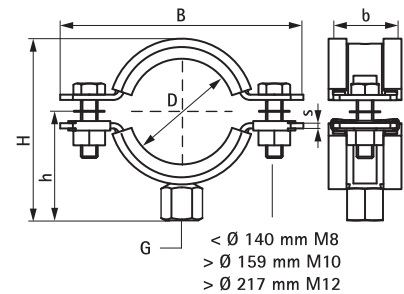
RAL-GZ 656
Cert.Nr. 2011-14

Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	RAL	Pack 1
33168169	159 - 169	6	150	M16	254	220	120	38 x 4.0	M10	3,800	RAL ²	15
33168188	178 - 188	-	-	M16	274	239	130	38 x 4.0	M10	3,800	RAL ²	15
33168204	194 - 204	-	-	M16	290	255	138	38 x 4.0	M10	3,800	RAL ²	15
33168213	203 - 213	-	-	M16	299	264	143	38 x 4.0	M10	3,800	RAL ²	15
33168227	217 - 227	8	200	M16	322	278	150	38 x 4.0	M12	3,800	RAL ²	2
33168250	240 - 250	-	-	M16	345	302	163	38 x 4.0	M12	3,800	RAL ¹	2
33168275	265 - 275	10	250	M16	367	327	175	48 x 5.0	M12	9,200	RAL ¹	2
33168325	315 - 325	12	300	M16	414	374	198	48 x 5.0	M12	9,200	RAL ¹	2
33168364	354 - 364	14	350	M16	453	412	217	48 x 5.0	M12	9,200	RAL ¹	2
33168408	398 - 408	16	400	M16	497	456	239	48 x 5.0	M12	9,200	RAL ¹	2
33168458	448 - 458	18	450	M16	548	506	264	48 x 5.0	M12	9,200	RAL ¹	2
33168509	499 - 509	20	500	M16	599	557	289	48 x 5.0	M12	9,200	RAL ¹	2

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/B.

RAL² = tested, certified and monitored by a third party according to RAL-GZ 655/B and RAL-GZ 656.

For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



Complementary

- 219 BIS RapidStrut® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

Complementary

- 46 BIS Silicon Profile

BIS Heavy Duty Clamp HD1501 (BUP1000)

(A 10 09)

for metal pipes 15 - 509 mm

G1/2"



Features and Benefits

- two-part clamp with two locking bolts
- up to and including 5": locking nut is captive, hidden in plastic holder
- heavy design
- bolts secured with anti-loss washer with CO₂ welded connection nut
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
- surface protection:
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- noise insulating lining, EPDM rubber, black
- also available: noise insulating lining of silicone rubber (reddish brown), heat resistant up to +200 °C (A 35 15)
- age resistant lining
- sound insulating lining according DIN 4109
- tested for fire safety



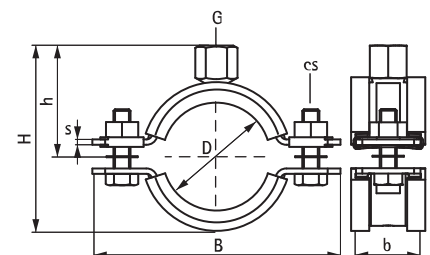
RAL-GZ 655/B
Cert.Nr. 2011-12a



RAL-GZ 656
Cert.Nr. 2011-14

Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	RAL	Pack 1
33178019	15 - 19	3/8	10	G1/2"	81	50	30	30 x 2.5	M8	1,500	RAL ²	25
33178023	19 - 23	1/2	15	G1/2"	84	53	32	30 x 2.5	M8	1,500	RAL ²	25
33178029	25 - 29	3/4	20	G1/2"	91	59	35	30 x 2.5	M8	1,500	RAL ²	25
33178035	30 - 35	1	25	G1/2"	98	65	38	30 x 2.5	M8	1,500	RAL ²	25
33178045	40 - 45	1 1/4	32	G1/2"	109	75	43	30 x 2.5	M8	1,500	RAL ²	25
33178059	53 - 59	-	-	G1/2"	122	88	50	30 x 2.5	M8	1,500	RAL ²	25
33178064	59 - 64	2	50	G1/2"	129	94	53	30 x 2.5	M8	1,500	RAL ²	25
33178071	65 - 71	-	-	G1/2"	136	102	57	30 x 3.0	M8	2,300	RAL ²	25
33178078	72 - 78	2 1/2	65	G1/2"	144	109	60	30 x 3.0	M8	2,300	RAL ²	25
33178085	79 - 85	-	-	G1/2"	152	116	64	30 x 3.0	M8	2,300	RAL ²	25
33178092	86 - 92	3	80	G1/2"	159	123	68	30 x 3.0	M8	2,300	RAL ²	25
33178109	101 - 109	-	-	G1/2"	175	140	74	30 x 3.0	M8	2,300	RAL ²	25
33178116	108 - 116	4	100	G1/2"	182	147	79	30 x 3.0	M8	2,300	RAL ²	25
33178133	125 - 133	-	-	G1/2"	200	164	86	30 x 3.0	M8	2,300	RAL ²	25
33178140	132 - 140	5	125	G1/2"	207	171	91	30 x 3.0	M8	2,300	RAL ²	15
33178169	159 - 169	6	150	G1/2"	254	210	110	38 x 4.0	M10	3,800	RAL ²	15
33178188	178 - 188	-	-	G1/2"	274	229	120	38 x 4.0	M10	3,800	RAL ²	15
33178204	194 - 204	-	-	G1/2"	290	245	128	38 x 4.0	M10	3,800	RAL ²	15
33178213	203 - 213	-	-	G1/2"	299	254	133	38 x 4.0	M10	3,800	RAL ²	15
33178227	217 - 227	8	200	G1/2"	322	268	140	38 x 4.0	M10	3,800	RAL ²	2
33178250	240 - 250	-	-	G1/2"	345	292	153	38 x 4.0	M12	3,800	RAL ¹	2
33178275	265 - 275	10	250	G1/2"	367	317	165	48 x 5.0	M12	9,200	RAL ¹	2
33178325	315 - 325	12	300	G1/2"	414	364	188	48 x 5.0	M12	9,200	RAL ¹	2
33178364	354 - 364	14	350	G1/2"	453	402	207	48 x 5.0	M12	9,200	RAL ¹	2
33178408	398 - 408	16	400	G1/2"	497	446	229	48 x 5.0	M12	9,200	RAL ¹	2
33178458	448 - 458	18	450	G1/2"	548	496	254	48 x 5.0	M12	9,200	RAL ¹	2
33178509	499 - 509	20	500	G1/2"	599	547	279	48 x 5.0	M12	9,200	RAL ¹	2

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/B.
 RAL² = tested, certified and monitored by a third party according to RAL-GZ 655/B and RAL-GZ 656.
 For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



Complementary



- 219 BIS RapidStrut® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

Complementary

- 46 BIS Silicon Profile
- 471 BIS Threaded Tube

RAL Information BIS HD1501

Max. allowed load (Fa,z) according to RAL-GZ 655/B and RAL-GZ 656

				 Cert. No. 2011-12a	 Cert. No. 2011-14								
Part No.	Ø (mm)	Conne- tion nut	Cata- logue page	RAL-GZ 655/B	RAL-GZ 656								
				F0	F30		F60		F90		F120		
				Fa,z (N)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	
3313 8 0XX	15 - 64	M8/10	A 10 04	1,500	940	30	380	61	-	-	-	-	
3314 8 XXX	65 - 140	M10/12	A 10 04	2,300	1,980	41	910	83	-	-	-	-	
3314 8 XXX	159 - 227	M10/12	A 10 04	3,800	1,850	70	1,310	78	-	-	-	-	
3316 8 XXX	159 - 250	M16	A 10 06	3,800	1,850*	70*	1,310*	78*	-	-	-	-	
3316 8 XXX	265 - 509	M16	A 10 06	9,200	-	-	-	-	-	-	-	-	
3317 8 XXX	15 - 64	G1/2"	A 10 09	1,500	940	30	380	61	-	-	-	-	
3317 8 XXX	65 - 140	G1/2"	A 10 09	2,300	1,980	42	910	83	-	-	-	-	
3317 8 XXX	159 - 250	G1/2"	A 10 09	3,800	1,850*	70*	1,310*	78*	-	-	-	-	
3317 8 XXX	265 - 509	G1/2"	A 10 09	9,200	-	-	-	-	-	-	-	-	

* up to 227 mm.

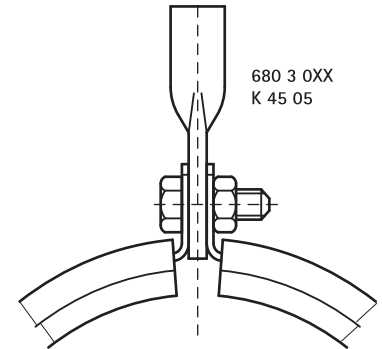
The max. allowed load (Fa,z) according to RAL-GZ 655/B is calculated using specific statistical methods related to the breaking load and taking into account a deflection of 1,5 mm or 2% of the maximum nominal clamp diameter.

According to the RAL requirements, the test results from above mentioned RAL certified articles are monitored by an independent test institute.

BIS Single Band Pipe Clamp

for metal pipes 12 - 114 mm

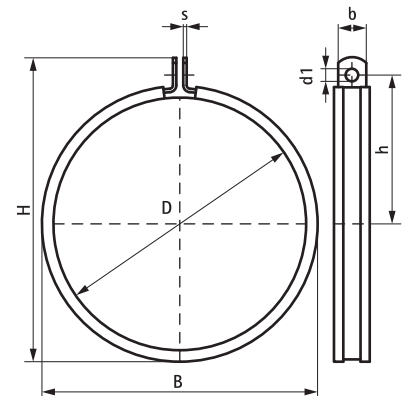
(A 10 25)



Features and Benefits

- one-part clamp
- fixing by using suspension eye (not included)
- clamp is locked by the mounting system (no other projections)
- space saving
- tube insulation can easily be fitted
- pre-galvanized
- sound insulating lining according DIN 4109
- material: steel 1.0226
- noise insulating lining, EPDM rubber, black
- age resistant lining

Part No.	D (mm)	D (°)	DN	B (mm)	H (mm)	h (mm)	b x s (mm)	d1 (mm)	F _{a,z} (N)	Pack 1
3385012	12	-	-	24	41	19	15 x 1.0	Ø 7	600	50
3385016	16	-	-	28	45	21	15 x 1.0	Ø 7	600	50
3385018	18	3/8	10	30	47	22	15 x 1.0	Ø 7	600	50
3385022	22	1/2	15	34	51	24	15 x 1.0	Ø 7	600	50
3385028	28	3/4	20	41	58	28	15 x 1.0	Ø 7	600	50
3385036	36	-	-	48	65	31	15 x 1.0	Ø 7	600	50
3385042	42	1 1/4	32	54	71	34	15 x 1.0	Ø 7	600	50
3385048	48	1 1/2	40	62	78	37	20 x 1.0	Ø 7	600	50
3385057	57	-	-	73	94	46	20 x 1.0	Ø 9	600	25
3385060	60	2	50	76	96	47	20 x 1.0	Ø 9	600	25
3385070	70	-	-	87	107	51	25 x 1.5	Ø 9	750	25
3385076	76	2 1/2	65	93	113	58	25 x 1.5	Ø 9	750	25
3385089	89	3	80	106	126	62	25 x 1.5	Ø 9	750	25
3385108	108	-	-	124	152	75	25 x 2.0	Ø 11	1,000	25
3385114	114	4	100	130	158	78	25 x 2.0	Ø 11	1,000	25



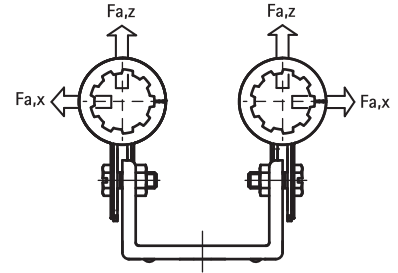
Complementary

- 219 BIS RapidStrut® Fixing System
- 485 BIS Fastenings
- 443 BIS Suspension Eye (Female Threaded)

BIS Duplo Double Clamp with Lining

(A 15 05)

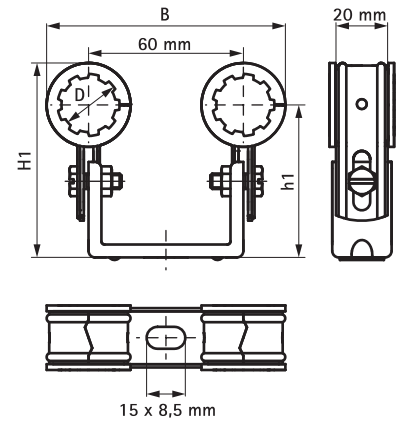
for metal heating pipes 15 - 33 mm



Features and Benefits

- two clamps on connection bracket
- for fixing of two pipes
- space saving
- clampshells reinforced
- two parts of the clamp interlock
- bracket reinforced for extra strength
- tube insulation can easily be fitted
- pre-galvanized
- adjustable distance between pipe and wall
- material: steel
- age resistant lining
- sound insulating lining according DIN 4109

Part No.	D (mm)	D (")	DN	B (mm)	H1 (mm)	h1 (mm)	Colour	F _{a,z} (N)	F _{a,x} (N)	Pack 1
3211015	15	-	-	82	58 - 74	48 - 64	White, TPE	100	200	25
3211022	22	1/2	15	89	65 - 81	51 - 67	White, TPE	110	330	25
3215015	15	-	-	82	58 - 74	48 - 64	Black, EPDM	100	200	25
3215017	18	3/8	10	85	61 - 77	51 - 67	Black, EPDM	100	200	25
3215021	22	1/2	15	89	65 - 81	51 - 67	Black, EPDM	110	330	25
3215027	28	3/4	20	95	71 - 87	54 - 70	Black, EPDM	110	330	25
3215033	33	1	25	104	76 - 92	57 - 73	Black, EPDM	110	330	25

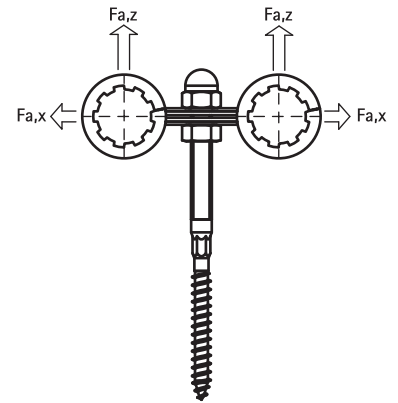


Alternative
99 BIS Duplo KS

BIS Double Wall Clamp with Lining

for metal heating pipes 15 - 33 mm

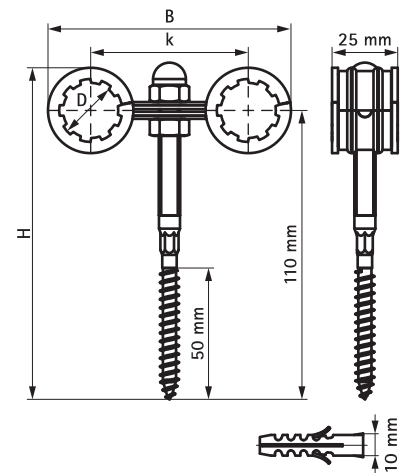
(A 15 10)



Features and Benefits

- for fixing of two pipes
- two parts of the clamp interlock
- bolt-wood screw with shoulder, making a lock nut unnecessary
- material: steel
- pre-galvanized
- age resistant lining
- sound insulating lining according to DIN 4109

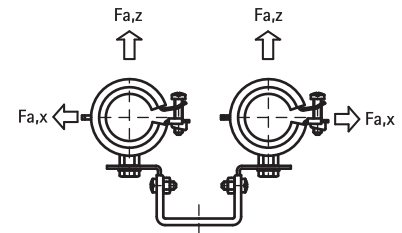
Part No.	D (mm)	D (")	DN	B (mm)	H (mm)	k (mm)	F _{a,z} (N)	F _{a,x} (N)	Pack 1
3535015	15	-	-	87	124	60	230	200	25
3535017	18	3/8	10	89	125	60	230	200	25
3535021	22	1/2	15	93	126	60	230	330	25
3535027	28	3/4	20	98	129	60	230	330	25
3535033	33	1	25	115	133	70	230	330	25



BIS Duplo KSB1

for metal heating pipes 15 - 43 mm

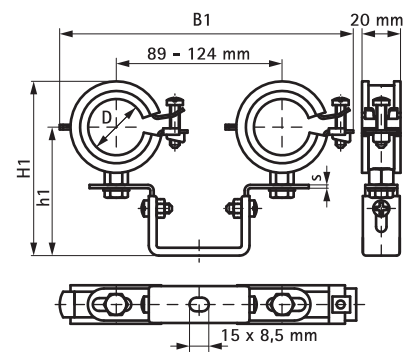
(A 15 15)



Features and Benefits

- two clamps on connection bracket
- clamp with quick locking system, type KSB
- for fixing of two pipes
- bracket reinforced for extra strength
- centre distance and distance between wall and clamp adjustable
- material: steel
- zinc plated
- noise insulating lining, EPDM rubber, black
- age resistant lining
- sound insulating lining according DIN 4109

Part No.	D (mm)	D (")	DN	s (mm)	b x s (mm)	H1 (mm)	h1 (mm)	B1 (mm)	F _{a,z} (N)	F _{a,x} (N)	Pack 1
3393218	15 - 18	3/8	10	2.0	20 x 2.0	82 - 94	67 - 79	142 - 165	210	110	25
3393223	20 - 23	1/2	15	2.0	20 x 2.0	93 - 105	70 - 82	142 - 177	210	110	25
3393228	25 - 28	3/4	20	2.0	20 x 2.0	96 - 108	73 - 85	150 - 180	210	110	25
3393235	32 - 35	1	25	2.0	20 x 2.0	100 - 112	77 - 89	152 - 188	210	110	25
3393243	40 - 43	1 1/4	32	2.0	20 x 2.0	110 - 122	95 - 107	165 - 195	210	110	25

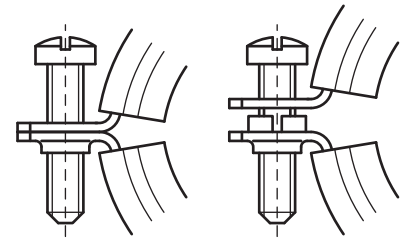


BISMAT[®] 5000

for plastic pipes 16 - 50 mm

M8

(A 25 05)



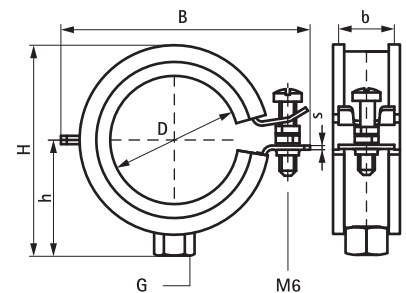
Features and Benefits

- single screw clamp
- with BISMAT[®] quick locking system
- with removable spacer washers, making the clamp suitable for either sliding or anchoring
- suitable for plastic pipe
- material: steel
- zinc plated
- noise insulating lining, EPDM rubber, green
- lining: very suitable for applications with plastic pipes
- inner part of lining is flush to improve sliding of pipe in clamp
- age resistant lining
- sound insulating lining according DIN 4109



Part No.	D (mm)	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	RAL	Pack 1
3483018	16	M8	48	40	22	20 x 1.00	350	RAL ¹	50
3483023	20	M8	55	43	23	20 x 1.00	350	RAL ¹	50
3483028	25	M8	60	48	26	20 x 1.00	350	RAL ¹	50
3483035	32	M8	67	57	30	20 x 1.00	350	RAL ¹	50
3483043	40	M8	75	66	34	20 x 1.25	420	RAL ¹	50
3483053	50	M8	85	75	37	20 x 1.25	420	RAL ¹	50

*RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/B.
For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.*



Complementary

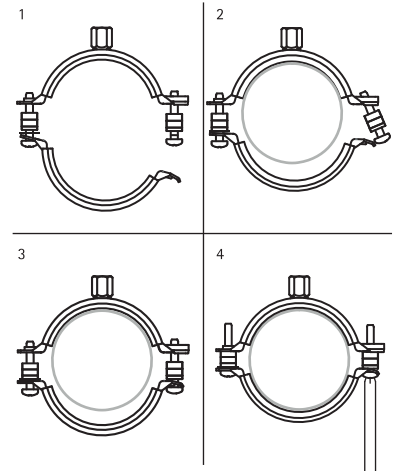
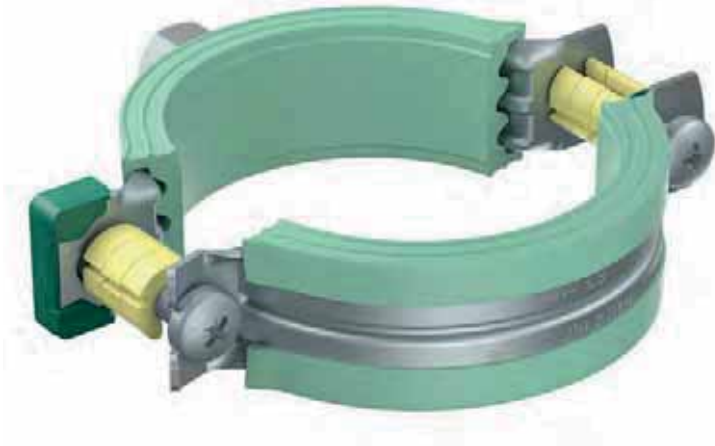
- 151 BIS RapidRail[®] Fixing System
- 485 BIS Fastenings
- 439 BIS Pipe Reinforcement

Bifix® 5000 G2 (BUP1000)

for plastic pipes 16 - 200 mm

M8/10

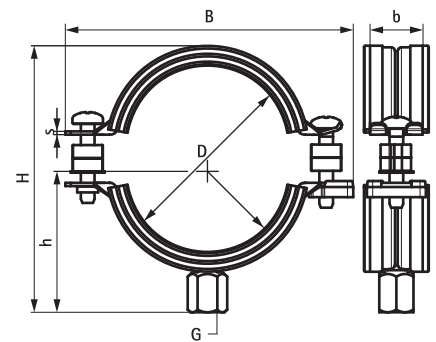
(A 25 09)



Features and Benefits

- two-screw clamp
- with quick locking system
- with removable spacer washers, making the clamp suitable for either sliding or anchoring
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
- surface protection:
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- noise insulating lining, EPDM rubber, green
- lining: very suitable for applications with plastic pipes
- inner part of lining is flush to improve sliding of pipe in clamp
- age resistant lining
- sound insulating lining according DIN 4109

Part No.	D (mm)	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
3188016	16	M8/10	63	50	31	20 x 1.25	600	50
3188020	20	M8/10	68	54	33	20 x 1.25	600	50
3188025	25	M8/10	74	59	36	20 x 1.25	600	50
3188032	32	M8/10	80	61	39	20 x 1.25	600	50
3188040	40	M8/10	91	73	45	20 x 1.25	600	50
3188050	50	M8/10	97	84	48	20 x 1.25	600	50
3188056	56	M8/10	104	90	51	20 x 1.25	600	50
3188058	58	M8/10	109	91	54	20 x 1.25	600	50
3188063	63	M8/10	109	99	54	20 x 1.25	600	50
3188075	75	M8/10	125	109	62	20 x 1.50	600	50
3188078	78	M8/10	132	111	65	20 x 1.50	600	25
3188090	90	M8/10	142	128	70	23 x 2.00	1,400	25
3188110	110	M8/10	164	144	81	23 x 2.00	1,400	25
3188125	125	M8/10	181	159	89	23 x 2.00	1,400	25
3188135	135	M8/10	189	169	94	23 x 2.00	1,400	25
3188160	160	M8/10	225	196	111	25 x 2.50	1,700	10
3188200	200	M8/10	269	237	125	25 x 2.50	1,700	10



Complementary



- 151 BIS RapidRail® Fixing System
- 439 BIS Pipe Reinforcement

Alternative

- 37 BISMAT® 5000

RAL Information BISMAT[®] 5000

Max. allowed load (Fa,z) according to RAL-GZ 655/B and RAL-GZ 656

				 Cert. No. 2010-24	 Cert. No. not yet available								
Part No.	Ø (mm)	Connec- tion nut	Cata- logue page	RAL-GZ 655/B	RAL-GZ 656								
				F0	F30		F60		F90		F120		
				Fa,z (N)	Fa,z (N)	Deformation (mm)	Fa,z (N)	Deformation (mm)	Fa,z (N)	Deformation (mm)	Fa,z (N)	Deformation (mm)	
348 3 OXX	16 - 32	M8	A 25 05	350	250	19	-	-	-	-	-	-	-
348 3 OXX	40 - 50	M8	A 25 05	420	230	13	-	-	-	-	-	-	-

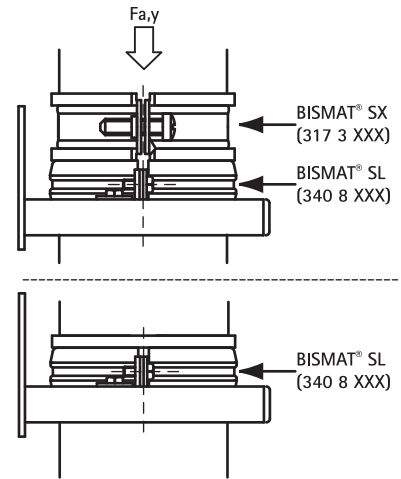
The max. allowed load (Fa,z) according to RAL-GZ 655/B is calculated using specific statistical methods related to the breaking load and taking into account a deflection of 1,5 mm or 2% of the maximum nominal clamp diameter.

According to the RAL requirements, the test results from above mentioned RAL certified articles are monitored by an independent test institute.

BIS Stand Pipe Bracket

for stand pipes DN 70 - DN 200

(A 30 05)

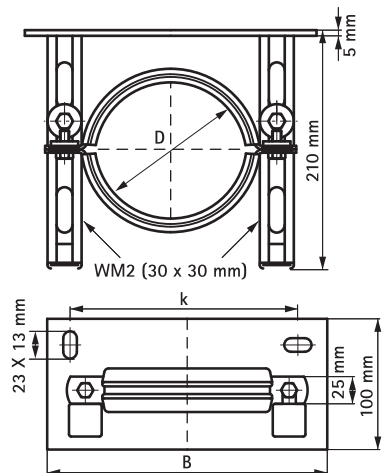


Features and Benefits

- one-part console set with BISMAT® SL Guidance clamp
- fixing free of tension throughout infinite adjustment
- material: steel
- zinc plated
- noise insulating lining, EPDM rubber, black
- lining with unique noise insulating profile at the outside edges
- age resistant lining
- sound insulating lining according DIN 4109

Part No.	D (mm)	DN	B (mm)	k (mm)	F _{a,y} (N)	Pack 1
4323070	78	70	189	144	3,000	125
4323080	83	80	194	149	3,000	125
4323100	110	100	219	174	3,000	120
4323125	135	125	246	201	3,000	100
4323150	160	150	269	224	3,000	100
4323200	210	200	319	274	3,000	80

Max. allowed load (F_{a,y1}): distance between wall and centre of clamp during test 130 mm. When used in combination with the BISMAT® SX-Socket Clamp the max. allowed load is determined by the SX Clamp (page A 30 15).



Complementary

- 42 BISMAT® SX Socket Clamp
- 43 BISMAT® SL Guidance Clamp

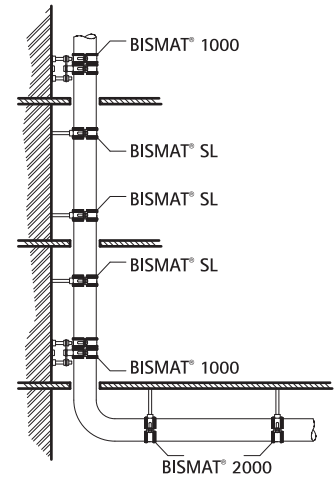
Alternative

- 41 BISMAT® 1000 Stand Pipe Clamp

BISMAT[®] 1000 Stand Pipe Clamp

(A 30 10)

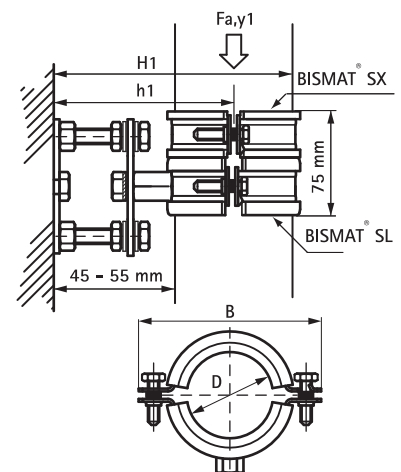
for stand pipes DN 70 - DN 200



Features and Benefits

- adjustable wall plate with BISMAT[®] SL Guidance clamp and BISMAT[®] SX Socket clamp
- unique set for the installation of cast iron or plastic stand pipes
- to be mounted every second floor, height 3.0 m (from Ø 125 mm, one each floor)
- fixing free of tension throughout infinite adjustment
- adjustable distance between pipe and wall
- material: steel
- zinc plated
- noise insulating lining, EPDM rubber, black
- age resistant lining
- noise insulation tested according to DIN 4109 (insulation exceeds standards)

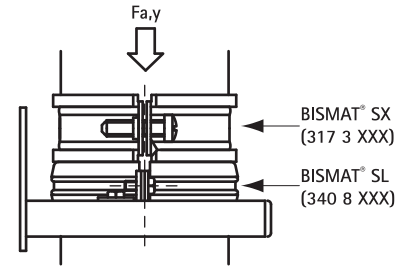
Part No.	D (mm)	DN	B (mm)	H1 (mm)	h1 (mm)	F _{a,y} (N)	Pack 1
3363070	75	70	144	140 - 150	93 - 102	650	5
3363075	78	70	154	140 - 150	93 - 103	650	5
3363080	83	80	144	143 - 153	94 - 104	820	5
3363090	89	80	164	147 - 154	102 - 109	820	5
3363100	110	100	176	175 - 185	110 - 120	820	5
3363125	125	125	192	190 - 200	118 - 128	820	5
3363137	135	125	192	200 - 210	123 - 133	820	5
3363150	160	150	233	235 - 245	137 - 147	820	5
3363200	210	200	284	280 - 290	162 - 172	820	5



BISMAT[®] SX Socket Clamp

for stand pipes DN 70 - DN 200

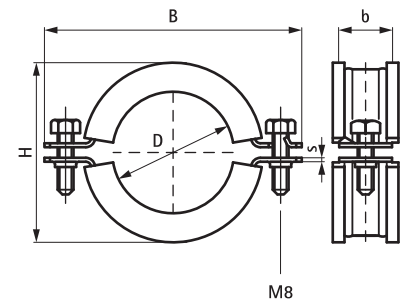
(A 30 15)



Features and Benefits

- two-screw clamp
- with quick locking system
- alternative for cast iron socket clamp or plastic drain pipes
- ideal for application in combination with BIS Stand pipe brackets (Part No. 432 3 XXX)
- material: steel
- zinc plated
- EPDM rubber lining, black
- age resistant lining
- sound insulating lining according to DIN 4109

Part No.	D (mm)	DN	B (mm)	H (mm)	b x s (mm)	F _{a,y} (N)	Pack 1
3173075	75	70	149	104	25 x 2.5	650	10
3173078	78	70	154	109	25 x 2.5	650	10
3173085	83	80	159	114	25 x 2.5	700	10
3173116	110	100	184	139	25 x 2.5	1,000	10
3173132	125	125	199	154	25 x 2.5	1,100	10
3173141	137	125	211	166	25 x 2.5	1,250	10
3173168	160	150	234	189	25 x 2.5	1,500	10
3173219	210	200	284	239	25 x 2.5	1,500	5

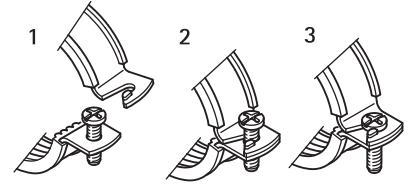


BISMAT[®] SL Guidance Clamp

(A 30 20)

for stand pipes DN 70 - DN 200

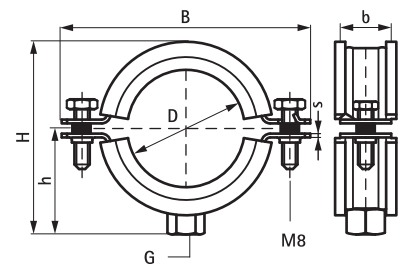
M10



Features and Benefits

- two-screw clamp
- with quick locking system
- the inside diameter of the clamp is designed for noise isolating plastic pipes (e.g. Friaphon[®], As[®], Raupiano[®]) and cast iron drain pipes
- suitable for plastic pipe
- spacer washers between the flanges guarantee a limited grip to protect the rubber from crushing
- material: steel
- zinc plated
- noise insulating lining, EPDM rubber, black
- lining with unique noise insulating profile at the outside edges
- age resistant lining
- sound insulating lining according DIN 4109

Part No.	D (mm)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	Pack 1
3408070	78	70	M10	154	133	75	25 x 3.0	10
3408075	75	70	M10	149	129	74	25 x 3.0	10
3408100	110	100	M10	184	164	91	25 x 3.0	10
3408125	125	125	M10	199	179	99	25 x 3.0	10
3408137	135	125	M10	211	190	104	25 x 3.0	10
3408150	160	150	M10	234	214	116	25 x 3.0	10
3408200	210	200	M10	284	254	132	25 x 3.0	5



BIS Rubber Profile

(A 35 05)

noise insulation clamp lining

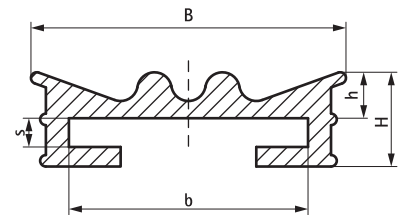


Features and Benefits

- extruded profile
- to make noise insulating clamp lining
- material: EPDM rubber, black
- chlorine free and resistant to ageing
- resistant to ozone, UV, weather and sea water
- shore A hardness 45 ±5
- temperature resistance from -30 °C to +110 °C
- sound insulating lining according to DIN 4109

Part No.	L	B (mm)	H (mm)	h (mm)	b x s (mm)	Pack 1	App.
0840204	180 m	26	8.0	4.0	20.0 x 4.0	180	m.
0840254	140 m	31	8.5	4.0	25.0 x 4.0	140	m.
0840304	140 m	47	10.5	4.0	30.0 x 4.0	120	m.

Other profiles and dimensions available on request.



BIS Rubber Moulding Part

(A 35 10)

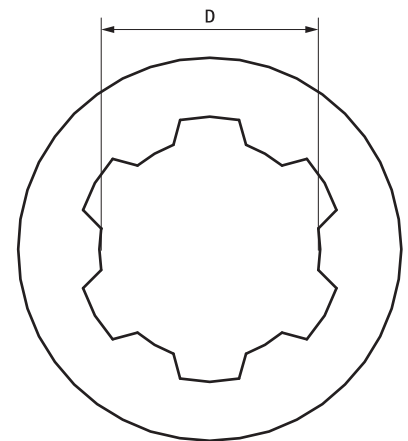
noise insulation clamp lining 15 - 22 mm



Features and Benefits

- injection moulding piece
- to make noise insulating clamp lining
- material: PVC (polyvinylchloride), transparent
- sound insulating lining according DIN 4109

Part No.	D (mm)	D (")	DN	Colour	Pack 1	Pack 2
0840051	15	-	-	Transparent	100	-
0840052	22	1/2	15	Transparent	100	-



BIS Silicon Profile

(A 35 15)

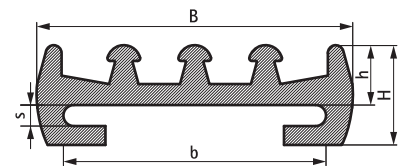
heat-resistant noise insulation clamp lining



Features and Benefits

- extruded profile
- to make noise insulating, heat resistant clamp lining
- material: silicon rubber, reddish brown
- chlorine free and resistant to ageing
- resistant to ozone, UV, weather and sea water
- shore A hardness 45 ± 5
- temperature resistance from -30 °C to $+210\text{ °C}$
- sound insulating lining according DIN 4109

Part No.	L	B (mm)	H (mm)	h (mm)	b x s (mm)	Pack 1	App.
0845205	50 m	25.0	7.5	4.0	20 x 1.5	50	m.
0845255	50 m	30.0	9.5	5.5	25 x 2.0	50	m.
0845304	50 m	35.4	8.7	4.0	30 x 3.0	50	m.
0845408	50 m	44.0	14.0	8.0	40 x 4.0	50	m.
0845506	50 m	57.0	14.0	7.0	52 x 4.5	50	m.



B BIS Metal Pipe Clamps



BIS Clamps

Bifix® G2 (M8/10) (BUP1000)	48
2S Clamp (M8)	49
2S Clamp (M8/10)	50



BIS Industrial Clamps

BIS Heavy Duty Clamp HD500 (M8/10, M10/12) (BUP1000)	51
BIS Heavy Duty Clamp HD500 (M16) (BUP1000)	52
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BIS U-Clamp	55



BIS Sprinkler Clamps

BIS Sprinkler Clamp TA41	56
BIS Sprinkler Clamp HD500 (BUP1000)	57



BIS Industrial Saddles

BIS Industrial Saddle	58
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BIS Double Clamps

BIS Duplo Double Clamp	59
BIS Double Wall Clamp	60



BIS Nail-in Clamps

BIS Nail-in Clamp	61
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BIS Light Duty Clamps and Saddles

BIS Pipe Clip (zp)	63
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BIS Clamps for Plastic Pipe

BIS 4000 (BUP1000)	69
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BIS Lining 3000 Clamp	72
BIS 434 Clamp for PE-Pipe	73
BIS Metal Liner 434 Clamp	74
BIS Lining 434 Clamp	75



BIS Clamps for Rain Water Pipe

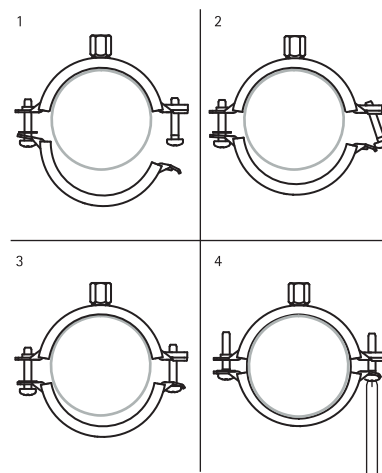
BIS Hinged Pipe Clamp 400 (Round)	76
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Bifix® G2 (M8/10) (BUP1000)

(B 05 04)

for insulated pipe, steel, copper, cast iron and plastic (multilayer) pipe 10 - 225 mm

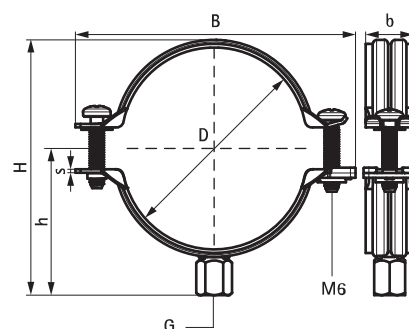
M8/10



Features and Benefits

- two-screw clamp
- with quick locking system
- perfect solution for pipe supports, also for outdoor installations
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	D (mm)	D (")	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
3008014	10 - 14	1/4	8	M8/10	52	35	26	20 x 1.25	1,200	50
3008019	15 - 19	3/8	10	M8/10	59	42	29	20 x 1.25	1,200	50
3008023	20 - 23	1/2	15	M8/10	63	46	31	20 x 1.25	1,200	50
3008028	25 - 28	3/4	20	M8/10	68	51	33	20 x 1.25	1,200	50
3008035	31 - 35	1	25	M8/10	74	57	36	20 x 1.25	1,200	50
3008039	36 - 39	-	-	M8/10	80	63	40	20 x 1.25	1,200	50
3008045	40 - 45	1 1/4	32	M8/10	84	67	41	20 x 1.25	1,200	50
3008052	48 - 52	1 1/2	40	M8/10	91	74	45	20 x 1.25	1,200	50
3008058	54 - 58	-	-	M8/10	97	80	48	20 x 1.25	1,200	50
3008064	60 - 64	2	50	M8/10	104	87	51	20 x 1.25	1,200	50
3008070	66 - 70	-	-	M8/10	110	92	54	20 x 1.50	1,200	50
3008079	75 - 79	2 1/2	65	M8/10	118	100	58	20 x 1.50	1,300	50
3008083	80 - 83	-	-	M8/10	125	108	62	20 x 1.50	1,300	50
3008091	88 - 91	3	80	M8/10	133	114	66	23 x 2.00	1,800	50
3008105	100 - 105	-	-	M8/10	147	123	73	23 x 2.00	1,800	50
3008115	108 - 115	4	100	M8/10	155	137	77	23 x 2.00	1,800	25
3008130	125 - 130	-	-	M8/10	172	145	85	23 x 2.00	1,800	25
3008140	133 - 140	5	125	M8/10	180	162	89	23 x 2.00	1,800	25
3008160	152 - 160	-	-	M8/10	201	171	100	23 x 2.00	1,800	25
3008169	165 - 169	6	150	M8/10	217	190	107	25 x 2.50	3,600	25
3008180	176 - 180	-	-	M8/10	229	203	113	25 x 2.50	3,600	15
3008200	192 - 200	-	-	M8/10	248	209	123	25 x 2.50	3,600	15
3008210	205 - 210	-	-	M8/10	261	238	129	25 x 2.50	3,600	15
3008225	219 - 225	8	200	M8/10	275	249	136	25 x 2.50	3,600	15

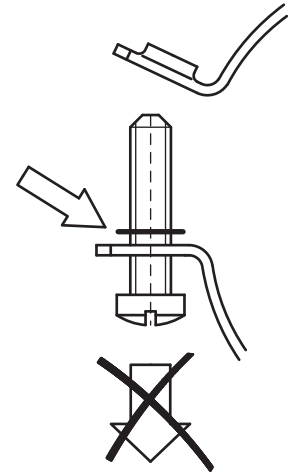


2S Clamp (M8)

(B 05 23)

for insulated pipe, steel, copper, cast iron and plastic (multilayer) pipe 10 - 67 mm

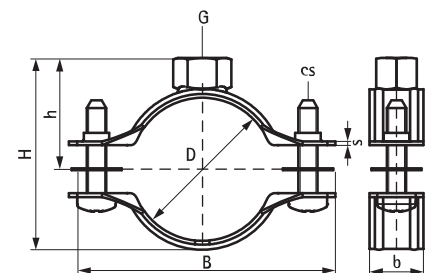
M8



Features and Benefits

- gapless range
- anti loss washers prevent screws from falling out during installation
- perfect solution for insulated pipe supports
- material: steel
- zinc plated

Part No.	D (mm)	D (")	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	Pack 1
33025014	10 - 14	1/8 - 1/4	6 - 8	M8	46	27	17	20 x 1.00	M5	700	50
33025019	15 - 19	3/8	10	M8	51	32	20	20 x 1.00	M5	700	50
33025024	20 - 24	1/2	15	M8	56	37	22	20 x 1.00	M5	700	50
33025030	25 - 30	3/4	20	M8	62	43	25	20 x 1.00	M5	700	50
33025037	31 - 37	1	25	M8	69	50	29	20 x 1.00	M5	700	50
33025046	38 - 46	1 1/4	32	M8	78	60	34	20 x 1.25	M5	950	50
33025052	47 - 52	1 1/2	40	M8	84	66	37	20 x 1.25	M5	950	50
33025061	53 - 61	2	50	M8	93	75	41	20 x 1.25	M5	950	50
33025067	62 - 67	-	-	M8	99	81	44	20 x 1.25	M5	950	50

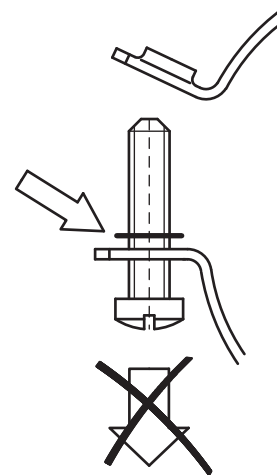


2S Clamp (M8/10)

for insulated pipe, steel, copper, cast iron and plastic (multilayer) pipe 10 - 225 mm

M8/10

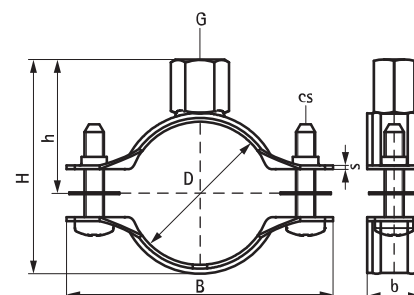
(B 05 24)



Features and Benefits

- gapless range
- anti loss washers prevent screws from falling out during installation
- perfect solution for insulated pipe supports
- material: steel
- zinc plated

Part No.	D (mm)	D (°)	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	Pack 1
33035014	10 - 14	1/8 - 1/4	M8/10	46	35	25	20 x 1.00	M5	700	50
33035019	15 - 19	3/8	M8/10	51	40	28	20 x 1.00	M5	700	50
33035024	20 - 24	1/2	M8/10	56	45	30	20 x 1.00	M5	700	50
33035030	25 - 30	3/4	M8/10	62	51	33	20 x 1.00	M5	700	50
33035037	31 - 37	1	M8/10	69	58	37	20 x 1.00	M5	700	50
33035046	38 - 46	1 1/4	M8/10	78	68	42	20 x 1.25	M5	950	50
33035052	47 - 52	1 1/2	M8/10	84	74	45	20 x 1.25	M5	950	50
33035061	53 - 61	2	M8/10	93	83	49	20 x 1.25	M5	950	50
33035067	62 - 67	-	M8/10	99	89	53	20 x 1.25	M5	950	50
33035074	68 - 74	-	M8/10	111	96	56	20 x 1.50	M6	1,400	50
33035081	75 - 81	2 1/2	M8/10	118	103	60	20 x 1.50	M6	1,400	50
33035087	82 - 87	-	M8/10	124	109	63	20 x 1.50	M6	1,400	50
33035095	88 - 95	3	M8/10	136	119	68	23 x 2.00	M6	2,000	50
33035103	96 - 103	-	M8/10	143	127	72	23 x 2.00	M6	2,000	50
33035112	104 - 112	-	M8/10	153	136	76	23 x 2.00	M6	2,000	25
33035118	113 - 118	4	M8/10	159	142	79	23 x 2.00	M6	2,000	25
33035127	119 - 127	-	M8/10	168	151	84	23 x 2.00	M6	2,000	25
33035137	128 - 137	-	M8/10	178	161	89	23 x 2.00	M6	2,000	25
33035144	138 - 144	5	M8/10	185	168	92	23 x 2.00	M6	2,000	25
33035153	145 - 153	-	M8/10	194	177	97	23 x 2.00	M6	2,000	25
33035162	154 - 162	-	M8/10	203	186	101	23 x 2.00	M6	2,000	25
33035172	163 - 172	6	M8/10	217	199	109	25 x 2.50	M6	3,300	25
33035183	173 - 183	-	M8/10	227	210	114	25 x 2.50	M6	3,300	15
33035194	184 - 194	-	M8/10	239	221	120	25 x 2.50	M6	3,300	15
33035205	195 - 205	-	M8/10	249	232	125	25 x 2.50	M6	3,300	15
33035216	206 - 216	-	M8/10	260	243	130	25 x 2.50	M6	3,300	15
33035225	217 - 225	8	M8/10	271	253	136	25 x 2.50	M6	3,300	10



BIS Heavy Duty Clamp HD500 (BUP1000)

(B 10 04)

for steel pipes 15 - 227 mm

M8/10 - M10/12

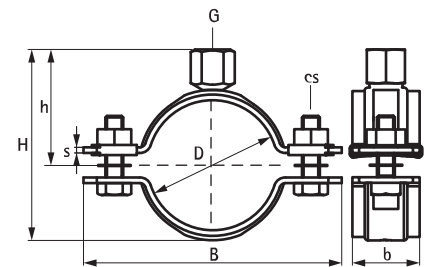


Features and Benefits

- two-part clamp with two locking bolts
- up to and including 5": locking nut is captive, hidden in plastic holder
- heavy design
- bolts secured with anti-loss washer
- with CO₂ welded connection nut
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
- surface protection:
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- also available: noise insulating lining of silicone rubber (reddish brown), heat resistant up to +200 °C (A 35 15)
- tested for fire safety

Part No.	D (mm)	D (")	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	RAL	Pack 1
33038019	15 - 19	3/8	10	M8/10	75	46	32	30 x 2.5	M8	2,100	RAL ²	25
33038023	19 - 23	1/2	15	M8/10	78	50	34	30 x 2.5	M8	2,100	RAL ²	25
33038030	25 - 30	3/4	20	M8/10	84	57	38	30 x 2.5	M8	2,100	RAL ²	25
33038036	31 - 36	1	25	M8/10	91	63	41	30 x 2.5	M8	2,100	RAL ²	25
33038042	37 - 42	-	-	M8/10	98	69	44	30 x 2.5	M8	2,100	RAL ²	25
33038045	40 - 45	1 1/4	32	M8/10	101	72	45	30 x 2.5	M8	2,100	RAL ²	25
33038052	47 - 52	1 1/2	40	M8/10	109	79	49	30 x 2.5	M8	2,100	RAL ²	25
33038058	53 - 58	-	-	M8/10	115	85	52	30 x 2.5	M8	2,100	RAL ²	25
33038065	59 - 65	2	50	M8/10	122	92	55	30 x 2.5	M8	2,100	RAL ²	25
33038071	66 - 71	-	-	M8/10	129	98	58	30 x 2.5	M8	2,100	RAL ²	25
33048078	72 - 78	2 1/2	65	M10/12	136	115	70	30 x 3.0	M8	4,000	RAL ²	25
33048085	79 - 85	-	-	M10/12	144	122	75	30 x 3.0	M8	4,000	RAL ²	25
33048092	86 - 92	3	80	M10/12	152	129	78	30 x 3.0	M8	4,000	RAL ²	25
33048106	98 - 106	-	-	M10/12	165	143	85	30 x 3.0	M8	4,000	RAL ²	25
33048116	108 - 116	4	100	M10/12	175	153	90	30 x 3.0	M8	4,000	RAL ²	25
33048133	125 - 133	-	-	M10/12	193	170	99	30 x 3.0	M8	4,000	RAL ²	25
33048140	132 - 140	5	125	M10/12	200	177	102	30 x 3.0	M8	4,000	RAL ²	25
33048154	148 - 154	-	-	M10/12	215	191	109	30 x 3.0	M8	4,000	RAL ²	15
33048169	159 - 169	6	150	M10/12	240	207	117	38 x 4.0	M10	8,200	RAL ²	15
33048183	173 - 183	-	-	M10/12	254	221	124	38 x 4.0	M10	8,200	RAL ²	15
33048202	192 - 202	-	-	M10/12	274	240	133	38 x 4.0	M10	8,200	RAL ²	15
33048219	208 - 219	-	-	M10/12	290	256	141	38 x 4.0	M10	8,200	RAL ²	15
33048227	217 - 227	8	200	M10/12	299	265	146	38 x 4.0	M10	8,200	RAL ²	2

RAL² = tested, certified and monitored by a third party according to RAL-GZ 655/B and RAL-GZ 656. For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



Complementary

- 219 BIS RapidStrut® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

Complementary

- 46 BIS Silicon Profile
- 121 BIS dB-FIX® 80 Fixing Point Assembly

Alternative

- 29 BIS Heavy Duty Clamp HD1501 (BUP1000)

BIS Heavy Duty Clamp HD500 (BUP1000)

(B 10 06)

for steel pipes 217 - 509 mm

M16



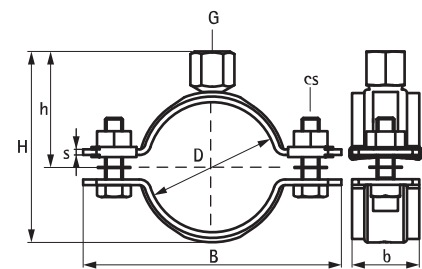
Features and Benefits

- two-part clamp with two locking bolts
- heavy design
- bolts secured with anti-loss washer
- with CO₂ welded connection nut
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - also available: noise insulating lining of silicone rubber (reddish brown), heat resistant up to +200 °C (A 35 15)
 - tested for fire safety
- surface protection:
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	RAL	Pack 1
33068227	217 - 227	8	200	M16	299	263	144	38 x 4.0	M10	8,200	RAL ¹	2
33068241	229 - 241	-	-	M16	322	277	151	38 x 4.0	M12	8,200	RAL ¹	2
33068254	244 - 254	-	-	M16	335	290	158	38 x 4.0	M12	8,200	RAL ¹	2
33068264	254 - 264	-	-	M16	345	300	163	38 x 4.0	M12	8,200	RAL ¹	2
33068279	267 - 279	10	250	M16	360	315	170	38 x 4.0	M12	8,200	RAL ¹	2
33068289	279 - 289	-	-	M16	367	324	175	48 x 5.0	M12	12,000	RAL ¹	2
33068302	292 - 302	-	-	M16	380	337	181	48 x 5.0	M12	12,000	RAL ¹	2
33068325	315 - 325	12	300	M16	403	358	193	48 x 5.0	M12	12,000	RAL ¹	2
33068360	350 - 360	14	350	M16	439	395	210	48 x 5.0	M12	12,000	RAL ¹	2
33068374	364 - 374	-	-	M16	453	409	217	48 x 5.0	M12	12,000	RAL ¹	2
33068389	379 - 389	-	-	M16	468	424	225	48 x 5.0	M12	12,000	RAL ¹	2
33068408	398 - 408	16	400	M16	487	443	234	48 x 5.0	M12	12,000	RAL ¹	2
33068418	408 - 418	-	-	M16	498	441	227	48 x 5.0	M12	12,000	RAL ¹	2
33068436	424 - 436	-	-	M16	515	471	248	48 x 5.0	M12	12,000	RAL ¹	2
33068458	448 - 458	18	450	M16	537	493	259	48 x 5.0	M12	12,000	RAL ¹	2
33068509	499 - 509	20	500	M16	588	544	285	48 x 5.0	M12	12,000	RAL ¹	2

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/B.
For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



Complementary

- 219 BIS RapidStrut® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

Complementary

- 46 BIS Silicon Profile

Alternative

- 30 BIS Heavy Duty Clamp HD1501 (BUP1000)

BIS Heavy Duty Clamp HD500 (BUP1000)

(B 10 09)

for steel pipes 15 - 509 mm

G1/2"



Features and Benefits

- two-part clamp with two locking bolts
- up to and including 5": locking nut is captive, hidden in plastic holder
- heavy design
- bolts secured with anti-loss washer
- with CO₂ welded connection nut
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
- surface protection:
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- also available: noise insulating lining of silicone rubber (reddish brown), heat resistant up to +200 °C (A 35 15)
- tested for fire safety



RAL-GZ 655/B
Cert.Nr. 2011-13a



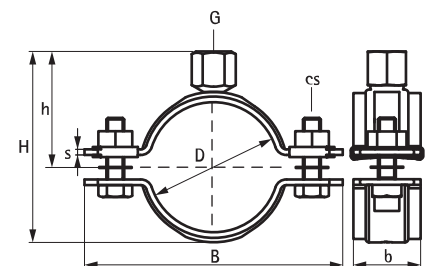
RAL-GZ 656
Cert.Nr. 2011-05

Part No.	D (mm)	D (")	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	RAL	Pack 1
33078019	15 - 19	3/8	10	G1/2"	75	43	29	30 x 2.5	M8	2,100	RAL ²	25
33078023	19 - 23	1/2	15	G1/2"	78	47	31	30 x 2.5	M8	2,100	RAL ²	25
33078030	25 - 30	3/4	20	G1/2"	84	54	35	30 x 2.5	M8	2,100	RAL ²	25
33078036	31 - 36	1	25	G1/2"	91	60	38	30 x 2.5	M8	2,100	RAL ²	25
33078042	37 - 42	-	-	G1/2"	98	66	40	30 x 2.5	M8	2,100	RAL ²	25
33078045	40 - 45	1 1/4	32	G1/2"	101	69	42	30 x 2.5	M8	2,100	RAL ²	25
33078052	47 - 52	1 1/2	40	G1/2"	109	76	46	30 x 2.5	M8	2,100	RAL ²	25
33078058	53 - 58	-	-	G1/2"	115	82	48	30 x 2.5	M8	2,100	RAL ²	25
33078065	59 - 65	2	50	G1/2"	122	89	52	30 x 2.5	M8	2,100	RAL ²	25
33078071	66 - 71	-	-	G1/2"	129	95	55	30 x 2.5	M8	2,100	RAL ²	25
33078078	72 - 78	2 1/2	65	G1/2"	136	103	59	30 x 3.0	M8	4,000	RAL ²	25
33078085	79 - 85	-	-	G1/2"	144	110	63	30 x 3.0	M8	4,000	RAL ²	25
33078092	86 - 92	3	80	G1/2"	152	117	66	30 x 3.0	M8	4,000	RAL ²	25
33078106	98 - 106	-	-	G1/2"	165	131	73	30 x 3.0	M8	4,000	RAL ²	25
33078116	108 - 116	4	100	G1/2"	175	141	78	30 x 3.0	M8	4,000	RAL ²	25
33078133	125 - 133	-	-	G1/2"	193	158	87	30 x 3.0	M8	4,000	RAL ²	25
33078140	132 - 140	5	125	G1/2"	200	165	90	30 x 3.0	M8	4,000	RAL ²	25
33078154	148 - 154	-	-	G1/2"	215	179	97	30 x 3.0	M8	4,000	RAL ²	15
33078169	159 - 169	6	150	G1/2"	240	195	105	38 x 4.0	M10	8,200	RAL ²	15
33078183	173 - 183	-	-	G1/2"	254	209	112	38 x 4.0	M10	8,200	RAL ²	15
33078219	208 - 219	-	-	G1/2"	290	244	130	38 x 4.0	M10	8,200	RAL ²	15
33078227	217 - 227	8	200	G1/2"	299	253	134	38 x 4.0	M10	8,200	RAL ²	2
33078254	244 - 254	-	-	G1/2"	335	280	148	38 x 4.0	M12	8,200	RAL ¹	2
33078325	315 - 325	12	300	G1/2"	403	348	183	48 x 5.0	M12	12,000	RAL ¹	2
33078408	398 - 408	16	400	G1/2"	487	433	224	48 x 5.0	M12	12,000	RAL ¹	2
33078436	424 - 436	-	-	G1/2"	515	461	238	48 x 5.0	M12	12,000	RAL ¹	2
33078458	448 - 458	18	450	G1/2"	537	483	249	48 x 5.0	M12	12,000	RAL ¹	2
33078509	499 - 509	20	500	G1/2"	588	534	275	48 x 5.0	M12	12,000	RAL ¹	2

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/B.

RAL² = tested, certified and monitored by a third party according to RAL-GZ 655/B and RAL-GZ 656.

For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



Complementary

- 219 BIS RapidStrut® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

Complementary



- 46 BIS Silicon Profile
- 471 BIS Threaded Tube

Alternative

- 31 BIS Heavy Duty Clamp HD1501 (BUP1000)

RAL Information BIS HD500

Max. allowed load (Fa,z) according to RAL-GZ 655/B and RAL-GZ 656

				 Cert. No. 2011-13a	 Cert. No. 2011-05							
Part No.	Ø (mm)	Conne- tion nut	Cata- logue page	RAL-GZ 655/B	RAL-GZ 656							
				F0	F30		F60		F90		F120	
				Fa,z (N)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)	Fa,z (N)	Defor- mation (mm)
3303 8 OXX	15 - 71	M8/10	B 10 04	2,100	940	30	380	61	-	-	-	-
3304 8 XXX	72 - 154	M10/12	B 10 04	4,000	1,980	41	910	83	-	-	-	-
3304 8 XXX	159 - 227	M10/12	B 10 04	8,200	1,850	70	1,310	78	-	-	-	-
3306 8 XXX	159 - 279	M16	B 10 06	8,200	1,850*	70*	1,310*	78*	-	-	-	-
3306 8 XXX	279 - 509	M16	B 10 06	12,000	-	-	-	-	-	-	-	-
3307 8 XXX	15 - 71	G½"	B 10 09	2,100	940	30	380	61	-	-	-	-
3307 8 XXX	72 - 154	G½"	B 10 09	4,000	1,980	41	910	83	-	-	-	-
3307 8 XXX	159 - 279	G½"	B 10 09	8,000	1,850*	70*	1,310*	78*	-	-	-	-
3307 8 XXX	279 - 509	G½"	B 10 09	12,000	-	-	-	-	-	-	-	-

* up to 227 mm.

The max. allowed load (Fa,z) according to RAL-GZ 655/B is calculated using specific statistical methods related to the breaking load and taking into account a deflection of 1,5 mm or 2% of the maximum nominal clamp diameter.

According to the RAL requirements, the test results from above mentioned RAL certified articles are monitored by an independent test institute.

BIS U-Clamp

for steel pipes 17.2 - 273.0 mm

(B 10 25)

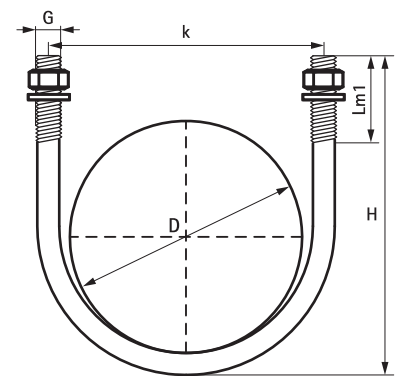


Features and Benefits

- U-clamp with thread
- including nuts and washers
- material: steel
- zinc plated

Part No.	D (mm)	D (")	DN	G	H (mm)	Lm1 (mm)	k (mm)	Pack 1
2084306017	17.2	3/8	10	M6	42	19	24	100
2084306021	21.5	1/2	15	M6	48	25	28	100
2084306027	26.9	3/4	20	M6	63	30	35	50
2084306034	33.7	1	25	M6	71	30	42	50
2084308027	26.9	3/4	20	M8	63	30	35	100
2084308034	33.7	1	25	M8	71	30	42	100
2084308042	42.4	1 1/4	32	M8	79	30	51	100
2084308049	48.3	1 1/2	40	M8	80	30	57	100
2084308060	60.3	2	50	M8	92	30	69	25
2084308076	76.1	2 1/2	65	M8	108	30	85	25
2084310090	88.9	3	80	M10	131	40	99	25
2084310114	114.3	4	100	M10	167	50	127	25
2084312140	139.7	5	125	M12	191	50	152	25
2084314168	168.3	6	150	M14	219	50	180	10
2084316219	219.1	8	200	M16	282	60	236	10
2084316273	273.0	10	250	M16	336	60	290	10

Also available in stainless steel.



BIS Sprinkler Clamp TA41

(B 12 15)

for sprinkler pipes 23 - 221 mm

M10 - M12



Features and Benefits

- one-part clamp
- for sprinkler pipes up to 8" (221 mm)
- with knurled nut for fixing to stud bolt or threaded rod
- material: steel
- clamp: pre-galvanized; nut: zinc plated
- with FM approval - certificate number 3024336
- UL listed - certificate number VFXT.EX9140

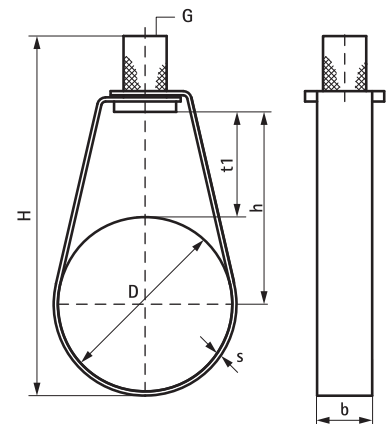


Cert.Nr.
3024336



Cert.Nr.
VFXT. EX9140

Part No.	D (mm)	D (")	DN	G	H (mm)	h (mm)	b x s (mm)	t1 (mm)	F _{a,z} (N)	FM	UL	Pack 1
4535021	23	1/2	15	M10	86	51	16 x 1.0	40	1,500	FM	UL	100
4535027	28	3/4	20	M10	86	48	16 x 1.0	34	1,500	FM	UL	100
4535034	35	1	25	M10	89	48	16 x 1.0	30	1,500	FM	UL	100
4535042	44	1 1/4	32	M10	98	52	16 x 1.0	30	1,500	FM	UL	100
4535048	50	1 1/2	40	M10	105	56	16 x 1.0	31	1,500	FM	UL	100
4535060	62	2	50	M10	117	61	16 x 1.0	30	1,500	FM	UL	100
4535076	77	2 1/2	65	M10	130	68	22 x 2.0	29	4,500	FM	UL	50
4535089	90	3	80	M10	143	74	22 x 2.0	28	4,500	FM	UL	50
4535114	115	4	100	M10	175	93	22 x 2.0	35	4,500	FM	UL	25
4535140	142	5	125	M12	213	111	25 x 3.0	40	5,200	FM	UL	20
4535168	170	6	150	M12	250	132	25 x 3.0	48	5,200	FM	UL	15
4535219	221	8	200	M12	312	167	25 x 3.0	56	5,200	FM	UL	10



Complementary

- 420 BIS Beam Clamp Model C
- 427 BIS Roofing Sheet Hanger VdS

BIS Sprinkler Clamp HD500 (BUP1000)

(B 12 05)

for sprinkler pipes 25 - 219 mm

M8 - M10 - M12 - M16

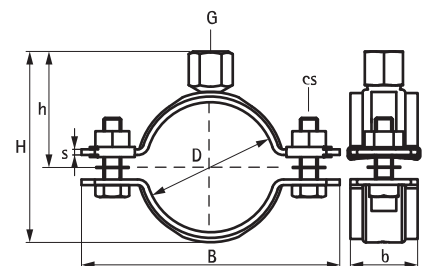


Features and Benefits

- two-part clamp with two locking bolts
- up to and including 5": locking nut is captive, hidden in plastic holder
- heavy design
- bolts secured with anti-loss washer
- with CO₂ welded connection nut
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- with VdS approval - certificate number G 4060019



Part No.	D (mm)	D (")	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	F _{a,z} (N)	VdS	Pack 1
4503027	25 - 30	3/4	20	M8	84	52	33	30 x 2.5	M8	2,700	VdS	25
4503033	31 - 36	1	25	M8	91	58	36	30 x 2.5	M8	2,700	VdS	25
4503042	40 - 45	1 1/4	32	M8	101	67	40	30 x 2.5	M8	2,700	VdS	25
4503048	47 - 52	1 1/2	40	M8	109	74	44	30 x 2.5	M8	2,700	VdS	25
4503060	59 - 65	2	50	M8	122	87	50	30 x 2.5	M8	2,700	VdS	25
4503076	72 - 78	2 1/2	65	M10	136	110	65	30 x 3.0	M8	5,000	VdS	25
4503089	86 - 92	3	80	M10	152	124	73	30 x 3.0	M8	5,000	VdS	25
4503114	108 - 116	4	100	M10	175	149	85	30 x 3.0	M8	5,000	VdS	25
4503139	132 - 140	5	125	M12	200	172	97	30 x 3.0	M8	5,000	VdS	25
4503168	159 - 169	6	150	M12	240	202	112	38 x 4.0	M10	5,800	VdS	15
4503219	208 - 219	8	200	M16	290	260	141	38 x 4.0	M10	5,800	VdS	15



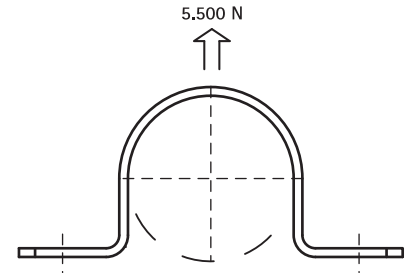
Complementary

- 420 BIS Beam Clamp Model C
- 427 BIS Roofing Sheet Hanger VdS

BIS Industrial Saddle

for steel pipes 26.9 - 273.0 mm

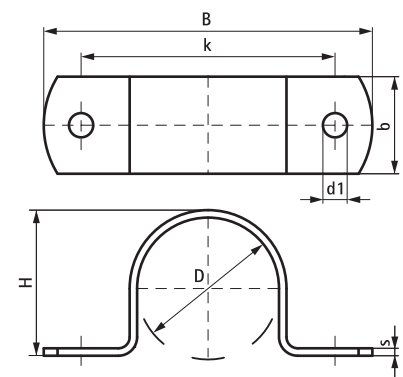
(B 15 05)



Features and Benefits

- one-part saddle
- material: steel
- hot dip galvanized

Part No.	D (mm)	D (°)	DN	B (mm)	H (mm)	b x s (mm)	d1 (mm)	k (mm)	F _{az} (N)	Pack 1
4608027	26.9	¾	20	88	30	25 x 2.5	Ø 9	58	5,500	50
4608033	33.7	1	25	94	36	25 x 2.5	Ø 9	64	5,500	50
4608042	42.4	1¼	32	103	45	25 x 2.5	Ø 9	73	5,500	50
4608048	48.3	1½	40	109	51	25 x 2.5	Ø 9	79	5,500	50
4608060	60.3	2	50	120	63	25 x 2.5	Ø 9	90	5,500	50
4608077	76.1	2½	65	137	80	25 x 2.5	Ø 9	107	5,500	50
4608089	88.9	3	80	149	92	25 x 2.5	Ø 9	119	5,500	50
4608114	114.3	4	100	180	118	30 x 4.0	Ø 11	150	5,500	50
4608140	139.7	5	125	206	144	30 x 4.0	Ø 11	176	5,500	25
4608168	168.3	6	150	234	172	40 x 4.0	Ø 11	204	5,500	20
4608273	273.0	10	250	363	278	40 x 5.0	15 x 10.5	333	5,500	20

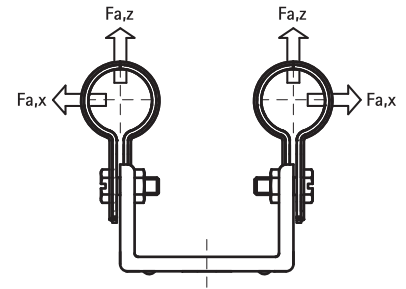


Alternative
65 BIS Pipe Saddle hdg

BIS Duplo Double Clamp

for steel heating pipes 15.0 - 33.7 mm

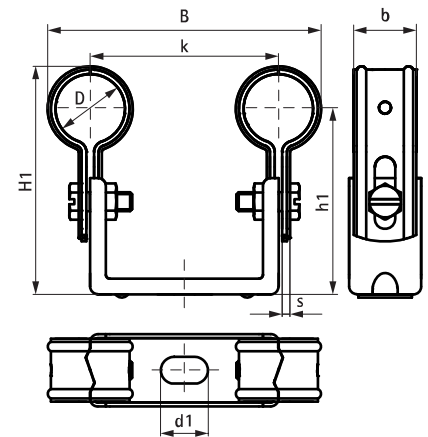
(B 20 05)



Features and Benefits

- two clamps on connection bracket
 - for fixing of two pipes
 - space saving
 - two parts of the clamp interlock
 - bracket reinforced for extra strength
 - tube insulation can easily be fitted
 - pre-galvanized
- adjustable distance between pipe and wall
 - material: steel

Part No.	D (mm)	D (°)	DN	B (mm)	b (mm)	s (mm)	d1 (mm)	k (mm)	H1 (mm)	h1 (mm)	F _{a,z} (N)	F _{a,x} (N)	Pack 1
3205015	15.0	-	-	79	20	1.5	8.5 x 15	60	58 - 74	48 - 64	100	200	50
3205022	22.0	1/2	15	89	20	1.5	8.5 x 15	60	65 - 81	51 - 67	100	200	50
3205028	28.0	3/4	20	93	20	2.0	8.5 x 15	60	52 - 68	68 - 84	110	330	25
3205033	33.7	1	25	98	20	2.0	8.5 x 15	60	78 - 94	57 - 73	110	330	25



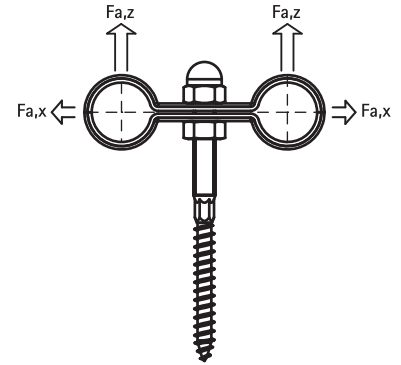
Alternative

- 34 BIS Duplo Double Clamp with Lining
- 99 BIS Duplo KS

BIS Double Wall Clamp

for steel heating pipes 15 - 28 mm

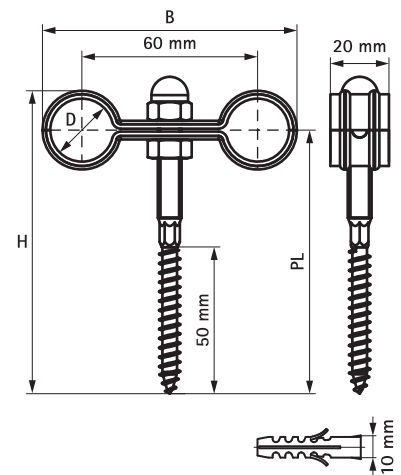
(B 20 15)



Features and Benefits

- for fixing of two pipes
 - two parts of the clamp interlock
 - bolt-wood screw with shoulder, making a lock nut unnecessary
 - pre-galvanized
- material: steel

Part No.	D (mm)	D (°)	DN	B (mm)	H (mm)	PL (mm)	F _{a,z} (N)	F _{a,x} (N)	Pack 1
3505015	15	-	-	80	100	90	230	200	50
3505022	22	1/2	15	87	104	90	230	200	50
3505028	28	3/4	20	93	107	90	230	330	50
3515015	15	-	-	80	120	110	230	200	25
3515022	22	1/2	15	87	124	110	230	200	25
3515028	28	3/4	20	93	127	110	230	330	25

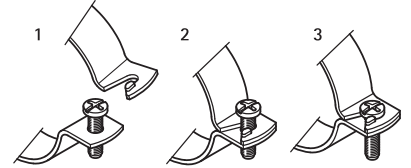


Alternative

- 35 BIS Double Wall Clamp with Lining
- 59 BIS Duplo Double Clamp

BIS Nail-in Clamp

(B 25 05)



Features and Benefits

- two-screw clamp on hammer-in stud
- clamp with quick locking system
- type ST: for gas-pipe and conduit-pipe
- type KA: for plastic pipe
- material: steel
- zinc plated

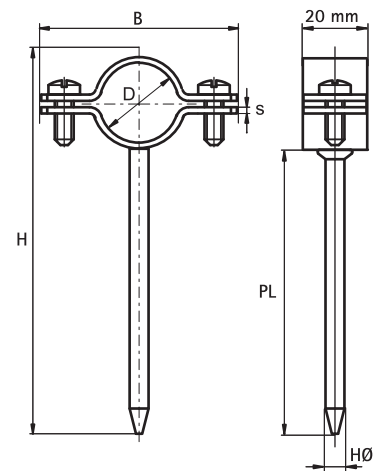
Part No.	D (")	DN	Type	B (mm)	H (mm)	s (mm)	PL (mm)	HØ (mm)	Pack 1
3861021	-	15	ST	55	109	1.15	80	5	100
3861027	3/4	20	ST	63	116	1.15	80	5	100
3861033	1	25	ST	66	120	1.15	80	5	100
3861043	1 1/4	32	ST	75	131	1.15	80	6	50
3861061	2	50	ST	97	152	2.00	80	6	50
3862040	-	40	KA	72	129	2.00	80	6	100
3862050	-	50	KA	86	139	2.00	80	6	100
3862070	-	70	KA	116	183	1.50	100	6	50
3862100	-	100	KA	144	217	1.50	100	6	25
3862125	-	125	KA	161	250	2.00	120	7	25
3862150	-	150	KA	196	285	2.00	120	7	25

ST = gas-pipe and conduit-pipe

KA = Plastic drain pipe.

Type ST also available with stud 150 mm (Part No. 387 1 XXX).

Other dimensions up to DN 200 can be supplied quickly.



BIS Pipe Hook

for steel pipes 17 - 63 mm

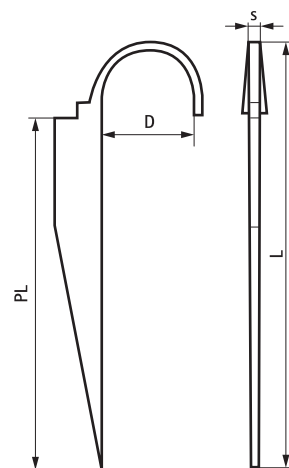
(B 25 10)



Features and Benefits

- one-part hammer-in clamp
- material: steel

Part No.	D (mm)	D (")	DN	L	s (mm)	PL (mm)	ST	Pack 1	Pack 2
0860017	17	3/8	10	69 mm	2.0	59	self colour	100	1,000
0860021	21	1/2	15	80 mm	2.0	62	self colour	100	1,000
0860027	27	3/4	20	93 mm	2.0	75	self colour	100	1,000
0861017	17	3/8	10	69 mm	2.0	59	zinc plated	100	1,000
0861021	21	1/2	15	80 mm	2.0	62	zinc plated	100	1,000
0861027	27	3/4	20	93 mm	2.0	75	zinc plated	100	1,000
0861033	35	1	25	111 mm	2.0	90	zinc plated	100	1,000
0861043	44	1 1/4	32	125 mm	2.0	74	zinc plated	100	500
0861048	52	1 1/2	40	140 mm	2.0	77	zinc plated	100	500
0861061	63	2	50	152 mm	3.5	86	zinc plated	100	500



BIS Pipe Clip (zp)

(B 30 44)

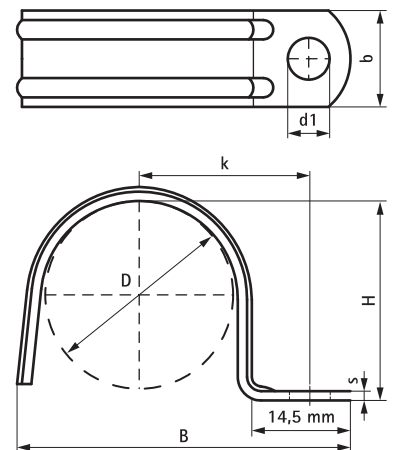
for cables, steel and PVC pipes 6 - 32 mm



Features and Benefits

- for diameters of more than 10 mm, the slotted hole allows to adjust small deviations of installations
- material: steel
- zinc plated
- for cables, steel and PVC pipes
- 2 nerves

Part No.	D (mm)	D (°)	DN	B (mm)	H (mm)	b x s (mm)	d1 (mm)	k (mm)	F _{a,z} (N)	Pack 1	Pack 2
0805106	6	-	-	24	4.5	15 x 0.8	∅ 6.5	12	300	100	4,000
0805108	8	-	-	26	6.5	15 x 0.8	∅ 6.5	13	300	100	4,000
0805110	10	1/8	6	28	8.5	15 x 0.8	∅ 6.5	14	300	100	2,000
0805112	12	1/4	8	30	10.5	15 x 0.8	∅ 6.5	15	300	100	2,000
0805115	15	-	-	33	13.5	15 x 0.8	∅ 6.5	17	300	100	2,000
0805116	16	3/8	10	35	14.5	15 x 0.8	∅ 6.5	18	300	100	2,000
0805118	18	-	-	37	16.5	15 x 0.8	∅ 6.5	37	300	100	1,000
0805120	20	1/2	15	40	18.5	15 x 1.2	∅ 6.5	20	300	100	1,000
0805122	22	-	-	42	21.0	15 x 1.2	∅ 6.5	22	300	100	1,000
0805125	25	-	-	45	24.5	15 x 1.2	∅ 6.5	22	300	100	1,000
0805126	26	3/4	20	46	25.0	15 x 1.2	∅ 6.5	24	300	100	1,000
0805132	32	1	25	53	30.0	15 x 1.2	∅ 6.5	27	300	100	1,200



BIS Pipe Saddle (zp)

(B 30 05)

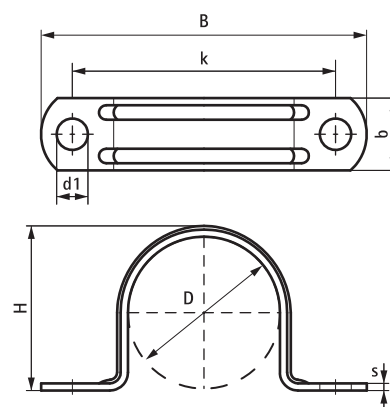
for cables, steel and PVC pipes 16 - 60 mm



Features and Benefits

- one-part saddle
- for diameters of more than 10 mm, the slotted hole allows to adjust small deviations of installations
- for cables, steel and PVC pipes
- 2 nerves
- material: steel
- zinc plated

Part No.	D (mm)	D (°)	DN	B (mm)	H (mm)	b x s (mm)	d1 (mm)	k (mm)	F _{a,z} (N)	Pack 1	Pack 2
0805017	16	3/8	10	47.5	16.3	15 x 0.8	Ø 6.5	34.5	1,000	100	1,000
0805021	20	1/2	15	53.8	20.3	12 x 1.2	Ø 6.5	40.8	1,500	100	1,000
0805022	22	-	-	55.5	23.3	15 x 1.2	Ø 6.5	42.5	1,500	100	1,000
0805025	25	-	-	58.0	27.8	15 x 1.2	Ø 6.5	45.0	1,500	100	1,000
0805027	26	3/4	20	58.5	28.3	15 x 1.2	Ø 6.5	45.5	1,500	100	1,200
0805028	28	-	-	60.5	30.3	15 x 1.2	Ø 6.5	47.5	1,500	100	1,200
0805033	32	1	25	65.5	32.8	15 x 1.2	Ø 6.5	52.5	1,500	50	500
0805043	42	1 1/4	32	84.0	43.2	20 x 1.2	8 x 6	68.0	2,000	50	600
0805048	47	1 1/2	40	93.0	46.2	20 x 1.2	8 x 6	68.0	2,000	50	600
0805061	60	2	50	105.0	60.2	20 x 1.2	8 x 6	89.0	2,000	50	500



BIS Pipe Saddle hdg

for steel pipes 21.5 - 60.3 mm

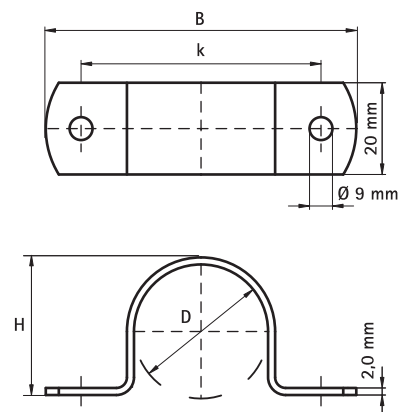
(B 30 10)



Features and Benefits

- one-part saddle
- material: steel
- hot dip galvanized

Part No.	D (mm)	D (°)	DN	B (mm)	H (mm)	k (mm)	F _{a,z} (N)	Pack 1
4601021	21.5	1/2	15	70	23	50	3,500	50
4601027	26.9	3/4	20	78	28	58	3,500	50
4601033	33.7	1	25	82	34	62	3,500	50
4601043	42.5	1 1/4	32	92	44	72	3,500	50
4601048	48.0	1 1/2	40	97	47	77	3,500	50
4601061	60.3	2	50	108	58	88	3,500	50



BIS Pipe Saddle (Copper)

(B 30 15)

for copper pipes 8 - 28 mm

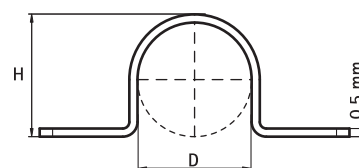
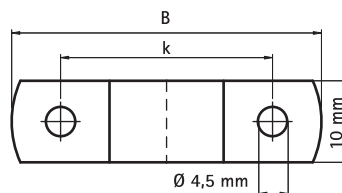


Features and Benefits

■ one-part saddle

■ material: copper 2.0060

Part No.	D (mm)	B (mm)	H (mm)	k (mm)	F _{a,z} (N)	Pack 1	Pack 2
4200008	8	34	9	22	15	100	500
4200010	10	38	11	26	25	100	500
4200012	12	40	13	28	50	100	500
4200015	15	43	16	31	65	100	500
4200022	22	50	23	38	100	100	500
4200028	28	56	29	44	150	100	500



BIS Decorative Pipe Clamp (Brass)

(B 30 35)

for copper pipes 12 - 35 mm

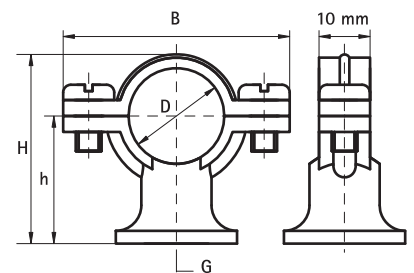
M6



Features and Benefits

- two-screw clamp
- material: brass

Part No.	D (mm)	G	B (mm)	H (mm)	h (mm)	F _{a,z} (N)	Pack 1	Pack 2
0828012	12	M6	33	26	17	700	100	1,500
0828015	15	M6	36	30	20	700	100	1,000
0828022	22	M6	48	38	24	700	50	500
0828028	28	M6	56	46	29	700	50	400
0828035	35	M6	63	56	35	700	25	250



BIS Earthing Clamp

for metal pipes 17.5 - 48.3 mm

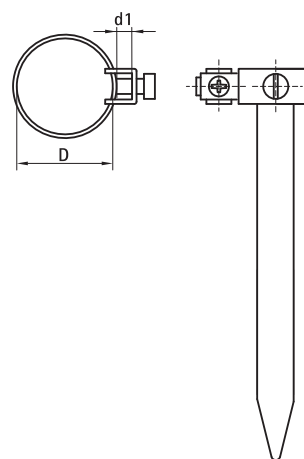
(B 30 50)



Features and Benefits

- screwholder brass nickel-plated; band bronze nickel-plated
- according to VDE 0190

Part No.	D (mm)	D (")	d1 (mm)	Pack 1
0868048	17.5 - 48.3	3/8 - 1 1/2	1 x 2.5 - 2 x 16 mm	10

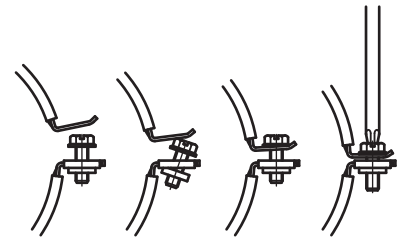


BIS 4000 (BUP1000)

for plastic pipes 32 - 200 mm

M8

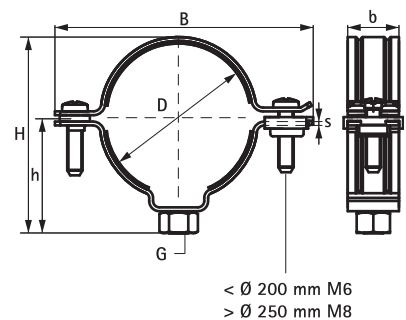
(B 35 05)



Features and Benefits

- two-screw clamp
- with quick locking system; will not open during installation
- with removable spacer washers, making the clamp suitable for either sliding or anchoring
- inside clamp diameter larger than outside pipe diameter for expansion or contraction of the pipe
- inside profile to protect pipes from damage
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	D (mm)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
4448032	32	25	M8	76	54	34	20 x 1.5	910	50
4448040	40	32	M8	83	61	37	20 x 1.5	910	50
4448050	50	40	M8	95	71	41	20 x 1.5	910	50
4448056	56	50	M8	101	77	45	20 x 1.5	910	50
4448063	63	57	M8	108	84	49	20 x 1.5	910	50
4448070	70	-	M8	114	91	52	20 x 1.5	910	50
4448075	75	70	M8	119	96	55	20 x 1.5	910	50
4448080	80	-	M8	124	101	57	20 x 1.5	910	50
4448090	90	80	M8	134	111	62	20 x 1.5	910	50
4448100	100	-	M8	144	121	67	20 x 1.5	910	50
4448110	110	100	M8	158	132	73	23 x 2.0	2,200	25
4448125	125	125	M8	173	148	81	23 x 2.0	2,200	25
4448160	160	150	M8	208	184	99	23 x 2.0	2,200	25
4448200	200	200	M8	248	225	120	23 x 2.0	2,200	25

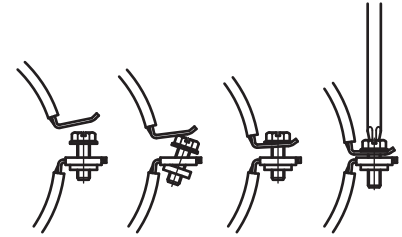


BIS 4000 (zp)

for plastic pipes 32 - 200 mm

M8

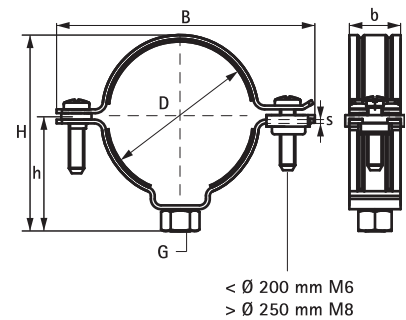
(B 35 10)



Features and Benefits

- two-screw clamp
- with quick locking system; will not open during installation
- with removable spacer washers, making the clamp suitable for either sliding or anchoring
- inside clamp diameter larger than outside pipe diameter for expansion or contraction of the pipe
- inside profile to protect pipes from damage
- material: steel 1.0332
- zinc plated

Part No.	D (mm)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
4443032	32	25	M8	76	54	34	20 x 1.5	910	50
4443040	40	32	M8	83	61	37	20 x 1.5	910	50
4443050	50	40	M8	95	71	41	20 x 1.5	910	50
4443056	56	50	M8	101	77	45	20 x 1.5	910	50
4443063	63	57	M8	108	84	49	20 x 1.5	910	50
4443070	70	-	M8	114	91	52	20 x 1.5	910	50
4443075	75	70	M8	119	96	55	20 x 1.5	910	50
4443080	80	-	M8	124	101	57	20 x 1.5	910	50
4443090	90	80	M8	134	111	62	20 x 1.5	910	50
4443100	100	-	M8	144	121	67	20 x 1.5	910	50
4443110	110	100	M8	158	132	73	23 x 2.0	2,200	25
4443125	125	125	M8	173	148	81	23 x 2.0	2,200	25
4443160	160	150	M8	208	184	99	23 x 2.0	2,200	25
4443200	200	200	M8	248	225	120	23 x 2.0	2,200	25

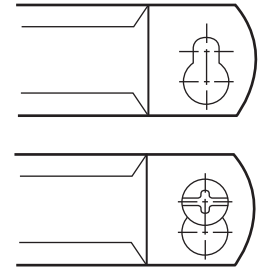


BIS 3000 (zp)

for plastic pipes 32 - 200 mm

M6 - M8

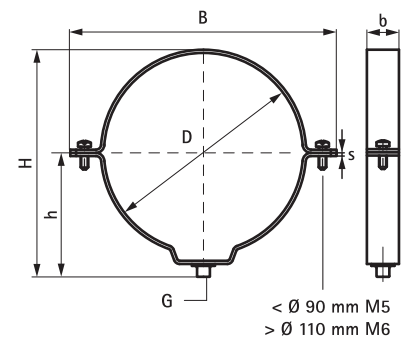
(B 35 15)



Features and Benefits

- two-screw clamp
- with 'keyhole closing'
- for rigid fixing point fastening it is necessary to use lining (Part No. 081 4 025)
- inside clamp diameter larger than outside pipe diameter for expansion or contraction of the pipe
- outside profile to protect pipes from damage
- material: steel
- zinc plated

Part No.	D (mm)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
0811032	32	25	M8	70	54	33	18 x 2.0	1,320	25
0811040	40	32	M8	82	67	40	20 x 2.0	1,320	25
0811050	50	40	M8	94	77	45	20 x 2.0	1,320	25
0811056	56	50	M8	102	81	46	20 x 2.0	1,320	50
0811063	63	57	M8	109	89	51	20 x 2.0	1,320	25
0811070	70	-	M8	116	92	51	20 x 2.0	1,320	50
0811075	75	70	M8	121	99	56	20 x 2.0	1,320	100
0811080	80	-	M8	131	103	57	20 x 2.0	1,320	50
0811090	90	80	M8	136	114	63	20 x 2.0	1,320	100
0811100	100	-	M8	146	124	68	20 x 2.0	1,320	50
0811110	110	100	M8	163	135	73	25 x 2.5	2,070	25
0811125	125	125	M8	178	149	80	25 x 2.5	2,070	25
0811140	140	-	M8	193	164	88	25 x 2.5	2,070	25
0811160	160	150	M8	213	184	98	25 x 2.5	2,070	25
0811180	180	-	M8	236	204	108	25 x 2.5	2,070	25
0811200	200	200	M8	256	224	118	25 x 2.5	2,070	25



Complementary

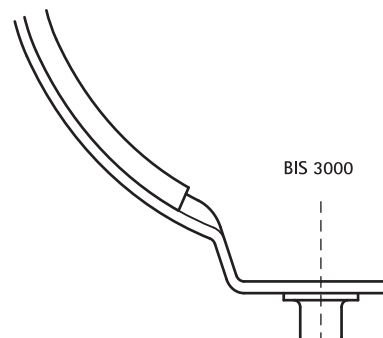
- 401 BIS Fixing Accessories
- 485 BIS Fastenings
- 72 BIS Lining 3000 Clamp

Alternative

- 73 BIS 434 Clamp for PE-Pipe

BIS Lining 3000 Clamp

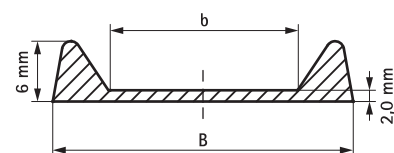
(B 35 20)



Features and Benefits

- to be used in combination with BIS Clamp 3000 (Part No. 081 1 XXX) working temperature from -20 °C to +40 °C
- material: LDPE (low density polyethylene), grey

Part No.	L	B (mm)	b (mm)	Pack 1	App.
0814025	25 m	25	15	25	m.

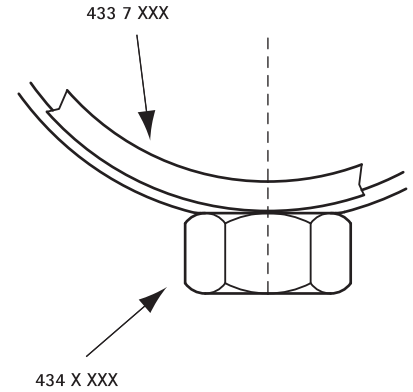


BIS 434 Clamp for PE-Pipe

(B 35 25)

for PE-pipes 25 - 315 mm

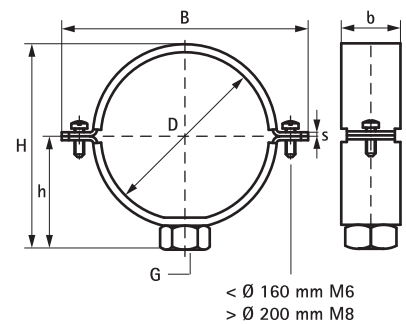
M10 - G1/2" - G1"



Features and Benefits

- two-screw clamp
- as guiding clamp for PE-Pipe
- for rigid fixing point fastening it is necessary to use metal clamp liners (Part No. 433 7 XXX)
- screws secured with anti-loss washer
- material: steel
- zinc plated

Part No.	D (mm)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
4343025	25	-	M10	66	48	27	30 x 3.0	1,100	50
4343032	32	25	M10	75	55	35	30 x 3.0	1,100	50
4343040	40	32	M10	82	63	37	30 x 3.0	1,100	50
4343050	50	40	M10	92	73	42	30 x 3.0	1,100	50
4343056	56	50	M10	98	79	45	30 x 3.0	1,100	50
4343063	63	57	M10	105	86	48	30 x 3.0	1,100	50
4343075	75	70	M10	117	98	54	30 x 3.0	1,100	25
4343080	82	-	M10	122	102	58	30 x 3.0	1,100	25
4343090	90	80	M10	132	113	62	30 x 3.0	1,100	25
4343100	102	-	M10	142	122	67	30 x 3.0	1,100	25
4343110	110	100	M10	152	133	72	30 x 3.0	1,100	25
4343125	125	125	M10	167	148	79	30 x 3.0	1,100	25
4343160	160	150	M10	202	185	98	30 x 3.0	1,100	25
4343200	200	200	M10	278	223	117	38 x 4.0	6,200	12
4343250	250	250	M10	328	273	142	38 x 4.0	6,200	8
4343315	315	315	M10	393	338	174	38 x 4.0	6,200	8
4383032	32	25	G1/2"	75	60	40	30 x 3.0	1,100	50
4383040	40	32	G1/2"	82	68	42	30 x 3.0	1,100	50
4383050	50	40	G1/2"	92	78	47	30 x 3.0	1,100	50
4383056	56	50	G1/2"	98	84	50	30 x 3.0	1,100	50
4383063	63	57	G1/2"	105	91	53	30 x 3.0	1,100	50
4383075	75	70	G1/2"	117	103	59	30 x 3.0	1,100	25
4383090	90	80	G1/2"	132	118	67	30 x 3.0	1,100	25
4383110	110	100	G1/2"	152	138	77	30 x 3.0	1,100	25
4383125	125	125	G1/2"	167	153	84	30 x 3.0	1,100	25
4383140	125	-	G1/2"	182	163	87	30 x 3.0	1,100	25
4383160	160	150	G1/2"	202	188	102	30 x 3.0	1,100	25
4383161	160	150	G1"	237	187	101	38 x 4.0	6,200	15
4383200	200	200	G1"	278	230	123	38 x 4.0	6,200	12
4383225	225	-	G1"	303	254	135	38 x 4.0	6,200	12
4383250	250	250	G1"	325	280	153	38 x 4.0	6,200	8
4383315	315	300	G1"	393	345	181	38 x 4.0	6,200	8



EN-INT 05/2020- Subject to modifications

Complementary

- 401 BIS Fixing Accessories
- 485 BIS Fastenings
- 74 BIS Metal Liner 434 Clamp

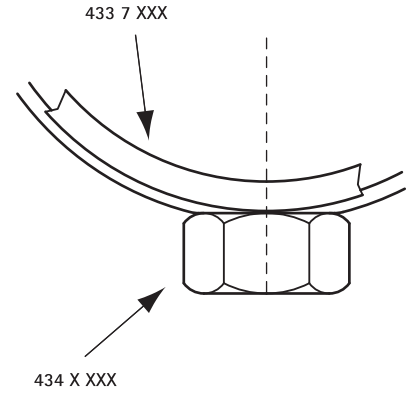
Complementary

- 75 BIS Lining 434 Clamp

BIS Metal Liner 434 Clamp

40 - 315 mm

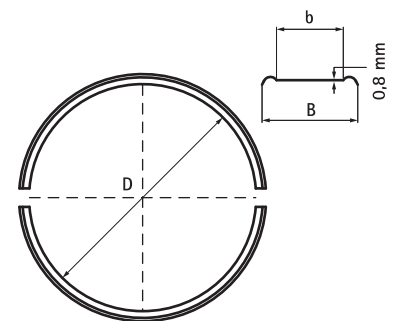
(B 35 30)



Features and Benefits

- two-part identical clamp liners
- to create a rigid fixing point, suitable for pipe clamp for PE pipe type 434
- profiled
- material: chrome steel 1.4016 (AISI 430)

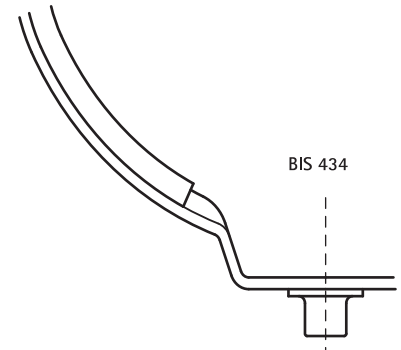
Part No.	D (mm)	DN	B (mm)	b (mm)	Pack 1
4337040	40	32	42	30	25
4337050	50	40	42	30	25
4337056	56	50	42	30	25
4337063	63	57	42	30	25
4337075	75	70	42	30	25
4337090	90	80	42	30	25
4337110	110	100	42	30	25
4337125	125	125	42	30	25
4337160	160	150	42	30	25
4337200	200	200	54	38	10
4337250	250	250	54	38	10
4337315	315	300	54	38	10



BIS Lining 434 Clamp

(B 35 35)

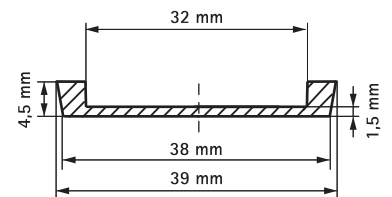
to be used in combination with BIS Clamp 434 up to and including D = 160 mm



Features and Benefits

- to avoid damage to the pipe
- material: PVC (polyvinylchloride), black (with small addition of plasticizers)
- temperature resistance up to +55 °C

Part No.	L	Pack 1	App.
4389930	10 m	10	roll



BIS Hinged Pipe Clamp 400 (Round)

(B 40 05)

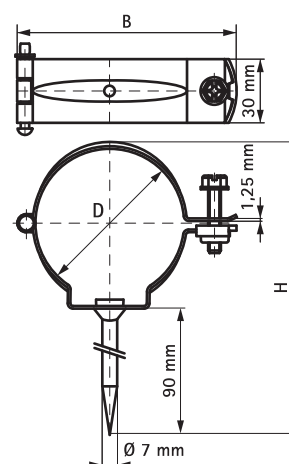
for rain water pipes 80 - 100 mm



Features and Benefits

- with quick locking system, type KSB
- for fixing of round rain water pipes
- locking screw: combi slot screw
- material: steel
- locking screw(s) from stainless steel
- clamp: hot dip galvanized

Part No.	D (mm)	B (mm)	H (mm)	Pack 1
4001080	80	115	179	25
4001100	100	135	201	20



BIS Hinged Pipe Clamp 400 (Square)

(B 40 10)

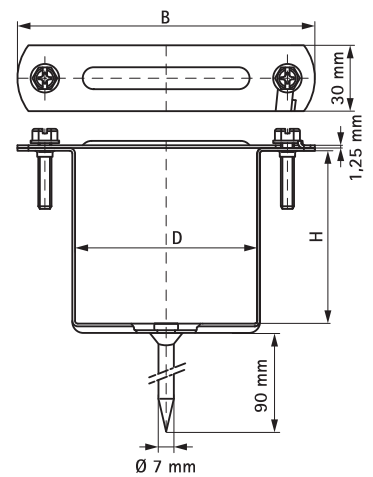
for rain water pipes 80 - 100 mm



Features and Benefits

- with quick locking system
- for fixing of square rain water pipe
- locking screws: 2 combi slot screws
- material: steel
- locking screw(s) from stainless steel
- clamp: hot dip galvanized

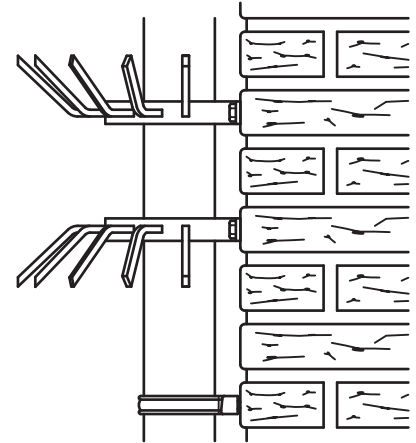
Part No.	D (mm)	B (mm)	H (mm)	Pack 1
4031080	80	136	183	20
4031100	100	155	202	20



BIS Intruder Deterrent Clamp

(B 40 20)

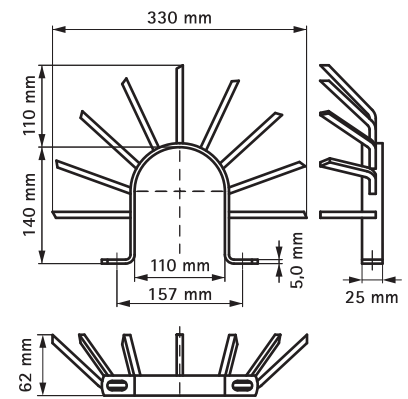
deters climbing by using a rain water downpipe 110 mm



Features and Benefits

- mounting per 2 clamps around the pipe
- hot dip galvanized
- (one clamp with claws pointed upwards, the other one with claws downwards)
- material: steel

Part No.	Pack 1
4191810	10



C BIS Plastic Pipe Clamps



BIS starQuick®

BIS starQuick® Clamp (Grey)	81
BIS starQuick® Clamp (Grey) - Ø 73 - 115 mm	82
BIS starQuick® Clamp (White)	83
BIS starQuick® Clamp (Copper Colour)	84
BIS starQuick® Clamp - M6 (Grey)	85
BIS starQuick® Duo Wall Plate	86
BIS starQuick® Threaded Rod Adaptor	87
BIS starQuick® Distance Block	88
BIS starQuick® Hammer-in Screw	89
BIS starQuick® Rail	90
BIS starQuick® Rail Adaptor	91
BIS starQuick® Universal Rail Adaptor	92
BIS starQuick® Fixing Nut	93
BIS starQuick® Push Plug	94
BIS starQuick® Hammerfix	95



BIS Clamps and Clips

BIS Push-fit Saddle - Single (White)	96
BIS Push-fit Saddle - Double (White)	97
BIS ARAYTUB	98
BIS Duplo KS	99



BIS PVC Clamps for Drain Pipe

BIS PVC Pipe Clamp	100
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BIS Accessories for PVC Pipe Clamps

BIS Nail Fixing	101
BIS Threaded Connector	102
BIS Expansion Joint Bracket	103



BIS PVC Saddles

BIS PVC Saddle	104
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BIS Leaf Traps

BIS Leaf Trap	105
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starQuick®

For heating and plumbing installations

starQuick®

- Self-closing clamp: quick and easy pipe fixing
- For all pipe types in Ø 10 - 65 mm
- For heating and plumbing installations
- Plastic clamps and accessories are corrosion free
- Full range of accessories for easy fixing to all surfaces, strut and threaded rod
- A versatile solution



Push pipe into clamp. Done!

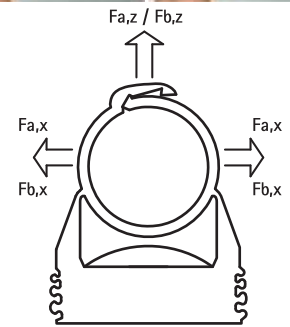


Done!

BIS starQuick® Clamp (Grey)

(C 05 05)

to fix pipes for electrical and mechanical installations to wall, floor or ceiling 10 - 65 mm



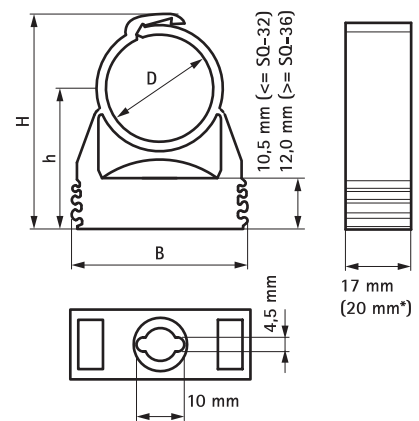
Features and Benefits

- one-part clamp
- clamp closes by applying pressure to the pipe
- for outdoor use and installations in swimming pool environments, chemical factories, zinc factories, etc.
- due to a patented profile it is possible to tack several clamps to each other
- material: modified PA6 (polyamide), grey (according to RAL 7035)
- resistant to UV, ageing, oil and petrol
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

kiwa



Part No.	D (mm)	D (°)	DN	Type	B (mm)	H (mm)	h (mm)	F _{a,z} (N)	F _{b,z} (N)	KIWA	UL	UPC	Pack 1	Pack 2
0854010	10 - 12	1/8	6	SQ-10	29	32	23	170	500	-	UL	UPC	100	1,200
0854012	12 - 14	1/4	8	SQ-12	29	34	23	180	550	KIWA	UL	UPC	100	1,200
0854015	14 - 16	-	-	SQ-15	29	36	24	200	600	KIWA	UL	UPC	100	1,200
0854018	16 - 20	3/8	10	SQ-17	29	40	26	230	700	KIWA	UL	UPC	100	800
0854022	20 - 23	1/2	15	SQ-20	29	44	27	270	800	KIWA	UL	UPC	50	600
0854028	24 - 28	3/4	20	SQ-25	40	50	31	280	850	KIWA	UL	UPC	50	600
0854031	28 - 32	-	-	SQ-28	40	53	32	300	900	KIWA	UL	UPC	50	400
0854035	32 - 35	1	25	SQ-32	43	57	34	330	1,000	KIWA	UL	UPC	50	400
0854038	35 - 40	-	-	SQ-36	47	66	41	370	1,100	KIWA	UL	UPC	25	300
0854042	40 - 44	1 1/4	32	SQ-40	52	70	42	400	1,200	KIWA	UL	UPC	25	200
0854050	44 - 50	-	-	SQ-47	57	76	45	430	1,300	-	UL	UPC	25	200
0854054	48 - 55	1 1/2	40	SQ-51	63	81	47	470	1,400	-	UL	UPC	15	180
0854063	59 - 65	2	50	SQ-59	74	94	55	500	1,500	-	UL	UPC	15	180



* BIS starQuick® Ø 59 - 65 mm

$F_{a,x} = F_{a,z} / F_{b,x} = F_{b,z}$
 Maximum allowed load at a temperature of +21 °C (+70 °F) and fixing with M6 BIS starQuick® nut + M6 steel treaded rod.

The values are recommended values and based on our nowadays technical knowledge, experience and statements in the literature as well as testing under laboratory circumstances. They do not relieve the user of own testing of the end product due to the big number of parameter of influence in the mounting process and the application. A legal confirmed assurance of properties or the suitability for a specific application cannot be based on our specifications.

Complementary

- 86 BIS starQuick® Duo Wall Plate
- 89 BIS starQuick® Hammer-in Screw
- 93 BIS starQuick® Fixing Nut

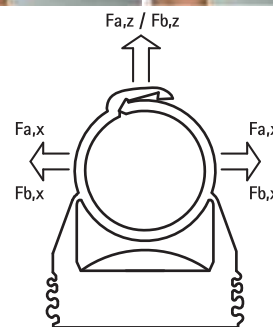
Alternative

- 85 BIS starQuick® Clamp - M6 (Grey)

BIS starQuick® Clamp (Grey)

(C 05 07)

to fix pipes for electrical and mechanical installations to wall, floor or ceiling 71 - 115 mm

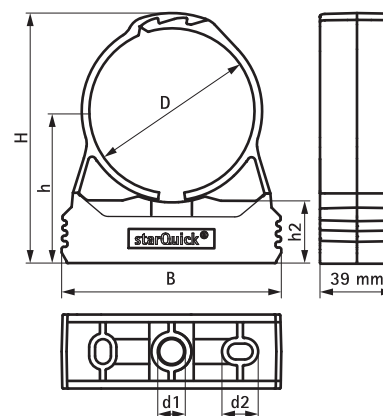


Features and Benefits

- one-part clamp
- clamp closes by applying pressure to the pipe, use hands for full closing
- clamp can be mounted to wall, floor or ceiling by use of two bolts (outer slots) or by using a standard Walraven slide nut (middle hole) and screwing the clamp on a threaded rod
- for outdoor use and installations in swimming pool environments, chemical factories, zinc factories, etc.
- material: modified PA6 (polyamide), grey (according to RAL 7035)
- resistant to UV, ageing, oil and petrol
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

Part No.	D (mm)	D (")	DN	B (mm)	H (mm)	h (mm)	d1 (mm)	d2 (mm)	h2 (mm)	F _{a,z} (N)	Pack 1
08541075	71 - 76	2½	65	105	116	75	Ø 10.5	13 x 8.3	28	650	50
08541090	88 - 93	3	80	115	133	85	Ø 13.0	13 x 8.3	32	730	40
08541110	109 - 115	4	100	145	165	105	Ø 13.0	15 x 10.5	35	1,200	25

Part no. 0854 1 075: use M8 bolts (for outer slots) or M10 Walraven slide nut to connect to M10 threaded rods (for middle hole).
 Part no. 0854 1 090: use M8 bolts (for outer slots) or M12 Walraven slide nut to connect to M12 threaded rods (for middle hole).
 Part no. 0854 1 110: use M10 bolts (for outer slots) or M12 Walraven slide nut to connect to M12 threaded rods (for middle hole).
 $F_{a,x} = F_{a,z} / F_{b,x} = F_{b,z}$
 Maximum allowed load at a temperature of +21 °C (+70 °F) and fixing with BIS Strut Slide Nut M12 + BIS Threaded Rod M12.
 The values are recommended values and based on our nowadays technical knowledge, experience and statements in the literature as well as testing under laboratory circumstances. They do not relieve the user of own testing of the end product due to the big number of parameter of influence in the mounting process and the application. A legal confirmed assurance of properties or the suitability for a specific application cannot be based on our specifications.



Complementary

- 251 BIS Strut Slide Nut (zp)
- 252 BIS Strut Slide Nut (hdg)
- 224 BIS RapidStrut® Fixing Rail (pg)

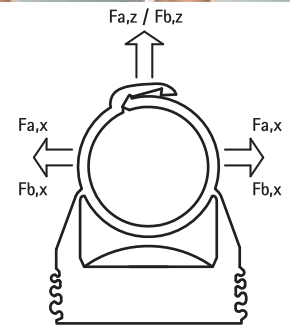
Complementary

- 250 BIS Strut Slide Nut (BUP1000)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS starQuick® Clamp (White)

(C 05 10)

to fix pipes for electrical and mechanical installations to wall, floor or ceiling 10 - 65 mm



Features and Benefits

- one-part clamp
- clamp closes by applying pressure to the pipe
- for outdoor use and installations in swimming pool environments, chemical factories, zinc factories, etc.
- due to a patented profile it is possible to tack several clamps to each other
- material: modified PA6 (polyamide), white (according to RAL 9003)
- resistant to UV, ageing, oil and petrol
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

kiwa

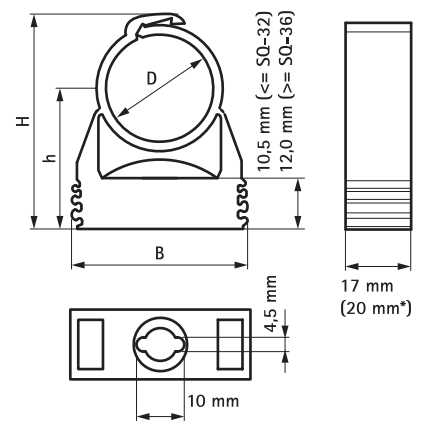


Part No.	D (mm)	D (")	DN	Type	B (mm)	H (mm)	h (mm)	F _{a,z} (N)	F _{b,z} (N)	KIWA	UPC	Pack 1	Pack 2
0855010	10 - 12	1/8	6	SQ-10	29	32	23	170	500	-	UPC	100	1,200
0855012	12 - 14	1/4	8	SQ-12	29	34	23	180	550	KIWA	UPC	100	1,200
0855015	14 - 16	-	-	SQ-15	29	36	24	200	600	KIWA	UPC	100	1,200
0855018	16 - 20	3/8	10	SQ-17	29	40	26	230	700	KIWA	UPC	100	800
0855022	20 - 23	1/2	15	SQ-20	29	44	27	270	800	KIWA	UPC	50	600
0855028	24 - 28	3/4	20	SQ-25	40	50	31	280	850	KIWA	UPC	50	600
0855031	28 - 32	-	-	SQ-28	40	53	32	300	900	KIWA	UPC	50	400
0855035	32 - 35	1	25	SQ-32	43	57	34	330	1,000	KIWA	UPC	50	400
0855038	35 - 40	-	-	SQ-36	47	66	41	370	1,100	KIWA	UPC	25	300
0855042	40 - 44	1 1/4	32	SQ-40	52	70	42	400	1,200	KIWA	UPC	25	200
0855050	44 - 50	-	-	SQ-47	57	76	45	430	1,300	-	UPC	25	200
0855054	48 - 55	1 1/2	40	SQ-51	63	81	47	470	1,400	-	UPC	15	180
0855063	59 - 65	2	50	SQ-59	74	94	55	500	1,500	-	UPC	15	180

$$F_{a,x} = F_{a,z} / F_{b,x} = F_{b,z}$$

Maximum allowed load at a temperature of +21 °C (+70 °F) and fixing with M6 BIS starQuick® nut + M6 steel threaded rod.

The values are recommended values and based on our nowadays technical knowledge, experience and statements in the literature as well as testing under laboratory circumstances. They do not relieve the user of own testing of the end product due to the big number of parameter of influence in the mounting process and the application. A legal confirmed assurance of properties or the suitability for a specific application cannot be based on our specifications.



* BIS starQuick® Ø 59 - 65 mm

Complementary

- 86 BIS starQuick® Duo Wall Plate
- 89 BIS starQuick® Hammer-in Screw
- 93 BIS starQuick® Fixing Nut

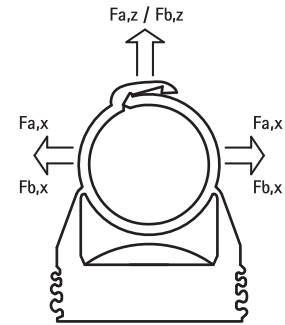
Alternative

- 81 BIS starQuick® Clamp (Grey)

BIS starQuick® Clamp (Copper Colour)

(C 05 12)

to fix pipes for electrical and mechanical installations to wall, floor or ceiling 12 - 32 mm



Features and Benefits

- one-part clamp
- clamp closes by applying pressure to the pipe
- for outdoor use and installations in swimming pool environments, chemical factories, zinc factories, etc.
- due to a patented profile it is possible to tack several clamps to each other
- material: modified PA6 (polyamide), copper colour
- resistant to UV, ageing, oil and petrol
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

kiwa

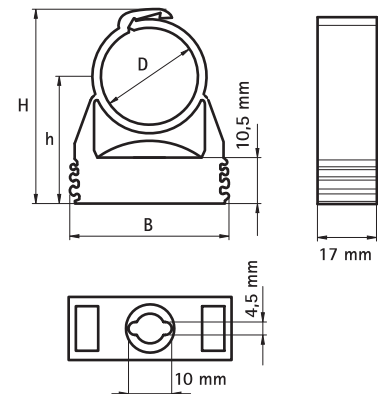


Part No.	D (mm)	D (°)	DN	Type	B (mm)	H (mm)	h (mm)	F _{a,z} (N)	F _{b,z} (N)	KIWA	UPC	Pack 1	Pack 2
0855812	12 - 14	1/4	8	SQ-12	29	34	23	180	550	KIWA	UPC	100	1,200
0855815	14 - 16	-	-	SQ-15	29	36	24	200	600	KIWA	UPC	100	1,200
0855818	16 - 20	3/8	10	SQ-17	29	40	26	230	700	KIWA	UPC	100	800
0855822	20 - 23	1/2	15	SQ-20	29	44	27	270	800	KIWA	UPC	50	600
0855828	24 - 28	3/4	20	SQ-25	40	50	31	280	850	KIWA	UPC	50	600
0855831	28 - 32	-	-	SQ-28	40	53	32	300	900	KIWA	UPC	50	400

$$F_{a,x} = F_{a,z} / F_{b,x} = F_{b,z}$$

Maximum allowed load at a temperature of +21 °C (+70 °F) and fixing with M6 BIS starQuick® nut + M6 steel threaded rod.

The values are recommended values and based on our nowadays technical knowledge, experience and statements in the literature as well as testing under laboratory circumstances. They do not relieve the user of own testing of the end product due to the big number of parameter of influence in the mounting process and the application. A legal confirmed assurance of properties or the suitability for a specific application cannot be based on our specifications.



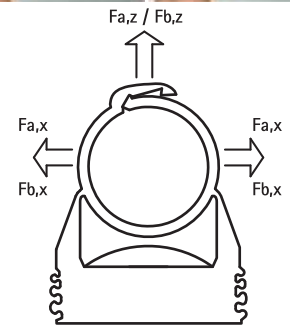
Complementary

- 89 BIS starQuick® Hammer-in Screw
- 93 BIS starQuick® Fixing Nut

BIS starQuick® Clamp – M6 (Grey)

(C 05 15)

to fix pipes for electrical and mechanical installations to wall, floor or ceiling 12 - 55 mm



Features and Benefits

- one-part clamp
- clamp closes by applying pressure to the pipe
- for outdoor use and installations in swimming pool environments, chemical factories, zinc factories, etc.
- due to a patented profile it is possible to tack several clamps to each other
- with pre-assembled connection nut M6
- material: modified PA6 (polyamide), grey (according to RAL 7035)
- resistant to UV, ageing, oil and petrol
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

kiwa

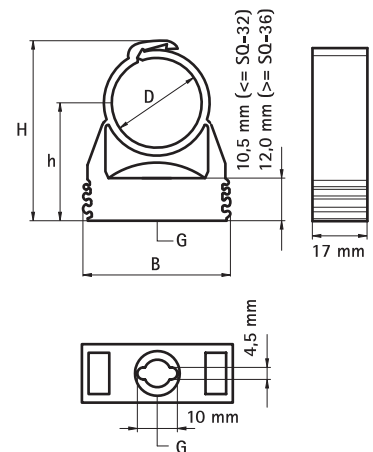


Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	F _{a,z} (N)	F _{b,z} (N)	KIWA	UL	UPC	Pack 1	Pack 2
0854612	12 - 14	1/4	8	M6	29	34	23	180	550	KIWA	UL	UPC	100	1,200
0854615	14 - 16	-	-	M6	29	36	24	200	600	KIWA	UL	UPC	100	1,200
0854618	16 - 20	3/8	10	M6	29	40	26	230	700	KIWA	UL	UPC	100	800
0854622	20 - 23	1/2	15	M6	29	44	27	270	800	KIWA	UL	UPC	50	600
0854628	24 - 28	3/4	20	M6	40	50	31	280	850	KIWA	UL	UPC	50	600
0854631	28 - 32	-	-	M6	40	53	32	300	900	KIWA	UL	UPC	50	400
0854635	32 - 35	1	25	M6	43	57	34	330	1,000	KIWA	UL	UPC	50	400
0854638	35 - 40	-	-	M6	47	66	41	370	1,100	KIWA	UL	UPC	25	300
0854642	40 - 44	1 1/4	32	M6	52	70	42	400	1,200	KIWA	UL	UPC	25	200
0854650	44 - 50	-	-	M6	57	76	45	430	1,300	-	UL	UPC	25	200
0854654	48 - 55	1 1/2	40	M6	63	81	47	470	1,400	-	UL	UPC	15	180

$F_{a,x} = F_{a,z} / F_{b,x} = F_{b,z}$

Maximum allowed load at a temperature of +21 °C (+70 °F) and fixing with M6 BIS starQuick® nut + M6 steel threaded rod.

The values are recommended values and based on our nowadays technical knowledge, experience and statements in the literature as well as testing under laboratory circumstances. They do not relieve the user of own testing of the end product due to the big number of parameters of influence in the mounting process and the application. A legal confirmed assurance of properties or the suitability for a specific application cannot be based on our specifications.



Complementary

- 485 BIS Fastenings
- 94 BIS starQuick® Push Plug
- 356 Britclips® FC M6 x 9

BIS starQuick® Duo Wall Plate

(C 05 20)

accessories BIS starQuick® Pipe Clamps without Nut

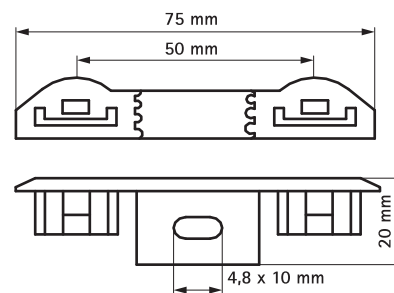


Features and Benefits

- for fixing of two pipes with BIS starQuick® Clamps
- suitable for BIS starQuick® Clamps up to SQ-20
- the distance between the pipe and the wall is equal to that of a single clip
- material: modified PA6 (polyamide), grey or white
- resistant to UV, ageing, oil and petrol
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

Part No.	Model	Colour	F _{a,z} (N)	Pack 1	Pack 2
0854000	-	Grey (RAL 7035)	600	100	1,200
0855000	-	White (RAL 9003)	600	100	1,200
0854300	With hammer-in screw	Grey (RAL 7035)	600	50	600

Hammer-in screw: suitable for fixing into concrete, aerated concrete, brick.



Complementary

89 BIS starQuick® Hammer-in Screw

Alternative

90 BIS starQuick® Rail

BIS starQuick® Threaded Rod Adaptor

(C 05 25)

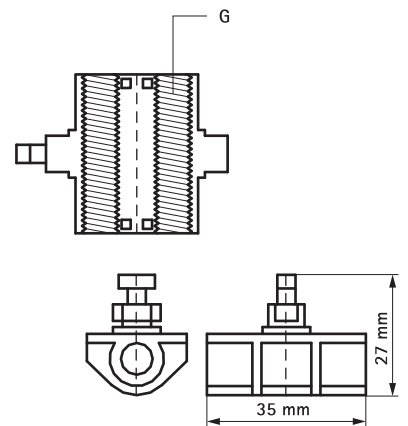
accessories BIS starQuick® Pipe Clamps without Nut



Features and Benefits

- to fix a BIS starQuick® Clamp to a threaded rod
- to add pipework quickly and simply to an existing installation
- suitable for SQ-10 up to SQ-51
- material: PA (polyamide), grey (according to RAL 7035)
- resistant to UV, ageing, oil and petrol
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

Part No.	Model	G	Pack 1	Pack 2
0854356	SQ10 - SQ51	M6	100	1,200
0854358	SQ10 - SQ51	M8	100	1,200



BIS starQuick® Distance Block

(C 05 30)

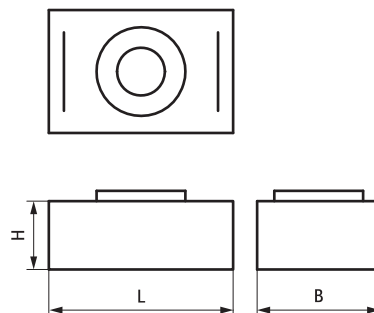
accessories BIS starQuick® Pipe Clamps without Nut



Features and Benefits

- for clamp fixing with a distance to the structure
- for screwing a clip to a distance block, use a screw of at least 55 mm
- suitable for SQ-10 up to SQ-36
- a BIS starQuick® Clip can easily be stacked to a distance block
- for a larger stand off, distance blocks can be clicked together
- material: modified PA6 (polyamide), grey (according to RAL 7035)
- resistant to UV, ozone and chemicals
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

Part No.	L	B (mm)	Pack 1	Pack 2
0854510	27 mm	17	25	250



BIS starQuick® Hammer-in Screw

(C 05 35)

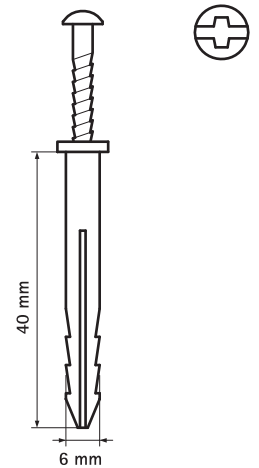
accessories BIS starQuick® Pipe Clamps without Nut



Features and Benefits

- for fixing of BIS starQuick® Clamps without nut
- suitable for fixing onto concrete, aerated concrete, brick
- material: screw made of steel, plug made of PA (polyamide), grey

Part No.	Pack 1	Pack 2
0854301	25	250



BIS starQuick® Rail

(C 05 45)

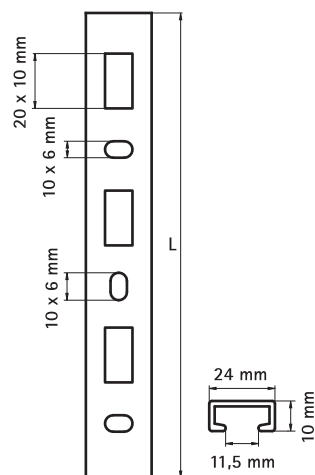
accessories BIS starQuick® Pipe Clamps without Nut



Features and Benefits

- for fixing of two or more pipes with BIS starQuick® Clamps without nut
- the BIS starQuick® Clamp is fixed to the rail by mean of the BIS starQuick® Rail Adaptor (Part No. 085 4 313)
- material: PVC (polyvinylchloride), grey (according to RAL 7035)

Part No.	L	Pack 1	Pack 2
0854316	150 mm	50	400
0854325	1 m	25	-



BIS starQuick® Rail Adaptor

(C 05 50)

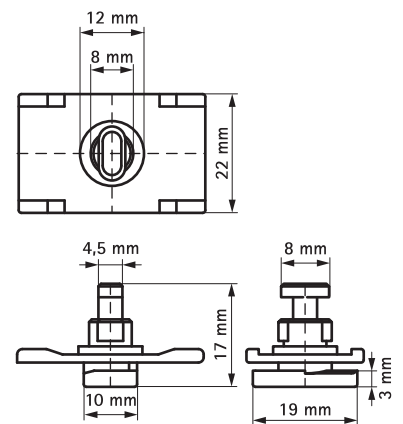
accessories BIS starQuick® Rail



Features and Benefits

- suitable for BIS starQuick® Clamps up to SQ-32
- for fixing of a BIS starQuick® Clamp (without nut) on a BIS starQuick® Rail or on a Strut-Adaptor (Part No. 085 4 331)
- material: modified PA6 (polyamide), grey (according to RAL 7035)
- resistant to UV, ageing, oil and petrol
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

Part No.	For	Pack 1	Pack 2
0854313	BIS starQuick®	20	200



BIS starQuick® Universal Rail Adaptor

(C 05 57)

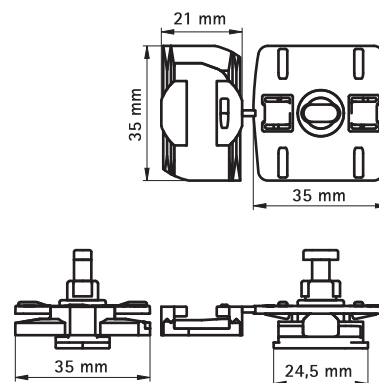
accessories BIS starQuick® Pipe Clamps without Nut



Features and Benefits

- for fixing BIS starQuick® Clamps to BIS RapidRail® or Strut Rail
- to add pipework quickly and simply to an existing installation
- suitable for SQ-10 up to SQ-51
- suitable for WMO, 1, 15, 2, 30, 35 + Strut
- material: modified PA6 (polyamide), grey (according to RAL 7035)
- resistant to UV, ageing, oil and petrol
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

Part No.	For Rail	Pack 1	Pack 2
0854332	WMO - 35 + Strut	50	600



BIS starQuick® Fixing Nut

(C 05 65)

accessories BIS starQuick® Pipe Clamps without Nut

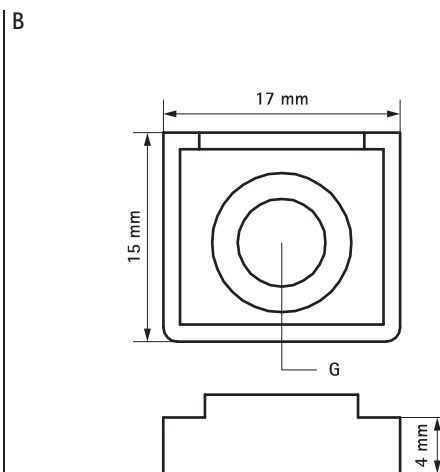
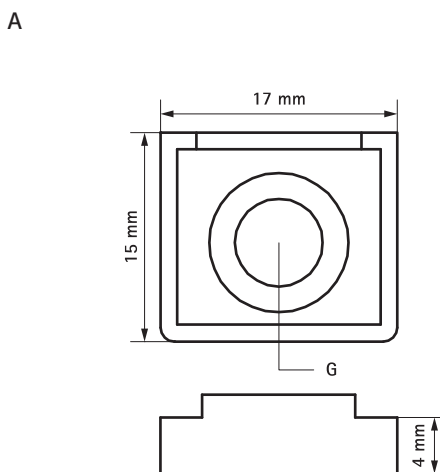


Features and Benefits

- to make a threaded connection in a BIS starQuick® Clamp
- entirely integrated in clamp (not protruding)
- material: PC (polycarbonate), grey or white
- no corrosion
- temperature resistance from approx. -35 °C to approx. +110 °C (constant); short to approx. +125 °C



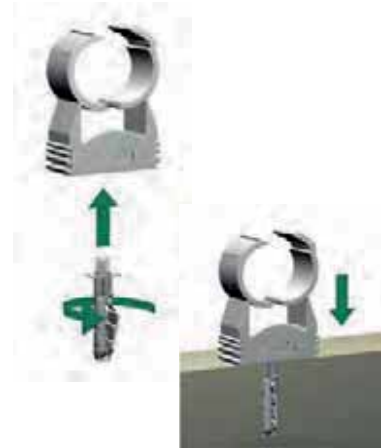
Part No.	G	Colour	Pack 1	Pack 2
A 0854006	M6	Grey (RAL 7035)	100	1,000
B 0855006	M6	White (RAL 9003)	100	1,000
A 0854308	M8	Grey (RAL 7035)	100	1,000



BIS starQuick® Push Plug

(C 05 75)

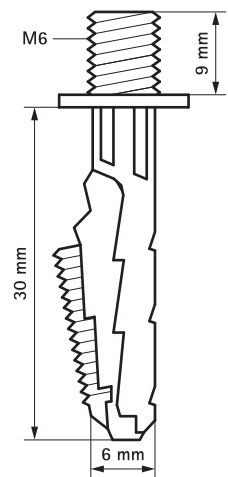
accessories BIS starQuick® Pipe Clamps with Nut



Features and Benefits

- for fixing of a BIS starQuick® Clamp or other clamp with thread connection M6
- pre-drill hole Ø 6 mm and insert plug
- material: modified PA6 (polyamide), grey (according to RAL 7035)
- resistant to UV, ageing, oil and petrol
- no corrosion, recyclable, halogen free
- temperature resistance from approx. -40 °C to approx. +90 °C (constant); short to approx. +130 °C

Part No.	Pack 1	Pack 2
6101063	50	500



BIS starQuick® Hammerfix

accessories BIS starQuick® Pipe Clamps with Nut

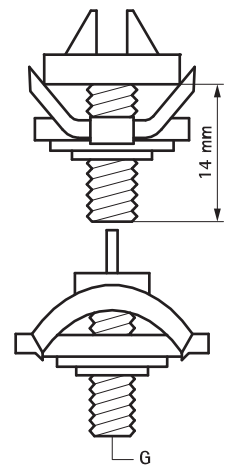
(C 05 80)



Features and Benefits

- Part No. 085 4 338: for fixing of a BIS starQuick® Clamp on steel rail with a 15 mm slot (e.g. WM0, 1, 15, 2, 30 or 35)
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated

Part No.	G	For Rail	Pack 1	Pack 2
0854338	M8	WM0 - 35	50	600



BIS Push-fit Saddle – Single (White)

(C 10 25)

for all pipes 8 - 35 mm

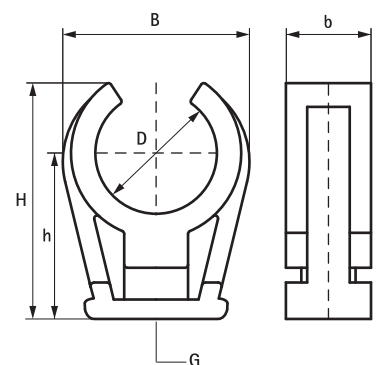
M6



Features and Benefits

- one-part clamp
- connection thread M6 made of brass
- material: PP (polypropylene), white (according to RAL 9016)
- fire class B2
- no corrosion, recyclable, halogen free, resistant to UV and ageing
- temperature resistance from approx. -30 °C to approx. +90 °C (constant); short to approx. +110 °C

Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b (mm)	Pack 1	Pack 2
0853008	8	-	-	M6	14	18	14	12	100	2,000
0853010	10	1/8	6	M6	18	20	17	12	100	1,000
0853012	12	-	-	M6	20	22	18	12	100	1,000
0853015	14 - 15	-	-	M6	24	26	19	12	100	1,000
0853018	16 - 18	3/8	10	M6	27	30	24	14	100	1,200
0853022	20 - 22	1/2	15	M6	31	32	28	14	100	1,200
0853025	25	3/4	20	M6	35	38	16	14	100	1,200
0853028	28	3/4	20	M6	39	47	34	14	100	1,000
0853035	35	-	-	M6	50	54	38	14	50	600



Alternative

83 BIS starQuick® Clamp (White)

BIS Push-fit Saddle – Double (White)

(C 10 27)

for all pipes 8 - 28 mm

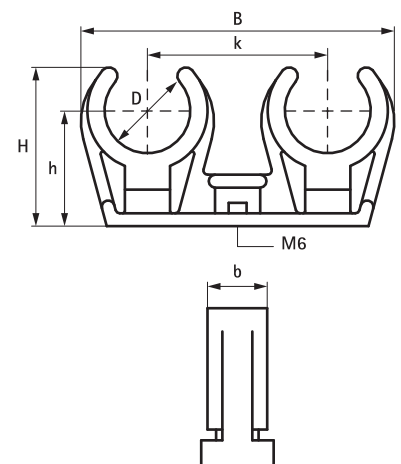
M6



Features and Benefits

- one-part saddle
- for fixing of two pipes
- connection thread M6 made of brass
- material: PP (polypropylene), white (according to RAL 9016)
- fire class B2
- no corrosion, recyclable, resistant to UV and ageing
- temperature resistance from approx. -30 °C to approx. +90 °C (constant); short to approx. +110 °C

Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b (mm)	k (mm)	Pack 1	Pack 2
0853208	8	-	-	M6	40	18	14	12	26	100	1,000
0853210	10	1/8	6	M6	45	20	17	12	28	100	1,200
0853212	12	-	-	M6	53	22	18	12	33	100	1,000
0853215	14 - 15	-	-	M6	60	26	19	12	36	100	1,000
0853218	16 - 18	3/8	10	M6	65	30	24	14	38	100	800
0853222	20 - 22	1/2	15	M6	73	32	28	14	42	50	500
0853228	28	3/4	20	M6	89	47	34	14	50	50	400



Alternative

- 83 BIS starQuick® Clamp (White)
- 86 BIS starQuick® Duo Wall Plate

BIS ARAYTUB

for all pipes 16 - 25 mm

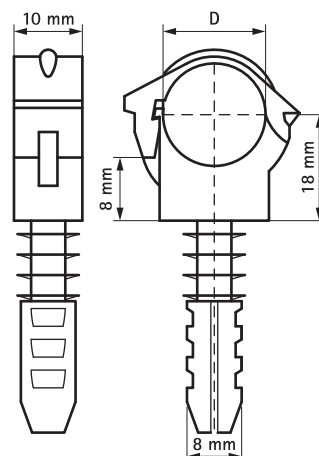
(C 10 35)



Features and Benefits

- clamp with integral plug
- locking with double tothing for extra security
- easy and quick to use
- for massive and hollow materials
- the plug can be expanded with a screw \varnothing 3.5 - 4.5 mm or a nail to get a better pull-out resistance (important in hollow materials)
- material: PA (polyamide), grey

Part No.	D (mm)	Pack 1	Pack 2
08505216	16	100	500
08505220	20	100	500
08506120	20	200	2,000
08505225	25	100	500



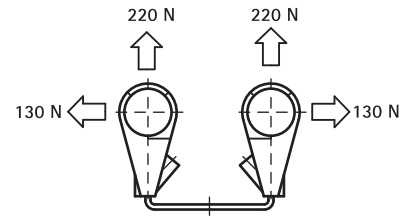
Alternative

81 BIS starQuick® Clamp (Grey)

BIS Duplo KS

for metal pipes 15 - 22 mm

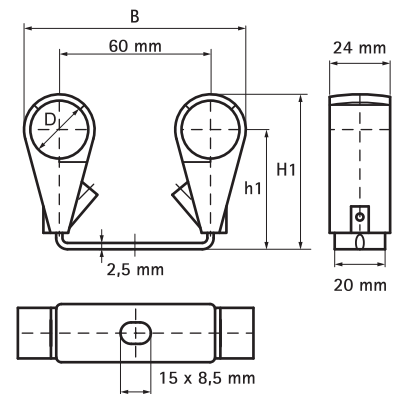
(C 10 55)



Features and Benefits

- two clamps on connection bracket
- clamps can be repositioned when open or closed - only fixed when finally secured
- plastic clamp prevents noises which arise from expansion or contraction of the pipe
- adjustable distance between pipe and wall
- locking screw connected to band, which makes it impossible to lose screw
- material: connection bracket made of steel; connector made of PP (polypropylene), white
- fire class B2
- recyclable, resistant to UV and ageing
- zinc plated
- temperature resistance from approx. -30 °C to approx. +90 °C (constant); short to approx. +110 °C

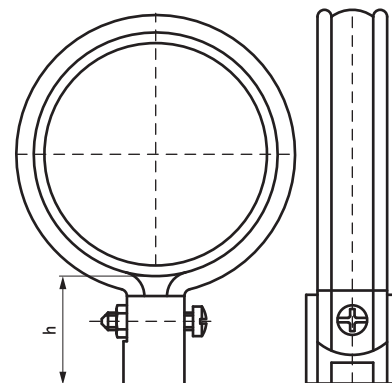
Part No.	D (mm)	D (°)	DN	B (mm)	H1 (mm)	h1 (mm)	Colour	F _{a,z} (N)	F _{a,x} (N)	Pack 1
3225015	15	-	-	82	57 - 69	45 - 57	White (RAL 9018)	220	130	50
3225022	22	1/2	15	89	64 - 76	49 - 61	White (RAL 9018)	220	130	50



BIS PVC Pipe Clamp

(C 20 05)

for plastic pipes for rain water pipes 32 - 160 mm

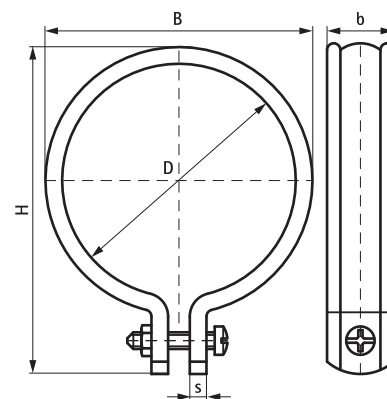


Features and Benefits

- one-part clamp
- for fixing of PVC rain water pipes
- for fixing of PVC pipe
- Part No. 137 0 1XX only suitable for threaded connector M8
- Part No. 130 0 XXX: locking screw and nut connected to band, which makes it impossible to lose screw
- material: hard PVC (polyvinylchloride), grey
- UV-stabilized

Part No.	D (mm)	B (mm)	H (mm)	h (mm)	b x s (mm)	Colour	F _{a,z} (N)	Pack 1
1300032	32	41	60	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1300040	40	49	67	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1300050	50	59	78	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1300060	60	69	87	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1300070	70	79	97	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1300075	75	84	102	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1300080	80	89	107	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1300090	90	99	117	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1300100	100	109	127	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1300110	110	119	137	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1300125	125	134	152	min 29.5	20 x 4.0	Grey (RAL 7001)	700	25
1370110	110	120	138	min 35.5	20 x 6.0	Grey (RAL 7001)	1,360	15
1370125	125	135	153	min 35.5	20 x 6.0	Grey (RAL 7001)	1,360	15
1370160	160	170	188	min 35.5	20 x 6.0	Grey (RAL 7001)	1,360	15
1301080	80	89	107	min 29.5	20 x 4.0	White (RAL 9010)	700	25
1301100	100	109	127	min 29.5	20 x 4.0	White (RAL 9010)	700	25
1304070	70	79	97	min 29.5	20 x 4.0	Brown (RAL 8017)	700	25
1304080	80	89	107	min 29.5	20 x 4.0	Brown (RAL 8017)	700	25
1304100	100	108	127	min 29.5	20 x 4.0	Brown (RAL 8017)	700	25

From Ø 110 mm only to be used for unfilled pipes i.e. ventilation etc.
Clamps with diameter Ø70, Ø80 and Ø100 for rainwater drainage applications.



Complementary

- 102 BIS Threaded Connector
- 103 BIS Expansion Joint Bracket
- 105 BIS Leaf Trap

Complementary

- 78 BIS Intruder Deterrent Clamp

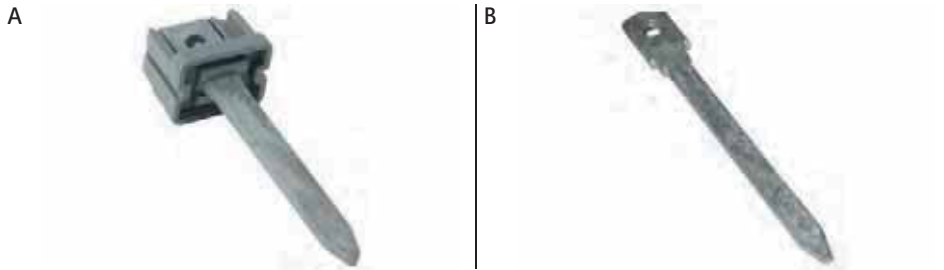
Alternative

- 76 BIS Hinged Pipe Clamp 400 (Round)

BIS Nail Fixing

accessories BIS PVC pipe clamps

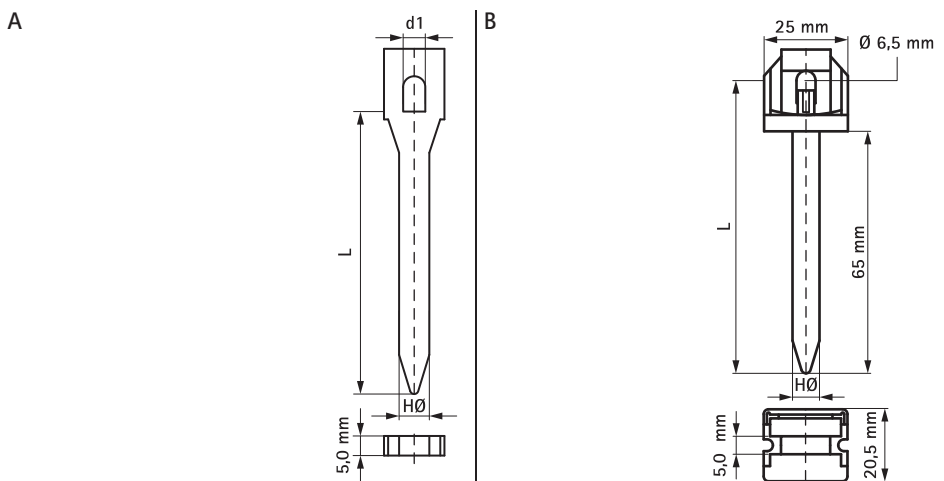
(C 30 05)



Features and Benefits

- material: nail made of steel (hot dip galvanized); housing made of PA (polyamide)

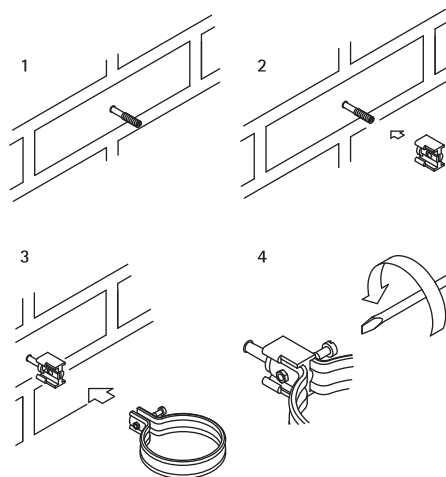
Part No.	Type	L	d1 (mm)	HØ (mm)	Pack 1	Pack 2
A 1401065	B	80 mm	Ø 6.5	7	25	250
B 1411065	R2	65 mm	9 x 6	6	25	250



BIS Threaded Connector

accessories BIS PVC pipe clamps

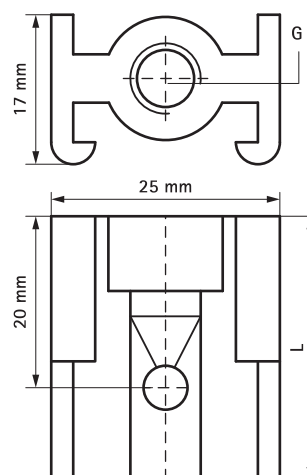
(C 30 10)



Features and Benefits

- with 'claws' which grip on to the band
- material: threaded connector made of PC (polycarbonate)
- impact-resistant

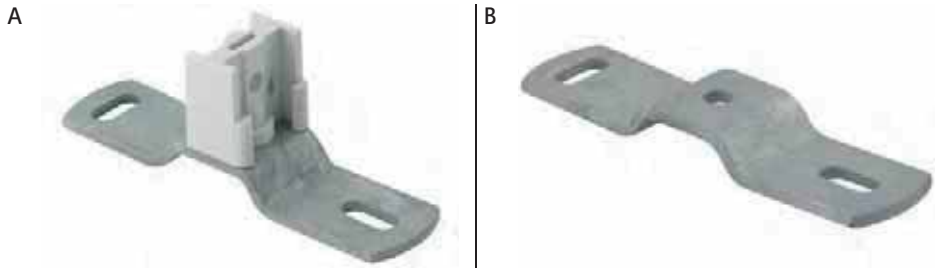
Part No.	G	L	Colour	Pack 1	Pack 2
1452006	M6	25.5 mm	Grey (RAL 7035)	25	250
1452008	M8	30.0 mm	Grey (RAL 7035)	25	250



BIS Expansion Joint Bracket

(C 30 15)

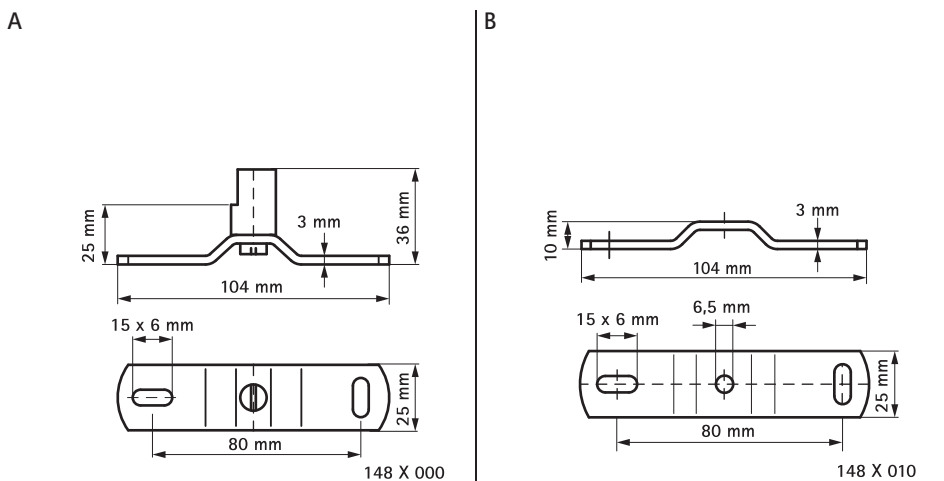
accessories BIS PVC pipe clamps



Features and Benefits

- for fixing of rain water pipe over expansion joints
- with 'claws' which grip on to the band
- material: Part No. 148 1 XXX: connection bracket made of steel
- material: Part No. 148 7 XXX: connection bracket made of stainless steel 1.4404 (AISI 316L)
- connector made of PC (polycarbonate), grey

Part No.	Model	Colour	Pack 1
A 1481000	Steel, with threaded connector	Grey	50
1487000	Stainless steel with threaded connector	Grey (RAL 7035)	50
B 1481010	Steel	-	50
B 1487010	Stainless steel	-	200



BIS PVC Saddle

for plastic pipes 25 - 125 mm

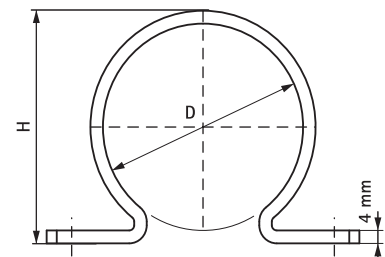
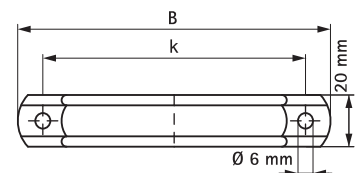
(C 35 05)



Features and Benefits

- one-part saddle
- by design, the pipe is separated from underground
- material: hard PVC (polyvinylchloride), grey or white
- UV-stabilized

Part No.	D (mm)	B (mm)	H (mm)	k (mm)	Colour	F _{a,z} (N)	Pack 1
1800025	25	61	40	41	Grey (RAL 7001)	300	50
1800032	32	73	45	53	Grey (RAL 7001)	300	50
1800040	40	77	52	57	Grey (RAL 7001)	300	50
1800050	50	88	63	68	Grey (RAL 7001)	300	50
1800063	63	99	74	79	Grey (RAL 7001)	300	50
1800070	70	99	83	79	Grey (RAL 7001)	300	50
1800075	75	98	88	78	Grey (RAL 7001)	300	50
1800080	80	121	90	101	Grey (RAL 7001)	300	50
1800100	100	131	114	111	Grey (RAL 7001)	300	25
1800110	110	127	124	107	Grey (RAL 7001)	300	25
1800125	125	143	138	123	Grey (RAL 7001)	300	25
1801032	32	73	45	53	White (RAL 9010)	300	50
1801040	40	77	52	57	White (RAL 9010)	300	50



Alternative

100 BIS PVC Pipe Clamp

BIS Leaf Trap

(C 45 05)

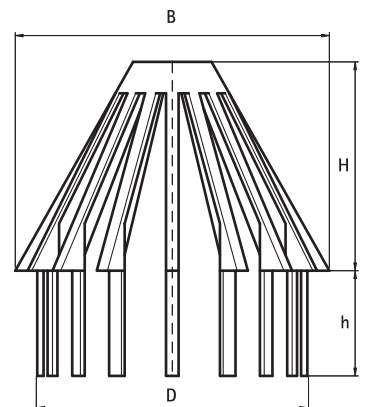
deters climbing by using a rain water downpipe 60 - 100 mm



Features and Benefits

- prevents blockage of down pipe caused by leaves and other debris in the gutter
- material: PP (polypropylene), grey (according to RAL 7035)

Part No.	D (mm)	B (mm)	H (mm)	h (mm)	Pack 1
5952060	60 - 75	83	43	25	50
5952080	80 - 100	103	64	34	50



D BIS Clamps for Insulated Pipe



BIS Clamps with Insulation Shell

BISOFIX® E13	109
BISOFIX® E19	110
BISOFIX® PIR20	111
BISOFIX® PIR30	112
BISOFIX® PIR40	113
BISOFIX® PIR50	114
BISOFIX® 88	115

BISOFIX® Selection Table

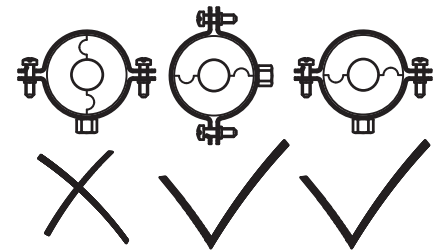
	BISOFIX® E	BISOFIX® 88	BISOFIX® PIR
			
Scope of use	In combination with soft pipe insulation materials (e.g. Armaflex®).	In combination with hard and soft pipe insulation materials. For high loads and stand pipes.	In combination with hard pipe insulation materials.
Specific weight DIN 53420	120 kg/m ³ (PIR) 65-75 kg/m ³ (Elastomer)	300 kg/m ³	80 kg/m ³ < 108 mm 120 kg/m ³ > 108 mm
Compressive strength (at 10% deflection) DIN 53421	1.20 - 1.40 N/mm ²	6.00 N/mm ²	0.56 - 0.84 N/mm ² <108 mm 1.20 - 1.40 N/mm ² >108 mm
Minimal operating temperature	-45 °C	-100 °C	-180 °C
Maximal operating temperature	+105 °C	+130 °C (short +200 °C)	+140 °C
Thermal conductivity coefficient DIN 52612 (at 10 °C)	0.031 W / (m . K)	0.042 W / (m . K)	0.027 W/(m . K) <108 mm 0.031 W/(m . K) >108 mm
Vapour diffusion resistance DIN 52615 μ	7,000 (PIR) > 4,000 (Elastomer)	2,000	7,000
Fire rating DIN 4102	B2	B2	B2
Max. allowed load*	420 N	1,000 N	370 N**
* pipe 1" ** BISOFIX® PIR 40 & 50			

BISOFIX® E13

(D 05 05)

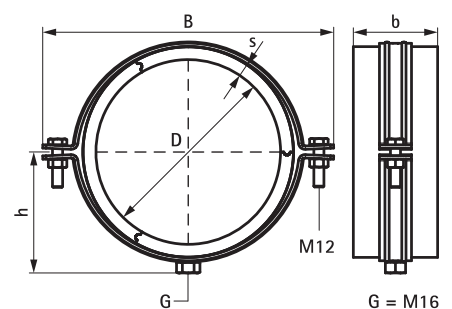
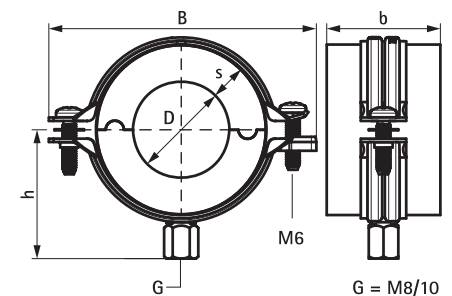
for insulated pipes 12.0 - 114.3 mm

M8/10 - M16



Features and Benefits

- insulated pipe support with pipe clamp BIS Bifix® G2
- clamp with quick locking system
- for fixing of thermal isolated pipe of steel, copper or stainless steel
- vapour proof glueing to pipe insulation
- when installing the pipe support, always align the contact areas of the insulation shells horizontally (to prevent tensile and pressure forces)
- with self-adhesive strip for easy closing of pipe support
- material: steel clamp; pipe support made of PIR foam (core), synthetic rubber (sides) and a vapour-proof layer of black PVC
- does not contain CFC, HCFC, formaldehyde or cadmium
- excellent thermal and mechanical properties
- BIS Bifix G2 Clamp: surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- working temperature from -45 °C to +105 °C



Part No.	D (mm)	D (°)	DN	G	B (mm)	h (mm)	b (mm)	s (mm)	F _{a,z} (N)	Pack 1
2210012	12.0	-	-	M8/10	80	39	50	14.0	100	18
2210015	15.0 - 16.0	-	-	M8/10	80	39	50	13.0	100	18
2210017	17.2 - 18.0	3/8	10	M8/10	91	43	50	15.5	100	18
2210021	21.3 - 22.0	1/2	15	M8/10	97	45	50	15.5	100	18
2210027	26.9 - 28.0	3/4	20	M8/10	97	48	50	15.5	100	18
2210035	35.0	1	25	M8/10	110	53	50	16.5	100	18
2210042	42.4	1 1/4	32	M8/10	118	57	50	16.5	150	12
2210048	48.3	1 1/2	40	M8/10	125	60	50	16.5	225	12
2210054	54.0	-	-	M8/10	134	64	50	16.5	225	12
2210060	60.3	2	50	M8/10	142	68	50	17.5	350	12
2210064	64.0	-	-	M8/10	142	70	50	17.0	350	18
2210076	76.1	2 1/2	65	M8/10	155	76	50	17.5	575	18
2210089	88.9	3	80	M8/10	172	82	50	17.5	875	18
2210102	101.6	-	-	M8/10	181	89	50	17.5	1,000	30
2210108	108.0	-	-	M8/10	189	92	50	17.5	1,075	30
2210114	114.3	4	100	M8/10	189	95	50	17.5	1,250	30

Complementary

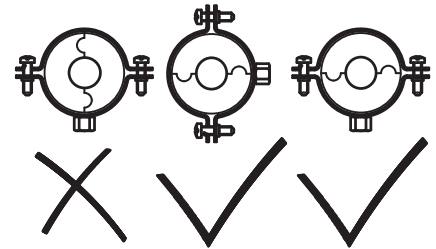
- 151 BIS RapidRail® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

BISOFIX® E19

(D 05 10)

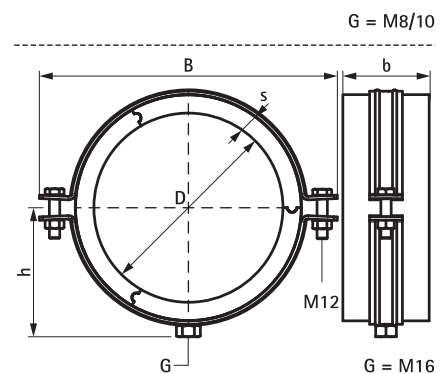
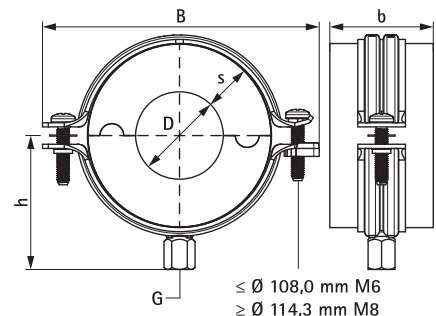
for insulated pipes 12.0 - 219.1 mm

M8/10 - M16



Features and Benefits

- insulated pipe support with pipe clamp BIS Bifix® G2
- for fixing of thermal isolated pipe of steel, copper or stainless steel
- vapour proof glueing to pipe insulation
- when installing the pipe support, always align the contact areas of the insulation shells horizontally (to prevent tensile and pressure forces)
- material: steel clamp; pipe support made of PIR foam (core), synthetic rubber (sides) and a vapour-proof layer of black PVC
- excellent thermal and mechanical properties
- BIS Bifix G2 Clamp: surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	D (mm)	D (°)	DN	G	B (mm)	h (mm)	b (mm)	s (mm)	F _{a,z} (N)	Pack 1
2211012	12.0	-	-	M8/10	91	44	50	19.5	100	18
2211015	15.0 - 16.0	-	-	M8/10	97	46	50	19.5	100	18
2211017	17.2 - 18.0	3/8	10	M8/10	97	48	50	19.0	100	18
2211021	21.3 - 22.0	1/2	15	M8/10	110	53	50	22.5	100	18
2211027	26.9 - 28.0	3/4	20	M8/10	118	56	50	22.5	100	12
2211035	35.0	1	25	M8/10	125	59	50	22.5	100	12
2211042	42.4	1 1/4	32	M8/10	134	65	50	23.5	150	12
2211048	48.3	1 1/2	40	M8/10	142	68	50	23.5	225	18
2211054	54.0	-	-	M8/10	148	71	50	23.5	225	18
2211060	60.3	2	50	M8/10	155	74	50	23.5	350	18
2211064	64.0	-	-	M8/10	155	76	50	23.5	350	18
2211070	70.0	-	-	M8/10	164	80	50	24.5	425	18
2211076	76.1	2 1/2	65	M8/10	172	83	50	24.5	575	18
2211089	88.9	3	80	M8/10	181	89	50	24.5	875	9
2211102	101.6	-	-	M8/10	201	99	50	28.0	1,000	30
2211108	108.0	-	-	M8/10	209	101	50	27.0	1,075	30
2211114	114.3	4	100	M8/10	217	106	50	26.5	1,250	30
2211133	133.0	-	-	M8/10	238	108	100	26.5	1,475	12
2211140	139.7	5	125	M8/10	248	119	100	26.5	1,700	12
2211159	159.0	-	-	M8/10	275	132	100	29.0	1,950	12
2211168	168.3	6	150	M8/10	261	128	100	21.5	2,125	12
2211219	219.1	8	200	M16	345	152	100	21.5	3,525	10 *

* provided with BIS HD500 Clamp instead of BIS Bifix® G2.

Complementary

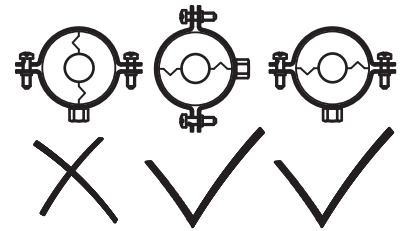
- 151 BIS RapidRail® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

BISOFIX[®] PIR20

(D 05 15)

for insulated pipes 15.0 - 139.7 mm

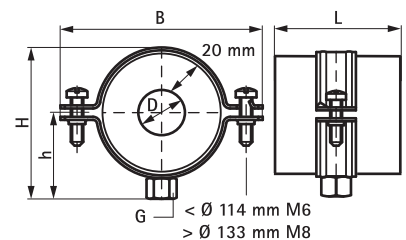
M8/10



Features and Benefits

- insulation shell (thickness 20 mm) with pipe clamp BIS 2S
- for fixing of thermal isolated pipe of steel, copper or stainless steel
- to be used in combination with hard insulation material
- a vapour sealed connection with pipe insulation can easily be made by use of aluminium tape
- when installing the pipe support, always align the contact areas of the insulation shells horizontally (to prevent tensile and pressure forces)
- working temperature from -180 °C to +140 °C
- size and specific weight are tuned to pipe weight
- material: clamp of steel; insulation shell made of PIR thermally hardening foam with a moisture proof outer covering of glass-fibre reinforced aluminium foil
- does not contain CFC, HCFC, formaldehyde or cadmium
- excellent thermal and mechanical properties
- clamp: zinc plated

Part No.	D (mm)	D (")	DN	G	L	B (mm)	H (mm)	h (mm)	F _{a,z} (N)	Pack 1
2212015	15.0 - 16.0	-	-	M8/10	75 mm	92	76	46	160	12
2212017	17.2 - 18.0	3/8	10	M8/10	75 mm	92	76	46	170	12
2212021	21.3 - 22.0	1/2	15	M8/10	75 mm	91	81	48	180	12
2212027	26.9 - 28.0	3/4	20	M8/10	75 mm	102	91	53	200	12
2212033	33.7 - 35.0	1	25	M8/10	75 mm	109	98	57	220	12
2212042	42.0	1 1/4	32	M8/10	75 mm	117	104	60	280	12
2212048	48.3	1 1/2	40	M8/10	75 mm	123	112	63	300	12
2212054	54.0	1 1/2	-	M8/10	75 mm	129	113	64	320	12
2212057	56.0 - 57.0	-	-	M8/10	75 mm	129	117	66	330	12
2212060	60.3	2	50	M8/10	75 mm	138	123	69	340	12
2212064	63.5 - 64.0	-	-	M8/10	75 mm	138	125	70	350	12
2212070	70.0	-	-	M8/10	75 mm	144	132	74	370	12
2212076	76.1	2 1/2	65	M8/10	75 mm	153	138	77	390	12
2212089	88.9	3	80	M8/10	75 mm	169	153	84	430	24
2212108	108.0	-	-	M8/10	75 mm	187	171	93	500	24
2212114	114.3	4	100	M8/10	100 mm	191	175	95	1,110	18
2212133	133.0	-	-	M8/10	100 mm	233	200	108	1,360	8
2212140	139.7	5	125	M8/10	100 mm	233	204	110	1,410	8



Complementary

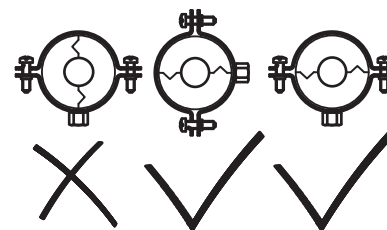
- 151 BIS RapidRail[®] Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

BISOFIX[®] PIR30

(D 05 20)

for insulated pipes 15.0 - 323.9 mm

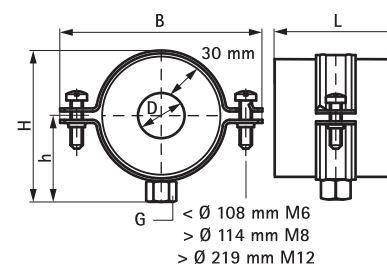
M8/10 - M10/12 - M16



Features and Benefits

- insulation shell (thickness 30 mm) with pipe clamp BIS 2S
- for fixing of thermal isolated pipe of steel, copper or stainless steel
- to be used in combination with hard insulation material
- a vapour sealed connection with pipe insulation can easily be made by use of aluminium tape
- when installing the pipe support, always align the contact areas of the insulation shells horizontally (to prevent tensile and pressure forces)
- working temperature from -180 °C to +140 °C
- size and specific weight are tuned to pipe weight
- from pipe Ø 273 mm pipe support needed
- material: clamp of steel; insulation shell made of PIR thermally hardening foam with a moisture proof outer covering of glass-fibre reinforced aluminium foil
- does not contain CFC, HCFC, formaldehyde or cadmium
- excellent thermal and mechanical properties
- clamp: zinc plated

Part No.	D (mm)	D (°)	DN	G	L	B (mm)	H (mm)	h (mm)	F _{a,z} (N)	Pack 1
2213015	15.0 - 16.0	-	-	M8/10	75 mm	109	99	56	170	12
2213017	17.2 - 18.0	3/8	10	M8/10	75 mm	109	99	57	190	12
2213021	21.3 - 22.0	1/2	15	M8/10	75 mm	117	102	59	230	12
2213027	26.9 - 28.0	3/4	20	M8/10	75 mm	123	108	61	300	12
2213033	33.7 - 35.0	1	25	M8/10	75 mm	129	113	64	320	12
2213042	42.4	1 1/4	32	M8/10	75 mm	138	123	69	350	12
2213048	48.3	1 1/2	40	M8/10	75 mm	144	128	72	370	12
2213054	54.0	-	-	M8/10	75 mm	153	138	77	380	12
2213057	56.0 - 57.0	-	-	M8/10	75 mm	153	138	77	390	12
2213060	60.3	2	50	M8/10	75 mm	160	144	80	410	12
2213064	63.5 - 64.0	-	-	M8/10	75 mm	160	144	80	420	12
2213076	76.1	2 1/2	65	M8/10	75 mm	178	163	89	460	24
2213089	88.9	3	80	M8/10	75 mm	187	171	93	500	24
2213108	108.0	-	-	M8/10	75 mm	204	197	102	620	18
2213114	114.3	4	100	M8/10	100 mm	233	200	108	1,370	8
2213133	133.0	-	-	M8/10	100 mm	256	223	119	1,520	8
2213140	139.7	5	125	M8/10	100 mm	256	223	119	1,570	8
2213159	159.0	-	-	M8/10	100 mm	273	242	128	1,720	8
2213168	168.3	6	150	M10/12	100 mm	303	248	129	2,720	8
2213219	219.1	8	200	M16	150 mm	358	306	160	4,210	6
2213273	273.1	10	250	M16	150 mm	421	352	181	5,020	6
2213324	323.9	12	300	M16	150 mm	465	410	212	5,790	6



Complementary

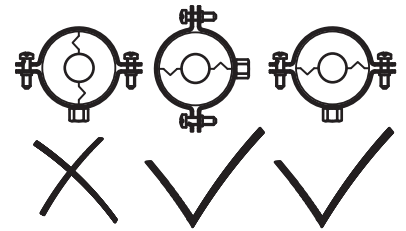
- 151 BIS RapidRail[®] Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

BISOFIX[®] PIR40

(D 05 25)

for insulated pipes 33.7 - 406.4 mm

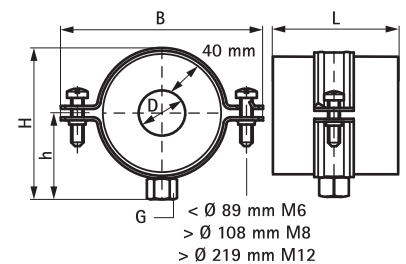
M8/10 - M16



Features and Benefits

- insulation shell (thickness 40 mm) with pipe clamp BIS 2S
- for fixing of thermal isolated pipe of steel, copper or stainless steel
- to be used in combination with hard insulation material
- a vapour sealed connection with pipe insulation can easily be made by use of aluminium tape
- when installing the pipe support, always align the contact areas of the insulation shells horizontally (to prevent tensile and pressure forces)
- working temperature from -180 °C to +140 °C
- size and specific weight are tuned to pipe weight
- from pipe Ø 273 mm pipe support needed
- material: clamp of steel; insulation shell made of PIR thermally hardening foam with a moisture proof outer covering of glass-fibre reinforced aluminium foil
- does not contain CFC, HCFC, formaldehyde or cadmium
- excellent thermal and mechanical properties
- clamp: zinc plated

Part No.	D (mm)	D (")	DN	G	L	B (mm)	H (mm)	h (mm)	F _{a,z} (N)	Pack 1
2214033	33.7 - 35.0	1	25	M8/10	75 mm	153	138	77	370	12
2214042	42.4	1¼	32	M8/10	75 mm	160	144	80	410	12
2214048	48.3	1½	40	M8/10	75 mm	169	153	84	430	24
2214054	54.0	-	-	M8/10	75 mm	169	153	84	520	24
2214060	60.3	2	50	M8/10	75 mm	178	163	89	470	24
2214070	70.0	-	-	M8/10	75 mm	187	171	93	510	24
2214076	76.1	2½	65	M8/10	75 mm	191	175	95	530	24
2214089	88.9	3	80	M8/10	75 mm	203	187	101	620	18
2214108	108.0	-	-	M8/10	75 mm	246	213	114	690	10
2214114	114.3	4	100	M8/10	100 mm	256	223	119	1,530	12
2214133	133.0	-	-	M8/10	100 mm	273	240	128	1,670	8
2214140	139.7	5	125	M8/10	100 mm	273	258	130	1,730	8
2214159	159.0	-	-	M16	100 mm	273	244	134	2,850	24
2214168	168.3	6	150	M16	100 mm	306	266	138	2,960	24
2214219	219.1	8	200	M16	150 mm	388	333	174	4,510	6
2214273	273.1	10	250	M16	150 mm	436	381	198	5,320	6
2214324	323.9	12	300	M16	150 mm	486	431	223	6,090	1
2214406	406.4	16	400	M16	150 mm	569	514	264	7,330	1



Complementary

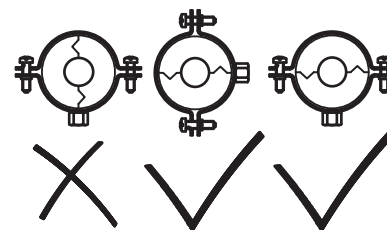
- 151 BIS RapidRail[®] Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

BISOFIX® PIR50

(D 05 30)

for insulated pipes 33.7 - 323.9 mm

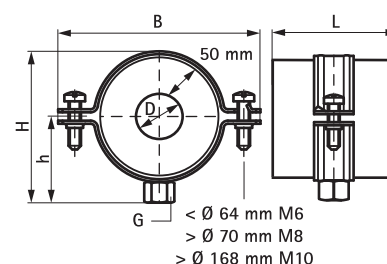
M8/10 - M16



Features and Benefits

- insulation shell (thickness 50 mm) with pipe clamp BIS 2S
- for fixing of thermal isolated pipe of steel, copper or stainless steel
- to be used in combination with hard insulation material
- a vapour sealed connection with pipe insulation can easily be made by use of aluminium tape
- when installing the pipe support, always align the contact areas of the insulation shells horizontally (to prevent tensile and pressure forces)
- working temperature from -180 °C to +140 °C
- size and specific weight are tuned to pipe weight
- from pipe Ø 273 mm pipe support needed
- material: clamp of steel; insulation shell made of PIR thermally hardening foam with a moisture proof outer covering of glass-fibre reinforced aluminium foil
- does not contain CFC, HCFC, formaldehyde or cadmium
- excellent thermal and mechanical properties
- clamp: zinc plated

Part No.	D (mm)	D (°)	DN	G	L	B (mm)	H (mm)	h (mm)	F _{a,z} (N)	Pack 1
2215033	33.7 - 35.0	1	25	M8/10	75 mm	169	155	85	370	24
2215042	42.4	1¼	32	M8/10	75 mm	178	165	90	470	24
2215048	48.3	1½	40	M8/10	75 mm	187	171	93	500	24
2215054	54.0	-	-	M8/10	75 mm	191	175	95	520	24
2215060	60.3	2	50	M8/10	75 mm	196	180	98	540	24
2215064	63.5 - 64.0	-	-	M8/10	75 mm	196	185	100	550	24
2215076	76.1	2½	65	M8/10	75 mm	233	200	108	650	10
2215089	88.9	3	80	M8/10	75 mm	246	213	114	690	10
2215108	108.0	-	-	M8/10	75 mm	256	233	124	760	10
2215114	114.3	4	100	M8/10	100 mm	273	240	128	1,680	8
2215133	133.0	-	-	M16	100 mm	272	251	131	2,780	24
2215140	139.7	5	125	M16	100 mm	303	259	135	2,860	24
2215159	159.0	-	-	M16	100 mm	328	277	143	3,090	10
2215168	168.3	6	150	M16	100 mm	348	291	151	3,200	10
2215219	219.1	8	200	M16	150 mm	347	393	181	4,810	6
2215273	273.1	10	250	M16	150 mm	450	395	205	5,620	6
2215324	323.9	12	300	M16	150 mm	501	446	230	6,390	1



Complementary

- 151 BIS RapidRail® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

BISOFIX® 88

(D 05 40)

for insulated pipes 15.8 - 406.4 mm

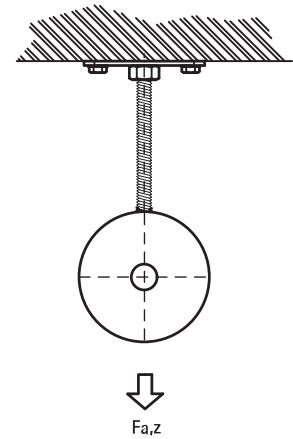
M8/M10/1/2" - M12/1/2" - M16/3/4"



0880060

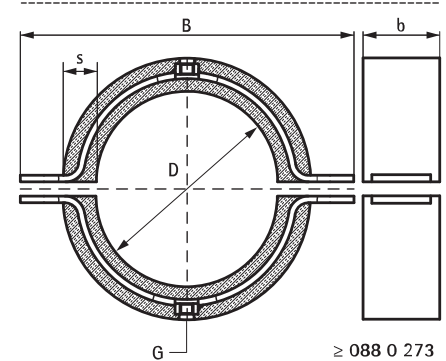
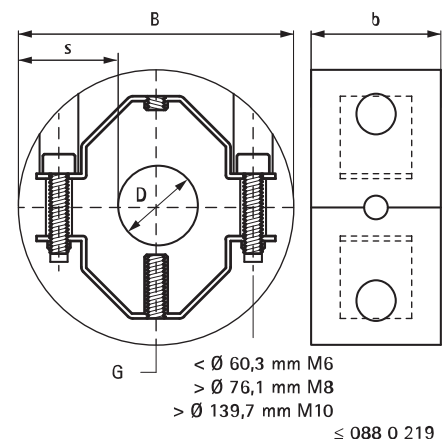


0880273



Features and Benefits

- two-screw clamp integrated in PUR foam
- for fixing of thermal isolated pipe of steel, copper or stainless steel
- no adhesion necessary due to Inda rubber inlay
- vapour proof glueing to pipe insulation
- suitable for heavy applications (for example with bigger spans), waste stacks, etc.
- the whole is smoothly completed for a better connection with the pipe insulation
- the foam prevents the forming of a thermal bridge and prevents the steel parts from corrosion
- material: clamp of steel; insulation shell made of PUR closed cell solid foam
- good resistant to chemicals influences
- excellent thermal and mechanical properties
- clamp: zinc plated
- working temperature from -50 °C to +105 °C



Part No.	D (mm)	D (")	DN	G	B (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
0880015	15.8	-	-	M8/M10/1/2"	75	40 x 30	180	10
0880017	17.2	3/8	10	M8/M10/1/2"	77	40 x 30	180	10
0880018	18.0	-	-	M8/M10/1/2"	78	40 x 30	180	10
0880021	21.3	1/2	15	M8/M10/1/2"	81	40 x 30	220	10
0880022	22.0	-	-	M8/M10/1/2"	82	40 x 30	220	10
0880027	26.9	3/4	20	M8/M10/1/2"	87	40 x 30	280	10
0880028	28.0	-	-	M8/M10/1/2"	88	40 x 30	280	10
0880033	33.7	1	25	M8/M10/1/2"	93	40 x 30	350	10
0880035	35.0	-	-	M8/M10/1/2"	95	40 x 30	350	10
0880042	42.4	1 1/4	32	M8/M10/1/2"	102	40 x 30	440	10
0880048	48.3	1 1/2	40	M8/M10/1/2"	108	40 x 30	500	10
0880054	54.0	-	-	M8/M10/1/2"	114	40 x 30	590	10
0880057	57.0	-	-	M8/M10/1/2"	117	40 x 30	590	10
0880060	60.3	2	50	M8/M10/1/2"	120	50 x 30	620	10
0880076	76.1	2 1/2	65	M8/M10/1/2"	136	50 x 30	1,180	10
0880089	88.9	3	80	M8/M10/1/2"	149	50 x 30	1,390	10
0880108	108.0	-	-	M8/M10/1/2"	188	60 x 40	2,240	10
0880114	114.3	4	100	M8/M10/1/2"	195	60 x 40	2,370	3
0880133	133.0	-	-	M8/M10/1/2"	213	60 x 40	2,760	5
0880139	139.7	5	125	M8/M10/1/2"	220	60 x 40	2,880	5
0880159	159.0	-	-	M12/1/2"	240	60 x 40	3,310	5
0880168	168.3	6	150	M12/1/2"	250	60 x 40	3,490	5
0880219	219.1	8	200	M16	340	100 x 60	4,550	5
0880273	273.2	10	250	M16	393	100 x 60	11,470	2
0880324	324.3	12	300	M20	448	100 x 60	13,600	2
0880355	355.6	14	350	M20	477	100 x 60	14,940	1
0880368	368.0	-	350	M20	492	120 x 60	18,550	1
0880406	406.4	16	400	M24	530	120 x 60	20,480	1

Complementary

- 151 BIS RapidRail® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

E BIS Fixing Points and Sliding Devices



BIS Fixing Points

BISOFIX® CF Cold FixPoint Clamp	119
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BIS Expansion Devices

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Fixing Points and Sliding Devices

The expansion and contraction of pipes usually occurs under the influence of temperature changes. Fixing points are applied to pipes with considerable expansion. The fixing point is made to a neutral point so that the pipe can expand in both directions.

Slides are applied in between the fixing points, so that the pipe is free to expand and contract.

To select the appropriate fixing point it is necessary to know:

- the pipe material
- the diameter and thickness of the pipe
- the minimum and maximum temperature
- the maximum pressure in the pipe

The expansion and contraction of the pipe can be accommodated:

- in a natural way, in existing bends or expansion loops
- in a designed way, for example by using a com-pensator

When a compensator is being used, consideration must be given to the pressure in the pipe. Therefore, it is preferable to accommodate the expansion in a natural way. The fixing point is used to ensure that the expansion is directed to the expansion loop or compensator where the force and movement is controlled. The pipe fixings between the fixing point and the expansion loop, only guide the pipe. At these 'guiding points' it is important that the friction resistance is by the fixing point.

When an expansion loop is being used, the distance between the first guiding clamp and the loop is important. The smaller this distance, the bigger the force to bend the pipe and the bigger the expansion to loose in the bend. This force is transferred to the fixing point.

The occurring force on a fixing point F_f when using an expansion loop:

1. The friction force caused by the slides F_w ;
2. The force caused by the bending of the expansion loop F_b .

$$F_f = F_w + F_b$$

To determine the bending force F_b , first determine the length of the expansion loop. The length of this loop depends on the change in length of the pipe. The change of length of the pipe ΔL depends on the length between the fix point and the expansion bend, the co-efficient of expansion L of the pipe material and the difference in temperature ΔT .

$$\Delta L = L \times \alpha \times \Delta T$$

The length of the expansion bend L_b depends on the expansion ΔL , the outside diameter of the pipe D_b and the material properties of the pipe K .

K depends on the elasticity modulus of the pipe material E and the maximum allowable/acceptable tension in the material σ .

$$K = \sqrt{(1.5 \times E) / \sigma}$$

$$L_b = K \sqrt{(D_b \times \Delta L)}$$

The bending force F_b depends on the moment of inertia I of the pipe, the length of the expansion bend L_b and the wall thickness of the pipe $D_b - D_i$.

$$F_b = \frac{\sigma \times \pi (D_b^4 - D_i^4)}{32 \times D_b \times L_b}$$

The friction force F_w depends on the co-efficient of friction μ of the slides and the loads F to the slides. The load consists of the weight of the pipe and the content F_p .

$$F_w = F_p \times \mu$$

Legend

F_f	force to the fixing point	N
F_w	friction force	N
F_p	weight of the pipe plus content	N
F_b	force to bend the expansion bend	N
D_b	outside diameter of the pipe	mm
D_i	inside diameter of the pipe	mm
I	moment of inertia of the pipe	mm ⁴
E	elasticity modulus of the pipe material	N/mm ²

K	material constant
L_b	length of the expansion bend
ΔL (<i>Delta L</i>)	change of length of the pipe
ΔT (<i>Delta T</i>)	change max. and min. temperature
α (<i>Alfa</i>)	linear expansion co-efficient of the pipe material
μ (<i>Mu</i>)	friction co-efficient of the slide
σ (<i>Sigma</i>)	maximum acceptable tension in the pipe
π (<i>Pi</i>)	mathematic number 3.142

BISOFIX® CF Cold FixPoint Clamp

(E 05 03)

76.1 - 273.0 mm



Installation

Features and Benefits

- insulated cold clamps made of pressure-resistant Polyurethane foam
- integral foam inner recess for mounting of the pressure flange
- outer link plates (galvanized) for connection to two piece set by crossbars
- high axial force absorption by the site welded to the pipe pressure flange
- durable materials ensure a long-term and reliable operation security
- PUR foam density ca. 250 kg/m³
- flammability class B2 (DIN 4102)
- K value 0.042 W/mK at 0 °C
- Part No. 088 1 XXX: temperature range from -50 °C to +105 °C
- sealing adhesive (310 ml) sold separately (Part No. 221 0 000):
 - silicone-free adhesive for vapour sealing of refrigerant pipe
 - 310 ml cartridge



088 1 XXX BISOFIX® CF

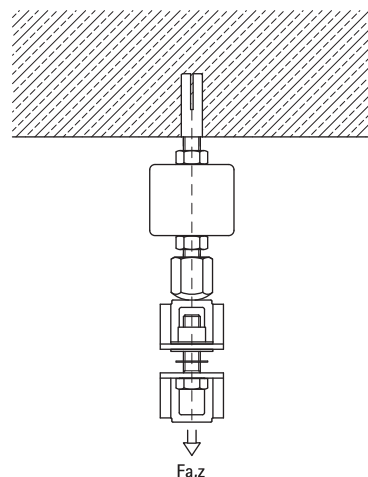
Part No.	D (mm)	Model	For	F _{a,y} (N)	Pack 1
0881076	76.1	Cold FixPoint Clamp	669 8 206 + 6098 3 1120	2,500	1 *
0881088	88.9	Cold FixPoint Clamp	669 8 206 + 6098 3 1120	3,000	1 *
0881114	114.3	Cold FixPoint Clamp	669 8 206 + 6098 3 1120	4,000	1 *
0881133	133.0	Cold FixPoint Clamp	669 8 206 + 6098 3 1120	4,500	1 *
0881139	139.7	Cold FixPoint Clamp	669 8 206 + 6098 3 1120	4,500	1 *
0881159	159.0	Cold FixPoint Clamp	669 8 206 + 6098 3 1120	6,000	1 *
0881168	168.3	Cold FixPoint Clamp	669 8 206 + 6098 3 1120	6,000	1 *
0881219	219.1	Cold FixPoint Clamp	669 8 208 + 6098 3 1160	9,000	1 *
0881273	273.0	Cold FixPoint Clamp	669 8 208 + 6098 3 1160	12,000	1 *
2210000	0.0	Sealing adhesive	-	-	12

*The calculation was made of the maximum acceptable axial forces and the dimensioning of the anchor under the following conditions: quality of the concrete: C20/25 cracked concrete (tensile zone); concrete edges: without border impact; area reinforcement: without/normal; edge reinforcement: without.
 088 1 XXX : BISOFIX® CF Cold FixPoint Clamp is delivered including a weld ring (pressure flange) and closure as well as connecting screws.
 Other dimensions on request.
 Note! Clamps, Console and Anchors are to be ordered separately.
 Console can be found on page E 05 49 / E 05 51 / E 05 54.

BIS dB-FiX[®] 40 Noise Insulating Fixing Point

(E 05 10)

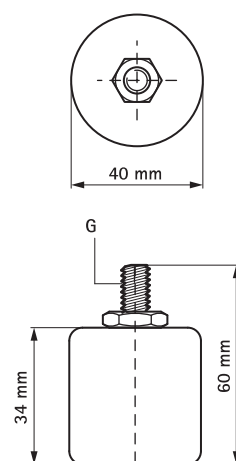
for noise insulation fixing point



Features and Benefits

- noise insulating single fixing point
- material: stainless steel 1.4301 (AISI 304)
- sound insulating lining according DIN 4109
- noise insulation by moulded TPE rubber

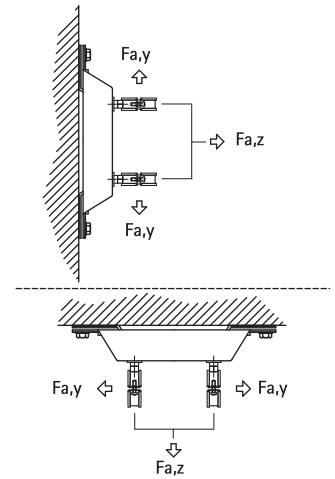
Part No.	G	F _{a,z} (N)	Pack 1
6697005	M10	500	25



BIS dB-FiX[®] 80 Fixing Point Assembly

(E 05 20)

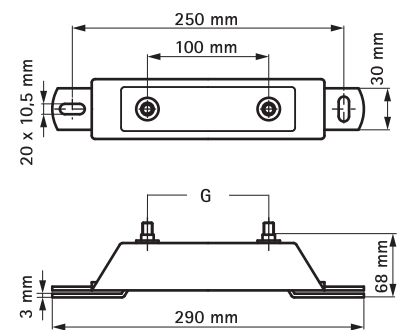
for noise insulation fixing point



Features and Benefits

- noise insulating fixing point for pipes up to Ø 2" (clamp BIS HD500 Ø 59 - 65 mm)
- zinc plated
- noise insulation by moulded EPDM rubber
- very stable
- material: steel
- sound insulating lining according to DIN 4109

Part No.	G	F _{a,z} (N)	F _{a,y} (N)	Pack 1
6693008	M10	3,000	2,700	10



Complementary

- 219 BIS RapidStrut[®] Fixing System
- 125 BIS dB-FiX[®] 80 / 200 Mounting Kit

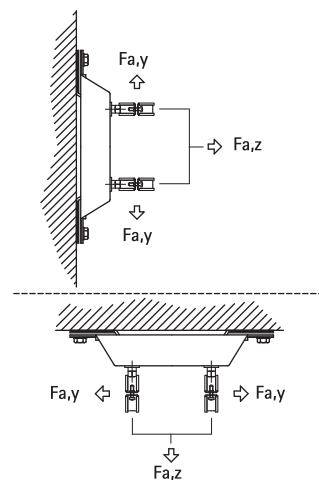
Alternative

- 122 BIS dB-FiX[®] 200 Fixing Point Assembly

BIS dB-FiX[®] 200 Fixing Point Assembly

for noise insulation fixing point

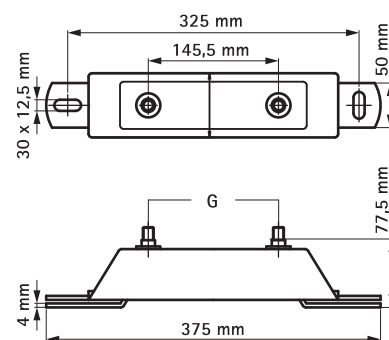
(E 05 25)



Features and Benefits

- noise insulating fixing point for pipes up to Ø 8" (clamp BIS HD500 Ø 217 - 227 mm)
- zinc plated
- noise insulation by moulded EPDM rubber
- very stable
- material: steel
- sound insulating lining according DIN 4109

Part No.	G	F _{a,z} (N)	F _{a,y} (N)	Pack 1
6693020	M12	7,000	6,600	5



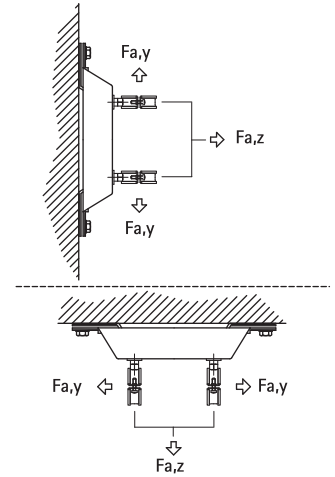
Complementary

- 219 BIS RapidStrut[®] Fixing System
- 126 BIS dB-FiX[®] 80 Stand-off Fixing Kit
- 125 BIS dB-FiX[®] 80 / 200 Mounting Kit

BIS dB-FiX[®] 80 Fixing Point Assembly Kit

(E 05 30)

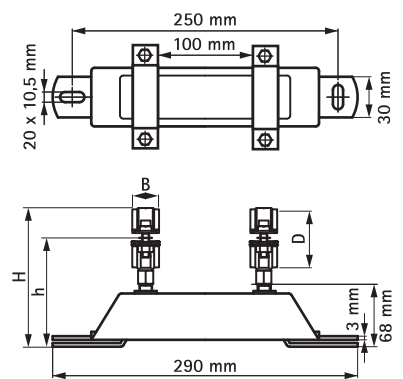
for noise insulation fixing point 15 - 65 mm



Features and Benefits

- very stable
 - material: steel
 - zinc plated
 - noise insulation by moulded EPDM rubber
 - sound insulating lining according DIN 4109
- consists of:
 - 1 Fixing point assembly BIS dB-FiX[®] 80 (Part No. 669 3 008)
 - 2 Heavy Duty Clamps HD500

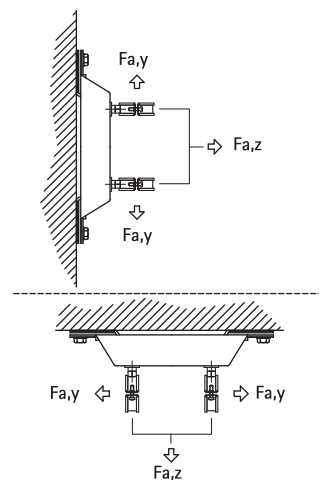
Part No.	D (mm)	D (°)	DN	H (mm)	h (mm)	F _{a,z} (N)	F _{a,y} (N)	Pack 1
2622010	15 - 19	3/8	10	108	93	3,000	2,700	1
2622015	19 - 23	1/2	15	112	95	3,000	2,700	1
2622020	25 - 30	3/4	20	119	98	3,000	2,700	1
2622025	31 - 36	1	25	131	109	3,000	2,700	1
2622050	59 - 65	2	50	160	123	3,000	2,700	1



BIS dB-FiX[®] 200 Fixing Point Assembly Kit

(E 05 35)

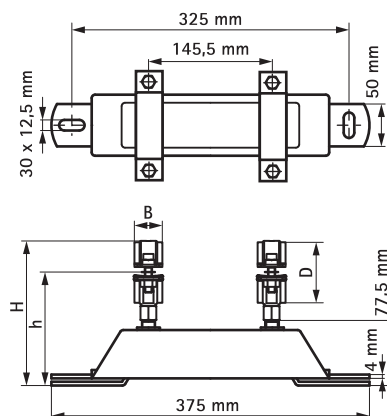
for noise insulation fixing point 72 - 169 mm



Features and Benefits

- very stable
 - material: steel
 - zinc plated
 - noise insulation by moulded EPDM rubber
 - sound insulating lining according DIN 4109
- consists of:
 - 1 Fixing point assembly BIS dB-FiX[®] 200 (Part No. 669 3 020)
 - 2 Heavy Duty Clamps HD500

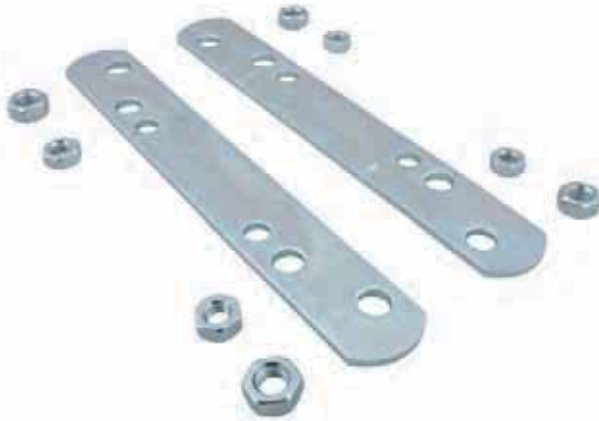
Part No.	D (mm)	D (°)	DN	H (mm)	h (mm)	F _{a,z} (N)	F _{a,y} (N)	Pack 1
2622065	72 - 78	2½	65	192	147	7,000	6,600	1
2622070	79 - 85	-	-	199	152	7,000	6,600	1
2622080	86 - 92	3	80	206	155	7,000	6,600	1
2622150	159 - 169	6	150	284	194	7,000	6,600	1



BIS dB-FiX[®] 80 / 200 Mounting Kit

(E 05 40)

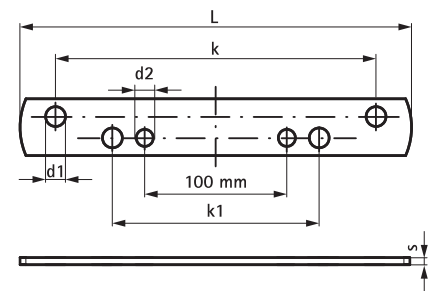
for noise insulation fixing point



Features and Benefits

- kit for pipe fixing between 2 BIS dB-FiX[®] Fixpoint Assemblies
- clamps fixed to plates by their flanges
- suitable for all diameters and specially for clamps > Ø 114 mm
- also used if extra stability is required
- space saving
- material: steel
- zinc plated
- consists of:
 - 2 Mounting plates
 - 4 Hexagon nuts M10
 - 4 Hexagon nuts M12

Part No.	s (mm)	d1 (mm)	d2 (mm)	k (mm)	k1 (mm)	Pack 1	Pack 2
6693100	5.0	14.0	12.0	225.5	145.5	1	25



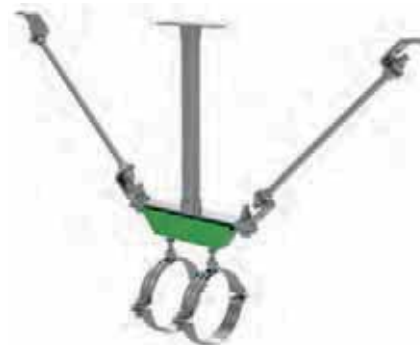
Complementary

- 121 BIS dB-FiX[®] 80 Fixing Point Assembly
- 122 BIS dB-FiX[®] 200 Fixing Point Assembly

BIS dB-FiX[®] 80 Stand-off Fixing Kit

(E 05 45)

for noise insulation fixing point



Features and Benefits

- for mounting a BIS dB-FiX[®] fixing point console at a distance from a wall or ceiling
- material: steel
- zinc plated
- Part No. 6693808:
 - 4 Distance brackets
 - 1 dB-Fix 80 Bottom plate 1"
 - 1 Wall plate 1"
 - 2 Bolts, Nuts, Washers M10
 - 8 Hexagon nuts M12
 - 8 Washers M12

Part No.	For	Pack 1
6693808	dB-FiX [®] 80	5

Complementary

- 121 BIS dB-FiX[®] 80 Fixing Point Assembly
- 122 BIS dB-FiX[®] 200 Fixing Point Assembly
- 469 BIS Threaded Rod

Complementary

- 471 BIS Threaded Tube

BIS dB-FiX[®] 200 Stand-off Fixing Kit

(E 05 46)

for noise insulation fixing point



Features and Benefits

- for mounting a BIS dB-FiX[®] fixing point console at a distance from a wall or ceiling
- material: steel
- zinc plated
- Part No. 6693820:
 - 4 Adjustable support brackets
 - 1 dB-Fix 200 Bottom plate 1"
 - 1 Wall plate 1"
 - 2 Bolts, Nuts, Washers M12
 - 8 Hexagon nuts M16
 - 8 Washers M16

Part No.	For	Pack 1
6693820	dB-FiX [®] 200	5

Complementary

- 122 BIS dB-FiX[®] 200 Fixing Point Assembly
- 51 BIS Heavy Duty Clamp HD500 (BUP1000)
- 469 BIS Threaded Rod

Complementary

- 471 BIS Threaded Tube

BIS dB-FiX[®] 80 / 200 Support Plate

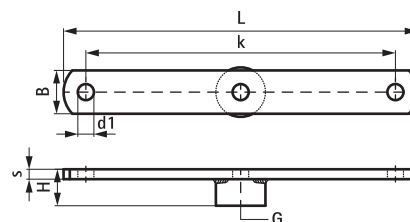
(E 05 47)



Features and Benefits

- for mounting a BIS dB-FiX[®] fixing point at a distance from a wall or ceiling
- material: steel 1.0332
- zinc plated
- to be used in combination with BIS Wall Plate CO₂ welded (Part No: 671 9 033)
- axial support by threaded rods in combination with BIS Adjustable Support (BUP1000)(Part No. 6658 8 818) or BIS Threaded Rod Support (Part No. 669 8 015)
- CO₂ welded

Part No.	G	L	B (mm)	H (mm)	s (mm)	d1 (mm)	k (mm)	For	Pack 1
6698030	G1"	286 mm	35	38	8.0	13.0	250	BIS dB-FiX [®] 80	25
6698035	G1"	361 mm	35	38	8.0	13.0	325	BIS dB-FiX [®] 200	25



Complementary

- 121 BIS dB-FiX[®] 80 Fixing Point Assembly
- 122 BIS dB-FiX[®] 200 Fixing Point Assembly
- 414 BIS Wall Plate Resistance Welded

Complementary

- 471 BIS Threaded Tube
- 133 BIS Threaded Rod Support
- 469 BIS Threaded Rod

BIS Silentbloc

vibration free fixing of devices

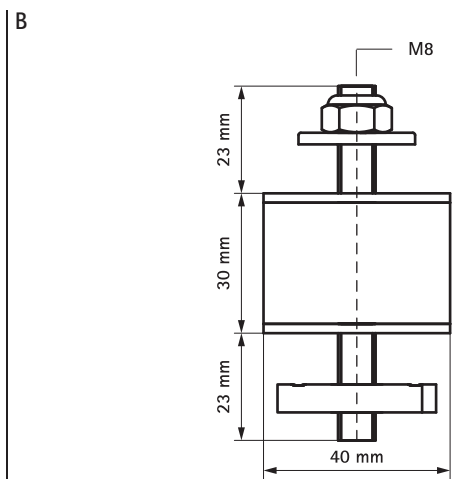
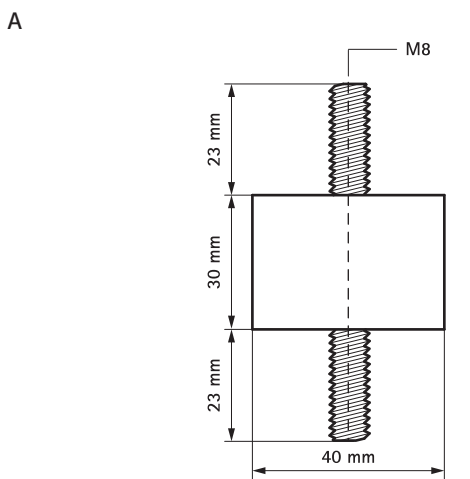
(E 05 05)



Features and Benefits

- for vibration free fixing of devices to eg cantilever arms
- suitable for WM1, 15, 2, 30 and/or Strut
- material: vulcanized rubber, black; metal parts zinc plated
- sound insulating lining according DIN 4109

Part No.	For Rail	$F_{a,z}$ (N)	Pack 1
A 4125009	WM1 - 30 + Strut	1,450	50
B 4125010	Strut	1,450	12



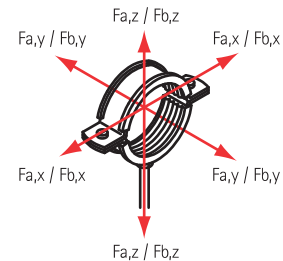
BIS Fixpoint Console 'Light' (BUP1000)

(E 05 49)



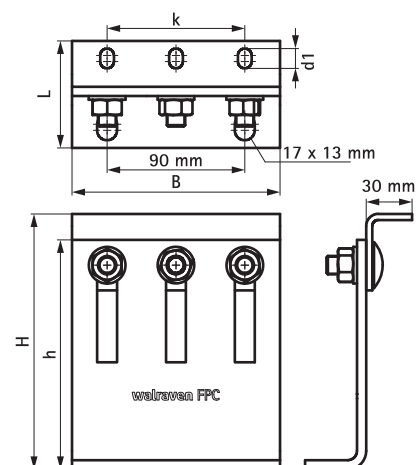
Features and Benefits

- flexible use console module for high forces up to 5 KN (depending on the situation, detailed design by technical service)
- tested as a sound-insulated fixed point with lined heavy duty clamps
- can be used as a pipe connection point in conjunction with 2 or 3 heavy-duty clamps type HD500 (up to 140 mm) or HD1501 (up to 154 mm)
- tightening torque 75 Nm for the console fixing screws
- connection to the building is recommended with metal anchors M12
- infinitely adjustable height and inclination, high corrosion protection
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	L	B	H	h	d1	k	Pack 1	
		(mm)	(mm)	(mm)	(mm)	(mm)		
6698204	70 mm	136	110 - 167	150	13 x 9	90	1	*

* Depending on the situation, please contact Walraven Technical Support for advice on safe loads.
 Note! Console, Clamps and Anchors are to be ordered separately.



Complementary

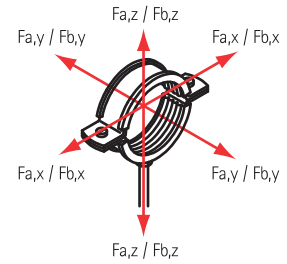
- 29 BIS Heavy Duty Clamp HD1501 (BUP1000)
- 30 BIS Heavy Duty Clamp HD1501 (BUP1000)
- 31 BIS Heavy Duty Clamp HD1501 (BUP1000)

Complementary

- 51 BIS Heavy Duty Clamp HD500 (BUP1000)
- 52 BIS Heavy Duty Clamp HD500 (BUP1000)
- 53 BIS Heavy Duty Clamp HD500 (BUP1000)

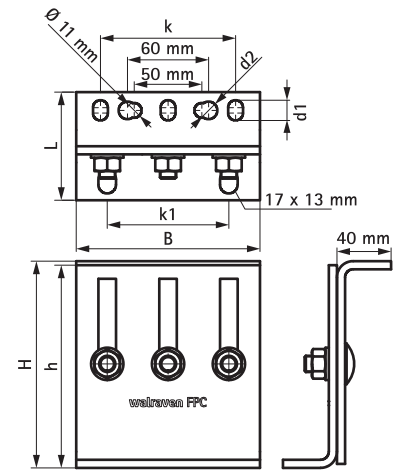
BIS Fixpoint Console 'Medium' (BUP1000)

(E 05 51)



Features and Benefits

- suitable for BISOFIX® Cold FixPoint Clamps (see E 05 03)
- flexible use console module for high forces (depending on the situation, detailed design by technical service)
- can be used as a pipe connection point in conjunction with 2 or 3 heavy-duty clamps type HD500 up to max. 227 mm
- tightening torque 75 Nm for the console fixing screws
- connection to the building is recommended with metal anchors M12
- infinitely adjustable height and inclination, high corrosion protection
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	L	B	H	h	d1	d2	k	k1	F _{a,z} (N)	F _{a,y} (N)	F _{a,x} (N)	Pack 1
6698206	80 mm	136	153 - 268	150	15 x 11	Ø 13.0	100	90	14,300	11,500	3,200	1 *

* Depending on the situation, please contact Walraven Technical Support for advice on safe loads.
 Note! Console, Clamps and Anchors are to be ordered separately.

Complementary

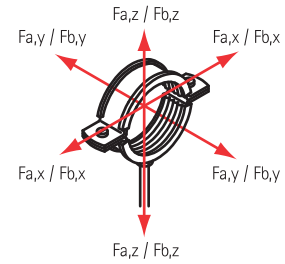
- 119 BISOFIX® CF Cold FixPoint Clamp
- 51 BIS Heavy Duty Clamp HD500 (BUP1000)
- 52 BIS Heavy Duty Clamp HD500 (BUP1000)

Complementary

- 53 BIS Heavy Duty Clamp HD500 (BUP1000)
- 496 WT B1 Throughbolt Anchor
- 487 WD11 Drop-in Anchor

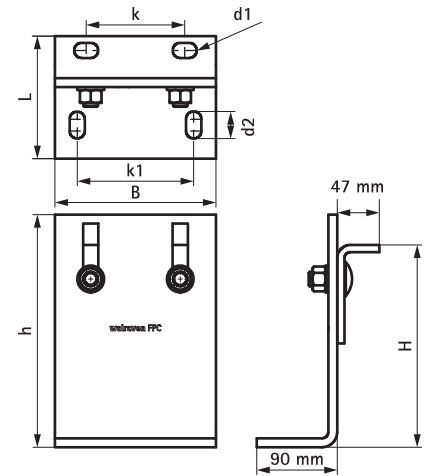
BIS Fixpoint Console 'Heavy' (BUP1000)

(E 05 54)



Features and Benefits

- suitable for BISOFIX® Cold FixPoint Clamps (see E 05 03)
- flexible use console module for high forces (depending on the situation, detailed design by technical service)
- can be used as a pipe connection point in conjunction with 2 heavy duty clamps type HD500 from 229 mm up to max. 564 mm
- tightening torque 120 Nm for the console fixing screws
- connection to the building is recommended with metal anchors M16
- infinitely adjustable height and inclination, high corrosion protection
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	L	B (mm)	H (mm)	h (mm)	d1 (mm)	d2 (mm)	k (mm)	k1 (mm)	F _{a,z} (N)	F _{a,y} (N)	F _{a,x} (N)	Pack 1
6698208	137 mm	180	226 - 333	260	27 x 17	30 x 17	110	130	10,000	9,300	3,700	1 *

* Depending on the situation, please contact Walraven Technical Support for advice on safe loads.
 Note! Console, Clamps and Anchors are to be ordered separately.

Complementary

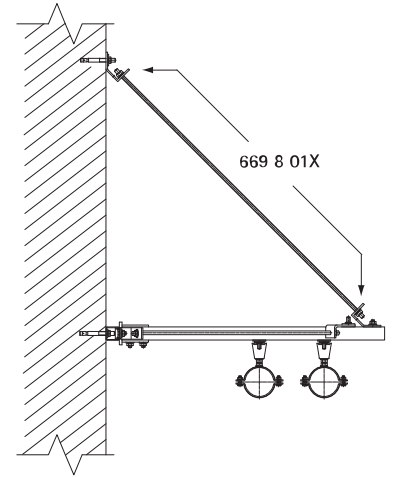
- 119 BISOFIX® CF Cold FixPoint Clamp
- 51 BIS Heavy Duty Clamp HD500 (BUP1000)
- 52 BIS Heavy Duty Clamp HD500 (BUP1000)

Complementary

- 53 BIS Heavy Duty Clamp HD500 (BUP1000)
- 496 WTB1 Throughbolt Anchor
- 487 WDI1 Drop-in Anchor

BIS Threaded Rod Support

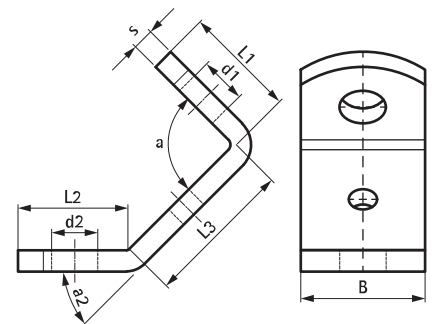
(E 05 60)



Features and Benefits

- for strengthening rail constructions with the aid of threaded rods
- also suitable for bracing cantilever arms
- material: steel 1.0332
- zinc plated

Part No.	L1 (mm)	L2 (mm)	L3 (mm)	B (mm)	s (mm)	d1 (mm)	d2 (mm)	a (°)	a2 (°)	F _{a,z} (N)	Pack 1
6698013	31	31	42	35	6.0	Ø 13.0	Ø 13.0	90	45	3,000	25
<i>Max. allowed load (F_{a,z}) under an angle of 45°.</i>											

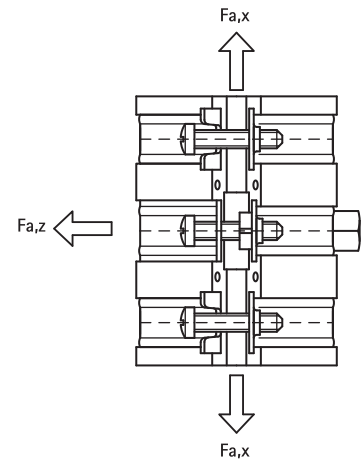


BIS Cu-FiX Fixing Point for Copper Pipe

(E 05 65)

for copper pipes 15 - 54 mm

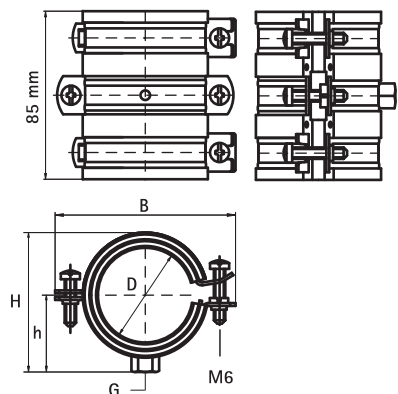
M10



Features and Benefits

- to make noise insulating fixpoint for a copper pipe
- material: steel
- zinc plated
- temperature resistance up to +120 °C
- noise insulating lining, EPDM rubber, reddish brown
- sound insulating lining according DIN 4109
- consists of:
 - 2 Clamps BISMAT® 2000 (fixing)
 - 1 Clamps BIS Bifix® 1301 (guiding)
- see also: benefits and features BISMAT® 2000 and BIS Bifix® 1301

Part No.	D (mm)	G	B (mm)	H (mm)	h (mm)	F _{a,z} (N)	F _{a,x} (N)	Pack 1
3368015	15	M10	55	34	21	1,110	60	10
3368018	18	M10	58	37	22	1,110	140	10
3368022	22	M10	63	43	25	1,110	160	10
3368028	28	M10	68	47	27	1,110	230	10
3368035	35	M10	75	55	31	1,110	340	10
3368042	42	M10	83	62	35	1,240	380	10
3368054	54	M10	92	71	39	1,240	500	10



BIS Ball Swivel Hanger

hinging fixing point

(E 10 05)

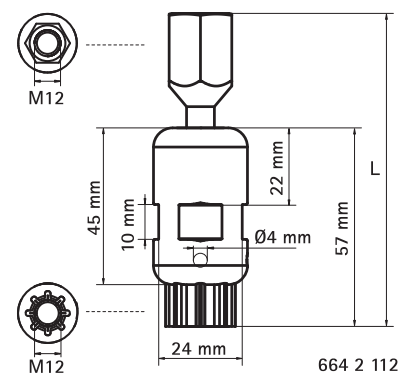
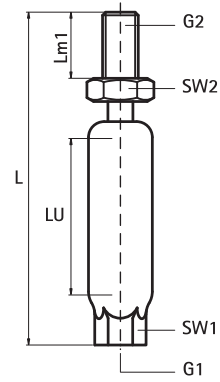
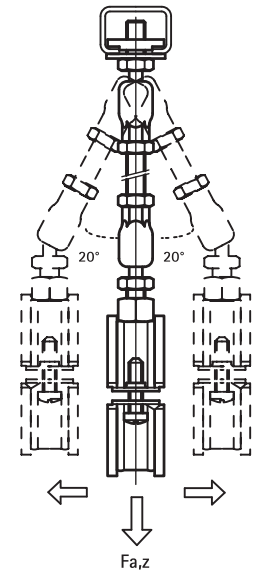


Features and Benefits

- recommended for metal pipes up to DN 50, plastic pipes up to DN 100
- for fixing to slide nut or on clamps
- with inspection hole to check screw-in depth (attention: when the threaded rod is screwed-in too deep, the ball swivel is blocked)
- screw-in depth is continuously variable (see LU)
- material: steel
- zinc plated

Part No.	L	LU (mm)	G1	G2	Lm1 (mm)	SW1 (mm)	SW2 (mm)	F _{a,z} (N)	Pack 1	Pack 2
6642008	49 mm	7	M8	M8	15	13	10	3,100	50	250
6642010	49 mm	7	M10	M10	15	13	12	3,100	50	250
6644010	64 mm	7	M10	M10	30	13	12	3,100	50	500
6642108	74 mm	32	M8	M8	15	13	10	3,100	25	250
6642110	74 mm	32	M10	M10	15	13	12	3,100	25	250
6642112	90 mm	30	M12	M12	-	24	19	5,000	10	100

Please note. Always use 2 ball swivel hangers and secure by additional hexagon nut (see application picture). The maximum length change that can be dealt with, depends on the fixing distance (ceiling - pipe). The height difference that occurs as a result, needs to be taken into consideration. To be used in combination with BIS RapidRail® or BIS RapidStrut® Ball Swivel Hangers. Product can be found on page G 30 60 / H 24 75.



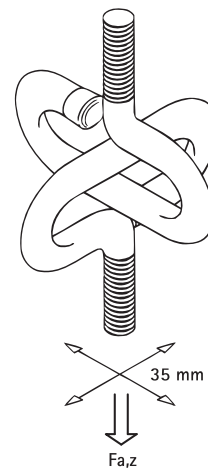
Complementary

- 485 BIS Fastenings
- 184 BIS RapidRail® Ball Swivel Hanger
- 260 BIS RapidStrut® Ball Swivel Hanger

BIS Sliding Stirrup

hinging fixing point

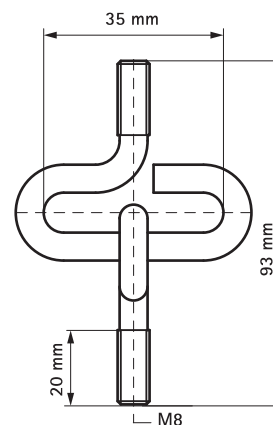
(E 10 10)



Features and Benefits

- for guiding linear expansion or contraction
- especially recommended for plastic pipes
- material: steel
- zinc plated

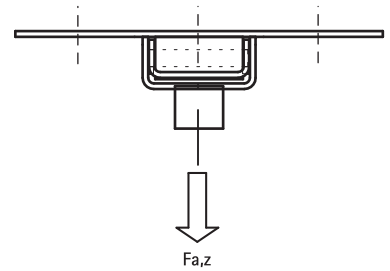
Part No.	Model	$F_{a,z}$ (N)	Pack 1
6653008	2 directions	520	25



BIS Expansion Device (BUP1000)

(E 10 35)

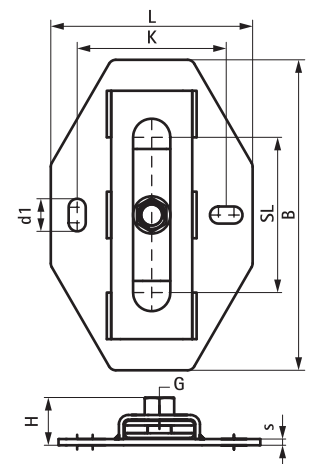
fixing with sliding assemblies



Features and Benefits

- single support for pipe expansion
- secure parts ensure mechanism will not slide out
- fix directly on the building structure or in combination with rail systems
- suitable for ceiling mounting (suspended) and floor mounting (standing mounted)
- very low installation height, useful in small spaces
- a variety of connection possibilities, can be combined with Bifix® G2 or HD1501 Pipe Clamps
- material: metal parts made of steel; plastic parts made of POM (polyoxymethylene)
- friction coefficient $\mu = 0.18$; Sliding friction coefficient $\mu = 0.14$
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- temperature resistance up to +120 °C

Part No.	Model	G	L	B	H	s	d1	k	SL (max.)	F _{a,z} (N)	Pack 1
				(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
6668310	Single	M8/10	130 mm	200	31	4.0	21 x 11	96	100	3,500	5
6668312	Single	M10/12	130 mm	200	34	4.0	21 x 11	96	100	4,800	5
6668316	Single	M16	130 mm	200	31	4.0	21 x 11	96	100	4,800	5



Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod
- 496 WTB1 Throughbolt Anchor

Alternative

- 139 BIS Expansion Guide Assembly (BUP1000)

BIS Expansion Device

(E 10 22)

fixing with sliding assemblies

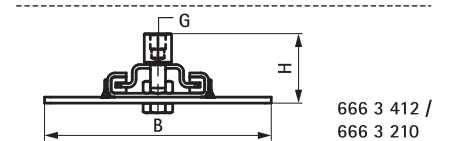
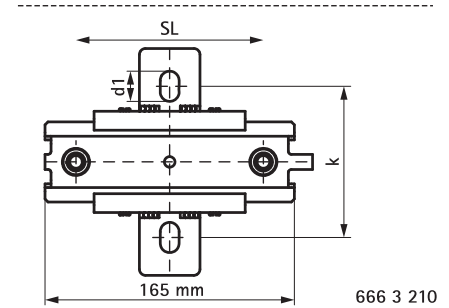
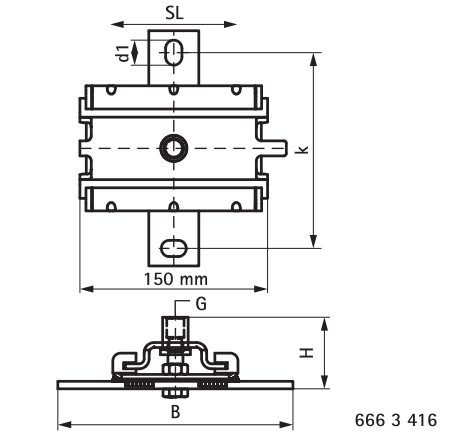
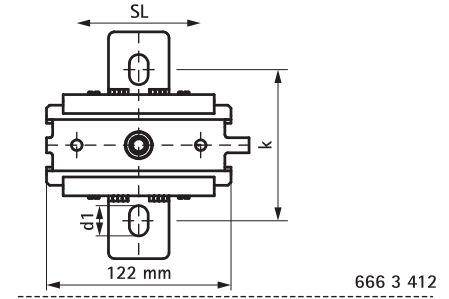
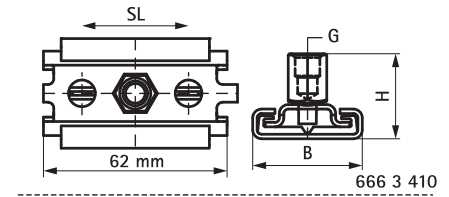


Features and Benefits

- single and double brackets for pipe extensions
- fix directly on the building structure or in combination with rail systems
- suitable for ceiling mounting (suspended) and floor mounting (standing mounted)
- a variety of connection possibilities, can be combined with all pipe clamps
- material: metal parts made of steel; plastic parts made of POM (polyoxymethylene) / PPS (polyamphenylensulfid)
- friction coefficient $\mu = 0.18$; Sliding friction coefficient $\mu = 0.14$
- zinc plated
- temperature resistance up to $+120\text{ }^{\circ}\text{C}$
- Part No. 666 3 416: temperature resistance up to $+240\text{ }^{\circ}\text{C}$

Part No.	Model	G	B	H	d1	k	SL (max.)	F _{a,z}	F _{a,z 2}	Pack 1
			(mm)	(mm)	(mm)	(mm)	(mm)	(N)	(N)	
6663410	Single	M8/10	37	29	8.4	-	42	700	700	50
6663412	Single	M10/12	150	46	20 x 12.5	100	80	2,300	2,300	10
6663416	Single	M12/16	188	57	20 x 12.5	157	120	9,000	5,000	10
6663210	Double	M10/12	150	46	20 x 12.5	100	140	2,300	2,300	10

F_{a,z} = standing mounted; F_{a,z 2} = suspended.



Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod
- 487 WDI1 Drop-in Anchor

Complementary

- 496 WT B1 Throughbolt Anchor

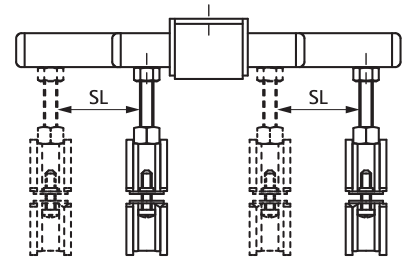
Alternative

- 137 BIS Expansion Device (BUP1000)
- 139 BIS Expansion Guide Assembly (BUP1000)

BIS Expansion Guide Assembly (BUP1000)

(E 10 40)

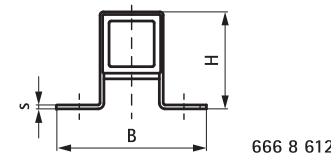
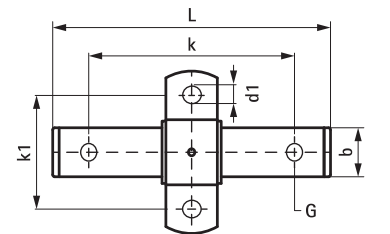
fixing with sliding assemblies



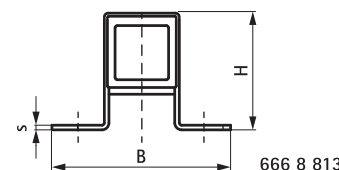
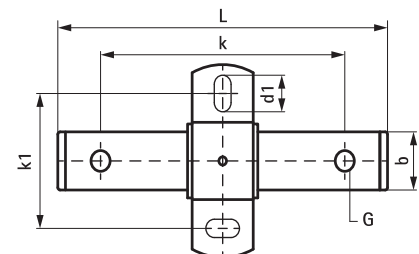
Features and Benefits

- stable and safe double support for pipe expansion
- fix directly on the building structure or in combination with rail systems
- suitable for ceiling mounting (suspended) and floor mounting (standing mounted)
- tapped with different sized threads on opposing faces
- a variety of connection possibilities, can be combined with Bifix® G2 or HD1501 Pipe Clamps
- material: metal parts made of steel; plastic parts made of PE
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Type	G	L	B	H	b	s	d1	k	k1	SL (max.)	F _{a,z} (N)	Pack 1
6668612	FG2	M10/12	170 mm	135	46	35	3.0	∅ 13	120	100	60	1,500	5
6668813	FG3	∅ 13.0 mm / 17.0 mm	255 mm	146	90	40	5.0	20 x 13	200	100	120	7,500	5



666 8 612



666 8 813

Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod
- 496 WT B1 Throughbolt Anchor

Alternative

- 137 BIS Expansion Device (BUP1000)

BIS Slide Block GFRP (BUP1000)

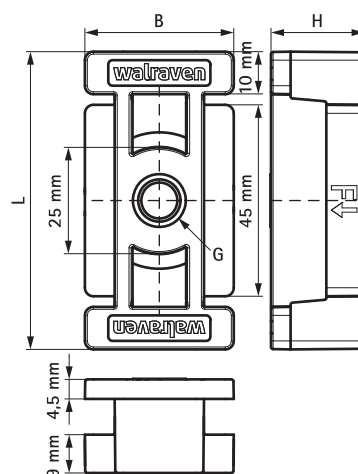
(E 10 45)



Features and Benefits

- flexible sliding element for pipe extensions
- can also be used as a cross-slide
- suitable for all BIS RapidStrut® Fixing Rail excluding DS5
- recommended for pipes up to DN100
- suitable for ceiling mounting (hanging) and floor mounting (standing mounted)
- very low installation height, little space requirement
- movement freely selectable, limitations and securing by U-washers
- material: hanger nut made of steel; plastic part made of Polyamide 6 (PA6), 30% glass fiber reinforced
- sliding friction coefficient $\mu = 0,30$
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- temperature resistance from -30 °C to +90 °C

Part No.	G	L	B	H	F _{a,z}	Pack 1
			(mm)	(mm)	(N)	
6662810	M10	70 mm	35	22	1,550	20



Complementary

- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 224 BIS RapidStrut® Fixing Rail (pg)
- 263 BIS Strut Washer - U-shaped (BUP1000)

Alternative

- 138 BIS Expansion Device

F BIS Suspension Components for Air Ducts



BIS Clamps with Lining for Spiral Ducts

BIS Aero®	142
Spiral Duct Clamp with Lining	143
BIS Support Bracket Rectangular Ductwork	144
BIS Support Bracket Round Ductwork	145
BIS Rubber Absorption Piece	146



BIS Clamps for Spiral Ducts

BIS Aluminium Clamp for Spiral Ducts	147
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BIS Clamps for Flues

BIS Aluminium Clamp for Flues	148
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BIS Supports for Spiral Ducts

BIS Supports for Spiral Duct	149
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BIS Aero®

for spiral ducts 80 - 1,250 mm

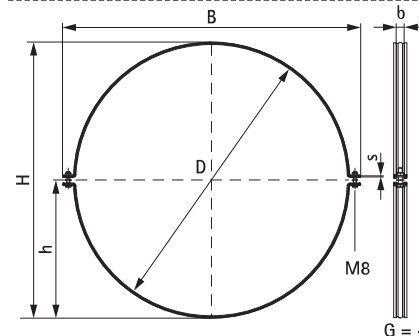
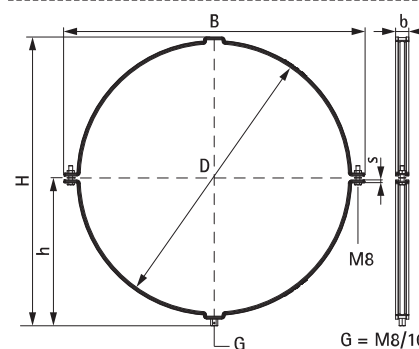
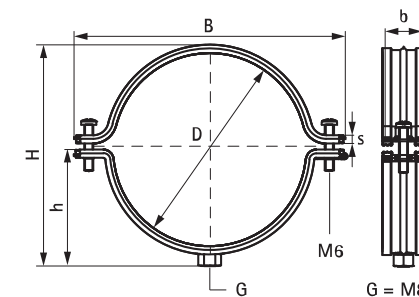
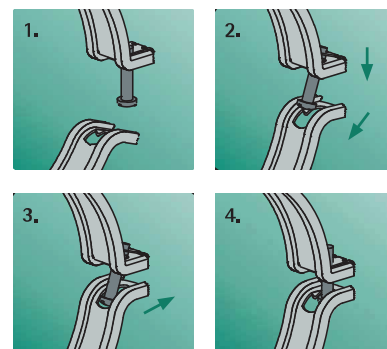
M8 - M8/10

(F05 03)



Features and Benefits

- with quick locking system
- patented design
- rubber lining is conjoined with the clamp (lining stays attached when sliding the spiral duct)
- pre-galvanized
- material: pipe clamp made of steel
- noise insulating lining made of TPE rubber, black



Part No.	D (mm)	G	B (mm)	H (mm)	h (mm)	b (mm)	s (mm)	F _{a,z} (N)	Pack 1
4115080	80	M8	134	84	54	25	1.25	700	25
4115100	100	M8	155	115	64	25	1.25	700	25
4115125	125	M8	179	139	76	25	1.25	700	20
4115140	140	M8	197	162	85	25	1.25	720	20
4115150	150	M8	205	164	88	25	1.25	720	20
4115160	160	M8	215	175	93	25	1.25	720	20
4115180	180	M8	238	202	105	25	1.25	720	20
4115200	200	M8	255	215	114	25	1.25	720	20
4115250	250	M8	306	265	138	25	1.25	720	20
4115315	315	M8	371	332	172	25	1.25	720	25
4115355	355	M8	411	371	192	25	1.25	720	25
4115400	400	M8	457	423	214	25	1.25	720	20
4115450	450	M8/10	524	498	256	25	2.00	1,150	3
4115500	500	M8/10	574	548	281	25	2.00	1,150	3
4115560	560	M8/10	634	608	311	25	2.00	1,150	3
4115600	600	M8/10	675	649	332	25	2.00	1,150	3
4115630	630	M8/10	705	679	347	25	2.00	1,150	3
4115710	710	-	785	732	366	25	2.00	1,150	3
4115800	800	-	875	817	409	25	2.00	1,150	3
4115900	900	-	975	917	459	25	2.00	1,150	3
4115999	1,000	-	1,076	1,018	509	25	2.00	1,150	3
4115997	1,120	-	1,196	1,138	569	25	2.00	1,150	3
4115998	1,250	-	1,326	1,268	634	25	2.00	1,150	3

D ≥ 450 mm locking: 2 hexagon head bolts with nut.

D ≥ 710 mm without connection nut.

The max. allowed load (F_{a,z}) is calculated using specific statistical methods related to the breaking load, taking into account a deflection of 1.5 mm or 2% of the maximum nominal clamp diameter.

Spiral Duct Clamp with Lining

(F05 06)

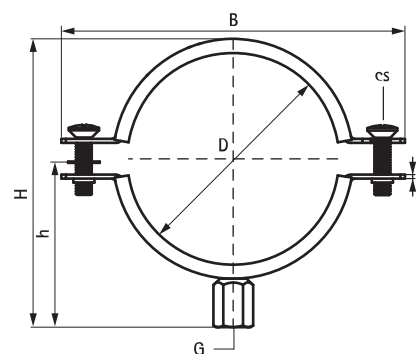
for spiral ducts 80 - 630 mm



Features and Benefits

- two-screw clamp
- with quick lock
- material: steel
- zinc plated
- sound insulating lining according DIN 4109
- sound insulating lining of aging resistant EPDM rubber, black

Part No.	D (mm)	G	B (mm)	H (mm)	h (mm)	b x s (mm)	cs	Pack 1
4103080	80	M8/10	125	109	57	20 x 1.50	M6	40
4103100	100	M8/10	149	129	67	20 x 1.50	M6	30
4103112	112	M8/10	163	141	74	20 x 1.50	M6	30
4103125	125	M8/10	180	154	78	20 x 1.50	M6	25
4103140	140	M8/10	189	169	86	20 x 1.50	M6	35
4103150	150	M8/10	202	179	92	20 x 1.50	M6	30
4103160	160	M8/10	222	189	98	20 x 1.50	M6	25
4103180	180	M8/10	243	209	108	20 x 1.50	M6	20
4103200	200	M8/10	259	229	117	20 x 1.50	M6	20
4103225	225	M8/10	288	253	132	20 x 1.50	M6	20
4103250	250	M8/10	304	279	145	20 x 1.50	M6	20
4103280	280	M8/10	358	309	160	20 x 1.50	M6	20
4103300	300	M8/10	373	329	171	20 x 1.50	M6	20
4103315	315	M8/10	386	344	178	20 x 1.50	M6	20
4103355	355	M8/10	445	384	198	20 x 1.50	M6	15
4103400	400	M8/10	493	429	221	20 x 1.50	M6	10
4103450	450	M8/10	540	483	246	25 x 2.00	M6	15
4103500	500	M8/10	591	532	271	25 x 2.00	M6	10
4103560	560	M8/10	635	591	300	25 x 2.50	M10	10
4103600	600	M8/10	675	631	320	25 x 2.50	M10	10
4103630	630	M8/10	706	664	335	25 x 2.50	M10	8



Complementary

- 144 BIS Support Bracket Rectangular Ductwork
- 145 BIS Support Bracket Round Ductwork
- 149 BIS Supports for Spiral Duct

Alternative

- 142 BIS Aero®

BIS Support Bracket Rectangular Ductwork

(F05 15)

for air ducts

A



B

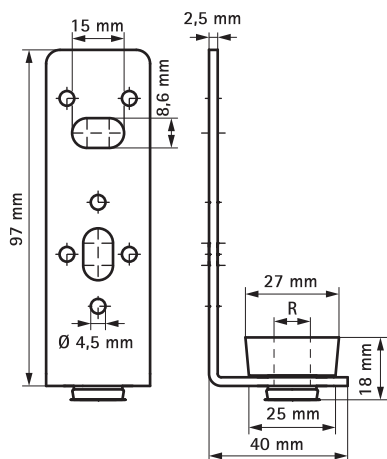


Features and Benefits

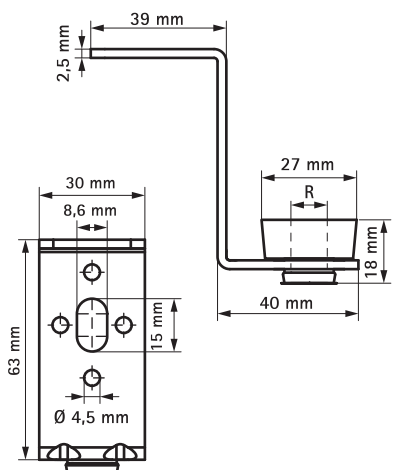
- for fixing of rectangular air ducts
 - with hole \varnothing 4.5 mm for pop-riev connection
 - material: metal parts made of steel; silent block made of TPE rubber, black
 - sound insulating lining according DIN 4109
- zinc plated

Part No.	Type	R	F _{a,z} (N)	Pack 1
A 4125001	L	M10	220	50
B 4125003	Z	M10	250	50

A



B



Complementary

- 485 BIS Fastenings
- 427 BIS Roofing Sheet Hanger VdS

BIS Support Bracket Round Ductwork

(F05 20)

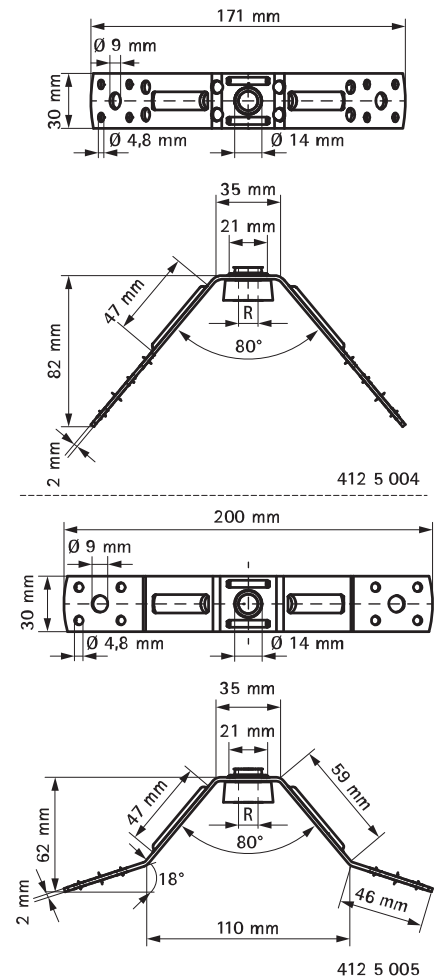
for air ducts



Features and Benefits

- for fixing of round air ducts
- with hole \varnothing 4.8 mm for pop-rivet connection
- material: metal parts made of steel; silent block made of TPE rubber, black
- zinc plated
- sound insulating lining according to DIN 4109

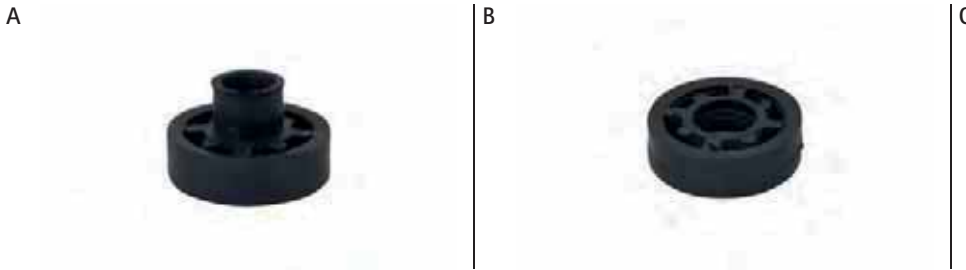
Part No.	Type	R	F _{a,z} (N)	Pack 1
4125004	V	M10	1,040	50
4125005	A	M10	1,040	50



BIS Rubber Absorption Piece

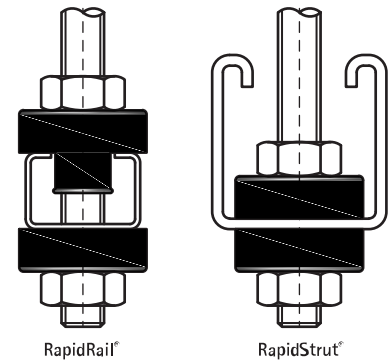
(F05 25)

noise insulation for rail



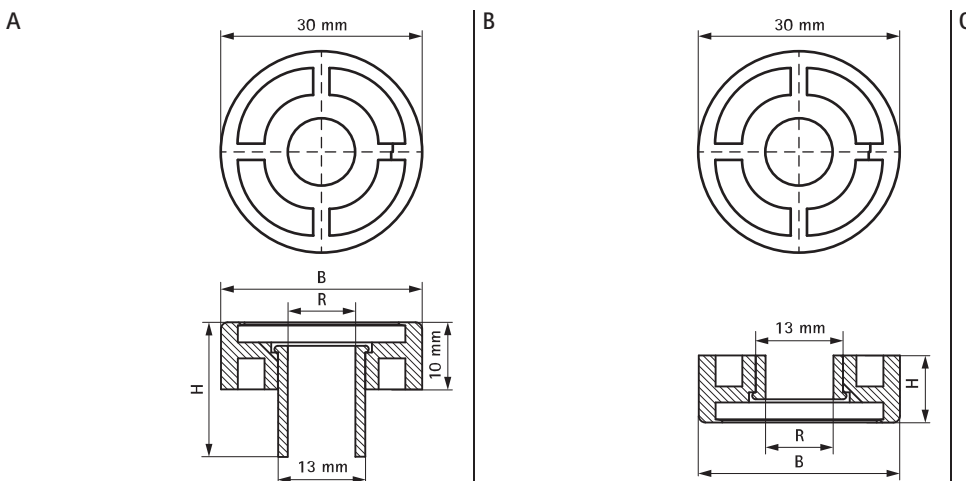
Features and Benefits

- noise insulating element
 - e.g. for noise insulating suspension of fixing rail in combination with threaded rod M10
 - rubber absorption pieces are suitable to use with RapidStrut® Rails and RapidRail® Profiles
 - material: metal parts made of steel; silent block made of TPE rubber, black
 - noise insulation up to 16dB(A) on average, when combined with RapidRail® 27x18, compared to directly installed clamps
- zinc plated



Part No.	Type	R	B (mm)	H (mm)	F _{a,z} (N)	Pack 1
A 4125007	M	10.1	30	19.5	-	100
B 4125008	F	10.1	30	10.0	-	100
C 4125006	M + F	10.1	30	23.0	600	50

The maximum allowed load can be higher under strict conditions and is depending on the frequency, for conditions and details please consult our technical department.



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 226 BIS RapidStrut® Fixing Rail Double (pg)
- 155 BIS RapidRail® Fixing Rail

Complementary

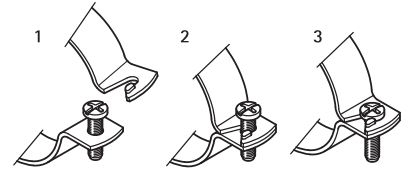
- 469 BIS Threaded Rod

BIS Aluminium Clamp for Spiral Ducts

(F 15 15)

for spiral ducts \varnothing 80 - 300 mm

M8

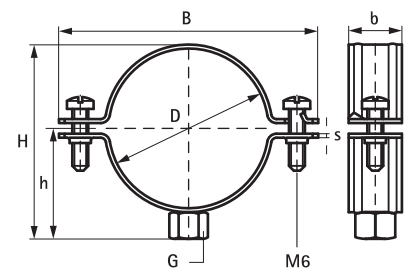


Features and Benefits

- two-screw clamp
- with quick locking system
- material: aluminium 3.0255

Part No.	D (mm)	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
4120080	80	M8	127	99	54	25 x 1.5	850	25
4120090	90	M8	137	109	59	25 x 1.5	850	25
4120100	100	M8	147	119	64	25 x 1.5	850	25
4120110	110	M8	158	131	70	25 x 1.5	850	25
4120130	130	M8	177	149	79	25 x 1.5	850	25
4120150	150	M8	197	169	89	25 x 1.5	850	25
4120180	180	M8	227	199	104	25 x 1.5	850	25
4120200	200	M8	247	219	114	25 x 1.5	850	25

Other dimensions on request.



Complementary

- 151 BIS RapidRail® Fixing System
- 401 BIS Fixing Accessories
- 485 BIS Fastenings

BIS Aluminium Clamp for Flues

(F 20 05)

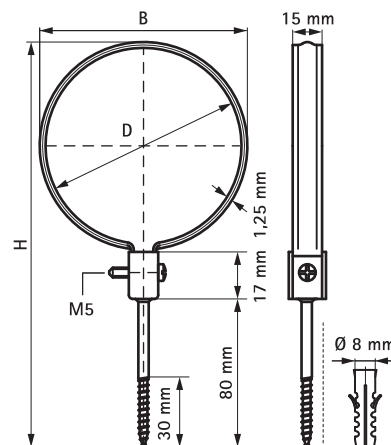
for flues \varnothing 70 - 150 mm



Features and Benefits

- one-part clamp with pre-assembled threaded shoulder wood screw
- material: clamp made of aluminium 3.0255; connector made of plastic
- connector temperature resistance to approx. 110 °C

Part No.	D (mm)	B (mm)	H (mm)	F _{a,z} (N)	Pack 1
4109070	70	74	170	450	25
4109080	80	84	180	450	25
4109090	90	94	190	450	25
4109100	100	107	200	450	25
4109110	110	114	210	450	25
4109130	130	134	230	450	25
4109150	150	154	250	450	25



Alternative

147 BIS Aluminium Clamp for Spiral Ducts

BIS Supports for Spiral Duct

(F 25 05)

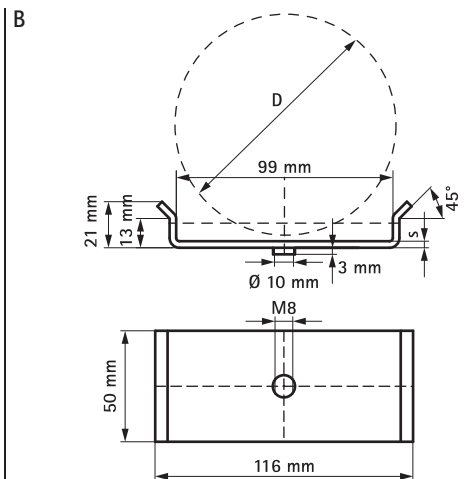
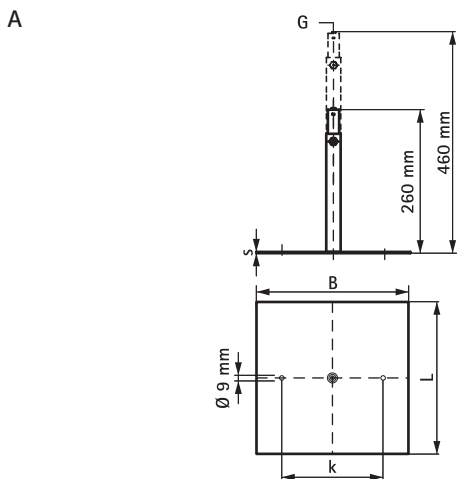
supports of spiral ducts 0.0 - 630.0 mm



Features and Benefits

- the spiral tube can be connected to the support by use of suspension band
- with height-adjustable stand with M8-connection (male thread)
- material: steel
- base plate pre-galvanized; stand zinc plated

Part No.	D (mm)	Model	G	L	B (mm)	s (mm)	k (mm)	Pack 1
A 4125031	0.0	Base plate small	M8	100 mm	150	2.0	100	5
A 4125036	0.0	Base plate large	M8	300 mm	300	2.0	200	5
B 4125038	160 - 630	U-Bracket M8 for spiral duct	M8	116 mm	-	3.0	-	25



G BIS RapidRail® Fixing System



BIS Fixing Rail

BIS RapidRail® Fixing Rail	155
BIS Fixing Rail - WM3	157
BIS Fixing Rail - U-shaped	158
BIS Fixing Rail - L-shaped	159



BIS Cantilever Arms

BIS RapidRail® Cantilever Arm (BUP1000)	160
BIS Cantilever Arm - WM3 (BUP1000)	161
BIS Cantilever Arm - U-shaped	162



BIS Wall Plates

BIS RapidRail® Wall Plate	163
BIS RapidRail® Wall Plate (Hinged)	164
BIS Wall Plate - WM3	165



BIS Rail Props and Brackets

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BIS Rail Prop - WM3	167
BIS Rail Junction Angle Bracket (zp)	168
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BIS Corner Bracket	170
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BIS Console Kits and Gasmeter Holder

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BIS Rail Accessories for Pipe Fixing

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BIS RapidRail® Basket Retainer Clip	191



BIS Rail Connectors

BIS RapidRail® Connector 90°	192
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BIS Beam Clamps and Rail Fixing Sets

BIS RapidRail® Beam Clamp	202
BIS Rail Beam Clamp	203
BIS Rail Beam Clamp - WM3	204
BIS 'Light Duty' Beam Clamp	205
BIS Rail WM0 'Light Duty' Set	207
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G BIS RapidRail[®] Fixing System



BIS Rail Finish Material

BIS Rail End Cap	209
BIS Rubber Strip	210
BIS Rail End Cap - WM3	211

BIS RapidRail®

Fast and easy fixing



Insert, lock, done

The accessories are pre-assembled and delivered 'ready to use' to site. The plastic spring allows the slide nut to be fixed easily into the rail, saving up to 40% fixing time.



Complete range

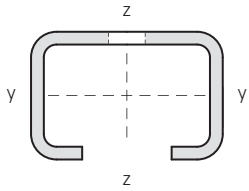
The BIS RapidRail® System offers a complete and effective range of rail profiles, cantilever arms and accessories for pipe fixing and rail construction.



Fast and easy fixing

BIS RapidRail® WM15, WM30 and WM35 have a unique hole pattern allowing the accessories to be fitted on both sides of the rail quickly and easily.

Table of rail section properties



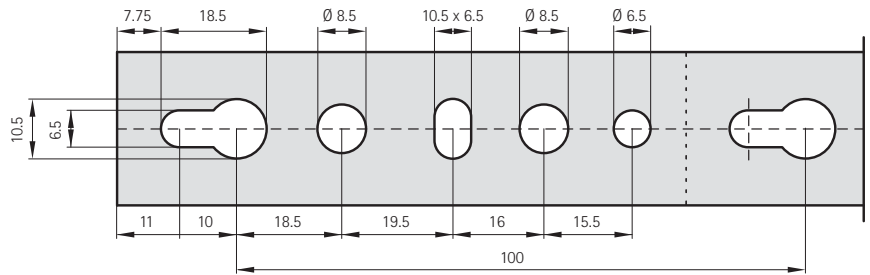
Type	Weight (kg / m)	Moment of inertia cm ⁴		Section modulus cm ³	
		I _y	I _z	W _y	W _z
WM0	0.58	0.28	0.91	0.30	0.67
WM1	0.85	0.28	1.47	0.35	0.98
WM15	0.77	0.49	1.66	0.49	1.10
WM2	1.31	1.71	2.65	1.08	1.76
WM30	1.67	4.57	3.79	2.03	2.53
WM35	1.65	3.62	5.03	1.81	2.65

See Rail load tables for safe working loads.

Perforation pattern for fixing to ceiling or wall.

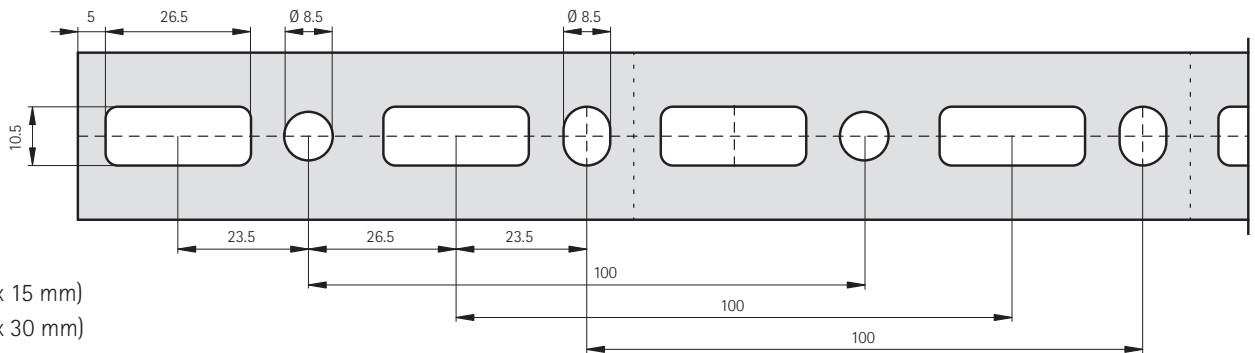
Distance between rail end and first hole is always equal. All sizes in mm.

WM0 (27 x 18 mm)



WM1 (30 x 15 mm)

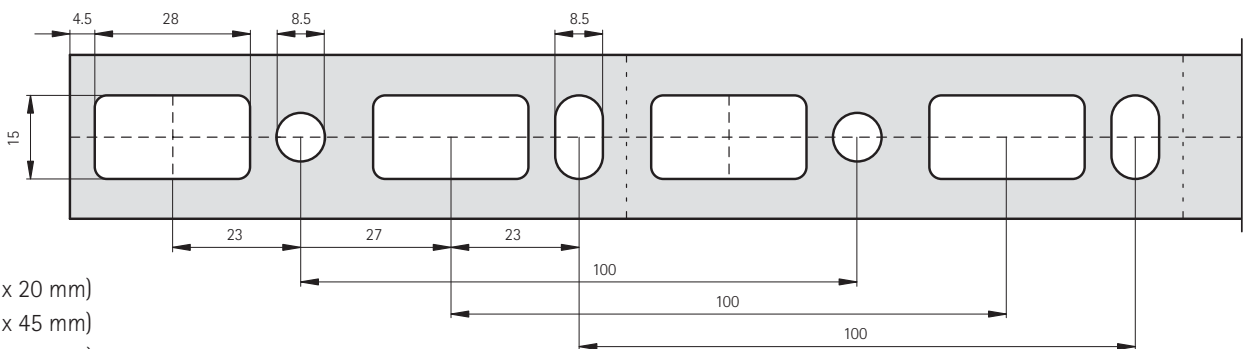
WM2 (30 x 30 mm)



WM15 (30 x 20 mm)

WM30 (30 x 45 mm)

WM35 (38 x 40 mm)



BIS RapidRail® Fixing Rail

(G 04 05)

suspension and support



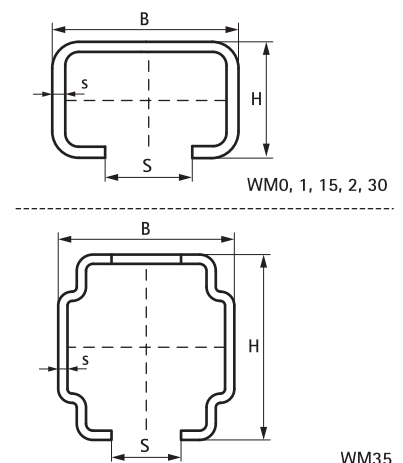
Features and Benefits

- C-profile
- for a quick and easy fixing
- with continuous perforation
- distance between rail end and first hole is always equal
- unique perforation on rail WM15, WM30 and WM35 allows for hanging on both sides
- pre-galvanized
- a continuous graduated centimetre scale on one side
- material: steel 1.0242
- yield strength 240 N/mm²



Part No.	Type	L	B (mm)	H (mm)	s (mm)	S (mm)	RAL	BndS	BndL	App.
6505000	WM0	2 m	27	18	1.20	15	RAL ¹	20	400	m.
6505600	WM0	6 m	27	18	1.20	15	RAL ¹	60	1.200	m.
6505001	WM1	2 m	30	15	2.00	15	RAL ¹	20	480	m.
6505601	WM1	6 m	30	15	2.00	15	RAL ¹	60	720	m.
6505515	WM1	0.5 m	30	15	2.00	15	RAL ¹	1	-	pc.
6505015	WM15	2 m	30	20	1.75	15	RAL ¹	20	480	m.
6505615	WM15	6 m	30	20	1.75	15	RAL ¹	60	720	m.
6505002	WM2	2 m	30	30	2.00	15	RAL ¹	20	400	m.
6505602	WM2	6 m	30	30	2.00	15	RAL ¹	60	600	m.
6505030	WM30	2 m	30	45	2.00	15	RAL ¹	20	240	m.
6505630	WM30	6 m	30	45	2.00	15	RAL ¹	60	360	m.
6505235	WM35	2 m	38	40	2.00	15	-	20	100	m.
6505635	WM35	6 m	38	40	2.00	15	-	60	300	m.

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/C.
 For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.
 For more information about the max. allowed load (F_{0,2}) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidRail®'.



Complementary

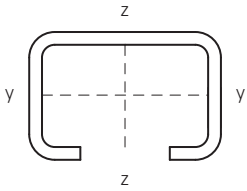
- 177 BIS RapidRail® Slide Nut
- 183 BIS RapidRail® Hammerfix
- 209 BIS Rail End Cap

Complementary

- 192 BIS RapidRail® Connector 90°
- 193 BIS RapidRail® Connector 135°

Technical Details Rail WM3

System WM3 - Table of rail section properties

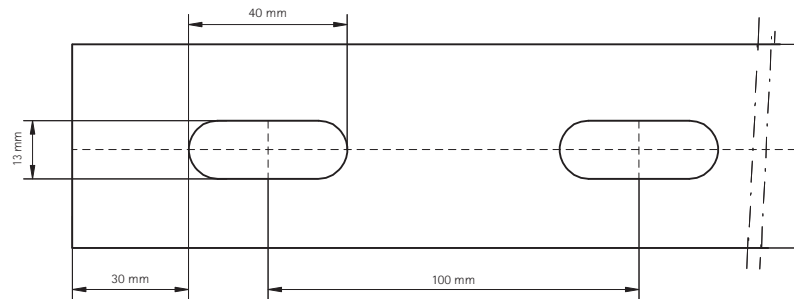


Type	Weight (kg / m)	Moment of inertia cm ⁴		Section modulus cm ³	
		I _y	I _z	W _y	W _z
WM3	3.22	8.17	15.95	3.95	6.38
See Rail load tables for safe working loads.					

Perforation pattern for fixing to ceiling or wall.

Distance between rail end and first hole is always equal.

WM3 (50 x 40 mm)



BIS Fixing Rail – WM3

(G 04 40)

suspension and support

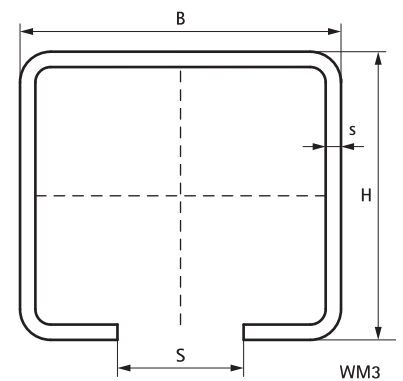


Features and Benefits

- C-profile
 - for a quick and easy fixing
 - with continuous perforation
 - distance between rail end and first hole is always equal
 - pre-galvanized
- material: steel 1.0242

Part No.	L	B (mm)	H (mm)	s (mm)	S (mm)	BndS	BndL	App.
6505003	3 m	50	40	3.0	18	3	192	m.

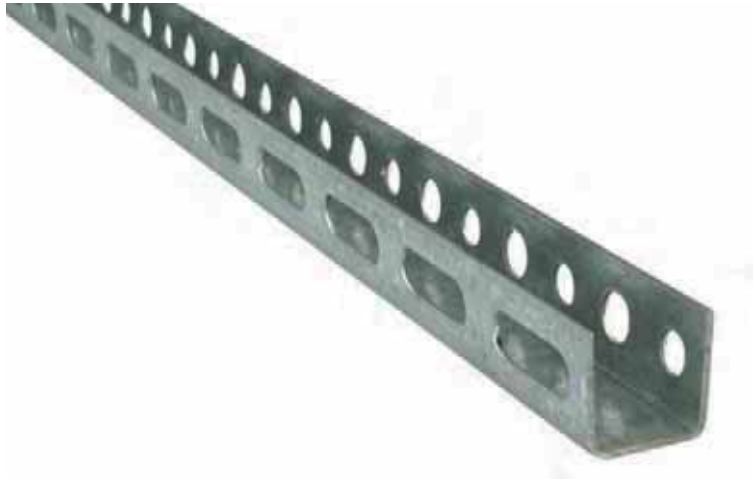
For more information about the max. allowed load ($F_{0,2}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidRail®'.



BIS Fixing Rail – U-shaped

(G 04 45)

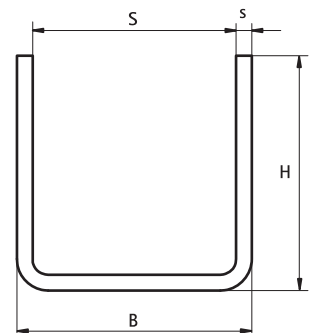
suspension and support



Features and Benefits

- for a quick and easy fixing
- with continuous perforation
- a continuous graduated centimetre scale on one side
- pre-galvanized
- material: steel

Part No.	L	B (mm)	H (mm)	s (mm)	S (mm)	BndS	BndL	App.
6505293	2 m	30	30	2.0	26	16	480	m.
6505294	2 m	30	30	3.0	24	16	480	m.



BIS Fixing Rail – L-shaped

suspension and support

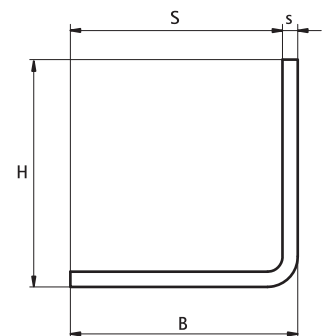
(G 04 50)



Features and Benefits

- for a quick and easy fixing
- with continuous perforation
- a continuous graduated centimetre scale on one side
- pre-galvanized
- material: steel

Part No.	L	B (mm)	H (mm)	s (mm)	S (mm)	BndS	BndL	App.
6505297	2 m	30	30	2.0	28	16	720	m.
6505298	2 m	30	30	3.0	27	16	720	m.



BIS RapidRail® Cantilever Arm (BUP1000)

(G 10 05)

fixing to wall or ceiling

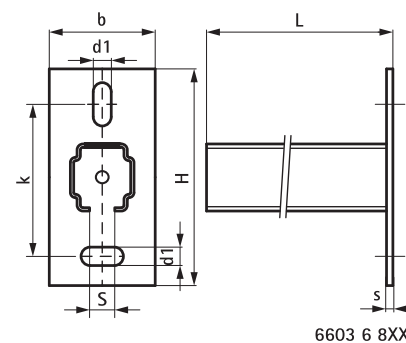
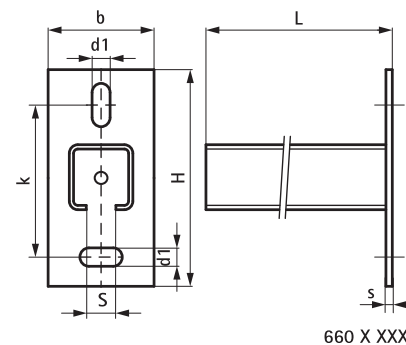


Features and Benefits

- wall plate with welded C-profile
- perfectly suitable for hanging to the ceiling
- slots at 90° to each other to simplify fixing
- CO₂ welded
- a continuous graduated centimetre scale on one side
- unique perforation on rail WM15, WM30 and WM35 allows for hanging on both sides
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	s	d1	S	k	From Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
6603015	150 mm	38	110	4.0	25 x 11	15	70	WM0 - 27x18	20
6603019	200 mm	38	110	4.0	25 x 11	15	70	WM0 - 27x18	20
6603115	150 mm	48	110	5.0	25 x 11	15	70	WM1 - 30x15	20
6603120	200 mm	48	110	5.0	25 x 11	15	70	WM1 - 30x15	20
6603125	250 mm	48	110	5.0	25 x 11	15	70	WM1 - 30x15	20
6603130	300 mm	48	110	5.0	25 x 11	15	70	WM1 - 30x15	20
6603715	150 mm	38	110	4.0	25 x 11	15	70	WM15 - 30x20	20
6603720	200 mm	38	110	4.0	25 x 11	15	70	WM15 - 30x20	20
6603725	250 mm	38	110	4.0	25 x 11	15	70	WM15 - 30x20	20
6603215	150 mm	48	110	5.0	25 x 11	15	70	WM2 - 30x30	20
6603220	200 mm	48	110	5.0	25 x 11	15	70	WM2 - 30x30	10
6603225	250 mm	48	110	5.0	25 x 11	15	70	WM2 - 30x30	10
6603230	300 mm	48	110	5.0	25 x 11	15	70	WM2 - 30x30	10
6603240	400 mm	48	110	5.0	25 x 11	15	70	WM2 - 30x30	20
6603245	450 mm	5.0	110	5.0	25 x 11	15	70	WM2 - 30x30	20
6603250	500 mm	48	110	5.0	25 x 11	15	70	WM2 - 30x30	20
66036820	200 mm	48	130	5.0	25 x 11	15	90	WM35 - 38x40	10
66036825	250 mm	48	130	5.0	25 x 11	15	90	WM35 - 38x40	10
66036835	350 mm	48	130	5.0	25 x 11	15	90	WM35 - 38x40	10
66036840	400 mm	48	130	5.0	25 x 11	15	90	WM35 - 38x40	10
66036850	500 mm	48	130	5.0	25 x 11	15	90	WM35 - 38x40	10
66036860	600 mm	48	130	5.0	25 x 11	15	90	WM35 - 38x40	1
66036875	750 mm	48	130	5.0	25 x 11	15	90	WM35 - 38x40	1
66036805	1,050 mm	48	130	5.0	25 x 11	15	90	WM35 - 38x40	1

For more information about the max. allowed load ($F_{0,2}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidRail®'.



Complementary

- 166 BIS Rail Prop
- 177 BIS RapidRail® Slide Nut
- 183 BIS RapidRail® Hammerfix

Complementary

- 209 BIS Rail End Cap
- 448 BIS Washer (BUP1000)

BIS Cantilever Arm – WM3 (BUP1000)

(G 10 15)

fixing to wall or ceiling

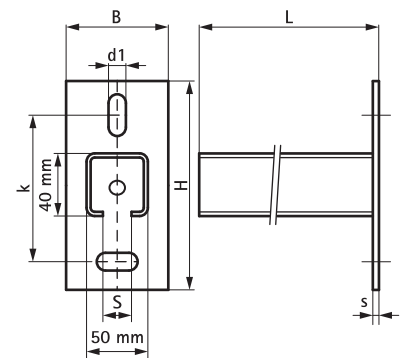


Features and Benefits

- wall plate with welded C-profile
- perfectly suitable for hanging to the ceiling
- slots at 90° to each other to simplify fixing
- CO₂ welded
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	s	d1	S	k	From Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
6603335	350 mm	70	160	8.0	26 x 14	18	115	WM3 - 50x40	10
6603355	550 mm	70	160	8.0	26 x 14	18	115	WM3 - 50x40	1

For more information about the max. allowed load (F_{o,z}) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidRail®'.



Complementary

- 167 BIS Rail Prop - WM3
- 211 BIS Rail End Cap - WM3

BIS Cantilever Arm – U-shaped

(G 10 20)

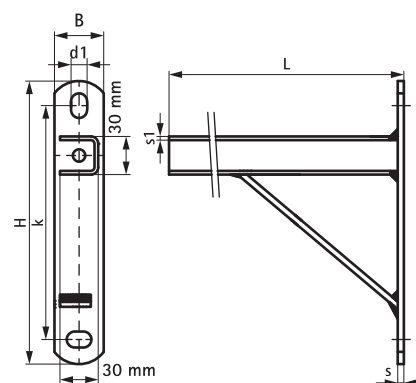
fixing to wall or ceiling



Features and Benefits

- U-profile welded on wall plate
- slots at 90° to each other to simplify fixing
- material: steel
- hot dip galvanized

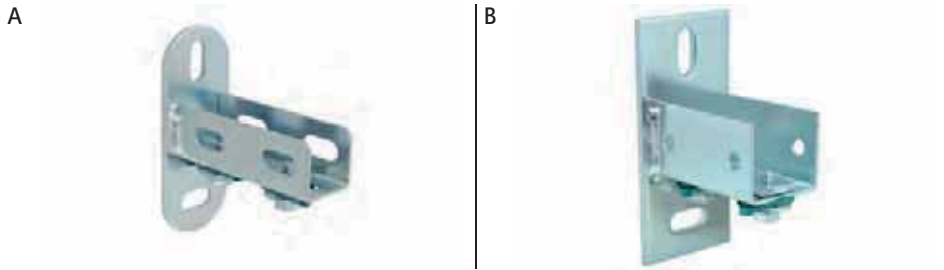
Part No.	Model	L	B	H	s	s1	d1	k	From Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
6601911	With prop	255 mm	40	230	5.0	3.0	20 x 13	190	U-rail	5
6601912	With prop	305 mm	40	230	5.0	3.0	20 x 13	190	U-rail	5
6601913	With prop	405 mm	40	230	5.0	3.0	20 x 13	190	U-rail	5
6601914	With prop	605 mm	40	230	5.0	3.0	20 x 13	190	U-rail	5
6601915	With prop	805 mm	40	400	5.0	3.0	20 x 13	360	U-rail	5



BIS RapidRail® Wall Plate

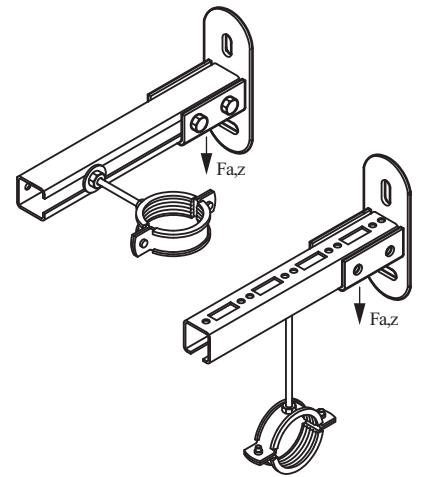
(G 15 05)

fixing to wall

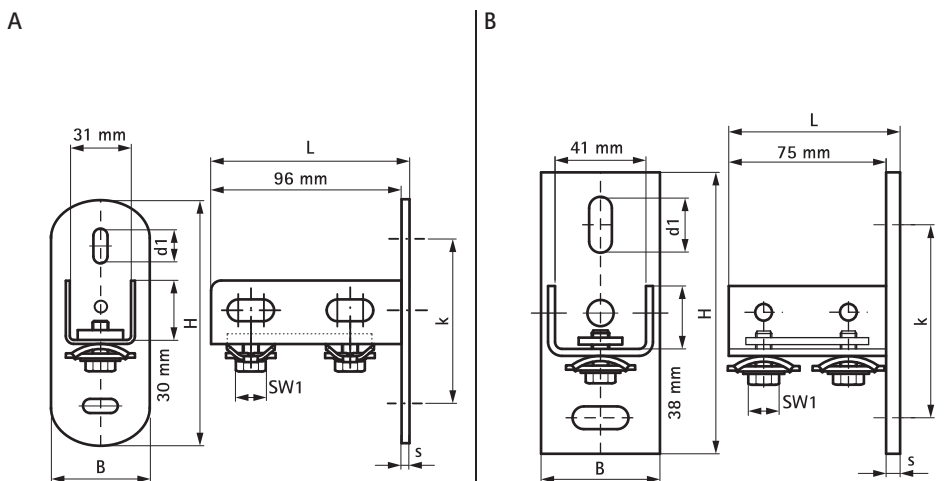


Features and Benefits

- flexible base plate for rails
- for wall fixing of rail
- rail can be fixed with slot downwards or sideways
- Part No. 661 3 200: suitable for WM0, 1, 15, 2, 30
- Part No. 661 3 235: suitable for WM35
- slots at 90° to each other to simplify fixing
- CO₂ welded
- with pre-assembled BIS RapidRail® Sliding nut(s) for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated



Part No.	L	B	H	s	d1	k	SW1	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
A 6613200	100 mm	50 (mm)	123 (mm)	4.0 (mm)	25 x 11 (mm)	83 (mm)	13 (mm)	15.0	WM0 - 30	2,850	25
B 6613235	80 mm	60 (mm)	133 (mm)	5.0 (mm)	25 x 11 (mm)	93 (mm)	13 (mm)	15.0	WM35	2,850	25



Complementary
155 BIS RapidRail® Fixing Rail

BIS RapidRail® Wall Plate (Hinged)

(G 15 10)

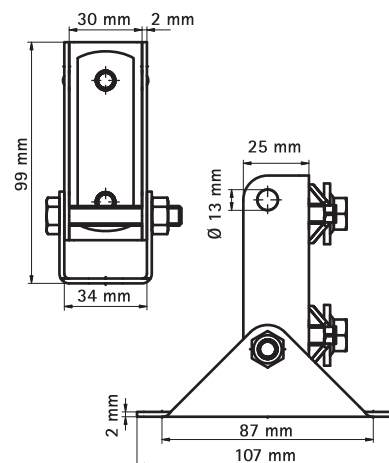
fixing to wall



Features and Benefits

- wall plate with hinging U-profile
- also used to strengthen rail constructions
- for fixing of rail to sloping walls
- Part No. 661 3 250: suitable for WM1, 15, 2, 30
- material: steel
- zinc plated

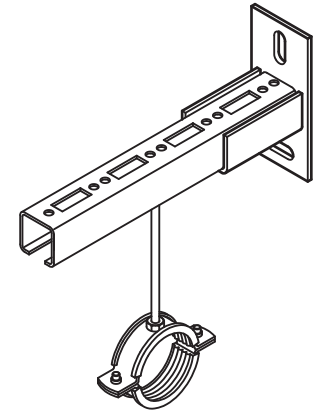
Part No.	T _(max.) (Nm)	For Rail	Pack 1
6613250	15.0	WM1 - 30	20



BIS Wall Plate – WM3

(G 15 20)

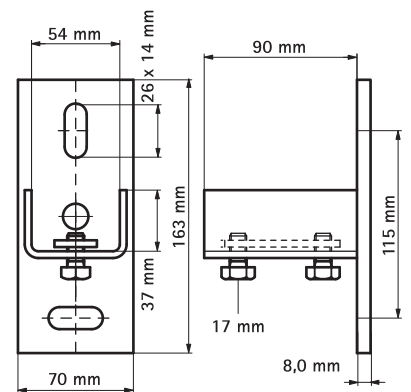
fixing to wall



Features and Benefits

- flexible base plate for rails
- slots at 90° to each other to simplify fixing
- with pre-assembled slide nuts
- material: steel
- zinc plated

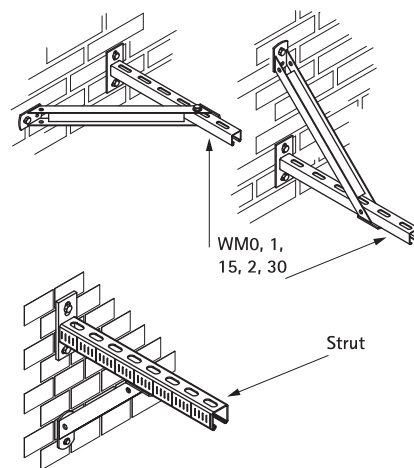
Part No.	For Rail	Pack 1
6613300	WM3	10



BIS Rail Prop

reinforcement of cantilever arm

(G 20 05)

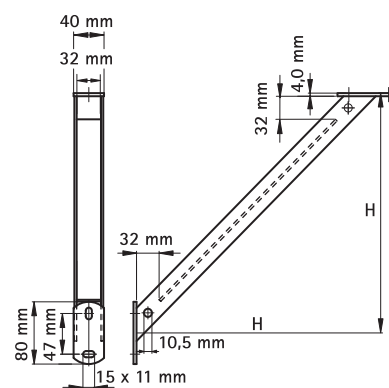


Features and Benefits

- 45° support bracket
- for fixing support under, top or on side of a cantilever arm
- also used to strengthen rail constructions
- cantilever arm of WM30 not suitable for 'run-through fixing'
- suitable for WMO, 1, 15, 2, 30
- CO₂ welded
- material: steel
- zinc plated

Part No.	H (mm)	For Rail	Pack 1
6628220	250	WMO - 30	10
6628230	350	WMO - 30	10

Rail Props for WM35 Rail? See Part No. 662 8 530 (page H 16 10).



Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

BIS Rail Prop – WM3

reinforcement of cantilever arm

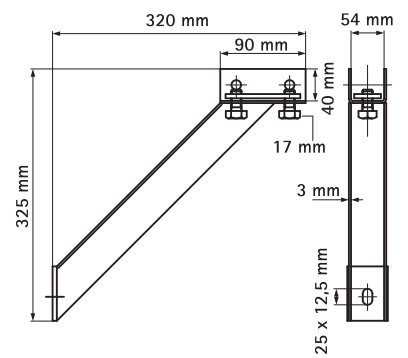
(G 20 10)



Features and Benefits

- 45° support bracket
- for fixing support under, top or on side of a cantilever arm
- also used to strengthen rail constructions
- CO₂ welded
- material: steel
- zinc plated

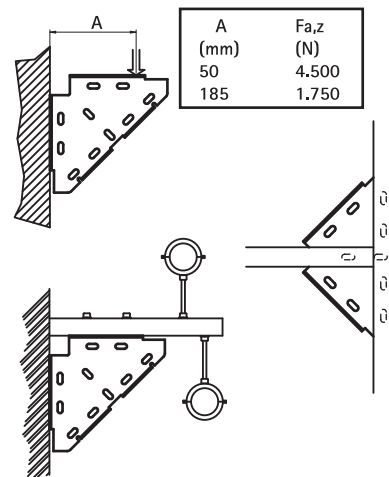
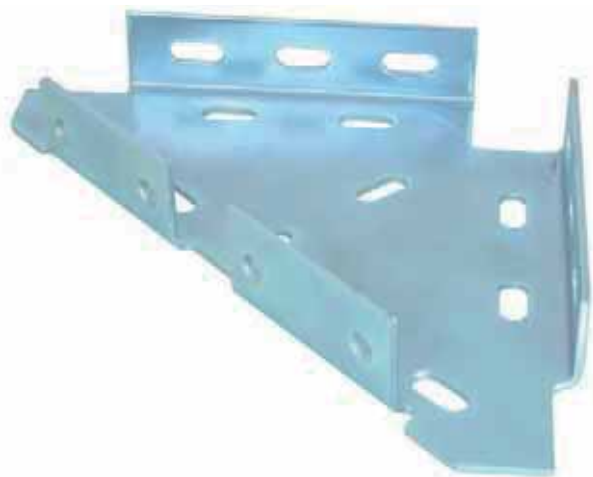
Part No.	For Rail	Pack 1
6623326	WM3	8



BIS Rail Junction Angle Bracket (zp)

(G 20 15)

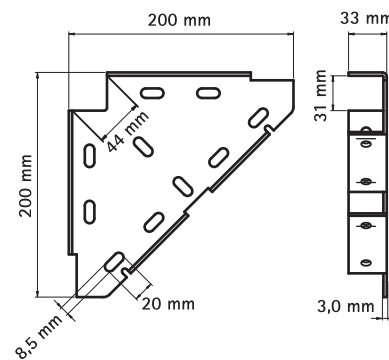
to make BIS RapidRail® fabrications



Features and Benefits

- one-part support
- for fixing support under, top or on side of a cantilever arm
- also used to strengthen rail constructions
- suitable for WMO, 1, 15, 2, 30
- material: steel
- zinc plated

Part No.	For Rail	Pack 1
6593010	WMO - 30	10
<i>Rail Junction Angle Bracket for WM35 Rail? See Part No. 659 3 020 (page H 16 25).</i>		



BIS Rail Junction Angle Bracket (hdg)

(G 20 20)

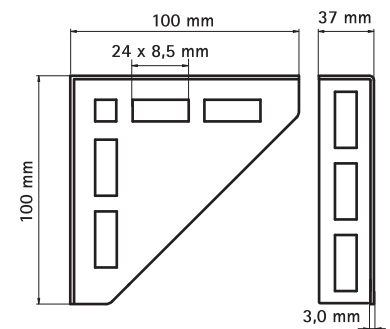
to make BIS RapidRail® fabrications



Features and Benefits

- one-part support
- for fixing support under, top or on side of a cantilever arm
- also used to strengthen rail constructions
- suitable for WM1, 15, 2, 30
- material: steel
- hot dip galvanized

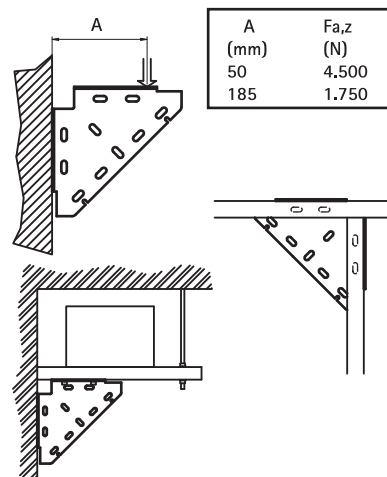
Part No.	For Rail	Pack 1
6661110	WM1 - 30	25



BIS Corner Bracket

to make BIS RapidRail® fabrications

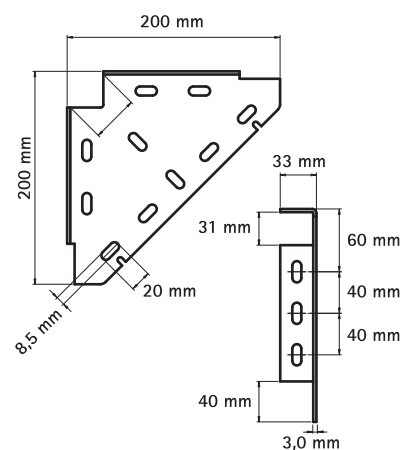
(G 20 25)



Features and Benefits

- one-part support
- for fixing support under, top or on side of a cantilever arm
- also used to strengthen rail constructions
- suitable for WMO, 1, 15, 2, 30
- material: steel
- zinc plated

Part No.	For Rail	Pack 1
6603010	WMO - 30	10
<i>Corner Bracket for WM35 Rail? See Part No. 660 3 020 (page H 16 40).</i>		



BIS Rail Junction Assembly

(G 20 35)

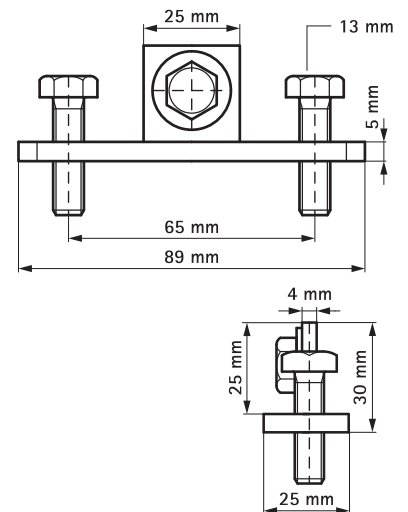
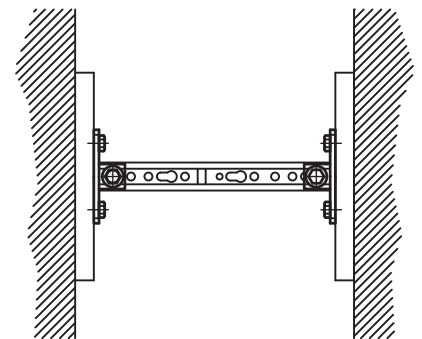
fixing to steel beam



Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- always use 2 beam clamps per fixing
- also suitable for fixing in risershafts
- suitable for WMO, 1, 15, 2, 30, 35
- material: steel
- zinc plated

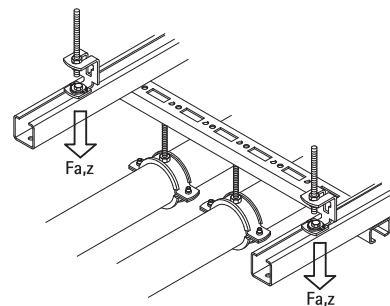
Part No.	T _(max.) (Nm)	For Rail	Pack 1
6613820	15.0	WMO - 35	50



BIS RapidRail® Rail Suspension Bracket

(G 20 40)

fixing of rail to stud bolt



Features and Benefits

- connector with pre-assembled BIS RapidRail® Slide nut(s)
- suitable for WM0, 1, 15, 2, 30, 35
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- with pre-assembled BIS RapidRail® Sliding nut(s) for a quick fixing, and retains assembly in place before final tightening
- stud bolt with upturned nut hooked in easily because of cross-shaped hole
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated

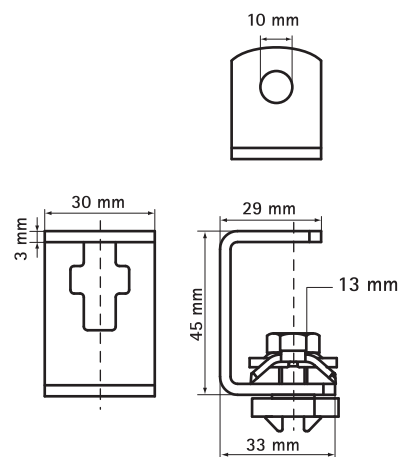


RAL-GZ 655/D
Cert.Nr. 2012-09

Part No.	T _(max.) (Nm)	For Rail	F _{a,z} (N)	F _{a,x} (N)	RAL	Pack 1
6793008	15.0	WM0 - 35	1,600	79	RAL ¹	50

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/D in combination with Rail WM1, 2, 15 and 30.

For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



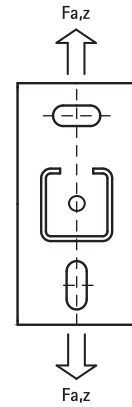
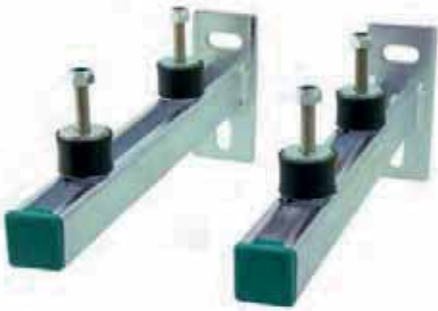
Complementary

155 BIS RapidRail® Fixing Rail

BIS Console Kit ISO

wall fixing of appliances

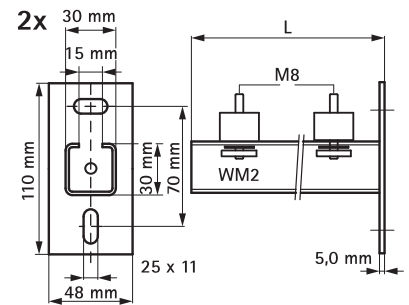
(G 25 05)



Features and Benefits

- universal fixing kit
- for wall fixing of water pumps, compressors and other light duty machinery
- vibration isolators pre-assembled with slide nut, washer and hexagon head lock-nut
- material: steel
- zinc plated
- noise insulation by use of vibration isolators (support made of vulcanized rubber)
- consists of:
 - 2 Cantilever arms
 - 4 Vibration isolators
 - 2 Rail End Caps
 - 1 Mounting kit

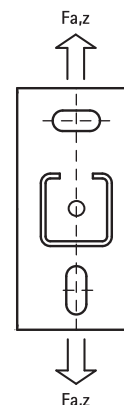
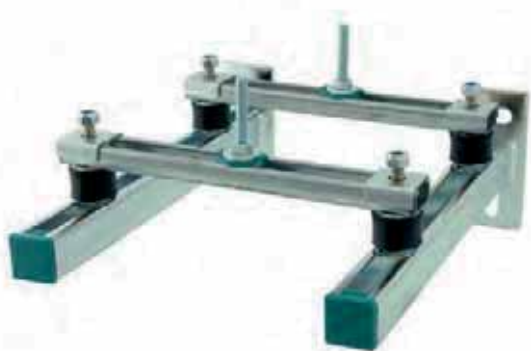
Part No.	L	T _(max.) (Nm)	From Rail	F _{a,z} (N)	Pack 1
6923230	300 mm	15.0	WM2	1,200	4
6923240	400 mm	15.0	WM2	700	6
6923250	500 mm	15.0	WM2	500	4



BIS Console Kit ISO – with Bridging

(G 25 10)

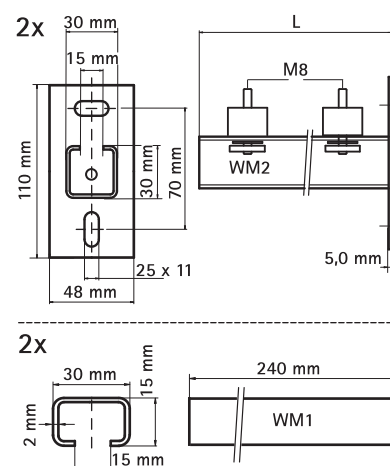
wall fixing of appliances



Features and Benefits

- universal fixing kit
- for wall fixing of water pumps, compressors and other light duty machinery
- bridging rail for fixing of devices with 2 fixing holes
- vibration isolators pre-assembled with slide nut, washer and hexagon head lock-nut
- material: steel
- zinc plated
- noise insulation by use of vibration isolators (support made of vulcanized rubber)
- consists of:
 - 2 Cantilever arms
 - 2 bridgings of rail WM1 (30x15 mm)
 - 4 Vibration isolators
 - 2 Slide tee-bolt assemblies
 - 2 Rail End Caps
 - 1 Mounting kit

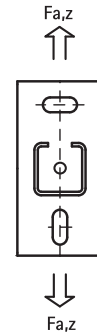
Part No.	L	T _(max.) (Nm)	From Rail	F _{a,z} (N)	Pack 1
6923235	300 mm	15.0	WM2	1,200	4
6923245	400 mm	15.0	WM2	700	6



BIS Console Kit Clim ISO

(G 25 15)

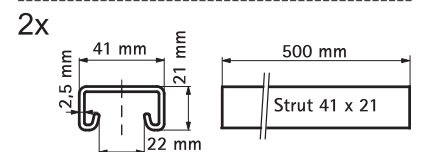
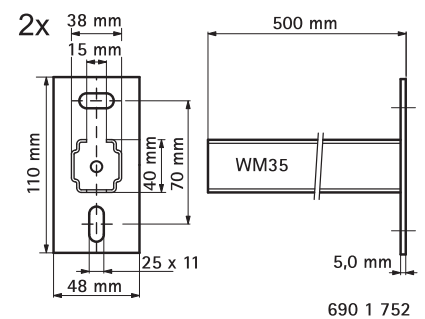
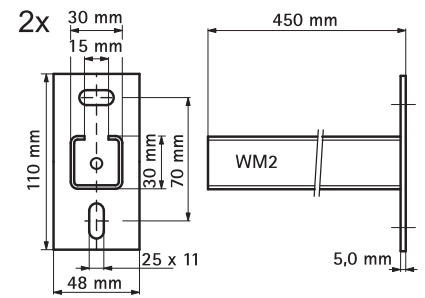
wall fixing of appliances



Features and Benefits

- universal fixing kit
- for wall fixing of airconditioners, heaters, compressors and other heavy duty material
- wall rail for extra height adjustability and/or simplifying fixing to unequal surface
- vibration isolators pre-assembled with slide nut, washer and hexagon head lock-nut
- material: steel
- zinc plated
- noise insulation by use of vibration isolators (support made of vulcanized rubber)
- consists of:
 - 2 Cantilever arms
 - 2 lengths of Strut 41x21
 - 4 Vibration isolators
 - 2 Rail End Caps
 - 1 Mounting kit

Part No.	L	T _(max.) (Nm)	From Rail	F _{a,z} (N)	Pack 1
6901745	450 mm	15.0	WM2	600	4
6901752	500 mm	15.0	WM35	1,000	1



BIS Gas Meter Holder

(G 25 20)

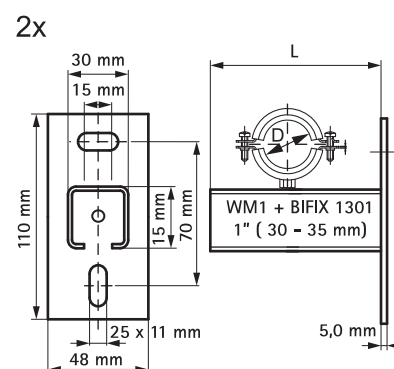
fixing of gas meter 30 - 35 mm



Features and Benefits

- universal fixing kit
 - for wall fixing of a gas meter
 - slots at 90° to each other to simplify fixing
 - cantilever arm: CO₂ welded
 - material: steel
 - zinc plated
- consists of:
 - 2 Cantilever arms
 - 2 Clamps BIS Bifix® 1301 with lining
 - 4 Star plugs
 - 1 Mounting kit

Part No.	D (mm)	D (°)	L	From Rail	Pack 1
4923135	30 - 35	1	200 mm	WM1 - 30x15	1



BIS RapidRail® Slide Nut

(G 30 05)

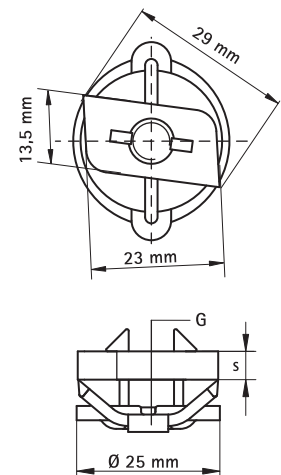
fixing to BIS RapidRail®



Features and Benefits

- slide nut with washer and BIS RapidRail® spring
- suitable for WM0, 1, 15, 2, 30, 35
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated

Part No.	G	s (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1	Pack 2
6513106	M6	4.0	7.5	WM0 - 35	2,000	50	500
6513108	M8	5.0	15.0	WM0 - 35	2,700	50	500
6513110	M10	5.0	15.0	WM0 - 35	2,900	50	500



Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

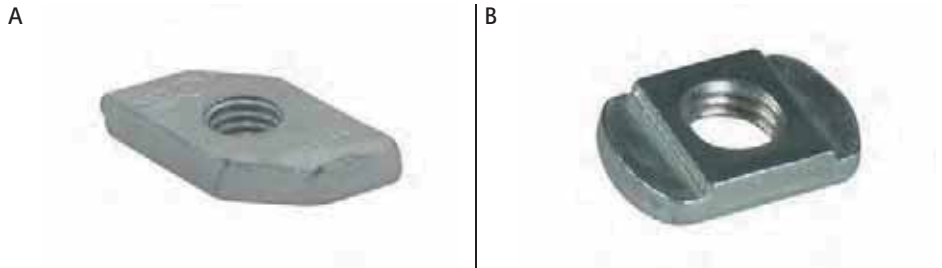
Alternative

- 183 BIS RapidRail® Hammerfix

BIS Slide Nut 651

(G 30 10)

fixing to BIS RapidRail®

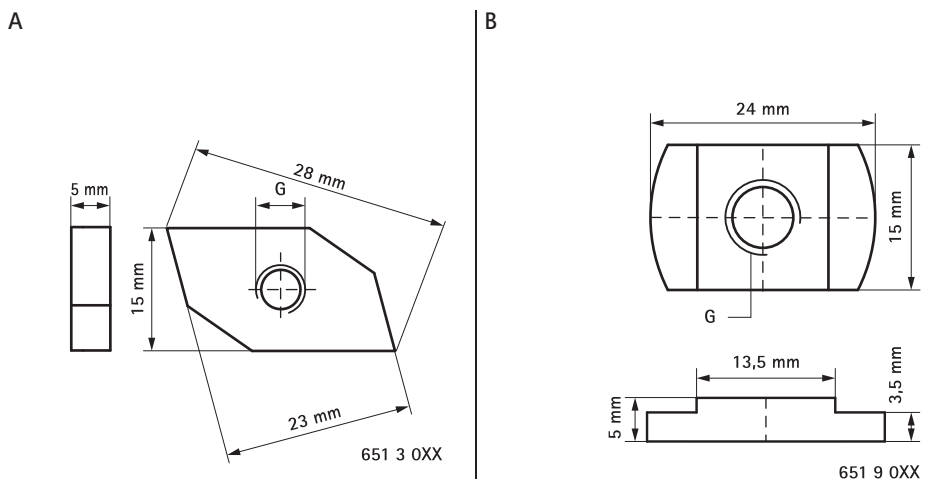


Features and Benefits

- suitable for WMO, 1, 15, 2, 30, 35
- Part No. 651 3 OXX: because of shape the nut fits in rail
- Part No. 651 9 OXX: narrowing fits in slot of rail (locking against revolving in the same direction)
- material: steel
- zinc plated

Part No.	Type	G	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1	Pack 2
A 6513006	651A	M6	7.5	WMO (1 - 35)	-	100	2,000
A 6513008	651A	M8	15.0	WMO (1 - 35)	-	100	2,000
A 6513010	651A	M10	15.0	WMO (1 - 35)	-	100	2,000
B 6519006	651C	M6	7.5	WMO - 35	3,100	50	1,000
B 6519008	651C	M8	15.0	WMO - 35	3,100	50	2,000
B 6519010	651C	M10	15.0	WMO - 35	3,100	50	1,000

Part No. 651 3 OXX recommended for WMO. Moderately suitable for other railtypes.



Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

Alternative

- 177 BIS RapidRail® Slide Nut

BIS Slide Nut 651D - WM3

(G 30 15)

fixing to BIS WM3

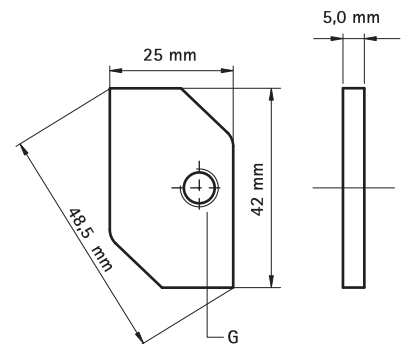


Features and Benefits

■ material: steel

■ zinc plated

Part No.	G	For Rail	F _{a,z} (N)	Pack 1	Pack 2
6515008	M8	WM3	3,000	50	250
6515010	M10	WM3	3,000	50	250
6515012	M12	WM3	3,000	50	250



Complementary

- 157 BIS Fixing Rail - WM3
- 161 BIS Cantilever Arm - WM3 (BUP1000)

BIS Square Slide Nut

(G 30 20)

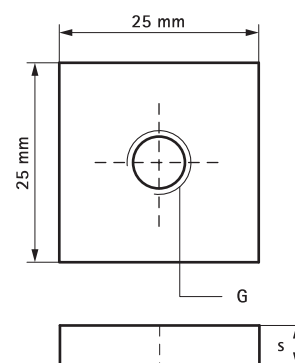
fixing to BIS RapidRail®



Features and Benefits

- suitable for WM1, 15, 2, 30, 35
- because of shape the nut fits in rail
- material: steel 1.0332
- zinc plated

Part No.	G	s (mm)	T _(max.) (Nm)	For Rail	Pack 1	Pack 2
6519910	M6	4.0	7.5	WM1 - 35	50	250
6519911	M8	4.0	15.0	WM1 - 35	50	250
6519912	M10	5.0	15.0	WM1 - 35	50	250
6519913	M12	5.0	-	WM1 - 35	50	250



Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

BIS Angle Formed Slide Nut

fixing to BIS RapidRail®

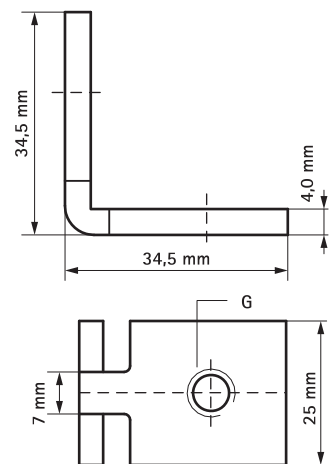
(G 30 25)



Features and Benefits

- suitable for WM1, 15, 2, 30, 35
- material: steel
- zinc plated

Part No.	G	T _(max.) (Nm)	For Rail	Pack 1	Pack 2
6513709	M8	15.0	WM1 - 35	25	250



Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

BIS Double Slide Nut

(G 30 30)

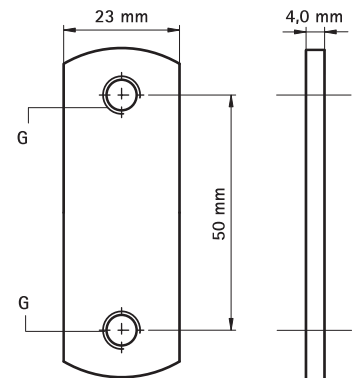
fixing to BIS RapidRail®



Features and Benefits

- suitable for WMO, 1, 15, 2, 30, 35
- zinc plated
- material: steel

Part No.	G	T _(max.) (Nm)	For Rail	Pack 1	Pack 2
6513208	M8	15.0	WMO - 35	50	250



Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

BIS RapidRail® Hammerfix

(G 30 50)

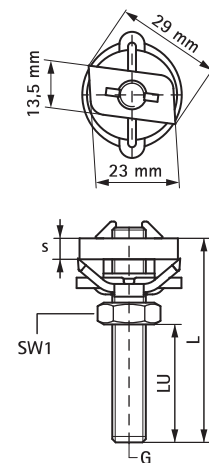
fixing to BIS RapidRail®



Features and Benefits

- slide nut with stud bolt, washer and BIS RapidRail® spring
- suitable for WM0, 1, 15, 2, 30, 35
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated

Part No.	G	L	LU (mm)	s (mm)	SW1 (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1	Pack 2
6523602	M6	20 mm	5	4.0	10	7.5	WM0 - 35	2,000	25	250
6523603	M6	30 mm	15	4.0	10	7.5	WM0 - 35	2,000	25	250
6523604	M6	40 mm	25	4.0	10	7.5	WM0 - 35	2,000	25	250
6523802	M8	25 mm	7	5.0	13	15.0	WM0 - 35	2,700	25	250
6523803	M8	30 mm	12	5.0	13	15.0	WM0 - 35	2,700	25	250
6523804	M8	40 mm	22	5.0	13	15.0	WM0 - 35	2,700	25	250
6523805	M8	50 mm	32	5.0	13	15.0	WM0 - 35	2,700	25	250
6523806	M8	60 mm	42	5.0	13	15.0	WM0 - 35	2,700	25	250
6523807	M8	70 mm	52	5.0	13	15.0	WM0 - 35	2,700	25	250
6523808	M8	80 mm	62	5.0	13	15.0	WM0 - 35	2,700	25	250
6523809	M8	90 mm	72	5.0	13	15.0	WM0 - 35	2,700	25	250
6523810	M8	100 mm	82	5.0	13	15.0	WM0 - 35	2,700	25	250
6523812	M8	120 mm	102	5.0	13	15.0	WM0 - 35	2,700	25	250
6523815	M8	150 mm	132	5.0	13	15.0	WM0 - 35	2,700	25	250
6523818	M8	180 mm	162	5.0	13	15.0	WM0 - 35	2,700	25	125
6523820	M8	200 mm	182	5.0	13	15.0	WM0 - 35	2,700	25	125
6523002	M10	25 mm	7	5.0	17	15.0	WM0 - 35	2,900	25	250
6523003	M10	30 mm	12	5.0	17	15.0	WM0 - 35	2,900	25	250
6523004	M10	40 mm	22	5.0	17	15.0	WM0 - 35	2,900	25	250
6523005	M10	50 mm	32	5.0	17	15.0	WM0 - 35	2,900	25	250
6523006	M10	60 mm	42	5.0	17	15.0	WM0 - 35	2,900	25	250
6523008	M10	80 mm	62	5.0	17	15.0	WM0 - 35	2,900	25	250
6523010	M10	100 mm	82	5.0	17	15.0	WM0 - 35	2,900	25	250
6523016	M10	160 mm	142	5.0	17	15.0	WM0 - 35	2,900	25	125



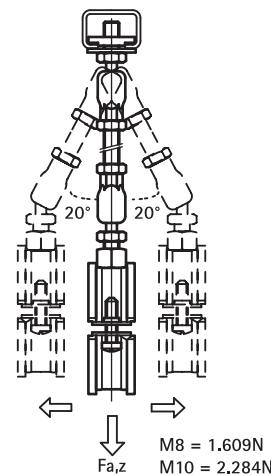
Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

BIS RapidRail® Ball Swivel Hanger

(G 30 60)

fixing to BIS RapidRail®



Features and Benefits

- slide nut with ball swivel hanger, washer and BIS RapidRail® spring
- recommended for metal pipes up to DN 50, plastic pipes up to DN 100
- suitable for WMO, 1, 15, 2, 30, 35
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- with inspection hole to check screw-in depth (attention: when the threaded rod is screwed-in too deep, the ball swivel is blocked)
- screw-in depth is continuously variable (see LU)
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated



RAL-GZ 655/D
Cert.Nr. 2012-11

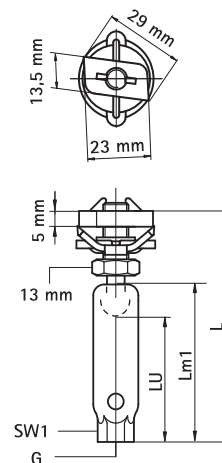
Part No.	G	L	LU (mm)	Lm1 (mm)	SW1 (mm)	T _(max.) (Nm)	For Rail	F _{a,x} (N)	RAL	Pack 1	Pack 2
6520100	M8	45 mm	18	25	10	15.0	WMO - 35	182	RAL ¹	25	250
6520200	M8	70 mm	43	50	10	15.0	WMO - 35	182	RAL ¹	25	250
6520110	M10	45 mm	18	25	12	15.0	WMO - 35	226	RAL ¹	25	250
6520210	M10	70 mm	43	50	12	15.0	WMO - 35	226	RAL ¹	25	250

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/D in combination with Rail WM1, 2, 15 and 30.

For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.

Please note. Always use 2 ball swivel hangers and secure by additional hexagon nut (see application picture). The maximum length change that can be dealt with, depends on the fixing distance (ceiling - pipe). The height difference that occurs as a result, needs to be taken into consideration.

To be used in combination with BIS Ball Swivel Hangers. Product can be found on page E 10 05.



Complementary

- 135 BIS Ball Swivel Hanger
- 466 BIS Stud Bolt
- 469 BIS Threaded Rod

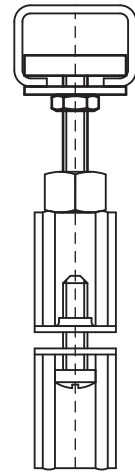
Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

BIS Tee-Bolt Assembly - WM3

(G 30 70)

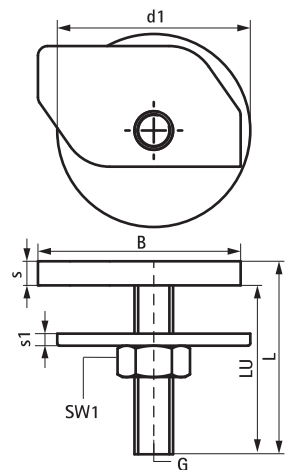
fixing to BIS WM3



Features and Benefits

- slide nut with stud bolt and washer
- zinc plated
- material: steel

Part No.	G	L	LU	B	s	s1	d1	SW1	For Rail	F _{a,z} (N)	Pack 1	Pack 2
			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)				
6525803	M8	30 mm	25	42	5.0	2.5	40	13	WM3	3,000	25	250
6525804	M8	40 mm	35	42	5.0	2.5	40	13	WM3	3,000	25	250
6525806	M8	60 mm	55	42	5.0	2.5	40	13	WM3	3,000	25	250
6525004	M10	40 mm	35	42	5.0	2.5	40	17	WM3	3,000	25	250
6525203	M12	30 mm	25	42	5.0	2.5	40	19	WM3	3,000	25	125



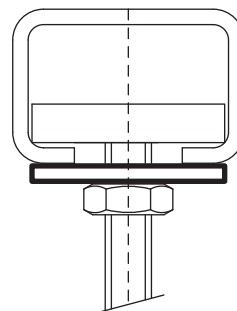
Complementary

- 157 BIS Fixing Rail - WM3
- 161 BIS Cantilever Arm - WM3 (BUP1000)

BIS Washer (Flat) (BUP1000)

(G 30 74)

fixing to BIS RapidRail®



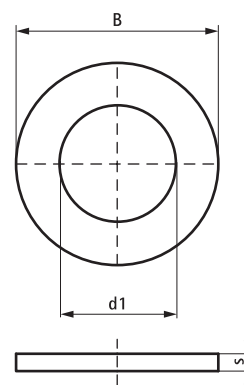
Features and Benefits

- suitable for WMO, 1, 15, 2, 30, 35
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- tested for fire safety



Part No.	B (mm)	s (mm)	d1 (mm)	For Rail	Pack 1	Pack 2
65381008	25	2.5	Ø 8.4	WMO - 35	100	2,500
65381010	25	2.5	Ø 10.5	WMO - 35	100	2,500
65381012	25	2.5	Ø 13.0	WMO - 35	100	2,500
65381016	30	2.5	Ø 17.0	WMO - 35	50	-

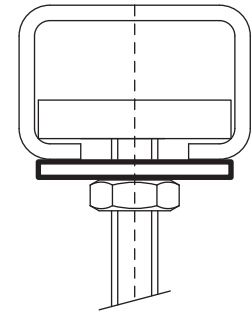
Tested for fire safety.



BIS Washer (Flat)

fixing to BIS RapidRail®

(G 30 75)



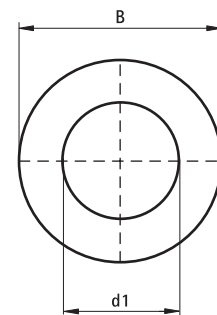
Features and Benefits

- suitable for WMO, 1, 15, 2, 30, 35
- material: steel
- zinc plated
- tested for fire safety

Part No.	B (mm)	s (mm)	d1 (mm)	For Rail	Pack 1	Pack 2
6533306	25	2.5	Ø 6.4	WMO - 35	100	2,500
6533308	25	2.5	Ø 8.4	WMO - 35	100	1,000
6533310	25	2.5	Ø 10.5	WMO - 35	100	1,000
6533312	25	2.5	Ø 13.0	WMO - 35	100	2,500
6533316	30	3.0	Ø 17.0	WMO - 35	50	-

Tested for fire safety.

Part No. 653 3 306 not tested for fire safety.



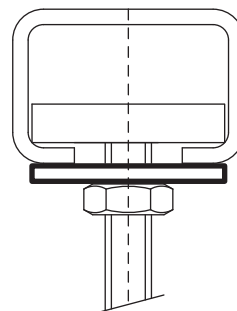
Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

BIS Washer (Flat) – WM3

(G 30 80)

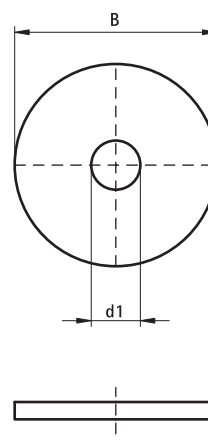
fixing to BIS WM3



Features and Benefits

- material: steel
- zinc plated
- tested for fire safety

Part No.	B (mm)	s (mm)	d1 (mm)	For Rail	Pack 1	Pack 2
6533408	35	2.5	Ø 8.5	WM3	100	500
6533410	35	2.5	Ø 10.5	WM3	100	500
6533412	35	2.5	Ø 12.5	WM3	50	250



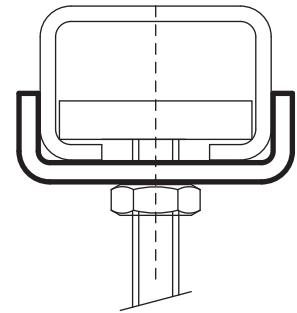
Complementary

- 157 BIS Fixing Rail - WM3
- 161 BIS Cantilever Arm - WM3 (BUP1000)

BIS Washer (U-shaped)

fixing to BIS RapidRail®

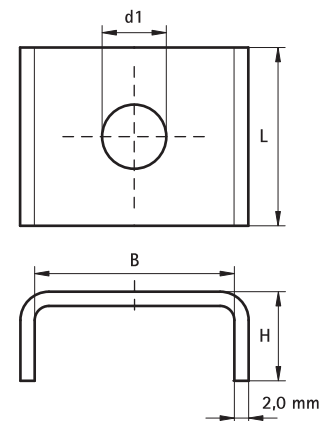
(G 30 85)



Features and Benefits

- U-shaped washer
 - U-shaped for extra stability
 - Part No. 653 5 0XX: suitable for WM0
 - Part No. 653 5 1XX: suitable for WM1, 15, 2, 30, 35
 - pre-galvanized
- material: steel

Part No.	L	B (mm)	H (mm)	d1 (mm)	For Rail	Pack 1	Pack 2
6535008	25 mm	28.0	10.5	Ø 9.0	WM0	50	250
6535010	25 mm	28.0	10.5	Ø 11.0	WM0	50	250
6535109	25 mm	30.5	9.0	Ø 9.0	WM1 - 35	50	250
6535110	25 mm	30.5	9.0	Ø 10.5	WM1 - 35	50	250
6535112	25 mm	30.5	9.0	Ø 12.5	WM1 - 35	50	250



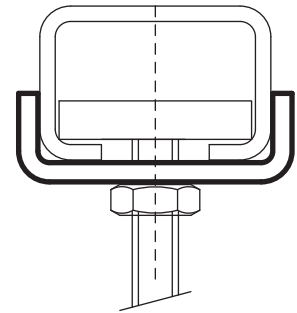
Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

BIS Washer (U-shaped) – WM3

(G 30 90)

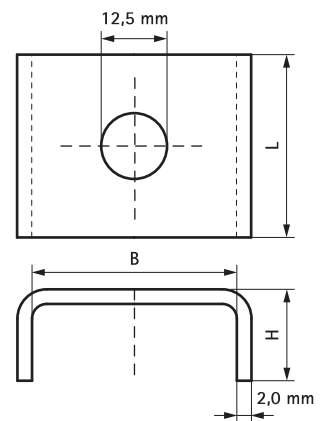
fixing to BIS WM3



Features and Benefits

- U-shaped washer
- U-shaped for extra stability
- pre-galvanized
- material: steel

Part No.	L	B (mm)	H (mm)	For Rail	Pack 1
6535312	70 mm	51	19.0	WM3	50



BIS RapidRail® Basket Retainer Clip

(G 30 100)

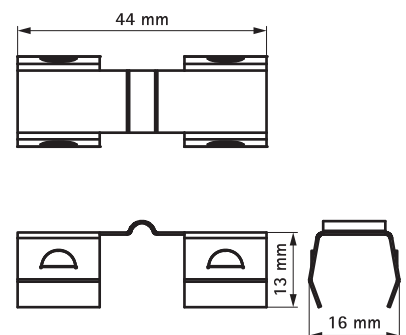
for securing cable basket to BIS RapidRail®



Features and Benefits

- push fit for quick and easy installation
- suitable for all type of wire basket (Ø 4-5mm)
- suitable for BIS RapidRail®
- not designed as a load bearing support
- material: spring steel (type CS70)
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Pack 1
6553945	100



BIS RapidRail® Connector 90°

(G 35 05)

to make BIS RapidRail® fabrications



Features and Benefits

- connector with pre-assembled BIS RapidRail® Slide nut(s)
- to make rail fabrications
- suitable for WMO, 1, 15, 2, 30, 35
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated

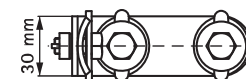
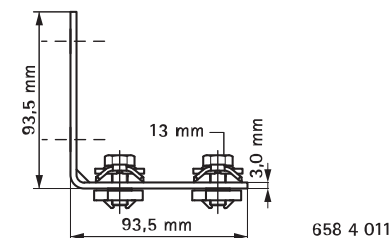
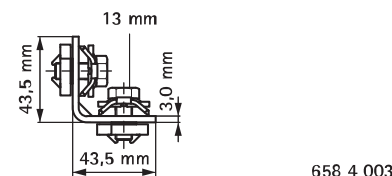
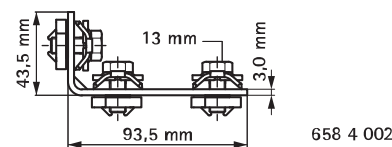
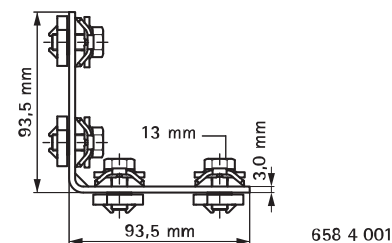
Part No.	Model	a (°)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	F _{a,x} (N)	RAL	Pack 1
6584001	Long / long	90°	15.0	WMO - 35	1,562	720	RAL ¹	25
6584002	Short / long	90°	15.0	WMO - 35	1,336	448	RAL ¹	25
6584003	Short / short	90°	15.0	WMO - 35	1,336	448	RAL ¹	25
6584011	Long / long	90°	15.0	WMO - 35	1,562	720	RAL ¹	25

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/D in combination with Rail WM1, 2, 15 and 30.

For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



RAL-GZ 655/D
Cert.Nr. 2012-09



BIS RapidRail® Connector 135°

(G 35 10)

to make BIS RapidRail® fabrications



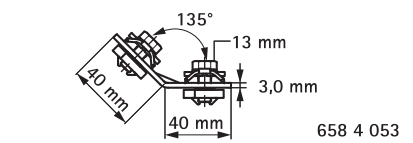
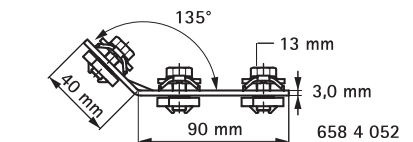
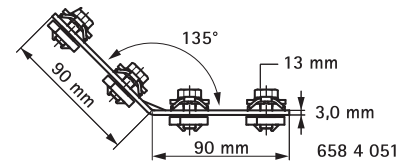
Features and Benefits

- connector with pre-assembled BIS RapidRail® Slide nut(s)
- to make rail fabrications
- suitable for WM0, 1, 15, 2, 30, 35
- with pre-assembled BIS RapidRail® Sliding nut(s) for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated



Part No.	Model	a (°)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	F _{a,x} (N)	RAL	Pack 1
6584051	Long / long	135°	15.0	WM0 - 35	1,562	1,109	RAL ¹	25
6584052	Short / long	135°	15.0	WM0 - 35	1,336	448	RAL ¹	25
6584053	Short / short	135°	15.0	WM0 - 35	1,336	448	RAL ¹	25

*RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/D in combination with Rail WM1, 2, 15 and 30.
For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.*



BIS Rail Connector with Slide Nuts

(G 35 15)

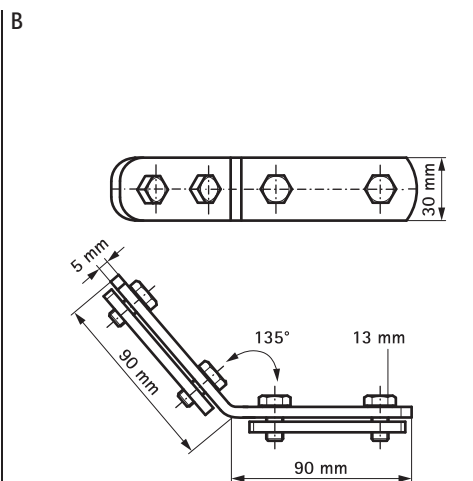
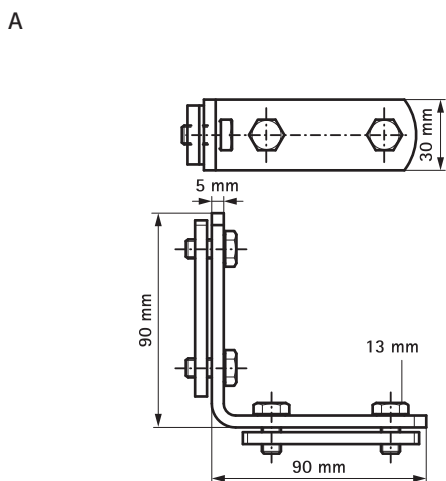
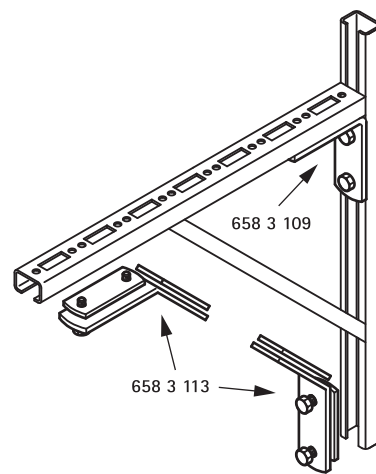
to make BIS RapidRail® fabrications



Features and Benefits

- to make rail fabrications
- suitable for WMO, 1, 15, 2, 30, 35
- with pre-assembled double slide nut
- material: steel
- zinc plated

Part No.	a (°)	T _(max.) (Nm)	For Rail	Pack 1
A 6583109	90°	15.0	WMO - 35	25
B 6583113	135°	15.0	WMO - 35	25



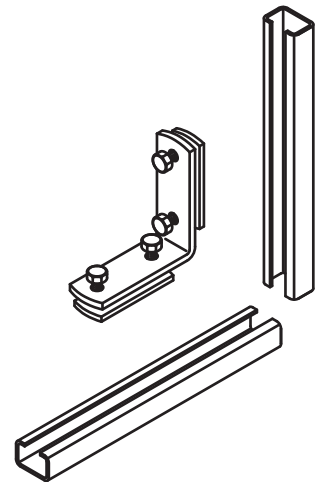
Complementary
155 BIS RapidRail® Fixing Rail

Alternative
192 BIS RapidRail® Connector 90°

BIS Rail Connector 90° with Slide Nut – WM3

(G 35 20)

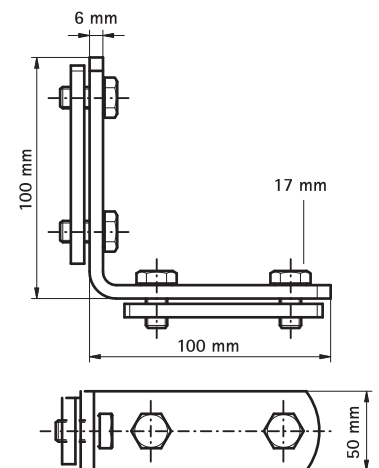
to make BIS WM3 fabrications



Features and Benefits

- to make rail fabrications
- with pre-assembled double slide nut
- material: steel
- zinc plated

Part No.	a (°)	For Rail	Pack 1
6583309	90°	WM3	20



BIS Rail Connector

(G 35 25)

to make BIS RapidRail® fabrications

A



B

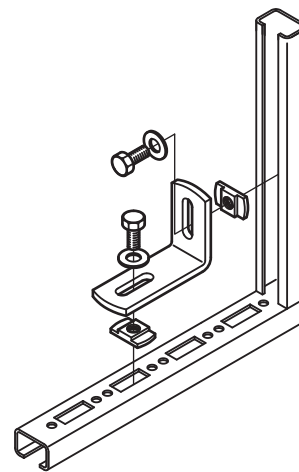


Features and Benefits

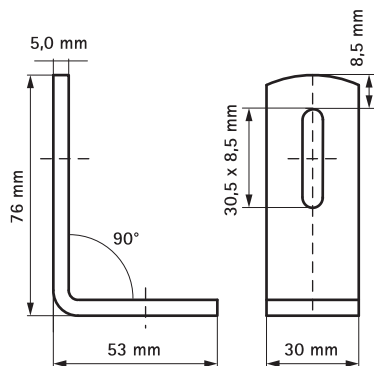
- to make rail fabrications
- suitable for WMO, 1, 15, 2, 30, 35
- material: steel

■ zinc plated

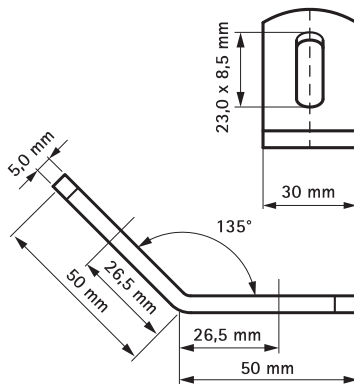
Part No.	a (°)	T _(max.) (Nm)	For Rail	Pack 1
A 6585090	90°	15.0	WMO - 35	50
B 6585135	135°	15.0	WMO - 35	50



A



B



Complementary

155 BIS RapidRail® Fixing Rail

Alternative

192 BIS RapidRail® Connector 90°

BIS Rail Connector 90° – WM3

(G 35 30)

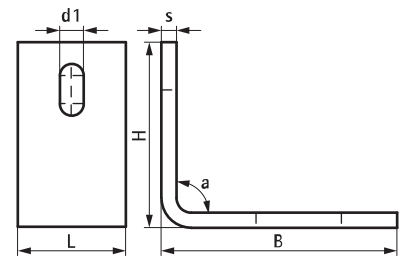
to make BIS WM3 fabrications



Features and Benefits

- to make rail fabrications
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- zinc plated

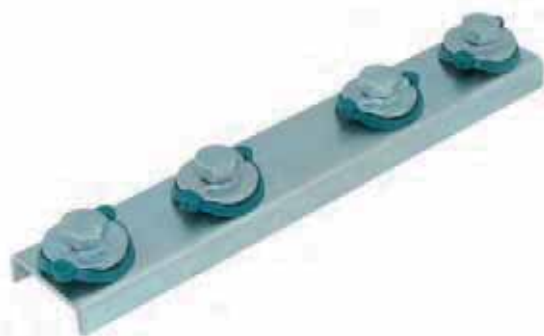
Part No.	L	B	H	s	d1	a	For Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(°)		
6591090	50 mm	94	74	6	23 x 13	90°	WM3	50



BIS RapidRail® Connector

(G 35 35)

to make BIS RapidRail® fabrications



Features and Benefits

- connector with pre-assembled BIS RapidRail® Slide nut(s)
- to make rail fabrications
- suitable for WMO, 1, 15, 2, 30, 35
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated

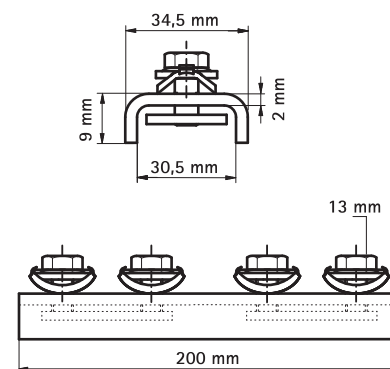


RAL-GZ 655/D
Cert.Nr. 2012-08

Part No.	T _(max.) (Nm)	For Rail	F _{a,x} (N)	RAL	Pack 1
6543001	15.0	WMO, 1, 15, 2, 30, 35	1,547	RAL ¹	25

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/D in combination with Rail WM1, 2, 15 and 30.

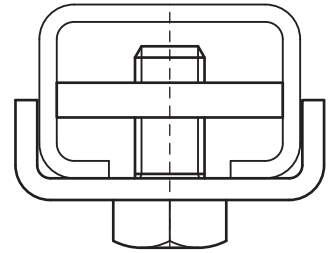
For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



BIS Rail Connector – WM3

(G 35 40)

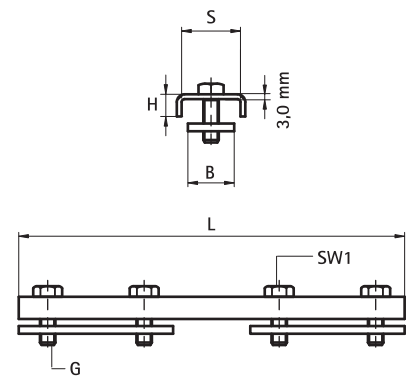
to make BIS WM3 fabrications



Features and Benefits

- to make rail fabrications
- with pre-assembled double slide nut
- material: steel
- zinc plated

Part No.	L	B	H	S	SW1	For Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)		
6543004	250 mm	40	12	50	17	WM3	20



BIS RapidRail® T- and X-Connector

(G 35 45)

to make BIS RapidRail® fabrications

A



B

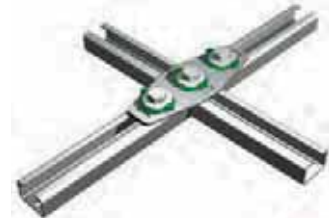


Features and Benefits

- connector with pre-assembled BIS RapidRail® Slide nut(s)
- to make rail fabrications
- suitable for WMO, 1, 15, 2, 30, 35
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated



658 4 090



658 4 091

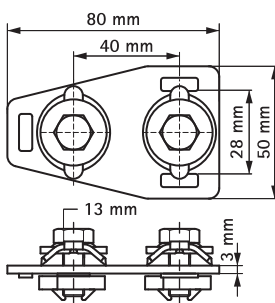
Part No.	Type	T _(max.) (Nm)	For Rail	F _{a,x} (N)	RAL	Pack 1
6584090	T	15.0	WMO - 35	345	RAL ¹	25
6584091	X	15.0	WMO - 35	345	RAL ¹	25

*RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/D in combination with Rail WM1, 2, 15 and 30.
For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.*

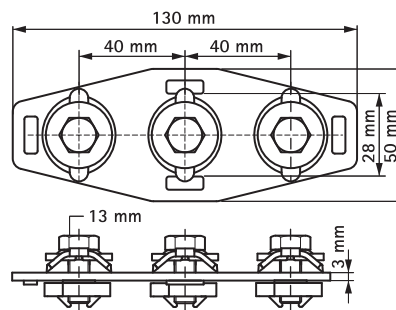


RAL-GZ 655/D
Cert.Nr. 2012-08

A



B



Complementary
155 BIS RapidRail® Fixing Rail

BIS RapidRail® Cross Connector

(G 35 50)

to make BIS RapidRail® fabrications



Features and Benefits

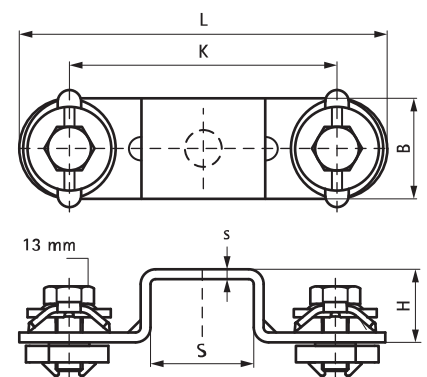
- connector with pre-assembled BIS RapidRail® Slide nut(s)
- to make rail fabrications
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated



RAL-GZ 655/D
Cert.Nr. 2012-10

Part No.	L	B	H	s	S	k	T _(max.)	For Rail	F _{a,z}	F _{a,x}	RAL	Pack 1
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(Nm)		(N)	(N)		
6584150	104 mm	30	20	3.0	28	74	15.0	WM0	1,226	689	RAL ¹	25
6584151	112 mm	30	17	3.0	31	82	15.0	WM1	1,226	689	RAL ¹	25
6584152	109 mm	30	22	3.0	31	79	15.0	WM15	1,226	689	RAL ¹	25
6584153	97 mm	30	32	3.0	31	67	15.0	WM2	1,226	689	-	25
6584156	117 mm	30	42	3.0	39	87	15.0	WM35	1,226	689	-	25

*RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/D in combination with Rail WM1, 2, 15 and 30.
For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.*



Complementary

155 BIS RapidRail® Fixing Rail

BIS RapidRail® Beam Clamp

(G 40 05)

fixing to steel beam

A



B

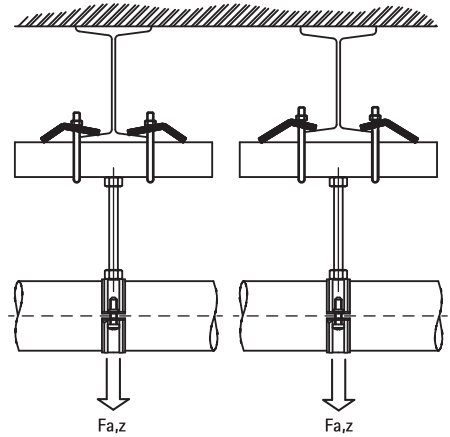


Features and Benefits

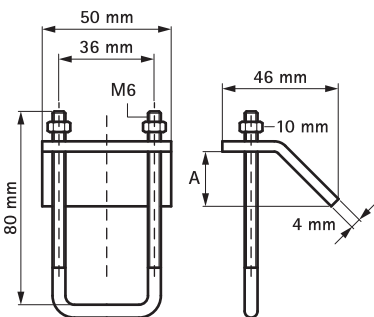
- for a solid fixing to steel construction without the need for welding or drilling
- always use 2 beam clamps per fixing
- material: steel
- zinc plated

Part No.	A (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
A 6585011	< 16	15.0	WM0 - 30	2,500	50
B 6585014	< 20	15.0	WM35	2,000	50

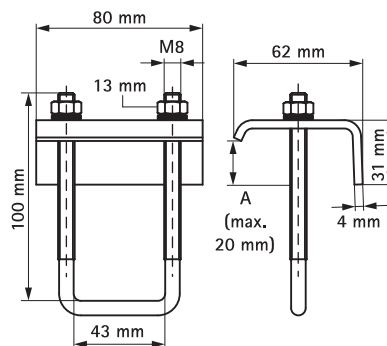
Note! Safe load (F_{a,z}) is only per set of beamclamps, per loading situation the max. allowed load of the rail must be calculated.



A



B

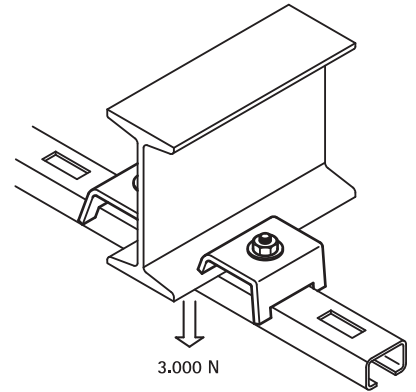


Complementary
155 BIS RapidRail® Fixing Rail

BIS Rail Beam Clamp

fixing to steel beam

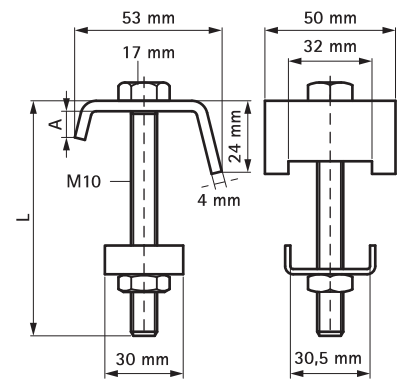
(G 40 10)



Features and Benefits

- beam clamp
- for a solid fixing to steel construction without the need for welding or drilling
- always use 2 beam clamps per fixing
- Part No. 658 3 060: suitable for WM1, 15, 2
- Part No. 658 3 090: suitable for WM1, 15, 2, 30
- material: steel
- zinc plated

Part No.	A (mm)	L	For Rail	F _{a,z} (N)	Pack 1
6583060	< 11	60 mm	WM1, 15, 2	3,000	50
6583090	< 11	90 mm	WM1 - 30	3,000	50



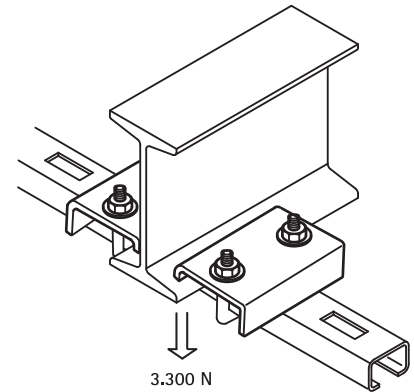
Alternative

202 BIS RapidRail® Beam Clamp

BIS Rail Beam Clamp – WM3

(G 40 15)

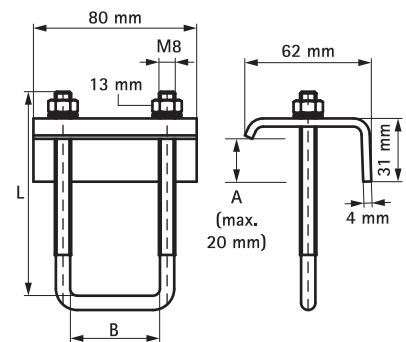
fixing to steel beam



Features and Benefits

- for a solid fixing to steel construction
- zinc plated
- without the need for welding or drilling
- always use 2 beam clamps per fixing
- material: steel

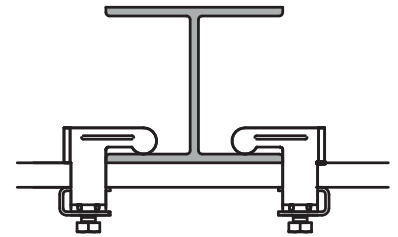
Part No.	A (mm)	L	B (mm)	For Rail	F _{a,z} (N)	Pack 1
6585003	< 20	118 mm	50	WM3	3,300	50



BIS 'Light Duty' Beam Clamp

fixing to steel beam

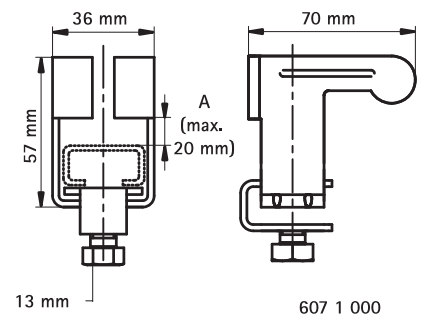
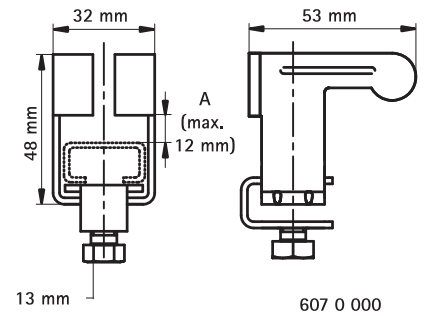
(G 40 20)



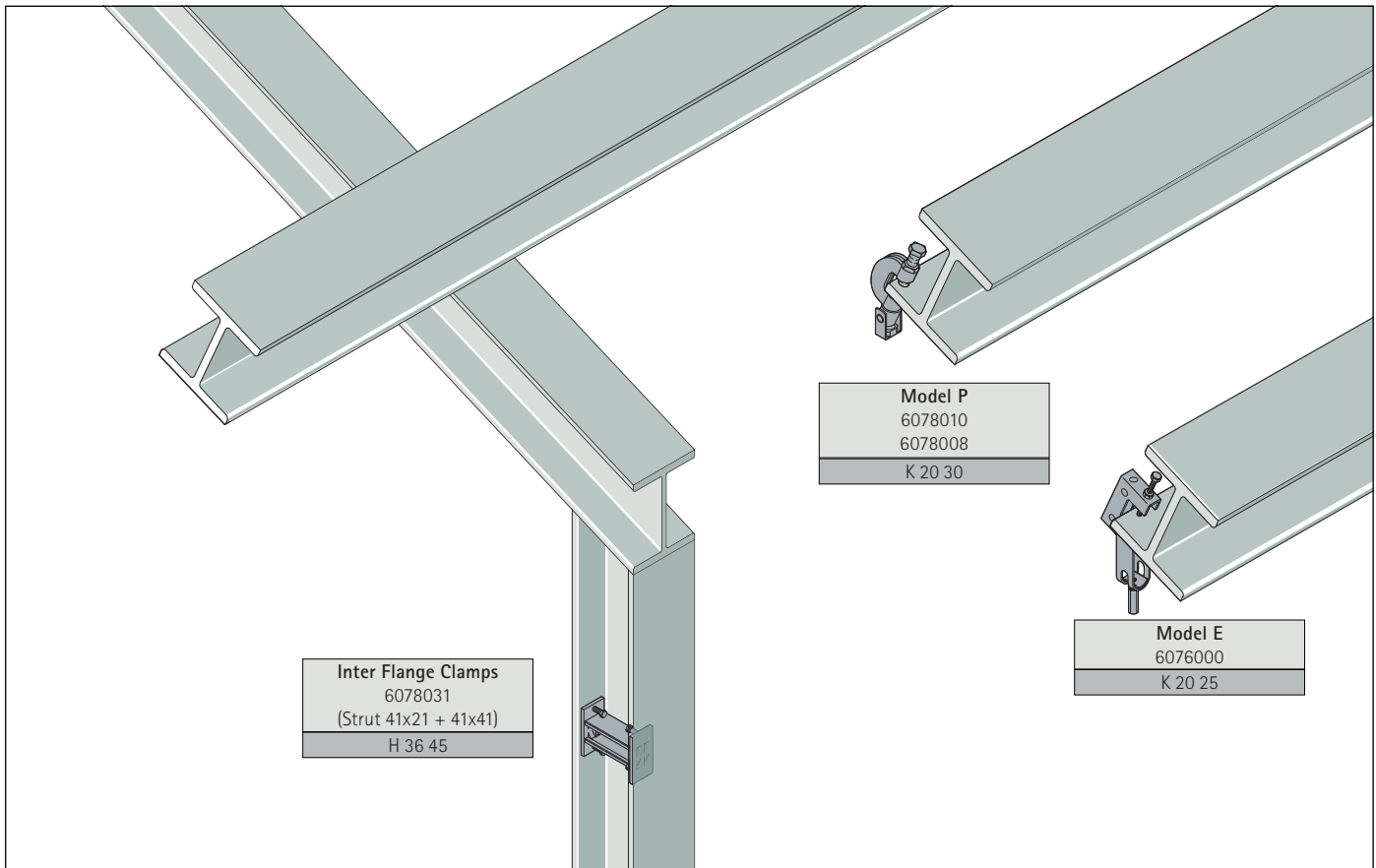
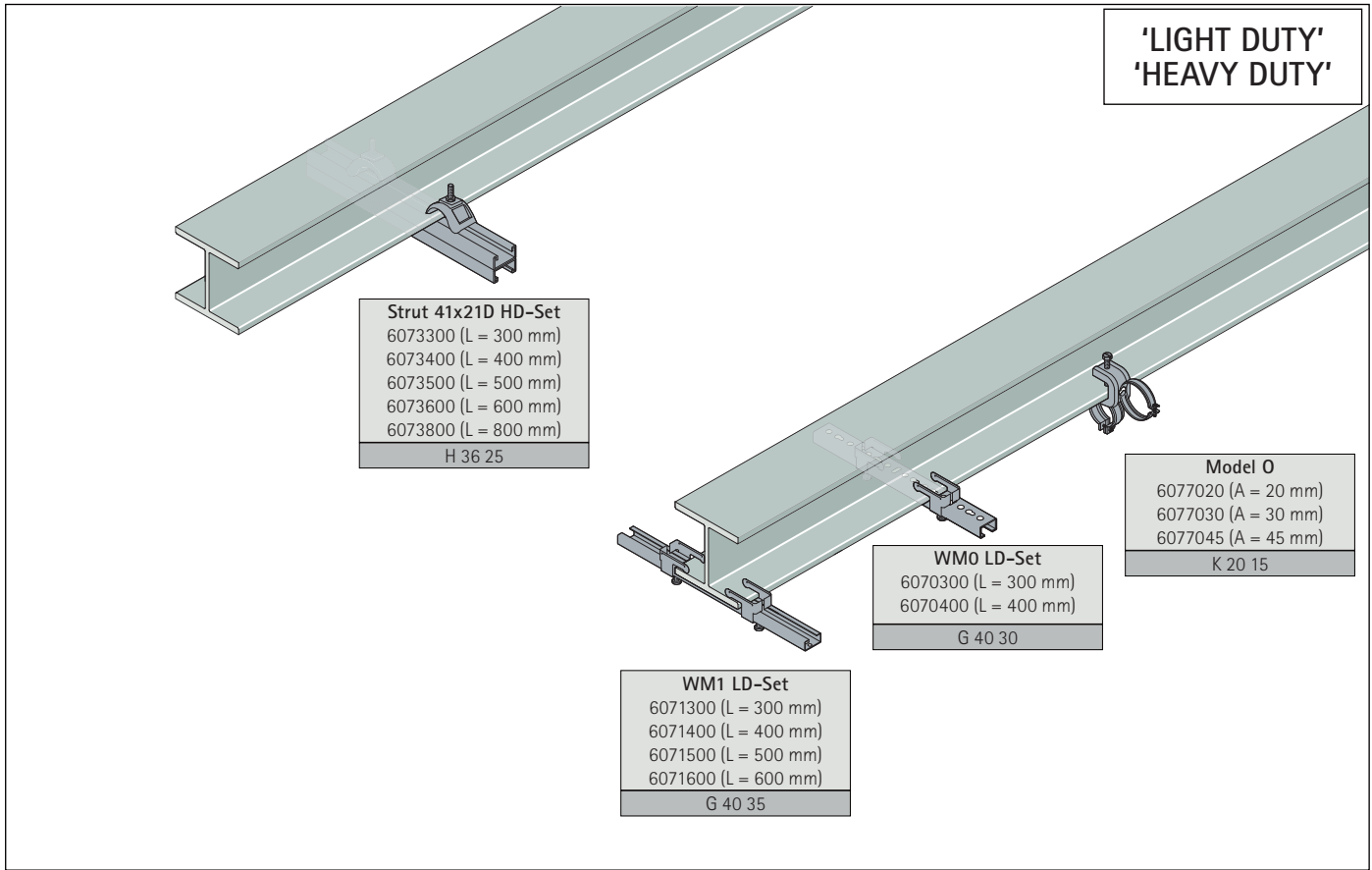
Features and Benefits

- for suspension of light components like cable trays, duct work, etc. onto beams
- material: steel
- zinc plated
- for fixing of rail to a steel beam

Part No.	A (mm)	T _(max.) (Nm)	For Rail	Pack 1
6070000	< 12	15.0	WM0	50
6071000	< 20	15.0	WM1	50



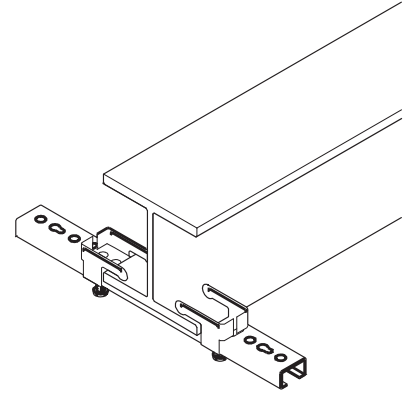
BIS Rail Fixing Sets (Electrical)



BIS Rail WMO 'Light Duty' Set

(G 40 30)

fixing to steel beam up to flange 12 mm



Features and Benefits

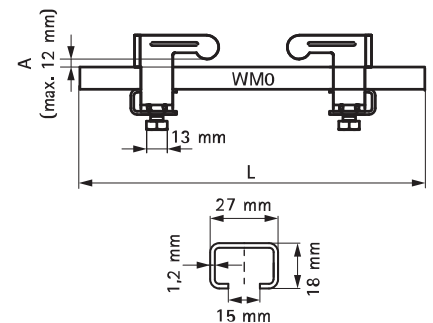
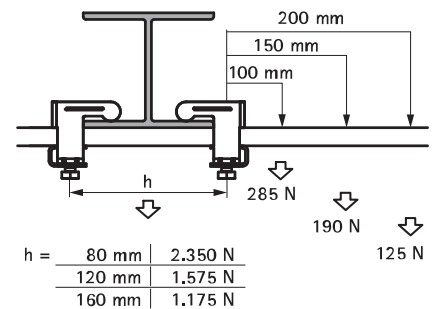
- for suspension of light components like cable trays, duct work, etc. onto beams without welding or drilling
- up to flange thickness 12 mm
- material: beam clamp made of steel; rail made of steel 1.0242
- beam clamp also available loose
- beam clamp: zinc plated; rail: pre-galvanized
- consists of:
 - 1 length of rail WMO (27x18 mm)
 - 2 Beam clamps WMO (Part No. 607 0 000)
 - 2 Rail End Caps

Part No.	A (mm)	L	T _(max.) (Nm)	From Rail	CSTB	Pack 1
6070300	< 12	300 mm	15.0	WMO	CSTB	20
6070400	< 12	400 mm	15.0	WMO	CSTB	20

CSTB

le futur en construction

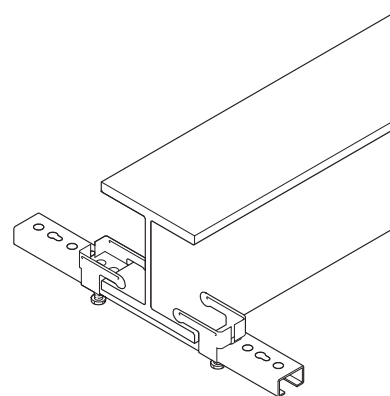
Rapport de test n°EEM11 26035356



BIS Rail WM1 'Light Duty' Set

(G 40 35)

fixing to steel beam up to flange 20 mm



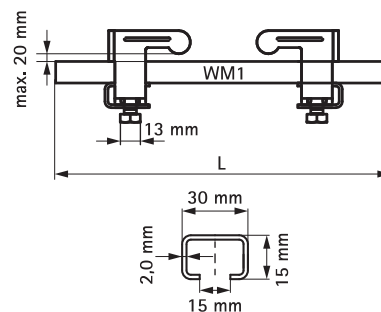
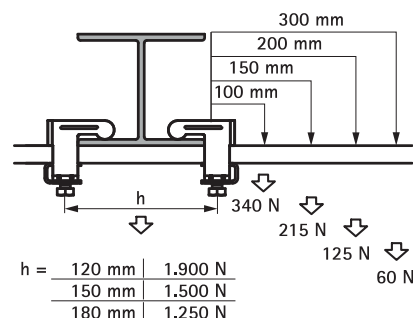
Features and Benefits

- for suspension of light components like cable trays, duct work, etc. onto beams without welding or drilling
- up to flange thickness 20 mm
- material: beam clamp made of steel; rail made of steel 1.0242
- beam clamp also available loose
- beam clamp: zinc plated; rail: pre-galvanized
- consists of:
 - 1 length of rail WM1 (30x15 mm)
 - 2 Beam clamps WM1 (Part No. 607 1 000)
 - 2 Rail End Caps

Part No.	A (mm)	L	T _(max.) (Nm)	From Rail	CSTB	Pack 1
6071300	< 20	300 mm	15.0	WM1	CSTB	20
6071400	< 20	400 mm	15.0	WM1	CSTB	20
6071500	< 20	500 mm	15.0	WM1	CSTB	15
6071600	< 20	600 mm	15.0	WM1	CSTB	15

CSTB
le futur en construction

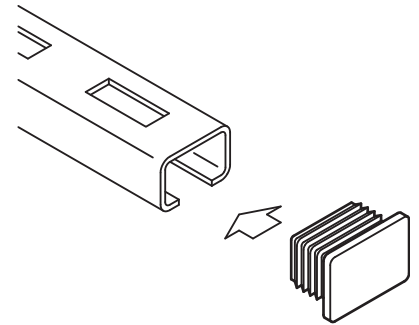
Rapport de test n°EEM11 26035356



BIS Rail End Cap

finishing of BIS RapidRail®

(G 45 05)



Features and Benefits

- for clean finishing of rail end, covers all burrs
- material: PE (polyethylene)
- easy to fix securely

Part No.	For Rail	Colour	Pack 1	Pack 2
6566000	WM0 (27x18 mm), WM15 (30x20 mm)	Green	50	250
6566001	WM1 (30x15 mm)	Green	50	250
6566002	WM2 (30x30 mm)	Green	25	250
6566030	WM30 (30x45 mm)	Black	20	200
6566035	WM35 (38x40 mm)	Green	20	200

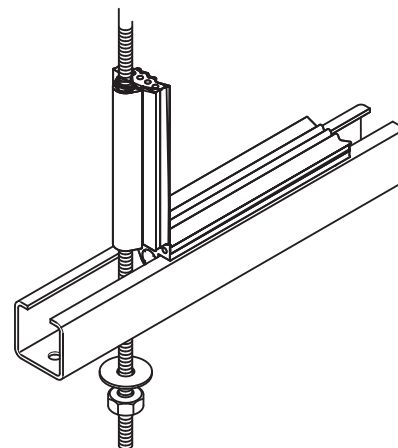
Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

BIS Rubber Strip

noise insulation lining for rail

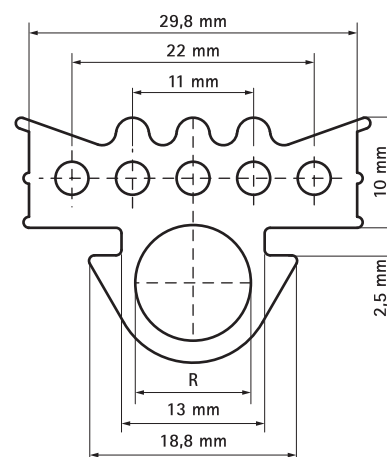
(G 45 10)



Features and Benefits

- noise insulating lining for rail
 - also usable for threaded rod M6, M8 or M10
 - suitable for WMO, 1, 15, 2, 30, 35
 - building material class B2 according to DIN 4102-1 and class E according to EN 13501-1
 - sound insulating lining according DIN 4109
- material: EPDM rubber, black

Part No.	R	L	For Rail	Pack 1	App.
6568001	M6 - M10	30 m	WMO - 35	30	m.



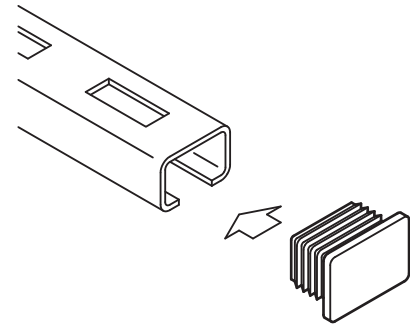
Complementary

- 155 BIS RapidRail® Fixing Rail
- 160 BIS RapidRail® Cantilever Arm (BUP1000)

BIS Rail End Cap – WM3

finishing of BIS WM3 Rail

(G 45 20)



Features and Benefits

- for clean finishing of rail end, covers all burrs
- material: PE (polyethylene)
- easy to fix securely

Part No.	For Rail	Pack 1	Pack 2
6566003	WM3 (50x40 mm)	15	150

Calculation method

The published safe working loads are calculated with perforated (slotted) rail.

Loads are calculated taking into consideration a maximum deflection (f) of $L/200$ (according to RAL-GZ 655/B) and a maximum bending stress of 160 N/mm^2 (see picture 1).

1 N (Newton) = 0.102 kg

1 kg = 9.8 N (Newton)

Fixing of rails to walls or ceilings

The strength of the anchoring of the rail has not been taken into consideration. The installer must verify that the bolts and wall plugs used are suitable for the maximum permitted loading of the rail.

Reading the rail loading tables

The stated values are only valid for the fixing rail. The maximum safe load of all other construction parts have to be verified. The stated maximum safe load is calculated for a static load at free bending support (see picture 2).

Where the segment is marked with a hyphen, the stated length cannot be safely loaded.

Special conditions

In case of doubt or for special conditions not stated in the loading tables, please do not hesitate to contact our technical department for their advice.

Hanging of rails from the ceiling

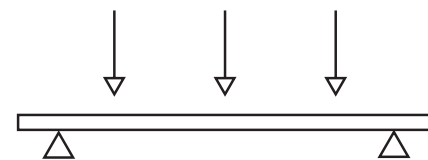
When hanging rails from the ceiling we recommend the use of U-formed washers on the open side of the rail (see picture 3).

Methods of loading

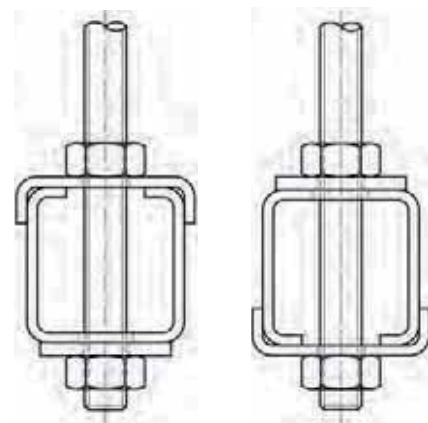
Where loads are suspended beneath rails (e.g. hanging pipes), the load must not exceed the relevant safe load of the slide nut. To increase rigidity of the installation we recommend the use of a U-formed washer (see picture 4).



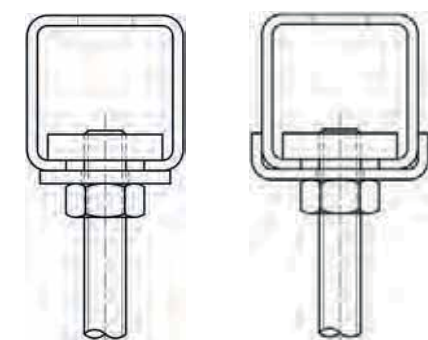
Picture 1



Picture 2

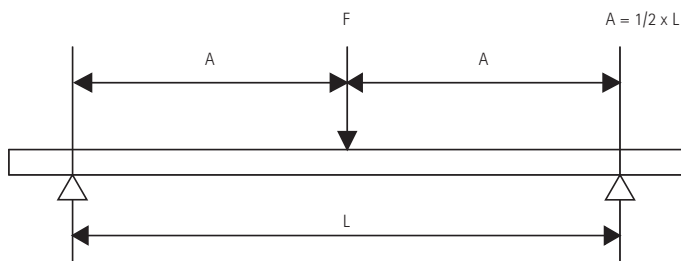



Picture 3



Picture 4

BIS RapidRail® Fixing rail: suspension on 1 point



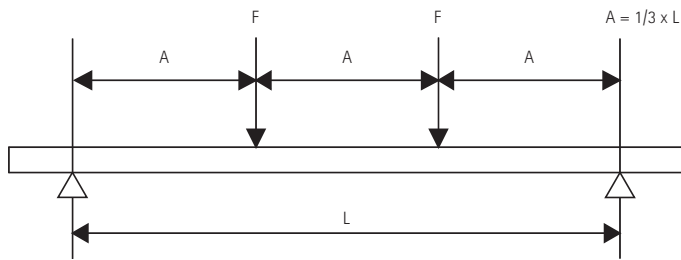
L (mm)						
	WM0 (27 x 18)	WM1 (30 x 15)	WM15 (30 x 20)	WM2 (30 x 30)	WM30 (30 x 45)	WM35 (38 x 40)
250	758	899	1,249	3,238	5,199	4,821
300	631	749	1,041	2,698	4,333	4,018
350	541	642	892	2,313	3,714	3,444
400	474	562	781	2,023	3,250	3,013
450	421	499	694	1,799	2,889	2,679
500	379	449	625	1,619	2,600	2,411
600	316	358	521	1,349	2,166	2,009
700	266	263	446	1,156	1,857	1,722
800	204	202	348	1,012	1,625	1,507
900	161	159	275	899	1,444	1,339
1,000	130	129	223	780	1,300	1,205
1,200	91	90	155	542	1,083	1,004
1,400	67	66	114	398	928	841
1,600	51	50	87	305	812	644
1,800	40	40	69	241	643	509
2,000	33	32	56	195	521	412
2,250	26	25	44	154	412	326
2,500	21	21	36	125	333	264
2,750	17	17	29	103	275	218
3,000	14	14	25	87	231	183
3,250	12	12	21	74	197	156
3,500	11	11	18	64	170	135
3,750	-	-	16	55	148	117
4,000	-	-	14	49	130	103
4,250	-	-	12	43	115	91
4,500	-	-	11	39	103	81
4,750	-	-	-	35	92	73
5,000	-	-	-	31	83	66
5,250	-	-	-	28	76	60
5,500	-	-	-	26	69	55
5,750	-	-	-	24	63	50
6,000	-	-	-	22	58	46


Max. allowed load in N.

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

BIS RapidRail® Fixing rail: 2 equal loads



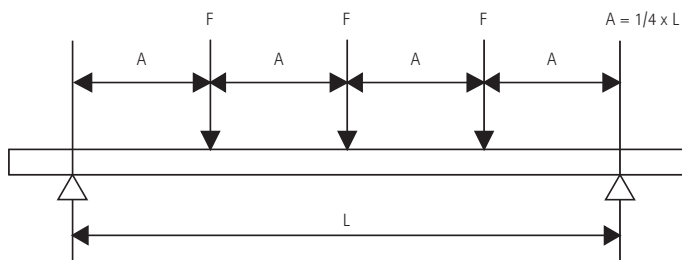
L (mm)						
	WM0 (27 x 18)	WM1 (30 x 15)	WM15 (30 x 20)	WM2 (30 x 30)	WM30 (30 x 45)	WM35 (38 x 40)
250	568	674	937	2,428	3,900	3,616
300	474	562	781	2,023	3,250	3,013
350	406	481	669	1,734	2,785	2,583
400	355	421	586	1,518	2,437	2,260
450	316	374	521	1,349	2,166	2,009
500	284	303	468	1,214	1,950	1,808
600	213	210	363	1,012	1,625	1,507
700	156	155	267	867	1,393	1,291
800	120	118	204	715	1,219	1,130
900	95	94	161	565	1,083	1,004
1,000	77	76	131	458	975	904
1,200	53	53	91	318	812	672
1,400	39	39	67	234	624	494
1,600	30	30	51	179	478	378
1,800	24	23	40	141	377	299
2,000	19	19	33	114	306	242
2,250	15	15	26	90	242	191
2,500	12	12	21	73	196	155
2,750	10	10	17	61	162	128
3,000	-	-	15	51	136	108
3,250	-	-	12	43	116	92
3,500	-	-	11	37	100	79
3,750	-	-	-	33	87	69
4,000	-	-	-	29	76	60
4,250	-	-	-	25	68	54
4,500	-	-	-	23	60	48
4,750	-	-	-	20	54	43
5,000	-	-	-	18	49	39
5,250	-	-	-	17	44	35
5,500	-	-	-	15	40	32
5,750	-	-	-	14	37	29
6,000	-	-	-	13	34	27

Max. allowed load in N. per suspension point (F).

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

BIS RapidRail® Fixing rail: 3 equal loads



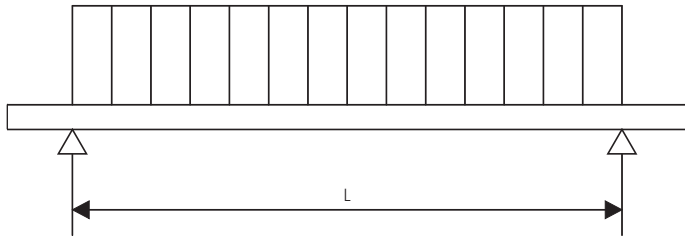
L (mm)						
	WM0 (27 x 18)	WM1 (30 x 15)	WM15 (30 x 20)	WM2 (30 x 30)	WM30 (30 x 45)	WM35 (38 x 40)
250	379	449	625	1,619	2,600	2,411
300	316	374	521	1,349	2,166	2,009
350	271	321	446	1,156	1,857	1,722
400	237	281	390	1,012	1,625	1,507
450	210	250	347	899	1,444	1,339
500	189	217	312	809	1,300	1,205
600	153	151	260	674	1,083	1,004
700	112	111	191	578	928	861
800	86	85	147	506	812	753
900	68	67	116	406	722	670
1,000	55	54	94	328	650	603
1,200	38	38	65	228	542	482
1,400	28	28	48	168	448	354
1,600	21	21	37	128	343	271
1,800	17	17	29	101	271	214
2,000	14	14	23	82	219	174
2,250	11	11	19	65	173	137
2,500	-	-	15	53	140	111
2,750	-	-	12	43	116	92
3,000	-	-	10	36	97	77
3,250	-	-	-	31	83	66
3,500	-	-	-	27	72	57
3,750	-	-	-	23	62	49
4,000	-	-	-	21	55	43
4,250	-	-	-	18	49	38
4,500	-	-	-	16	43	34
4,750	-	-	-	15	39	31
5,000	-	-	-	13	35	28
5,250	-	-	-	12	32	25
5,500	-	-	-	11	29	23
5,750	-	-	-	-	27	21
6,000	-	-	-	-	24	19

Max. allowed load in N. per suspension point (F).

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

BIS RapidRail® Fixing rail: Uniformly distributed load



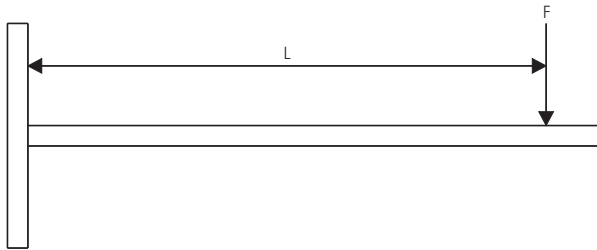
L (mm)						
	WM0 (27 x 18)	WM1 (30 x 15)	WM15 (30 x 20)	WM2 (30 x 30)	WM30 (30 x 45)	WM35 (38 x 40)
250	1,516	1,797	2,499	6,475	10,399	9,643
300	1,263	1,498	2,082	5,396	8,666	8,036
350	1,083	1,284	1,785	4,625	7,428	6,888
400	947	1,123	1,562	4,047	6,499	6,027
450	842	998	1,388	3,597	5,777	5,357
500	758	826	1,249	3,238	5,199	4,821
600	580	574	990	2,698	4,333	4,018
700	426	421	727	2,313	3,714	3,444
800	326	323	557	1,950	3,250	3,013
900	258	255	440	1,541	2,889	2,679
1,000	209	206	356	1,248	2,600	2,411
1,200	145	143	248	867	2,166	1,832
1,400	106	105	182	637	1,701	1,346
1,600	82	81	139	488	1,302	1,031
1,800	64	64	110	385	1,029	814
2,000	52	52	89	312	833	660
2,250	41	41	70	247	658	521
2,500	33	33	57	200	533	422
2,750	28	27	47	165	441	349
3,000	23	23	40	139	370	293
3,250	20	20	34	118	316	250
3,500	17	17	29	102	272	215
3,750	15	15	25	89	237	188
4,000	13	13	22	78	208	165
4,250	12	11	20	69	185	146
4,500	10	10	18	62	165	130
4,750	-	-	16	55	148	117
5,000	-	-	14	50	133	106
5,250	-	-	13	45	121	96
5,500	-	-	12	41	110	87
5,750	-	-	11	38	101	80
6,000	-	-	-	35	93	73






Max. allowed load in N.

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

BIS RapidRail® Cantilever arms: Suspension on 1 point



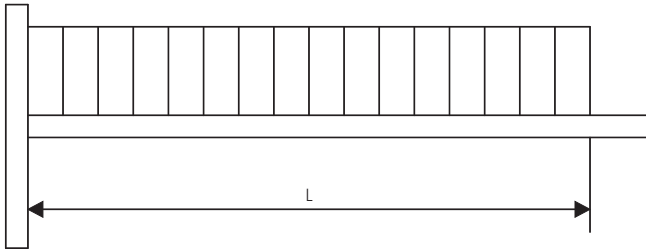
L (mm)					
	WM0 (27 x 18)	WM1 (30 x 15)	WM15 (30 x 20)	WM2 (30 x 30)	WM35 (38 x 40)
150	316	358	521	1,349	2,009
200	204	202	348	1,012	1,507
250	130	129	223	780	1,205
300	91	90	155	542	1,004
350	67	66	114	398	841
400	51	50	87	305	644
500	33	32	56	195	412
600	23	22	39	135	286
700	17	16	28	100	210
800	13	13	22	76	161
900	10	-	17	60	127
1,000	-	-	14	49	103






Max. allowed load in N.

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

BIS RapidRail® Cantilever arms: Uniformly distributed load



L (mm)					
	WM0 (27 x 18)	WM1 (30 x 15)	WM15 (30 x 20)	WM2 (30 x 30)	WM35 (38 x 40)
150	631	749	1,041	2,698	4,018
200	474	538	781	2,023	3,013
250	348	344	594	1,619	2,411
300	242	239	413	1,349	2,009
350	177	176	303	1,061	1,722
400	136	134	232	813	1,507
500	87	86	149	520	1,099
600	60	60	103	361	763
700	44	44	76	265	561
800	34	34	58	203	429
900	27	27	46	161	339
1,000	22	22	37	130	275

Max. allowed load in N.

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

H BIS RapidStrut® Fixing System



BIS Fixing Rail

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BIS Cantilever Arms

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H BIS RapidStrut® Fixing System



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BIS RapidStrut®

For all medium rail applications



Fast and easy

The accessories are pre-assembled and delivered 'ready to use' on site. The plastic spring allows the slide nut to be fixed easily into the rail, retaining the assembly in place before final tightening.



Extensive system

The BIS RapidStrut® fixing system offers an extensive choice for rail profiles and cantilever arms. A broad range of accessories are also available including: slide nuts, T-bolt assemblies and swivel hangers.



BIS RapidStrut® Fixing Rail DS 5

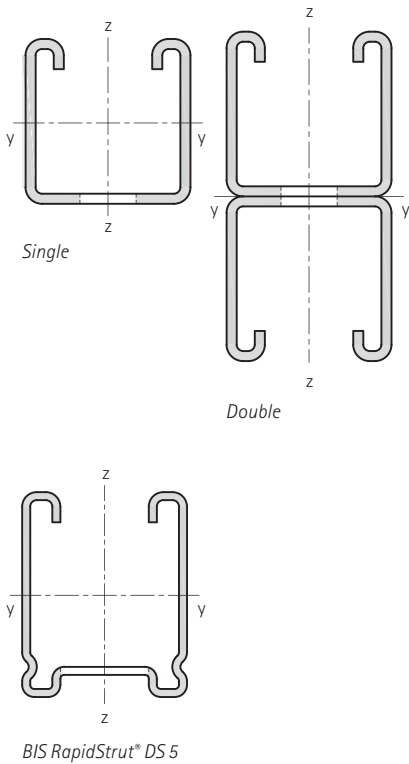
The DS 5 has a unique hole pattern allowing BIS RapidStrut® Accessories to be mounted quickly on both sides of the rail.

For indoor and outdoor use

Extreme corrosion resistance. For more information about the BIS UltraProtect® 1000 System, see walraven.com



System BIS RapidStrut® - Table of rail section properties



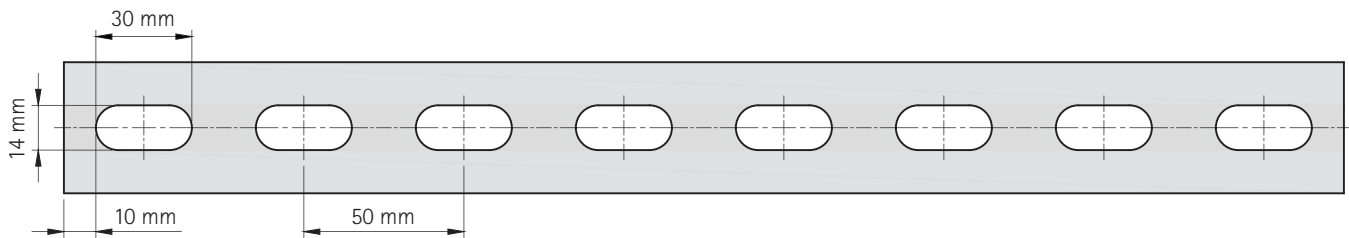
Type	Weight (kg / m)	Moment of inertia cm ⁴		Section modulus cm ³	
		I _y	I _z	W _y	W _z
41x21 - 1.5	1.15	0.78	3.70	0.72	1.80
41x21 - 2.0	1.34	0.90	4,59	0.84	2.22
41x21 - 2.5	1.78	1.01	5.40	0.93	2.61
41x41 - 1.5	1.65	4.46	6.20	2.12	3.00
41x41 - 2.0	2.35	5.34	7.79	2.56	3.77
41x41 - 2.5	2.45	6.26	9.30	2.97	4.50
41x51 - 2.0 (DS 5)	2.62	8.81	9.49	3.44	4.60
41x62 - 2.5	3.33	18.03	13.20	5.75	6.39
41x82 - 2.5	4.08	37.31	16.89	9.00	8.18
41x21D - 2.5	3.56	5.70	10.76	2.77	5.21
41x41D - 2.5	4.90	36.79	18.56	8.91	8.99
41x62D - 2.5	6.66	111.21	26.37	17.94	12.77
41x82D - 2.5	8.16	240.93	33.90	29.38	16.42

See Rail load tables for safe working loads.

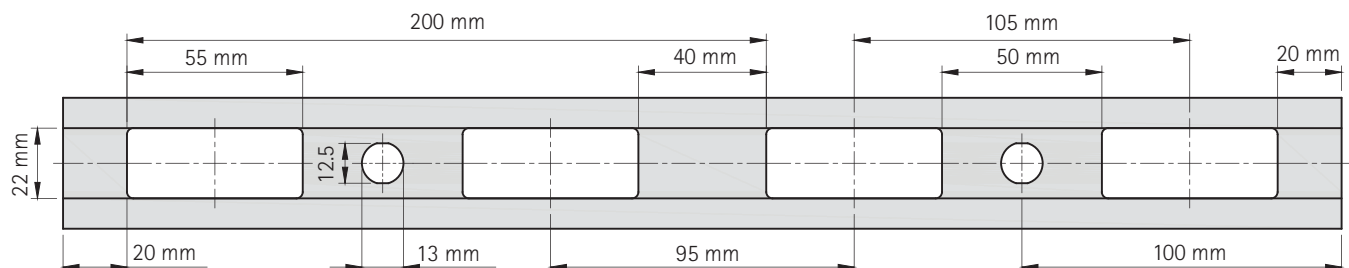
Perforation pattern of rails

Distance between rail end and first hole is always equal.

BIS RapidStrut® - 1.5 / 2.0 / 2.5 mm



BIS RapidStrut® DS 5 - 2.0 mm



BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

(H 04 05)

suspension and support

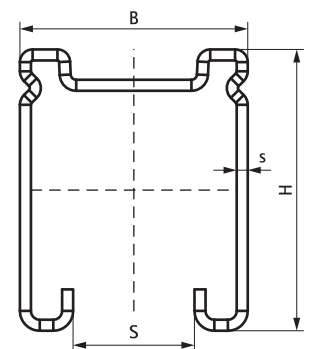


Features and Benefits

- for a quick and easy fixing
- unique hole pattern, allowing BIS RapidStrut® Accessories to be mounted on both sides of the rail
- very high corrosion resistance (BIS UltraProtect® 1000)
- corrosion protection remains intact after cutting
- strength minimal equal to Strut 41x41x2.5 mm
- with continuous perforation
- distance between rail end and first hole is always equal
- a continuous graduated centimetre scale on one side
- material: steel 1.0242
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B (mm)	H (mm)	s (mm)	S (mm)	BndS	BndL	App.
65058252	2 m	41	51	2.0	22	20	80	m.
65058352	3 m	41	51	2.0	22	30	120	m.
65058652	6 m	41	51	2.0	22	60	240	m.

For more information about the max. allowed load ($F_{0,2}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'.



Complementary

- 257 BIS RapidStrut® Hammerfix G2 (BUP1000)
- 264 BIS RapidStrut® Rail Connector 90° G2 (BUP1000)
- 269 BIS RapidStrut® Rail Connector 135° G2 (BUP1000)

Complementary

- 272 BIS RapidStrut® Rail Connector G2 (BUP1000)
- 274 BIS RapidStrut® Rail Connector -
- 276 BIS RapidStrut® Rail

BIS RapidStrut® Fixing Rail (pg)

(H 04 10)

suspension and support



Features and Benefits

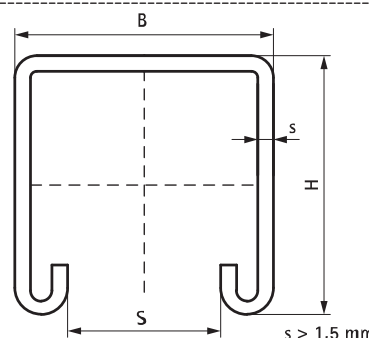
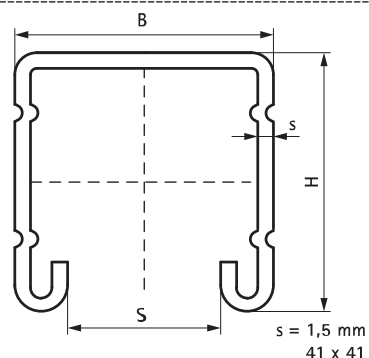
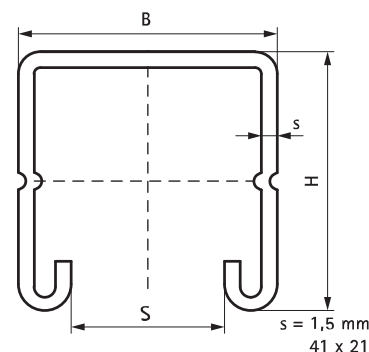
- universal rail system
- with continuous perforation
- distance between rail end and first hole is always equal
- a continuous graduated centimetre scale on one side
- inward formed flanges with serrated profile for extra grip
- material: steel 1.0242
- Part No. 650 5 X85 (Strut 2.5 mm) material: steel 1.0332
- yield strength 240 N/mm²
- pre-galvanized
- strut 41x41x2.5 and above tested for fire safety

Part No.	L	B	H	s	S	RAL	BndS	BndL	App.
		(mm)	(mm)	(mm)	(mm)				
6505224	2 m	41	21	1.50	22	RAL ¹	20	200	m.
6505324	3 m	41	21	1.50	22	RAL ¹	30	300	m.
6505624	6 m	41	21	1.50	22	RAL ¹	60	600	m.
6505222	2 m	41	21	2.00	22	RAL ¹	20	200	m.
6505322	3 m	41	21	2.00	22	RAL ¹	30	300	m.
6505622	6 m	41	21	2.00	22	RAL ¹	60	600	m.
6505225	2 m	41	21	2.50	22	RAL ¹	20	200	m.
6505325	3 m	41	21	2.50	22	RAL ¹	30	300	m.
6505625	6 m	41	21	2.50	22	RAL ¹	60	600	m.
6505244	2 m	41	41	1.50	22	RAL ¹	20	100	m.
6505344	3 m	41	41	1.50	22	RAL ¹	30	150	m.
6505644	6 m	41	41	1.50	22	RAL ¹	60	300	m.
6505242	2 m	41	41	2.00	22	RAL ¹	20	100	m.
6505342	3 m	41	41	2.00	22	RAL ¹	30	150	m.
6505642	6 m	41	41	2.00	22	RAL ¹	60	300	m.
6505245	2 m	41	41	2.50	22	RAL ¹	20	100	m.
6505345	3 m	41	41	2.50	22	RAL ¹	30	150	m.
6505645	6 m	41	41	2.50	22	RAL ¹	60	300	m.
6505365	3 m	41	62	2.50	22	-	30	90	m.
6505665	6 m	41	62	2.50	22	-	60	180	m.
6505385	3 m	41	82	2.50	22	-	180	-	m.
6505685	6 m	41	82	2.50	22	-	60	180	m.

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/C. Strut 41x41x2.5 and above tested for fire safety. For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue. For more information about the max. allowed load (F_{0,2}) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'.



RAL-GZ 655/C
Cert.Nr. 2012-04



Complementary

- 257 BIS RapidStrut® Hammerfix G2 (BUP1000)
- 247 BIS RapidStrut® Slide Nut G2 (BUP1000)
- 294 BIS Strut Clamp with Lining

Alternative

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS RapidStrut® Fixing Rail (BUP1000)

(H 04 13)

suspension and support



Features and Benefits

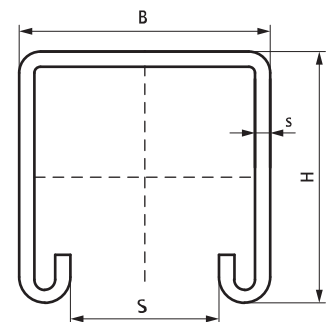
- universal rail system
- corrosion protection remains intact after cutting
- with continuous perforation
- distance between rail end and first hole is always equal
- a continuous graduated centimetre scale on one side
- inward formed flanges with serrated profile for extra grip
- strut 41x41x2.5 and above tested for fire safety
- material: steel 1.0242
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



RAL-GZ 655/C
Cert.Nr. 2015-02

Part No.	L	B	H	s	S	RAL	BndS	BndL	App.
		(mm)	(mm)	(mm)	(mm)				
65018227	2 m	41	21	2.50	22	RAL ¹	20	200	m.
65018327	3 m	41	21	2.50	22	RAL ¹	30	300	m.
65018627	6 m	41	21	2.50	22	RAL ¹	60	600	m.
65018242	2 m	41	41	2.00	22	RAL ¹	20	100	m.
65018342	3 m	41	41	2.00	22	RAL ¹	30	150	m.
65018642	6 m	41	41	2.00	22	RAL ¹	60	300	m.
65018247	2 m	41	41	2.50	22	RAL ¹	20	100	m.
65018347	3 m	41	41	2.50	22	RAL ¹	30	150	m.
65018647	6 m	41	41	2.50	22	RAL ¹	60	300	m.
65018367	3 m	41	62	2.50	22	-	90	-	m.
65018667	6 m	41	62	2.50	22	-	36	216	m.
65018687	6 m	41	82	2.50	22	-	-	180	m.

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/C.
Strut 41x41x2.5 and above tested for fire safety.
For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.
For more information about the max. allowed load ($F_{0,2}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'.



Complementary

- 247 BIS RapidStrut® Slide Nut G2 (BUP1000)
- 257 BIS RapidStrut® Hammerfix G2 (BUP1000)
- 339 BIS Yeti® 130 Support System

Alternative

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS RapidStrut® Fixing Rail Double (pg)

(H 04 40)

suspension and support



Features and Benefits

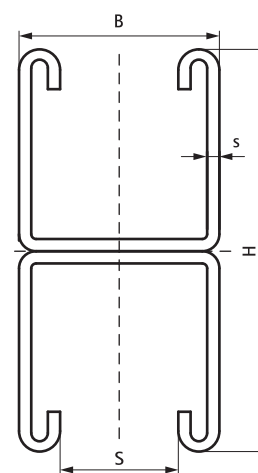
- universal rail system
- with continuous perforation
- a continuous graduated centimetre scale on one side
- inward formed flanges with serrated profile for extra grip
- material: steel 1.0332
- yield strength 240 N/mm²
- pre-galvanized
- strut 41x41x2.5 and above tested for fire safety



Part No.	L	B (mm)	H (mm)	s (mm)	S (mm)	BndS	BndL	App.
6505626	6 m	41	42 (21 x 2)	2.50	22	6	150	m.
6505646	6 m	41	82 (41 x 2)	2.50	22	6	300	m.
6505666	6 m	41	124 (62 x 2)	2.50	22	6	90	m.
6505686	6 m	41	164 (82 x 2)	2.50	22	6	180	m.

Strut 82 (41x2) and above tested for fire safety.

For more information about the max. allowed load ($F_{0,2}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'.



Complementary

294 BIS Strut Clamp with Lining

Alternative

223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS RapidStrut® Fixing Rail Double (hdg)

(H 04 45)

suspension and support



Features and Benefits

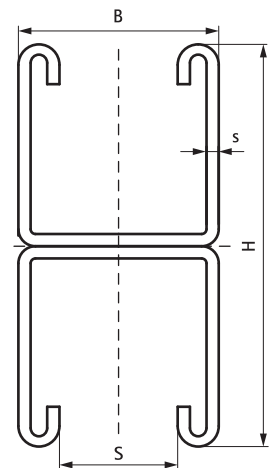
- universal rail system
- with continuous perforation
- a continuous graduated centimetre scale on one side
- inward formed flanges with serrated profile for extra grip
- material: steel 1.0332
- yield strength 240 N/mm²
- hot dip galvanized
- strut 41x41x2.5 and above tested for fire safety



Part No.	L	B (mm)	H (mm)	s (mm)	S (mm)	BndS	BndL	App.
6501646	6 m	41	82 (41x2)	2.50	22	6	150	m.
6501666	6 m	41	124 (62x2)	2.50	22	60	90	m.
6501686	6 m	41	164 (82x2)	2.50	22	6	90	m.

Strut 82 (41x2) and above tested for fire safety.

For more information about the max. allowed load ($F_{a,z}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'.



Complementary

252 BIS Strut Slide Nut (hdg)

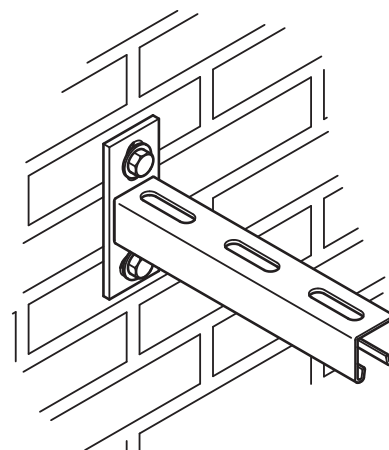
Alternative

223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS RapidStrut® Cantilever Arm (BUP1000)

(H 08 05)

fixing to wall



Features and Benefits

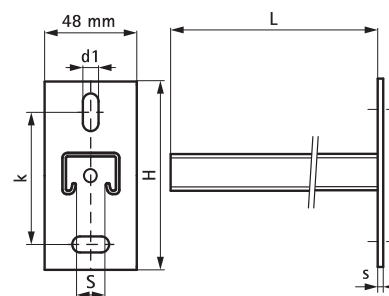
- wall plate welded on Strut Profile
- slots at 90° to each other to simplify fixing
- CO₂ welded
- inward formed flanges with serrated profile for extra grip
- material: steel 1.0226
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- tested for fire safety



Part No.	L	H	h	s	d1	S	k	From Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
6603831	200 mm	110	70.0	5.0	25 x 11	22	70.0	Strut 41x21x2.5	10
6603832	300 mm	110	70.0	5.0	25 x 11	22	70.0	Strut 41x21x2.5	10
6603833	450 mm	110	70.0	5.0	25 x 11	22	70.0	Strut 41x21x2.5	20
6603834	600 mm	110	70.0	5.0	25 x 11	22	70.0	Strut 41x21x2.5	10
6603923	300 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.0	10
6603926	450 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.0	10
6603928	600 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.0	8
6603861	150 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.5	10
6603870	200 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.5	10
6603862	300 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.5	10
6603871	400 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.5	10
6603863	450 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.5	10
6603873	500 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.5	10
6603864	600 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.5	8
6603865	750 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.5	8
6603866	1,000 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.5	1
6603867	1,200 mm	130	87.5	7.0	30 x 13	22	87.5	Strut 41x41x2.5	1

Strut 41x41x2.5 and above tested for fire safety.

For more information about the max. allowed load ($F_{a,z}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'.

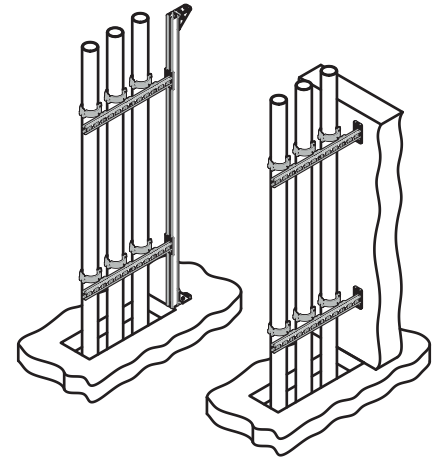


Complementary

- 448 BIS Washer (BUP1000)
- 240 BIS Rail Prop (BUP1000)

BIS RapidStrut® Cantilever Arm Vertical (BUP1000)

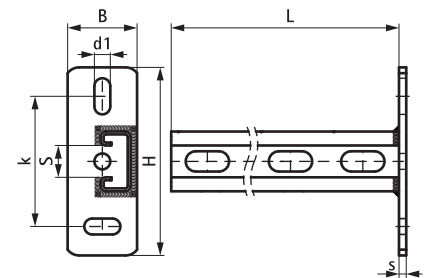
(H 08 07)



Features and Benefits

- vertical welded cantilever arm for vertical pipe installations
- perfect solution for shaft situations with or without wall
- optimal utilization of the available space in shafts
- CO₂ welded
- inward formed flanges with serrated profile for extra grip
- material: steel 1.0226
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B (mm)	H (mm)	s (mm)	d1 (mm)	S (mm)	k (mm)	From Rail	Pack 1
6603828	300 mm	48	130	5.0	25 x 11	22	90	Strut 41x21	10
6603829	600 mm	48	130	5.0	25 x 11	22	90	Strut 41x21	10



Complementary

- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 247 BIS RapidStrut® Slide Nut G2 (BUP1000)
- 257 BIS RapidStrut® Hammerfix G2 (BUP1000)

Complementary

- 255 BIS RapidStrut® Slide Nut
- 496 WT1 Throughbolt Anchor
- 503 WCS1H Concrete Screw

BIS RapidStrut® Cantilever Arm 41x41D (BUP1000)

(H 08 10)

fixing to wall



Features and Benefits

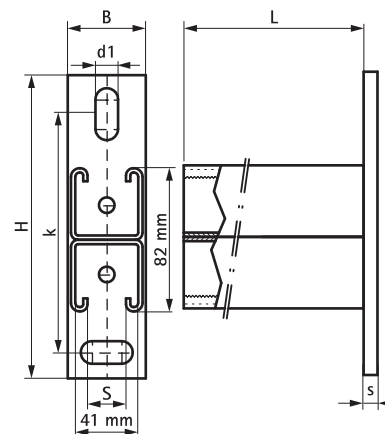
- wall plate welded on Strut Profile
- slots at 90° to each other to simplify fixing
- CO₂ welded
- inward formed flanges with serrated profile for extra grip
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- tested for fire safety



Part No.	L	B	H	s1	d1	S	k	From Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
6603883	450 mm	45	175	8.0	30 x 13	22	137.5	Strut 41x41Dx2.5	8
6603884	600 mm	45	175	8.0	30 x 13	22	137.5	Strut 41x41Dx2.5	4
6603885	750 mm	45	175	8.0	30 x 13	22	137.5	Strut 41x41Dx2.5	4
6603886	1,000 mm	45	175	8.0	30 x 13	22	137.5	Strut 41x41Dx2.5	1

Strut 82 (41x2) and above tested for fire safety.

For more information about the max. allowed load ($F_{0,2}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'.



BIS RapidStrut® Cantilever Arm with Rail Prop

fixing to wall

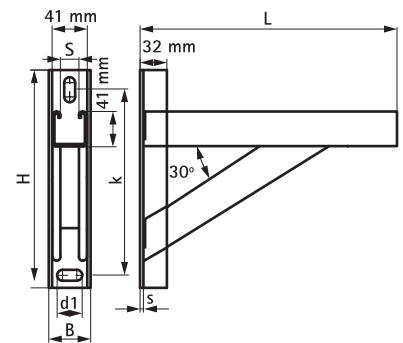
(H 08 15)



Features and Benefits

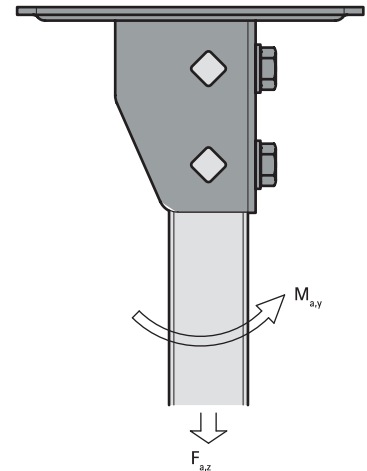
- wall plate welded on Strut Profile
- CO₂ welded
- with prop
- inward formed flanges with serrated profile for extra grip
- material: steel 1.0332
- hot dip galvanized

Part No.	L	B	H	s	d1	S	k	From Rail	F _{a,z} (N)	Pack 1
6601894	600 mm	50 (mm)	350 (mm)	4.0 (mm)	28 x 13 (mm)	22 (mm)	311.5 (mm)	Strut 41x41	1,400	1



BIS RapidStrut® Base Plate G2 (BUP1000)

(H 12 03)

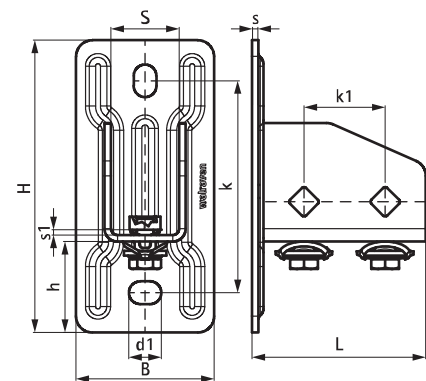


Features and Benefits

- flexible base plate for Strut rails
- suitable for all Strut rail up to 82mm height
- open side of rails 41x41 can be turned to all sides
- at high loads we advise to install with throughbolts
- timesaving with pre-assembled fasteners
- tested for fire safety
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	h	s	d1	S	k	k1	F _{a,z}	F _{a,z 2}	M _{a,y}	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(N)	(N)	(Nm)	
665885400	107 mm	85	180	56	4.0	20 x 14	42	130	50	3,636	5,151	485.0	10

F_{a,z}: max. allowed load in combination with 2 slide nuts M10, tightened with 40 Nm.
F_{a,z 2}: max. allowed load in combination with 2 throughbolts M10, tightened with 40 Nm.
M_{a,y}: max. moment in combination with 2 throughbolts M10, tightened with 40 Nm.



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 255 BIS RapidStrut® Slide Nut

Complementary

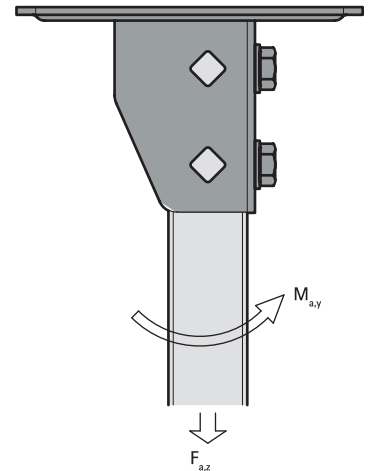
- 186 BIS Washer (Flat) (BUP1000)
- 446 BIS Hexagon Head Bolt (BUP1000)
- 503 WCS1H Concrete Screw

Alternative

- 235 BIS Strut Base Plate Heavy Duty (BUP1000)

BIS Strut Base Plate G2 (zp)

(H 12 11)

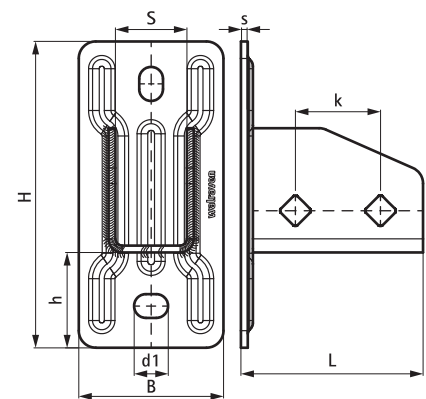


Features and Benefits

- flexible base plate for Strut rails
 - suitable for all Strut rail up to 82mm height
 - open side of rails 41x41 can be turned to all sides
 - at high loads we advise to install with throughbolts
 - material: steel
- zinc plated

Part No.	L	B	H	h	s	d1	S	k	F _{a,z}	F _{a,z 2}	M _{a,y}	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(N)	(N)	(Nm)	
66583804	107 mm	85	180	56	4.0	20 x 14	42	50	3,636	5,151	485.0	10

F_{a,z}: max. allowed load in combination with 2 slide nuts M10, tightened with 40 Nm.
F_{a,z 2}: max. allowed load in combination with 2 throughbolts M10, tightened with 40 Nm.
M_{a,y}: max. moment in combination with 2 throughbolts M10, tightened with 40 Nm.



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 256 BIS RapidStrut® Slide Nut with Plastic Tabs (zp)
- 187 BIS Washer (Flat)

Complementary

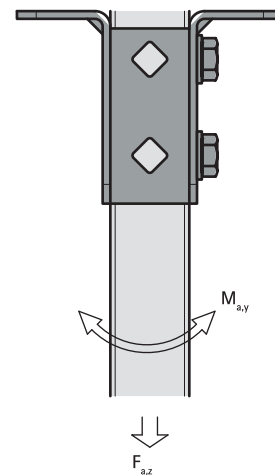
- 496 WTB1 Throughbolt Anchor
- 503 WCS1H Concrete Screw
- 447 BIS Hexagon Head Bolt

Alternative

- 232 BIS RapidStrut® Base Plate G2 (BUP1000)
- 235 BIS Strut Base Plate Heavy Duty (BUP1000)

BIS Strut T-shape Base Plate (BUP1000)

(H 12 12)

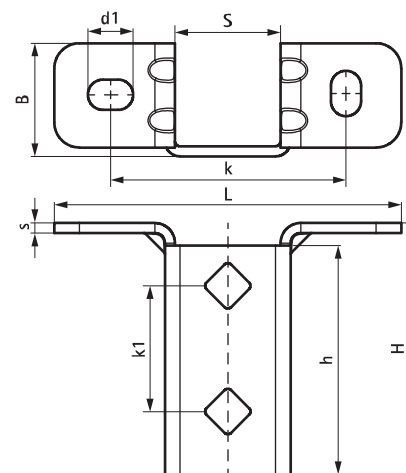


Features and Benefits

- highly flexible base plate for Strut rails
- open side of the rail can be turned to all sides
- extra safety by reinforced bending
- hole pattern is adapted to the hole pattern of Strut rails
- material: steel 1.0242 (S250GD) + ZM310 MAC
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	h	s	d1	S	k	k1	F _{a,z}	F _{a,z 2}	M _{a,y}	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(N)	(N)	(Nm)	
66588361	138 mm	45	100	91	4.0	18 x 12	42	95	50	3,636	3,636	164.0	10

F_{a,z}: max. allowed load in combination with 2 slide nuts M10, tightened with 40 Nm.
F_{a,z 2}: max. allowed load in combination with 2 throughbolts M10, tightened with 40 Nm.
M_{a,y}: max. moment in combination with 2 throughbolts M10, tightened with 40 Nm.



Complementary

- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 255 BIS RapidStrut® Slide Nut
- 186 BIS Washer (Flat) (BUP1000)

Complementary

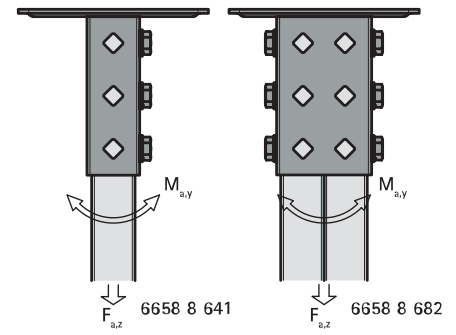
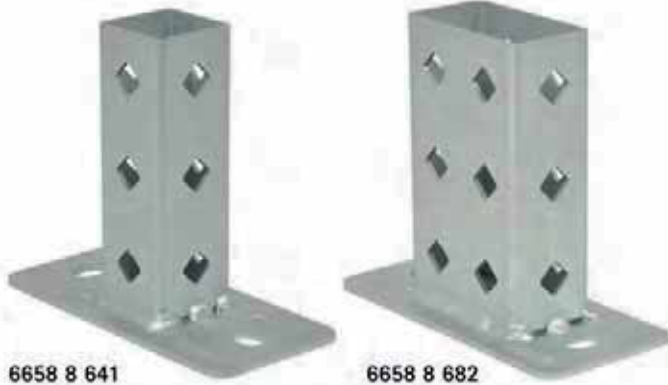
- 446 BIS Hexagon Head Bolt (BUP1000)
- 496 WTB1 Throughbolt Anchor
- 503 WCS1H Concrete Screw

Alternative

- 232 BIS RapidStrut® Base Plate G2 (BUP1000)
- 235 BIS Strut Base Plate Heavy Duty (BUP1000)

BIS Strut Base Plate Heavy Duty (BUP1000)

(H 12 13)



Features and Benefits

- heavy base plate for Strut rails
- can be used together with wingnuts or throughbolts
- hole pattern is adapted to the hole pattern of Strut rails
- closed profile for increased structural strength
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

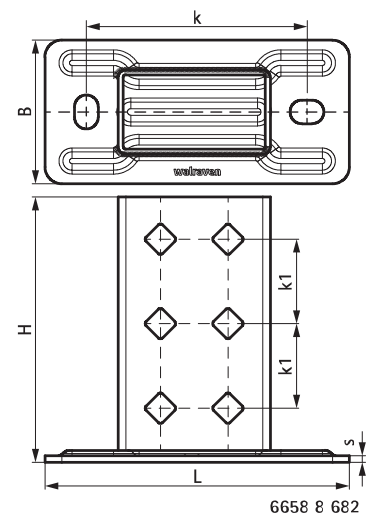
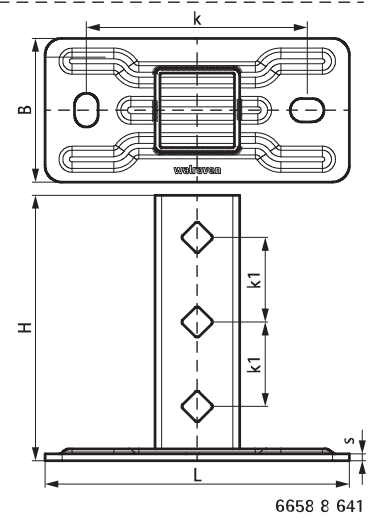
Part No.	L	B	H	s	k	k1	For Rail	F _{a,z}	F _{a,z} 2	M _{a,y}	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)		(N)	(N)	(Nm)	
66588641	180 mm	85	157	4.0	130	50	Strut 41x41 + 41x21D	4,242	5,303	258.0	10
66588682	180 mm	85	157	4.0	130	50	Strut 41x82 + Strut 41x41D	7,273	10,303	606.0	10

Part No. 6658 8 641: F_{a,z}: max. allowed load in combination with 3 slide nuts M10, tightened with 40 Nm.

Part No. 6658 8 682: F_{a,z}: max. allowed load in combination with 6 slide nuts M10, tightened with 40 Nm.

F_{a,z} 2: max. allowed load in combination with 2 throughbolts M10, tightened with 40 Nm.

M_{a,y}: max. moment in combination with 2 throughbolts M10, tightened with 40 Nm.



Complementary

- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 255 BIS RapidStrut® Slide Nut
- 186 BIS Washer (Flat) (BUP1000)

Complementary

- 446 BIS Hexagon Head Bolt (BUP1000)
- 496 WT B1 Throughbolt Anchor
- 503 WCS1H Concrete Screw

Alternative

- 232 BIS RapidStrut® Base Plate G2 (BUP1000)

BIS Strut Wall Plate (Hinged) (BUP1000)

(H 12 25)

fixing to wall

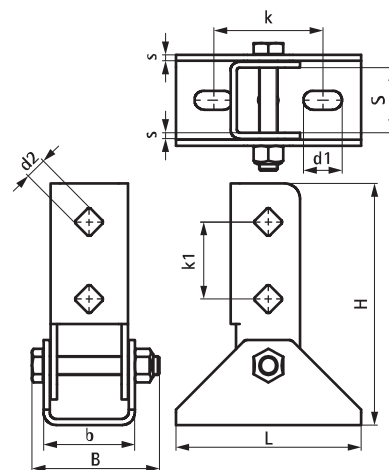


Features and Benefits

- wall plate with hinging U-profile
- for wall fixing of rail
- rail can be fixed with slot downwards or sideways
- also used to strengthen constructions with Strut 41x41
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	b	s	d1	d2	S	k	k1	For Rail	F _{a,z 2} (N)	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			
66588814	120 mm	83	157	59	4.0	25x12.2	13.8	42	71	50	Strut	9.700	10 *

* Tested with rail 41x41x2,5 with throughbolts. More details can be found on the Technical Datasheet.



Complementary

224 BIS RapidStrut® Fixing Rail (pg)

BIS Adjustable Support Bracket

(H 12 42)

support bracket fastener for height adjustable rail installation

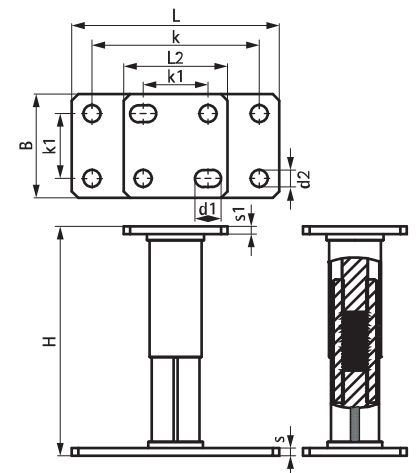


Features and Benefits

- height adjustment range 135mm to 210mm also in installed state (left/right thread)
- suitable for all Strut rails (advised to use open side down for flexibility to meet the holes)
- use up to class 1-2 according to Eurocode 5 (indoor and covered outdoor area without weather influences)
- material: metal parts made of steel S235JR; protection cover made of plastic, grey
- zinc plated (Zn-Fe zinc / iron coating)

Part No.	L	L2 (mm)	B (mm)	H (mm)	s (mm)	s1 (mm)	d1 (mm)	d2 (mm)	k (mm)	k1 (mm)	Pack 1
66583810	160 mm	80	80	135-200	6.0	6.0	20 x 13	Ø 13.0	129	50	-

*For a detailed calculation and for support how to spread the load please contact Walraven Technical Support.
In cases where a foot is used in roof applications, the installer is obliged to verify maximum load capacity of roof before installation.*



Complementary

- 256 BIS RapidStrut® Slide Nut with Plastic Tabs (zp)
- 496 WT1 Throughbolt Anchor
- 503 WCS1H Concrete Screw

Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)

BIS Strut T-Bracket

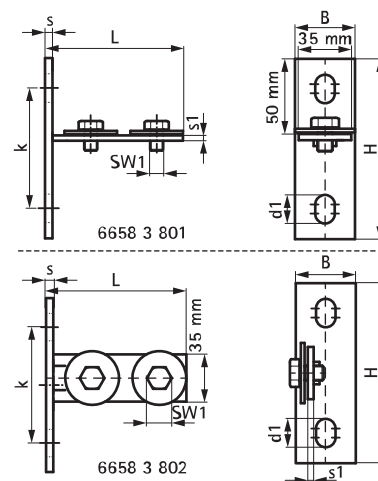
(H 12 50)

fixing to wall



Features and Benefits

- for small spans in constructions with Strut Rail
- quick installation
- with pre-assembled screws and washers
- material: steel 1.0332



Part No.	Model	L	B	H	s	s1	d1	k	SW1	T _(max.)	For Rail	ST	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(Nm)			
66583801	Horizontal	104 mm	40	120	5.0	4.0	19 x 13	80	17	15.0	Strut 41x21 + 41x41 + 41x21D	zinc plated	25
66583802	Vertical	104 mm	40	120	5.0	4.0	19 x 13	80	17	15.0	Strut 41x21 + 41x41 + 41x21D	zinc plated	25

BIS Adjustable Support (BUP1000)

(H 12 53)

fixing to wall

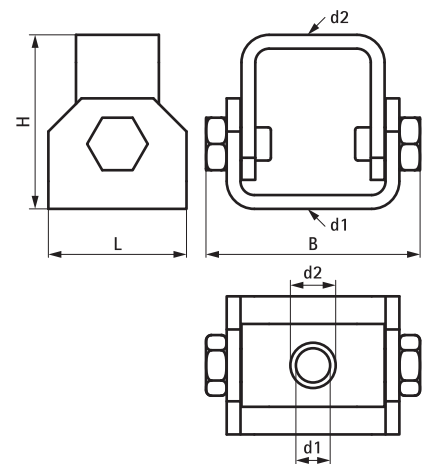


Features and Benefits

- especially for angled installations with bracings
- suitable for fixing to walls or fixing rails
- adjustable angle up to 90°
- with two holes Ø13 mm
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	d1	d2	For Rail	F _{a,z}	ST	Pack 1
		(mm)	(mm)	(mm)	(mm)		(N)		
66588818	50 mm	78	63	Ø 13.0	Ø 13.0	Strut	5,000	BIS UltraProtect® 1000	10

Max. allowed load: when used at an angle of 45° on wall/ceiling.



BIS Rail Prop (BUP1000)

(H 16 05)

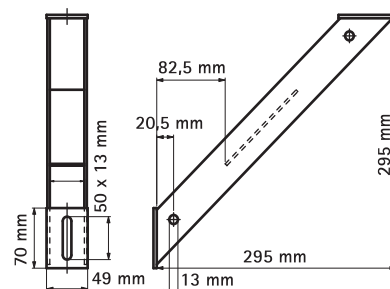
reinforcement of cantilever arm



Features and Benefits

- 45° support bracket
- for fixing support under, top or on side of a cantilever arm
- also used to strengthen rail constructions
- CO₂ welded
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	For Rail	Pack 1
66288530	Strut + WM35	10



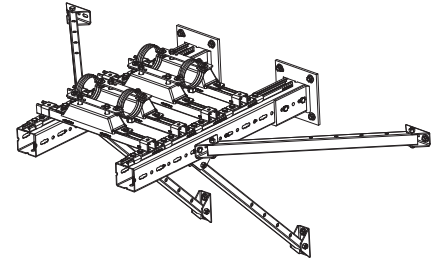
Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)

BIS Flexible Rail Prop

reinforcement of rail fabrications

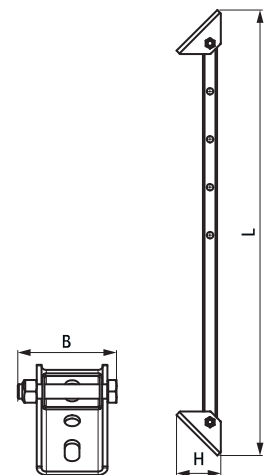
(H 16 07)



Features and Benefits

- flexible angle support bracket
- to strengthen rail constructions
- by additional holes the length can be reduced in steps of 100mm
- suitable for Strut rails and for Maxx rails
- material: u-plate steel 1.0242 (S250GD); tube profile: steel 1.0038 (S235JR)
- u-plate: Z275-MAC (pre-galvanized); tube profile: hot-dip galvanized 50-80 µm

Part No.	L	B (mm)	H (mm)	Fa,z (N)	Pack 1
6621083	929	83	92	7,500	1



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 226 BIS RapidStrut® Fixing Rail Double (pg)
- 318 Maxx Heavy Rail Profile

Complementary

- 496 WTB1 Throughbolt Anchor
- 503 WCS1H Concrete Screw

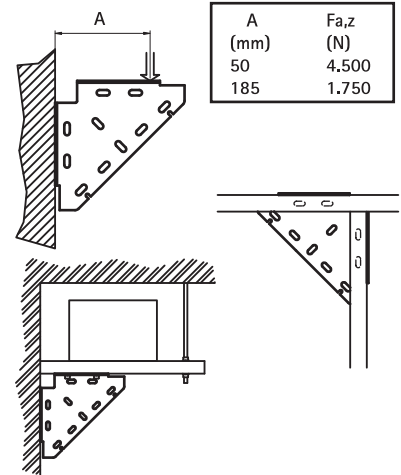
Alternative

- 240 BIS Rail Prop (BUP1000)

BIS Rail Junction Angle Bracket (BUP1000)

(H 16 20)

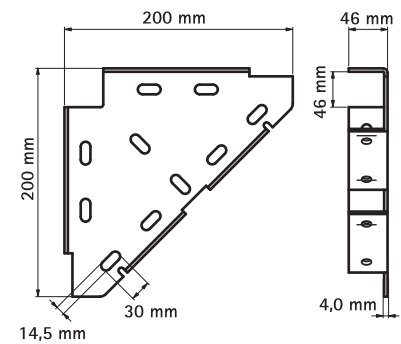
to make Strut rail fabrications



Features and Benefits

- one-part support
- for fixing support under, top or on side of a cantilever arm
- also used to strengthen rail constructions
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	For Rail	Pack 1
65938020	Strut + WM35	10



Complementary

223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

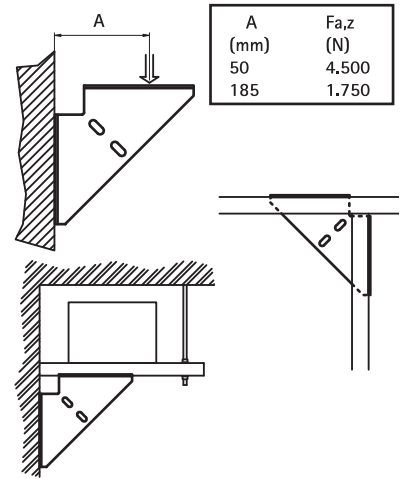
Alternative

243 BIS Strut Angle Bracket (BUP1000)

BIS Strut Angle Bracket (BUP1000)

(H 16 35)

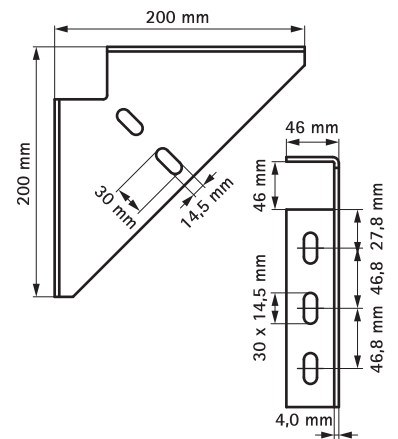
to make Strut rail fabrications



Features and Benefits

- one-part support
- for fixing support under, top or on side of a cantilever arm
- also used to strengthen rail constructions
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	For Rail	Pack 1
66038020	Strut + WM35	10



Complementary

223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

Alternative

242 BIS Rail Junction Angle Bracket (BUP1000)

BIS Strut Floor Bracket

(H 16 50)

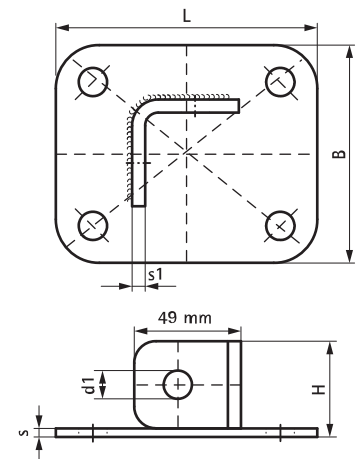
to make Strut rail fabrications



Features and Benefits

- to make fabrication with Strut Rail
- material: steel 1.0332
- easy fitting due to rounded edges

Part No.	L	B	H	s	s1	d1	For Rail	ST	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)			
66583602	120 mm	100	44	4.0	4.0	Ø 13	Strut 41x41	zinc plated	15



BIS Console Kit Clim ISO – Strut (Wall Rail)

(H 19 10)

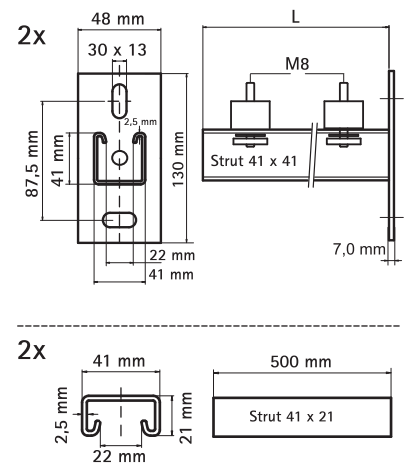
wall fixing of appliances



Features and Benefits

- universal fixing kit
- for wall fixing of airconditioners, heaters, compressors and other heavy duty material
- material: steel 1.0332
- hot dip galvanized
- noise insulation by use of vibration isolators (support made of vulcanized rubber)
- consists of:
 - 2 Cantilever arms of Strut 41x41
 - 2 lengths of Strut 41x21
 - 4 Vibration isolators
 - 2 Rail End Caps

Part No.	L	T _(max.) (Nm)	From Rail	F _{a,z} (N)	Pack 1
6901945	450 mm	15.0	Strut 41x41	2,000	1
6901960	600 mm	15.0	Strut 41x41	1,200	1



BIS Console Kit Clim ISO – Strut

(H 19 15)

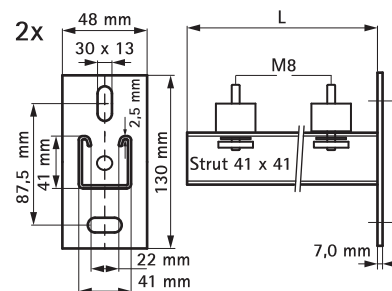
wall fixing of appliances



Features and Benefits

- universal fixing kit
- for wall fixing of airconditioners, heaters, compressors and other heavy duty material
- vibration isolators pre-assembled with slide nut, washer and hexagon head lock-nut
- vibration isolators pre-assembled on cantilever arm
- material: steel 1.0332
- hot dip galvanized
- noise insulation by use of vibration isolators (support made of vulcanized rubber)
- consists of:
 - 2 Cantilever arms of Strut 41x41
 - 4 Vibration isolators
 - 2 Rail End Caps

Part No.	L	T _(max.) (Nm)	From Rail	F _{a,z} (N)	Pack 1
6901860	600 mm	15.0	Strut 41x41	1,200	1



Alternative

245 BIS Console Kit Clim ISO – Strut (Wall Rail)

BIS RapidStrut® Slide Nut G2 (BUP1000)

(H 24 04)

fixing to Strut rail



Features and Benefits

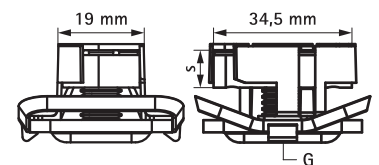
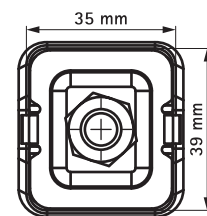
- slide nut with washer and BIS RapidStrut® spring
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	G	s (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1	Pack 2
665185106	M6	5.0	7.5	Strut	5,300	20	200
665185108	M8	6.0	15.0	Strut	6,000	20	200
665185110	M10	8.0	15.0	Strut	9,500	20	200
665185112	M12	9.0	30.0	Strut	10,000	20	200

M10 and above tested for fire safety.

Tested values in combination with BIS RapidStrut® Rail 41x41x2.5mm.



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)

BIS RapidStrut® Slide Nut MS (ZP)

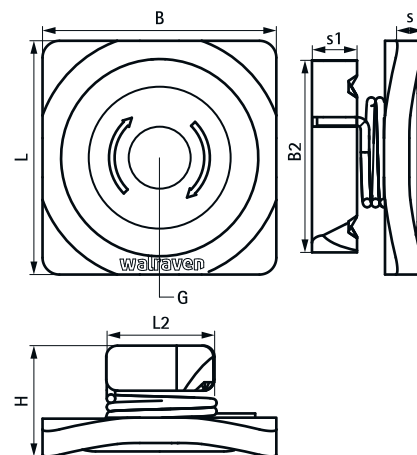
(H 24 11)



Features and Benefits

- slide nut with washer and metal spring
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- solid washer for strong connection
- robust since completely made from metal
- material: steel
- zinc plated

Part No.	G	L	L2 (mm)	B (mm)	B2 (mm)	H (mm)	s (mm)	s1 (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
66513108	M8	43 mm	19 mm	43	34	43	4.0	8.0	15.0	Strut	6,000	150
66513110	M10	43 mm	19 mm	43	34	20	4.0	8.0	15.0	Strut	9,500	150
66513112	M12	43 mm	19 mm	43	34	20	4.0	10.0	30.0	Strut	10,000	150



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 230 BIS RapidStrut® Cantilever Arm 41x41D (BUP1000)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)

Alternative

- 247 BIS RapidStrut® Slide Nut G2 (BUP1000)
- 256 BIS RapidStrut® Slide Nut with Plastic Tabs (zp)

BIS RapidStrut® Slide Nut with Adapter MS (ZP)

(H 24 12)



66513116

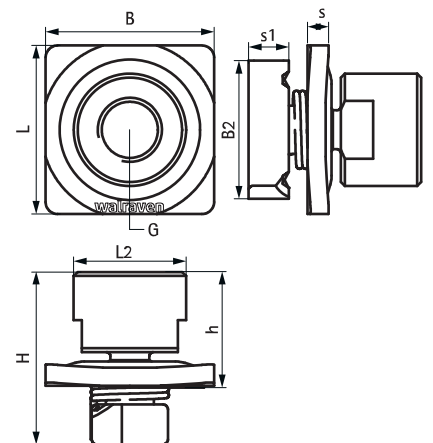


66513121

Features and Benefits

- slide nut with adapter, washer and metal spring
- to connect clamps with M16 or 1/2" nut to Strut rails
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- solid washer for strong connection
- robust since completely made from metal
- material: steel
- zinc plated

Part No.	G	L	L2	B	B2	H	h	s	s1	T _(max.)	For Rail	F _{a,z}	Pack 1
			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(Nm)		(N)	
66513116	M16	43 mm	19 mm	43	34	43	26	4.0	8.0	15.0	Strut	6,000	25
66513121	1/2"	43 mm	19 mm	43	34	43	26	4.0	8.0	15.0	Strut	9,500	25



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)

Alternative

- 247 BIS RapidStrut® Slide Nut G2 (BUP1000)
- 256 BIS RapidStrut® Slide Nut with Plastic Tabs (zp)

BIS Strut Slide Nut (BUP1000)

(H 24 15)

fixing to Strut rail



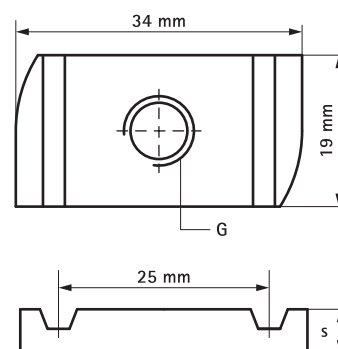
Features and Benefits

- for all types of Strut Rail
- for tight fixing of accessories (e.g. connectors) on rail
- material: steel 1.0332
- tested for fire safety
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	G	s (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
65188006	M6	5.0	7.5	Strut	5,300	100
65188008	M8	6.0	15.0	Strut	6,000	100
65188010	M10	8.0	15.0	Strut	9,500	100
65188012	M12	9.0	30.0	Strut	10,000	100

M10 tested for fire safety.
M12 tested for fire safety.



Complementary

- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

Alternative

- 255 BIS RapidStrut® Slide Nut

BIS Strut Slide Nut (zp)

(H 24 20)

fixing to Strut rail

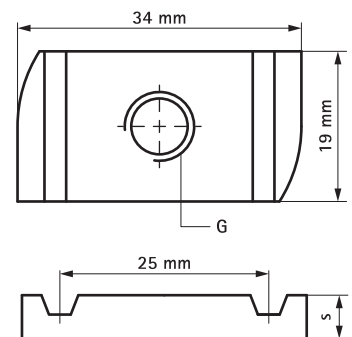


Features and Benefits

- material: steel 1.0332
- zinc plated
- tested for fire safety

Part No.	G	L	s (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1	Pack 2
6517006	M6	-	5.0	7.5	Strut	5,300	100	600
6517008	M8	-	6.0	15.0	Strut	6,000	100	500
6517010	M10	-	9.0	15.0	Strut	9,500	100	600
6517012	M12	-	9.0	30.0	Strut	10,000	100	500

M10 and above tested for fire safety.



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)

Alternative

- 256 BIS RapidStrut® Slide Nut with Plastic Tabs (zp)
- 250 BIS Strut Slide Nut (BUP1000)

BIS Strut Slide Nut (hdg)

(H 24 25)

fixing to Strut rail

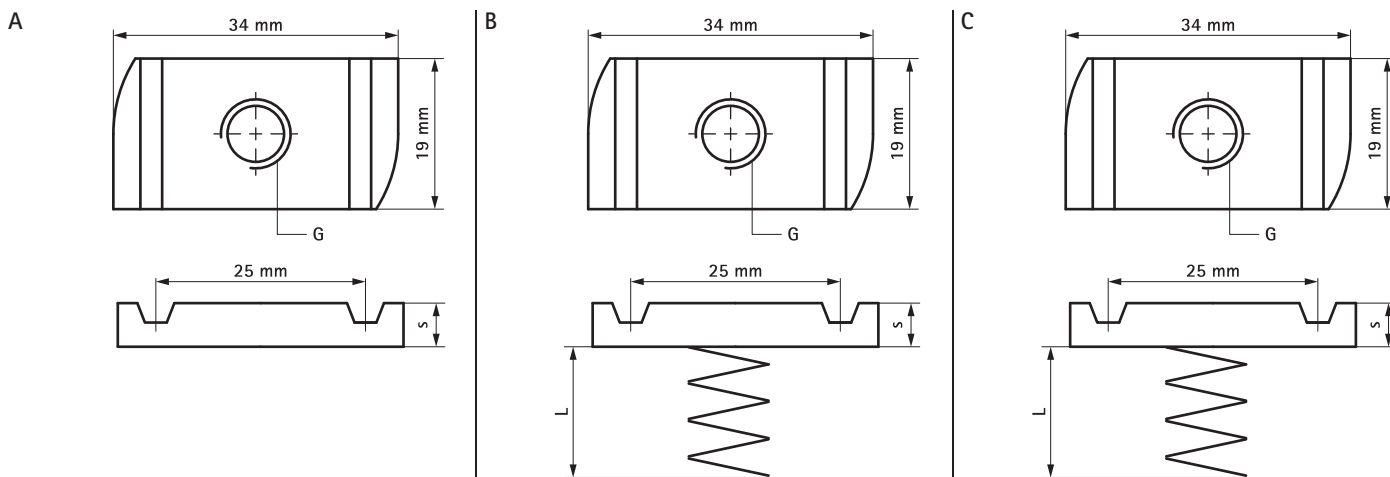


Features and Benefits

- material: slide nut made of steel 1.0332; ■ hot dip galvanized
- spring made of spring steel DIN17223 (class A)
- tested for fire safety

Part No.	G	L	s (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
A 6518006	M6	-	5.0	7.5	Strut	5,300	100
A 6518008	M8	-	6.0	15.0	Strut	6,000	100
A 6518010	M10	-	8.0	15.0	Strut	9,500	100
A 6518012	M12	-	9.0	30.0	Strut	10,000	100
B 6518106	M6	13 mm	5.0	7.5	Strut 41x21	5,300	100
B 6518108	M8	13 mm	6.0	15.0	Strut 41x21	6,000	100
B 6518110	M10	13 mm	8.0	15.0	Strut 41x21	9,500	100
B 6518112	M12	13 mm	9.0	30.0	Strut 41x21	10,000	100
C 6518206	M6	33 mm	5.0	7.5	Strut 41x41	5,300	100
C 6518208	M8	33 mm	6.0	15.0	Strut 41x41	6,000	100
C 6518210	M10	33 mm	8.0	15.0	Strut 41x41	9,500	100
C 6518212	M12	33 mm	9.0	30.0	Strut 41x41	10,000	100

M10 and above tested for fire safety.



Alternative
250 BIS Strut Slide Nut (BUP1000)

BIS Strut Square Slide Nut (BUP1000)

(H 24 32)

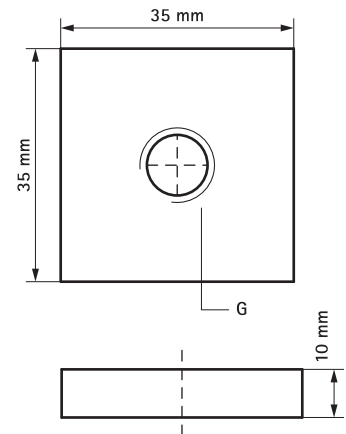
fixing to Strut rail



Features and Benefits

- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	G	For Rail	Pack 1	App.
65178016	M16	Strut	250	pc.



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 30 BIS Heavy Duty Clamp HD1501 (BUP1000)

Complementary

- 52 BIS Heavy Duty Clamp HD500 (BUP1000)

Alternative

- 247 BIS RapidStrut® Slide Nut G2 (BUP1000)
- 255 BIS RapidStrut® Slide Nut
- 250 BIS Strut Slide Nut (BUP1000)

BIS Strut Square Slide Nut

(H 24 30)

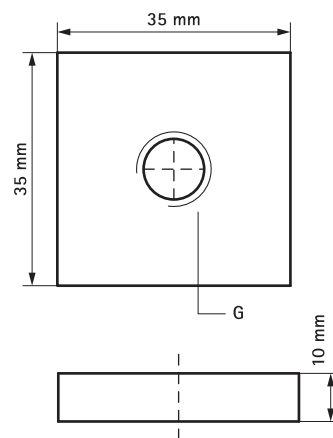
fixing to Strut rail



Features and Benefits

- material: steel 1.0332
- zinc plated
- tested for fire safety

Part No.	G	For Rail	Pack 1	Pack 2
6517016	M16	Strut	50	250



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)

Alternative

- 255 BIS RapidStrut® Slide Nut
- 250 BIS Strut Slide Nut (BUP1000)

BIS RapidStrut® Slide Nut with Plastic Tabs (BUP1000)

(H 24 35)

fixing to Strut rail



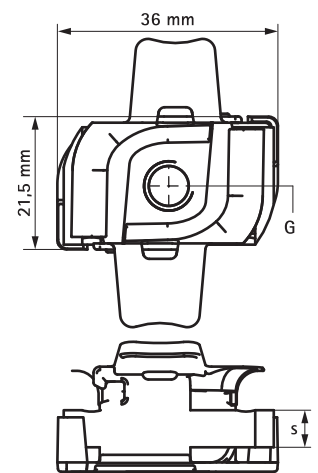
Features and Benefits

- slide nut with plastic 'tabs'
- for all types of Strut Rail
- for tight fixing of accessories (e.g. connectors) on rail
- with plastic tabs which simplifies inserting and positioning
- material: slide nut made of steel 1.0332; tabs made of PP (polypropylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- tested for fire safety



Part No.	G	s (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
651868006	M6	5.0	7.5	Strut	5,300	100
651868008	M8	6.0	15.0	Strut	6,000	100
651868010	M10	8.0	15.0	Strut	9,500	100
651868012	M12	9.0	30.0	Strut	10,000	100

M10 and above tested for fire safety.



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)

Alternative

- 250 BIS Strut Slide Nut (BUP1000)

BIS RapidStrut® Slide Nut with Plastic Tabs (zp)

(H 24 40)

fixing to Strut rail



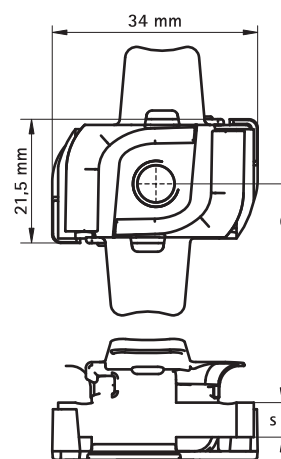
Features and Benefits

- slide nut with plastic 'tabs'
- for all types of Strut Rail
- for tight fixing of accessories (e.g. connectors) on rail
- with plastic tabs which simplifies inserting and positioning
- material: slide nut made of steel 1.0332; tabs made of PP (polypropylene), green
- zinc plated
- tested for fire safety



Part No.	G	s (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
6518606	M6	5.0	7.5	Strut	5,300	100
6518608	M8	6.0	15.0	Strut	6,000	100
6518610	M10	9.0	15.0	Strut	9,500	100
6518612	M12	9.0	30.0	Strut	10,000	100

M10 and above tested for fire safety.



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)

Alternative

- 250 BIS Strut Slide Nut (BUP1000)

BIS RapidStrut® Hammerfix G2 (BUP1000)

(H 24 49)

fixing to Strut rail



Features and Benefits

- slide nut with stud bolt, washer and BIS RapidStrut® spring
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

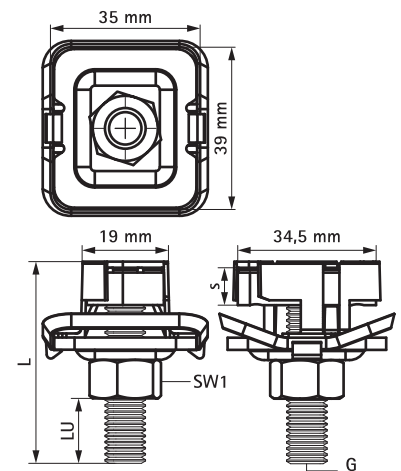


Part No.	G	L	LU (mm)	s (mm)	SW1 (mm)	T _(max.) (Nm)	F _{a,z} (N)	Pack 1	Pack 2
652785804	M8	40 mm	16	6.0	13	15.0	6,000	15	150
652785805	M8	50 mm	26	6.0	13	15.0	6,000	15	150
652785806	M8	60 mm	36	6.0	13	15.0	6,000	5	100
652785808	M8	80 mm	56	6.0	13	15.0	6,000	5	100
652785810	M8	100 mm	76	6.0	13	15.0	6,000	5	100
652785004	M10	40 mm	12	8.0	17	15.0	9,500	15	150
652785006	M10	60 mm	32	8.0	17	15.0	9,500	5	100
652785008	M10	80 mm	52	8.0	17	15.0	9,500	5	100
652785204	M12	40 mm	10	9.0	19	30.0	10,000	5	100
652785206	M12	60 mm	30	9.0	19	30.0	10,000	5	100

M10 tested for fire safety.

M12 tested for fire safety.

Tested values in combination with BIS RapidStrut® Rail 41x41x2.5mm.



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)

BIS RapidStrut® Hammerfix 'U' G2 (BUP1000)

(H 24 59)

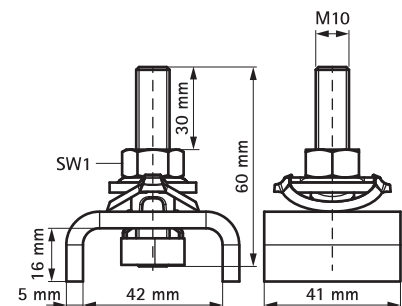
fixing to Strut rail



Features and Benefits

- slide nut with stud bolt, U-shaped washer and BIS RapidStrut® spring
- U-shaped for extra stability
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- visual guide to check the position of the slide nut
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	SW1 (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
665285006	17	15.0	Strut	10,000	50



BIS Strut Tee-Bolt Assembly

(H 24 70)

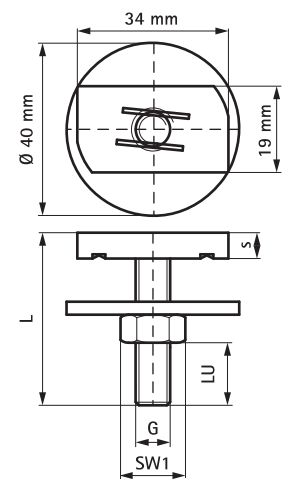
fixing to Strut rail



Features and Benefits

- slide nut with stud bolt and washer
- zinc plated
- material: steel

Part No.	G	L	LU	s	SW1	T _(max.)	For Rail	Pack 1	Pack 2
			(mm)	(mm)	(mm)	(Nm)			
6527934	M8	40 mm	18	6.0	13	15.0	Strut	25	250
6527935	M8	50 mm	28	6.0	13	15.0	Strut	25	250
6527944	M10	40 mm	14	8.0	17	15.0	Strut	25	250



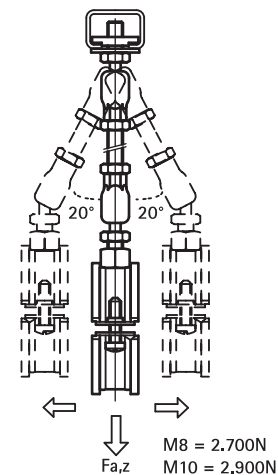
Complementary

- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS RapidStrut® Ball Swivel Hanger

(H 24 75)

fixing to Strut rail

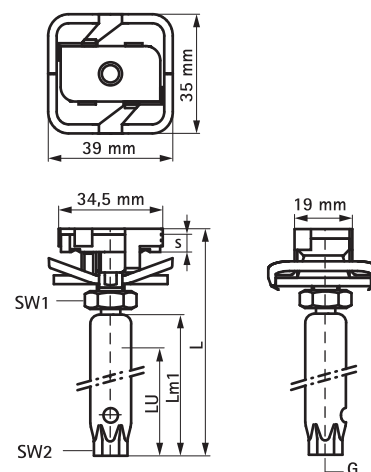


Features and Benefits

- slide nut with ball swivel hanger, washer and BIS RapidStrut® spring
- recommended for metal pipes up to DN 50, plastic pipes up to DN 100
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- with inspection hole to check screw-in depth (attention: when the threaded rod is screwed-in too deep, the ball swivel is blocked)
- screw-in depth is continuously variable (see LU)
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- zinc plated

Part No.	G	L	LU (mm)	s (mm)	Lm1 (mm)	SW1 (mm)	SW2 (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
66530805	M8	80 mm	43	6.0	50	13	10	15.0	Strut	2,700	25
66530005	M10	80 mm	43	8.0	50	13	12	15.0	Strut	2,900	25

Please note. Always use 2 ball swivel hangers and secure by additional hexagon nut (see application picture). The maximum length change that can be dealt with, depends on the fixing distance (ceiling - pipe). The height difference that occurs as a result, needs to be taken into consideration. To be used in combination with BIS Ball Swivel Hangers. Product can be found on page E 10 05.



Complementary

- 135 BIS Ball Swivel Hanger
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS Strut Washer – Flat (BUP1000)

(H 24 80)

to make Strut rail fabrications



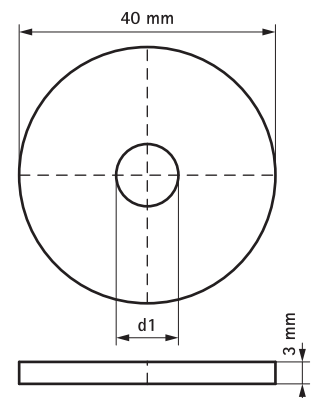
Features and Benefits

- flat washer
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	B (mm)	d1 (mm)	For Rail	Pack 1
65381508	40	Ø 8.4	Strut	50
65381510	40	Ø 10.5	Strut	100
65381512	40	Ø 13.0	Strut	100

Ø 10.5 and above tested for fire safety.
Also available in stainless steel 1.4401 (AISI 316).



Complementary

- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS Strut Washer – Flat (zp)

(H 24 85)

fixing to Strut rail

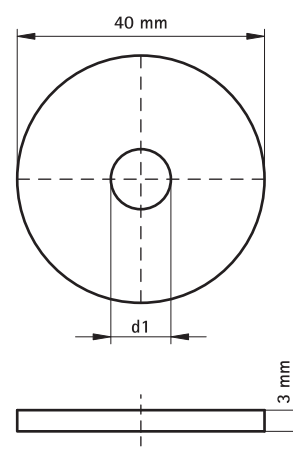


Features and Benefits

- flat washer
- material: steel 1.0332
- zinc plated
- tested for fire safety

Part No.	B (mm)	d1 (mm)	For Rail	Pack 1	Pack 2
6533506	40	Ø 6.4	Strut	50	250
6533508	40	Ø 8.4	Strut	50	250
6533510	40	Ø 10.5	Strut	50	250
6533512	40	Ø 13.0	Strut	50	250

Ø 10.5 and above tested for fire safety.
Also available in stainless steel 1.4401 (AISI 316).



Complementary

- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

Alternative

- 261 BIS Strut Washer - Flat (BUP1000)
- 263 BIS Strut Washer - U-shaped (BUP1000)

BIS Strut Washer – U-shaped (BUP1000)

(H 24 92)

to make Strut rail fabrications



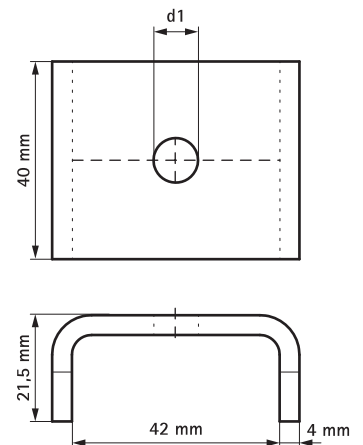
Features and Benefits

- U-shaped washer
- U-shaped for extra stability
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- tested for fire safety



Part No.	d1 (mm)	For Rail	Pack 1
66588009	Ø 9.0	Strut	50
66588010	Ø 11.0	Strut	50
66588012	Ø 13.0	Strut	50
66588016	Ø 17.0	Strut	50

Ø 11.0 and above tested for fire safety.
Also available in stainless steel 1.4401 (AISI 316).



Complementary

- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS RapidStrut® Rail Connector 90° G2 (BUP1000)

(H 28 04)

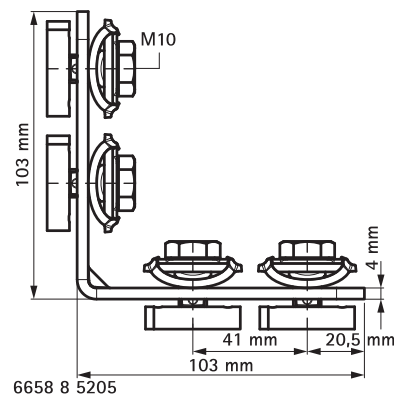
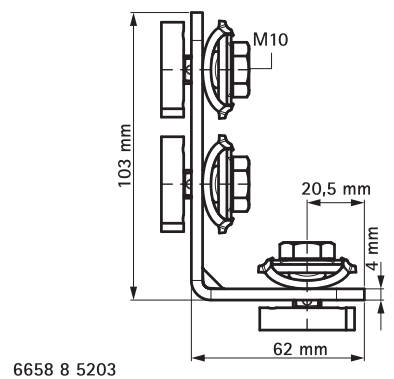
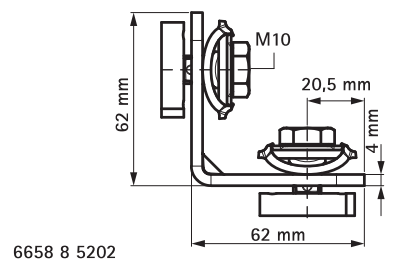
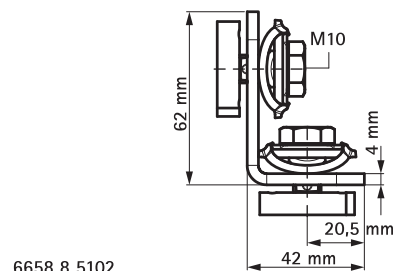
to make Strut rail fabrications



Features and Benefits

- connector with pre-assembled BIS RapidStrut® Slide nut(s)
- to make fabrication with Strut Rail
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- 'Direct Twist' technology for easy and secure installation
- visual guide to check the position of the slide nut
- Part No. 6658 8 520X: optimized for easy installation with electrical tools
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Model	Type	a (°)	T _(max.) (Nm)	For Rail	Pack 1
665885102	Short / short	2 sides pre-assembled	90°	15.0	Strut	50
665885202	Short / short	2 sides pre-assembled	90°	15.0	Strut	50
665885203	Short / long	2 sides pre-assembled	90°	15.0	Strut	25
665885205	Long / long	2 sides pre-assembled	90°	15.0	Strut	20



BIS Strut Connector 90° (BUP1000)

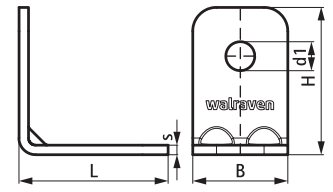
(H 28 13)



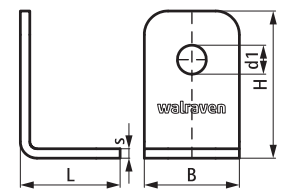
Features and Benefits

- angle connector for all Strut rails to make fabrications
- the hole pattern is adapted to the hole pattern of Strut rails to use throughbolts
- user friendly by rounded edges
- with reinforced bend for extra strength
- material: steel 1.0242 (S250GD) + ZM310 MAC
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

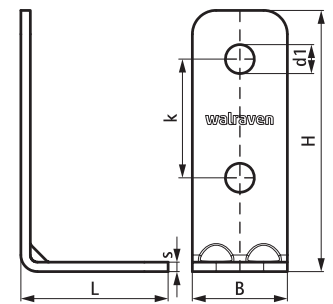
Part No.	Model	L	B	H	s	d1	k	a	Pack 1
			(mm)	(mm)	(mm)	(mm)	(mm)	(°)	
66588201	Short / short	62 mm	40	62	4.0	Ø 12	-	90	50
66588207	Short / short	42 mm	40	62	4.0	Ø 12	-	90	50
66588221	Short / long	62 mm	40	110	4.0	Ø 12	50	90	25
66588228	Long / long	110 mm	40	110	4.0	Ø 12	50	90	25



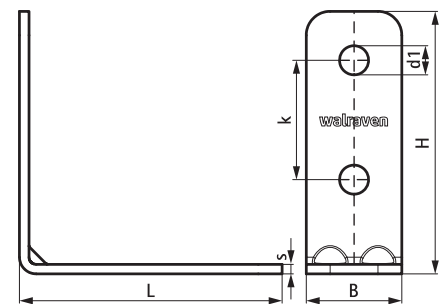
6658 8 201



6658 8 207



6658 8 221



6658 8 228

Complementary

- 255 BIS RapidStrut® Slide Nut
- 186 BIS Washer (Flat) (BUP1000)
- 339 BIS Yeti® 130 Support System

Alternative

- 264 BIS RapidStrut® Rail Connector 90° G2 (BUP1000)
- 266 BIS Strut Connector 90° / 2D (BUP1000)
- 267 BIS Strut Connector 90° Rigid (BUP1000)

BIS Strut Connector 90° / 2D (BUP1000)

(H 28 23)

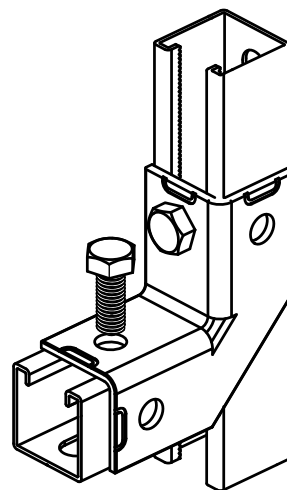
to make Strut rail fabrications



6659 8 914



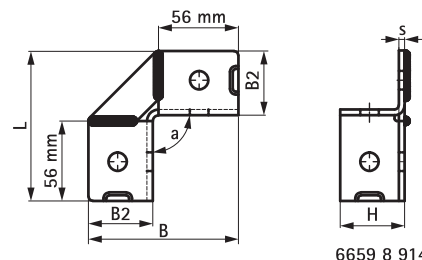
6659 8 918



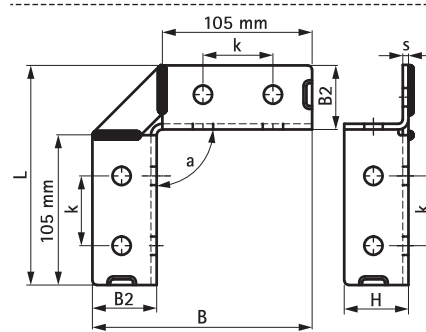
Features and Benefits

- flexible connector allows different rail positioning
- strong connection by surrounding the rail
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	d (mm)	Model	L	B	B2	H	s	k	a	For Rail	Pack 1
66598914	13 mm	2+2 / 90	105 mm	105	45	45	4.0	-	90	Strut	10
66598918	13 mm	4+4 / 90	154 mm	154	45	45	4.0	49	90	Strut	10



6659 8 914



6659 8 918

Complementary

- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 228 BIS RapidStrut® Cantilever Arm (BUP1000)

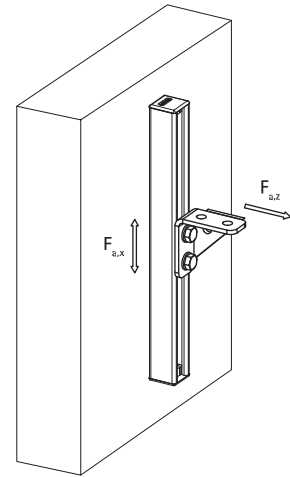
Alternative

- 264 BIS RapidStrut® Rail Connector 90° G2 (BUP1000)
- 267 BIS Strut Connector 90° Rigid (BUP1000)

BIS Strut Connector 90° Rigid (BUP1000)

(H 28 25)

to make Strut rail fabrications

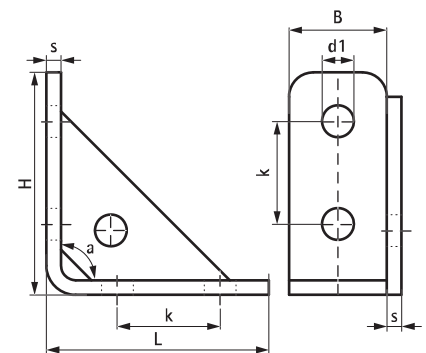


Features and Benefits

- reinforced connector to make rigid fabrications with Strut rails
- easy fitting due to rounded edges
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	s	d1	k	a	For Rail	F _{a,z}	F _{a,z 2}	F _{a,x}	F _{a,x 2}	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(°)		(N)	(N)	(N)	(N)	
66588291	91 mm	40	91	6	∅ 13	42	90°	Strut	4,000	8,000	3,000	7,000	25

F_{a,z}: max. allowed load acc. RAL GZ-655D (with rail 41x41x1.5).
F_{a,z2}: max. allowed load (with rail 41x41x2.5).
F_{a,x}: max. allowed load acc. RAL GZ-655D (with rail 41x41x1.5 and bolted 2 x M12 - 30Nm).
F_{a,x2}: max. allowed load (with rail 41x41x2.5 and bolted 2 x M12 - 60Nm).



BIS Strut Connector, Hinged (BUP1000)

(H 28 40)

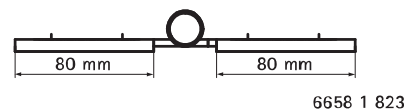
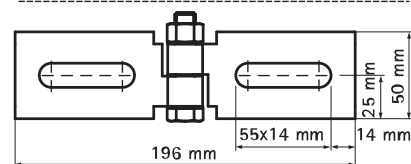
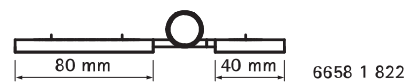
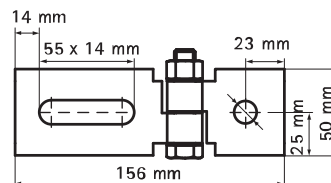
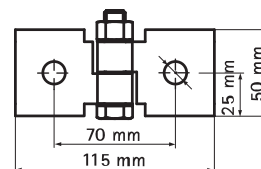
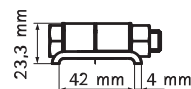
to make Strut rail fabrications



Features and Benefits

- to make fabrication with Strut Rail
- fully adjustable
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

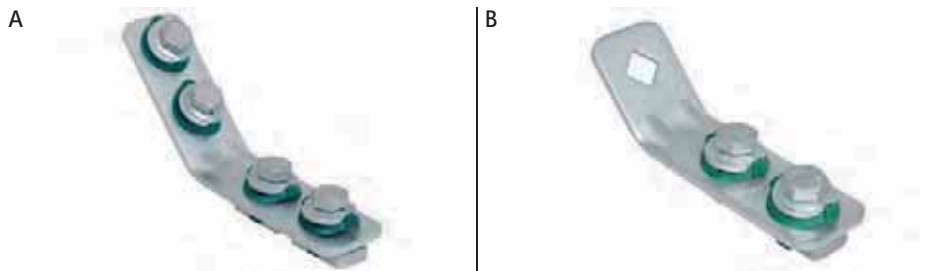
Part No.	Model	For Rail	F _{a,z} (N)	Pack 1
66581821	Short / short	Strut	1,000	20
66581822	Short / long	Strut	1,000	20
66581823	Long / long	Strut	1,000	20



BIS RapidStrut® Rail Connector 135° G2 (BUP1000)

(H 28 54)

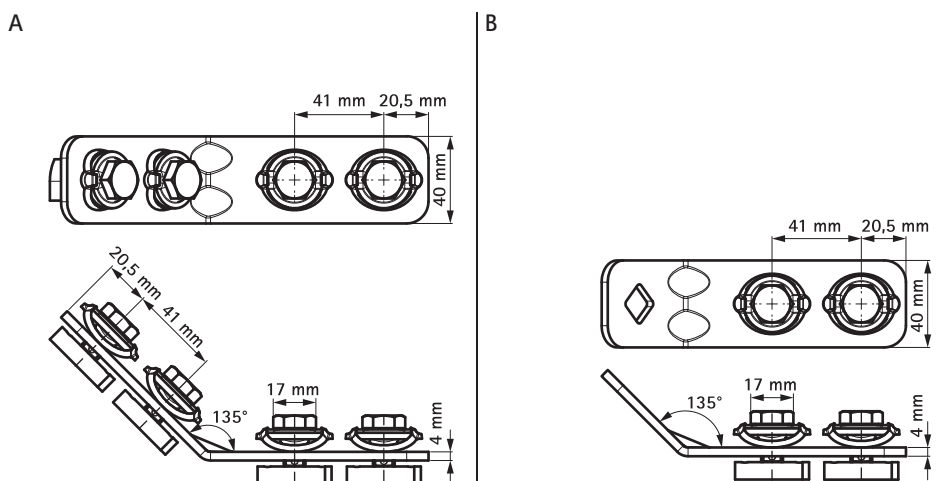
to make Strut rail fabrications



Features and Benefits

- connector with pre-assembled BIS RapidStrut® Slide nut(s)
- to make fabrication with Strut Rail
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- 'Direct Twist' technology for easy and secure installation
- visual guide to check the position of the slide nut
- optimized for easy installation with electrical tools
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Model	Type	a (°)	T _(max.) (Nm)	For Rail	Pack 1
A 665885235	Long / long	2 sides pre-assembled	135°	15.0	Strut	20
B 665885330	Short / long	1 side pre-assembled	135°	15.0	Strut	25



Complementary

223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS Strut Angle Connector 135° (BUP1000)

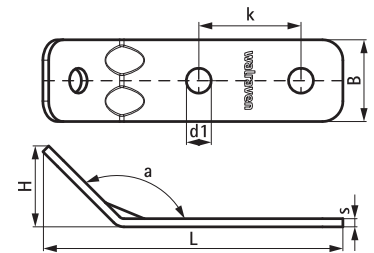
(H 28 63)



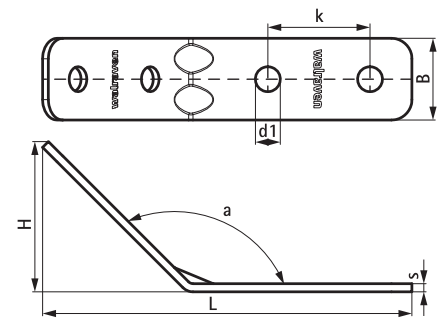
Features and Benefits

- angle connector for all Strut rails to make fabrications
- the hole pattern is adapted to the hole pattern of Strut rails to use throughbolts
- user friendly by rounded edges
- with reinforced bend for extra strength
- material: steel 1.0242 (S250GD) + ZM310 MAC
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Model	L	B	H	s	d1	k	a	Pack 1
			(mm)	(mm)	(mm)	(mm)	(mm)	(°)	
66588242	Short / long	147 mm	40	39	4.0	Ø 12	50	135	25
66588256	Long / long	180 mm	40	80	4.0	Ø 12	50	135	25



6658 8 242



6658 8 256

Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 255 BIS RapidStrut® Slide Nut

Complementary

- 250 BIS Strut Slide Nut (BUP1000)
- 261 BIS Strut Washer - Flat (BUP1000)

BIS Strut Angle Connector 45° (BUP1000)

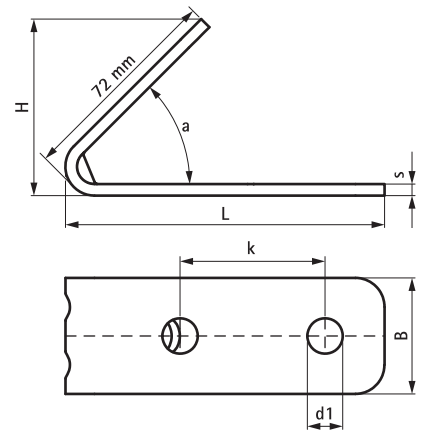
(H 28 68)



Features and Benefits

- angle connector for all Strut rails to make fabrications
- the hole pattern is adapted to the hole pattern of Strut rails to use throughbolts
- user friendly by rounded edges
- with reinforced bend for extra strength
- material: steel 1.0242 (S250GD) + ZM310 MAC
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Model	L	B (mm)	H (mm)	s (mm)	d1 (mm)	k (mm)	a (°)	Pack 1
66588270	Short / long	110 mm	40	61	4.0	Ø 12	50	45	25



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 255 BIS RapidStrut® Slide Nut

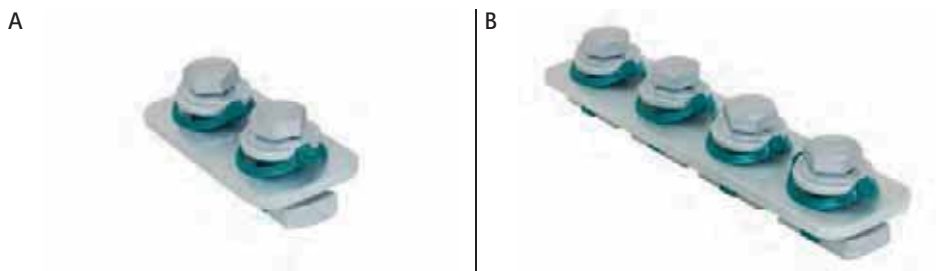
Complementary

- 250 BIS Strut Slide Nut (BUP1000)
- 261 BIS Strut Washer - Flat (BUP1000)

BIS RapidStrut® Rail Connector G2 (BUP1000)

(H 28 74)

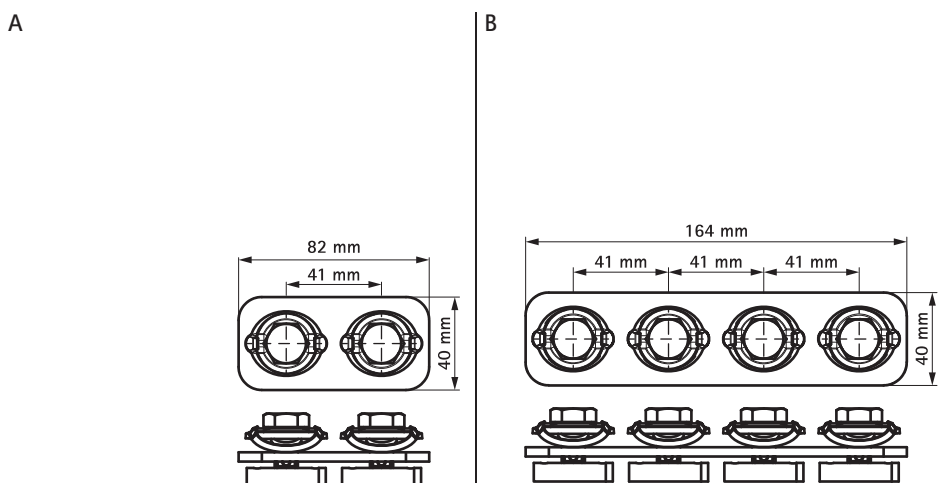
to make Strut rail fabrications



Features and Benefits

- connector with pre-assembled BIS RapidStrut® Slide nut(s)
- to make fabrication with Strut Rail
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- 'Direct Twist' technology for easy and secure installation
- visual guide to check the position of the slide nut
- optimized for easy installation with electrical tools
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Type	L	T _(max.) (Nm)	For Rail	Pack 1
A 665885184	2 x M10	82 mm	15.0	Strut	50
B 665885186	4 x M10	164 mm	15.0	Strut	25



Complementary

223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

Alternative

274 BIS RapidStrut® Rail Connector -

BIS Rectangular Connector

(H 28 85)

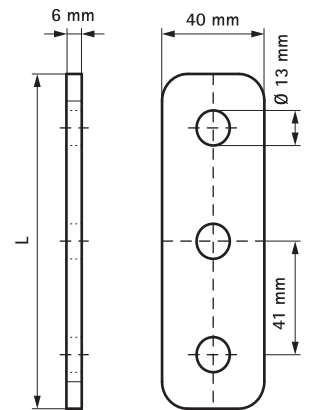
to make Strut rail fabrications



Features and Benefits

- flat connector
- material: steel 1.0332
- to make fabrication with Strut Rail
- hot dip galvanized

Part No.	Model	L	For Rail	Pack 1
66580312	3 holes	123 mm	Strut	50
<i>Also available in stainless steel 1.4404 (AISI 316L).</i>				



BIS RapidStrut® Rail Connector – U-shaped G2 (BUP1000)

(H 28 89)

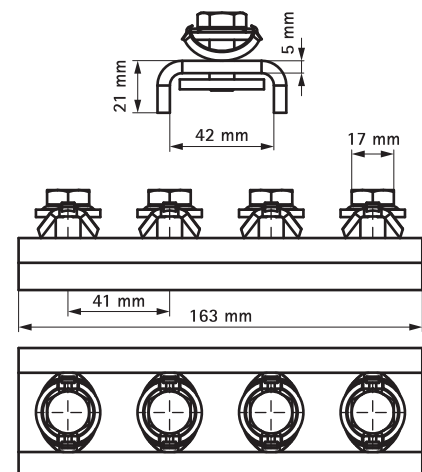
to make Strut rail fabrications



Features and Benefits

- connector with pre-assembled BIS RapidStrut® Slide nut(s)
- to make fabrication with Strut Rail
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	T _(max.) (Nm)	For Rail	Pack 1
665885421	15.0	Strut	20



Complementary

223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

Alternative

272 BIS RapidStrut® Rail Connector G2 (BUP1000)

BIS Strut U-Connector linear (BUP1000)

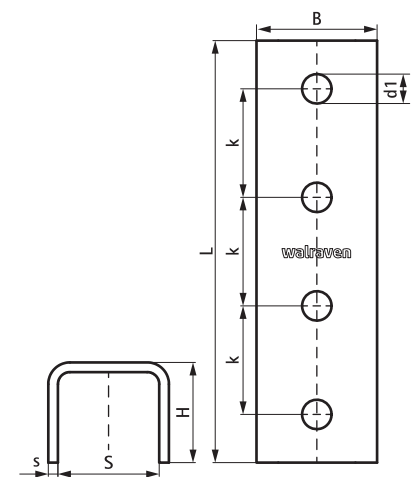
(H 28 103)



Features and Benefits

- U-shaped for extra stability
- longitudinal connector for all Strut rails
- for strong connections and in combination with Double Strut rails it is advised to use linear connectors on both sides of the rail
- the hole pattern is adapted to the hole pattern of Strut rails to use throughbolts
- material: steel 1.0242 (S250GD) + ZM310 MAC
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	s	d1	S	k	For Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
66588121	175 mm	50	21.5	4.0	∅ 12	42	45	Strut 41x21 + 41x21D	20
66588141	175 mm	50	41.5	4.0	∅ 12	42	45	Strut 41x41 + 41x41D + 41x62 + 41x62D + 41x82	10



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 250 BIS Strut Slide Nut (BUP1000)

Complementary

- 255 BIS RapidStrut® Slide Nut
- 186 BIS Washer (Flat) (BUP1000)

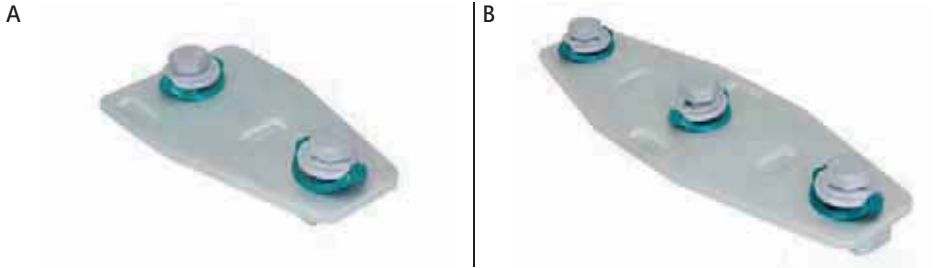
Alternative

- 274 BIS RapidStrut® Rail Connector -

BIS RapidStrut® Rail T- and X-Connector G2 (BUP1000)

(H 28 109)

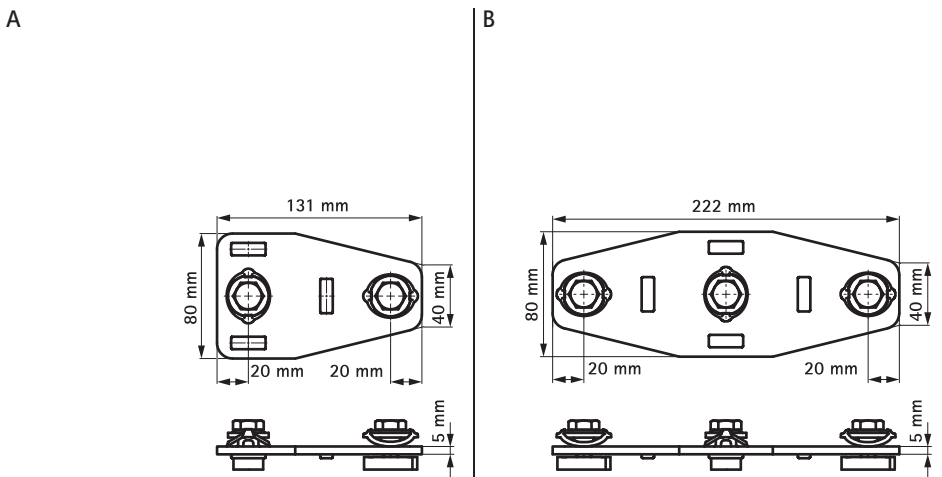
to make Strut rail fabrications



Features and Benefits

- connector with pre-assembled BIS RapidStrut® Slide nut(s)
- to make fabrication with Strut Rail
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- 'Direct Twist' technology for easy and secure installation
- visual guide to check the position of the slide nut
- optimized for easy installation with electrical tools
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Type	T _(max.) (Nm)	For Rail	Pack 1
A 665885213	T	15.0	Strut	20
B 665885223	X	15.0	Strut	15



Complementary

223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS Strut T-Connector (BUP1000)

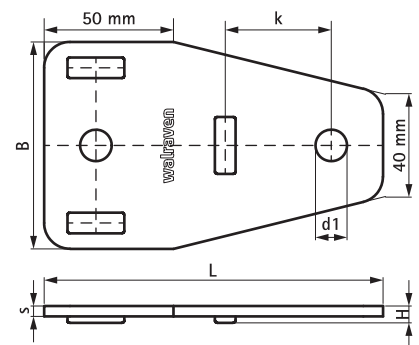
(H 28 118)



Features and Benefits

- T-connector for Strut rails
- extra safety by locking notches to prevent turning
- material: steel 1.0242 (S250GD) + ZM310 MAC
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	s	d1	k	For Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)		
66588301	131 mm	80	6.5	4.0	Ø 12	41	Strut	25



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 250 BIS Strut Slide Nut (BUP1000)

Complementary

- 255 BIS RapidStrut® Slide Nut
- 186 BIS Washer (Flat) (BUP1000)

Alternative

- 276 BIS RapidStrut® Rail

BIS Strut Z-Bracket (BUP1000)

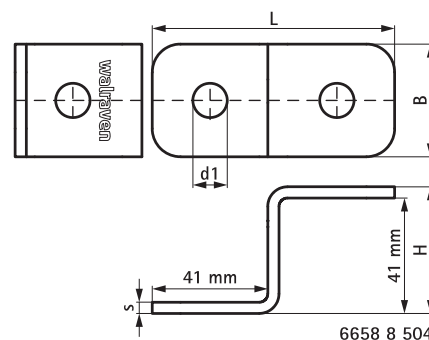
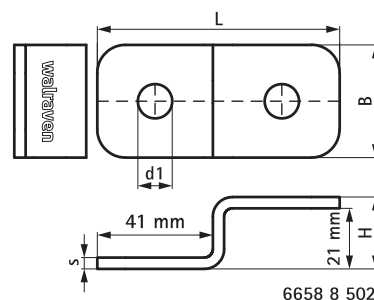
(H 28 128)



Features and Benefits

- to connect Strut rails to wall or ceiling
- connector to make Z-connections between Strut rails
- user friendly by rounded edges
- material: steel 1.0242 (S250GD) + ZM310 MAC
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	s	d1	For Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)		
66588502	86 mm	40	25.5	4.0	Ø 12	Strut 41x21	50
66588504	86 mm	40	45	4.0	Ø 12	Strut 41x41 + 41x21D	50



Complementary

- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 250 BIS Strut Slide Nut (BUP1000)

Complementary

- 255 BIS RapidStrut® Slide Nut
- 186 BIS Washer (Flat) (BUP1000)

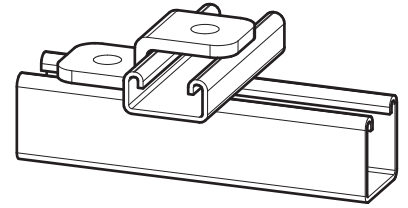
Alternative

- 280 BIS RapidStrut® Cross Connector G2 (BUP1000)

BIS Strut Z-Connector

to make Strut rail fabrications

(H 28 130)

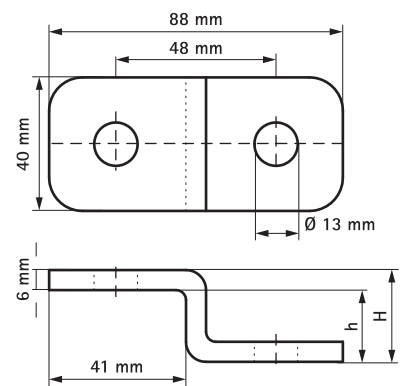


Features and Benefits

- to make fabrication with Strut Rail
- material: steel 1.0332
- easy fitting due to rounded edges
- hot dip galvanized

Part No.	H (mm)	h (mm)	For Rail	Pack 1
66581506	68.0	62.0	Strut 41x62	25
66581508	89.0	83.0	Strut 41x82 + Strut 41x41D	25

Also available in stainless steel 1.4404 (AISI 316L).



BIS RapidStrut® Cross Connector G2 (BUP1000)

(H 28 134)

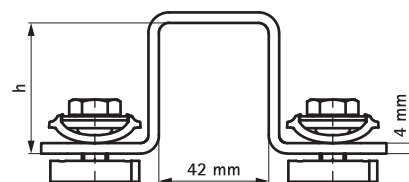
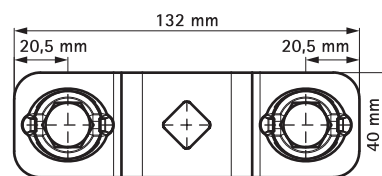
to make Strut rail fabrications



Features and Benefits

- connector with pre-assembled BIS RapidStrut® Slide nut(s)
- to make fabrication with Strut Rail
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- 'Direct Twist' technology for easy and secure installation
- visual guide to check the position of the slide nut
- optimized for easy installation with electrical tools
- material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	h (mm)	T _(max.) (Nm)	For Rail	Pack 1
665885402	20	15.0	Strut 41x21	25
665885404	40	15.0	Strut 41x41	25
665885405	50	15.0	Strut 41x51 (BIS RapidStrut® DS 5)	25
665885406	60	15.0	Strut 41x62	15
665885408	80	15.0	Strut 41x82	10

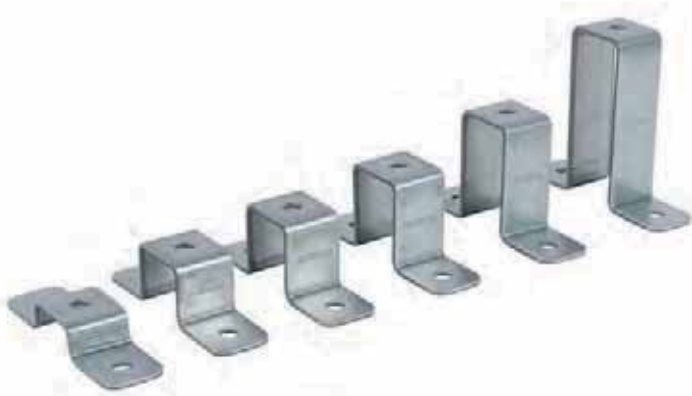


Complementary

223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS Strut Cross Connector (BUP1000)

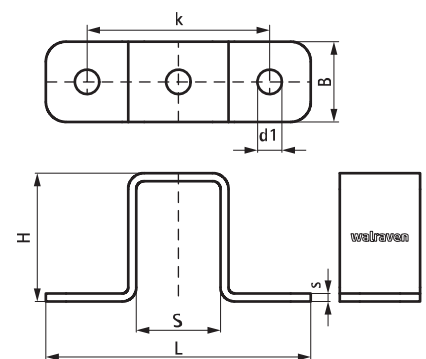
(H 28 143)



Features and Benefits

- connector to make cross connections between Strut rails
- to connect Strut rails to wall or ceiling
- the hole pattern is adapted to the hole pattern of Strut rails to use throughbolts
- user friendly by rounded edges
- material: steel 1.0242 (S250GD) + ZM310 MAC
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	s	d1	S	k	For Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
66588292	141	40	24	4.0	12.2	42	100	Strut 41x21	25
66588294	141	40	44	4.0	12.2	42	100	Strut 41x41	25
66588295	141	40	54	4.0	12.2	42	100	Strut 41x51 (BIS RapidStrut® DS 5)	25
66588296	141	40	64	4.0	12.2	42	100	Strut 41x62	20
66588298	141	40	84	4.0	12.2	42	100	Strut 41x82	10
66588299	141	40	126	4.0	12.2	42	100	Strut 41x124	10



Complementary

- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 250 BIS Strut Slide Nut (BUP1000)

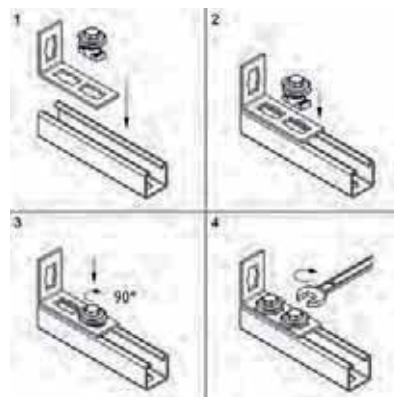
Complementary

- 255 BIS RapidStrut® Slide Nut
- 186 BIS Washer (Flat) (BUP1000)

BIS PushStrut Button

(H 29 05)

for easy installation of complex rail constructions

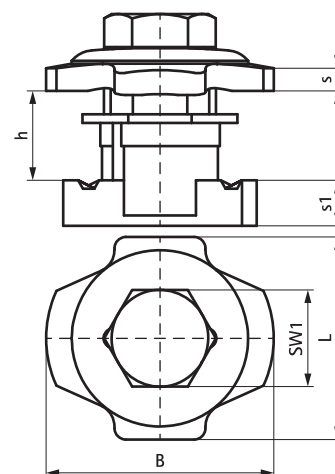


Features and Benefits

- universal button: easily combined with all common Strut profiles and all BIS PushStrut Connectors
- material: steel
- zinc plated
- teeth with force fit connections offer more stability
- timesaving and flexible
- easy to remove and reusable
- 3D constructions due to 3D Connectors

Part No.	L	B	h	s	s1	SW1	F _{a,z} (N)	F _{a,x} (N)	Pack 1
66519910	36 mm	40 (mm)	15 (mm)	4.0 (mm)	8.0 (mm)	17 (mm)	5,000	3,000	50

The max. allowed load (F_{a,z}) in the table refers to rails and cantilever arms with a material thickness of 2.5 mm. The F_{a,z} at a thickness of 2.0 mm profile thickness = 4,500 N. The F_{a,z} at a thickness of 1.5 mm profile thickness = 3,500 N.



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 284 BIS PushStrut Connector Flat
- 285 BIS PushStrut Connector Angle Bracket

Complementary

- 286 BIS PushStrut Connector 90°
- 287 BIS PushStrut T-Connector
- 289 BIS PushStrut 3D Connector

BIS PushStrut Washer

(H 29 08)

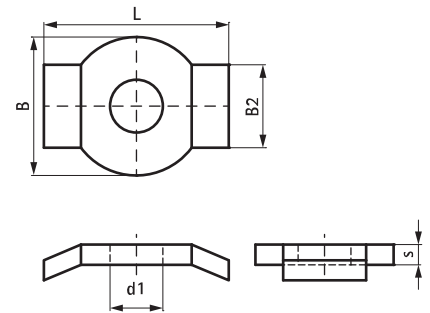
special washer for PushStrut accessories to install direct on building structure



Features and Benefits

- adapts the special hole into a standard hole
- material: steel
- zinc plated

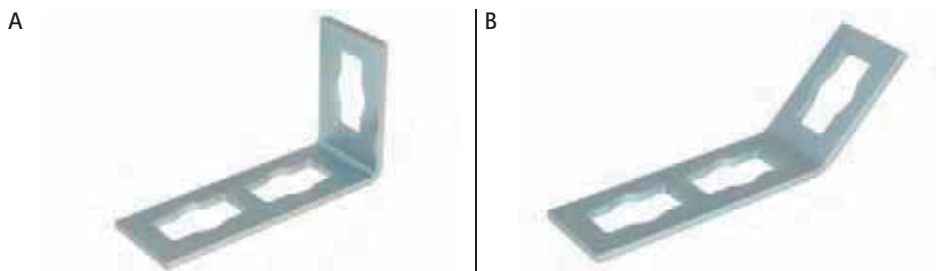
Part No.	L	B (mm)	B2 (mm)	s (mm)	d1 (mm)	Pack 1
6594000	37 mm	28	17	4.0	10.5	1



BIS PushStrut Connector Flat

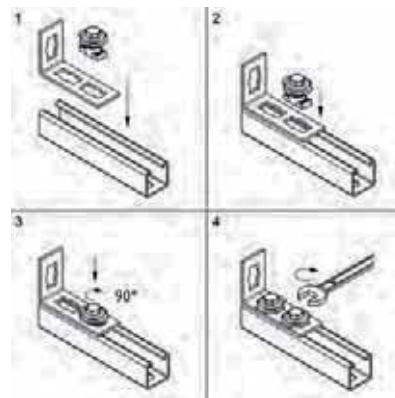
(H 29 10)

for easy installation of complex rail constructions

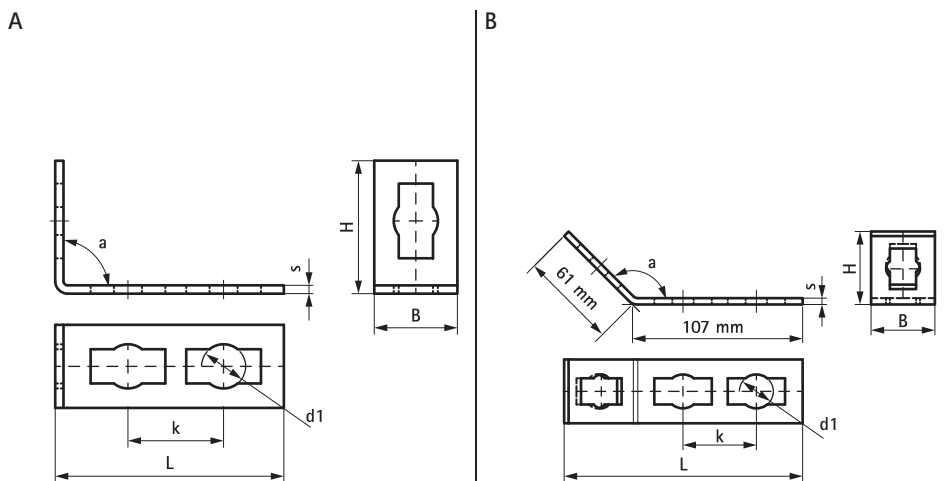


Features and Benefits

- easily combined with all common Strut profiles
- quick and easy to install
- closure button allows a force fit connection
- timesaving and flexible
- easy to remove and reusable
- 3D constructions due to 3D Connectors
- material: steel
- zinc plated



Part No.	L	B	H	s	d1	k	a	Pack 1
A 6594001	110 mm	40 (mm)	64 (mm)	4.0 (mm)	21 (mm)	46 (mm)	90°	25
B 6594005	150 mm	40 (mm)	46 (mm)	4.0 (mm)	21 (mm)	46 (mm)	135°	25



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 282 BIS PushStrut Button

BIS PushStrut Connector Angle Bracket

(H 29 15)

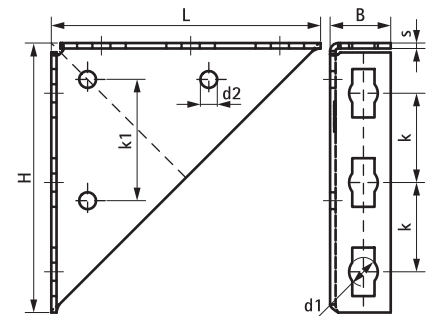
for easy installation of complex rail constructions



Features and Benefits

- easily combined with all common Strut profiles
- material: steel
- zinc plated
- stable rail connection due to fixing to the building
- timesaving and flexible
- easy to remove and reusable
- 3D constructions due to 3D Connectors

Part No.	L	B	H	s	d1	d2	k	k1	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
6594025	200 mm	45	200	4.0	21	13	66	90	10



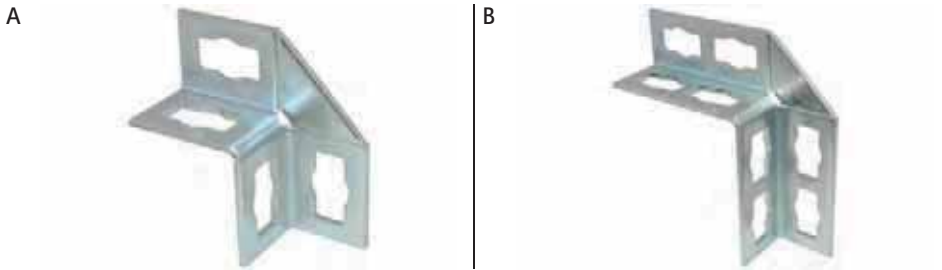
Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 282 BIS PushStrut Button

BIS PushStrut Connector 90°

(H 29 20)

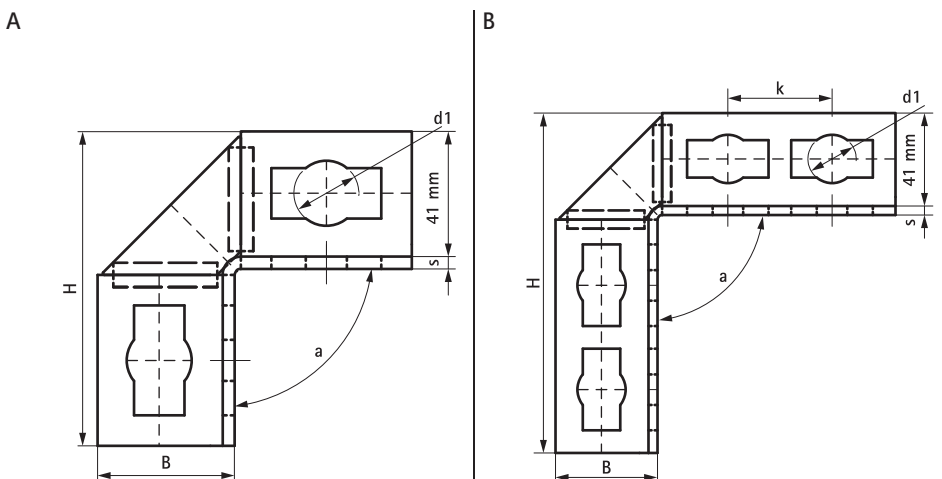
for easy installation of complex rail constructions



Features and Benefits

- easily combined with all common Strut profiles
 - lateral edges offers great stability
 - flexible use of hole pattern (flexible twist of hole pattern possible)
 - timesaving and flexible
 - easy to remove and reusable
 - 3D constructions due to 3D Connectors
- material: steel
 - zinc plated

Part No.	Model	B (mm)	H (mm)	s (mm)	d1 (mm)	k (mm)	a (°)	Pack 1
A 6594010	2-2	45	103	4.0	21	-	90	10
B 6594015	4-4	45	150	4.0	21	46	90	10



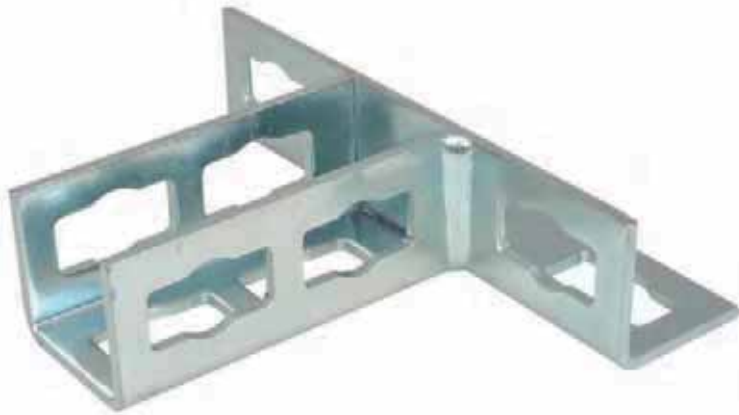
Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 282 BIS PushStrut Button

BIS PushStrut T-Connector

(H 29 25)

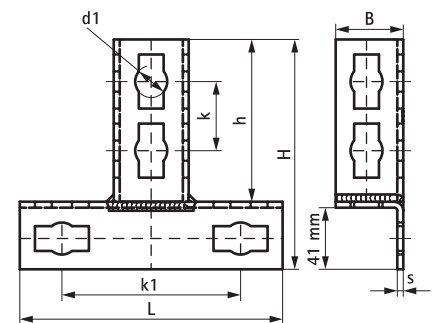
for easy installation of complex rail constructions



Features and Benefits

- easily combined with all common Strut profiles
 - stable T-connection due to lateral edges
 - flexible use of hole pattern (flexible twist of hole pattern possible)
 - timesaving and flexible
 - easy to remove and reusable
 - 3D constructions due to 3D Connectors
- material: steel
 - zinc plated

Part No.	L	B	H	h	s	d1	k	k1	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
6594020	175 mm	45	153	108	4.0	21	46	119	25



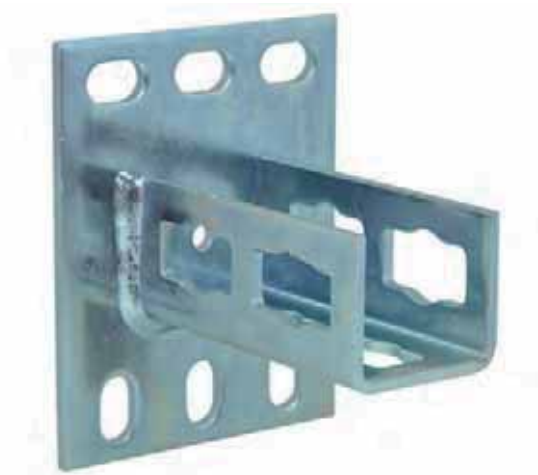
Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 282 BIS PushStrut Button

BIS PushStrut Wallplate

(H 29 28)

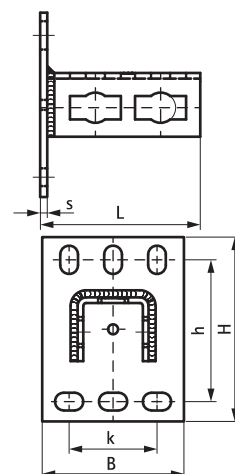
for easy installation of complex rail constructions



Features and Benefits

- easily combined with all common Strut profiles
- stable connection of rails to the floor, ceiling or wall
- timesaving and flexible
- easy to remove and reusable
- material: steel
- zinc plated

Part No.	L	B	H	h	s	k	F _{a,z} (N)	Pack 1
6594035	113 mm	100 (mm)	130 (mm)	100 (mm)	5.0 (mm)	62 (mm)	3,000	10



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 282 BIS PushStrut Button

BIS PushStrut 3D Connector

(H 29 30)

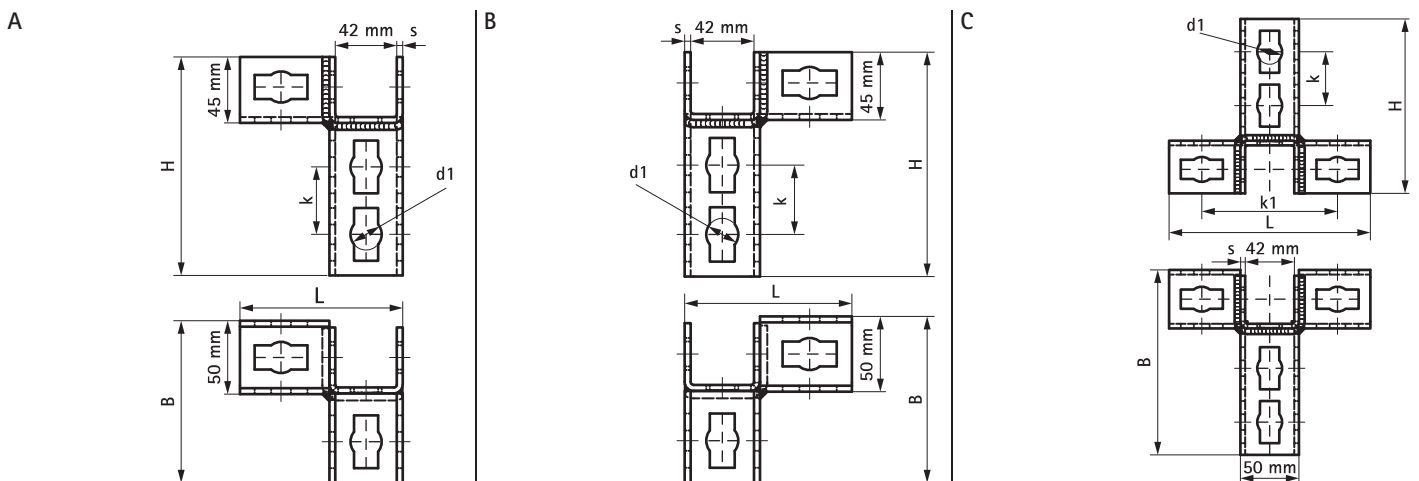
for easy installation of complex rail constructions



Features and Benefits

- easily combined with all common Strut profiles
 - 3D-Connector for complex frame and rail constructions
 - universal and simple use
 - timesaving and flexible
 - easy to remove and reusable
 - 3D constructions due to 3D Connectors
- material: steel
 - zinc plated

Part No.	Model	L	B	H	s	d1	k	k1	Pack 1
			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
A 6594030	6-3-3-L (branch left)	111 mm	111	149	4.0	21	46	-	10
B 6594031	6-3-3-R (branch right)	111 mm	111	149	4.0	21	46	-	10
C 6594032	6-6-3-3 (branch left and right)	172 mm	158	149	4.0	21	46	116	10



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 282 BIS PushStrut Button

W1000 Strut Clamp

(H 32 215)

to be used with steel pipes and EMT conduit 18 - 60 mm

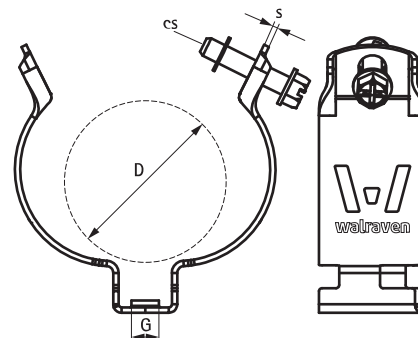


Features and Benefits

- the new alternative to the standard Strut Clamp
- 3-way use, on strut, on threaded rod, directly on wall or ceiling
- one-piece design - no loose parts
- easier, faster, safer - installs with one hand
- 3-way screw head - Phillips, flat and hex
- unique design allows one clamp to fit multiple pipe sizes - less items to stock
- W Series Clamps are boxed for easy handling - no more bags
- material: steel 1.0242
- surface treatment: high grade Zn-Mg based coating (600 hours salt spray)
- Test Reports:
 - Strength:2017-TR15XXXX-VX

Part No.	D (mm)	D / IPS (")	D / EMT (")	G	s (mm)	cs	F _{a,z} (N)	F _{a,z} (lbs)	Pack 1
2015021	18 - 21	1/2	1/2	1/4"	1.25	1/4"	890	200	50
2015027	23 - 27	3/4	3/4	3/8"	1.25	1/4"	890	200	50
2015033	29 - 33	1	1	3/8"	1.25	1/4"	980	220	25
2015042	38 - 42	1-1/4	1-1/4	3/8"	1.25	1/4"	980	220	25
2015048	44 - 48	1-1/2	1-1/2	3/8"	1.50	1/4"	1,780	400	25
2015060	56 - 60	2	2	3/8"	1.50	1/4"	1,780	400	25

For additional testing information, please contact our Sales Office!



W2000 Cushion Clamp

to be used for metal pipe applications 9 - 63 mm

(H 32 205)



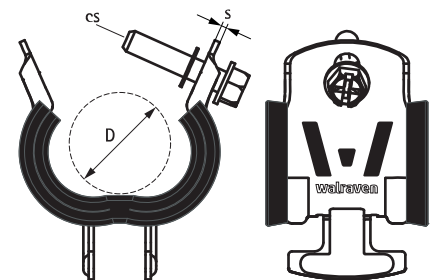
Features and Benefits

- the new alternative to the Cushion Clamp
- one-piece design - no loose parts
- easier, faster, safer - installs with one hand
- 3-way screw head - Phillips, flat and hex
- unique design allows one clamp to fit multiple pipe sizes - less items to stock
- W Series Clamps are boxed for easy handling - no more bags
- material: steel 1.0242
- surface treatment: high grade Zn-Mg based coating (600 hours salt spray)
- black EPDM rubber lining protects against galvanic corrosion
- noise/vibration insulating lining
- age resistant lining
- Test Reports:
 - Strength, Fire and Smoke:UL 1565 Listed
 - Noise emission:2016-SG-Bauakustik-1647-001-16



Part No.	D (mm)	D (")	D / CTS (")	D / ACR (")	D / IPS (")	s (mm)	cs	F _{a,z} (N)	F _{a,z} (lbs)	ULS	ULC	Pack 1
2025004	9 - 10	0.354 - 0.394	1/4	3/8	-	1.25	1/4"	890	200	ULS	ULC	50
2025006	11 - 13	0.433 - 0.512	3/8	1/2	-	1.25	1/4"	890	200	ULS	ULC	50
2025008	14 - 16	0.551 - 0.630	1/2	5/8	1/4	1.25	1/4"	890	200	ULS	ULC	50
2025010	17 - 19	0.670 - 0.748	5/8	3/4	3/8	1.25	1/4"	980	220	ULS	ULC	50
2025012	20 - 22	0.787 - 0.866	3/4	7/8	1/2	1.25	1/4"	980	220	ULS	ULC	50
2025014	25 - 29	0.984 - 1.142	1	1-1/8	3/4	1.50	1/4"	1,780	400	ULS	ULC	50
2025016	32 - 35	1.260 - 1.378	1-1/4	1-3/8	1	1.50	1/4"	1,780	400	ULS	ULC	50
2025020	40 - 43	1.575 - 1.693	1-1/2	1-5/8	1-1/4	1.75	5/16"	1,780	400	ULS	ULC	25
2025022	48 - 50	1.890 - 1.969	-	-	1-1/2	1.75	5/16"	1,780	400	ULS	ULC	25
2025024	54 - 56	2.126 - 2.205	2	2-1/8	-	1.75	5/16"	1,780	400	ULS	ULC	25
2025026	60 - 63	2.362 - 2.480	-	-	2	1.75	5/16"	1,780	400	ULS	ULC	25

For additional testing information, please contact our Sales Office!



EN-INT 05/2020- Subject to modifications

Complementary

225 BIS RapidStrut® Fixing Rail (BUP1000)

Alternative

292 W5000 Cushion Clamp

W5000 Cushion Clamp

(H 32 210)

to be used for plastic pipe applications 12 - 63 mm



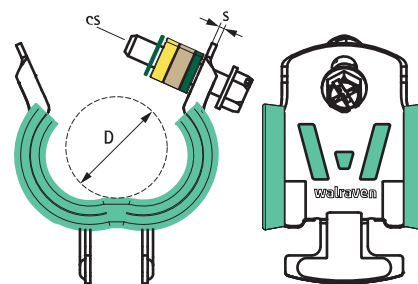
Features and Benefits

- the new alternative to the Cushion Clamp
- with removable spacer washers, making the clamp suitable for either sliding or anchoring
- one-piece design - no loose parts
- easier, faster, safer - installs with one hand
- 3-way screw head - Phillips, flat and hex
- W Series Clamps are boxed for easy handling - no more bags
- material: steel 1.0242
- surface treatment: high grade Zn-Mg based coating (600 hours salt spray)
- green EPDM rubber lining will prevent plasticiser migration
- noise/vibration insulating lining according DIN EN ISO 3822-1
- age resistant lining
- Test Reports:
 - Strength, Fire and Smoke:UL 1565 Listed
 - Plasticizer migration behaviour:2016-TR151002-V5
 - Noise emission:2016-SG-Bauakustik-1647-001-16



Part No.	D (mm)	D (")	D / CTS (")	D / IPS (")	s (mm)	cs	F _{a,z} (N)	F _{a,z} (lbs)	ULS	ULC	Pack 1
2055007	12 - 13	0.472 - 0.512	3/8	-	1.25	1/4"	890	200	ULS	ULC	50
2055008	14 - 15	0.512 - 0.591	-	1/4	1.25	1/4"	890	200	ULS	ULC	50
2055009	15 - 16	0.512 - 0.591	1/2	-	1.25	1/4"	890	200	ULS	ULC	50
2055010	17 - 18	0.630 - 0.748	-	3/8	1.25	1/4"	980	220	ULS	ULC	50
2055012	19 - 22	0.787 - 0.906	5/8 - 3/4	1/2	1.25	1/4"	980	220	ULS	ULC	50
2055013	24 - 25	0.984 - 1.142	-	-	1.50	1/4"	1,780	400	ULS	ULC	50
2055014	26 - 29	0.984 - 1.142	1	3/4	1.50	1/4"	1,780	400	ULS	ULC	50
2055016	32 - 35	1.260 - 1.378	1-1/4	1	1.50	1/4"	1,780	400	ULS	ULC	50
2055020	40 - 43	1.575 - 1.693	1-1/2	1-1/4	1.75	5/16"	1,780	400	ULS	ULC	25
2055022	47 - 49	1.850 - 1.929	-	1-1/2	1.75	5/16"	1,780	400	ULS	ULC	25
2055023	50 - 52	1.969 - 2.047	-	-	1.75	5/16"	1,780	400	ULS	ULC	25
2055024	53 - 54	2.087 - 2.126	2	-	1.75	5/16"	1,780	400	ULS	ULC	25
2055025	56 - 58	2.205 - 2.283	-	-	1.75	5/16"	1,780	400	ULS	ULC	25
2055026	60 - 63	2.362 - 2.480	-	2	1.75	5/16"	1,780	400	ULS	ULC	25

For additional testing information, please contact our Sales Office!



Complementary

225 BIS RapidStrut® Fixing Rail (BUP1000)

W6000 Insulated Clamp

(H 32 220)

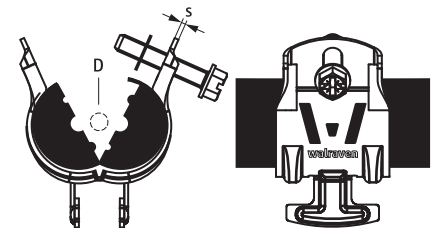
to be used with pipes that need to be insulated 6 - 43 mm



Features and Benefits

- for installation of thermal isolated steel, copper, stainless steel or plastic pipe
- one-piece design - no loose parts
- easier, faster, safer - installs with one hand
- 3-way screw head - Phillips, flat and hex
- available with 3/8" or 1/2" integrated thermal insulation block
- to be used in combination with soft insulation material
- vapour-proof gluing to pipe insulation
- excellent thermal and mechanical properties
- W Series Clamps are boxed for easy handling - no more bags
- material: Clamp: made of steel 1.0242; Insulation shell: PIR thermally hardening foam (core), synthetic rubber (sides) and vapor-proof layer of black PVC
- surface treatment: high grade Zn-Mg based coating (600 hours salt spray)

Part No.	D (mm)	D / CTS (")	D / ACR (")	Model	F _{a,z} (N)	F _{a,z} (lbs)	Pack 1
2061006	6 - 7	-	1/4	3/8" thermal insulation block	160	36	25
2061010	9 - 10	1/4	3/8	3/8" thermal insulation block	160	36	25
2061013	11 - 13	3/8	1/2	3/8" thermal insulation block	300	68	25
2061016	14 - 16	1/2	5/8	3/8" thermal insulation block	300	68	25
2061019	17 - 19	5/8	3/4	3/8" thermal insulation block	400	91	25
2061022	20 - 22	3/4	7/8	3/8" thermal insulation block	400	91	25
2061029	25 - 29	1	1-1/8	3/8" thermal insulation block	700	159	25
2061035	32 - 35	1-1/4	1-3/8	3/8" thermal insulation block	700	159	25
2061041	40 - 43	1-1/2	1-5/8	3/8" thermal insulation block	1,000	227	25
2062006	6 - 7	-	1/4	1/2" thermal insulation block	160	36	25
2062010	9 - 10	1/4	3/8	1/2" thermal insulation block	160	36	25
2062013	11 - 13	3/8	1/2	1/2" thermal insulation block	300	68	25
2062016	14 - 16	1/2	5/8	1/2" thermal insulation block	300	68	25
2062019	17 - 19	5/8	3/4	1/2" thermal insulation block	400	91	25
2062022	20 - 22	3/4	7/8	1/2" thermal insulation block	400	91	25
2062029	25 - 29	1	1-1/8	1/2" thermal insulation block	700	159	25
2062035	32 - 35	1-1/4	1-3/8	1/2" thermal insulation block	700	159	25
2062041	40 - 43	1-1/2	1-5/8	1/2" thermal insulation block	1,000	227	25
2063010	9 - 10	1/4	3/8	3/4" thermal insulation block	160	36	25
2063013	11 - 13	3/8	1/2	3/4" thermal insulation block	300	68	25
2063016	14 - 16	1/2	5/8	3/4" thermal insulation block	300	68	25
2063019	17 - 19	5/8	3/4	3/4" thermal insulation block	400	91	25
2063022	20 - 22	3/4	7/8	3/4" thermal insulation block	400	91	25
2063029	25 - 29	1	1-1/8	3/4" thermal insulation block	700	159	25
2063035	32 - 35	1-1/4	1-3/8	3/4" thermal insulation block	700	159	25



BIS Strut Clamp with Lining

(H 32 05)

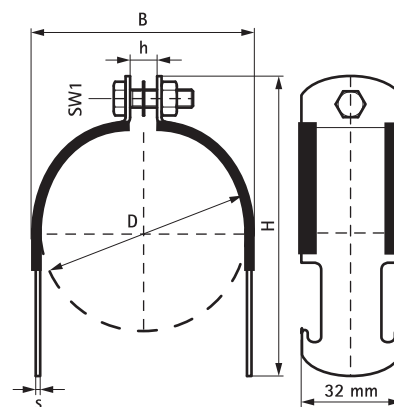
for metal pipes \varnothing 85 - 315 mm



Features and Benefits

- two-part clamp
- for direct fixing of pipes to Strut Rail
- both ends suitable for locating into Strut Rail
- material: steel 1.0226
- pre-galvanized
- sound insulating lining according DIN 4109
- noise insulating lining, EPDM rubber, black

Part No.	D (mm)	D (°)	DN	B (mm)	H (mm)	h (mm)	s (mm)	SW1 (mm)	Pack 1
2105090	85 - 90	3	80	98	134	12	2.0	13	50
2105110	105 - 110	-	-	117	159	17	2.5	17	50
2105140	130 - 140	5	125	147	189	17	2.5	17	25
2105160	150 - 160	-	-	165	210	17	3.0	17	25
2105200	190 - 200	-	-	208	244	17	3.0	17	25
2105225	215 - 225	8	200	233	276	17	3.0	17	25
2105250	240 - 250	-	-	258	301	17	3.0	17	25
2105315	315	-	-	323	366	17	3.0	17	25



Complementary

- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 224 BIS RapidStrut® Fixing Rail (pg)

Alternative

- 295 BIS Strut Clamp

BIS Strut Clamp

for steel pipes \varnothing 9 - 250 mm

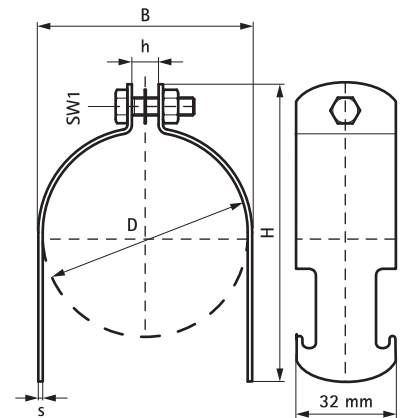
(H 32 10)



Features and Benefits

- two-part clamp
- for direct fixing of pipes to Strut Rail
- both ends suitable for locating into Strut Rail
- pre-galvanized
- material: steel 1.0226

Part No.	D (mm)	D (°)	DN	B (mm)	H (mm)	h (mm)	s (mm)	SW1 (mm)	Pack 1
2005010	9 - 10	-	-	13	47	5.0	1.5	10	100
2005012	10 - 12	1/8	6	15	49	5.0	1.5	10	100
2005014	12 - 14	1/4	8	17	51	5.0	1.5	10	100
2005016	14 - 16	-	-	19	53	5.0	1.5	10	100
2005018	16 - 18	3/8	10	21	55	7.5	1.5	10	100
2005022	20 - 22	1/2	15	25	58	10.0	1.5	10	100
2005026	22 - 26	-	-	29	62	10.0	1.5	10	100
2005030	26 - 30	3/4	20	33	67	10.0	1.5	10	100
2005035	30 - 35	1	25	38	72	10.0	1.5	10	100
2005040	35 - 40	-	-	43	77	10.0	1.5	10	100
2005045	40 - 45	1 1/4	32	48	82	10.0	1.5	10	100
2005050	45 - 50	1 1/2	40	54	88	10.0	2.0	13	100
2005055	50 - 55	-	-	59	93	10.0	2.0	13	100
2005060	55 - 60	-	-	64	98	10.0	2.0	13	100
2005065	60 - 65	2	50	69	103	10.0	2.0	13	100
2005070	65 - 70	-	-	74	108	10.0	2.0	13	100
2005075	70 - 75	-	-	79	113	10.0	2.0	13	50
2005080	75 - 80	2 1/2	65	84	118	10.0	2.0	13	50
2005085	80 - 85	-	-	89	123	10.0	2.0	13	50
2005090	85 - 90	3	80	94	128	10.0	2.0	13	50
2005095	90 - 95	-	-	99	133	10.0	2.0	13	50
2005100	95 - 100	-	-	104	138	10.0	2.0	13	50
2005105	100 - 105	-	-	110	148	15.0	2.5	17	50
2005110	105 - 110	-	-	115	153	15.0	2.5	17	50
2005120	110 - 120	4	100	125	163	15.0	2.5	17	50
2005130	120 - 130	-	-	135	173	15.0	2.5	17	25
2005140	130 - 140	5	125	145	183	15.0	2.5	17	25
2005150	140 - 150	-	-	155	193	15.0	2.5	17	25
2005160	150 - 160	-	-	166	204	15.0	3.0	17	25
2005170	160 - 170	6	150	176	214	15.0	3.0	17	25
2005200	190 - 200	-	-	206	244	15.0	3.0	17	25
2005225	215 - 225	8	200	231	269	15.0	3.0	17	25
2005250	240 - 250	-	-	256	294	15.0	3.0	17	25



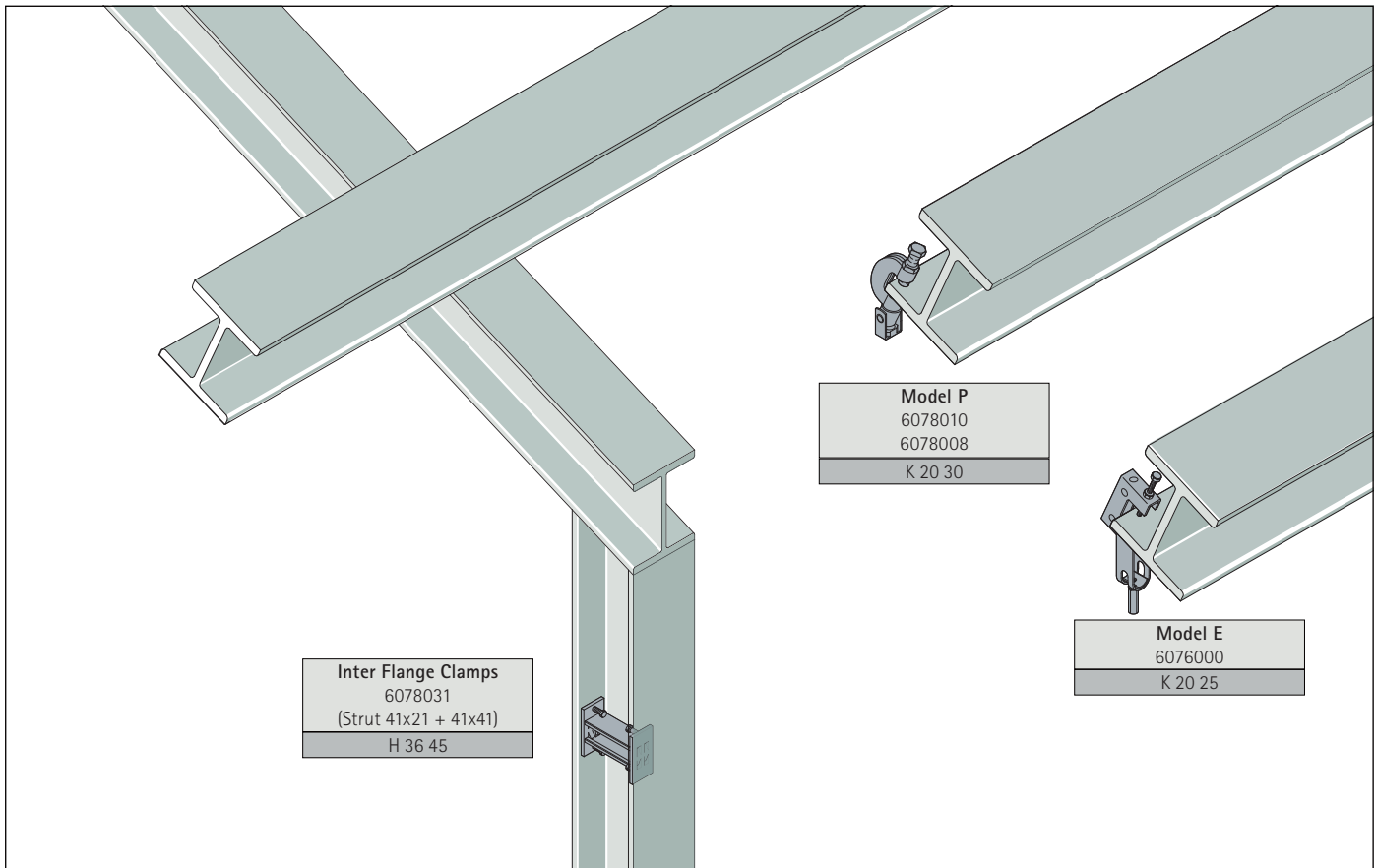
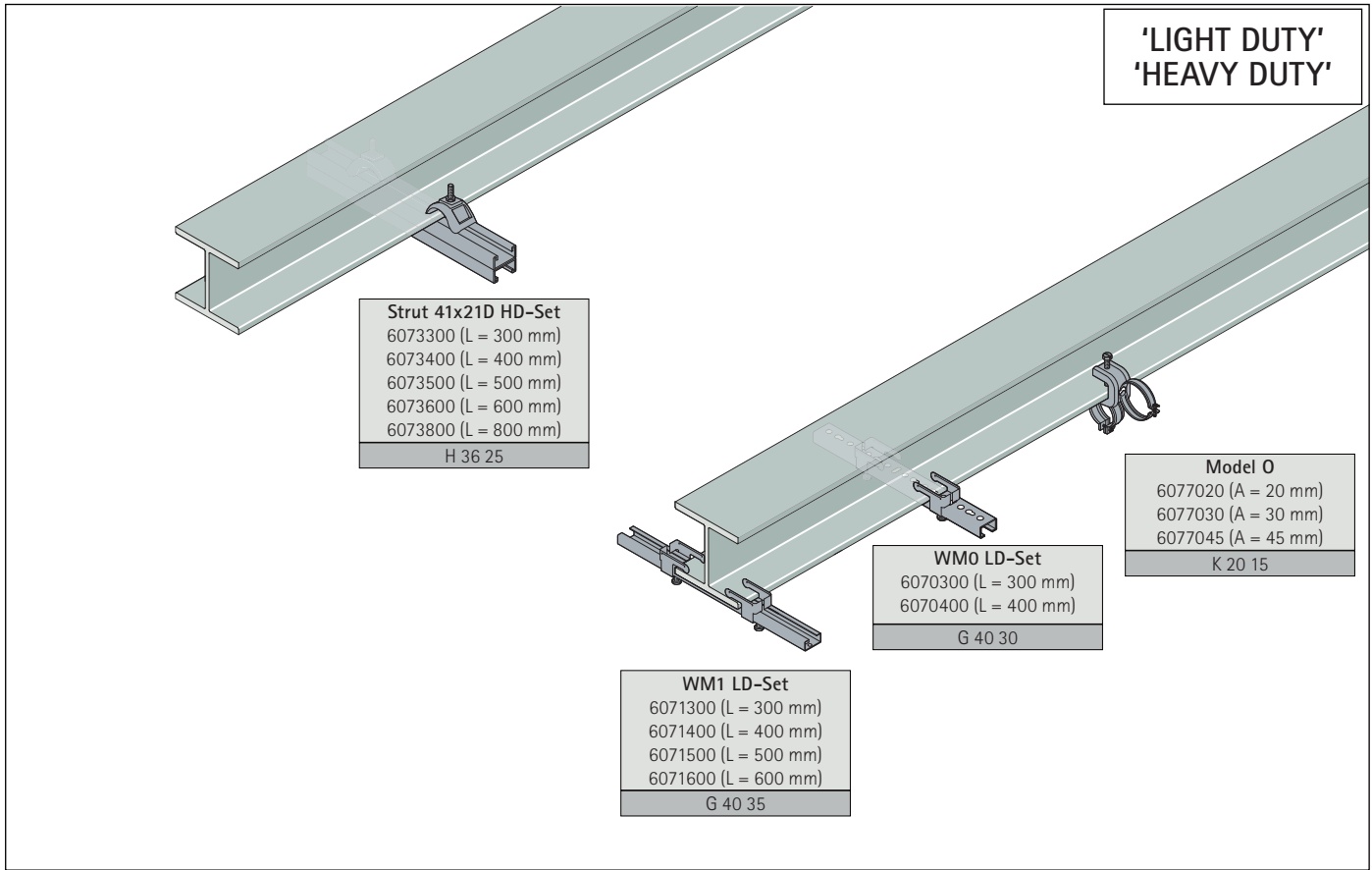
Complementary

- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 224 BIS RapidStrut® Fixing Rail (pg)

Alternative

- 294 BIS Strut Clamp with Lining

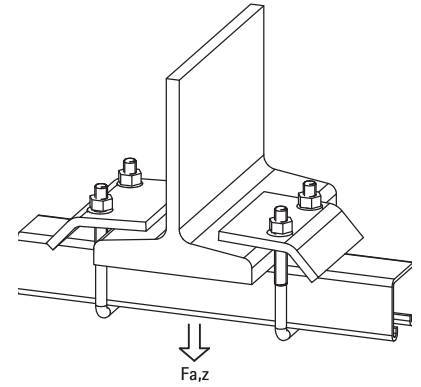
BIS Strut Fixing Sets (Electrical)



BIS Strut Rail Beam Clamp

(H 36 05)

to make Strut rail fabrications

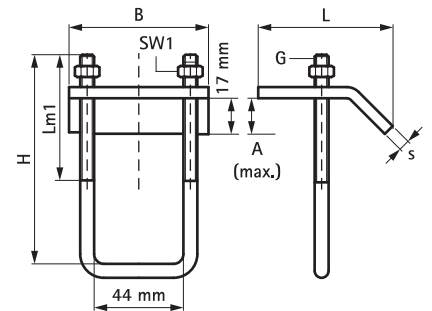


Features and Benefits

- for a solid fixing to steel construction
- material: steel 1.0332
- without the need for welding or drilling
- hot dip galvanized
- always use 2 beam clamps per fixing

Part No.	A (mm)	G	L	B (mm)	H (mm)	s (mm)	Lm1 (mm)	SW1 (mm)	For Rail	F _{a,z} (N)	Pack 1
66581711	17.5	M10	69 mm	80	90	5.5	60	17	Strut 41x21 + 41x41 + 41x21D	5,700	25
66581721	20.0	M10	69 mm	80	130	6.0	75	17	Strut 41x62 + 41x82 + 41x41D + DS 5 (41 x 51)	5,700	25

Also available in stainless steel 1.4401 (AISI 316).



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 225 BIS RapidStrut® Fixing Rail (BUP1000)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

Complementary

- 226 BIS RapidStrut® Fixing Rail Double (pg)

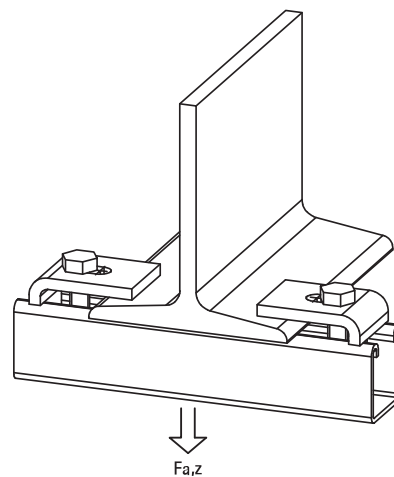
Alternative

- 302 BIS Strut 'Heavy Duty' Beam Clamp
- 301 BIS Strut 41x21D 'Heavy Duty' Set

BIS Strut Rail Beam Clamp

(H 36 10)

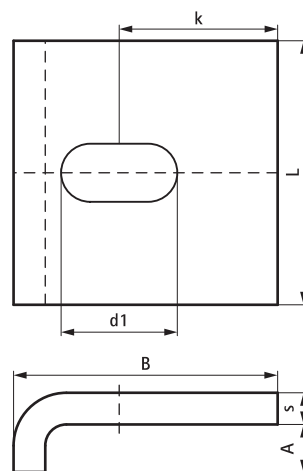
to make Strut rail fabrications



Features and Benefits

- for a solid fixing to steel construction
- material: steel 1.0332
- without the need for welding or drilling
- always use 2 beam clamps per fixing

Part No.	A (mm)	L	B (mm)	s (mm)	d1 (mm)	k (mm)	F _{a,z} (N)	Pack 1
66583741	15	50 mm	50	6.0	22 x 11	30	8,000	50



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 226 BIS RapidStrut® Fixing Rail Double (pg)

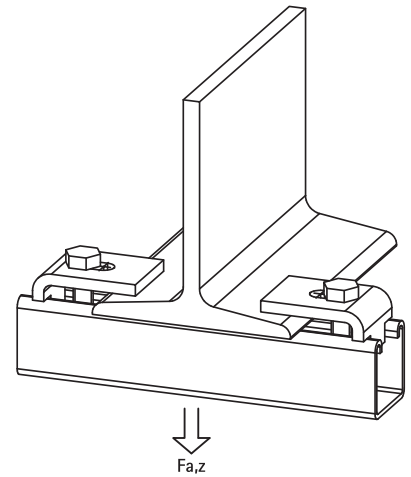
Alternative

- 297 BIS Strut Rail Beam Clamp
- 302 BIS Strut 'Heavy Duty' Beam Clamp
- 301 BIS Strut 41x21D 'Heavy Duty' Set

BIS Strut Rail Beam Clamp

(H 36 15)

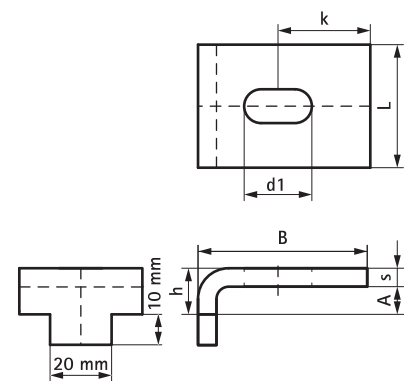
to make Strut rail fabrications



Features and Benefits

- for a solid fixing to steel construction
- material: steel 1.0332
- without the need for welding or drilling
- always use 2 beam clamps per fixing

Part No.	A (mm)	L	B (mm)	h (mm)	s (mm)	d1 (mm)	k (mm)	F _{a,z} (N)	Pack 1
66583761	15	40 mm	55	20	6.0	22 x 11	30	8,300	50



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 226 BIS RapidStrut® Fixing Rail Double (pg)

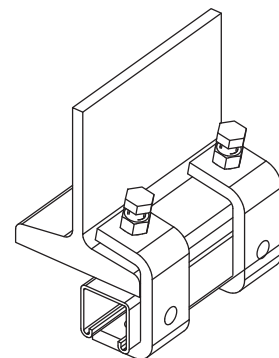
Alternative

- 301 BIS Strut 41x21D 'Heavy Duty' Set
- 302 BIS Strut 'Heavy Duty' Beam Clamp
- 297 BIS Strut Rail Beam Clamp

BIS Strut Beam Clamp

to make Strut rail fabrications

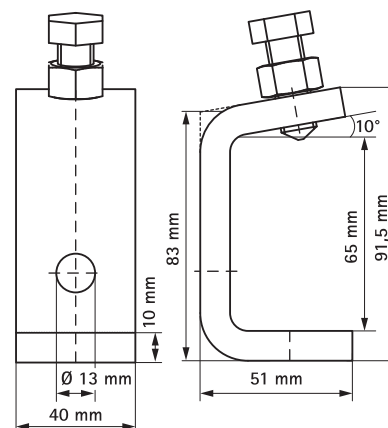
(H 36 20)



Features and Benefits

- for a solid fixing to steel construction
- material: steel 1.0332
- without the need for welding or drilling
- always use 2 beam clamps per fixing

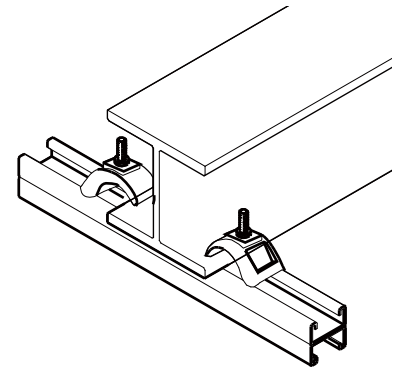
Part No.	For Rail	F _{a,z} (N)	ST	Pack 1
66583736	Strut 41x41 + 41x21D	4,500	zinc plated	25
<i>Also available in stainless steel 1.4404 (AISI 316L).</i>				



BIS Strut 41x21D 'Heavy Duty' Set

(H 36 25)

fixing to steel beam up to flange 35 mm

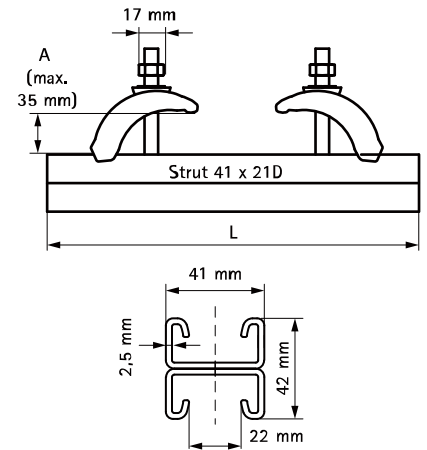


Features and Benefits

- solid cast iron beam clamp for suspension of heavy loads onto beams without welding or drilling
- up to flange thickness 35 mm
- material: beam clamp made of steel; rail made of steel 1.0332
- beam clamp also available loose
- hot dip galvanized
- consists of:
 - 1 length of Strut Rail 41x21D
 - 2 Beam clamps (Part No. 607 2 002)
 - 4 Rail End Caps

Part No.	A (mm)	L	T _(max.) (Nm)	From Rail	F _{a,z} (N)	F _{a,x} (N)	Pack 1
6073300	< 35	300 mm	30.0	Strut 41x21D	8.000	1.500	4
6073400	< 35	400 mm	30.0	Strut 41x21D	8.000	1.500	4
6073500	< 35	500 mm	30.0	Strut 41x21D	8.000	1.500	4
6073600	< 35	600 mm	30.0	Strut 41x21D	8.000	1.500	4
6073800	< 35	800 mm	30.0	Strut 41x21D	8.000	1.500	1

F_{a,z}: max. allowed load acc. RAL GZ-655 / D-3.3.



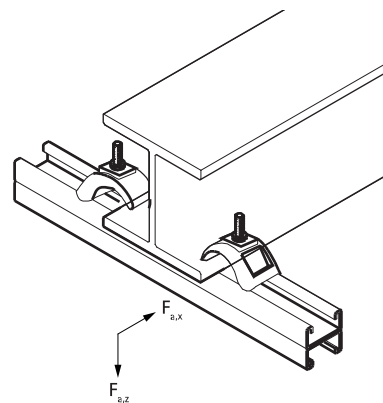
Complementary

- 257 BIS RapidStrut® Hammerfix G2 (BUP1000)
- 258 BIS RapidStrut® Hammerfix 'U' G2 (BUP1000)

BIS Strut 'Heavy Duty' Beam Clamp

(H 36 40)

fixing to steel beam up to flange 35 mm

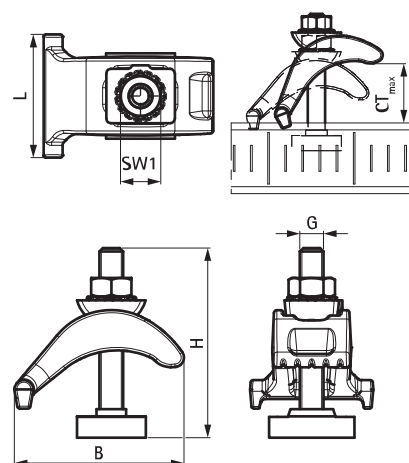


Features and Benefits

- solid cast iron beam clamp for suspension of heavy loads onto beams without welding or drilling
- material: steel
- hot dip galvanized
- up to flange thickness 35 mm
- for fixing of all Strut to a steel beam

Part No.	G	L	B	H	CT _{max}	SW1	T _(max.)	For Rail	F _{a,z}	F _{a,x}	Pack 1
			(mm)	(mm)	(mm)	(mm)	(Nm)		(N)	(N)	
6072002	M10	52 mm	72	80	35	17	30.0	Strut	8.000	1.500	25

F_{a,z}: max. allowed load acc. RAL GZ-655 / D-3.3.



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)
- 225 BIS RapidStrut® Fixing Rail (BUP1000)

Complementary

- 226 BIS RapidStrut® Fixing Rail Double (pg)
- 227 BIS RapidStrut® Fixing Rail Double (hdg)

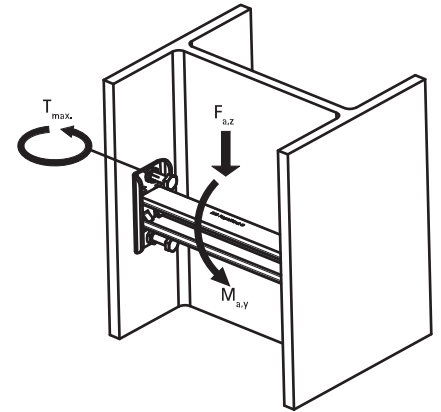
Alternative

- 301 BIS Strut 41x21D 'Heavy Duty' Set

BIS Strut Inter Flange Clamp

fixing to steel beam

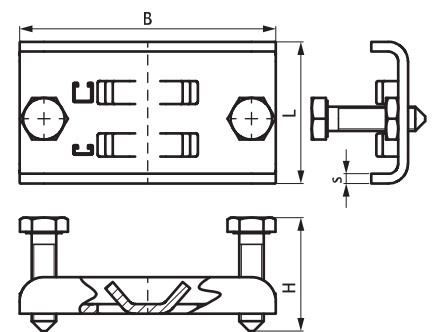
(H 36 50)



Features and Benefits

- set of two clamping plates, to be installed in combination with Strut Rail
- for connecting installation between the flanges of I- or U-profile steelwork without drilling or welding
- material: clamp made of steel 1.0242 (S250GD); hexagon head bolts M10x40 with tip: steel class 8.8 (EN-ISO 898-1); hexagon thin nuts M10 DIN 439-B: steel class 04 (EM-ISO 898-2)
- clamp: ZM310-MAC (pre-galvanized); fasteners: zinc plated ISO 2081-Fe/Zn5/A (EN ISO 2081:2008)

Part No.	L	B	H	s	T _(max.)	For Rail	F _{a,z}	M _{a,y}	Pack 1
		(mm)	(mm)	(mm)	(Nm)		(N)	(Nm)	
6078031	58	105	46	4	25.0	Strut 41x21 + 41x41	2,100	75.0	10



Complementary

- 224 BIS RapidStrut® Fixing Rail (pg)
- 247 BIS RapidStrut® Slide Nut G2 (BUP1000)
- 257 BIS RapidStrut® Hammerfix G2 (BUP1000)

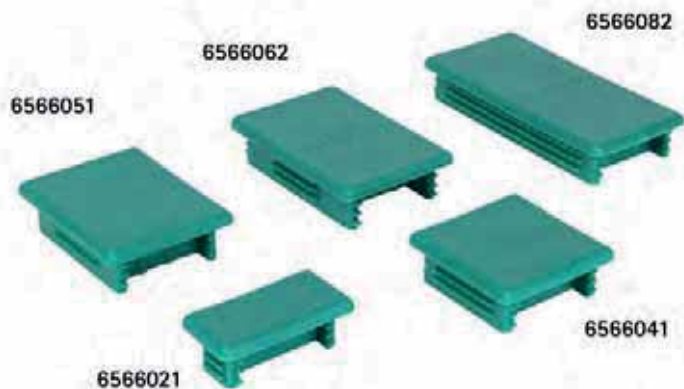
Complementary

- 248 BIS RapidStrut® Slide Nut MS (ZP)

BIS Strut Rail End Cap

(H 39 05)

finishing of Strut Rail



Features and Benefits

- for clean finishing of rail end, covers all burrs
- material: PE (polyethylene), green
- easy to fix securely

Part No.	For Rail	Pack 1	Pack 2
6566021	Strut 41x21	50	2,500
6566041	Strut 41x41	50	1,500
6566051	Strut 41x51 (BIS RapidStrut® DS 5)	40	200
6566062	Strut 41x62	50	500
6566082	Strut 41x82	50	500

Complementary

- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 224 BIS RapidStrut® Fixing Rail (pg)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS Strut PVC Profile (BUP1000)

(H 39 15)

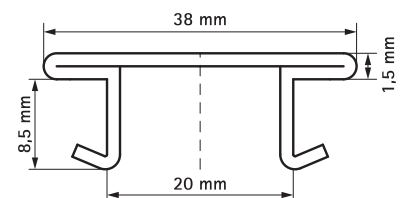
finishing of Strut Rail



Features and Benefits

- closing strip for rail
- material: PVC (polyvinylchloride), white
- reduces the risk of dirt / moisture ingress
- aesthetic finish
- simplifies cleaning / maintenance

Part No.	L	For Rail	Pack 1
6566999	3 m	Strut	25



Complementary

- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 224 BIS RapidStrut® Fixing Rail (pg)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

BIS Strut Rubber Strip

(H 39 20)

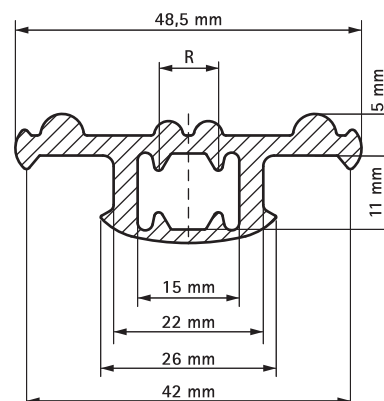
noise insulation lining for Strut rail



Features and Benefits

- push in strip
 - noise insulating lining for rail
 - also usable for threaded rod M6, M8 or M10
 - building material class B2 according to DIN 4102-1 and class E according to EN 13501-1
 - sound insulating lining according DIN 4109
- material: EPDM rubber, black

Part No.	R	L	For Rail	Pack 1
6568041	1/4 - 1/2"	30 m	Strut	30
6568042	1/4 - 1/2"	50 mm	Strut	50



Complementary

- 228 BIS RapidStrut® Cantilever Arm (BUP1000)
- 224 BIS RapidStrut® Fixing Rail (pg)
- 223 BIS RapidStrut® Fixing Rail DS 5 (BUP1000)

Calculation method

The published safe working loads are calculated with perforated (slotted) rail.

Loads are calculated taking into consideration a maximum deflection (f) of $L/200$ (according to RAL-GZ 655/B) and a maximum bending stress of 160 N/mm^2 (see picture 1).

1 N (Newton) = 0.102 kg

1 kg = 9.8 N (Newton)

Fixing of rails to walls or ceilings

The strength of the anchoring of the rail has not been taken into consideration. The installer must verify that the bolts and wall plugs used are suitable for the maximum permitted loading of the rail.

Reading the rail loading tables

The stated values are only valid for the fixing rail. The maximum safe load of all other construction parts have to be verified. The stated maximum safe load is calculated for a static load at free bending support (see picture 2).

Where the segment is marked with a hyphen, the stated length cannot be safely loaded.

Special conditions

In case of doubt or for special conditions not stated in the loading tables, please do not hesitate to contact our technical department for their advice.

Hanging of rails from the ceiling

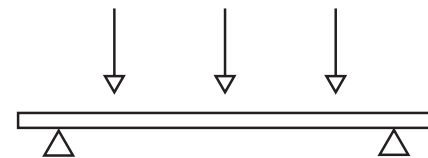
When hanging rails from the ceiling we recommend the use of U-formed washers on the open side of the rail (see picture 3).

Methods of loading

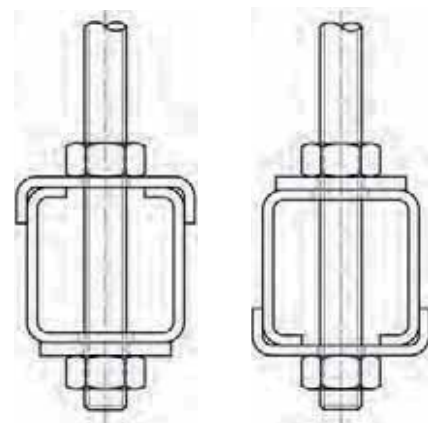
Where loads are suspended beneath rails (e.g. hanging pipes), the load must not exceed the relevant safe load of the slide nut. To increase rigidity of the installation we recommend the use of a U-formed washer (see picture 4).



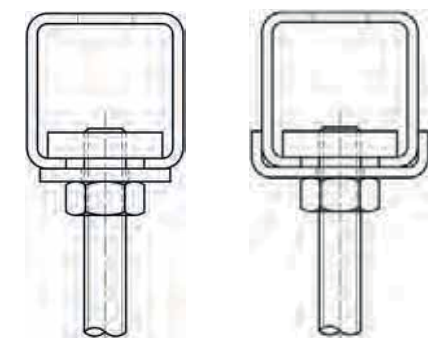
Picture 1



Picture 2

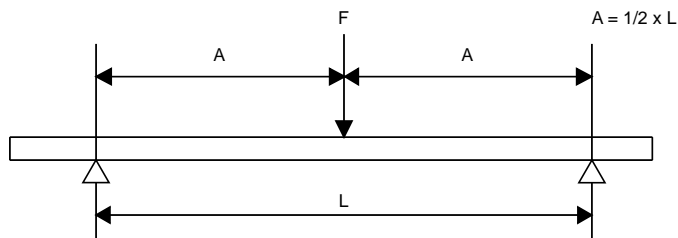


Picture 3



Picture 4

BIS RapidStrut® Fixing rail: suspension on 1 point



L (mm)	Single									Double			
	41x21 x1.5	41x21 x2.0	41x21 x2.5	41x41 x1.5	41x41 x2.0	41x41 x2.5	41x51 x2.0	41x62 x2.5	41x82 x2.5	41x21D	41x41D	41x62D	41x82D
250	1,848	2,153	2,381	5,427	6,556	7,611	8,812	14,730	23,035	7,081	22,797	46,461	75,937
300	1,540	1,794	1,984	4,523	5,463	6,342	7,343	12,275	19,196	5,901	18,997	38,718	63,281
350	1,320	1,538	1,701	3,877	4,683	5,436	6,294	10,522	16,453	5,058	16,283	33,187	54,241
400	1,155	1,346	1,488	3,392	4,098	4,757	5,507	9,206	14,397	4,426	14,248	29,038	47,461
450	1,027	1,196	1,323	3,015	3,642	4,228	4,895	8,183	12,797	3,934	12,665	25,812	42,187
500	924	1,076	1,190	2,714	3,278	3,805	4,406	7,365	11,517	3,540	11,398	23,231	37,969
600	770	897	992	2,261	2,732	3,171	3,671	6,138	9,598	2,950	9,499	19,359	31,641
700	660	769	850	1,938	2,341	2,718	3,147	5,261	8,227	2,529	8,142	16,593	27,120
800	557	642	719	1,696	2,049	2,378	2,754	4,603	7,198	2,213	7,124	14,519	23,730
900	440	508	568	1,508	1,821	2,114	2,448	4,092	6,399	1,967	6,332	12,906	21,094
1,000	356	411	460	1,357	1,639	1,903	2,203	3,683	5,759	1,770	5,699	11,615	18,984
1,200	247	286	320	1,131	1,366	1,586	1,836	3,069	4,799	1,475	4,749	9,679	15,820
1,400	182	210	235	969	1,171	1,359	1,573	2,630	4,113	1,264	4,071	8,297	13,560
1,600	139	161	180	794	952	1,114	1,377	2,302	3,599	1,015	3,562	7,260	11,865
1,800	110	127	142	628	752	881	1,224	2,046	3,199	802	3,166	6,453	10,547
2,000	89	103	115	508	609	713	1,004	1,841	2,879	650	2,850	5,808	9,492
2,250	70	81	91	402	481	564	794	1,624	2,559	513	2,533	5,162	8,437
2,500	57	66	74	325	390	456	643	1,315	2,303	416	2,280	4,646	7,594
2,750	47	54	61	269	322	377	531	1,087	2,094	344	2,072	4,224	6,903
3,000	40	46	51	226	271	317	446	913	1,890	289	1,863	3,872	6,328
3,250	34	39	44	193	231	270	380	778	1,611	246	1,588	3,574	5,841
3,500	29	34	38	166	199	233	328	671	1,389	212	1,369	3,319	5,424
3,750	25	29	33	145	173	203	286	584	1,210	185	1,193	3,097	5,062
4,000	22	26	29	127	152	178	251	514	1,063	162	1,048	2,904	4,746
4,250	20	23	25	113	135	158	222	455	942	144	928	2,733	4,467
4,500	18	20	23	100	120	141	198	406	840	128	828	2,504	4,219
4,750	16	18	20	90	108	126	178	364	754	115	743	2,248	3,997
5,000	14	16	18	81	97	114	161	329	680	104	671	2,029	3,797
5,250	13	15	17	74	88	104	146	298	617	94	608	1,840	3,616
5,500	12	14	15	67	81	94	133	272	562	86	554	1,676	3,452
5,750	11	12	14	62	74	86	122	249	515	79	507	1,534	3,302
6,000	-	11	13	56	68	79	112	228	473	72	466	1,409	3,052

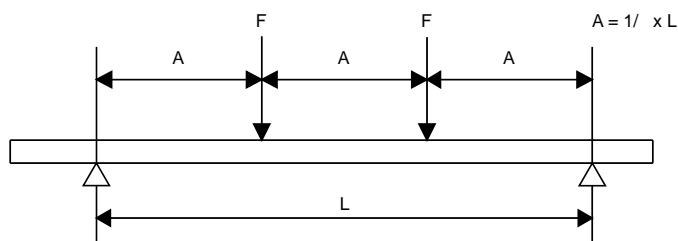
Max. allowed load in N.

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

For large spans and high rail flanks ($> = 62\text{mm}$), depending on the load, appropriate measures against occurring torsional forces may have to be taken.

BIS RapidStrut® Fixing rail: 2 equal loads



L (mm)	Single									Double			
	41x21 x1.5	41x21 x2.0	41x21 x2.5	41x41 x1.5	41x41 x2.0	41x41 x2.5	41x51 x2.0	41x62 x2.5	41x82 x2.5	41x21D	41x41D	41x62D	41x82D
250	1,386	1,615	1,786	4,070	4,917	5,708	6,609	11,048	17,276	5,311	17,098	34,846	56,953
300	1,155	1,346	1,488	3,392	4,098	4,757	5,507	9,206	14,397	4,426	14,248	29,038	47,461
350	990	1,153	1,275	2,907	3,512	4,077	4,720	7,891	12,340	3,793	12,213	24,890	40,681
400	866	1,009	1,116	2,544	3,073	3,568	4,130	6,905	10,798	3,319	10,686	21,779	35,596
450	770	897	992	2,261	2,732	3,171	3,671	6,138	9,598	2,950	9,499	19,359	31,641
500	693	807	893	2,035	2,459	2,854	3,304	5,524	8,638	2,655	8,549	17,423	28,476
600	578	670	744	1,696	2,049	2,378	2,754	4,603	7,198	2,213	7,124	14,519	23,730
700	427	492	552	1,454	1,756	2,039	2,360	3,946	6,170	1,897	6,106	12,445	20,340
800	327	377	422	1,272	1,537	1,784	2,065	3,452	5,399	1,660	5,343	10,889	17,798
900	258	298	334	1,131	1,366	1,586	1,836	3,069	4,799	1,475	4,749	9,679	15,820
1,000	209	241	270	1,018	1,229	1,427	1,652	2,762	4,319	1,328	4,274	8,712	14,238
1,200	145	168	188	829	993	1,163	1,377	2,302	3,599	1,059	3,562	7,260	11,865
1,400	107	123	138	609	730	854	1,180	1,973	3,085	778	3,053	6,223	10,170
1,600	82	94	106	466	559	654	921	1,726	2,699	596	2,672	5,445	8,899
1,800	65	74	83	368	442	517	728	1,489	2,399	471	2,375	4,840	7,910
2,000	52	60	68	298	358	419	590	1,206	2,160	381	2,137	4,356	7,119
2,250	41	48	53	236	283	331	466	953	1,920	301	1,900	3,872	6,328
2,500	33	39	43	191	229	268	377	772	1,598	244	1,575	3,485	5,695
2,750	28	32	36	158	189	221	312	638	1,320	202	1,302	3,168	5,178
3,000	23	27	30	133	159	186	262	536	1,109	169	1,094	2,904	4,746
3,250	20	23	26	113	135	159	223	457	945	144	932	2,680	4,381
3,500	17	20	22	97	117	137	192	394	815	124	804	2,430	4,068
3,750	15	17	19	85	102	119	168	343	710	108	700	2,117	3,797
4,000	13	15	17	75	89	105	147	302	624	95	615	1,860	3,560
4,250	12	13	15	66	79	93	131	267	553	84	545	1,648	3,350
4,500	10	12	13	59	71	83	116	238	493	75	486	1,470	3,164
4,750	-	11	12	53	63	74	105	214	443	68	436	1,319	2,858
5,000	-	-	11	48	57	67	94	193	399	61	394	1,191	2,579
5,250	-	-	-	43	52	61	86	175	362	55	357	1,080	2,340
5,500	-	-	-	39	47	55	78	159	330	50	325	984	2,132
5,750	-	-	-	36	43	51	71	146	302	46	298	900	1,950
6,000	-	-	-	33	40	47	66	134	277	42	273	827	1,791

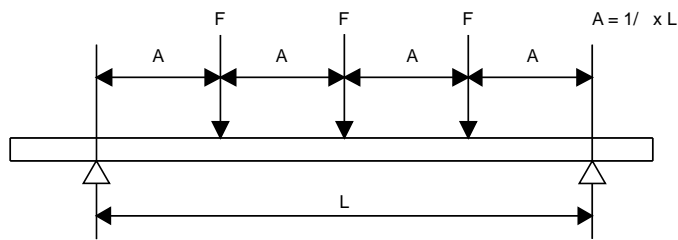
Max. allowed load in N. per suspension point (F).

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

For large spans and high rail flanks (> = 62mm), depending on the load, appropriate measures against occurring torsional forces may have to be taken.

BIS RapidStrut® Fixing rail: 3 equal loads



L (mm)	Single									Double			
	41x21 x1.5	41x21 x2.0	41x21 x2.5	41x41 x1.5	41x41 x2.0	41x41 x2.5	41x51 x2.0	41x62 x2.5	41x82 x2.5	41x21D	41x41D	41x62D	41x82D
250	924	1,076	1,190	2,714	3,278	3,805	4,406	7,365	11,517	3,540	11,398	23,231	37,969
300	770	897	992	2,261	2,732	3,171	3,671	6,138	9,598	2,950	9,499	19,359	31,641
350	660	769	850	1,938	2,341	2,718	3,147	5,261	8,227	2,529	8,142	16,593	27,120
400	578	673	744	1,696	2,049	2,378	2,754	4,603	7,198	2,213	7,124	14,519	23,730
450	513	598	661	1,508	1,821	2,114	2,448	4,092	6,399	1,967	6,332	12,906	21,094
500	462	538	595	1,357	1,639	1,903	2,203	3,683	5,759	1,770	5,699	11,615	18,984
600	385	449	496	1,131	1,366	1,586	1,836	3,069	4,799	1,475	4,749	9,679	15,820
700	306	353	396	969	1,171	1,359	1,573	2,630	4,113	1,264	4,071	8,297	13,560
800	234	270	303	848	1,024	1,189	1,377	2,302	3,599	1,106	3,562	7,260	11,865
900	185	214	239	754	911	1,057	1,224	2,046	3,199	983	3,166	6,453	10,547
1,000	150	173	194	678	820	951	1,101	1,841	2,879	885	2,850	5,808	9,492
1,200	104	120	135	565	683	793	918	1,534	2,399	738	2,375	4,840	7,910
1,400	77	88	99	437	524	613	787	1,315	2,057	558	2,035	4,148	6,780
1,600	59	68	76	335	401	469	661	1,151	1,800	427	1,781	3,630	5,933
1,800	46	53	60	264	317	371	522	1,023	1,600	338	1,583	3,226	5,273
2,000	38	43	48	214	257	300	423	865	1,440	274	1,425	2,904	4,746
2,250	30	34	38	169	203	237	334	684	1,280	216	1,266	2,581	4,219
2,500	24	28	31	137	164	192	271	554	1,146	175	1,130	2,323	3,797
2,750	20	23	26	113	136	159	224	458	947	145	934	2,112	3,452
3,000	17	19	22	95	114	133	188	385	796	122	785	1,936	3,164
3,250	14	16	18	81	97	114	160	328	678	104	669	1,787	2,921
3,500	12	14	16	70	84	98	138	283	585	89	576	1,659	2,712
3,750	11	12	14	61	73	85	120	246	509	78	502	1,518	2,531
4,000	-	11	12	54	64	75	106	216	448	68	441	1,335	2,373
4,250	-	-	11	47	57	67	94	192	397	61	391	1,182	2,233
4,500	-	-	-	42	51	59	84	171	354	54	349	1,054	2,109
4,750	-	-	-	38	45	53	75	153	317	48	313	946	1,998
5,000	-	-	-	34	41	48	68	138	287	44	282	854	1,850
5,250	-	-	-	31	37	44	61	126	260	40	256	775	1,678
5,500	-	-	-	28	34	40	56	114	237	36	233	706	1,529
5,750	-	-	-	26	31	36	51	105	217	33	214	646	1,399
6,000	-	-	-	24	29	33	47	96	199	30	196	593	1,285

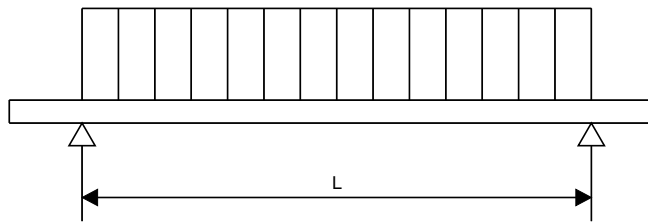
Max. allowed load in N. per suspension point (F).

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

For large spans and high rail flanks (> = 62mm), depending on the load, appropriate measures against occurring torsional forces may have to be taken.

BIS RapidStrut® Fixing rail: uniformly distributed load



L (mm)	Single									Double			
	41x21 x1.5	41x21 x2.0	41x21 x2.5	41x41 x1.5	41x41 x2.0	41x41 x2.5	41x51 x2.0	41x62 x2.5	41x82 x2.5	41x21D	41x41D	41x62D	41x82D
250	3,697	4,306	4,762	10,854	13,112	15,222	17,623	29,460	46,070	14,162	45,594	92,923	151,875
300	3,081	3,588	3,968	9,045	10,927	12,685	14,686	24,550	38,391	11,802	37,995	77,436	126,562
350	2,640	3,076	3,401	7,753	9,366	10,873	12,588	21,043	32,907	10,116	32,567	66,373	108,482
400	2,310	2,691	2,976	6,784	8,195	9,514	11,014	18,413	28,794	8,851	28,496	58,077	94,922
450	2,054	2,392	2,645	6,030	7,285	8,457	9,791	16,367	25,594	7,868	25,330	51,624	84,375
500	1,848	2,153	2,381	5,427	6,556	7,611	8,812	14,730	23,035	7,081	22,797	46,461	75,937
600	1,540	1,794	1,984	4,523	5,463	6,342	7,343	12,275	19,196	5,901	18,997	38,718	63,281
700	1,163	1,342	1,503	3,877	4,683	5,436	6,294	10,522	16,453	5,058	16,283	33,187	54,241
800	891	1,028	1,151	3,392	4,098	4,757	5,507	9,206	14,397	4,426	14,248	29,038	47,461
900	704	812	909	3,015	3,642	4,228	4,895	8,183	12,797	3,934	12,665	25,812	42,187
1,000	570	658	737	2,714	3,278	3,805	4,406	7,365	11,517	3,540	11,398	23,231	37,969
1,200	396	457	512	2,260	2,708	3,170	3,671	6,138	9,598	2,887	9,499	19,359	31,641
1,400	291	336	376	1,660	1,989	2,329	3,147	5,261	8,227	2,121	8,142	16,593	27,120
1,600	223	257	288	1,271	1,523	1,783	2,511	4,603	7,198	1,624	7,124	14,519	23,730
1,800	176	203	227	1,004	1,204	1,409	1,984	4,059	6,399	1,283	6,332	12,906	21,094
2,000	143	164	184	814	975	1,141	1,607	3,288	5,759	1,039	5,699	11,615	18,984
2,250	113	130	146	643	770	902	1,270	2,598	5,119	821	5,066	10,325	16,875
2,500	91	105	118	521	624	730	1,028	2,104	4,355	665	4,293	9,292	15,187
2,750	75	87	97	430	516	604	850	1,739	3,599	550	3,548	8,448	13,807
3,000	63	73	82	362	433	507	714	1,461	3,024	462	2,981	7,744	12,656
3,250	54	62	70	308	369	432	609	1,245	2,577	394	2,540	7,148	11,683
3,500	47	54	60	266	318	373	525	1,074	2,222	339	2,190	6,624	10,848
3,750	41	47	52	231	277	325	457	935	1,936	296	1,908	5,770	10,125
4,000	36	41	46	203	244	285	402	822	1,701	260	1,677	5,071	9,492
4,250	32	36	41	180	216	253	356	728	1,507	230	1,486	4,492	8,934
4,500	28	32	36	161	193	225	317	649	1,344	205	1,325	4,007	8,437
4,750	25	29	33	144	173	202	285	583	1,206	184	1,189	3,596	7,791
5,000	23	26	29	130	156	183	257	526	1,089	166	1,073	3,246	7,031
5,250	21	24	27	118	141	166	233	477	988	151	974	2,944	6,378
5,500	19	22	24	108	129	151	212	435	900	137	887	2,682	5,811
5,750	17	20	22	98	118	138	194	398	823	126	812	2,454	5,317
6,000	16	18	20	90	108	127	179	365	756	115	745	2,254	4,883

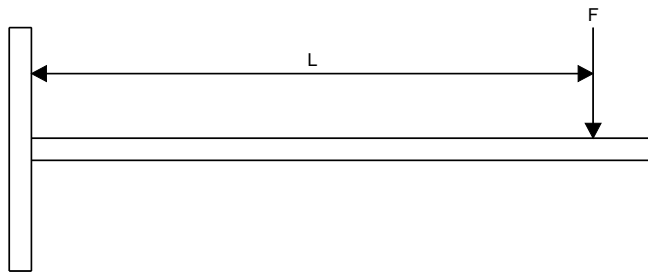
Max. allowed load in N.

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

For large spans and high rail flanks (> = 62mm), depending on the load, appropriate measures against occurring torsional forces may have to be taken.

BIS RapidStrut® Cantilever arms: suspension on 1 point



L (mm)	Single									Double			
	41x21 x1.5	41x21 x2.0	41x21 x2.5	41x41 x1.5	41x41 x2.0	41x41 x2.5	41x51 x2.0	41x62 x2.5	41x82 x2.5	41x21D	41x41D	41x62D	41x82D
100	1,155	1,346	1,488	3,392	4,098	4,757	5,507	9,206	14,397	4,426	14,248	29,038	47,461
150	770	897	992	2,261	2,732	3,171	3,671	6,138	9,598	2,950	9,499	19,359	31,641
200	557	642	719	1,696	2,049	2,378	2,754	4,603	7,198	2,213	7,124	14,519	23,730
250	356	411	460	1,357	1,639	1,903	2,203	3,683	5,759	1,770	5,699	11,615	18,984
300	247	286	320	1,131	1,366	1,586	1,836	3,069	4,799	1,475	4,749	9,679	15,820
350	182	210	235	969	1,171	1,359	1,573	2,630	4,113	1,264	4,071	8,297	13,560
400	139	161	180	794	952	1,114	1,377	2,302	3,599	1,015	3,562	7,260	11,865
450	110	127	142	628	752	881	1,224	2,046	3,199	802	3,166	6,453	10,547
500	89	103	115	508	609	713	1,004	1,841	2,879	650	2,850	5,808	9,492
550	74	85	95	420	504	589	830	1,674	2,618	537	2,591	5,280	8,629
600	62	71	80	353	423	495	697	1,427	2,399	451	2,375	4,840	7,910
700	45	52	59	259	311	364	512	1,048	2,057	331	2,035	4,148	6,780
800	35	40	45	199	238	279	392	803	1,661	254	1,638	3,630	5,933
900	27	32	36	157	188	220	310	634	1,313	200	1,294	3,226	5,273
1,000	22	26	29	127	152	178	251	514	1,063	162	1,048	2,904	4,746
1,100	18	21	24	105	126	147	208	425	879	134	866	2,619	4,315
1,200	15	18	20	88	106	124	174	357	738	113	728	2,201	3,955
1,300	13	15	17	75	90	106	149	304	629	96	620	1,875	3,651
1,400	11	13	15	65	78	91	128	262	542	83	535	1,617	3,390
1,500	-	11	13	56	68	79	112	228	473	72	466	1,409	3,052

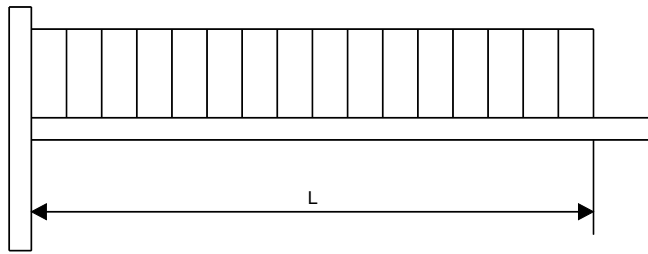
Max. allowed load in N.

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

For large spans and high rail flanks ($> = 62\text{mm}$), depending on the load, appropriate measures against occurring torsional forces may have to be taken.

BIS RapidStrut® Cantilever arms: uniformly distributed load



L (mm)	Single									Double			
	41x21 x1.5	41x21 x2.0	41x21 x2.5	41x41 x1.5	41x41 x2.0	41x41 x2.5	41x51 x2.0	41x62 x2.5	41x82 x2.5	41x21D	41x41D	41x62D	41x82D
100	2,310	2,691	2,976	6,784	8,195	9,514	11,014	18,413	28,794	8,851	28,496	58,077	94,922
150	1,540	1,794	1,984	4,523	5,463	6,342	7,343	12,275	19,196	5,901	18,997	38,718	63,281
200	1,155	1,346	1,488	3,392	4,098	4,757	5,507	9,206	14,397	4,426	14,248	29,038	47,461
250	924	1,076	1,190	2,714	3,278	3,805	4,406	7,365	11,517	3,540	11,398	23,231	37,969
300	660	761	853	2,261	2,732	3,171	3,671	6,138	9,598	2,950	9,499	19,359	31,641
350	485	559	626	1,938	2,341	2,718	3,147	5,261	8,227	2,529	8,142	16,593	27,120
400	371	428	480	1,696	2,049	2,378	2,754	4,603	7,198	2,213	7,124	14,519	23,730
450	293	338	379	1,508	1,821	2,114	2,448	4,092	6,399	1,967	6,332	12,906	21,094
500	238	274	307	1,356	1,625	1,902	2,203	3,683	5,759	1,732	5,699	11,615	18,984
550	196	227	254	1,121	1,343	1,572	2,003	3,348	5,235	1,432	5,181	10,559	17,258
600	165	190	213	942	1,128	1,321	1,836	3,069	4,799	1,203	4,749	9,679	15,820
700	121	140	157	692	829	970	1,367	2,630	4,113	884	4,071	8,297	13,560
800	93	107	120	530	635	743	1,046	2,140	3,599	677	3,562	7,260	11,865
900	73	85	95	418	501	587	827	1,691	3,199	535	3,166	6,453	10,547
1,000	59	69	77	339	406	476	670	1,370	2,835	433	2,795	5,808	9,492
1,100	49	57	63	280	336	393	553	1,132	2,343	358	2,310	5,280	8,629
1,200	41	48	53	235	282	330	465	951	1,969	301	1,941	4,840	7,910
1,300	35	41	45	201	240	281	396	811	1,678	256	1,654	4,467	7,302
1,400	30	35	39	173	207	243	342	699	1,447	221	1,426	4,148	6,780
1,500	26	30	34	151	181	211	298	609	1,260	192	1,242	3,757	6,328

Max. allowed load in N.

The stated values are only valid for the fixing rail.

The maximum safe load of all other construction parts have to be verified.

For large spans and high rail flanks (> = 62mm), depending on the load, appropriate measures against occurring torsional forces may have to be taken.

H2 BIS Fixing System for Industrial Installations

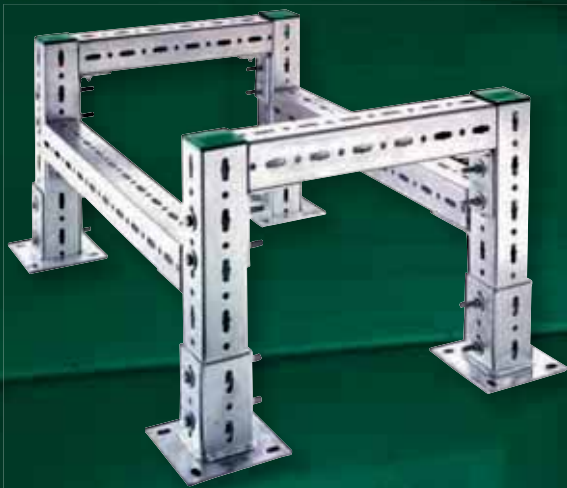


Maxx Heavy rail profiles and accessories

Maxx Heavy Rail Profile	318
Maxx Wall Plate	319
Maxx Profile Connector 90°	320
Maxx Hammerfix	321
Maxx Bolt Set (ZTD)	322
Maxx Linear Connector	323
Maxx T-Connector	324
Maxx End Cap	325
Maxx Beam Clamp	326
Maxx Cross Connector	327
Maxx 3D Coupler	328
Maxx U-Shape Bracket (hdg)	329

Maxx

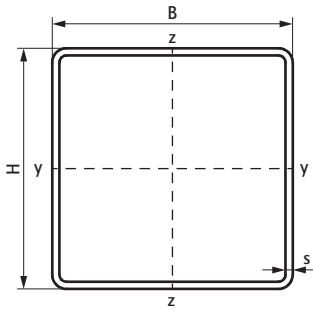
Heavy frame modular support system



A complete solution for all industrial and heavy duty applications

- Quick and easy to install
- Avoids the need for on site fabrication or welding
- FREE technical advice service, from engineering to on site construction support

Technical Details Maxx Profile

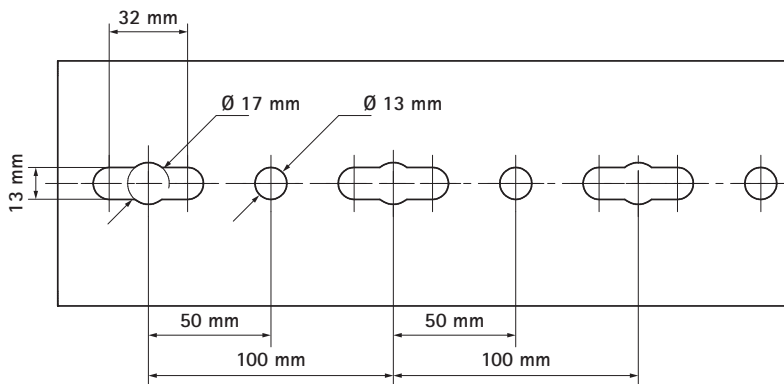


Profile size			Unit Weight	Cross Section Area	Section Modulus of Torsion	Torsion Moment of Inertia	Geometrical Moment of Inertia		Geometrical Section Modulus	
H	B	s					I_y	I_z	W_y	W_z
mm	mm	mm	kg	mm ²	cm ³	cm ⁴	cm ⁴	cm ⁴	cm ³	cm ³
100.00	100.00	3.00	8.16	974.50	55.70	85.40	155.98	155.98	31.20	31.20
120.00	100.00	4.00	11.94	1,433.06	88.20	126.10	308.30	235.65	51.38	47.13

Perforation pattern for fixing to ceiling or wall.

Distance between profile end and first hole is always equal.

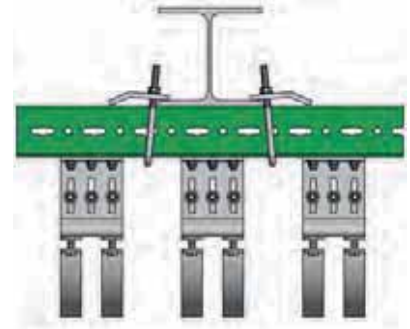
Maxx IP 100, IP 120



Maxx Heavy Rail Profile

(H2 05 05)

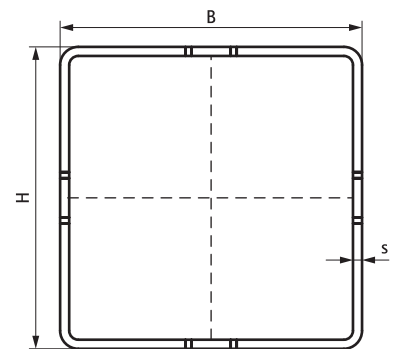
for fixing pipes and devices



Features and Benefits

- closed square profile
- offers support for fixings to pipes and devices
- with continuous perforation on all sides
- material: steel
- hot dip galvanized

Part No.	Type	L	B (mm)	H (mm)	s (mm)	Weight (kg)	Pack 1	App.
65019610	IP100	6 m	100	100	3.0	8,16	1	m.
65019612	IP120	6 m	100	120	4.0	11,94	1	m.



Complementary

- 319 Maxx Wall Plate
- 320 Maxx Profile Connector 90°
- 321 Maxx Hammerfix

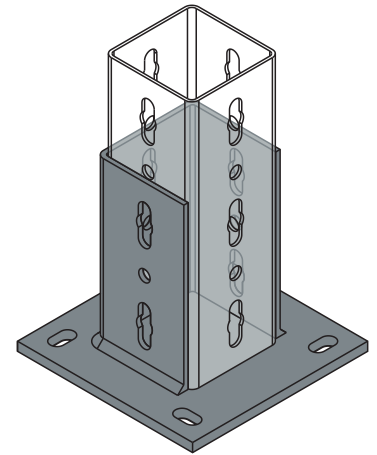
Complementary

- 322 Maxx Bolt Set (ZTD)
- 323 Maxx Linear Connector
- 324 Maxx T-Connector

Maxx Wall Plate

for fixing profiles to wall or floor

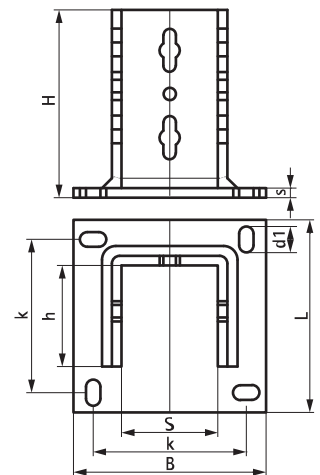
(H2 05 10)



Features and Benefits

- U-profile welded on wall plate
- for fixing rail to wall or floor
- allows fixing for cantilever arms with Maxx Heavy Rail Profile
- slots are compatible with mounting profiles
- CO₂ welded
- material: steel
- hot dip galvanized

Part No.	Type	L	B	H	h	s	d1	S	k	Weight	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg)	
6581800	IPH 100	220 mm	220	195	100	10.0	30 x 18	103	159	5,68	1
6581801	IPH 120	220 mm	220	195	115	10.0	30 x 18	103	159	5,70	1



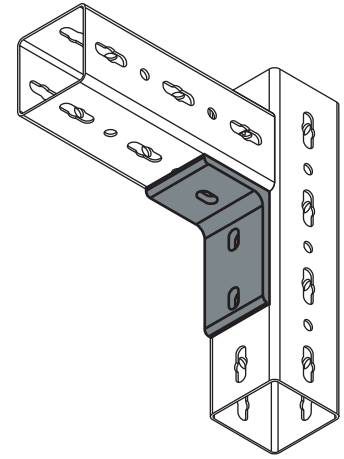
Complementary

- 318 Maxx Heavy Rail Profile
- 321 Maxx Hammerfix

Maxx Profile Connector 90°

(H2 05 15)

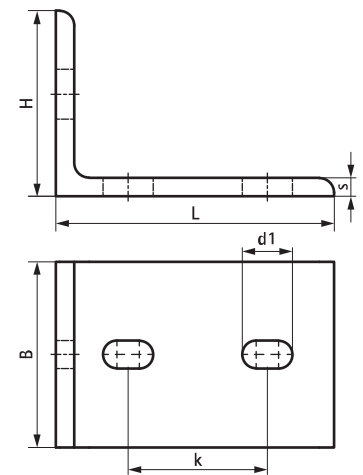
for perpendicular connecting profiles



Features and Benefits

- for perpendicular connection to Heavy Rail Profiles
- with slotted holes for easy fixing
- material: steel
- hot dip galvanized

Part No.	Model	Type	L	B (mm)	H (mm)	s (mm)	d1 (mm)	k (mm)	Weight (kg)	Pack 1
6681015	3 holes	IPC90/3	150 mm	100	100	10.0	27 x 15	75	1,90	1



Maxx Hammerfix

for fixing to Maxx Heavy Rail Profiles

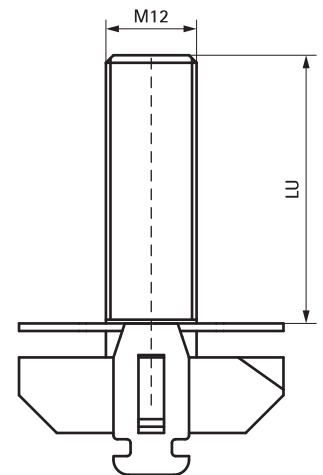
(H2 05 25)



Features and Benefits

- pre-assembled and ready to use for a quick fixing in profile perforation by a push and 90° turn
- the hammerfix head is ideally suited to fit the perforation of Maxx Heavy Rail Profile
- after mounting hammerfix the nut must be tightened with a wrench
- max. torque is 80Nm
- material: steel, strength class 8.8
- hot dip galvanized
- to be used in combination with BIS Washers (Part no. 6538 1 512) and BIS Hexagon Nuts (Part No. 6128 1 012)

Part No.	Type	LU (mm)	F _{a,z} (N)	F _{a,x} (N)	Pack 1
65219204	IPH	40	10,000	10,000	25
65219207	IPH	75	10,000	10,000	25



Complementary

- 318 Maxx Heavy Rail Profile
- 450 BIS Hexagon Nut (BUP1000)
- 186 BIS Washer (Flat) (BUP1000)

Maxx Bolt Set (ZTD)

for fixing to Maxx Heavy Rail Profiles

(H2 05 28)



Features and Benefits

- for fixing in profile perforation
- the bolt size is ideally suited to fit the perforation of Maxx Heavy Rail Profile
- max. torque is 80Nm
- hexagon nut with collar
- material: steel, strength class 8.8
- surface treatment: Zink-Thermo-Diffusion
- consists of:
 - 1 bolt
 - 1 nut
 - 1 washer

Part No.	Model	G	L	Pack 1
614581213	Maxx 100 Bolt Set	M12	140 mm	25
614581216	Maxx 120 Bolt Set	M12	160 mm	25
614581614	Maxx 100 Bolt Set	M16	140 mm	25
614581616	Maxx 120 Bolt Set	M16	160 mm	25



Complementary

- 318 Maxx Heavy Rail Profile
- 319 Maxx Wall Plate
- 320 Maxx Profile Connector 90°

Complementary

- 323 Maxx Linear Connector
- 324 Maxx T-Connector
- 327 Maxx Cross Connector

Maxx Linear Connector

(H2 05 30)

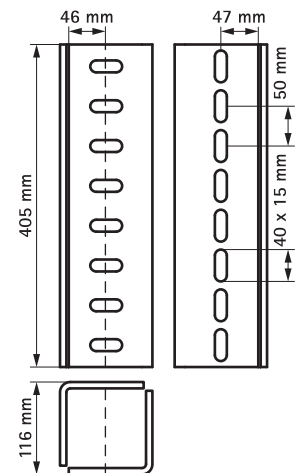
for fixing to Maxx Heavy Rail Profiles



Features and Benefits

- matches the shape and dimension of Maxx Heavy Rail Profile and Maxx Hammerfix
- front connection with Heavy Rail Profile
- centre distance is compatible with perforation of Maxx Heavy Rail Profile
- delivery and assembly always in pairs (1 piece = set of 2 half shells)
- material: steel
- hot dip galvanized

Part No.	Type	Weight (kg)	Pack 1
6589335	IPLC	5,50	1



Complementary

- 318 Maxx Heavy Rail Profile
- 321 Maxx Hammerfix

Maxx T-Connector

(H2 05 35)

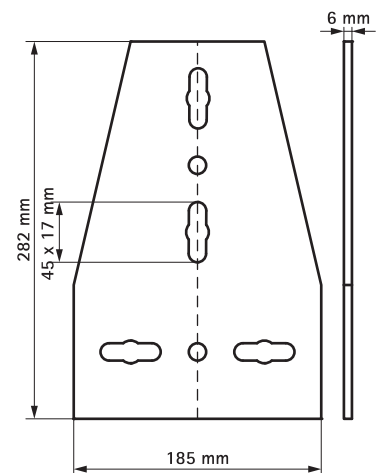
for perpendicular connecting profiles



Features and Benefits

- for perpendicular connection to Heavy Rail Profiles
- to aid fabrication with Heavy Rail Profiles
- easy fitting due to rounded edges
- material: steel
- hot dip galvanized

Part No.	Type	Pack 1
6589901	IPTC	1



Complementary

- 318 Maxx Heavy Rail Profile
- 321 Maxx Hammerfix

Maxx End Cap

finishing of rail

(H2 05 40)



Features and Benefits

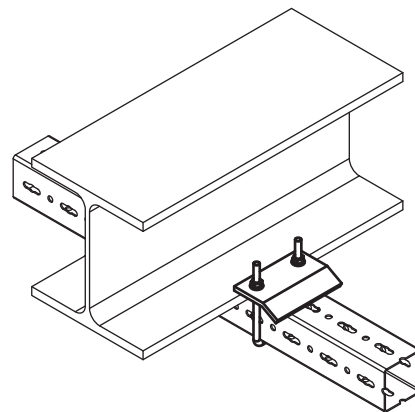
- for clean finishing of rail end, covers all burrs
- material: PE (polyethylene)
- easy to fix securely
- suitable for Maxx Profile IP100 and IP120

Part No.	Type	Pack 1
6566810	IPEC100	1
6566812	IPEC120	1

Maxx Beam Clamp

for fixing profiles to beams

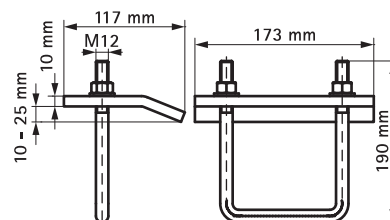
(H2 05 45)



Features and Benefits

- for a solid fixing to steel construction
- material: steel
- without the need for welding or drilling
- hot dip galvanized
- always use 2 beam clamps per fixing

Part No.	Type	Pack 1
6589100	IPBC100	1



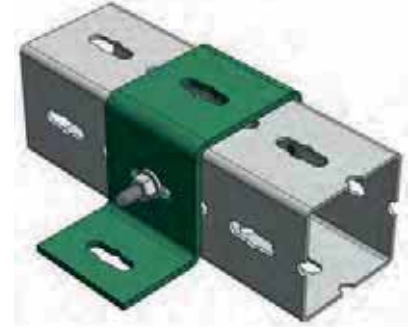
Complementary

318 Maxx Heavy Rail Profile

Maxx Cross Connector

for cross connecting profiles

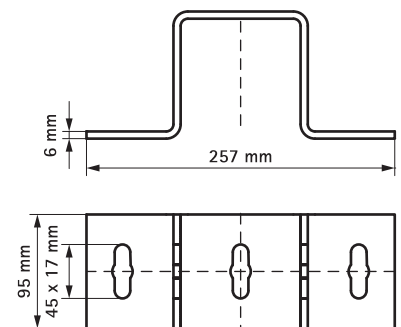
(H2 05 50)



Features and Benefits

- to aid fabrication with Heavy Rail Profiles
- material: steel
- hot dip galvanized

Part No.	Type	Pack 1
6589101	IPCC100	1



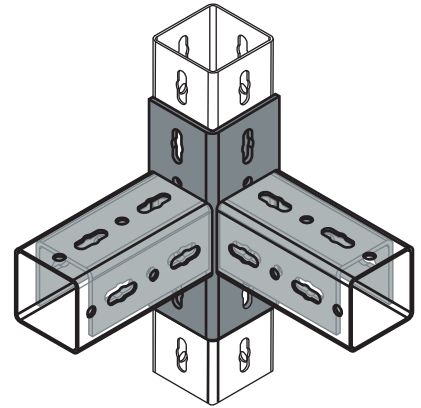
Complementary

- 318 Maxx Heavy Rail Profile
- 321 Maxx Hammerfix

Maxx 3D Coupler

for connecting profiles in 3 directions

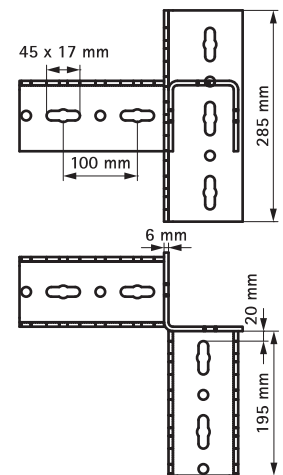
(H2 05 55)



Features and Benefits

- to aid fabrication with Heavy Rail Profiles
- material: steel
- hot dip galvanized

Part No.	Type	Pack 1
6589900	IPCS100	1



Complementary

- 318 Maxx Heavy Rail Profile
- 321 Maxx Hammerfix

Maxx U-Shape Bracket (hdg)

(H2 05 17)

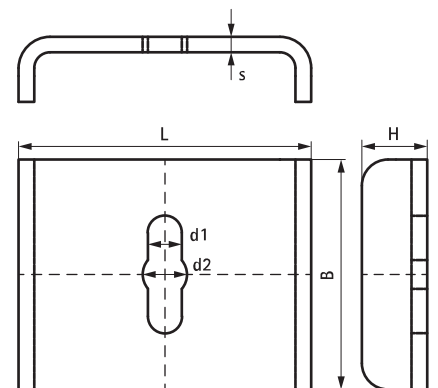
to make Maxx rail fabrications



Features and Benefits

- U-shaped for extra stability
- to distribute tightening force when using Maxx Bolt Set
- U-shaped geometry secures from turning
- material: steel
- hot dip galvanized

Part No.	L	B (mm)	H (mm)	s (mm)	d1 (mm)	d2 (mm)
6589102	119 mm	88	25	8	45 x 13	Ø 17



Complementary

- 318 Maxx Heavy Rail Profile
- 322 Maxx Bolt Set (ZTD)

Use of Maxx Profiles Loading Tables

Calculation method

The published safe working loads are based on tests with perforated (slotted) profile. For non perforated profile the safe working loads can be taken as 20 % higher.

Loads are calculated taking into consideration a maximum deflection (f) of length $1/200 \times L$ and a maximum bending stress of 160 N/mm^2 .

1 N (Newton) = 0,102 kg

1 kg = 9,8 N (Newton)

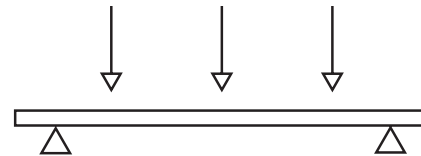


Fixing of profiles to walls or ceilings

The strength of the anchoring of the profile has not been taken into consideration. The installer must verify that the bolts and wall plugs used are suitable for the maximum permitted loading of the profile.

Reading the profile loading tables

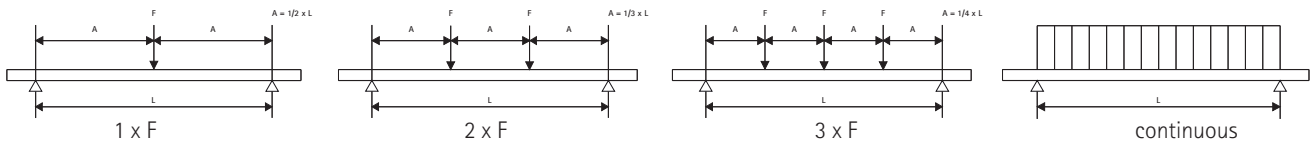
The stated values are only valid for the fixing profile. The maximum safe load of all other construction parts have to be verified. The stated maximum safe load is calculated for a static load at free bending support.



Special conditions

In case of doubt or for special conditions not stated in the loading tables, please do not hesitate to contact our technical department for their advice.

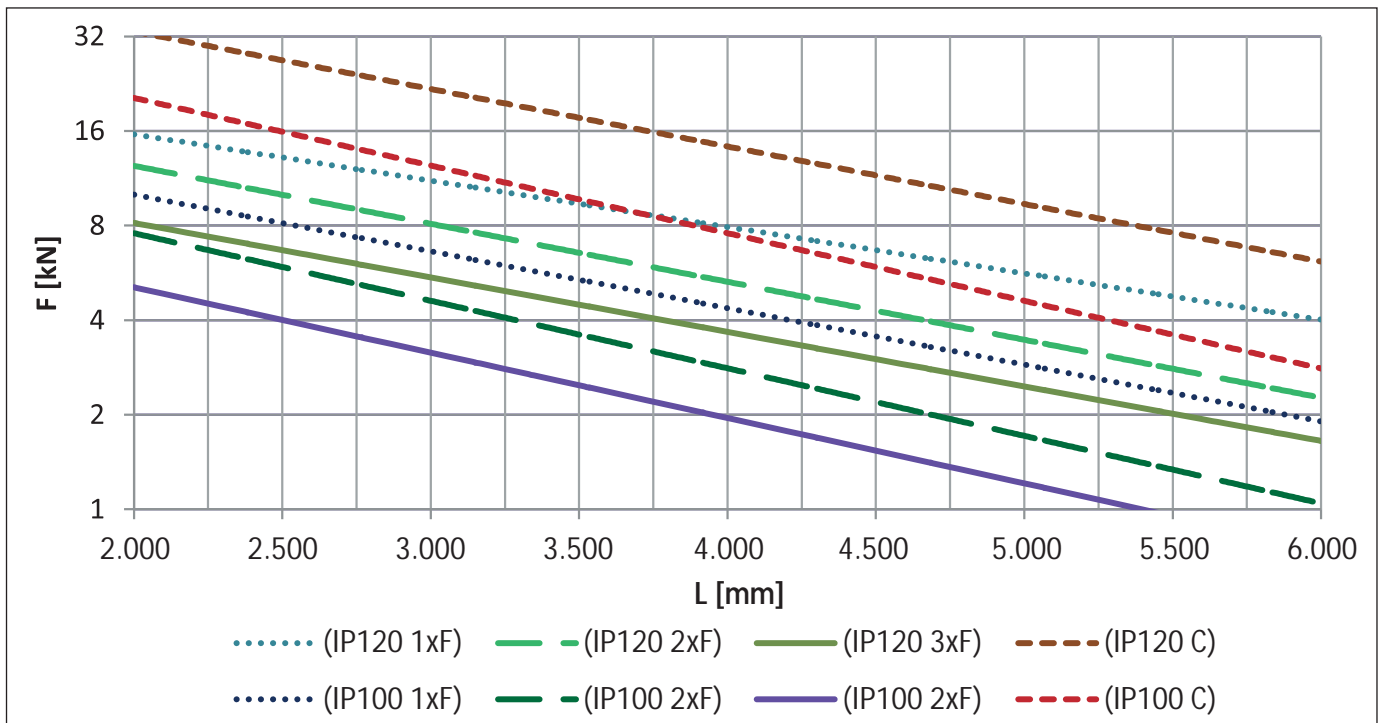
Maxx Profiles Load Tables



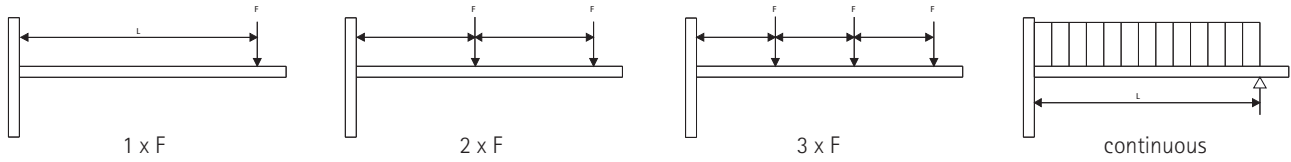
L (mm)	IP120	IP120	IP120	IP120	IP100	IP100	IP100	IP100
	1 x F	2 x F	3 x F	continuous	1 x F	2 x F	3 x F	continuous
2,000	16.30	12.20	8.15	32.60	9.90	7.40	4.95	19.80
2,250	14.45	10.85	7.20	28.91	8.75	6.55	4.35	17.55
2,500	13.00	9.75	6.50	26.00	7.85	5.90	3.90	15.75
2,750	11.75	8.80	5.85	23.51	7.15	5.35	3.55	14.30
3,000	10.75	8.05	5.35	21.45	6.50	4.90	3.25	13.05
3,250	9.90	7.40	4.95	19.83	6.00	4.25	3.00	11.54
3,500	9.15	6.85	4.55	18.38	5.55	3.65	2.60	9.98
3,750	8.50	6.30	4.25	17.06	5.15	3.15	2.25	8.63
4,000	7.95	5.50	3.95	15.00	4.70	2.75	1.95	7.40
4,250	7.45	4.85	3.45	13.18	4.10	2.40	1.70	6.59
4,500	7.00	4.30	3.05	11.70	3.65	2.10	1.50	5.85
4,750	6.50	3.80	2.75	10.45	3.20	1.90	1.35	4.99
5,000	5.80	3.40	2.45	9.25	2.85	1.65	1.20	4.50
5,250	5.25	3.05	2.20	8.40	2.55	1.50	1.05	3.94
5,500	4.70	2.75	1.95	7.43	2.30	1.35	0.95	3.58
5,750	4.25	2.50	1.80	6.61	2.05	1.20	0.85	3.16
6,000	3.85	2.25	1.60	6.00	1.85	1.10	0.75	3.00

Max. allowed load in kN. per suspension point (F).

The stated values are only valid for the fixing profile.
The maximum safe load of all other construction parts have to be verified.



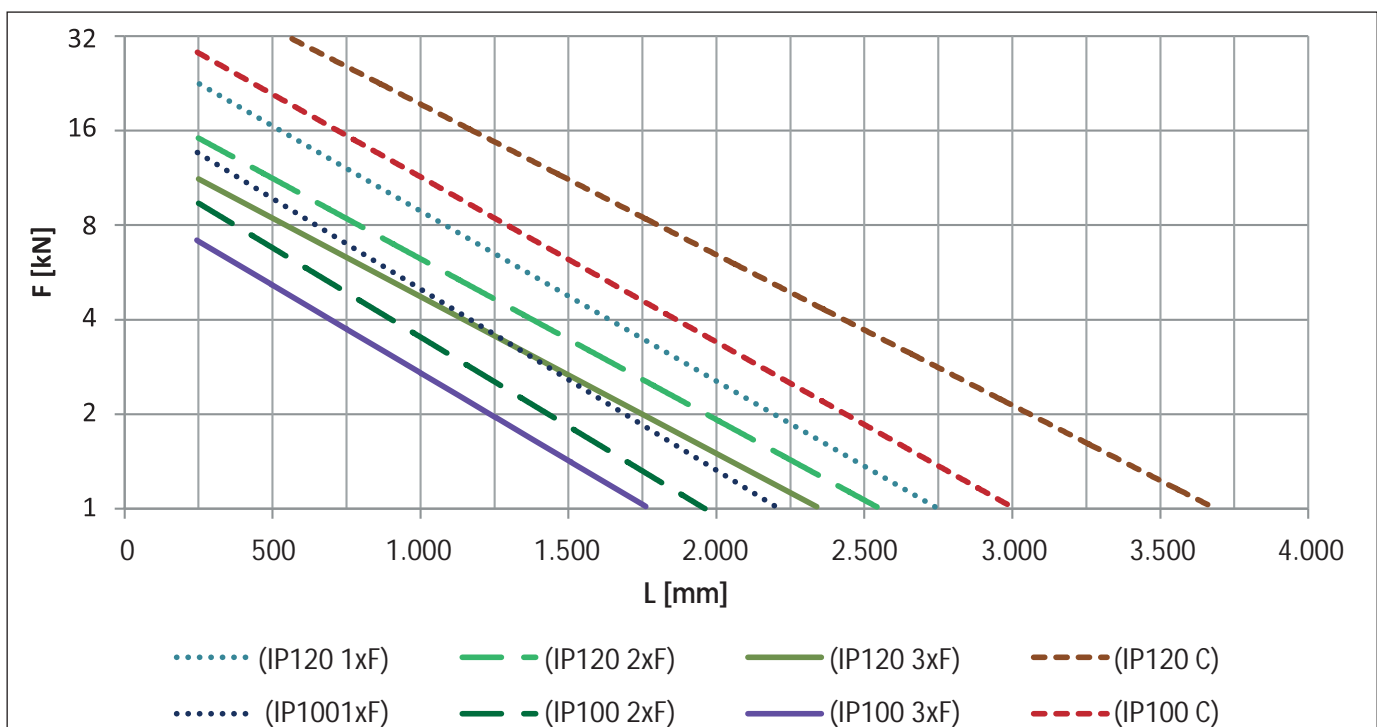
Maxx Cantilever Arms Load Tables



L (mm)	IP120	IP120	IP120	IP120	IP100	IP100	IP100	IP100
	1 x F	2 x F	3 x F	continuous	1 x F	2 x F	3 x F	continuous
250	32.85	21.90	16.40	65.73	19.95	13.30	9.95	39.91
500	16.40	10.90	8.20	32.80	9.95	6.60	4.95	19.93
750	10.90	7.25	5.45	21.83	6.60	4.40	3.30	13.24
1,000	8.15	5.40	4.05	16.30	4.85	3.30	2.45	9.90
1,250	6.15	4.30	3.25	13.00	3.10	2.35	1.85	7.87
1,500	4.25	3.20	2.55	10.73	2.10	1.60	1.25	5.70
1,750	3.05	2.35	1.85	8.22	1.55	1.15	0.90	4.11
2,000	2.30	1.75	1.40	6.20	1.15	0.85	0.70	3.10
2,250	1.80	1.35	1.05	4.84	0.90	0.65	0.50	2.36
2,500	1.40	1.10	0.85	3.75	0.70	0.50	0.40	1.88
2,750	1.15	0.85	0.65	3.03	0.55	0.40	0.30	1.38
3,000	0.90	0.70	0.55	2.40	0.45	0.30	0.25	1.20

Max. allowed load in kN. per suspension point (F).

The stated values are only valid for the cantilever arm.
The maximum safe load of all other construction parts have to be verified.



| BIS Rooftop + Solar Fixings



BIS Support System for Rooftop Installations

BIS Yeti® 480 Support System (BUP1000)	334
BIS Yeti® Ballast Block	335
BIS Yeti® 335 Support System (BUP1000)	336
BIS Yeti® 335 Hinge (BUP1000)	337
BIS Yeti® 335 Frame Set	338
BIS Yeti® 130 Support System	339
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Fastening Set for Grids	343
BIS Ursus Foot Support System (BUP1000)	344



BIS Thermal Panel Fixings

BIS Solar Fixing Thermal Collector (BUP1000)	345
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BIS Yeti® 480 Support System (BUP1000)

for Rooftop Installations

(10405)

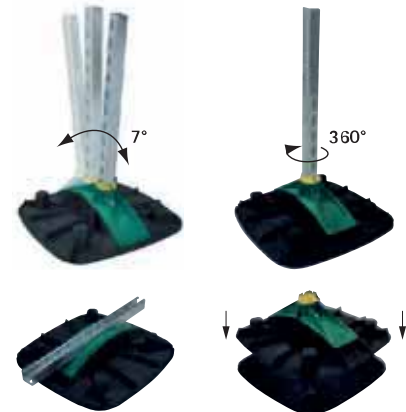


Features and Benefits

- modular supporting system for climate installations, solar panels, walkways, pipe work, cable ways, etc.
- for flat and low pitched roofs
- adjustable up to 7° to compensate roof pitch
- 360° rotatable insert for BIS RapidStrut® 41x41 or BIS RapidStrut® DS 5 (41x52 mm)
- with non-slip anti-vibration mat
- with optional stackable ballast block for increased weight / stability
- noise reduction according to DIN EN ISO 10140-1 and DIN EN ISO 10140-3 up to 31 dB(A)
- mouldings made of WPC, a composite of recycled plastic and wood fibre
- resistant to UV and chemical influences
- BIS Yeti 480 H-set consisting of:
 - 2 x BIS Yeti® 480 vertical, including non-slip anti-vibration mat (made of rubber)
 - 4 x BIS Strut Connector 90°
 - 8 x hexagon head bolts and slide nuts



SG Bauakustik
Nr. 1762-001-19



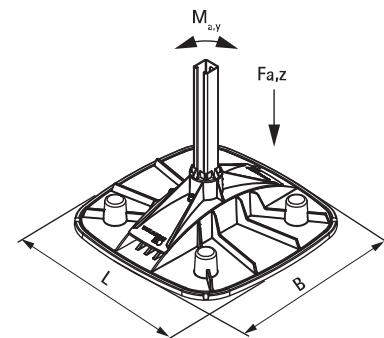
Part No.	Model	L	B	F _{a,z}	F _{a,z 2}	M _{a,y}	Pack 1	Pack 2
			(mm)	(N)	(N)	(Nm)		
67685001	Vertical	480 mm	480	20,000*	30,000**	200.0	1	25
67685101	Horizontal	480 mm	480	20,000*	30,000**	200.0	1	30
67685301	H-set (without Strut Rail)	480 mm	480	20,000*	30,000**	200.0	1	-

* = Maximum allowed load for Strut 41x41x2.5.

** = Maximum allowed load for Strut 41x51x2.0 - DS5.

For a detailed calculation and for support how to spread the load please contact Walraven Technical Support.

In cases where a foot is used in roof applications, the installer is obliged to verify maximum load capacity of roof before installation.



Complementary

335 BIS Yeti® Ballast Block

BIS Yeti[®] Ballast Block

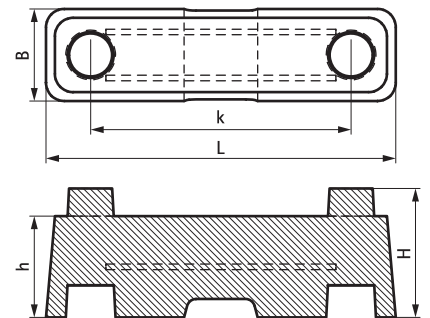
(10407)



Features and Benefits

- Ballast Block for BIS Yeti[®] 480 Support System
 - re-inforced concrete ballast block for outside use
 - easy to install, without tools
 - stackable due to special design
 - increases stability against wind loads
- material: reinforced concrete

Part No.	L	B	H	h	k	Weight	Pack 1	Pack 2
		(mm)	(mm)	(mm)	(mm)	(kg)		
67685401	380 mm	100	140	110	283	8	1	100



Complementary

334 BIS Yeti[®] 480 Support System (BUP1000)

BIS Yeti[®] 335 Support System (BUP1000)

(104 10)

for Rooftop Installations



Features and Benefits

- modular supporting system for climate installations, solar panels, walkways, pipe work, cable ways, etc.
- for flat roofs
- for horizontal and vertical applications
- 360° rotatable insert for BIS RapidStrut[®] 41x41 or BIS RapidStrut[®] DS 5 (41x52 mm)
- with non-slip anti-vibration mat
- noise reduction according to DIN EN ISO 10140-1 and DIN EN ISO 10140-3 up to 31 dB(A)
- mouldings made of WPC, a composite of recycled plastic and wood fibre
- resistant to UV and chemical influences
- BIS Yeti 335 H-set consisting of:
 - 2 x BIS Yeti[®] 335 including non-slip anti-vibration mat (made of rubber)
 - 4 x BIS Strut Connector 90°
 - 8 x hexagon head bolts and slide nuts



SG Bauakustik
Nr. 1762-001-19

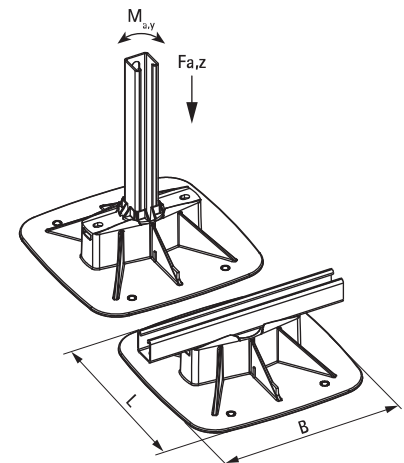
Part No.	Model	L	B	F _{a,z}	F _{a,z 2}	M _{a,y}	Pack 1	Pack 2
			(mm)	(N)	(N)	(Nm)		
67685201	Vertical	335 mm	335	20,000*	30,000**	200.0	1	75
67685302	H-set (without Strut Rail)	335 mm	335	20,000*	30,000**	200.0	1	27

* = Maximum allowed load for Strut 41x41x2.5.

** = Maximum allowed load for Strut 41x51x2.0 - DS5.

For a detailed calculation and for support how to spread the load please contact Walraven Technical Support.

In cases where a foot is used in roof applications, the installer is obliged to verify maximum load capacity of roof before installation.



Alternative

339 BIS Yeti[®] 130 Support System

BIS Yeti[®] 335 Hinge (BUP1000)

(104 12)

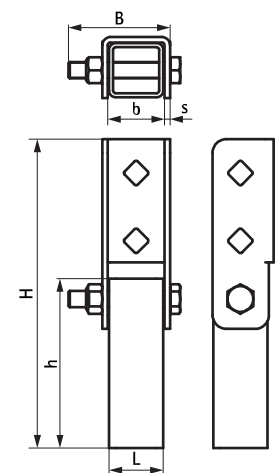
for Rooftop Installations



Features and Benefits

- adjustable connector for rails
- fully flexible in angle and direction due to rotatable insert in Yeti 335
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect[®] 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	L	B	H	h	b	s
		(mm)	(mm)	(mm)	(mm)	(mm)
67685414	40	70	228	125	42	4



Complementary

- 338 BIS Yeti[®] 335 Frame Set
- 336 BIS Yeti[®] 335 Support System (BUP1000)
- 225 BIS RapidStrut[®] Fixing Rail (BUP1000)

BIS Yeti® 335 Frame Set

(10415)

for Rooftop Installations



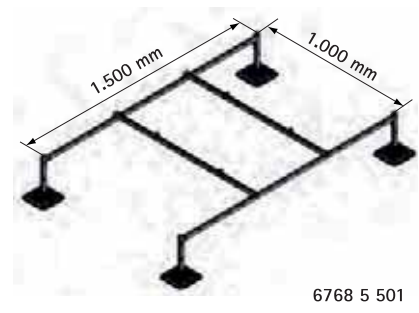
6768 5 501



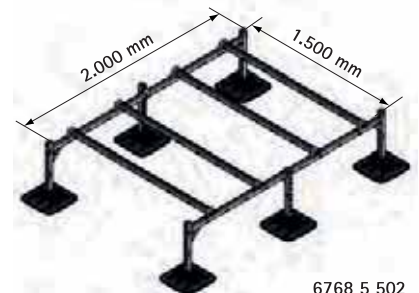
6768 5 502

Features and Benefits

- complete set for supporting installation appliances on flat roofs
- suitable for wide range of commonly used airco's, ventilation units, etc.
- with non-slip anti-vibration mat
- predefined load capacity: calculation not necessary
- device can't be heavier than 150 kg
- top of device can't be higher than 1.2 m over the roof level
- mouldings made of WPC, a composite of recycled plastic and wood fibre
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- sets meet the requirements of DIN 18531-1
- Part No. 6768 5 501: consisting of:
 - 4 x BIS Yeti® 335 including non-slip anti-vibration mat (made of rubber)
 - 2 x 1.5 m BIS RapidStrut® Fixing Rail DS 5 (BUP1000), pre-assembled with vertical legs of 0.5 m on both sides, ready to just plug in the BIS Yeti® 335
 - 2 x 1 m BIS RapidStrut® Fixing Rail DS 5 (BUP1000), as a cross-connection to the frame. Connecting elements are already pre-installed on the frame
 - all connecting elements, rail end caps and bolts are included and most are pre-assembled
- Part No. 6768 5 502: consisting of:
 - 6 x BIS Yeti® 335 including non-slip anti-vibration mat (made of rubber)
 - 2 x 2 m and 4 x 1.5 m pre-cutted BIS RapidStrut® Fixing Rail DS 5 (BUP1000), for use as longitudinal and transverse rails
 - 6 x 0.5 m BIS RapidStrut® Fixing Rail DS 5 (BUP1000), for use as vertical legs with pre-assembled connecting elements
 - all connecting elements, rail end caps and bolts are included and most are pre-assembled



6768 5 501



6768 5 502

Part No.	Model	Pack 1
67685501	BIS Yeti® 335 for 1 installation appliance	1
67685502	BIS Yeti® 335 for 2 installation appliances	1

*Before mounting, the roof load capacity has to be confirmed by a structural engineer.
If changes to the mounting parameters is necessary then please contact Walraven Technical Department.*

BIS Yeti® 130 Support System

for Light Rooftop Installations

(1 04 50)



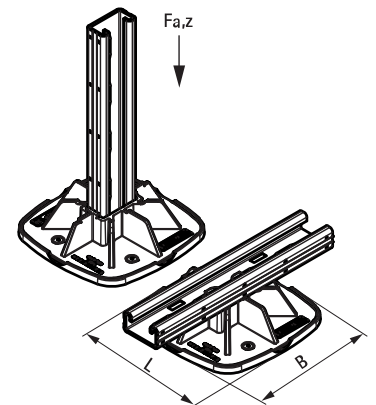
Features and Benefits

- modular supporting system for light rooftop installations
- flexible and cost-effective solution for pipes, cable-trays, air duct channels etc.
- for horizontal (with Strut 41x21x2.0 and 41x21x2.5) and vertical applications
- with non-slip anti-vibration mat
- with unique click-mechanism for quick and safe installation
- mouldings made of WPC, a composite of recycled plastic and wood fibre
- plastic components made from 100% recycled material
- resistant to UV and chemical influences

Part No.	Model	L	B (mm)	For Rail	F _{a,z} (N)	Pack 1
67685130	Including non-slip anti-vibration mat	130 mm	130	Strut 41x21	2,500	10

For a detailed calculation and for support how to spread the load please contact Walraven Technical Support.

In cases where a foot is used in roof applications, the installer is obliged to verify maximum load capacity of roof before installation.



BIS Yeti® Triplex Separation Layer

(10455)

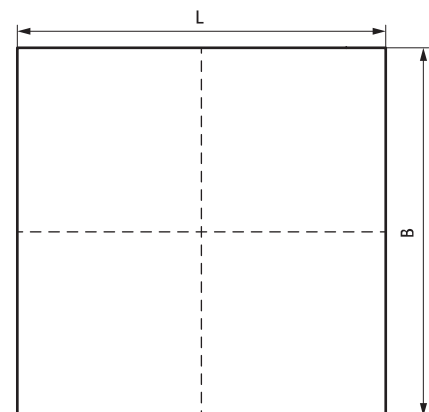
for Rooftop Installations



Features and Benefits

- 3-layer release and protection layer for use between BIS Yeti® mounting foot and PVC roof
- size 350x350 by 1/4 pitch also suitable for BIS Yeti® 130
- high coefficient of static friction (between 0.400 and 0.500 depending on roof pitch and dry / wet condition)
- use on both sides possible
- material: HDPE film (black), aluminum foil, PET film (transparent)

Part No.	L	B (mm)	Pack 1
67685403	350 mm	350	10
67685405	500 mm	500	10

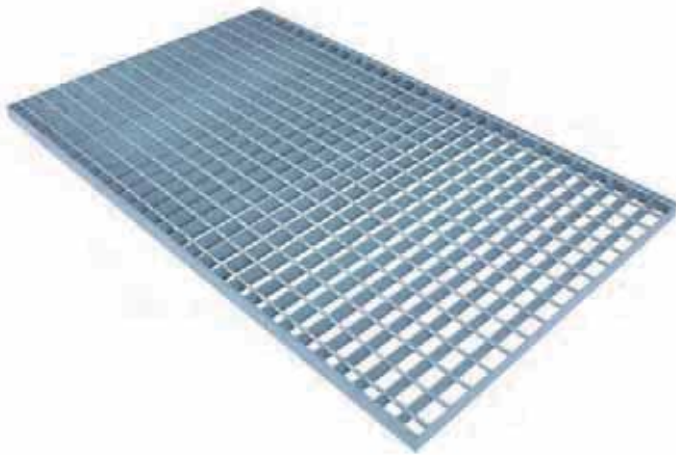


Complementary

- 334 BIS Yeti® 480 Support System (BUP1000)
- 336 BIS Yeti® 335 Support System (BUP1000)
- 338 BIS Yeti® 335 Frame Set

BIS Yeti[®] Service Deck Grid

(10416)



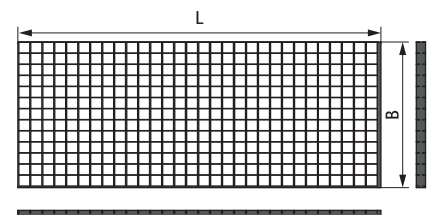
Features and Benefits

- complete range of gratings and stair treads to build service walkways
 - in combination with BIS Yeti[®] and BIS RapidStrut[®] a complete system for outside use
 - on request we offer engineered customized solutions as set
- material: steel
 - hot dip galvanized

Part No.	Model	L	B (mm)	Pack 1	
67695100	Grid SP (30x2)	500 mm	1,000	1	*
67696100	Grid SP (30x2)	600 mm	1,000	1	*
67698100	Grid SP (30x2)	800 mm	1,000	1	*
67691050	Grid SP (30x2)	1,000 mm	500	1	*
67691060	Grid SP (30x2)	1,000 mm	600	1	*
67691080	Grid SP (30x2)	1,000 mm	800	1	*
67691100	Grid SP (30x2)	1,000 mm	1,000	1	*
67691120	Grid RR (33x33)	1,000 mm	1,200	1	**
67691150	Grid RR (33x33)	1,000 mm	1,500	1	**
67692100	Grid SP (30x2)	1,200 mm	1,000	1	*
67695010	Grid SP (30x2)	1,500 mm	1,000	1	*
67695015	Grid RR (33x33)	1,500 mm	1,500	1	**

* L = flat steel direction; B = rod direction (Type SP)

** L = flat steel direction; B = flat steel direction (Type RR)



Complementary

- 342 BIS Yeti[®] Service Deck Step
- 343 Fastening Set for Grids
- 334 BIS Yeti[®] 480 Support System (BUP1000)

Complementary

- 223 BIS RapidStrut[®] Fixing Rail DS 5 (BUP1000)
- 225 BIS RapidStrut[®] Fixing Rail (BUP1000)

BIS Yeti[®] Service Deck Step

(104 17)

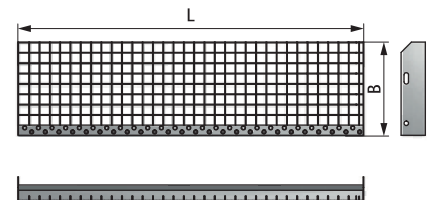


Features and Benefits

- complete range of gratings and stair treads to build service walkways
- in combination with BIS Yeti[®] and BIS RapidStrut[®] a complete system for outside use
- on request we offer engineered customized solutions as set
- material: steel
- hot dip galvanized

Part No.	Model	L	B (mm)	Pack 1
67690060	Step TSP 3-30	600 mm	240	1
67690080	Step TSP 3-30	800 mm	240	1
67690100	Step TSP 3-30	1,000 mm	240	1
67690130	Step TSP 3-30	1,000 mm	305	1

L = flat steel direction; B = rod direction (Type TSP)



Complementary

- 341 BIS Yeti[®] Service Deck Grid
- 343 Fastening Set for Grids
- 334 BIS Yeti[®] 480 Support System (BUP1000)

Complementary

- 223 BIS RapidStrut[®] Fixing Rail DS 5 (BUP1000)
- 225 BIS RapidStrut[®] Fixing Rail (BUP1000)

Fastening Set for Grids

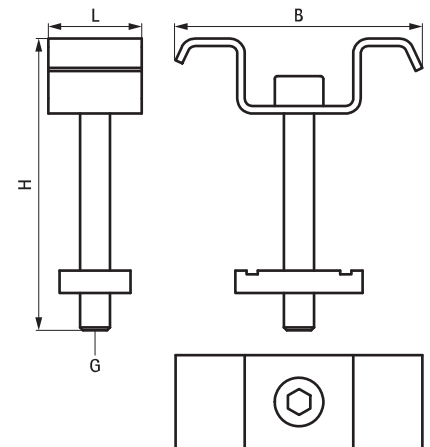
(104 18)



Features and Benefits

- set contains 4 top plates, 4 screws and 4 hot dip galvanized slidenuts
- W-shaped top plate for optimal fit to grids and flat top surface
- material: steel

Part No.	G	L	B (mm)	H (mm)	Set	Pack 1
67699000	M8	21 mm	60	68	4 pcs.	1



Complementary

- 341 BIS Yeti® Service Deck Grid
- 342 BIS Yeti® Service Deck Step

BIS Ursus Foot Support System (BUP1000)

(1 04 20)

for Rooftop Installations



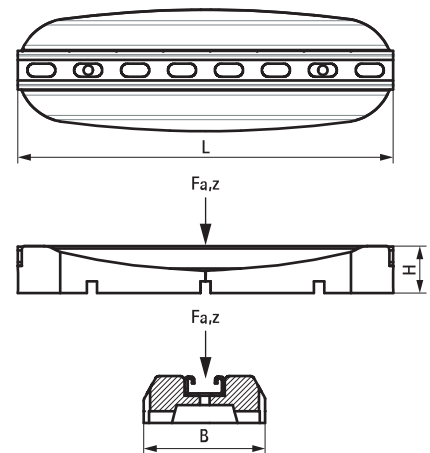
Features and Benefits

- for supporting small pipework systems, ductwork runs and cable trays
- to support climate installations, walkways on flat roofs, etc.
- does not penetrate the waterproof membrane
- material: vulcanized rubber, black; Strut Rail made of steel 1.0242
- UV resistant
- Strut Rail: surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Model	L	B (mm)	H (mm)	F _{a,z} (N)	Pack 1
67687250	Horizontal, including rail	250 mm	130	50	1,000	1
67687400	Horizontal, including rail	400 mm	130	50	2,000	1
67687601	Horizontal, including rail	600 mm	200	50	3,000	1

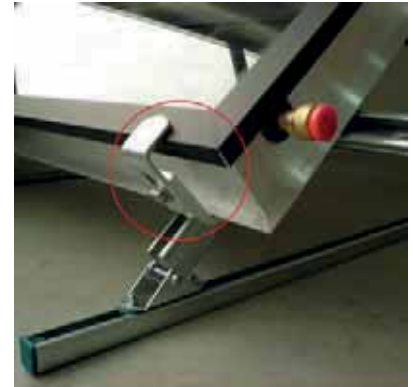
For a detailed calculation and for support how to spread the load please contact Walraven Technical Support.

In cases where a foot is used in roof applications, the installer is obliged to verify maximum load capacity of roof before installation.



BIS Solar Fixing Thermal Collector (BUP1000)

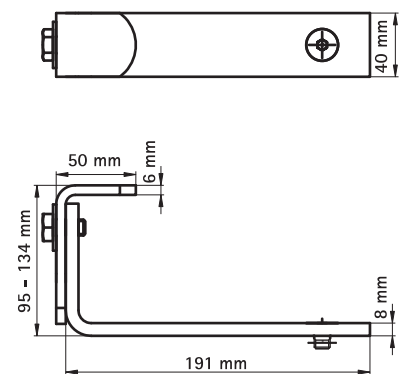
(1 12 10)



Features and Benefits

- to fix thermal solar collectors to the building
- quick installation
- suitable for solar collectors in thickness 80 - 110 mm
- material: steel 1.0037; bolts made of stainless steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Pack 1
7900000	10



J BIS Electrical Fixings



Britclips® – Beam Clips

Britclips® Tiger	352
Britclips® FC	353
Britclips® FC TB	354
Britclips® FC ICC	355
Britclips® FC M6 x 9	356
Britclips® FCHR M6 x 11	357
Britclips® FCR M6	358
Britclips® FC PD	359
Britclips® FC ICT	360
Britclips® FC TR	361



Britclips® – Universal Beam Clips

Britclips® FU	362
Britclips® FU M6 x 9	363
Britclips® FU ICC	364



Britclips® – Screw-on Beam Clamps

Britclips® SB	365
Britclips® SB CT	366
Britclips® SB ICCS	367



Britclips® – Push-on Clips

Britclips® GAM8	368
Britclips® PC Flange	369
Britclips® PC Flange	370
Britclips® PCD	371
Britclips® PCF	372
Britclips® PCM	373



Britclips® – Threaded Rod Clips

Britclips® TRC	374
Britclips® TR	375



Britclips® – Roof Deck Hangers

Britclips® RD	376
Britclips® RD ICT	377
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Britclips® – Acoustic Ceiling Clips

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Britclips® – Purlin Hangers

Britclips® PHZ	387
Britclips® PHV	388
Britclips® PHV ICT	389



Britclips® – Composite Deck Hangers

Britclips® WN	390
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Britclips® – Miscellaneous

Britclips® IC	391
BIS LYRE - LY	392
Britclips® RSWB	393

J BIS Electrical Fixings



BIS Cablefix

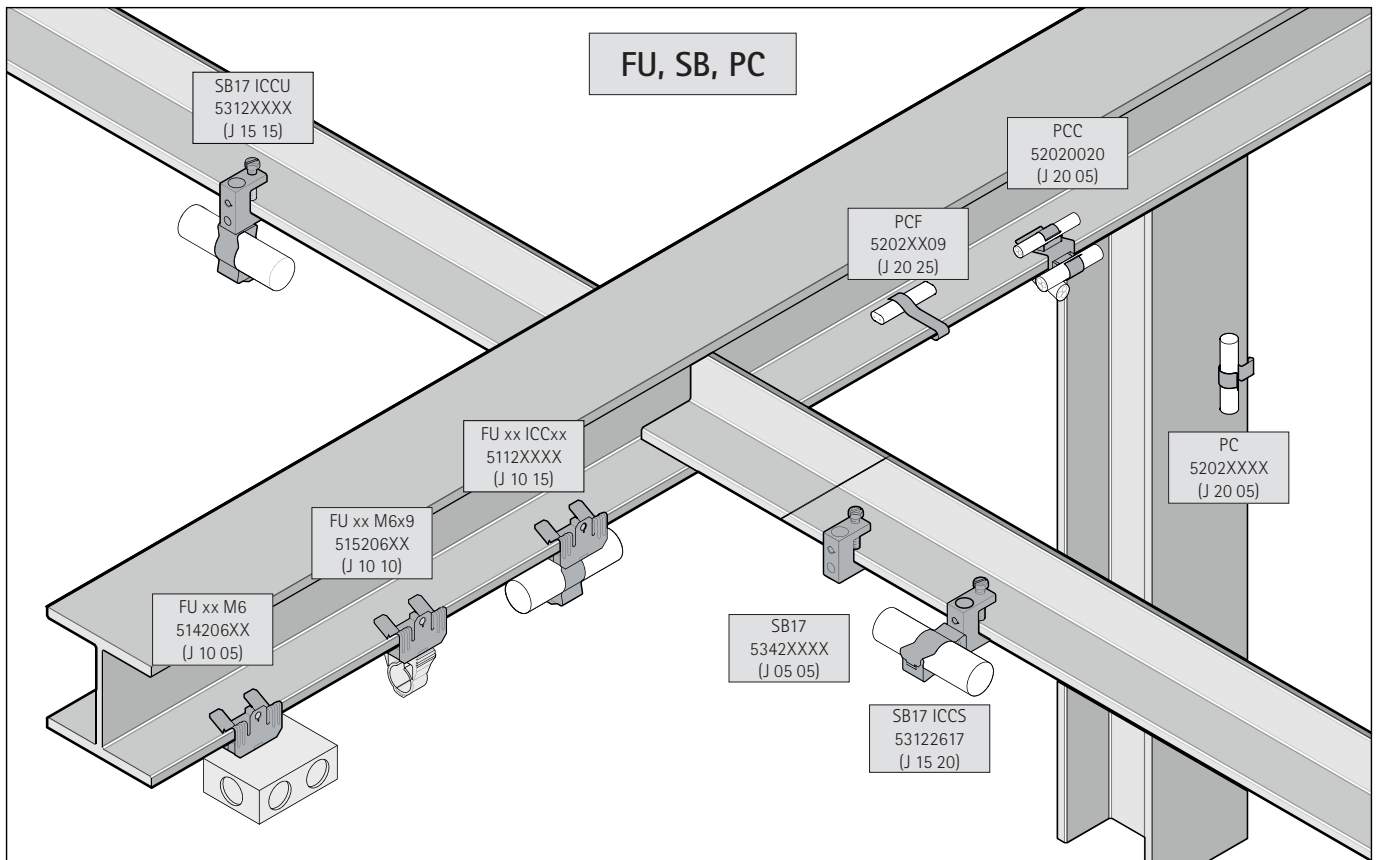
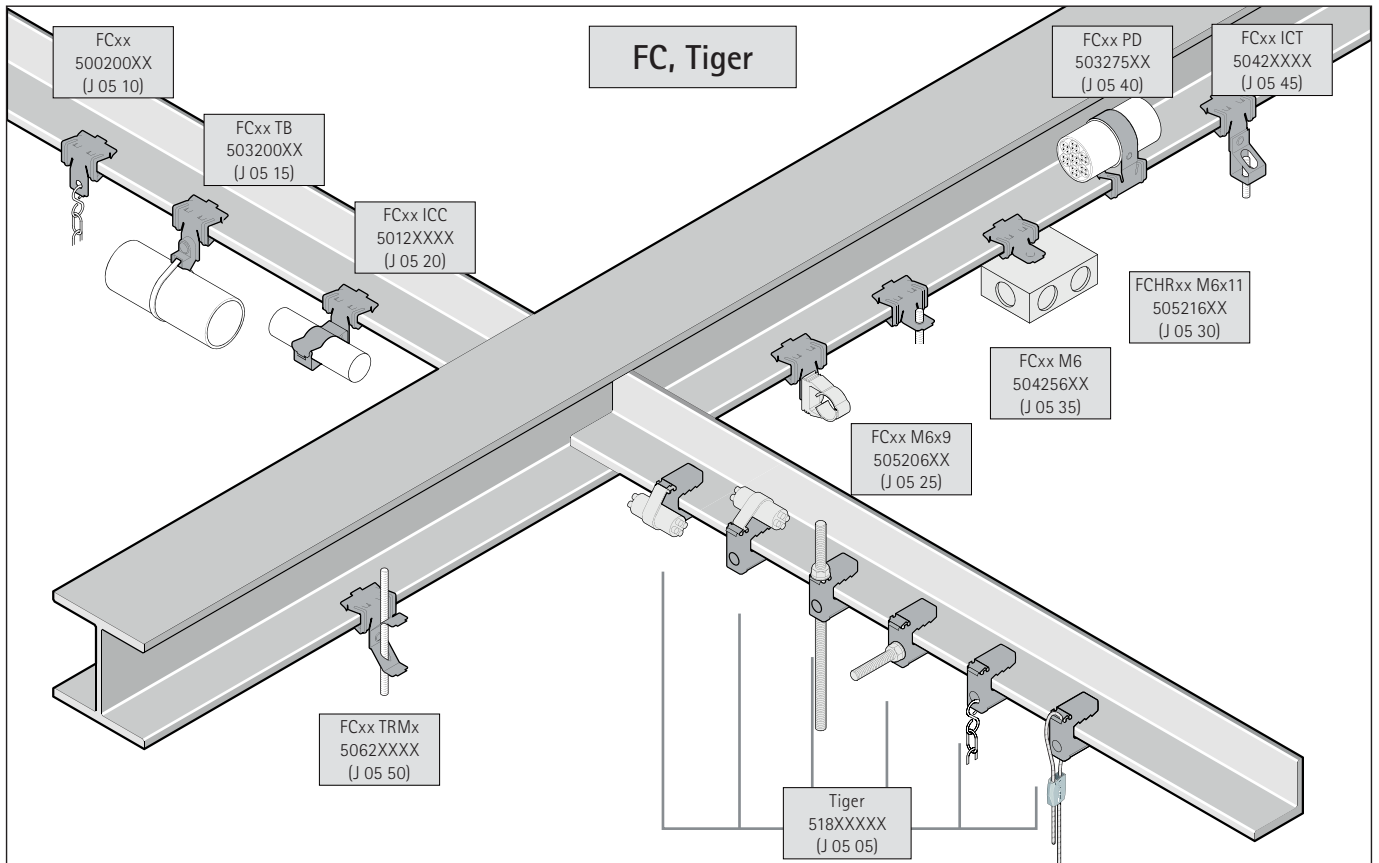
BIS Twistfix	394
BIS Cablefix	395



BIS STARLOCK, Cable Ties

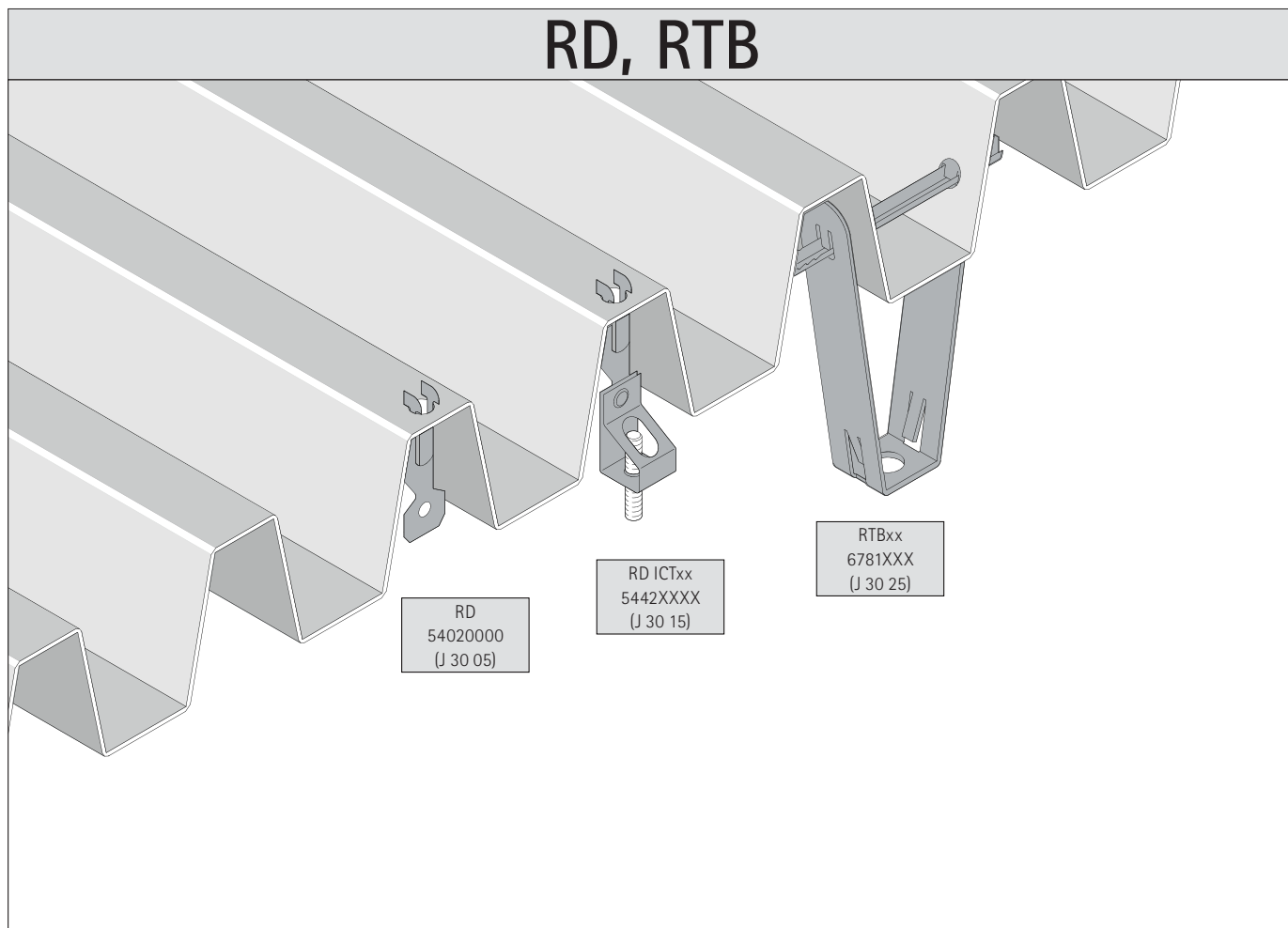
BIS STARLOCK I Cable Bind System	396
BIS STARLOCK II Cable Bind System	397
BIS STARLOCK Consumables	398
BIS STARLOCK Parts	399
BIS Cable Tie	400

Application Britclips® Tiger, FC, FU, SB, PC

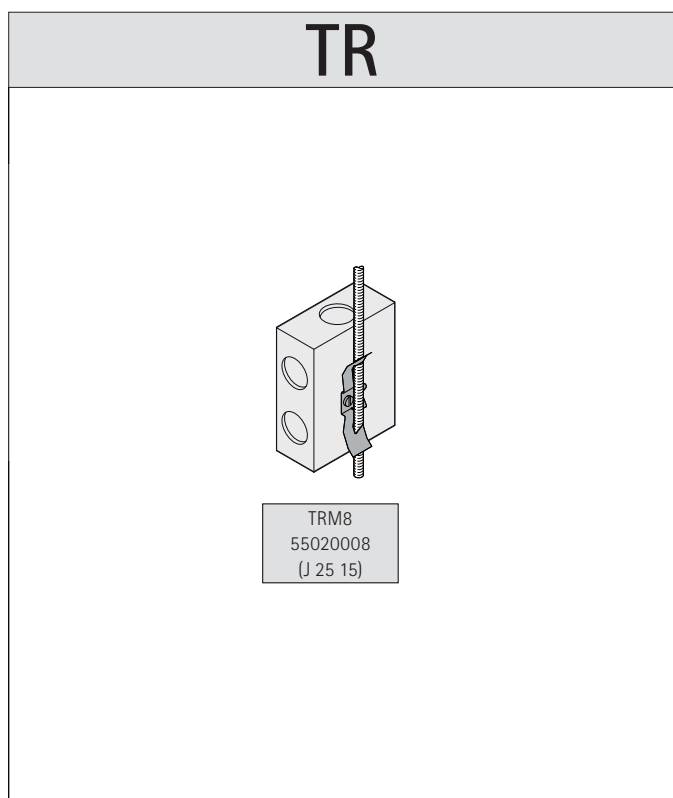


Application Britclips® RD, RTB, TR, CD

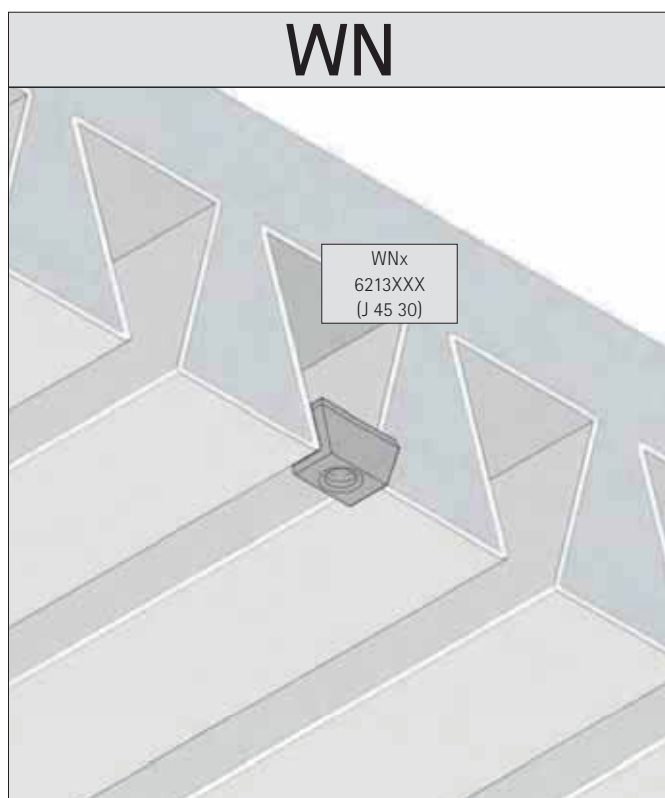
RD, RTB



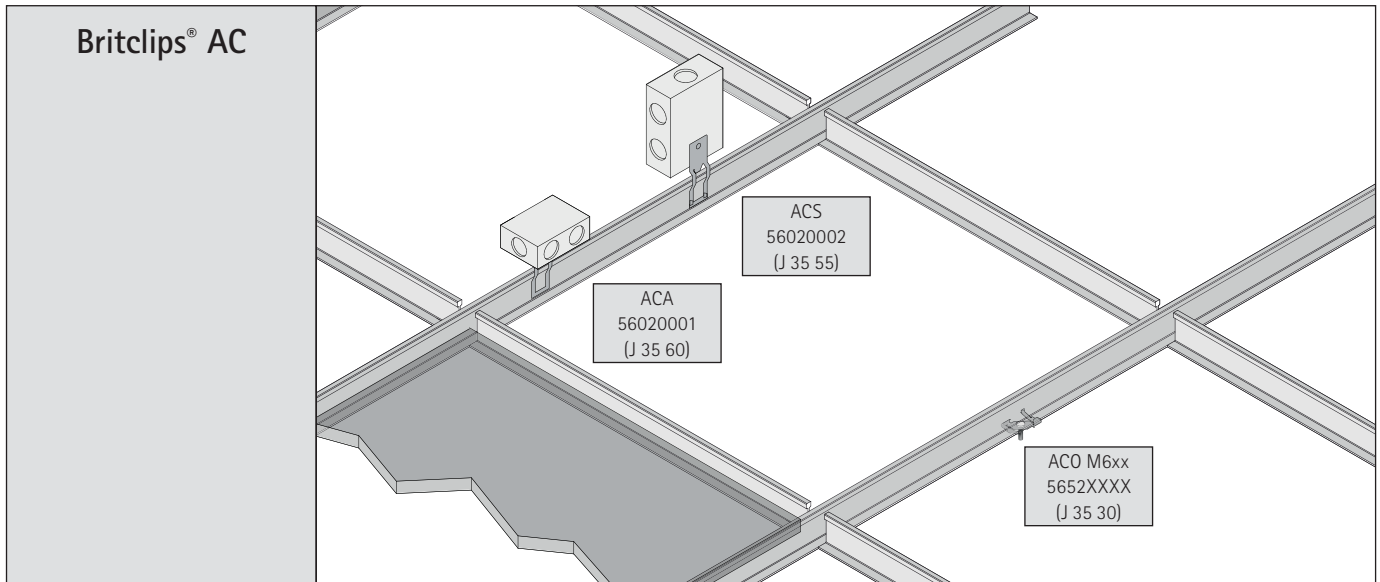
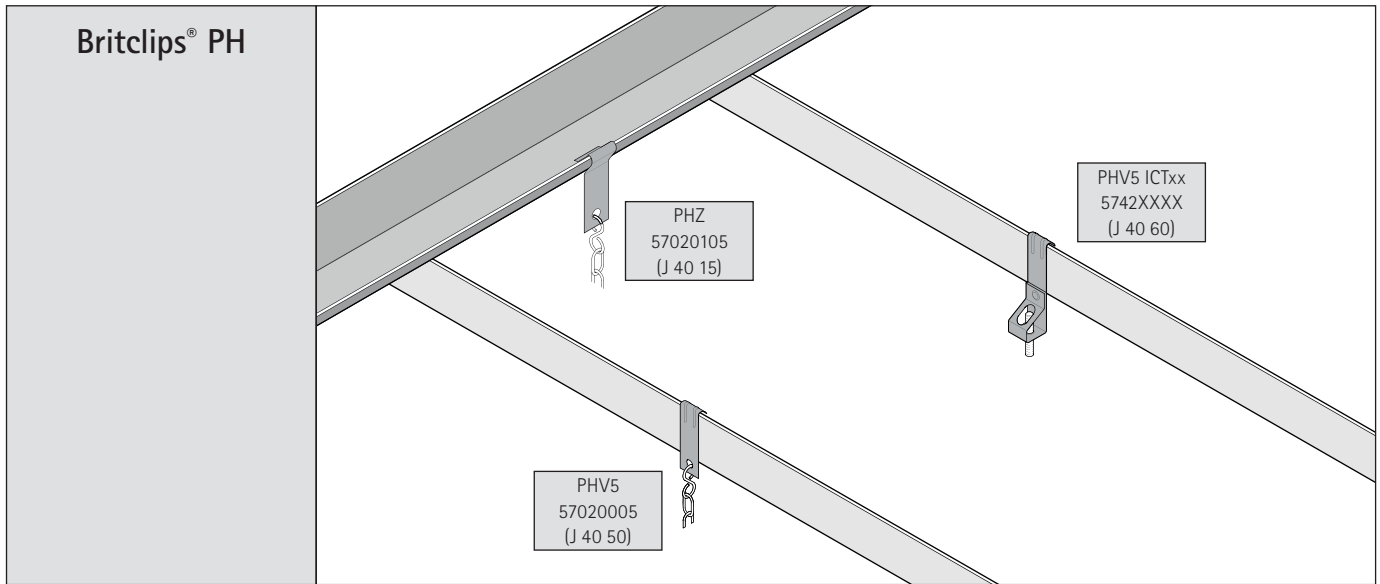
TR



WN



Application Britclips® PH, AC, PHV



Britclips® Tiger

for flange 2 - 24 mm

(J 05 05)



Features and Benefits

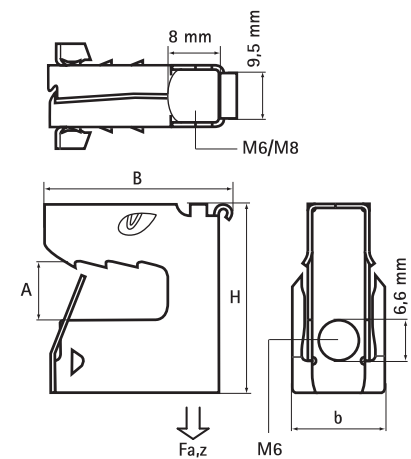
- multi-purpose clip
- for static loads, single use and non relocatable
- to hammer on or by hand; always the eye opposite to the load
- also suitable for outside use
- with hole to receive steel cable, S-Hook, cable tie, threaded rod (M6 or M8), etc.
- material: spring steel (type C67S according to EN10132)
- surface treatment: Magni coated, 2 layers (600 hours resistant to salt spray)
- incl. Britclips® ICP Thread plate, for wood screws from 4.0 to 4.5 mm (see J 50 07)

CSTB
le futur en construction

Report ED 05 / 022

Part No.	Code	A (mm)	B (mm)	H (mm)	d1 (mm)	d2 (mm)	F _{a,z} (N)	CSTB	Pack 1	Pack 2
51803208	Tiger 8R	2 - 8	30	30	8.0	6.6	1,200	CSTB	25	250
51803258	Tiger-B	2 - 8	30	30	8.0	6.6	1,200	CSTB	25	-
51805208	Tiger 8	2 - 8	30	30	8.0	6.6	1,200	CSTB	100	500
51803216	Tiger 16R	8 - 16	32	38	8.0	6.6	1,200	CSTB	25	250
51803256	Tiger-B	8 - 16	32	38	8.0	6.6	1,200	CSTB	25	-
51805216	Tiger 16	8 - 16	32	38	8.0	6.6	1,200	CSTB	100	500
51802224	Tiger 24R	16 - 24	42	48	8.0	6.6	1,200	CSTB	20	200
51802254	Tiger-B	16 - 24	42	48	8.0	6.6	1,200	CSTB	20	-
51804224	Tiger 24	16 - 24	42	48	8.0	6.6	1,200	CSTB	50	250

Articles with codes ending in a '-B' are packed in a plastic bag.
For use with static loads only.
Max. allowed load (F_{a,z}) with M6 or M8 threaded rod vertical (safety margin 1:4).
Externally tested by CSTB.



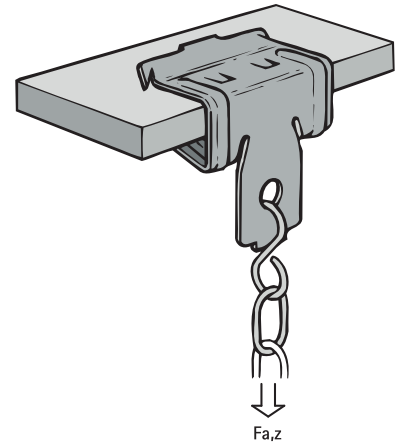
Complementary
466 BIS Stud Bolt
400 BIS Cable Tie
462 BIS S-Hook

Complementary
469 BIS Threaded Rod
460 BIS Chain (DIN 5685)

Britclips® FC

for flange 2 - 30 mm

(J 05 10)

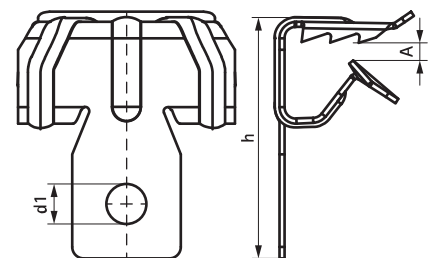


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- with fixing hole (Ø 7 mm) to fix S-hook, bolt/nut, etc.
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	h (mm)	d1 (mm)	F _{a,z} (N)	Pack 1
50020004	FC4	2 - 4	27	7	450	100
50020054	FC4-B	2 - 4	27	7	450	25
50020009	FC8	4 - 8	39	7	950	100
50020059	FC8-B	4 - 8	39	7	950	25
50020016	FC14	8 - 14	41	7	950	100
50020066	FC14-B	8 - 14	41	7	950	25
50020020	FC20	14 - 20	47	7	950	100
50020070	FC20-B	14 - 20	47	7	950	25
50020030	FC28	20 - 28	56	7	950	100

Articles with codes ending in a '-B' are packed in a plastic bag.
For use with static loads only.



Complementary

- 462 BIS S-Hook
- 460 BIS Chain (DIN 5685)

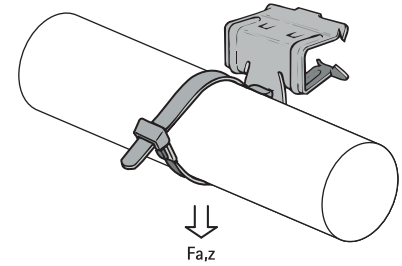
Alternative

- 352 Britclips® Tiger

Britclips® FC TB

for flange 2 - 30 mm

(J05 15)

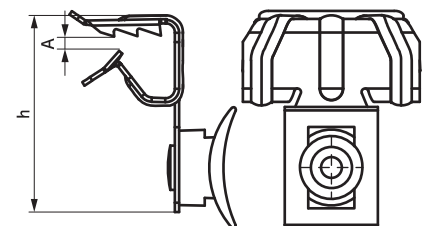


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- with saddle for cable tie attachment (up to width 7.6 mm)
- material: bracket made of spring steel (type C67S according to EN10132); tie-wrap clip of PA (polyamide), black
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	h (mm)	F _{a,z} (N)	Pack 1	Pack 2
50320004	FC4 TB	2 - 4	27	220	100	400
50320009	FC8 TB	4 - 8	39	220	100	400
50320016	FC14 TB	8 - 14	41	220	100	400
50320020	FC20 TB	14 - 20	47	220	100	400
50320030	FC28 TB	20 - 28	50	220	100	400
50320066	FC14 TB-B	8 - 14	41	220	25	250

For use with static loads only.



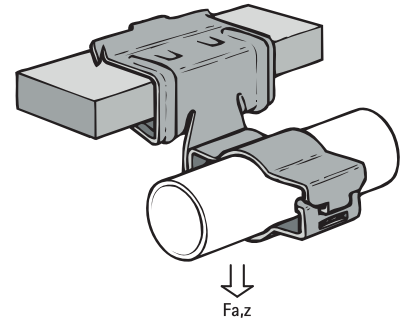
Complementary
400 BIS Cable Tie

Alternative
352 Britclips® Tiger

Britclips® FC ICC

for flange 2 - 30 mm

(J 05 20)

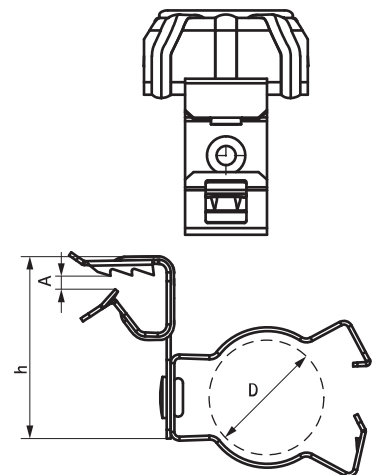


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- suitable for pipe or cable fixing horizontal, vertical or crossed with respect to the flange
- conduit clip swivels 360°
- conduit clip with jaw locking (use pliers to lock)
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	D (mm)	A (mm)	h (mm)	F _{a,z} (N)	Pack 1	Pack 2
50121709	FC8 ICC17	11 - 17	4 - 8	39	250	50	200
50121716	FC14 ICC17	11 - 17	8 - 14	41	250	50	200
50121720	FC20 ICC17	11 - 17	14 - 20	47	250	50	200
50121730	FC28 ICC17	11 - 17	20 - 28	56	250	50	200
50122404	FC4 ICC24	18 - 24	2 - 4	27	450	50	200
50122409	FC8 ICC24	18 - 24	4 - 8	39	450	50	200
50122416	FC14 ICC24	18 - 24	8 - 14	41	450	50	200
50122420	FC20 ICC24	18 - 24	14 - 20	47	450	50	200
50122430	FC28 ICC24	18 - 24	20 - 28	56	450	50	200
50122604	FC4 ICC26	22 - 26	2 - 4	27	450	50	200
50122609	FC8 ICC26	22 - 26	4 - 8	39	450	50	200
50122616	FC14 ICC26	22 - 26	8 - 14	41	450	50	200
50122620	FC20 ICC26	22 - 26	14 - 20	47	450	50	200
50122630	FC28 ICC26	22 - 26	20 - 28	56	450	50	200
50123209	FC8 ICC32	30 - 32	4 - 8	39	450	50	200
50123216	FC14 ICC32	30 - 32	8 - 14	41	450	50	200
50123220	FC20 ICC32	30 - 32	14 - 20	47	450	50	200
50123230	FC28 ICC32	30 - 32	20 - 28	56	450	50	200
50124009	FC8 ICC40	36 - 40	4 - 8	39	450	50	200
50124016	FC14 ICC40	36 - 40	8 - 14	41	450	50	200
50124020	FC20 ICC40	36 - 40	14 - 20	47	450	25	100
50124030	FC28 ICC40	36 - 40	20 - 28	56	450	50	200

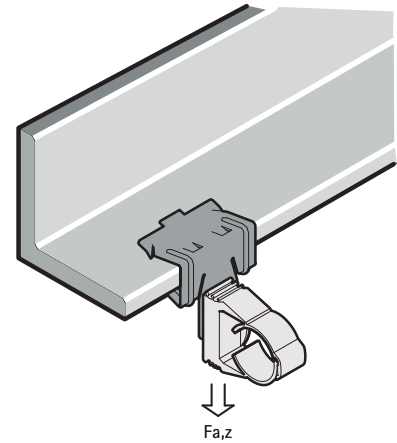
For use with static loads only.



Britclips® FC M6 x 9

for flange 2 - 30 mm

(J 05 25)

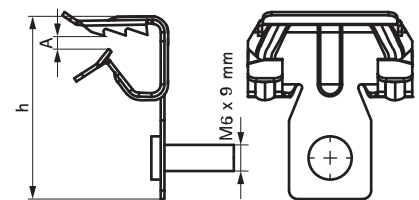


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- with stud bolt M6 x 9 mm for fixing of clamp, conduit junction box, etc.
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	h (mm)	F _{a,z} (N)	Pack 1	Pack 2
50520604	FC4 M6x9	2 - 4	27	450	100	500
50520609	FC8 M6x9	4 - 8	39	450	100	500
50520616	FC14 M6x9	8 - 14	41	450	100	400
50520620	FC20 M6x9	14 - 20	47	450	100	400
50520630	FC28 M6x9	20 - 28	50	450	100	400

For use with static loads only.



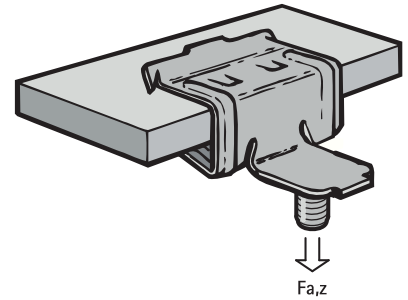
Complementary

85 BIS starQuick® Clamp - M6 (Grey)

Britclips® FCHR M6 x 11

for flange 5 - 16 mm

(J 05 30)

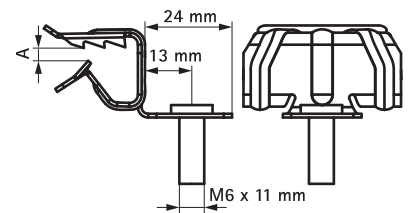


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- with stud bolt M6 x 11 mm for fixing of clamp, conduit junction box, etc.
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	F _{a,z} (N)	Pack 1	Pack 2
50521616	FCHR14 M6x11	8 - 14	200	100	400

For use with static loads only.



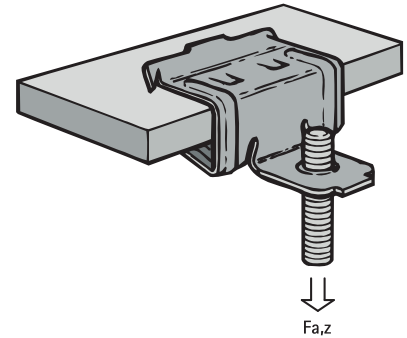
Complementary

81 BIS starQuick® Clamp (Grey)

Britclips® FCR M6

for flange 5 - 16 mm

(J 05 35)

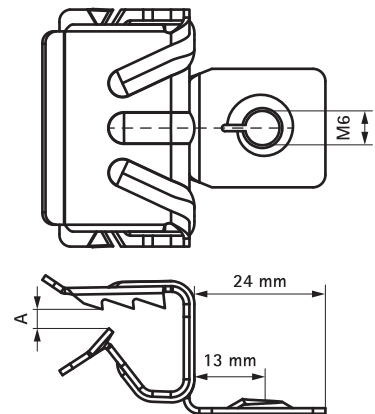


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- with female thread M6
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	R	F _{a,z} (N)	Pack 1	Pack 2
50425609	FCR8 M6	4 - 8	M6	200	100	400
50425616	FCR14 M6	8 - 14	M6	200	100	400

For use with static loads only.



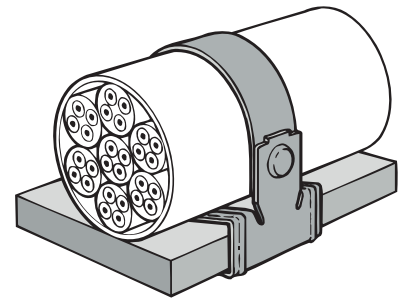
Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod

Britclips® FC PD

for flange 2 - 30 mm

(J 05 40)

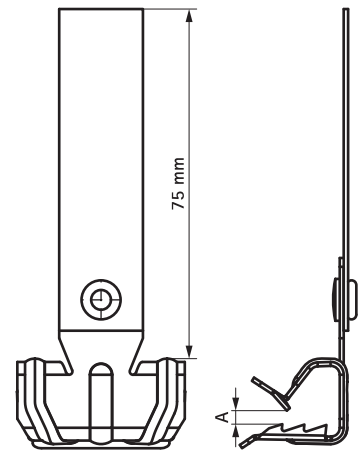


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- with flexible strip to support cables
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	Pack 1	Pack 2
50327504	FC4 PD	2 - 4	100	400
50327509	FC8 PD	4 - 8	100	400
50327516	FC14 PD	8 - 14	100	400
50327520	FC20 PD	14 - 20	100	400
50327530	FC28 PD	20 - 28	100	400
50327566	FC14 PD-B	8 - 14	25	250
50327570	FC20 PD-B	14 - 20	25	250

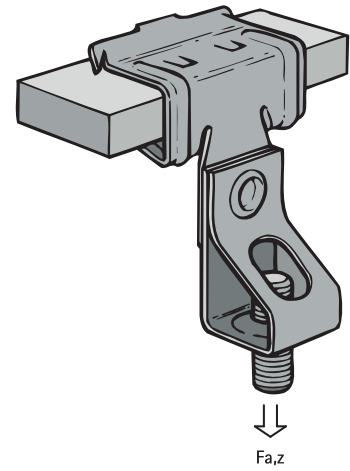
For use with static loads only.



Britclips® FC ICT

for flange 2 - 30 mm

(J 05 45)

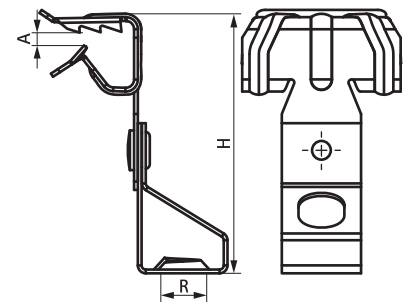


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- with threaded rod holder (rod height adjustable by screwing)
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	R	H (mm)	F _{a,z} (N)	Pack 1	Pack 2
50420609	FC8 ICTM6	4 - 8	M6	51	650	100	400
50420809	FC8 ICTM8	4 - 8	M8	51	700	100	400
50420616	FC14 ICTM6	8 - 14	M6	56	650	100	400
50420816	FC14 ICTM8	8 - 14	M8	56	700	100	400
50420620	FC20 ICTM6	14 - 20	M6	63	650	100	400

For use with static loads only.



Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod

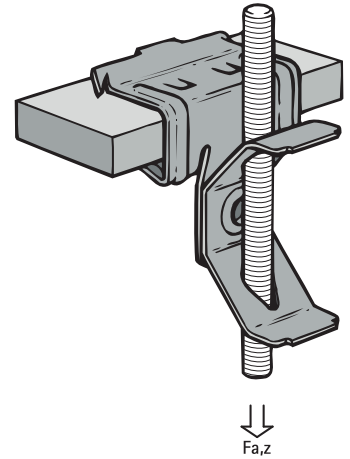
Alternative

- 352 Britclips® Tiger

Britclips® FC TR

for flange 2 - 30 mm

(J 05 50)

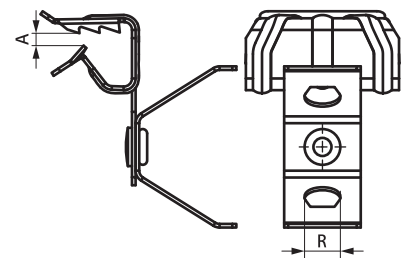


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- with threaded rod clip (rod height adjustable by sliding)
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	R	F _{a,z} (N)	Pack 1	Pack 2
50620809	FC8 TRM8	4 - 8	M8	350	50	200

For use with static loads only.



Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod

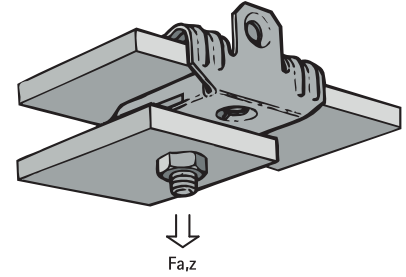
Alternative

- 352 Britclips® Tiger

Britclips® FU

for flange 3 - 20 mm

(J 10 05)

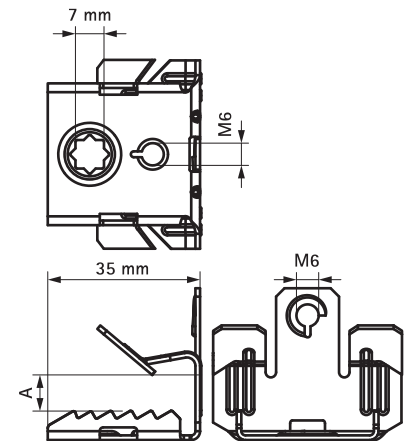


Features and Benefits

- for a solid fixing under flanges without welding or drilling
- suitable for horizontal and vertical flanges
- with female thread M6
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	R	F _{a,z} (N)	Pack 1	Pack 2
51420607	FU7 M6	3.0 - 7.0	M6	450	100	400
51420613	FU12,5 M6	8.0 - 12.5	M6	450	100	400
51420620	FU20 M6	14.0 - 20.0	M6	450	100	400
51420657	FU7 M6-B	3.0 - 7.0	M6	450	25	250
51420663	FU12,5 M6-B	8.0 - 12.5	M6	450	25	250
51420670	FU20 M6-B	14.0 - 20.0	M6	450	25	250

For use with static loads only.



Complementary

- 466 BIS Stud Bolt
- 400 BIS Cable Tie
- 469 BIS Threaded Rod

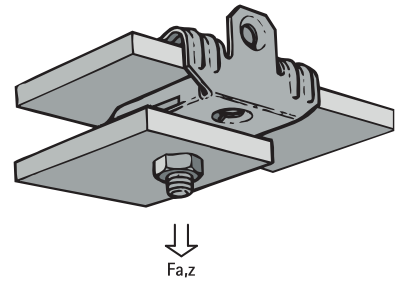
Alternative

- 352 Britclips® Tiger

Britclips® FU M6 x 9

for flange 3 - 20 mm

(J 10 10)

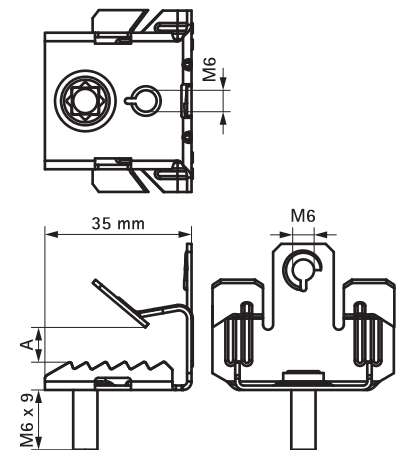


Features and Benefits

- for a solid fixing under flanges without welding or drilling
- suitable for horizontal and vertical flanges
- with stud bolt M6 x 9 mm for fixing of clamp, conduit junction box, etc.
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	R	F _{a,z} (N)	Pack 1	Pack 2
51520607	FU7 M6x9	3.0 - 7.0	M6	450	100	400
51520613	FU12,5 M6x9	8.0 - 12.5	M6	450	100	400
51520620	FU20 M6x9	14.0 - 20.0	M6	450	100	400
51520657	FU7 M6x9-B	3.0 - 7.0	M6	450	25	250
51520663	FU12,5 M6x9-B	8.0 - 12.5	M6	450	25	250
51520670	FU20 M6x9-B	14.0 - 20.0	M6	450	25	250

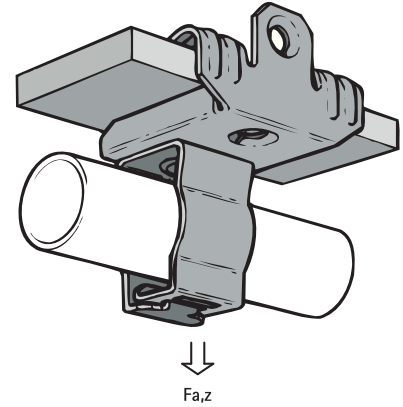
For use with static loads only.



Britclips® FU ICC

for flange 3 - 20 mm

(J 10 15)

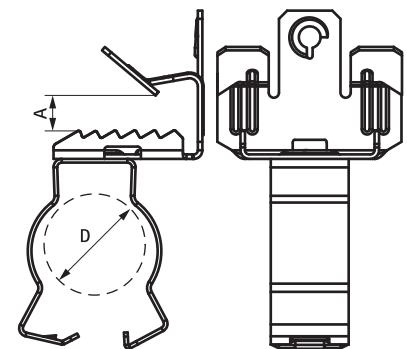


Features and Benefits

- for a solid fixing under flanges without welding or drilling
- suitable for pipe or cable fixing horizontal, vertical or crossed with respect to the flange
- conduit clip swivels 360°
- conduit clip with jaw locking (use pliers to lock)
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	D (mm)	A (mm)	F _{a,z} (N)	Pack 1	Pack 2
51121707	FU7 ICC17	12 - 16	3.0 - 7.0	250	100	400
51121713	FU12,5 ICC17	12 - 16	8.0 - 12.5	250	100	400
51121720	FU20 ICC17	12 - 16	14.0 - 20.0	250	50	200
51122407	FU7 ICC24	19 - 22	3.0 - 7.0	450	50	200
51122413	FU12,5 ICC24	19 - 22	8.0 - 12.5	450	50	200
51122420	FU20 ICC24	19 - 22	14.0 - 20.0	450	50	200
51122607	FU7 ICC26	23 - 25	3.0 - 7.0	450	50	200
51122613	FU12,5 ICC26	23 - 25	8.0 - 12.5	450	50	200
51122620	FU20 ICC26	23 - 25	14.0 - 20.0	450	50	200
51123207	FU7 ICC32	26 - 32	3.0 - 7.0	450	50	200
51123213	FU12,5 ICC32	26 - 32	8.0 - 12.5	450	50	200
51123220	FU20 ICC32	26 - 32	14.0 - 20.0	450	50	200
51124007	FU7 ICC40	33 - 40	3.0 - 7.0	450	25	200
51124013	FU12,5 ICC40	33 - 40	8.0 - 12.5	450	50	200
51124020	FU20 ICC40	33 - 40	14.0 - 20.0	450	50	200

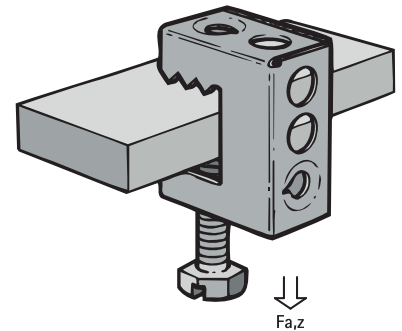
For use with static loads only.



Britclips® SB

for flange 2 - 17 mm

(J 15 05)

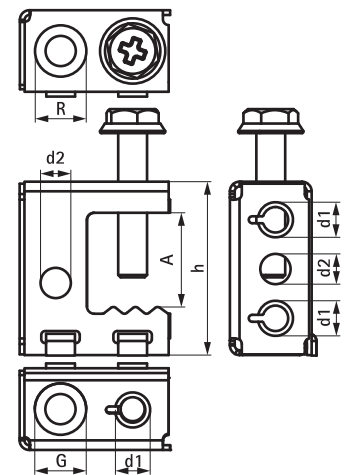


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- various fixing possibilities to clamp (horizontal and vertical)
- with thread connector M6
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	R	G	h (mm)	d1 (mm)	d2 (mm)	F _{a,z} (N)	Pack 1	Pack 2
53420717	SB17 6,5	2 - 17	11 mm	∅ 6.0 mm	36	M6	6.0	550	100	300
53420757	SB17 6,5-B	2 - 17	11 mm	∅ 6.0 mm	36	M6	6.0	550	25	-
53421117	SB17 11	2 - 17	11 mm	∅ 11.0 mm	36	M6	6.0	550	100	400
53421167	SB17 11-B	2 - 17	11 mm	∅ 11.0 mm	36	M6	6.0	550	25	250

Articles with codes ending in a '-B' are packed in a plastic bag.
For use with static loads only.



Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod

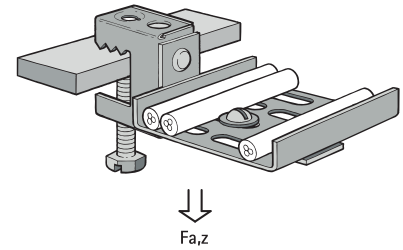
Alternative

- 352 Britclips® Tiger

Britclips® SB CT

for flange 2 - 17 mm

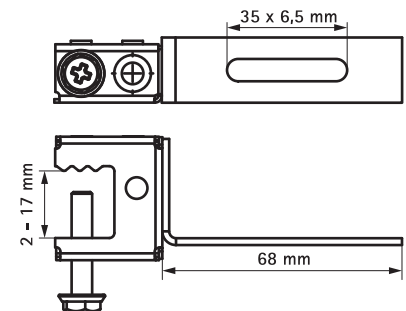
(J 15 10)



Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- for light duty cable trays
- material: Britclips® SB made of spring steel (type C67S according to EN10132); other parts made of steel
- surface treatment: Delta-Tone 9000 (480 hours)

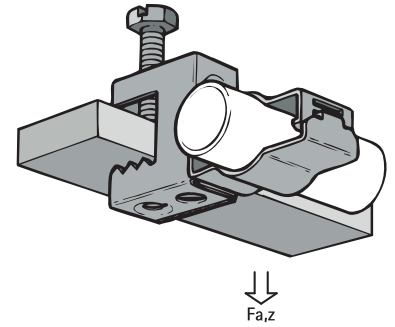
Part No.	Code	F _{a,z} (N)	Pack 1	Pack 2
53920017	SB17 CT	150	50	200
<i>For use with static loads only.</i>				



Britclips® SB ICCS

for flange 2 - 17 mm

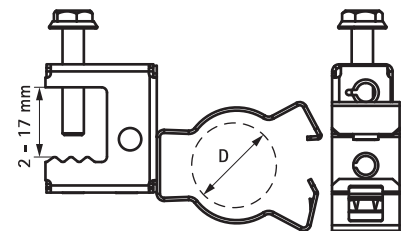
(J 15 20)



Features and Benefits

- suitable for pipe or cable fixing horizontal, vertical or crossed with respect to the flange
- conduit clip swivels 360°
- conduit clip with jaw locking (use pliers to lock)
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	D (mm)	F _{a,z} (N)	Pack 1	Pack 2
53122617	SB17 ICCS26	23 - 25	450	50	200
<i>For use with static loads only.</i>					



Britclips® GAM8

for flange 2 - 12 mm

(J 20 03)

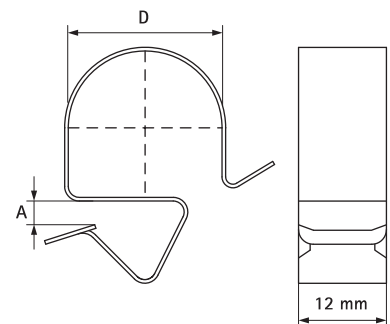


Features and Benefits

- for quick fixing of cables
- also suitable for outside use
- only 8 types for all pipes Ø 6 - 32 mm to girders 2 - 12 mm
- material: spring steel (type C67S according to EN10132)
- surface treatment: zinc plated (min. 400 hours resistant to salt spray)

Part No.	Code	D (mm)	A (mm)	Pack 1	Pack 2
52090709	GAM8 7 9	6 - 9	2 - 7	100	600
52090714	GAM8 7 14	10 - 14	2 - 7	100	600
52090721	GAM8 7 21	15 - 21	2 - 7	100	600
52090732	GAM8 7 32	22 - 32	2 - 7	100	300
52091209	GAM8 12 9	6 - 9	8 - 12	100	600
52091214	GAM8 12 14	10 - 14	8 - 12	100	600
52091221	GAM8 12 21	15 - 21	8 - 12	100	300
52091232	GAM8 12 32	22 - 32	8 - 12	100	300

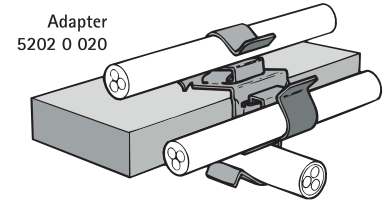
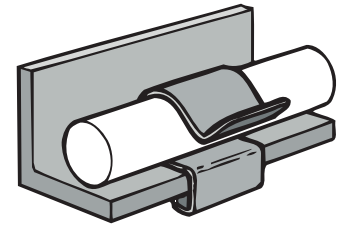
For use with static loads only.



Britclips® PC Flange

for flange 2 - 7 mm

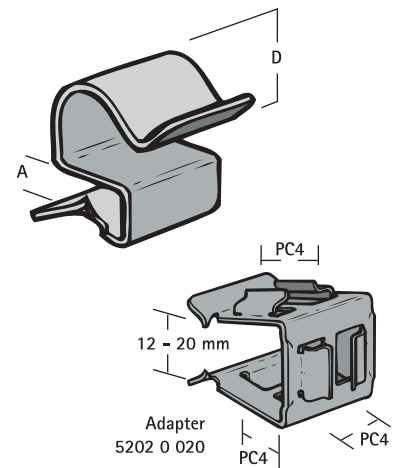
(J 20 05)



Features and Benefits

- for quick fixing of cables
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	D (mm)	A (mm)	Pack 1	Pack 2
52020604	PC4 5,5	4.5 - 5.5	2 - 4	100	500
52020704	PC4 7	6.0 - 7.0	2 - 4	100	500
52020754	PC4 7-B	6.0 - 7.0	2 - 4	25	-
52020904	PC4 9	7.0 - 9.0	2 - 4	100	500
52020954	PC4 9-B	7.0 - 9.0	2 - 4	25	-
52021104	PC4 11	10.0 - 11.0	2 - 4	100	500
52021154	PC4 11-B	10.0 - 11.0	2 - 4	25	-
52021404	PC4 14	12.0 - 14.0	2 - 4	100	500
52021454	PC4 14-B	12.0 - 14.0	2 - 4	25	-
52021804	PC4 18	15.0 - 18.0	2 - 4	100	500
52021854	PC4 18-B	15.0 - 18.0	2 - 4	25	-
52022404	PC4 24	19.0 - 24.0	2 - 4	100	500
52022454	PC4 24-B	19.0 - 24.0	2 - 4	25	-
52023004	PC4 30	25.0 - 30.0	2 - 4	100	500
52023054	PC4 30-B	25.0 - 30.0	2 - 4	25	-
52020607	PC7 5,5	4.5 - 5.5	4 - 7	100	500
52020707	PC7 7	6.0 - 7.0	4 - 7	100	500
52020757	PC7 7-B	6.0 - 7.0	4 - 7	25	-
52020907	PC7 9	7.0 - 9.0	4 - 7	100	500
52020957	PC7 9-B	7.0 - 9.0	4 - 7	25	-
52021107	PC7 11	10.0 - 11.0	4 - 7	100	500
52021407	PC7 14	12.0 - 14.0	4 - 7	100	500
52021457	PC7 14-B	12.0 - 14.0	4 - 7	25	-
52021807	PC7 18	15.0 - 18.0	4 - 7	100	500
52021857	PC7 18-B	15.0 - 18.0	4 - 7	25	-
52022407	PC7 24	19.0 - 24.0	4 - 7	100	500
52022457	PC7 24-B	19.0 - 24.0	4 - 7	25	-
52023007	PC7 30	25.0 - 30.0	4 - 7	100	500
52023057	PC7 30-B	25.0 - 30.0	4 - 7	25	-

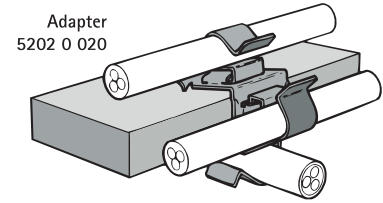
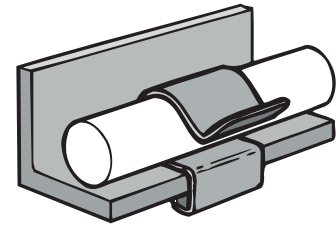


Articles with codes ending in a '-B' are packed in a plastic bag.
For use with static loads only.

Britclips® PC Flange

for flange 8 - 12 mm

(J 20 06)

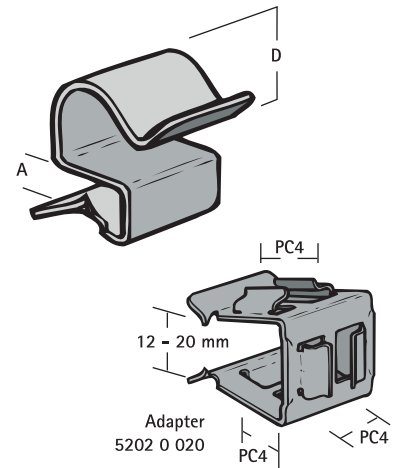


Features and Benefits

- for quick fixing of cables
- Part No. 5202 0 020: adaptor for fastening of maximum 3 cable run clips (type PC4)
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	D (mm)	A (mm)	Pack 1	Pack 2
52020712	PC12 7	6.0 - 7.0	8 - 12	100	500
52020752	PC12 7-B	6.0 - 7.0	8 - 12	25	-
52020912	PC12 9	7.0 - 9.0	8 - 12	100	500
52020952	PC12 9-B	7.0 - 9.0	8 - 12	25	-
52021112	PC12 11	10.0 - 11.0	8 - 12	100	500
52021152	PC12 11-B	10.0 - 11.0	8 - 12	25	-
52021412	PC12 14	12.0 - 14.0	8 - 12	100	500
52021452	PC12 14-B	12.0 - 14.0	8 - 12	25	-
52021812	PC12 18	15.0 - 18.0	8 - 12	100	500
52021852	PC12 18-B	15.0 - 18.0	8 - 12	25	-
52022412	PC12 24	19.0 - 24.0	8 - 12	100	500
52022452	PC12 24-B	19.0 - 24.0	8 - 12	25	-
52023012	PC12 30	25.0 - 30.0	8 - 12	100	500
52023052	PC12 30-B	25.0 - 30.0	8 - 12	25	-
52020020	PCC	0	12 - 20	50	200

Articles with codes ending in a '-B' are packed in a plastic bag.
For use with static loads only.

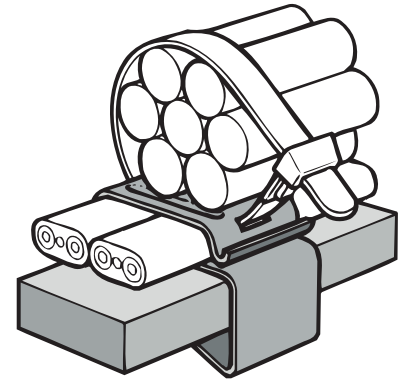


Alternative
368 Britclips® GAM8

Britclips® PCD

for flange 3 - 25 mm

(J 20 15)

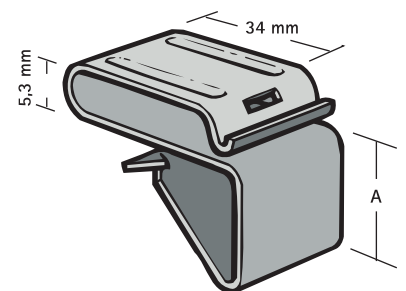


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- suitable for horizontal and vertical flanges
- for quick fixing of round or flat cables parallel to flange
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	Pack 1	Pack 2
52323412	PCD12	3 - 12	100	400
52323452	PCD12-B	3 - 12	25	-
52323425	PCD25	12 - 25	100	300
52323455	PCD25-B	12 - 25	25	-

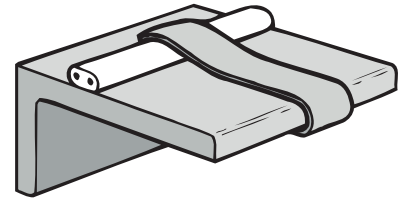
Articles with codes ending in a '-B' are packed in a plastic bag.
For use with static loads only.



Britclips® PCF

for flange 3 - 11 mm

(J 20 25)

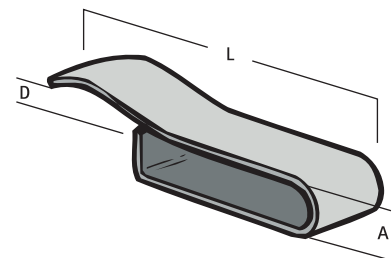


Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- for quick fixing of cables
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	D (mm)	A (mm)	L	Pack 1
52021609	PCF5	3 - 10	3 - 5 / 5 - 7	48 mm	100
52022009	PCF9	7 - 20	8 - 9 / 10 - 11	41 mm	100

For use with static loads only.



Britclips® PCM

for flange 3 - 18 mm

(J 20 30)

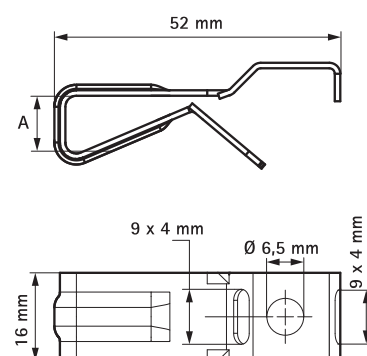


Features and Benefits

- with 2 slots for cable strap up to width 9 mm
- material: spring steel (type C67S according to EN10132)
- with hole Ø 6.5 mm for threaded rod or bolt M6
- zinc plated

Part No.	Code	A (mm)	R	Pack 1	Pack 2
52350010	PCM10	3 - 10	M6	100	500
52350018	PCM18	10 - 18	M6	100	500

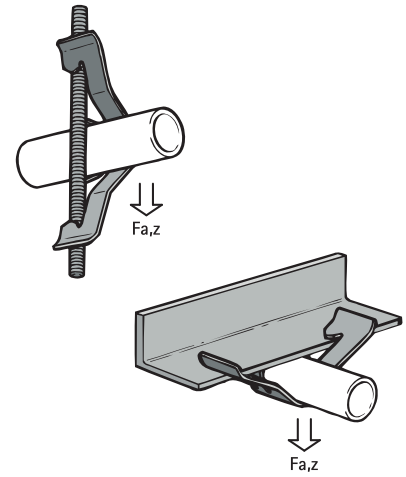
For use with static loads only.



Britclips® TRC

for threaded rods or flanges 16 - 20 mm

(J 25 05)

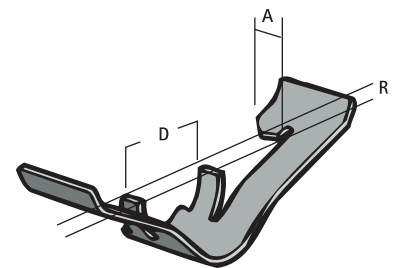


Features and Benefits

- for quick fixing to threaded rods or flanges without welding or drilling
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	D (mm)	A (mm)	R	F _{a,z} (N)	Pack 1	Pack 2
55922058	TRCM8-B	16 - 20	6 - 9	M6 - M8	450	25	-
55922510	TRCM10	16 - 20	6 - 9	M6 - M8 / M10	450	100	400
55922550	TRCM10-B	16 - 20	6 - 9	M6 - M8 / M10	450	25	-

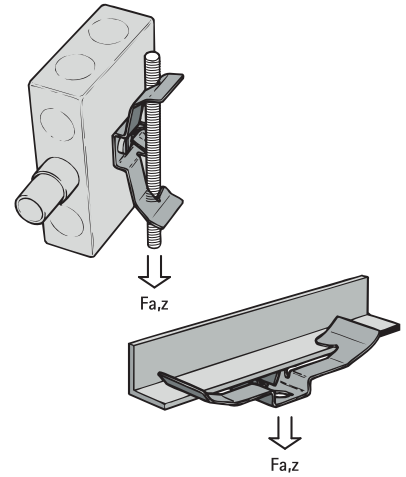
Articles with codes ending in a '-B' are packed in a plastic bag.
 For use with static loads only.
 Load shown is for beam application, for rod application $F_{a,z} = 220 \text{ N}$.



Britclips® TR

for threaded rods or flanges

(J 25 15)

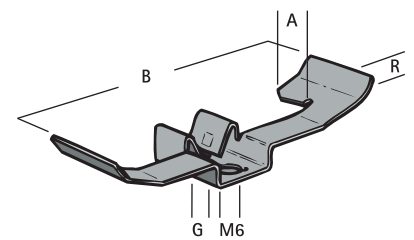


Features and Benefits

- for quick fixing to threaded rods or flanges without welding or drilling
- with female thread or hole for universal use
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	R	G	B (mm)	F _{a,z} (N)	Pack 1	Pack 2
55020008	TRM8	3 - 7	M4 - M8	M4	80	220	100	400

For use with static loads only.



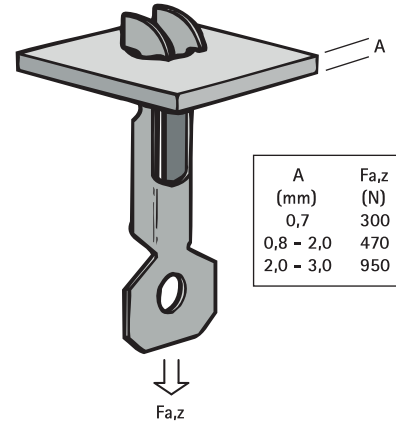
Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod

Britclips® RD

for ceilings

(J 30 05)

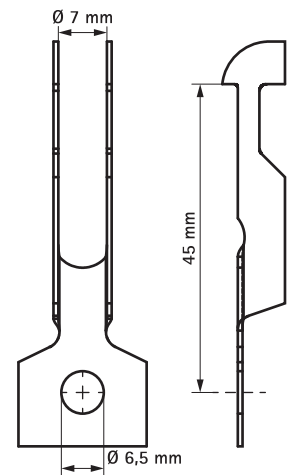


Features and Benefits

- for fixing to roofing sheets
- with fixing hole (Ø 6.5 mm) to fix S-hook, bolt/nut, etc.
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	d1 (mm)	Pack 1	Pack 2
54020000	RD	6.5	100	500

*For use with static loads only.
Safe load dependent on thickness of roof sheet.*



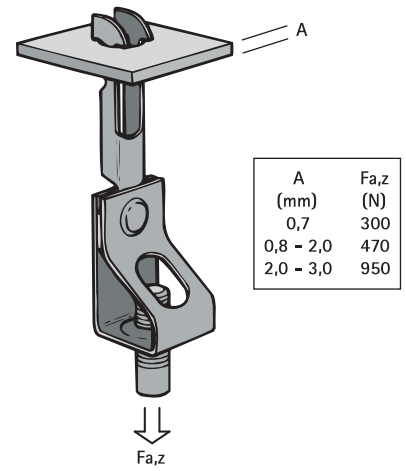
Complementary

- 462 BIS S-Hook
- 460 BIS Chain (DIN 5685)

Britclips® RD ICT

for ceilings

(J 30 15)

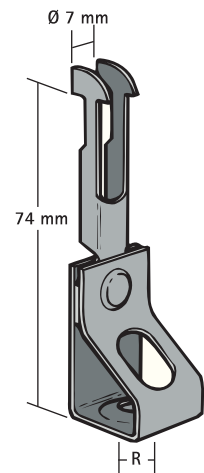


Features and Benefits

- for fixing to roofing sheets
- with threaded rod holder (rod height adjustable by screwing)
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	R	Pack 1	Pack 2
54420800	RD ICTM8	M8	100	400
54421000	RD ICTM10	M10	100	400

*For use with static loads only.
Safe load dependent on thickness of roof sheet.*



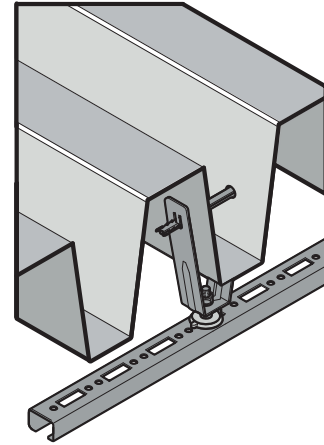
Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod

Britclips® Rapid RTB

for ceilings

(J 30 25)

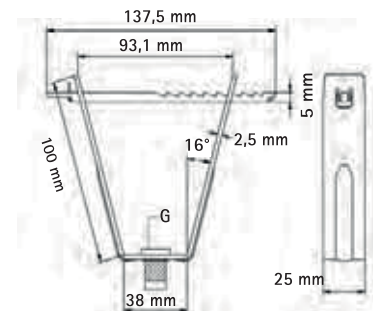


Features and Benefits

- for fixing to trapezium shaped roofing sheets
- minimum thickness roof sheet 0.63 mm
- quick fixing: one piece and elements cannot be lost
- for making a hole in the roof deck we recommend the use of the BIS Hole Punching Pliers (Part No. 692 0 012)
- pre-galvanized
- material: steel

Part No.	Code	G	Pack 1
6781106	RTB 6	M6	50
6781108	RTB 8	M8	50
6781110	RTB 10	M10	50
6781013	RTB 13	Ø 13.0 mm	50

Maximum load (F_{0,2}) depends on the load capacity of the trapezium shaped roofing sheet. Before mounting, the roof load capacity has to be confirmed by a structural engineer.



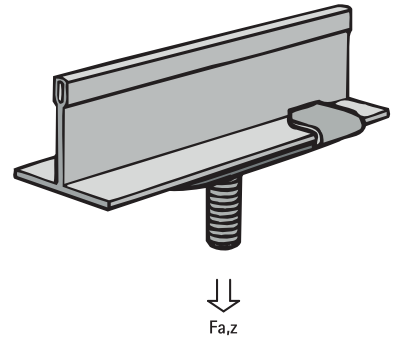
Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod
- 429 BIS Hole Punching Plier

Britclips® ACC15

for ceiling grid 15 mm

(J 35 05)

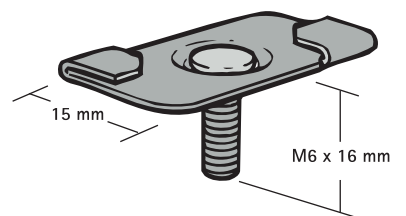


Features and Benefits

- twist on fixing
- for fixing to the ceiling grid
- with stud bolt M6 x 16 mm for fixing of clamp, conduit junction box, etc.
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	F _{a,z} (N)	Pack 1	Pack 2
56521600	ACC15 M6x16	220	100	600

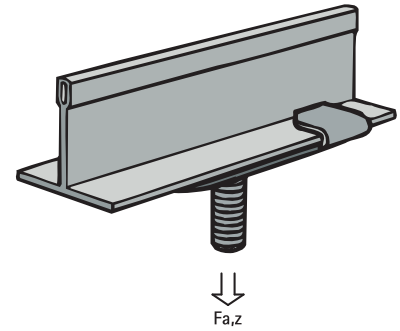
For use with static loads only.



Britclips® ACC25

for ceiling grid 25 mm

(J 35 10)

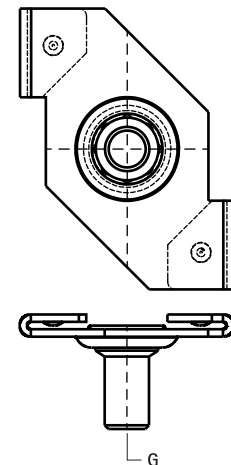


Features and Benefits

- twist on fixing
- for fixing to the ceiling grid
- with stud bolt M6 (length see table) for fixing of clamp, conduit junction box, etc.
- surface treatment: Delta-Tone 9000 (480 hours)
- material: spring steel (type C67S according to EN10132)

Part No.	Code	G	F _{a,z} (N)	Pack 1	Pack 2
56521101	ACC25 M6x11	M6 x 11 mm	220	100	400
56521601	ACC25 M6x16	M6 x 16 mm	220	100	400
56522501	ACC25 M6x25	M6 x 25 mm	220	100	400

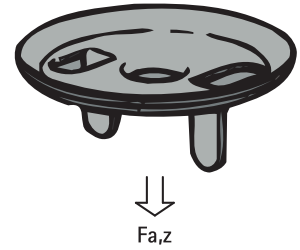
For use with static loads only.



Britclips® ACN

for ceiling grid

(J 35 15)

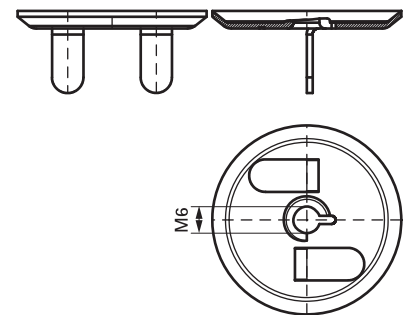


Features and Benefits

- twist on fixing
- for fixing without tools (also protects coating)
- with female thread M6
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	F _{a,z} (N)	Pack 1	Pack 2
56520106	ACN6	220	100	500
56520156	ACN6-B	220	25	150

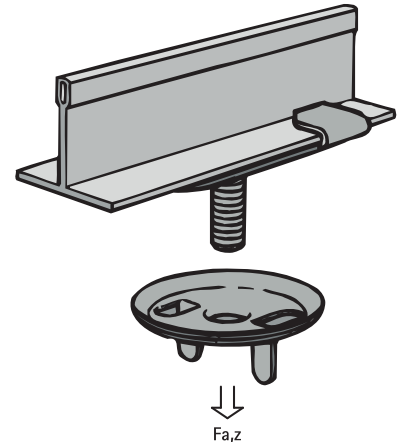
For use with static loads only.



Britclips® ACS25

for ceiling grid 25 mm

(J 35 20)

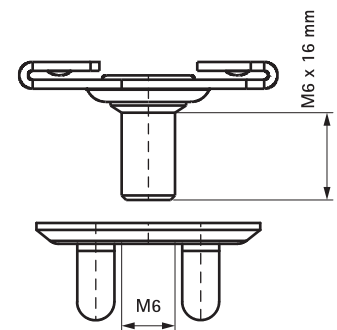


Features and Benefits

- twist on fixing
- for fixing to the ceiling grid
- with stud bolt M6 x 16 mm for fixing of clamp, conduit junction box, etc.
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	F _{a,z} (N)	Pack 1	Pack 2
56521654	ACS25 25-B	220	25	-

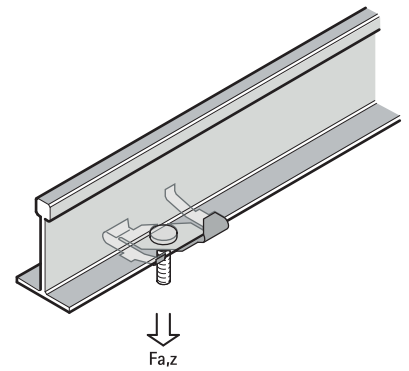
Articles with codes ending in a '-B' are packed in a plastic bag.
For use with static loads only.



Britclips® ACO

for ceiling grid 25 mm

(J 35 30)

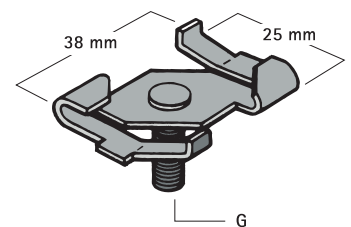


Features and Benefits

- twist on fixing
- for fixing to the ceiling grid
- with stud bolt M6 (length see table) for fixing of clamp, conduit junction box, etc.
- with bended ends to secure suspension
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	G	F _{a,z} (N)	Pack 1	Pack 2
56521102	ACO M6x11	M6 x 11 mm	220	100	400
56521602	ACO M6x16	M6 x 16 mm	220	100	400
56521652	ACO M6x16-B	M6 x 16 mm	220	25	150
56522502	ACO M6x25	M6 x 25 mm	220	100	400
56522552	ACO M6x25-B	M6 x 25 mm	220	25	150

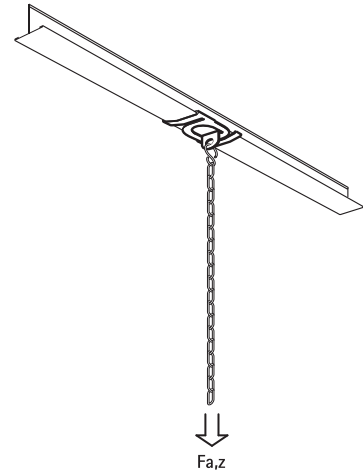
For use with static loads only.



Britclips® ACT

for ceiling grid 25 mm

(J 35 37)

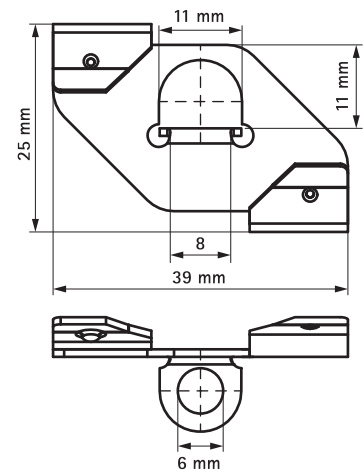


Features and Benefits

- twist on fixing
 - for fixing to the ceiling grid
 - with fixing hole (Ø 6.0 mm) to fix S-hook, etc.
- material: steel 1.0226

Part No.	Code	d1 (mm)	F _{a,z} (N)	ST	Pack 1	Pack 2
56091075	ACTW-B	6	190	epoxy-coated (white)	25	250

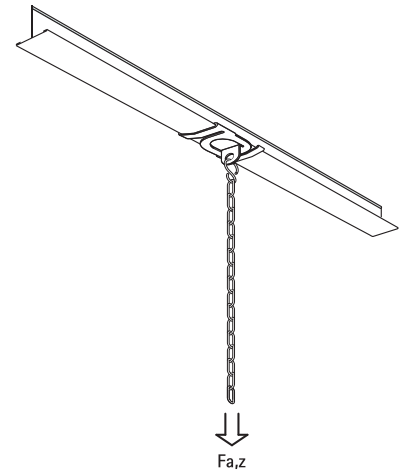
For use with static loads only.



Britclips® ACHW / ACHZ

for ceiling grid 25 mm

(J 35 40)

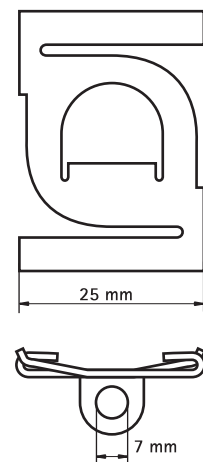


Features and Benefits

- twist on fixing
- for fixing to the ceiling grid
- with fixing hole (Ø 7,0 mm) to fix S-hook/nut, etc.
- material: spring steel (type C67S according to EN10132)

Part No.	Code	d1 (mm)	F _{a,z} (N)	ST	Pack 1	Pack 2
56090025	ACHW	7.0	220	epoxy-coated (white)	100	500
56090075	ACHW-B	7.0	220	epoxy-coated (white)	100	600
56030025	ACHZ	7.0	220	zinc plated	100	500

For use with static loads only.



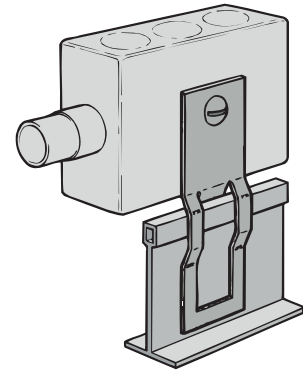
Complementary

- 462 BIS S-Hook
- 460 BIS Chain (DIN 5685)

Britclips® ACS

for ceiling grid

(J 35 55)

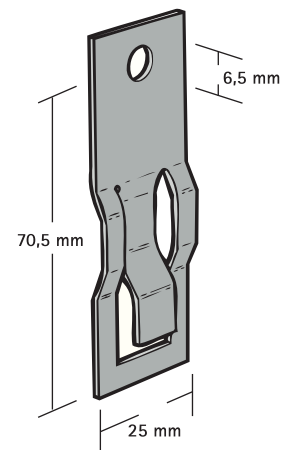


Features and Benefits

- for fixing to the ceiling grid
- straight, with hole (Ø 6.5 mm) for universal connection
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	Pack 1	Pack 2
56020002	ACS	100	500

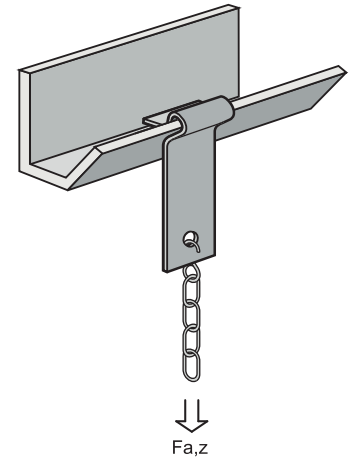
For use with static loads only.



Britclips® PHZ

for purlins 1 - 5 mm

(J 40 15)

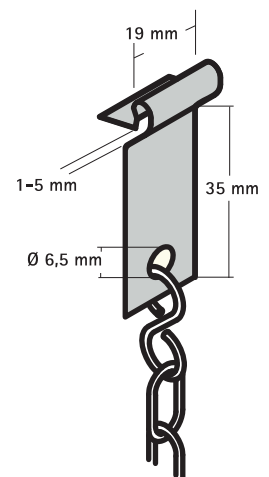


Features and Benefits

- hold fast 45°
- for fixing to purlins
- with fixing hole (Ø 6.5 mm) vertical to fix S-hook, bolt/nut, etc.
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	d1 (mm)	F _{a,z} (N)	Pack 1	Pack 2
57020105	PHZ	1 - 5	6.5	600	100	500

For use with static loads only.



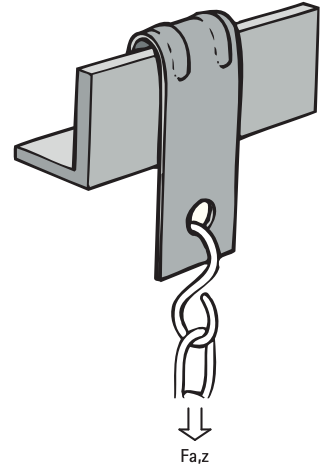
Complementary

- 462 BIS S-Hook
- 460 BIS Chain (DIN 5685)

Britclips® PHV

for vertical flanges 1 - 7 mm

(J 40 50)

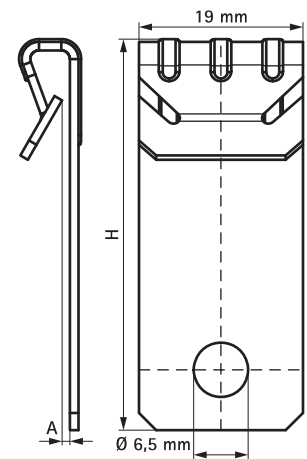


Features and Benefits

- for fixing to vertical flanges
- with fixing hole (Ø 6.5 mm) vertical to fix S-hook, bolt/nut, etc.
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	H (mm)	d1 (mm)	F _{a,z} (N)	Pack 1	Pack 2
57020005	PHV5	1 - 5	39	6.5	720	100	500
57020055	PHV5-B	1 - 5	39	6.5	720	25	-
57020057	PHV7-5	5 - 7	40	6.5	720	25	-

Articles with codes ending in a '-B' are packed in a plastic bag.
For use with static loads only.



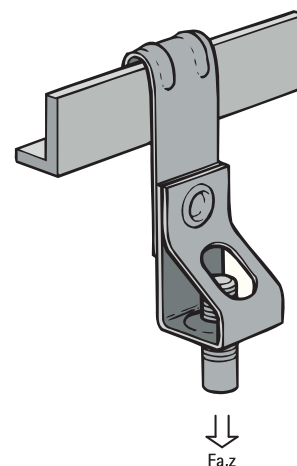
Complementary

- 462 BIS S-Hook
- 460 BIS Chain (DIN 5685)

Britclips® PHV ICT

for vertical flanges 1 - 7 mm

(J 40 60)

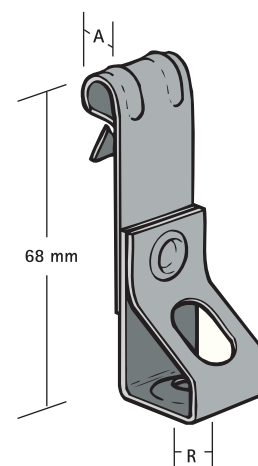


Features and Benefits

- for fixing to vertical flanges
- with threaded rod holder (rod height adjustable by screwing)
- material: spring steel (type C67S according to EN10132)
- surface treatment: Delta-Tone 9000 (480 hours)

Part No.	Code	A (mm)	R	F _{a,z} (N)	Pack 1	Pack 2
57420605	PHV5 ICTM6	1 - 5	M6	650	100	400
57420655	PHV5 ICTM6-B	1 - 5	M6	650	25	-
57420805	PHV5 ICTM8	1 - 5	M8	700	100	400
57420855	PHV5 ICTM8-B	1 - 5	M8	700	25	-
57421005	PHV5 ICTM10	1 - 5	M10	720	100	400
57421055	PHV5 ICTM10-B	1 - 5	M10	720	25	-

Articles with codes ending in a '-B' are packed in a plastic bag.
For use with static loads only.



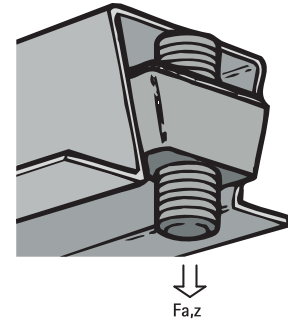
Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod

Britclips® WN

for composite flooring systems

(J 45 30)

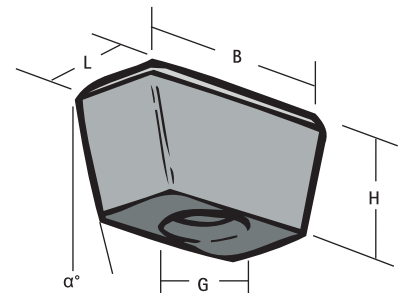


Features and Benefits

- for fixing to composite flooring systems
- material: steel
- with thread connector
- zinc plated

Part No.	Type	R	L	B (mm)	H (mm)	a (°)	F _{a,z} (N)	Pack 1
6213006	HW6	M6	12.5 mm	25	13.0	15.0°	1,200	100
6213008	HW8	M8	12.5 mm	25	13.0	15.0°	1,690	100
6213010	HW10	M10	12.5 mm	25	13.0	15.0°	2,050	100
6213106	HW6SR	M6	13.0 mm	21	10.0	11.5°	1,200	100
6213206	HMWA6	M6	10.0 mm	19	10.0	23.5°	1,200	100
6213208	HMWA8	M8	10.0 mm	19	10.0	23.5°	1,690	100

For use with static loads only.



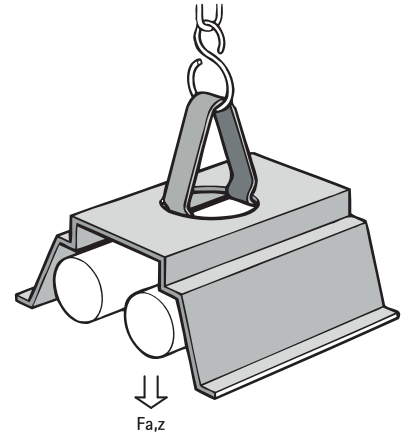
Complementary

- 466 BIS Stud Bolt
- 469 BIS Threaded Rod

Britclips® IC

miscellaneous fixings

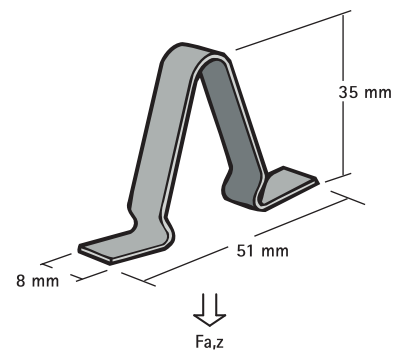
(J 50 10)



Features and Benefits

- for light fittings
- material: steel
- zinc plated

Part No.	Code	F _{a,z} (N)	Pack 1	Pack 2
59030050	IC-B	80	25	-
Articles with codes ending in a '-B' are packed in a plastic bag. For use with static loads only.				



Complementary

- 462 BIS S-Hook
- 460 BIS Chain (DIN 5685)

BIS LYRE – LY

for all pipes Ø 13 - 25 mm

(J 50 30)

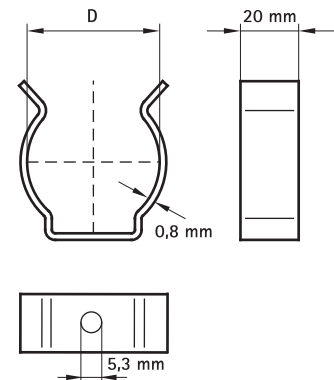


Features and Benefits

- universally applicable
- material: steel
- zinc plated

Part No.	D (mm)	d1 (mm)	Pack 1	Pack 2
59131600	13 - 16	5.3	200	1,000
59132000	17 - 20	5.3	100	500
59132500	21 - 25	5.3	100	500

For use with static loads only.



Alternative

81 BIS starQuick® Clamp (Grey)

Britclips® RSWB

Rapid Sliding Wall Bracket

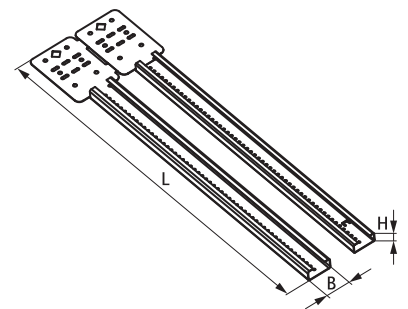
(J 50 175)



Features and Benefits

- extendable bracket for faster mounting of electrical boxes, conduit and pipework
- material: steel
- suitable for use in stud walls and floor joists
- can be fixed to wood or metal joists
- quicker and easier to install than traditional methods
- can be set at multiple depths
- combine with starQuick® clamps or RapidRail® Hammerfix for even faster fixing
- Part No. 59491624: longer version expands from 16 - 24" (40 - 60 cm)
- pre-galvanized

Part No.	Model	L	B (mm)	H (mm)	Pack 1
59491624	16 - 24" (40 - 60 cm)	440 mm	29.2	13.7	50



Complementary

- 81 BIS starQuick® Clamp (Grey)
- 183 BIS RapidRail® Hammerfix
- 177 BIS RapidRail® Slide Nut

Complementary

- 92 BIS starQuick® Universal Rail Adaptor

BIS Twistfix

14 - 72 mm

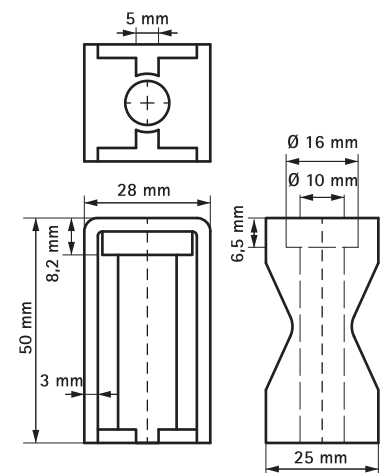
(J 58 10)



Features and Benefits

- space saving
- allows fixing of different diameters with the same clip
- for electrical and optical fiber systems
- material: PA (polyamide), black
- halogen free
- UV resistant
- Part No. 658 4 20X: Flamability rating: class UL 94 HB
- temperature resistance from -18 °C to +66 °C

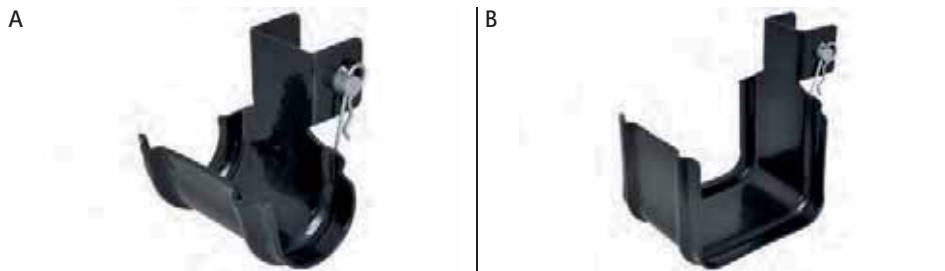
Part No.	D (mm)	For Rail	Pack 1
6584202	14 - 48	WM0 (27x18) + 28x30	100
6584203	14 - 48	35x18	100
6584204	24 - 72	WM0 (27x18) + 28x30	50
6584205	24 - 72	35x18	50



BIS Cablefix

40 - 100 mm

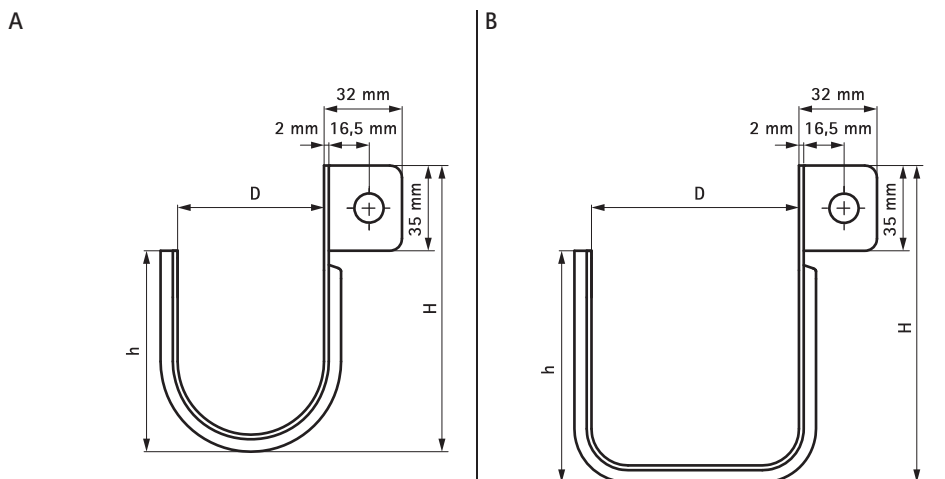
(J 58 20)



Features and Benefits

- for fixing of all kinds of low and medium voltage electrical cables, telecommunication cables, cable protection pipes
- easy to install, without tools
- several cables can be installed together
- insulation coating for electrical cables
- Part No. 679 4 XXX: material: made of steel, pre-galvanized + plastic coated

Part No.	D (mm)	H (mm)	h (mm)	ST	Pack 1
A 6794040	40	91	47	plastic coated	25
A 6794060	60	111	68	plastic coated	25
B 6794080	80	130	86	plastic coated	25
B 6794100	100	121	104	plastic coated	25



BIS STARLOCK I Cable Bind System

(J 60 05)

cable bind system



Features and Benefits

- for batch fixing large quantities of cable ties
- easy and quick to use
 - tightens strip and cuts redundant part
- BIS STARLOCK I standard model, supplied as startset in blisterpack
- material:
 - cable strap made of PA6 (polyamide)
 - locking clips made of POM (polyoxymethylene)
- cable strap:
 - tensile strength 15 kg (safety factor 1:2)
 - UV-resistant (black)
 - temperature resistance up to approx. 70 °C
 - width 4.5 mm

Part No.	Model	Pack 1	Pack 2
0909010	Startset consisting of: 1 x BIS STARLOCK I, 1 x 15 m cable strap and 200 locking clips, white	1	6
0909011	Startset consisting of: 1 x BIS STARLOCK I, 1 x 15 m cable strap and 200 locking clips, black	1	6

Complementary

- 399 BIS STARLOCK Parts
- 398 BIS STARLOCK Consumables

BIS STARLOCK II Cable Bind System

(J 60 10)

cable bind system



Features and Benefits

- for batch fixing large quantities of cable ties
- easy and quick to use
 - tightens strip and cuts redundant part
- BIS STARLOCK II with tightening lever, supplied as startset in case
- material:
 - cable strap made of PA6 (polyamide)
 - locking clips made of POM (polyoxymethylene)
- cable strap:
 - tensile strength 15 kg (safety factor 1:2)
 - UV-resistant (black)
 - temperature resistance up to approx. 70 °C
 - width 4.5 mm

Part No.	Model	Pack 1	Pack 2
0909060	Startset consisting of: 1 x BIS STARLOCK II, 1 x 15 m cable strap and 100 locking clips, white	1	9
0909061	Startset consisting of: 1 x BIS STARLOCK II, 1 x 15 m cable strap and 100 locking clips, black	1	9

BIS STARLOCK Consumables

(J 60 15)

cable bind system



Features and Benefits

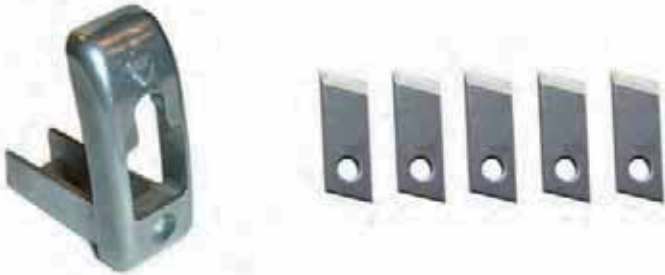
- material:
 - cable strap made of PA6 (polyamide)
 - locking clips made of POM (polyoxymethylene)
- cable strap:
 - tensile strength 15 kg (safety factor 1:2)
 - UV-resistant (black)
 - temperature resistance up to approx. 70 °C
 - width 4.5 mm

Part No.	Model	Pack 1	Pack 2
0909120	Cable strap L = 15 m, white	2	20
0909121	Cable strap L = 15 m, black	2	20
0909150	Cable strap L = 100 m, white	1	16
0909151	Cable strap L = 100 m, black	1	16
0909200	Stick with 20 locking clips, white	10	100
0909201	Stick with 20 locking clips, black	10	100
0909210	Stick with 20 locking clips, white	50	-
0909211	Stick with 20 locking clips, black	50	-

BIS STARLOCK Parts

cable bind system

(J 60 20)



Features and Benefits

- for BIS STARLOCK I and BIS STARLOCK II
Cable bundler

Part No.	Model	For	Pack 1	Pack 2
0909920	Knives (replacement)	BIS STARLOCK I + II	5	100
0909940	Knifeholder (replacement)	BIS STARLOCK I + II	1	10

BIS Cable Tie

(J 60 35)



Features and Benefits

- material: PA (polyamide)
- resistant to oil, grease, salt and thin acids
- temperature resistance from -35 °C to +85 °C

Part No.	L	Colour	Pack 1
0901290	290 x 7.6 mm	Black	100
0901370	365 x 7.8 mm	Black	100

K BIS Fixing Accessories



BIS Suspension Band

BIS Suspension Band - Plated	403
BIS Suspension Band - Plasticized	404
BIS Suspension Band - Loose	405
BIS Suspension Band (Curved) - Steel	406
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BIS Wall Plates

BIS Wall Plate 670	410
BIS Wall Plate 672 (Male Thread)	411
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BIS Beam Clamps

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BIS Fixing to Walls or Ceilings

BIS Roofing Sheet Hanger (BUP1000)	426
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BIS Fixings to Corrugated Sheets

BIS Clamp for Corrugated Sheet	432
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BISMAT® Rail

BISMAT® Rail	433
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BISMAT® Rail - Backing Plate	435
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BIS Pipe Reinforcements for Plastic Pipe

BIS Pipe Reinforcement	439
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BIS Hanger Bolts and Wood Screws

BIS Hanger Bolt (BUP1000)	440
BIS Hanger Bolt	441
BIS Threaded Shoulder Wood Screw Model A	442

K BIS Fixing Accessories



BIS Screws, Bolts, Washers, Nuts

BIS Suspension Eye (Female Threaded)	443
BIS Suspension Eye (Zamak)	444
BIS Eye Bolt	445
BIS Hexagon Head Bolt (BUP1000)	446
BIS Hexagon Head Bolt	447
BIS Washer (BUP1000)	448
BIS Washer	449
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BIS Sheet Metal Cylinder Screw	452
BIS Suspension Eye - Wood Thread	453
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BIS Socket Head Bolt and Screw	456
BIS Hexagon Wood Bolt	458
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BIS Chains

BIS Chain (DIN 5685)	460
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BIS Stud Bolts, Stud Connectors

BIS Stud Bolt (BUP1000)	465
BIS Stud Bolt	466
BIS Threaded Rod (BUP1000)	467
BIS Threaded Rod	469
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BIS Stud Connector	475
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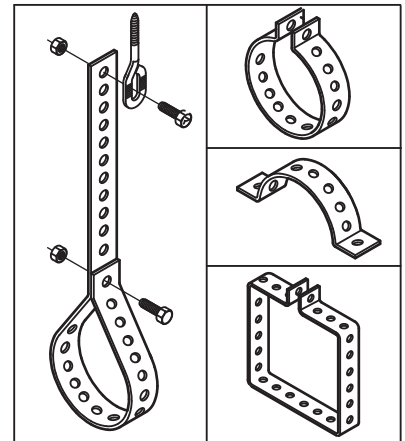
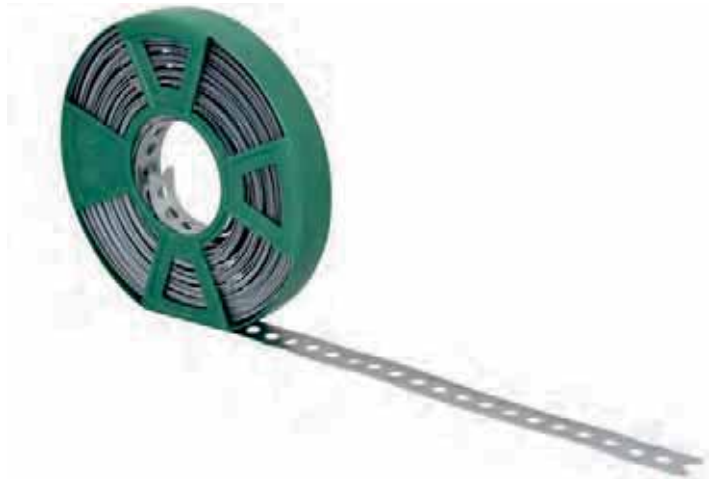
BIS DobyGrip

BIS DobyGrip Loop	478
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BIS Suspension Band – Plated

fixing of pipes and air ducts

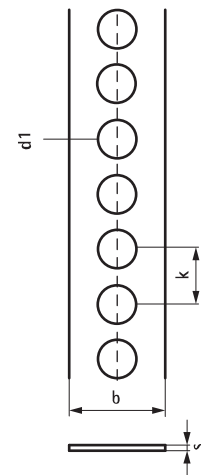
(K 05 05)



Features and Benefits

- with continuous perforation
- material: steel
- pre-galvanized

Part No.	Type	L	b x s (mm)	d1 (mm)	k (mm)	F _{a,z} (N)	Pack 1	App.
0830012	5055	10 m	12 x 1.0	5.0	8.0	1,050	10	roll
0830017	5055	10 m	17 x 1.0	7.0	12.0	1,500	10	roll
0831012	5055L	10 m	12 x 0.8	5.0	8.0	840	10	roll
0831017	5055L	10 m	17 x 0.8	7.0	12.0	1,070	10	roll
0831026	5055L	10 m	26 x 1.0	8.5	14.0	2,620	10	roll



Complementary

- 443 BIS Suspension Eye (Female Threaded)
- 453 BIS Suspension Eye - Wood Thread
- 454 BIS Suspension Eye - Metric

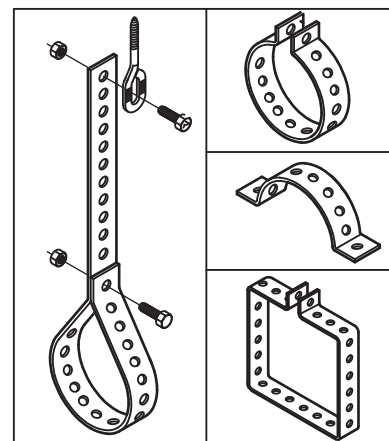
Complementary

- 521 BIS HK

BIS Suspension Band – Plasticized

(K 05 10)

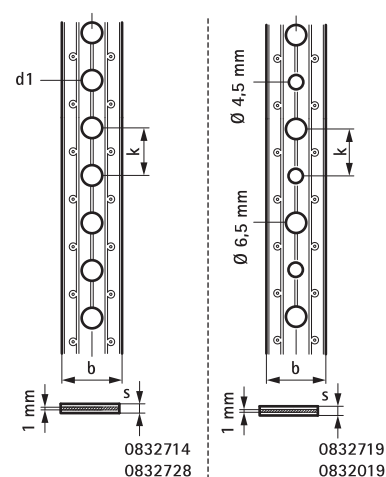
fixing of pipes and air ducts



Features and Benefits

- with continuous perforation
- material: steel, PVC coated
- pre-galvanized, welded plastic case

Part No.	Model	L	b x s	d1	k	F _{a,z}	Pack 1	App.
			(mm)	(mm)	(mm)	(N)		
0832714	Without packaging	10 m	14 x 3.0	4.5	15.0	880	10	roll
0832728	Without packaging	10 m	26 x 3.2	8.5	16.0	1,260	10	roll
0832719	Without packaging	10 m	19 x 3.0	-	15.0	1,230	10	roll
0832019	Cardboard box	10 m	19 x 3.0	-	15.0	1,230	18	roll



Complementary

- 443 BIS Suspension Eye (Female Threaded)
- 453 BIS Suspension Eye - Wood Thread
- 454 BIS Suspension Eye - Metric

Complementary

- 521 BIS HK

BIS Suspension Band – Loose

(K 05 15)

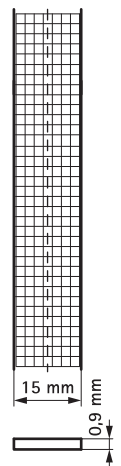
fixing of pipes and air ducts



Features and Benefits

- material: PP (polypropylene)
- Part No. 083 3 015: in carton box
- Part No. 083 3 915: bundled
- tear load: ca. 2,500 N
- colour: traffic black
- UV-stabilized

Part No.	L	b x s (mm)	Pack 1	App.
0833915	15 m	15 x 0.9	10	roll
0833015	15 m	15 x 0.9	10	roll



BIS Suspension Band (Curved) – Steel

(K 05 20)

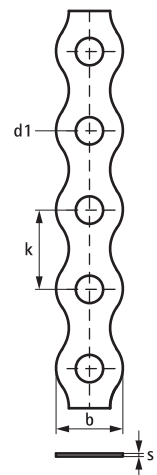
fixing of pipes and air ducts



Features and Benefits

- flexible system with multiple applications
- material: steel
- dispenser cassette allows easy handling and storage
- pre-galvanized

Part No.	L	b x s (mm)	d1 (mm)	k (mm)	F _{a,z} (N)	Pack 1	App.
0835012	10 m	12 x 0.8	5.0	14.5	840	10	roll
0835017	10 m	17 x 0.8	7.0	20.2	1,010	10	roll
0835026	10 m	26 x 1.0	8.0	25.0	1,650	10	roll



BIS Suspension Band (Curved) – Aluminium

(K 05 25)

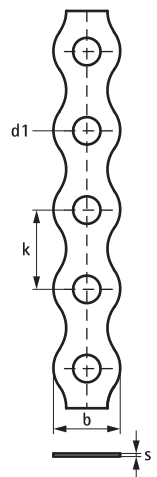
fixing of pipes and air ducts



Features and Benefits

- flexible system with multiple applications
- dispenser cassette allows easy handling and storage
- material: aluminium

Part No.	L	b x s (mm)	d1 (mm)	k (mm)	F _{a,z} (N)	Pack 1	App.
0834112	10 m	12 x 1.0	5.0	14.5	280	10	roll
0834117	10 m	17 x 1.0	7.0	20.2	310	10	roll



BIS Suspension Band – Steel Extraband

(K 05 30)

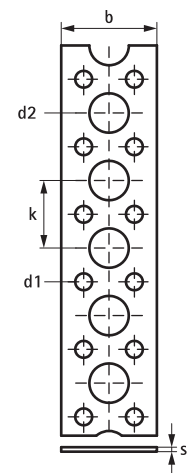
fixing of pipes and air ducts



Features and Benefits

- flexible system with multiple applications
- dispenser cassette allows easy handling and storage
- material: steel
- pre-galvanized

Part No.	L	b x s (mm)	d1 (mm)	d2 (mm)	k (mm)	F _{a,z} (N)	Pack 1	App.
08310117	10 m	17 x 0.8	3.0	7.0	12.0	760	10	roll
08310217	25 m	17 x 0.8	3.0	7.0	12.0	760	10	roll
08310125	10 m	25 x 0.8	4.0	8.5	14.0	1,740	10	roll
08310225	25 m	25 x 0.8	4.0	8.5	14.0	1,740	10	roll



BIS Suspension Band – Plastic-coated

(K 05 35)

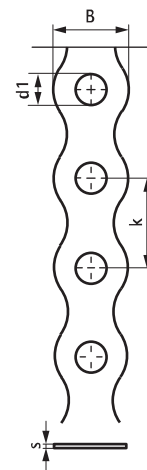
fixing of pipes and air ducts



Features and Benefits

- flexible system with multiple applications
- material: plastic-coated galvanized steel
- ideal for applications requiring corrosion resistance and electrical insulation

Part No.	Model	L	b x s (mm)	d1 (mm)	k (mm)	F _{a,z} (N)	Pack 1	App.
0839018	Without packaging	10 m.	18 x 1.2	6.5	20.0	1,010	10	roll



Complementary

- 443 BIS Suspension Eye (Female Threaded)
- 453 BIS Suspension Eye - Wood Thread
- 454 BIS Suspension Eye - Metric

Complementary

- 521 BIS HK

BIS Wall Plate 670

(K 15 05)

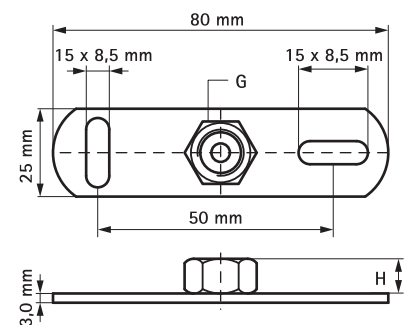
fixing to wall or ceiling



Features and Benefits

- slots at 90° to each other to simplify fixing
- with resistance welded connection nut
- material: steel
- zinc plated

Part No.	G	H (mm)	F _{a,z} (N)	Pack 1	Pack 2
6703006	M6	6	2,500	50	250
6703008	M8	8	2,500	50	250
6703009	M8/10	18	2,500	50	200
6703010	M10	10	2,500	50	200
6703016	M16	13	2,500	50	250



BIS Wall Plate 672 (Male Thread)

(K 15 15)

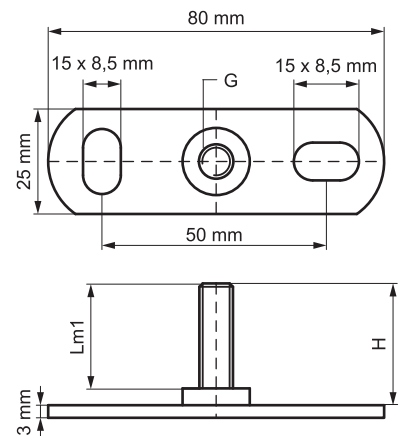
fixing to wall or ceiling



Features and Benefits

- slots at 90° to each other to simplify fixing
- with resistance welded male stud bolt
- material: steel
- zinc plated

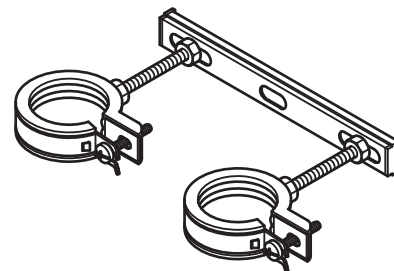
Part No.	G	H (mm)	Lm1 (mm)	F _{a,z} (N)	Pack 1	Pack 2
6723006	M6	28	25	2,500	50	250
6723108	M8	13	10	2,500	50	250
6723008	M8	28	25	2,500	50	250
6723110	M10	15	12	2,500	50	250
6723010	M10	38	35	2,500	50	250



BIS Duplo Fixing Plate

(K 15 20)

double fixing of 2 clamps to wall or ceiling

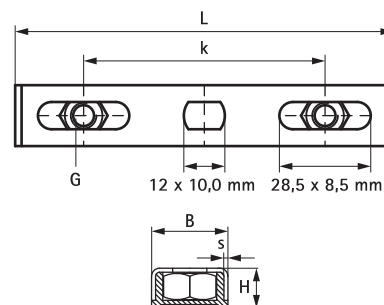


Features and Benefits

- 2 hexagon nuts M8 are infinitely adjustable in center distance
- attach 2 pipes on a wall or ceiling with only one drill hole
- material: metal parts made of steel; plastic housing made of PP (polypropylene), white
- zinc plated

Part No.	G	L	H (mm)	b x s (mm)	k (mm)	F _{a,z} (N)	Pack 1
6743001	M8	116.5 mm	10.5	20 x 1.0	60 - 100	290	50
6743002	M8	146.4 mm	11.0	20 x 2.0	90 - 130	590	50

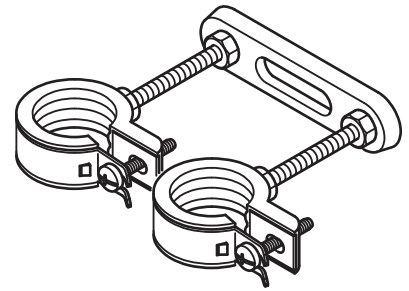
Max. allowed load: based on using largest value for k for suspension.



BIS Double Wall Plate

(K 15 25)

double fixing of 2 clamps to wall or ceiling

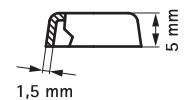
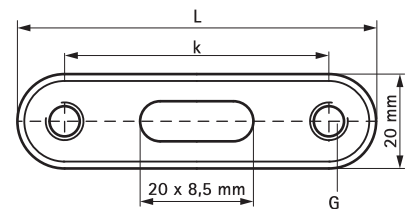


Features and Benefits

- with fixed centre distance
- zinc plated
- material: steel

Part No.	G	L	k (mm)	F _{a,z} (N)	Pack 1	Pack 2
6748040	M8	60 mm	40	1,590	50	500
6748055	M8	75 mm	55	1,250	50	500
6748065	M8	85 mm	65	1,010	50	500
6748085	M8	105 mm	85	730	50	500
6748105	M8	125 mm	105	420	50	500
6748150	M8	170 mm	150	270	50	500

Max. allowed load: both fixing points are equally loaded.



BIS Wall Plate Resistance Welded

(K 15 10)

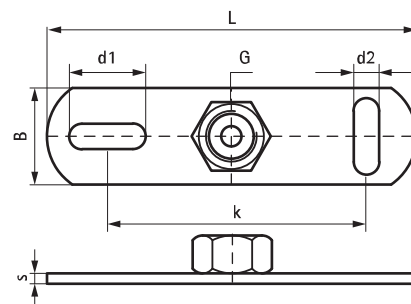
fixing to wall or ceiling



Features and Benefits

- slots at 90° to each other to simplify fixing
- material: steel
- with resistance welded connection nut
- zinc plated

Part No.	G	L	B	H	s	d1	d2	k	F _{a,z} (N)	Pack 1
			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
6713008	M8	145 mm	38	8	4	30 x 11	25 x 11	100	3,200	40
6713010	M10	145 mm	38	10	4	30 x 11	25 x 11	100	3,500	40
6713012	M12	145 mm	38	10	4	30 x 11	25 x 11	100	3,500	40
6713016	M16	145 mm	38	13	4	30 x 11	25 x 11	100	3,800	50
6713021	G1/2"	145 mm	38	15	4	30 x 11	25 x 11	100	3,800	50



BIS Wall Plate CO₂ Welded

(K 15 12)

fixing to wall or ceiling



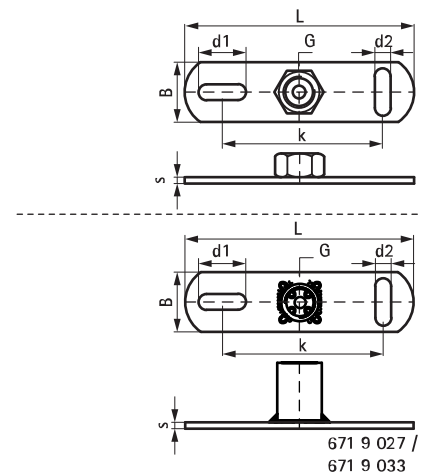
6719016

6719027

Features and Benefits

- slots at 90° to each other to simplify fixing
- with CO₂ welded connection nut
- material: steel
- zinc plated

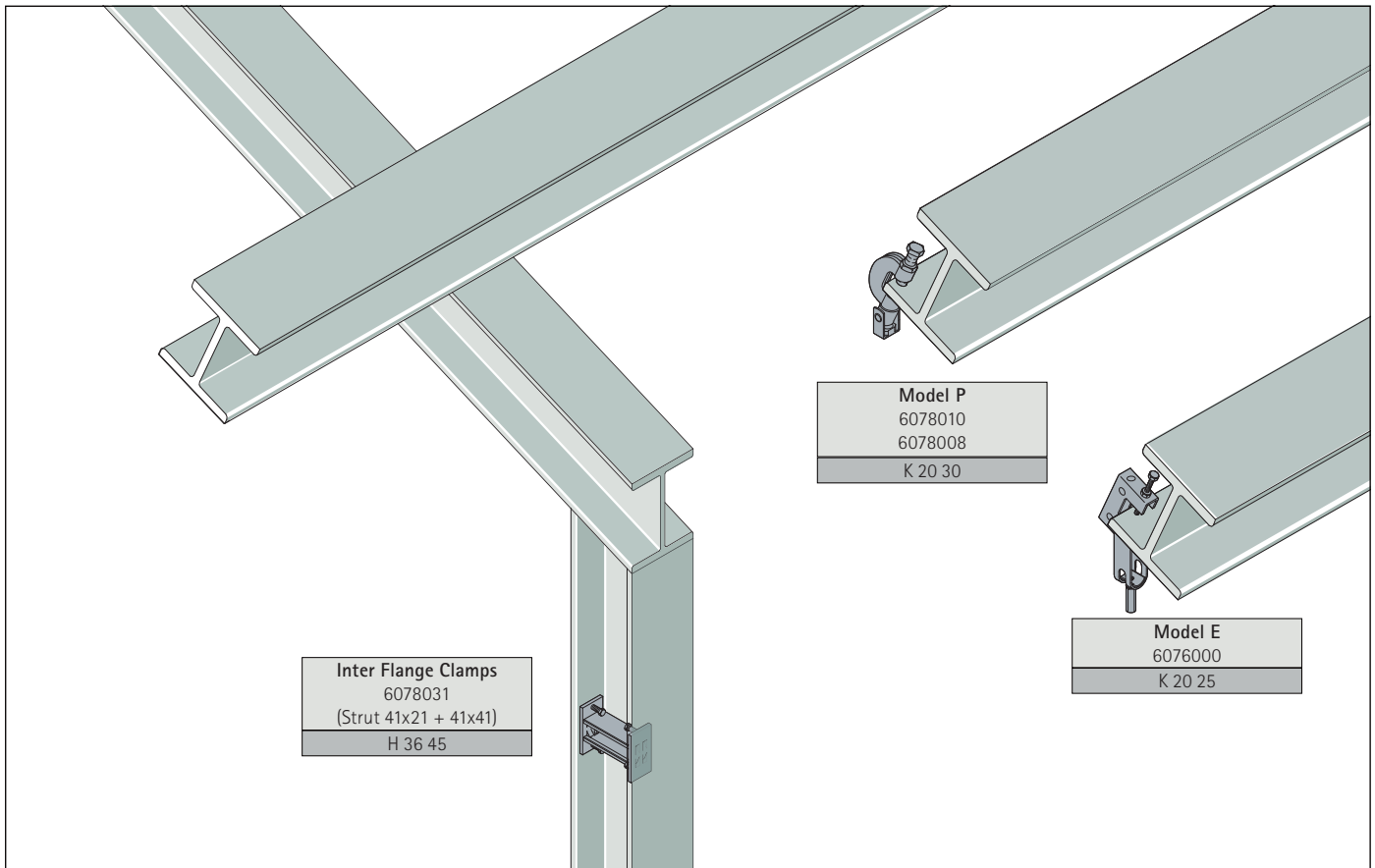
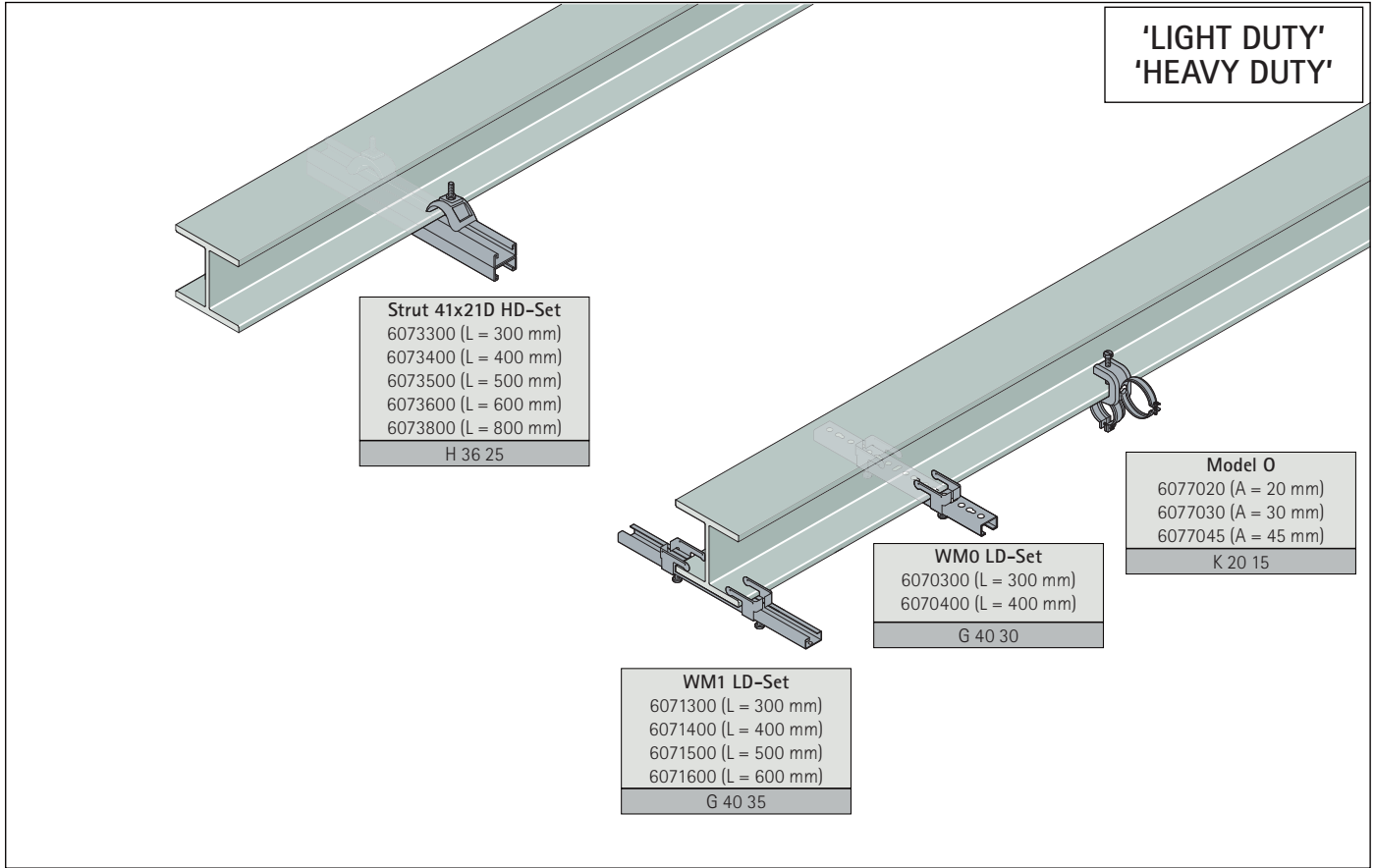
Part No.	G	L	B (mm)	H (mm)	s (mm)	d1 (mm)	d2 (mm)	k (mm)	F _{a,z} (N)	Pack 1
6719012	M12	145 mm	38	14	4	30 x 11	25 x 11	100	6,000	50
6719016	M16	145 mm	38	17	4	30 x 11	25 x 11	100	6,000	50
6719021	G½"	145 mm	38	19	4	30 x 11	25 x 11	100	4,000	50
6719027	G¾"	145 mm	38	22	4	30 x 11	25 x 11	100	5,000	50
6719033	G1"	145 mm	38	24	4	30 x 11	25 x 11	100	5,500	50



Complementary

- 466 BIS Stud Bolt
- 471 BIS Threaded Tube

BIS Beam Clamps Electrical



BIS Wall Plate

fixing to wall or ceiling

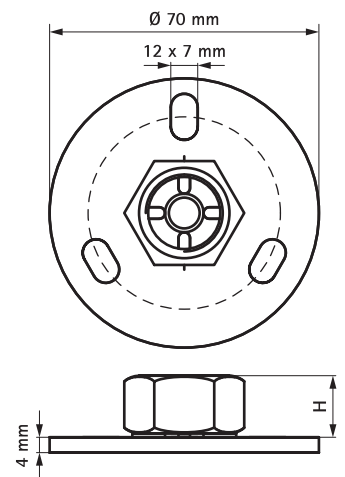
(K 15 07)



Features and Benefits

- with resistance welded connection nut
- material: steel
- zinc plated

Part No.	G	H (mm)	F _{a,z} (N)	Pack 1
6709021	G1/2"	16	2,500	50



BIS Wall Plate CO₂ Welded (BUP1000)

(K 15 09)

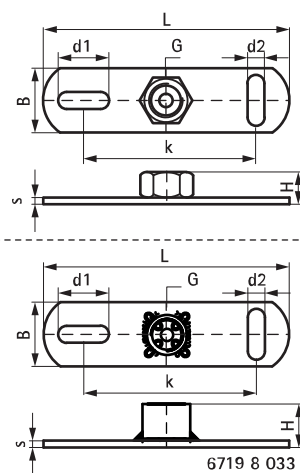
fixing to wall or ceiling



Features and Benefits

- slots at 90° to each other to simplify fixing
- with CO₂ welded connection nut
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	G	L	B (mm)	H (mm)	s (mm)	d1 (mm)	d2 (mm)	k (mm)	F _{a,z} (N)	Pack 1
67198016	M16	145 mm	38	19.5	4	30 x 11	25 x 11	100	6,000	50
67198021	G1/2"	145 mm	38	21.5	4	30 x 11	25 x 11	100	4,000	50
67198033	G1"	145 mm	38	26.5	4	30 x 11	25 x 11	100	5,500	50



BIS Wall Plate Resistance Welded (BUP1000)

(K 15 11)

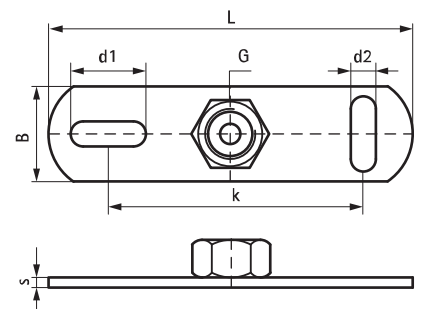
fixing to wall or ceiling



Features and Benefits

- slots at 90° to each other to simplify fixing
- with resistance welded connection nut
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

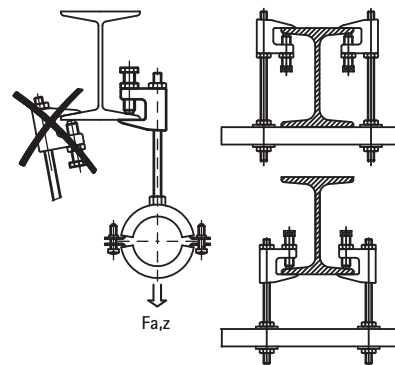
Part No.	G	L	B	s	d1	d2	k	F _{a,z}	Pack 1
			(mm)	(mm)	(mm)	(mm)	(mm)	(N)	
6708008	M8	80 mm	25	3	15 x 8.5	15 x 8.5	50	2,500	50
6708010	M10	80 mm	25	3	15 x 8.5	15 x 8.5	50	2,500	50



BIS Beam Clamp Model C

(K 20 05)

for flange up to 28 mm



Features and Benefits

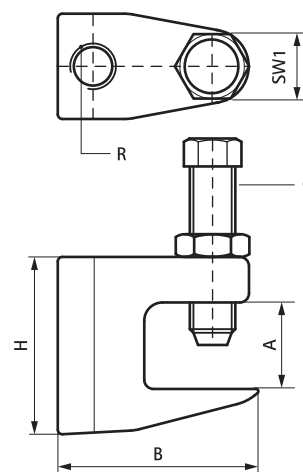
- for a solid fixing to steel construction without the need for welding or drilling
- according to VdS-regulations an additional safety strap should be used when supporting pipes above DN65
- bolt with hexagon head according to DIN 933 strength class 8.8, screw point with cup ring according to EN ISO 4753 and lock nut
- material: beam clamp made of cast iron; bolt of hardened steel, nut of steel, zinc plated
- see also: BIS Safety Strap (page K 20 06)



Part No.	Code	A (mm)	R	G	B (mm)	H (mm)	SW1 (mm)	F _{a,z} (N)	FM	VdS	Pack 1
6003006	TK10-M6	≤23	M6	M10	50	45	17	2,500	-	-	50
6003008	TK10-M8	≤23	M8	M10	50	45	17	2,500	-	VdS	50
6003010	TKN10-M10	≤20	M10	M10	44	42	17	2,500	FM	VdS	50
6003310	TK16-M10	≤28	M10	M12	58	58	19	2,500	FM	VdS	25
6003012	TK12-M12	≤26	M12	M10	58	54	17	3,500	FM	VdS	25
6003016	TK16-M16	≤28	M16	M12	58	58	19	5,500	FM	VdS	25
6003908	TK10-D9	≤23	∅ 9 mm	M10	50	45	17	2,500	-	VdS	50
6003910	TKN10-D11	≤20	∅ 11 mm	M10	44	42	17	2,500	FM	VdS	50
6003911	TKN10-D11-B	≤20	∅ 11 mm	M10	44	42	17	2,500	FM	VdS	10
6003912	TK12-D13	≤26	∅ 13 mm	M10	58	54	17	3,500	FM	VdS	25

Articles with codes ending in a '-B' are packed in a plastic bag.

Tighten the set screw with hand and apply a further 1/2 turn with a spanner. Tighten counter nut with hand and apply a further 1/8 turn with a spanner. Certificates available on request.

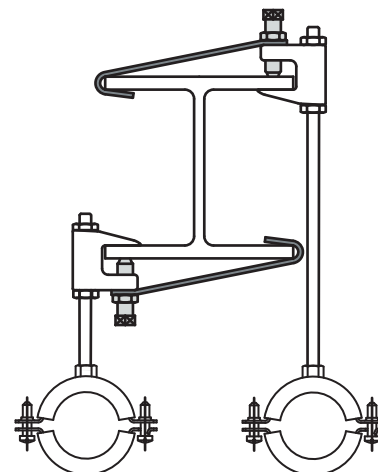
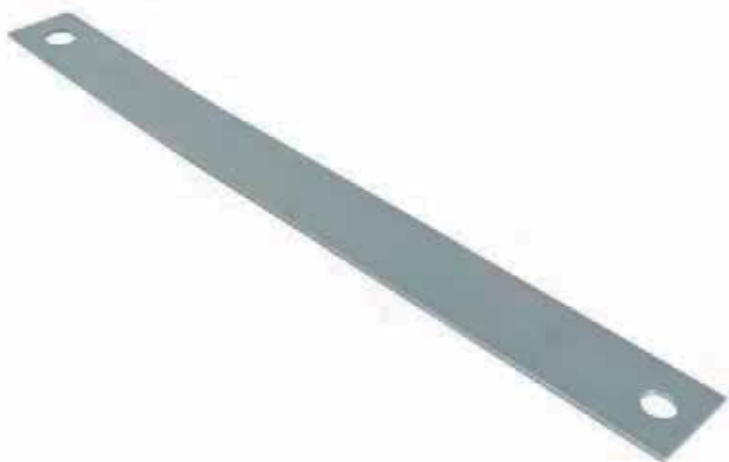


Complementary

421 BIS Safety Strap for Beam Clamp Model C

BIS Safety Strap for Beam Clamp Model C

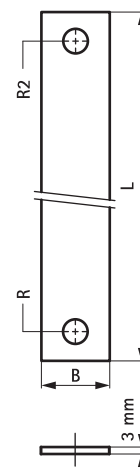
(K 20 06)



Features and Benefits

- Safety Strap needs to be bent by hand
 - material: steel
 - pre-galvanized
- see also: BIS Beam Clamps Model C (page K 20 05)

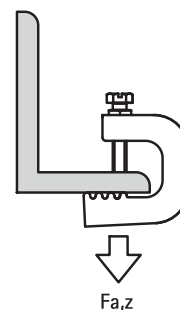
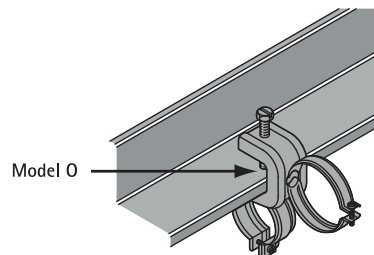
Part No.	R	R2	L	B (mm)	Pack 1
6015110	Ø 10.5 mm	Ø 12.5 mm	350 mm	25	25
6015112	Ø 12.5 mm	Ø 16.5 mm	400 mm	40	25



BIS Beam Clamp Model O

(K 20 15)

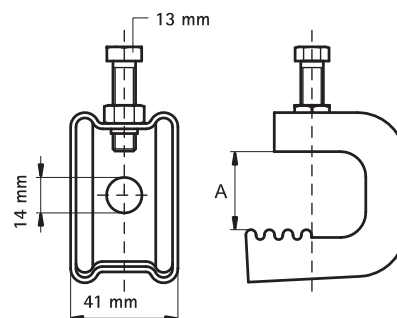
for flange up to 45 mm



Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- up to flange thickness 45 mm
- with hole \varnothing 14 mm for fixing of BIS IC-clamp, stud bolt or S-Hook
- with serration for increased security
- material: steel
- surface treatment: Dacromet
- see also: IC-clamp (for conduit or cable); square nut (for threaded rod) or protective cap (to avoid damaging of protected surfaces)

Part No.	A (mm)	F _{a,z} (N)	Pack 1
6077020	≤20	1,100	25
6077030	≤30	1,200	25
6077045	≤45	1,300	25



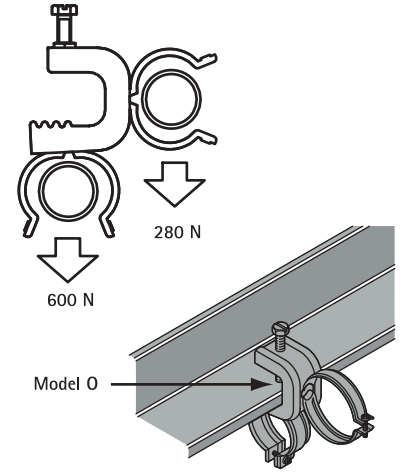
Complementary

- 466 BIS Stud Bolt
- 423 BIS Beam Clamp Model O - Accessories

BIS Beam Clamp Model O – Accessories

(K 20 20)

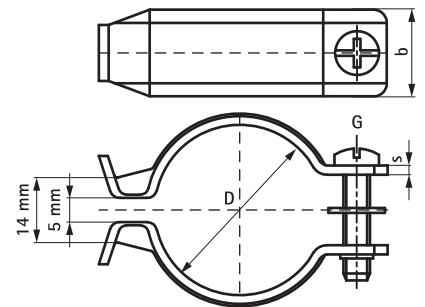
accessories for BIS Beam Clamp Model O



Features and Benefits

- Part No. 607 7 2XX: for fixing of clamps or cables to BIS Beam clamp model 'O' (Part No. 607 7 OXX)
- material: clamp and square nut made of steel
- Part No. 607 7 2XX: surface treatment: Dacromet

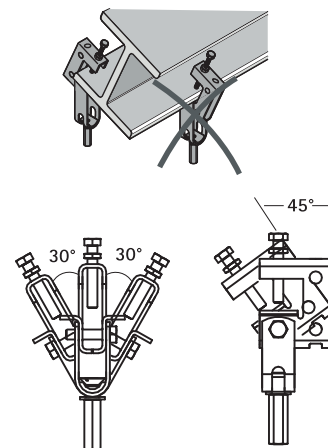
Part No.	D (mm)	Model	G	b x s (mm)	F _{a,z} (N)	F _{a,z 2} (N)	Pack 1	Pack 2
6077220	16.0 - 20.0	BIS IC-Clamp	M5	16 x 1.5	600	280	50	200
6077225	20.4 - 25.0	BIS IC-Clamp	M5	16 x 1.5	600	280	50	200
6077231	26.9 - 31.8	BIS IC-Clamp	M5	16 x 1.5	600	280	50	200
6077238	33.7 - 38.0	BIS IC-Clamp	M6	20 x 1.5	600	280	50	200
6077244	40.0 - 44.5	BIS IC-Clamp	M6	20 x 1.5	600	280	50	200



BIS Swivel Beam Clamp Model E

(K 20 25)

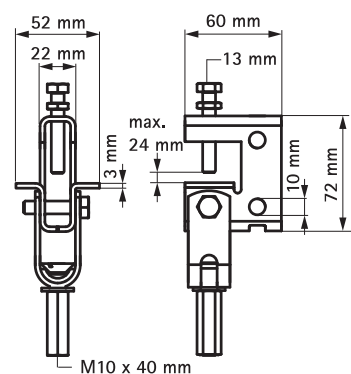
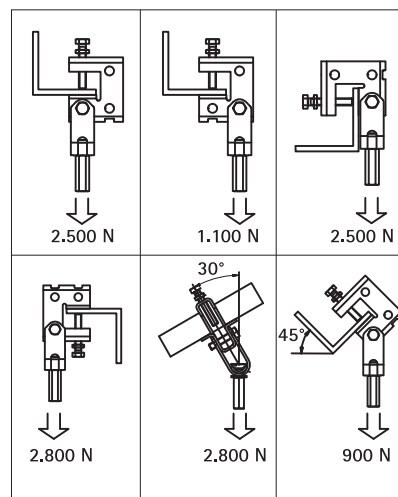
for flange up to 24 mm



Features and Benefits

- multidirectional clamp
- for suspension of light components to pitched beams without welding or drilling
- up to flange thickness 24 mm
- articulation to 30° sideways, 45° forwards
- material: steel
- surface treatment: Dacromet

Part No.	A (mm)	G	Pack 1
6076000	≤24	M10	10



BIS Swivel Beam Clamp Model P

(K 20 30)

for flange up to 17 mm

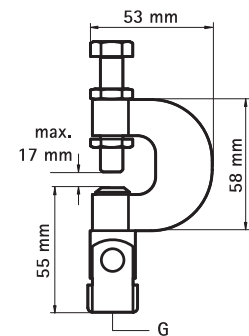
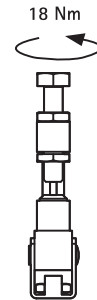
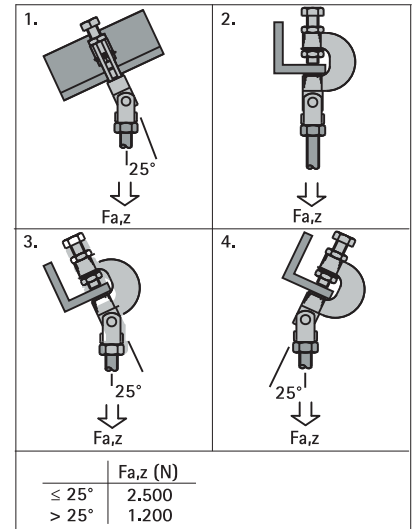


Features and Benefits

- multidirectional clamp
- for suspension on pitched flanges without welding or drilling
- up to flange thickness 17 mm
- according to VdS-regulations an additional safety strap should be used when supporting pipes above DN65
- articulation to 45° sideways, 90° forwards
- safety strap is obliged with VdS applications 1 and 4
- material: steel
- zinc plated
- with VdS-approval - certificate number G 4020003

Part No.	Code	A (mm)	G	FM	VdS	Pack 1
6078008	HFLS-M8	≤17	M8	-	VdS	10
6078010	HFLS	≤17	M10	FM	VdS	25

FM and VdS Approval to 25° articulation.



BIS Roofing Sheet Hanger (BUP1000)

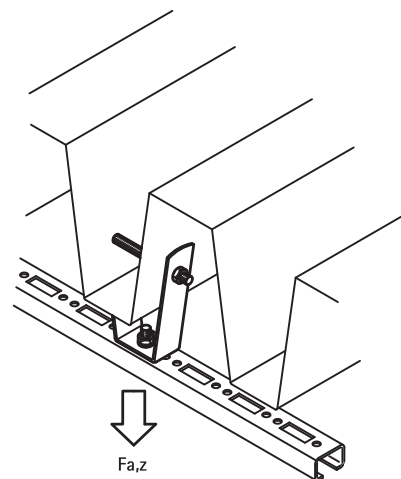
(K 25 03)

fixing to profiled roofing sheet

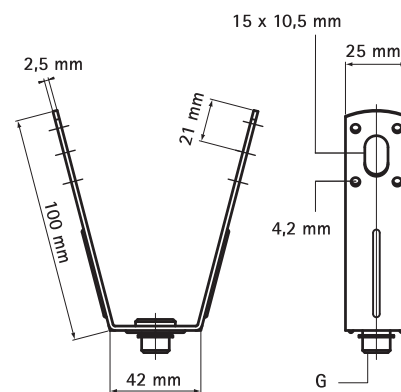


Features and Benefits

- for mounting to profiled roofing sheet by means of pop rivets or threaded rod
- for applications in environments requiring increased corrosion resistance
- variable distance to roof hanger by using a threaded rod
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



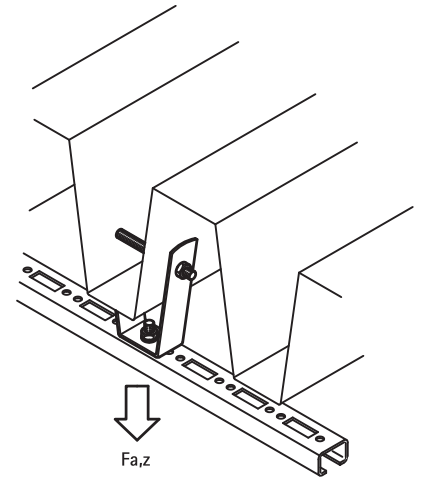
Part No.	$F_{a,z}$ (N)	Pack 1
6785801	2,300	50
<i>Maximum load ($F_{a,z}$) depends on the load capacity of the trapezium shaped roofing sheet. Before mounting, the roof load capacity has to be confirmed by a structural engineer.</i>		



BIS Roofing Sheet Hanger VdS

(K 25 05)

fixing to profiled roofing sheet



Features and Benefits

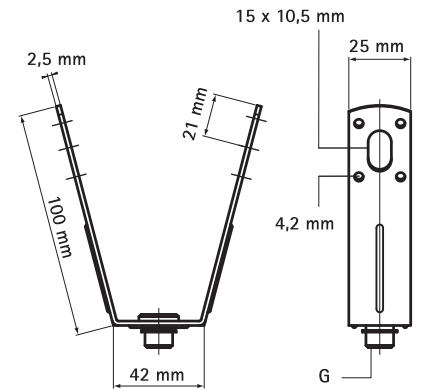
- for mounting to profiled roofing sheet by means of pop rivets or threaded rod
 - for fixing pipes up to DN 50 in stationary water extinguishing systems to profiled roofing sheets according to VdS guidelines
 - variable distance to roof hanger by using a threaded rod
 - material: steel
 - pre-galvanized
- with VdS-approval - certificate number G 4070033



Cert.Nr.
G 4070033

Part No.	G	F _{a,z} (N)	VdS	Pack 1
6785001	∅ 13.0 mm	2,300	VdS	50
6785008	M8	2,300	VdS	50
6785010	M10	2,300	VdS	50

Maximum load (F_{a,z}) depends on the load capacity of the trapezium shaped roofing sheet. Before mounting, the roof load capacity has to be confirmed by a structural engineer.



Complementary

- 429 BIS Hole Punching Plier
- 451 BIS Hexagon Nut
- 447 BIS Hexagon Head Bolt

BIS Roofing Sheet Hanger

(K 25 07)

fixing to profiled roofing sheet

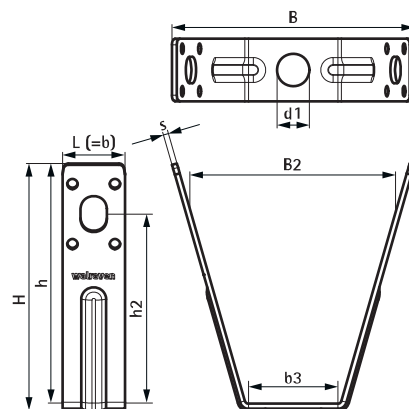


Features and Benefits

- for mounting to profiled roofing sheet by means of pop rivets or threaded rod
- material: steel
- pre-galvanized
- variable distance to roof hanger by using a threaded rod

Part No.	L	B	B2	b3	H	h	h2	b	s	d1	Pack 1
6785101	25 mm	97 (mm)	82 (mm)	38 (mm)	99 (mm)	96 (mm)	76 (mm)	25 (mm)	2 (mm)	Ø 13.0 (mm)	50

Maximum load ($F_{0,2}$) depends on the load capacity of the trapezium shaped roofing sheet. Before mounting, the roof load capacity has to be confirmed by a structural engineer.



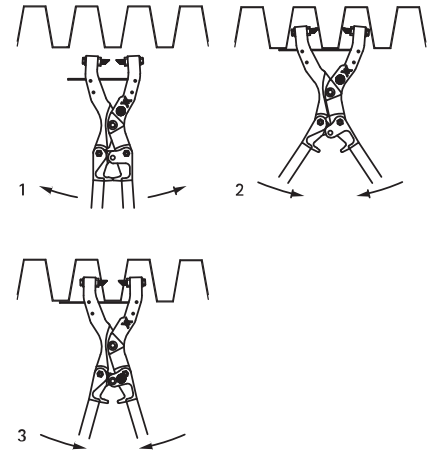
Complementary

469 BIS Threaded Rod

BIS Hole Punching Plier

accessories for BIS Roofing sheet hangers

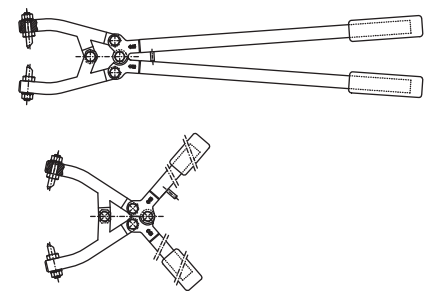
(K 25 10)



Features and Benefits

- for trapezium shaped roofing sheets up to max. 1.5 mm thickness
- robust and durable design
- replaceable punching pins, Part No. 692 0 013
- supplied with Ø 10.5 mm punching pins

Part No.	Model	Minimum Jaw Opening (mm)	Maximum Jaw Opening (mm)	Weight (kg)	Pack 1
6920012	BIS Hole Punching Pliers	25	90	3.5	1
6920017	BIS Hole Punching Pliers L	80	170	3.8	1



Complementary

- 430 BIS Replacement Punching Pins
- 428 BIS Roofing Sheet Hanger

BIS Replacement Punching Pins

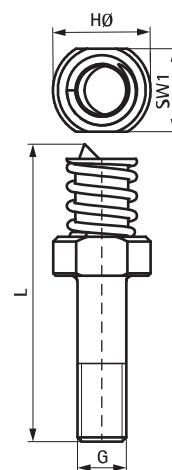
(K 25 12)



Features and Benefits

- replacement punching pins for BIS Hole Punching Pliers

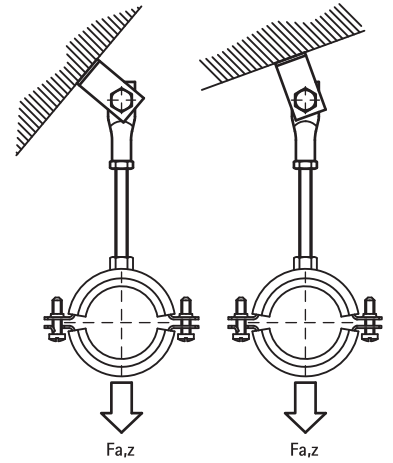
Part No.	Model	G	L	HØ (mm)	SW1 (mm)	For	Pack 1
6920013	Set of two pins	M10	61 mm	20	17	6920012 Et 6920017	1



BIS Roof Suspension Assembly

fixing to pitched roof

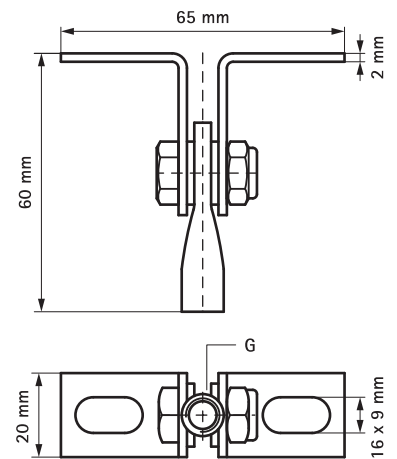
(K 25 15)



Features and Benefits

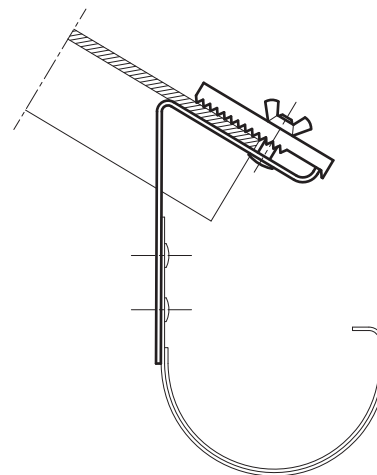
- for fixing to pitched roof
- adjustable to suit the slope of any pitched roof
- material: steel
- zinc plated

Part No.	G	F _{a,z} (N)	Pack 1
6788008	M8	2,580	50



BIS Clamp for Corrugated Sheet

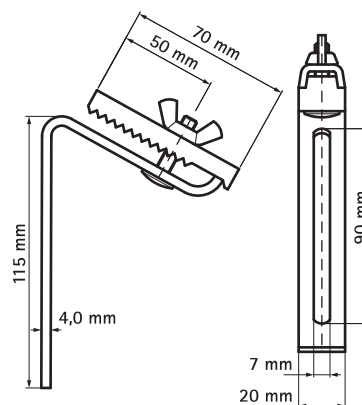
(K 27 05)



Features and Benefits

- for a tightened fixing of gutter to corrugated sheets
- no damage to corrugated sheet (suitable for every thickness)
- material: steel
- hot dip galvanized

Part No.	Pack 1
5191000	50



BISMAT[®] Rail

fixing to wall or ceiling

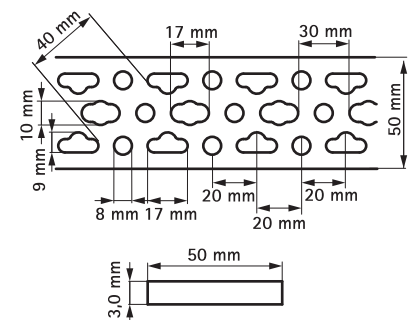
(K 30 05)



Features and Benefits

- universal system for pipe-fixing in wall opening, wall corners, etc.
- with continuous hole pattern, designed for centre distance of sanitary armature
- pre-galvanized
- material: steel

Part No.	L	BndL
0835503	2 m	50



Complementary

- 434 BISMAT[®] Rail - Plier
- 435 BISMAT[®] Rail - Backing Plate
- 436 BISMAT[®] Rail - Sound Shield

Complementary

- 437 BISMAT[®] Rail - Sound Cap
- 438 BISMAT[®] Rail - Mounting Clamp

BISMAT[®] Rail – Plier

accessories of BISMAT[®] Rail

(K 30 10)



Features and Benefits

- for bending BISMAT[®] Rail to any required angle
- robust construction

Part No.	For Rail	Pack 1
6920050	BISMAT [®] Rail	1

BISMAT[®] Rail – Backing Plate

(K 30 20)

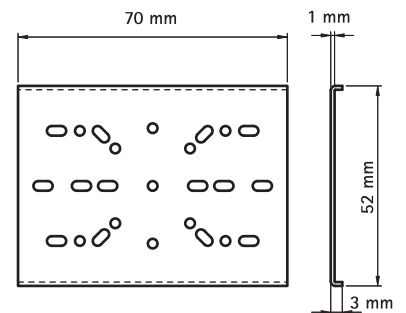
accessories of BISMAT[®] Rail



Features and Benefits

- for a secure fixing of sanitary wall plates to BISMAT[®] Rail
- material: steel
- pre-galvanized

Part No.	For Rail	Pack 1
0835000	BISMAT [®] Rail	50



BISMAT[®] Rail – Sound Shield

(K 30 25)

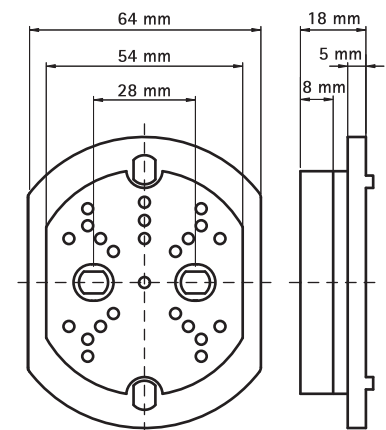
accessories of BISMAT[®] Rail



Features and Benefits

- to avoid noise transmission of sanitary wall plates
- material: ABS and EPDM
- sound insulating lining according DIN 4109

Part No.	For Rail	Pack 1
0835001	BISMAT [®] Rail	20



BISMAT[®] Rail – Sound Cap

accessories of BISMAT[®] Rail

(K 30 40)



Features and Benefits

- sound cap for sanitary wall plates
- material: EPP

Part No.	For Rail	Pack 1
0835006	BISMAT [®] Rail	20

BISMAT[®] Rail – Mounting Clamp

(K 30 45)

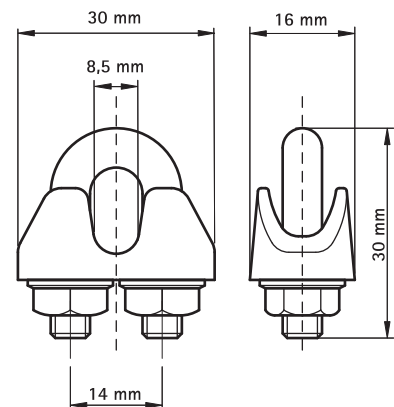
accessories of BISMAT[®] Rail



Features and Benefits

- to fix stud bolt M6 or M8 to BISMAT[®] Rail
- material: steel
- (e.g. to fix a clamp or siphon)

Part No.	For Rail	Pack 1
0835002	BISMAT [®] Rail	50



BIS Pipe Reinforcement

(K 35 05)

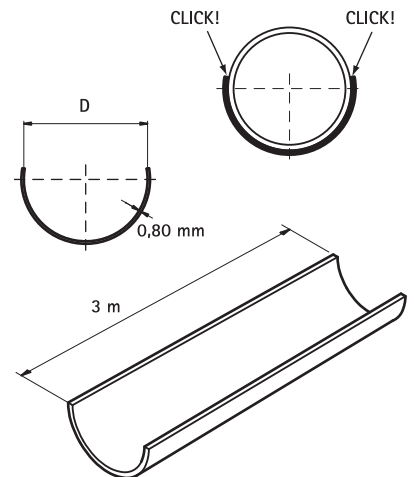
support for plastic pipe Ø 16 - 160 mm



Features and Benefits

- self-gripping and continuous support for plastic pipes to prevent unsatisfactory deflections
- allows for longer distance between supports (fixing distance with reinforcement is 1.5 times longer than the distance without reinforcement)
- controls direction of pipe expansion. Maintains alignment of pipe, and prohibits "snaking"
- reinforcement fits inside insulation
- pre-galvanized
- lightweight and economical, also 3 meter lengths are easy to handle
- eases handling and speeds installation of PEX tubing
- can be cut with hand tools
- material: steel
- to be used with e.g. BISMAT® 5000, Bifix® 5000 and BIS Polymat®

Part No.	D (mm)	Model	L	BndS
0635316	16	With click-effect	3 m	75
0635320	20	With click-effect	3 m	75
0635325	25	With click-effect	3 m	75
0635332	32	With click-effect	3 m	75
0635340	40	With click-effect	3 m	15
0635350	50	With click-effect	3 m	15
0635356	56	-	3 m	15
0635363	63	With click-effect	3 m	15
0635375	75	With click-effect	3 m	15
0635390	90	With click-effect	3 m	15
0635391	110	With click-effect	3 m	15
0635392	125	-	3 m	15
0635393	160	-	3 m	30



Complementary

- 37 BISMAT® 5000
- 38 Bifix® 5000 G2 (BUP1000)
- 71 BIS 3000 (zp)

BIS Hanger Bolt (BUP1000)

(K 40 04)

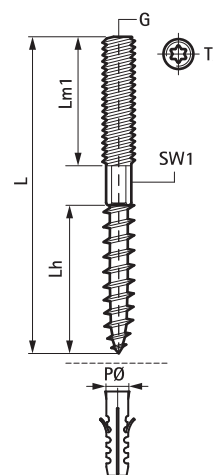
fixing to wall or ceiling



Features and Benefits

- with hexagon for fine setting
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	G	L	Lh (mm)	Lm1 (mm)	PØ (mm)	SW1 (mm)	Tx	Pack 1	Pack 2
62680810	M8	100 mm	50	40	10	6	25	100	500
62680820	M8	200 mm	50	50	10	6	25	50	250
62681010	M10	100 mm	50	40	12	8	25	50	500
62681020	M10	200 mm	55	40	12	8	25	50	250



BIS Hanger Bolt

fixing to wall or ceiling

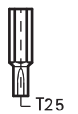
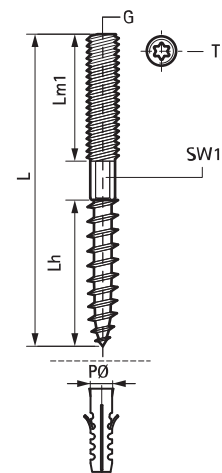
(K 40 05)



Features and Benefits

- with hexagon for fine setting
- zinc plated
- material: steel

Part No.	G	L	Lh (mm)	Lm1 (mm)	PØ (mm)	SW1 (mm)	Tx	Pack 1	Pack 2
6263606	M6	60 mm	35	25	8	-	-	100	1,000
6263609	M6	90 mm	30	30	8	5	-	100	1,000
6263612	M6	120 mm	30	30	8	5	-	100	1,000
6263615	M6	150 mm	30	45	8	5	-	100	1,000
6263805	M8	50 mm	35	15	10	6	25	100	1,000
6263806	M8	60 mm	30	20	10	6	25	100	1,000
6263808	M8	80 mm	35	35	10	6	25	100	1,000
6263810	M8	100 mm	50	40	10	6	25	100	1,000
6263812	M8	120 mm	50	40	10	6	25	100	500
6263815	M8	150 mm	50	50	10	6	25	50	500
6263816	M8	160 mm	60	40	10	6	25	50	250
6263818	M8	180 mm	60	40	10	6	25	50	250
6263820	M8	200 mm	50	50	10	6	25	50	250
6283006	M10	60 mm	35	15	12	8	25	50	500
6283008	M10	80 mm	35	35	12	8	25	50	500
6283010	M10	100 mm	50	40	12	8	25	50	500
6283011	M10	110 mm	50	40	12	8	25	50	500
6283012	M10	120 mm	50	40	12	8	25	50	500
6283014	M10	140 mm	50	40	12	8	25	50	250
6283018	M10	180 mm	55	60	12	8	25	50	250
6283020	M10	200 mm	55	40	12	8	25	50	250
6283210	M12	100 mm	45	25	12	10	-	50	-
6283212	M12	120 mm	60	35	12	10	-	50	250
6283214	M12	140 mm	60	35	12	10	-	50	-



626 3 008

BIS Threaded Shoulder Wood Screw Model A

(K 40 10)

fixing to wall or ceiling

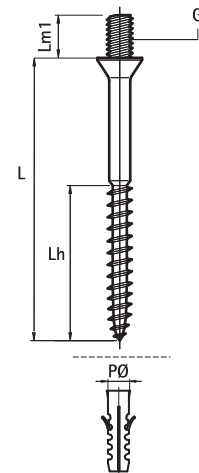
985



Features and Benefits

- material: steel
- zinc plated

Part No.	G	L	Lh (mm)	Lm1 (mm)	PØ (mm)	Pack 1	Pack 2
6353635	M6	35 mm	25	8	8	100	2,000
6353650	M6	50 mm	30	6	8	100	1,800
6353680	M6	80 mm	50	6	8	100	500
6353850	M8	50 mm	30	8	10	100	-
6353860	M8	60 mm	30	8	10	100	1,000
6353880	M8	80 mm	30	8	10	100	-
6353890	M8	90 mm	50	12	10	100	500

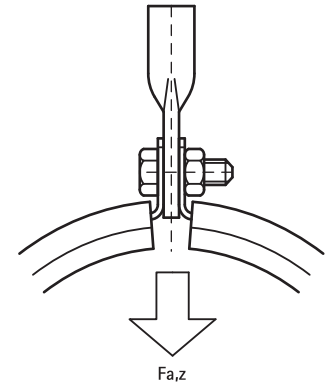


BIS Suspension Eye (Female Threaded)

(K 45 05)

to make a suspension point

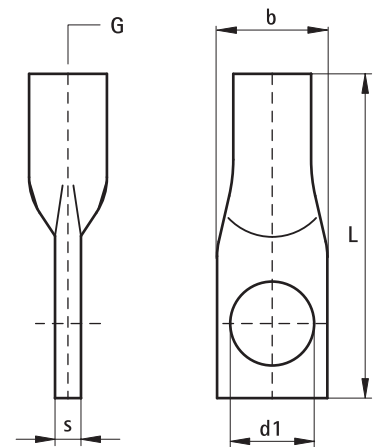
680



Features and Benefits

- closed design to maximize loading
- zinc plated
- material: steel

Part No.	G	L	b x s (mm)	d1 (mm)	F _{a,z} (N)	Pack 1	Pack 2
6803008	M8	45 mm	13.5 x 3.5	Ø 8.5	2,580	100	500
6803010	M10	50 mm	17.0 x 4.0	Ø 10.5	3,540	100	500
6803012	M12	55 mm	20.5 x 5.5	Ø 10.5	7,750	100	500

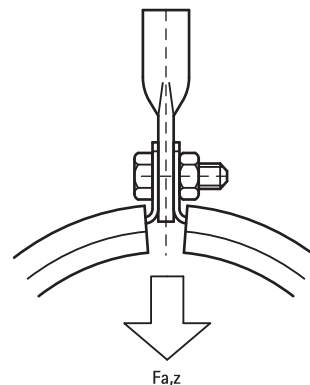


BIS Suspension Eye

to make a suspension point

887

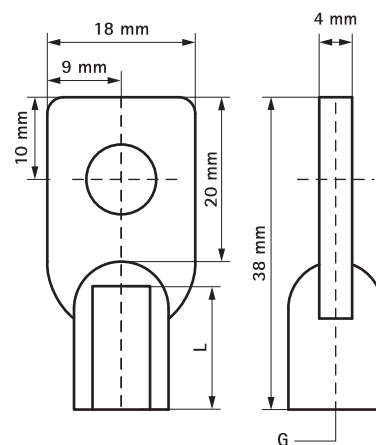
(K 45 10)



Features and Benefits

- material: Zamak (zinc/aluminium alloy)

Part No.	G	L	F _{a,z} (N)	Pack 1
6803706	M6	15 mm	2,170	50
6803708	M8	15 mm	2,270	50



BIS Eye Bolt

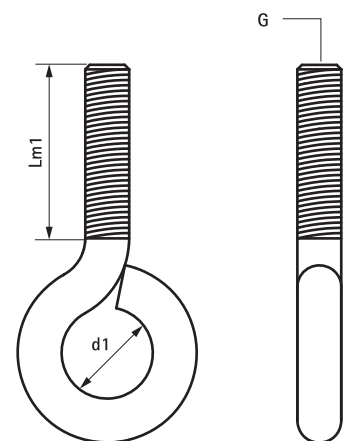
(K 45 15)

Features and Benefits

- material: steel

- zinc plated

Part No.	G	d1 (mm)	Lm1 (mm)	Pack 1	Pack 2
6804825	M8	Ø 7.0	25	50	200
6804030	M10	Ø 15.0	30	25	100



Complementary

487 WD11 Drop-in Anchor
 488 WD11L Drop-in Anchor Lipped
 491 WD11 Setting Tool

Complementary

494 WBA Brass Anchor

BIS Hexagon Head Bolt (BUP1000)

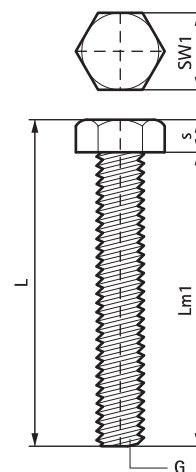
(K 45 19)



Features and Benefits

- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	Type	G	L	s (mm)	Lm1 (mm)	SW1 (mm)	Pack 1
61480830	ISO 4017	M8	35.3 mm	5.3	30	13	200
61480860	ISO 4017	M8	65.3 mm	5.3	60	13	50
61480880	ISO 4017	M8	85.3 mm	5.3	80	13	50
61481030	ISO 4017	M10	36.4 mm	6.4	30	17	200
61481060	ISO 4017	M10	66.4 mm	6.4	60	17	100
61481080	ISO 4017	M10	86.4 mm	6.4	80	17	100
61481230	ISO 4017	M12	37.5 mm	7.5	30	19	100
61481260	ISO 4017	M12	67.5 mm	7.5	60	19	100
61481280	ISO 4017	M12	87.5 mm	7.5	80	19	100



Complementary

- 487 WDI1 Drop-in Anchor
- 488 WDI1L Drop-in Anchor Lipped
- 491 WDI1 Setting Tool

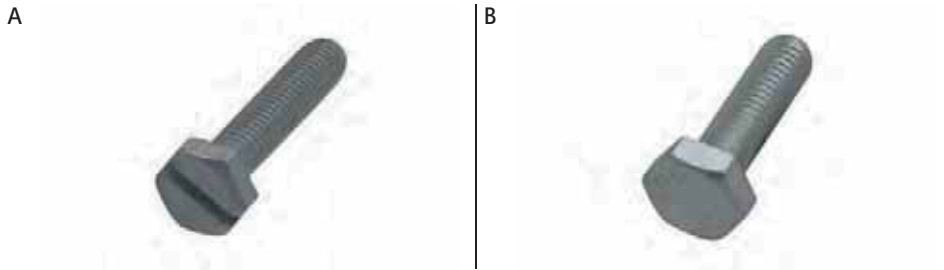
Complementary

- 494 WBA Brass Anchor
- 450 BIS Hexagon Nut (BUP1000)
- 448 BIS Washer (BUP1000)

BIS Hexagon Head Bolt

(K 45 20)

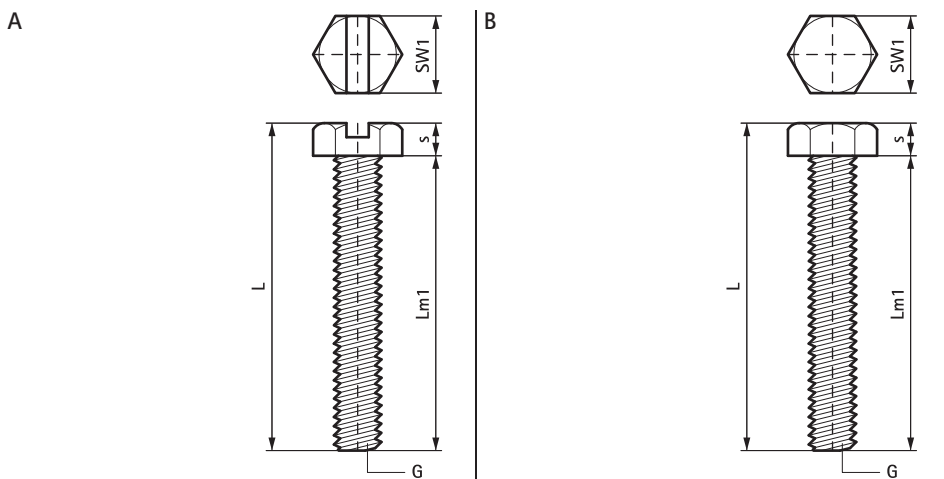
614



Features and Benefits

- Part No. 614 3 6XX: slotted head
- material: steel
- zinc plated

Part No.	Type	G	L	s (mm)	Lm1 (mm)	SW1 (mm)	Pack 1
A 6143620	DIN 933	M6	24.0 mm	4.0	20	10	50
A 6143630	DIN 933	M6	34.0 mm	4.0	30	10	100
B 6143816	DIN 933	M8	21.3 mm	5.3	16	13	50
B 6143820	DIN 933	M8	25.3 mm	5.3	20	13	50
B 6143825	DIN 933	M8	30.3 mm	5.3	25	13	50
B 6143835	DIN 933	M8	40.3 mm	5.3	35	13	50
B 6143860	DIN 933	M8	65.3 mm	5.3	60	13	200
B 6143880	DIN 933	M8	85.3 mm	5.3	80	13	200
B 6143920	DIN 933	M10	26.4 mm	6.4	20	17	100
B 6143925	DIN 933	M10	31.4 mm	6.4	25	17	100
B 6143930	DIN 933	M10	36.4 mm	6.4	30	17	100
B 6143935	DIN 933	M10	41.1 mm	6.4	35	17	100
B 6143950	DIN 933	M10	56.4 mm	6.4	50	17	100
B 6143990	DIN 933	M10	96.4 mm	6.4	90	17	100



Complementary

- 449 BIS Washer
- 451 BIS Hexagon Nut
- 487 WD11 Drop-in Anchor

Complementary

- 488 WD11L Drop-in Anchor Lipped
- 491 WD11 Setting Tool
- 494 WBA Brass Anchor

BIS Washer (BUP1000)

(K 45 29)



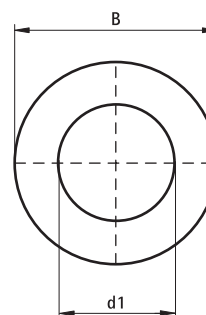
Features and Benefits

- according to EN-ISO 7089 (was DIN 125A)
- material: steel 1.0332
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- tested for fire safety



Part No.	Type	B (mm)	s (mm)	d1 (mm)	Pack 1
65381308	EN-ISO 7089	16	1.6	Ø 8.4	100
65381310	EN-ISO 7089	20	2.0	Ø 10.5	100
65381312	EN-ISO 7089	24	2.5	Ø 13.0	100

Ø 10.5 and above tested for fire safety.



BIS Washer

(K 45 30)

653

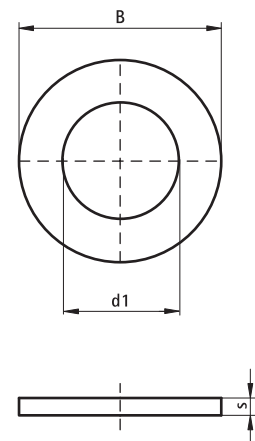


Features and Benefits

- according to EN-ISO 7089 (was DIN 125A) ■ zinc plated
- material: steel ■ tested for fire safety

Part No.	Type	B (mm)	s (mm)	d1 (mm)	Pack 1	Pack 2
6533006	EN-ISO 7089	12	1.6	∅ 6.4	100	2,500
6533008	EN-ISO 7089	16	1.6	∅ 8.4	100	2,500
6533010	EN-ISO 7089	20	2.0	∅ 10.5	100	2,500
6533012	EN-ISO 7089	24	2.5	∅ 13.0	100	2,500

∅ 10.5 and above tested for fire safety.



BIS Hexagon Nut (BUP1000)

(K 45 34)



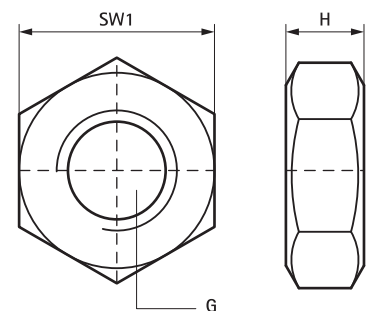
Features and Benefits

- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- tested for fire safety



Part No.	Type	G	H (mm)	SW1 (mm)	Pack 1	Pack 2
61281008	DIN 934	M8	6.8	13	100	1,500
61281010	DIN 934	M10	8.4	17	100	2,000
61281012	DIN 934	M12	10.8	19	100	1,200

M10 and above tested for fire safety.



BIS Hexagon Nut

(K 45 35)



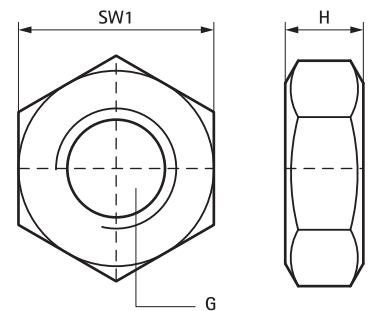
Features and Benefits

- material: steel
- zinc plated
- tested for fire safety



Part No.	Type	G	H (mm)	SW1 (mm)	Pack 1	Pack 2
6123006	ISO 4032	M6	5.2	10	100	7,000
6123008	ISO 4032	M8	6.8	13	100	1,500
6123010	ISO 4032	M10	8.4	17	100	2,000
6123012	ISO 4032	M12	10.8	19	100	1,200
6123016	ISO 4032	M16	14.8	24	100	-
6123020	ISO 4032	M20	18.0	30	100	-
6123021	-	G1/2"	15.0	27	100	-

M10 and above tested for fire safety.



BIS Sheet Metal Cylinder Screw

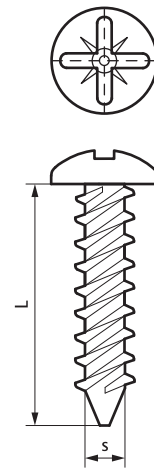
(K 45 40)



Features and Benefits

- according to ISO 7049 (was DIN 7981)
- zinc plated
- material: steel

Part No.	L	s (mm)	Pack 1	Pack 2
6174413	13 mm	4.2	100	-
6174516	16 mm	4.8	100	-
6174519	19 mm	4.8	100	-



BIS Suspension Eye – Wood Thread

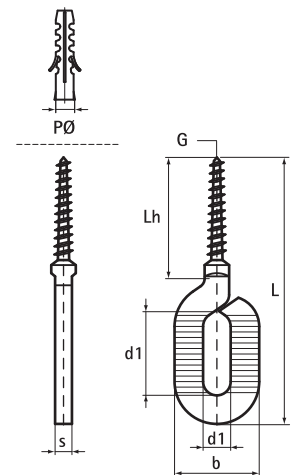
(K 45 45)



Features and Benefits

- material: steel
- zinc plated

Part No.	G	L	b x s (mm)	d1 (mm)	Lh (mm)	PØ (mm)	F _{a,z} (N)	Pack 1
6813650	H6	85 mm	21 x 4.0	22 x 8.0	45	8	1,140	100
6813850	H8	100 mm	27 x 5.5	26 x 9.0	55	10	1,800	100



BIS Suspension Eye – Metric

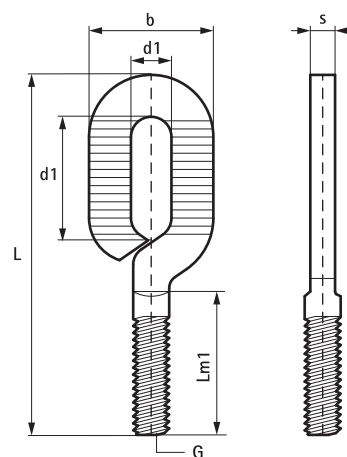
(K 45 50)



Features and Benefits

- material: steel
- zinc plated

Part No.	G	L	b x s (mm)	d1 (mm)	Lm1 (mm)	F _{a,z} (N)	Pack 1
6813830	M8	80 mm	27 x 5.5	26 x 9.0	30	1,800	100



Complementary

- 487 WDI1 Drop-in Anchor
- 488 WDI1L Drop-in Anchor Lipped
- 489 WDI1 Drop-in Anchor SSt

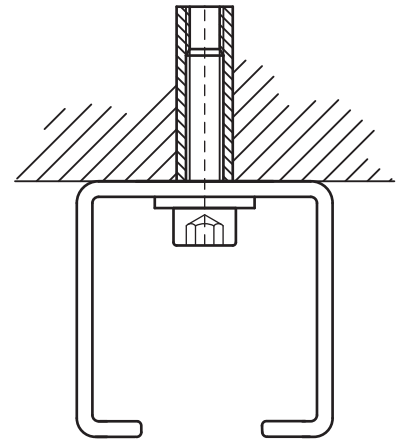
Complementary

- 494 WBA Brass Anchor
- 491 WDI1 Setting Tool

BIS Socket Head Bolt (BUP1000)

(K 45 54)

fixing of rail

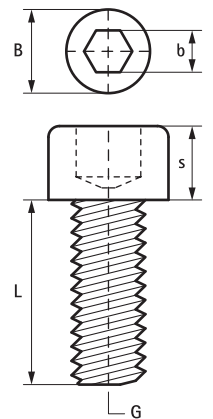


Features and Benefits

- for fixing of fixing rail
- material: steel, strength class 8.8
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- according to ISO 4762

Part No.	G	L	B (mm)	b (mm)	s (mm)	Pack 1
61380825	M8	25 mm	13	6	8.0	200
61380860	M8	60 mm	13	6	8.0	200
61380880	M8	80 mm	13	6	8.0	100
61381025	M10	25 mm	16	10	8.0	200
61381030	M10	30 mm	16	10	8.0	200
61381230	M12	30 mm	18	12	10.0	100
61381260	M12	60 mm	18	12	10.0	100

Required bolt or screw depends on rail hole pattern.



Complementary

- 487 WD11 Drop-in Anchor
- 488 WD11L Drop-in Anchor Lipped
- 489 WD11 Drop-in Anchor SSt

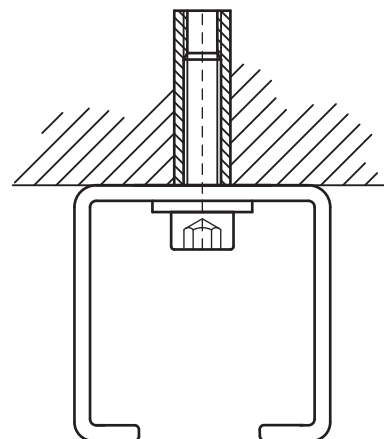
Complementary

- 491 WD11 Setting Tool
- 494 WBA Brass Anchor

BIS Socket Head Bolt and Screw

fixing of rail

(K 45 55)

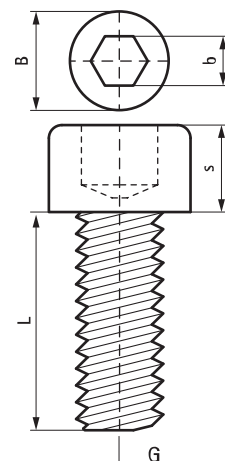


Features and Benefits

- for fixing of fixing rail
- material: steel, strength class 8.8
- zinc plated
- according to ISO 4762

Part No.	G	L	B (mm)	b (mm)	s (mm)	Pack 1
6133010	M8	16 mm	13	6.0	8.0	200
6133011	M8	20 mm	13	6.0	8.0	200
6133012	M8	25 mm	13	6.0	8.0	200
6133015	M10	15 mm	16	8.0	10.0	200

Required bolt or screw depends on rail hole pattern.



Complementary

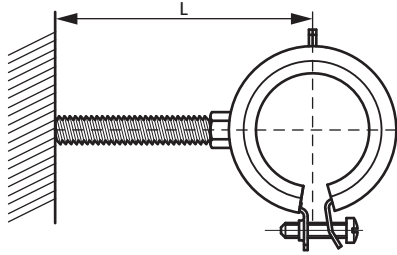
- 487 WDI1 Drop-in Anchor
- 488 WDI1L Drop-in Anchor Lipped
- 491 WDI1 Setting Tool

Complementary

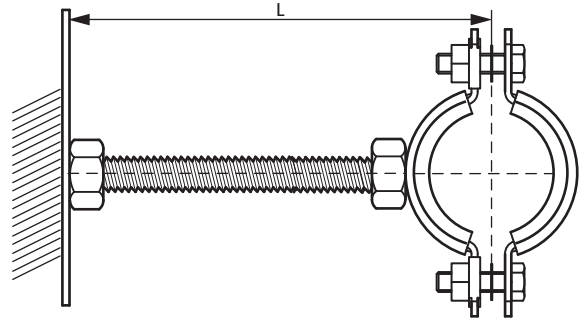
- 494 WBA Brass Anchor

BIS Stud Bolts / BIS Threaded Rods

Maximum allowed load



BIS Stud Bolts / BIS Threaded Rods



BIS Threaded Tubes

Ø	BIS Stud Bolts / BIS Threaded Rods							BIS Threaded Tubes		
	M8	M10	M12	M16	M20	M22	M24	1/2"	3/4"	1"
L (mm)										
20	210	422	744	1.936	3.785	5.295	6.542	3.057	5.377	10.693
30	140	281	496	1.291	2.523	3.530	4.361	2.038	3.584	7.128
40	105	211	372	968	1.892	2.647	3.271	1.528	2.688	5.346
50	84	169	297	774	1.514	2.118	2.617	1.223	2.151	4.277
60	70	141	248	645	1.262	1.765	2.181	1.019	1.792	3.564
70	60	120	212	553	1.081	1.513	1.869	873	1.536	3.055
80	50	105	186	484	946	1.324	1.636	764	1.344	2.673
90	40	94	165	430	841	1.177	1.454	679	1.195	2.376
100	32	81	149	387	757	1.059	1.308	611	1.075	2.138
125	21	52	111	310	606	847	1.047	489	860	1.711
150	14	36	77	258	505	706	872	408	717	1.426
175	10	27	57	203	433	605	748	349	614	1.222
200	-	20	43	155	378	529	654	305	538	1.069
225	-	16	34	123	300	469	582	272	478	950
250	-	13	28	99	243	380	504	239	430	855
275	-	11	23	82	201	314	416	198	391	778
300	-	-	19	69	169	264	350	166	358	713
325	-	-	16	59	144	225	298	141	322	658
350	-	-	14	51	124	194	257	122	278	611
375	-	-	12	44	108	169	224	106	242	570
400	-	-	11	39	95	148	197	93	213	531
450	-	-	-	31	75	117	156	74	168	420
500	-	-	-	25	61	95	126	60	136	340

Max. allowed load in N.
 Allowable bending: $f = (1/150) \times L$
 Allowable bending stress: $\sigma = 160 \text{ N/mm}^2$

Please contact our technical department in case of special applications.

BIS Hexagon Wood Bolt

(K 45 60)

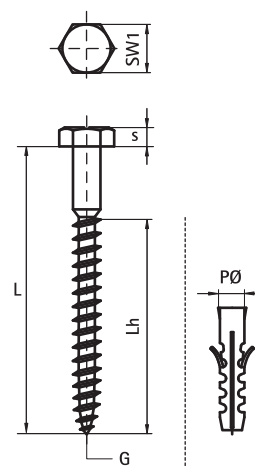
986



Features and Benefits

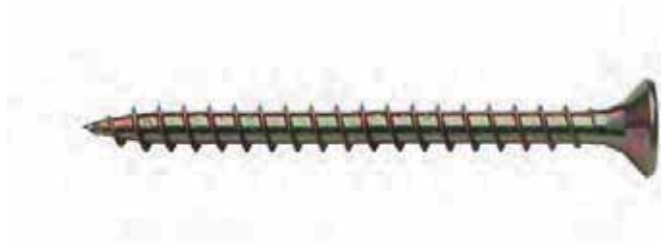
- material: steel
- zinc plated

Part No.	Model	Type	G	L	s	Lh	PØ	SW1	Pack 1
					(mm)	(mm)	(mm)	(mm)	
6183805	Torx 30	986	H8	50 mm	6.5	30	10	13	100
6183806	Torx 30	986	H8	60 mm	6.5	35	10	13	100
6183807	Torx 30	986	H8	70 mm	6.5	40	10	13	100
6183808	Torx 30	986	H8	80 mm	6.5	50	10	13	100
6183809	DIN 571	986	H8	90 mm	6.5	55	10	13	100
6183810	DIN 571	986	H8	100 mm	6.5	60	10	13	100
6183812	DIN 571	986	H8	120 mm	6.5	75	10	13	100
6193006	DIN 571	986	H10	60 mm	7.0	35	12	17	100
6193008	DIN 571	986	H10	80 mm	7.0	50	12	17	50
6193010	DIN 571	986	H10	100 mm	7.0	60	12	17	50



BIS Chipboard Screw

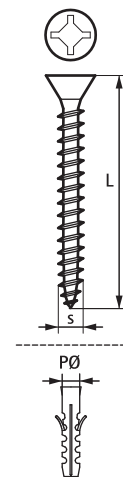
(K 45 65)



Features and Benefits

- countersunk head with cross slot
- zinc plated, yellow passivated
- material: steel

Part No.	L	s (mm)	PØ (mm)	Pack 1
6185405054	50 mm	4.0	7.0	500
6185505054	50 mm	5.0	8.0	500
6185506044	60 mm	5.0	8.0	400
6185606044	60 mm	6.0	8.0	250



BIS Chain (DIN 5685)

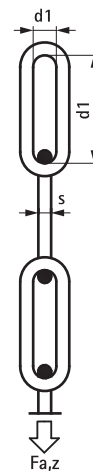
(K 50 05)



Features and Benefits

- Part No. 091 0 013: short linked (according to DIN 5685-2)
- Part No. 091 0 015 and 091 0 017: long linked (according to DIN 5685-1)
- material: steel
- zinc plated

Part No.	L	s (mm)	d1 (mm)	F _{a,z} (N)	Pack 1	App.
0910013	30 m	3.0	16 x 5.4	850	1	m.
0910015	30 m	3.0	26 x 5.4	600	1	m.
0910017	30 m	4.0	32 x 7.2	1,800	1	m.



Complementary

- 462 BIS S-Hook
- 463 BIS Splitted S-Hook
- 464 BIS Pig Tail Chain Hook

BIS Victor Chain (DIN 5686)

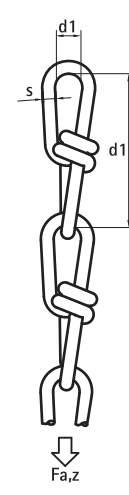
(K 50 10)



Features and Benefits

- according to DIN 5686
- material: steel
- zinc plated

Part No.	L	s	d1	F _{a,z}	Pack 1	App.
		(mm)	(mm)	(N)		
0912022	30 m	2.0	28 x 5.0	400	1	m.
0912025	30 m	2.2	31 x 5.0	500	1	m.
0912027	30 m	2.5	35 x 6.0	600	1	m.
0912030	30 m	2.8	39 x 6.0	800	1	m.
0913032	30 m	3.1	41 x 8.0	1,000	1	m.



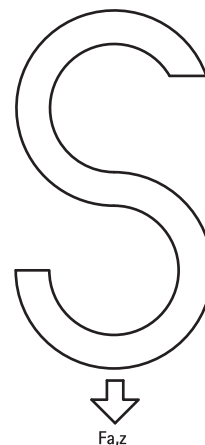
Complementary

- 462 BIS S-Hook
- 463 BIS Splitted S-Hook
- 464 BIS Pig Tail Chain Hook

BIS S-Hook

7.0 - 14.0 mm

(K 50 15)

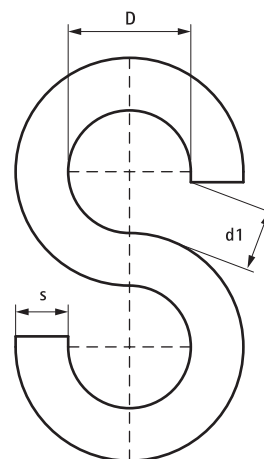


Features and Benefits

■ material: steel

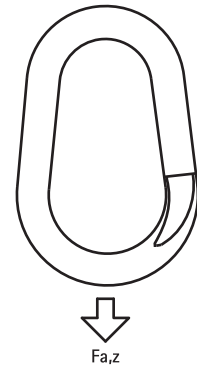
■ zinc plated

Part No.	D (mm)	s (mm)	d1 (mm)	F _{a,z} (N)	Pack 1	Pack 2
6941030	7.0	3.0	3.5 mm	120	100	500
6941040	11.0	4.0	5.0 mm	250	100	500
6941050	14.0	5.0	5.5 mm	400	100	500



BIS Splitted S-Hook

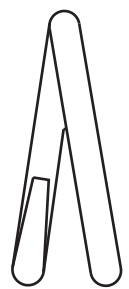
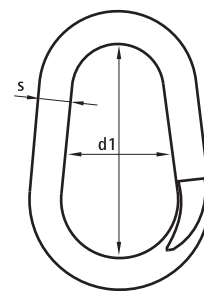
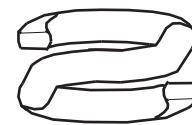
(K 50 20)



Features and Benefits

- material: steel
- zinc plated

Part No.	s (mm)	d1 (mm)	F _{a,z} (N)	Pack 1	Pack 2
6942030	3.0	16.5 x 6.5	350	100	500
6942040	4.0	20.0 x 8.0	550	100	300



BIS Pig Tail Chain Hook

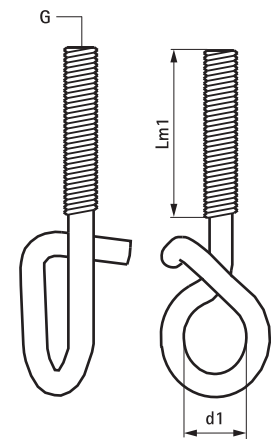
(K 50 25)



Features and Benefits

- material: steel
- zinc plated

Part No.	G	d1 (mm)	Lm1 (mm)	F _{a,z} (N)	Pack 1
6940006	M6	15.0	40	400	100
6940008	M8	16.5	30	600	100



BIS Stud Bolt (BUP1000)

(K 55 04)

fixing to rail, wall plates, etc.



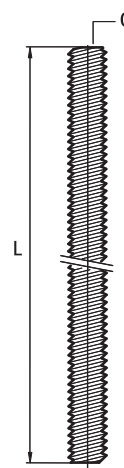
Features and Benefits

- according to DIN 976-1
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227
- tested for fire safety



Part No.	Type	G	L	Pack 1
63181010	DIN 976-1	M8	100 mm	100
63181020	DIN 976-1	M8	200 mm	50
63281010	DIN 976-1	M10	100 mm	100
63281020	DIN 976-1	M10	200 mm	50

M10 and above tested for fire safety.



Complementary

- 474 BIS Stud Connector (BUP1000)
- 475 BIS Stud Connector
- 477 BIS Threaded Rod Connector

BIS Stud Bolt

fixing to rail, wall plates, etc.

(K 55 05)

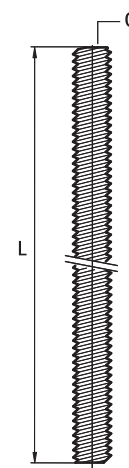


Features and Benefits

- according to DIN 976-1
- material: steel
- zinc plated
- tested for fire safety

Part No.	Type	G	L	Pack 1	Pack 2
6313802	DIN 976-1	M8	25 mm	100	1,000
6313803	DIN 976-1	M8	30 mm	100	1,000
6313804	DIN 976-1	M8	40 mm	100	1,000
6313805	DIN 976-1	M8	50 mm	100	1,000
6313806	DIN 976-1	M8	60 mm	100	1,000
6313807	DIN 976-1	M8	70 mm	100	1,000
6313808	DIN 976-1	M8	80 mm	100	1,000
6313809	DIN 976-1	M8	90 mm	100	1,000
6313810	DIN 976-1	M8	100 mm	100	1,000
6313812	DIN 976-1	M8	120 mm	50	250
6313815	DIN 976-1	M8	150 mm	50	250
6313818	DIN 976-1	M8	180 mm	50	250
6313820	DIN 976-1	M8	200 mm	50	250
6323002	DIN 976-1	M10	25 mm	50	500
6323004	DIN 976-1	M10	40 mm	50	500
6323005	DIN 976-1	M10	50 mm	50	500
6323006	DIN 976-1	M10	60 mm	50	500
6323007	DIN 976-1	M10	70 mm	50	500
6323008	DIN 976-1	M10	80 mm	50	500
6323009	DIN 976-1	M10	90 mm	50	500
6323010	DIN 976-1	M10	100 mm	50	250
6323012	DIN 976-1	M10	120 mm	50	250
6323016	DIN 976-1	M10	160 mm	50	250
6323018	DIN 976-1	M10	180 mm	50	250
6323020	DIN 976-1	M10	200 mm	50	250

M10 and above tested for fire safety.



Complementary

- 475 BIS Stud Connector
- 477 BIS Threaded Rod Connector

BIS Threaded Rod (BUP1000)

(K 55 08)

fixing to rail, wall plates, etc.



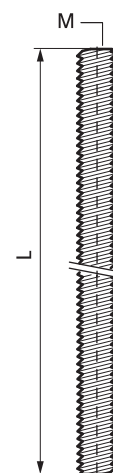
Features and Benefits

- according to DIN 976-1
- material: steel, strength class 4.8
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227



Part No.	Type	Thread (M)	L	BndS
63081008	DIN 976-1	M8	1 m	50
63082008	DIN 976-1	M8	2 m	25
63081010	DIN 976-1	M10	1 m	25
63082010	DIN 976-1	M10	2 m	20
63081012	DIN 976-1	M12	1 m	20
63082012	DIN 976-1	M12	2 m	15
63081016	DIN 976-1	M16	1 m	20
63082016	DIN 976-1	M16	2 m	10

M10 tested for fire safety.
M12 tested for fire safety.



Complementary

- 474 BIS Stud Connector (BUP1000)
- 475 BIS Stud Connector
- 477 BIS Threaded Rod Connector

BIS DobyGrip Info Page



Strong, simple and fast

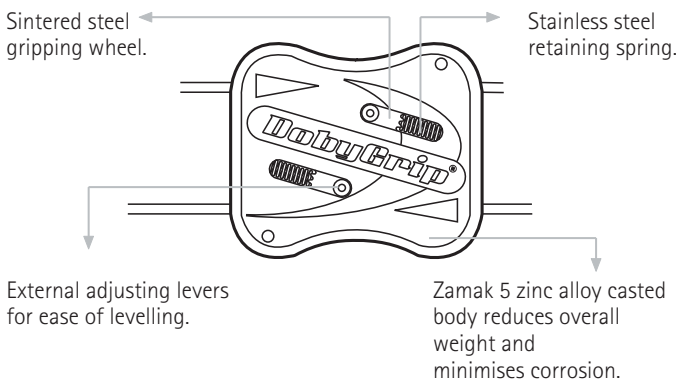
The BIS DobyGrip catenary wire system is the quick and efficient alternative to threaded rods and chains. You can install it up to 6x faster.

The system is ideal for static objects which need to be hung in high areas. For example cable channels, suspended ceilings, air ducts and light fittings.

Suitable for use in multiple applications and markets including HVAC, electrical, displays, lighting, signage and vineyards.

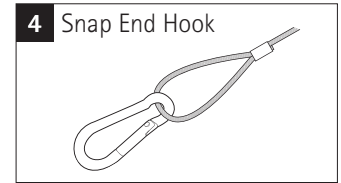
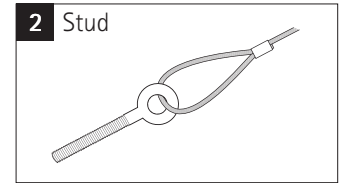
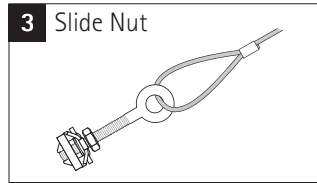
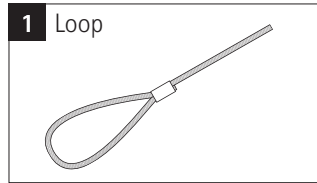
Easy to use

1. Pass cable tail through BIS DobyGrip in the direction of the arrow on casing.
2. Pass cable tail through suspension point of supported item, pull cable back through BIS DobyGrip. Height can be easily adjusted by using external cable release, infinitely adjustable.



Lightweight

Assembly and handling on site are much simpler. Reduces the need for working at height with unwieldy fixing materials.



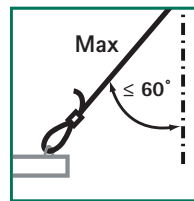
4 versions for 1001 purposes

The various versions make the system very flexible and widely applicable. Every type of BIS DobyGrip cable is available in various lengths. Reels of wire can also be supplied.

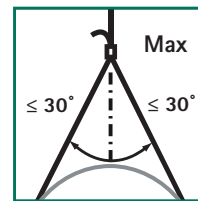
High safe working loads

The BIS DobyGrip cable is available in 2 different thicknesses and is suitable for both vertical and diagonal loads. Suspension with the BIS DobyGrip system is not only strong, but also reduces vibration.

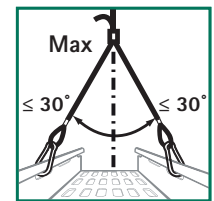
s	Max. Fa,z (N)				
	0°	15°	30°	45°	60°
s = 1 mm	100	90	80	70	50
s = 2 mm	500	450	400	350	250



Fa.z 50%



Fa.z 80%



Fa.z 80%



BIS Threaded Rod

fixing to rail, wall plates, etc.

(K 55 10)



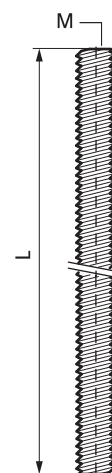
Features and Benefits

- according to DIN 976-1
- material: steel, strength class 4.8
- zinc plated



Part No.	Type	Thread (M)	L	BndS
6303006	DIN 976-1	M6	1 m	100
6303206	DIN 976-1	M6	2 m	50
6303306	DIN 976-1	M6	3 m	50
6303008	DIN 976-1	M8	1 m	50
6303208	DIN 976-1	M8	2 m	25
6303308	DIN 976-1	M8	3 m	25
6303010	DIN 976-1	M10	1 m	25
6303210	DIN 976-1	M10	2 m	20
6303310	DIN 976-1	M10	3 m	20
6303012	DIN 976-1	M12	1 m	20
6303212	DIN 976-1	M12	2 m	15
6303312	DIN 976-1	M12	3 m	15
6303014	DIN 976-1	M14	1 m	10
6303016	DIN 976-1	M16	1 m	10
6303216	DIN 976-1	M16	2 m	10
6303316	DIN 976-1	M16	3 m	1
6303020	DIN 976-1	M20	1 m	5
6303024	DIN 976-1	M24	1 m	5

*M10 tested for fire safety.
M12 tested for fire safety.*



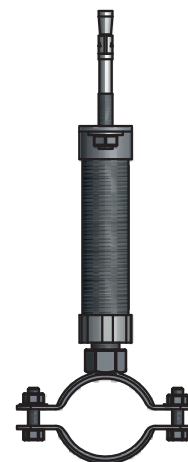
Complementary

- 475 BIS Stud Connector
- 126 BIS dB-FIX® 80 Stand-off Fixing Kit

BIS Threaded Tube (BUP1000)

(K 55 13)

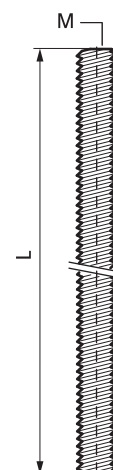
fixing to rail, wall plates, etc.



Features and Benefits

- according to EN 10255 (was DIN 2440)
- Installation according to instructions for use
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

Part No.	G	L	BndS
6298221	G1/2"	2 m	10
6298233	G1"	2 m	5



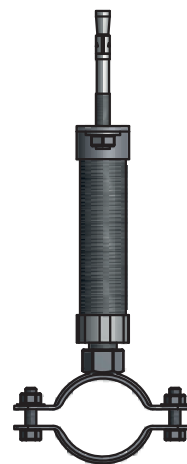
Complementary

- 31 BIS Heavy Duty Clamp HD1501 (BUP1000)
- 53 BIS Heavy Duty Clamp HD500 (BUP1000)

BIS Threaded Tube

fixing to rail, wall plates, etc.

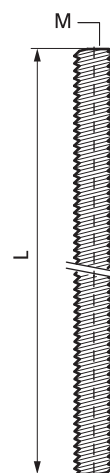
(K 55 15)



Features and Benefits

- according to EN 10255 (was DIN 2440)
- metrical thread according to DIN ISO 228-1
- material: steel
- zinc plated

Part No.	Thread (M)	L	BndS
6293221	G1/2"	2 m	10
6293233	G1"	2 m	5



Complementary

- 31 BIS Heavy Duty Clamp HD1501 (BUP1000)
- 53 BIS Heavy Duty Clamp HD500 (BUP1000)
- 414 BIS Wall Plate Resistance Welded

BIS Threaded Distance Bar

(K 55 20)

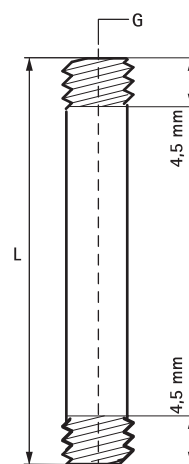
fixing to rail, wall plates, etc.



Features and Benefits

- for fixing of clamps to wall plates or plugs
- zinc plated
- with female thread
- tested for fire safety
- material: steel

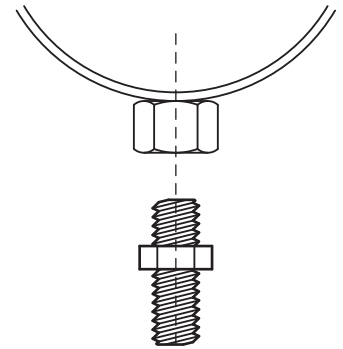
Part No.	G	L	Pack 1	Pack 2
6413158	M8	15 mm	100	1,000
6413258	M8	25 mm	100	1,000
6413358	M8	35 mm	100	1,000
6413458	M8	45 mm	100	1,000
6413558	M8	55 mm	100	1,000
6413658	M8	65 mm	100	1,000



BIS Threaded Nipple

adjustment of thread connection

(K 55 25)

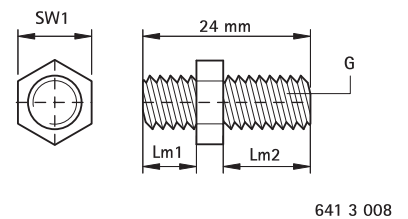
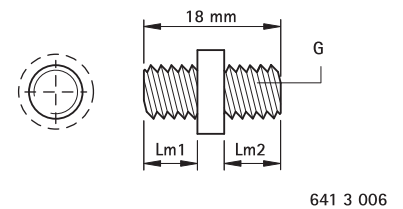


Features and Benefits

- for creating male thread to for example clamp or wall plate
- material: steel
- zinc plated
- tested for fire safety

Part No.	Model	G	Lm1 (mm)	Lm2 (mm)	SW1 (mm)	Pack 1	Pack 2
6413006	Round Collar	M6	8.0	8.0	-	100	3,000
6413008	Hexagon Collar	M8	8.0	12.0	10	100	2,000

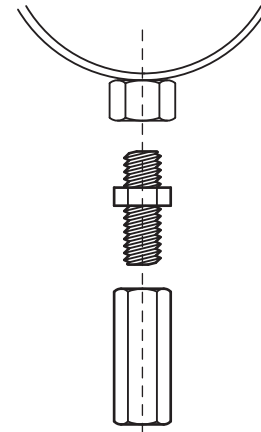
M8 and above tested for fire safety.



BIS Stud Connector (BUP1000)

(K 55 28)

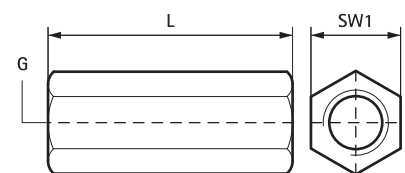
connecting of stud bolts



Features and Benefits

- to connect 2 male threaded components
- material: steel
- surface protection:
 - product is part of the BIS UltraProtect® 1000 system
 - suitable for in- and outdoor applications
 - stands min. 1,000 hours salt spray test (max. 5% red rust) according to ISO 9227

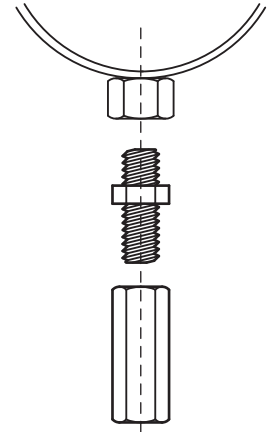
Part No.	G	L	SW1 (mm)	F _{a,z} (N)	Pack 1	Pack 2
6458830	M8	30 mm	11	18,100	100	1,000
6458940	M10	40 mm	13	20,400	50	500
6458240	M12	40 mm	17	23,000	25	250



BIS Stud Connector

connecting of stud bolts

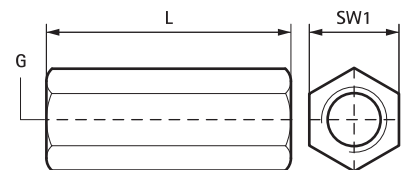
(K 55 30)



Features and Benefits

- to connect 2 male threaded components
- material: steel
- zinc plated

Part No.	G	L	SW1 (mm)	F _{a,z} (N)	Pack 1	Pack 2
6453625	M6	25 mm	10	11,900	100	1,000
6453830	M8	30 mm	11	18,100	100	1.000
6453930	M10	30 mm	13	20,900	50	500
6453940	M10	40 mm	13	20,400	50	1,000
6453240	M12	40 mm	17	23,000	50	500
6453016	M16	48 mm	24	30,300	200	-



BIS Thread Adaptor (M/F)

adjustment of thread connection

(K 55 35)



6473XXX



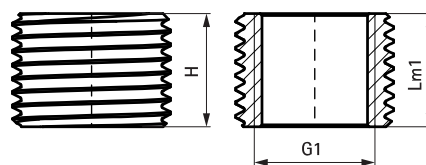
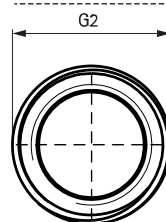
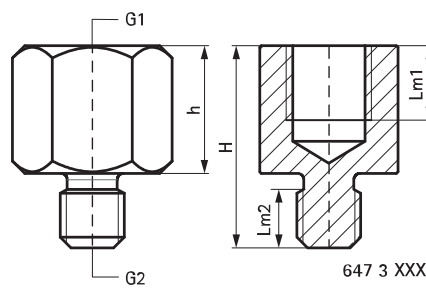
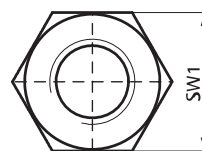
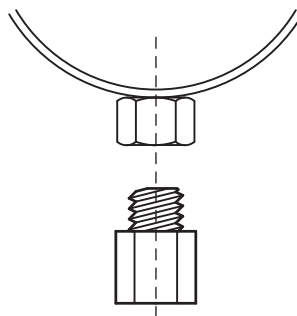
6473521
6484321

Features and Benefits

- to enlarge or reduce the thread size in the connection of clamps, etc.
- zinc plated
- tested for fire safety
- material: steel

Part No.	H (mm)	h (mm)	G1	G2	Lm1 (mm)	Lm2 (mm)	SW1 (mm)	Pack 1	Pack 2
6473008	19	12	M8	M6	7.0	5.5	13	100	1,000
6473206	20	12	M6	M8	7.0	6.0	13	100	2,000
6473210	23	15	M10	M8	9.0	6.0	13	100	2,000
6473212	23	15	M12	M8	8.0	6.0	17	50	-
6473221	30	22	G1/2	M8	13.0	8.0	27	50	250
6473308	21	13	M8	M10	7.0	6.0	13	100	2,000
6473312	25	15	M12	M10	8.0	8.0	17	50	500
6473316	32	22	M16	M10	13.0	8.0	24	50	-
6473321	31	21	G1/2	M10	12.0	8.0	27	25	250
6473408	23	13	M8	M12	7.0	7.5	13	50	1,000
6473410	23	13	M10	M12	8.0	7.5	13	50	1,000
6473416	32	22	M16	M12	11.0	8.0	24	50	-
6473510	32	18	M10	M16	9.0	11.0	19	50	-
6473512	32	18	M12	M16	10.0	11.0	19	50	-
6473421	26	11	M10	G1/2	9.0	13.0	27	25	250
6473521	15	-	M16	G1/2	15.0	-	-	50	250
6473621	25	15	G3/4	G1/2	12.0	7.0	-	50	700
6473721	32	20	G1	G1/2	17.0	9.0	-	10	100

M10 and above tested for fire safety.



647 3 521 /
648 4 321

BIS Threaded Rod Connector

(K 55 41)

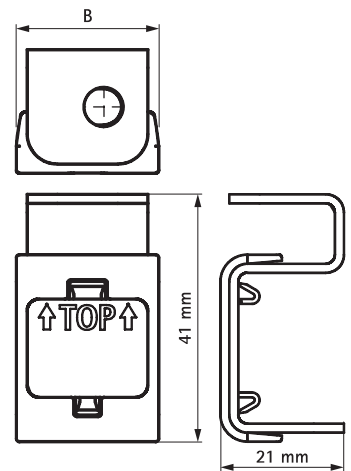
adjustment of thread connection



Features and Benefits

- to connect 2 male threaded components
- vertically adjustable
- material: steel
- pre-galvanized

Part No.	G	B (mm)	F _{a,z} (N)	Pack 1	Pack 2
6455006	M6	24	2,680	25	250
6455008	M8	24	2,250	25	250
6455010	M10	30	3,590	25	250



BIS DobyGrip Loop

(K 65 05)

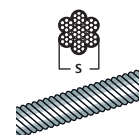


Features and Benefits

- for a quick and easy fixing to roof and bearing beams, ridge beams, etc.
- reduces installation time compared to conventional methods
- wire suspension system for high loads
- all wires are supplied including BIS DobyGrip Lock
- material: 7x7 stranded galvanized steel wire rope
- strict quality inspection procedures and independent tests ensure reliability
- see also: BIS DobyGrip Info Page

Part No.	L	s (mm)	F _{a,z} (N)	Pack 1	Pack 2
09481101	1 m	1.0	100	10	500
09481102	2 m	1.0	100	10	250
09481103	3 m	1.0	100	10	250
09481105	5 m	1.0	100	10	100
09481201	1 m	2.0	500	10	250
09481202	2 m	2.0	500	10	100
09481203	3 m	2.0	500	10	100
09481205	5 m	2.0	500	10	100

Loads tested to a 5:1 safety factor. All ratings were determined by independent testing by Northumbria University and witnessed by Lloyds Register.



Complementary

- 352 Britclips® Tiger
- 353 Britclips® FC
- 521 BIS HK

Complementary

- 535 BIS Toggle Plug (Stud-end)

BIS DobyGrip Stud

(K 65 10)

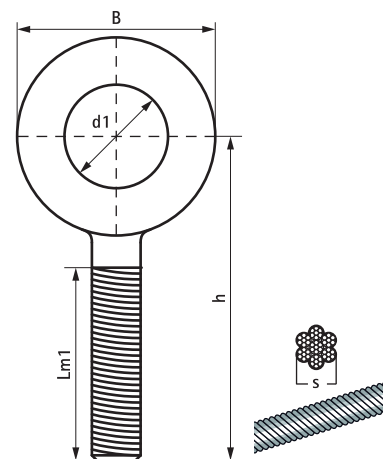


Features and Benefits

- for a quick and easy fixing to ceilings by means of a wall plug/drop-in-anchor
- reduces installation time compared to conventional methods
- wire suspension system for high loads
- all wires are supplied including BIS DobyGrip Lock
- material: 7x7 stranded galvanized steel wire rope
- strict quality inspection procedures and independent tests ensure reliability
- see also: BIS DobyGrip Info Page

Part No.	G	L	B	h	s	d1	Lm1	F _{a,z} (N)	Pack 1	Pack 2
			(mm)	(mm)	(mm)	(mm)	(mm)			
09482261	M6	1 m	20	62	2.0	Ø 11	48	500	10	250
09482262	M6	2 m	20	62	2.0	Ø 11	48	500	10	100
09482263	M6	3 m	20	62	2.0	Ø 11	48	500	10	100
09482265	M6	5 m	20	62	2.0	Ø 11	48	500	10	100
09482281	M8	1 m	25	74	2.0	Ø 13	56	500	10	250
09482282	M8	2 m	25	74	2.0	Ø 13	56	500	10	100
09482283	M8	3 m	25	74	2.0	Ø 13	56	500	10	100
09482285	M8	5 m	25	74	2.0	Ø 13	56	500	10	100

Limits tested to a 5:1 safety factor. All ratings were determined by independent testing by Northumbria University and witnessed by Lloyds Register.



Complementary

- 535 BIS Toggle Plug (Stud-end)
- 531 BIS TWIST

BIS DobyGrip Snap End Hook

(K 65 20)

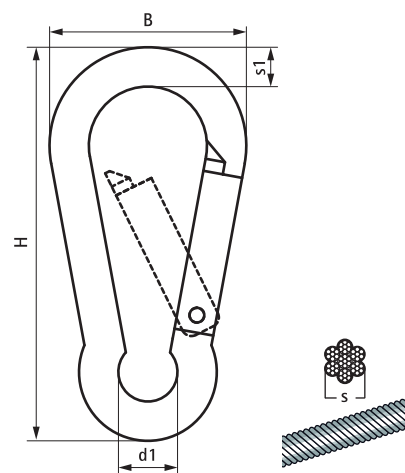


Features and Benefits

- for a quick and easy fixing to hooks and suspension eyes
- reduces installation time compared to conventional methods
- wire suspension system for high loads
- all wires are supplied including BIS DobyGrip Lock
- material: 7x7 stranded galvanized steel wire rope
- strict quality inspection procedures and independent tests ensure reliability
- see also: BIS DobyGrip Info Page

Part No.	L	B	H	s	s1	d1	F _{az} (N)	Pack 1	Pack 2
		(mm)	(mm)	(mm)	(mm)	(mm)			
09486201	1 m	30	60	2.0	6.0	9.0	500	10	250
09486202	2 m	30	60	2.0	6.0	9.0	500	10	100
09486203	3 m	30	60	2.0	6.0	9.0	500	10	100

Loads tested to a 5:1 safety factor. All ratings were determined by independent testing by Northumbria University and witnessed by Lloyds Register.



Complementary

- 352 Britclips® Tiger
- 353 Britclips® FC
- 521 BIS HK

Complementary

- 535 BIS Toggle Plug (Stud-end)

BIS DobyGrip Wire Reel

(K 65 25)



Features and Benefits

- for a quick and easy fixing to various suspension points
- wire lengths can be self-determined
- wire suspension system for high loads
- material: 7x7 stranded galvanized steel wire rope
- strict quality inspection procedures and independent tests ensure reliability
- see also: BIS DobyGrip Info Page

Part No.	L	s (mm)	F _{a,z} (N)	Pack 1	Pack 2
09489115	150 m	1.0	100	1	8
09489215	150 m	2.0	500	1	2

Loads tested to a 5:1 safety factor. All ratings were determined by independent testing by Northumbria University and witnessed by Lloyds Register.

Complementary

- 352 Britclips® Tiger
- 353 Britclips® FC
- 521 BIS HK

Complementary

- 535 BIS Toggle Plug (Stud-end)

BIS DobyGrip Lock

(K 65 30)



Features and Benefits

- reduces installation time compared to conventional methods
- wire suspension system for high loads
- Part No. 0948 9 001: for use in combination with 1 mm diameter BIS DobyGrip wires
- Part No. 0948 9 000: for universal use in combination with 1 mm as well as 2 mm diameter BIS DobyGrip wires
- Part No. 0948 9 001: suitable for a maximum load of 10kg (1 mm wire diameter) with a 5:1 safety factor
- Part No. 0948 9 000: suitable for a maximum load of 10kg (1 mm wire diameter) or 50kg (2 mm wire diameter) with a 5:1 safety factor
- simple height adjustment using external cable release, infinitely adjustable
- material: body of Zamak 5 zinc alloy; retaining spring of stainless steel (AISI 304); gripping wheel of sintered steel
- strict quality inspection procedures and independent tests ensure reliability
- see also: BIS DobyGrip Info Page

Part No.	L	B (mm)	F _{a,z} (N)	Pack 1	Pack 2	For (DobyGrip)
09489001	20 mm	16.5	100	50	1,000	1 mm
09489000	30 mm	25.0	500	20	500	2 mm

Loads tested to a 5:1 safety factor. All ratings were determined by independent testing by Northumbria University and witnessed by Lloyds Register.

BIS Catenary Wire Cutter

(K 65 60)



Features and Benefits

- for cutting BIS DobyGrip wire ropes without unraveling
- spring loaded action and non slide grip

Part No.	Model	Pack 1	Pack 2
09409005	For wire diameters 1 - 3 mm	1	10

L BIS Fastenings



Heavy Duty Anchors

WDI1 Drop-in Anchor	487
WDI1L Drop-in Anchor Lipped	488
WDI1 Drop-in Anchor SSst	489
WDI1R Drop-in Anchor Short	490
WDI1 Setting Tool	491
WDI1R Setting Tool Set	492
WDI1R SD Stop Drill Bit	493
WBA Brass Anchor	494
WSA1 Shield Anchor	495
WTB1 Throughbolt Anchor	496
WTB7 Throughbolt Anchor	497
WTB1 Throughbolt Anchor SSst	498
WHA1H Highload Anchor	499
WCS1N Concrete Screw	500
WCS1M Concrete Screw	501
WCS1P Concrete Screw	502
WCS1H Concrete Screw	503
WCA1 Ceiling Anchor	504
WGB-M Aerated Concrete Anchor	505
WGB-M Setting Tool	506
WIS Chemical Anchor WPSF100	507
WIS Chemical Anchor WVSF200	508
WIS Nozzle	509
WIS Extension Pipe	510
WIS Brush	511
WIS Blow Pump	512
WIS Dispenser Gun	513
WIS Plastic Mesh Sleeve	514
WIS Threaded Rod	515
WIS Threaded Rod SSst	516
WIS Stud Bolt	517
WDI1 SD Stop Drill Bit	518
WSDS+ 3CE Concrete Drill Bit	519
WSDS+ HB Hollow Block Drill Bit	520



BIS Anchors

BIS HK	521
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Light Duty Fixings

WUP Uni Plug	522
WEP Expansion Plug	523
WNP Nail Plug	524
WPF Plasterboard Fixings	525
WCP Cavity Plug	526
WRX Metal Plug	527
WRX Plastic Plug	528



BIS Plugs

BIS XL	529
BIS Plasterboard Plug Startset	530
BIS TWIST	531
BIS CP	532
BIS ARAYPLAST	533
BIS Star Plug	534
BIS Toggle Plug (Stud-end)	535
BIS Toggle Plug	536
BIS Toggle Bolt	537



BIS Hammer-in Studs

BIS Hammer-in Shoulder Stud	538
BIS Hammer-in Stud	539
BIS Nail Shoulder Stud	540



BIS Wash Basin Fixing Kits

BIS Wash Basin Plug Bolt Set	541
BIS Special Sanitary Ware Fixing Screw	542
BIS Wash Basin Hook	543



BIS Fixings for Toilets

BIS Toilet Fixing Kit	544
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L BIS Fastenings



BISMAT® Interim Plugs
BISMAT® Interim Plug

545

WDI1 Drop-in Anchor

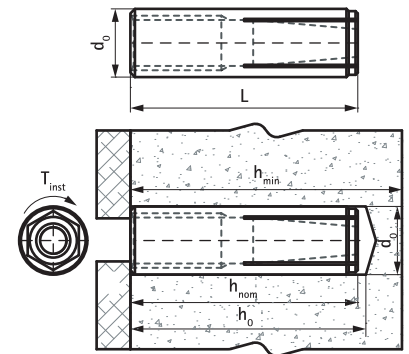
standard drop-in anchor

(L 03 05)



Features and Benefits

- simple and quick installation procedure
- medium load capacity
- no collar for anchor setting at greater hole depth
- material: steel
- zinc plated
- ETA ETAG001 Part 6 approval for multiple use for non-structural applications
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- substrate type:
 - cracked concrete
 - non-cracked concrete



Part No.	Code	Size	L	d ₀ (mm)	h ₀ (mm)	h _{min} (mm)	h _{nom} (mm)	Rec. Tension Load C20/25 Concrete (kN)	ETA	Pack 1	Pack 2
6103006	WDI1 6x25	M6	25 mm	8	≥ 30	80	≥ 25	0.52*	ETA	100	2,400
6103008	WDI1 8x30	M8	30 mm	10	≥ 32	80	≥ 30	1.02*	ETA	100	600
6103010	WDI1 10x40	M10	40 mm	12	≥ 42	80	≥ 40	1.55*	ETA	50	500
6103012	WDI1 12x50	M12	50 mm	15	≥ 53	100	≥ 50	2.19*	ETA	50	300
6103016	WDI1 16x65	M16	65 mm	20	≥ 70	130	≥ 65	4.53*	ETA	25	200

* Recommended loads: are stated for multiple use for non-structural applications according to ETAG001, Part 6; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4. The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design. For more information, please refer to the ETA report.

Complementary

- 491 WDI1 Setting Tool
- 511 WIS Brush
- 512 WIS Blow Pump

Complementary

- 518 WDI1 SD Stop Drill Bit
- 519 WSDS+ 3CE Concrete Drill Bit

WDI1L Drop-in Anchor Lipped

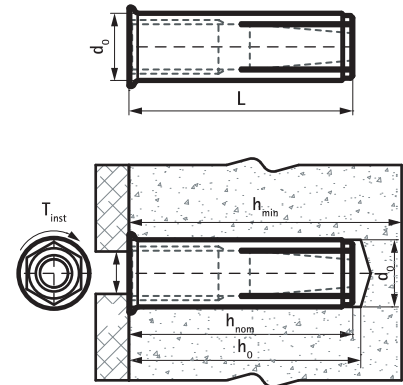
(L 03 10)

standard drop-in anchor with a lip collar



Features and Benefits

- simple and quick installation procedure
- collar with a lip for flush anchor setting at any hole depth
- medium load capacity
- material: steel
- zinc plated
- ETA ETAG001 Part 6 approval for multiple use for non-structural applications
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- substrate type:
 - cracked concrete
 - non-cracked concrete



Part No.	Code	Size	L	d ₀ (mm)	h ₀ (mm)	h _{min} (mm)	h _{nom} (mm)	Rec. Tension Load C20/25 Concrete (kN)	Pack 1	Pack 2
6103106	WDI1L 6x25	M6	25 mm	8	≥ 30	80	≥ 25	0.52*	100	600
6103108	WDI1L 8x30	M8	30 mm	10	≥ 32	80	≥ 30	1.02*	100	600
6103110	WDI1L 10x40	M10	40 mm	12	≥ 42	80	≥ 40	1.55*	50	500
6103112	WDI1L 12x50	M12	50 mm	15	≥ 53	100	≥ 50	2.19*	50	300
6103116	WDI1L 16x65	M16	65 mm	20	≥ 70	130	≥ 65	4.53*	25	150

* Recommended loads: are stated for multiple use for non-structural applications according to ETAG001, Part 6; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4.

The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design.

For more information, please refer to the ETA report.

Complementary

- 491 WDI1 Setting Tool
- 511 WIS Brush
- 512 WIS Blow Pump

Complementary

- 518 WDI1 SD Stop Drill Bit
- 519 WSDS+ 3CE Concrete Drill Bit

WDI1 Drop-in Anchor SSt

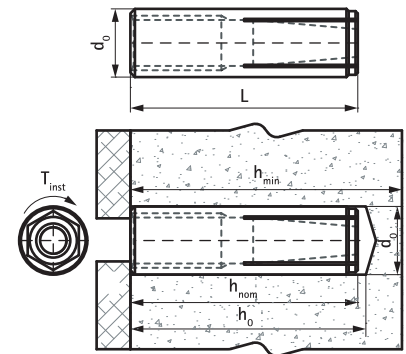
(L 03 15)

standard stainless steel drop-in anchor



Features and Benefits

- simple and quick installation procedure
- medium load capacity
- made of stainless steel for use in external atmospheric environment
- no collar for anchor setting at greater hole depth
- material: stainless steel
- ETA ETAG001 Part 6 approval for multiple use for non-structural applications
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- substrate type:
 - cracked concrete
 - non-cracked concrete



Part No.	Code	Size	L	d ₀ (mm)	h ₀ (mm)	h _{min} (mm)	h _{nom} (mm)	Rec. Tension Load C20/25 Concrete (kN)	Pack 1	Pack 2
6103708	WDI1 SSt 8x30	M8	30 mm	10	≥ 32	80	≥ 30	0.68*	100	600
6103710	WDI1 SSt 10x40	M10	40 mm	12	≥ 42	80	≥ 40	1.09*	50	500
6103712	WDI1 SSt 12x50	M12	50 mm	15	≥ 53	100	≥ 50	1.56*	50	300
6103716	WDI1 SSt 16x65	M16	65 mm	20	≥ 70	130	≥ 65	2.81*	25	200

* Recommended loads: are stated for multiple use for non-structural applications according to ETAG001, Part 6; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4.
 The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design.
 For more information, please refer to the ETA report.

Complementary

- 491 WDI1 Setting Tool
- 511 WIS Brush
- 512 WIS Blow Pump

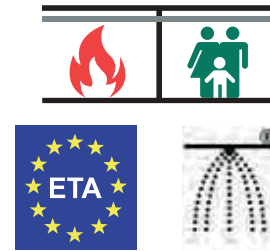
Complementary

- 518 WDI1 SD Stop Drill Bit
- 519 WSDS+ 3CE Concrete Drill Bit

WDI1R Drop-in Anchor Short

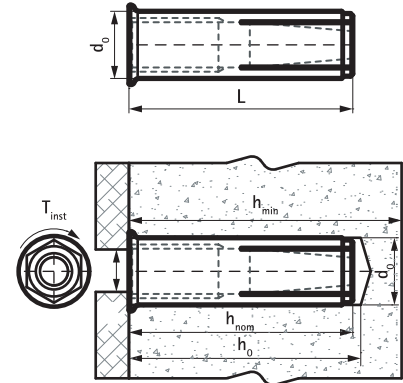
(L 03 20)

reduced length drop-in anchor with a lip collar



Features and Benefits

- simple and quick installation procedure
- collar with a lip for flush anchor setting at any hole depth
- medium load capacity
- reduced 25 mm anchor length allows approved applications in precast prestressed hollow core slabs
- material: steel
- zinc plated
- ETA ETAG001 Part 6 approval for multiple use for non-structural applications
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- complies with VdS CE 4001:2014-04 (05) and VdS VdS CE 4001:2018-01 (06) for applications with sprinkler systems in concrete elements
- substrate type:
 - cracked concrete
 - non-cracked concrete



Part No.	Code	Size	L	d ₀ (mm)	h ₀ (mm)	h _{min} (mm)	h _{nom} (mm)	Rec. Tension Load C20/25 Concrete (kN)	ETA	Pack 1
6103206	WDI1R 6x25	M6	25 mm	8	≥ 25	80	≥ 25	1.67*	ETA	100
6103208	WDI1R 8x25	M8	25 mm	10	≥ 25	80	≥ 25	1.90*	ETA	100
6103210	WDI1R 10x25	M10	25 mm	12	≥ 25	80	≥ 25	2.14*	ETA	50
6103212	WDI1R 12x25	M12	25 mm	15	≥ 25	80	≥ 25	2.14*	ETA	50

* Recommended loads: are stated for multiple use for non-structural applications according to ETAG001, Part 6; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4.
 The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design.
 For more information, please refer to the ETA report.

Complementary

- 492 WDI1R Setting Tool Set
- 511 WIS Brush
- 512 WIS Blow Pump

Complementary

- 518 WDI1 SD Stop Drill Bit
- 519 WSDS+ 3CE Concrete Drill Bit
- 520 WSDS+ HB Hollow Block Drill Bit

WDI1 Setting Tool

(L 03 25)



Features and Benefits

- for setting Walraven WDI1 Drop-in Anchors

Part No.	Code	For	Pack 1
6902106	WDI1ST 6	WDI1 6x25	10
6902108	WDI1ST 8	WDI1 8x30	10
6902110	WDI1ST 10	WDI1 10x40	10
6902112	WDI1ST 12	WDI1 12x50	10
6902116	WDI1ST 16	WDI1 16x65	10

WDI1R Setting Tool Set

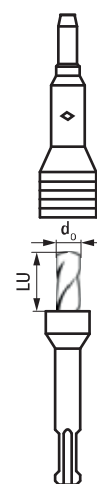
(L 03 27)



Features and Benefits

- combined tool for drilling and setting WDI1R anchors
- 50% faster installation than with traditional methods
- no uncomfortable hammering in overhead installations

Part No.	Code	LU (mm)	d ₀ (mm)	For	Pack 1	Pack 2
6902206	WDI1R STS 6	25	8	WDI1R M6	1	20
6902208	WDI1R STS 8	25	10	WDI1R M8	1	20
6902210	WDI1R STS 10	25	12	WDI1R M10	1	20



Complementary

- 490 WDI1R Drop-in Anchor Short
- 493 WDI1R SD Stop Drill Bit

WDI1R SD Stop Drill Bit

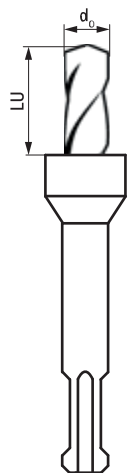
(L 03 28)



Features and Benefits

- designed for drilling all concrete at controlled depth
- particularly suitable for high volume installations of WDI1R Drop-in Anchors
- can be used as a replacement drill bit for WDI1R STS Setting Tool Set

Part No.	Code	LU (mm)	d ₀ (mm)	For	Pack 1	Pack 2
6902306	WDI1R SD 6	25	8	WDI1R M6	1	20
6902308	WDI1R SD 8	25	10	WDI1R M8	1	20
6902310	WDI1R SD 10	25	12	WDI1R M10	1	20



Complementary

- 490 WDI1R Drop-in Anchor Short
- 492 WDI1R Setting Tool Set

WBA Brass Anchor

standard brass expansion anchor

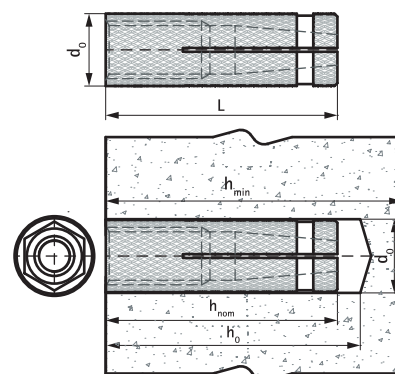
(L 03 30)



Features and Benefits

- reduced anchor length requires less drilling
 - for use with standard metric bolts and threaded rods
 - does not require a setting tool
 - knurled external surface provides improved grip and resists rotation in the hole
 - corrosion resistant
- material: brass

Part No.	Code	Size	L	d ₀ (mm)	h ₀ (mm)	h _{min} (mm)	h _{nom} (mm)	Pack 1	Pack 2
6107006	WBA 6x22	M6	22 mm	8	≥ 27	100	≥ 22	100	1,600
6107008	WBA 8x28	M8	28 mm	10	≥ 32	100	≥ 28	100	1,600
6107010	WBA 10x32	M10	32 mm	12	≥ 35	100	≥ 32	100	800
6107012	WBA 12x38	M12	38 mm	15	≥ 40	100	≥ 38	50	400



Complementary

- 511 WIS Brush
- 512 WIS Blow Pump
- 518 WDI1 SD Stop Drill Bit

Complementary

- 519 WSDS+ 3CE Concrete Drill Bit

WSA1 Shield Anchor

heavy duty expansion anchor

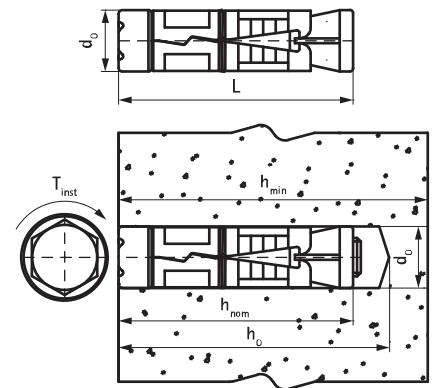
(L 03 35)



Features and Benefits

- three-part expanding sleeve provides optimal load and safety of use in many substrates
- for use with metric threaded rods or bolts
- suitable for use in multiple base materials
- material: steel
- zinc plated
- substrate type:
 - concrete
 - hollow masonry
 - natural stone

Part No.	Code	Size	L	d ₀ (mm)	h ₀ (mm)	h _{min} (mm)	h _{nom} (mm)	Pack 1
6103608	WSA1 8x50	M8	50 mm	14	≥ 55	100.0	50	100
6103610	WSA1 10x60	M10	60 mm	16	≥ 65	100.0	60	100
6103612	WSA1 12x75	M12	75 mm	20	≥ 85	100.0	80	50
6103616	WSA1 16x115	M16	115 mm	25	≥ 125	142.5	120	25



Complementary

- 511 WIS Brush
- 512 WIS Blow Pump
- 519 WSDS+ 3CE Concrete Drill Bit

Complementary

- 520 WSDS+ HB Hollow Block Drill Bit

WTB1 Throughbolt Anchor

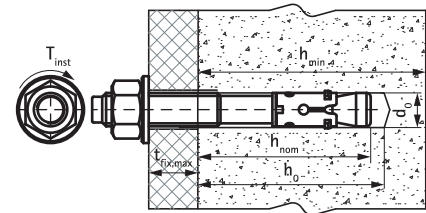
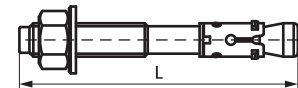
(L 03 40)

high performance corrosion resistant expansion anchor for cracked concrete



Features and Benefits

- high load capacity
- pre- and through-fixing
- two embedment depths provide installation flexibility
- zinc-flake coated for improved corrosion resistance
- ETA Option 1 approval for cracked and non-cracked concrete
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- material: steel
- zinc plated with zinc flake
- substrate type:
 - cracked concrete
 - non-cracked concrete
 - stone



Part No.	Code	Size	L	d ₀	h ₀	h _{min}	h _{nom}	t _{fix,max}	Rec. Tension Load C20/25 Uncracked Concrete (kN)	Rec. Tension Load C20/25 Cracked Concrete (kN)	Pack 1
				(mm)	(mm)	(mm)	(mm)	(mm)			
609831080	WTB1 8x80	M8	80 mm	8	55	100	55	10	3.57*	1.98*	100
609831081	WTB1 8x100	M8	100 mm	8	55	100	55	35	3.57*	1.98*	50
609831082	WTB1 8x115	M8	115 mm	8	55	100	55	50	3.57*	1.98*	50
609831100	WTB1 10x95	M10	95 mm	10	69	120	69	15	5.71*	4.29*	50
609831101	WTB1 10x115	M10	115 mm	10	69	120	69	35	5.71*	4.29*	50
609831102	WTB1 10x130	M10	130 mm	10	69	120	69	50	5.71*	4.29*	50
609831120	WTB1 12x120	M12	120 mm	12	80	140	80	25	9.52*	5.71*	50
609831121	WTB1 12x135	M12	135 mm	12	80	140	80	40	9.52*	5.71*	50
609831160	WTB1 16x140	M16	140 mm	16	100	170	100	20	16.67*	9.52*	25

* Recommended loads: are stated for single anchors; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4.
 The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design.
 For more information, please refer to the ETA report.

Complementary

- 511 WIS Brush
- 512 WIS Blow Pump
- 519 WSDS+ 3CE Concrete Drill Bit

WTB7 Throughbolt Anchor

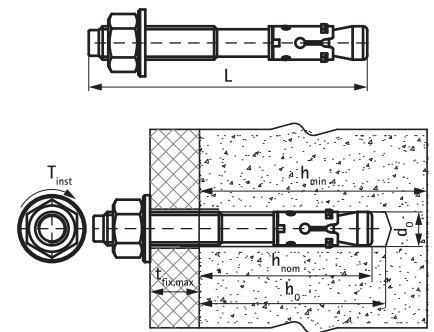
(L 03 45)

high performance expansion anchor for non-cracked concrete



Features and Benefits

- high load capacity
- pre- and through-fixing
- two embedment depths provide installation flexibility
- ETA Option 7 approval for non-cracked concrete
- material: steel
- zinc plated
- substrate type:
 - non-cracked concrete
 - stone



Part No.	Code	Size	L	d ₀ (mm)	h ₀ (mm)	h _{min} (mm)	h _{nom} (mm)	t _{fix,max} (mm)	Rec. Tension Load C20/25 Uncracked Concrete (kN)	Pack 1
609837080	WTB7 8x75	M8	75 mm	8	55	100	55	10	4.76*	100
609837081	WTB7 8x95	M8	95 mm	8	55	100	55	30	4.76*	100
609837082	WTB7 8x115	M8	115 mm	8	55	100	55	50	4.76*	100
609837100	WTB7 10x95	M10	95 mm	10	59	100	59	25	4.76*	50
609837101	WTB7 10x115	M10	115 mm	10	59	100	59	45	4.76*	50
609837102	WTB7 10x130	M10	130 mm	10	59	100	59	60	4.76*	50
609837120	WTB7 12x100	M12	100 mm	12	80	136	80	5	9.92*	50
609837121	WTB7 12x120	M12	120 mm	12	80	136	80	25	9.92*	50
609837122	WTB7 12x150	M12	150 mm	12	80	136	80	55	9.92*	50
609837123	WTB7 12x180	M12	180 mm	12	80	136	80	85	9.92*	50
609837160	WTB7 16x150	M16	150 mm	16	100	170	100	30	15.71*	25

* Recommended loads: are stated for single anchors; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4.
 The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design.
 For more information, please refer to the ETA report.

Complementary

- 511 WIS Brush
- 512 WIS Blow Pump
- 518 WD11 SD Stop Drill Bit

Complementary

- 519 WSDS+ 3CE Concrete Drill Bit

WTB1 Throughbolt Anchor SSt

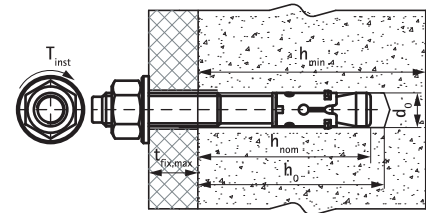
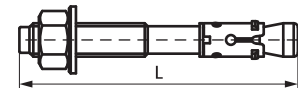
(L 03 50)

high performance stainless steel expansion anchor for cracked concrete



Features and Benefits

- high load capacity
- pre- and through-fixing
- made of stainless steel for use in external atmospheric environment
- two embedment depths provide installation flexibility
- ETA Option 1 approval for cracked and non-cracked concrete
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- material: stainless steel
- substrate type:
 - cracked concrete
 - non-cracked concrete
 - stone



Part No.	Code	Size	L	d ₀	h ₀	h _{min}	h _{nom}	t _{fix,max}	Rec. Tension Load C20/25 Uncracked Concrete (kN)	Rec. Tension Load C20/25 Cracked Concrete (kN)	Pack 1
				(mm)	(mm)	(mm)	(mm)	(mm)			
609871080	WTB1 SSt 8x75	M8	75 mm	8	55	100	55	10	3.57*	2.38*	100
609871081	WTB1 SSt 8x115	M8	115 mm	8	55	100	55	50	3.57*	2.38*	100
609871100	WTB1 SSt 10x95	M10	95 mm	10	69	100	69	15	7.62*	4.29*	50
609871101	WTB1 SSt 10x130	M10	130 mm	10	69	100	69	50	7.62*	4.29*	50
609871120	WTB1 SSt 12x125	M12	125 mm	12	80	140	80	30	11.90*	5.71*	50
609871121	WTB1 SSt 12x150	M12	150 mm	12	80	140	80	55	11.90*	5.71*	50

* Recommended loads: are stated for single anchors; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4.
 The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design.
 For more information, please refer to the ETA report.

Complementary

- 511 WIS Brush
- 512 WIS Blow Pump
- 518 WDI1 SD Stop Drill Bit

Complementary

- 519 WSDS+ 3CE Concrete Drill Bit

WHA1H Highload Anchor

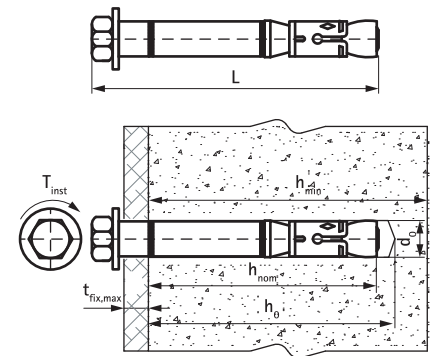
(L 03 55)

ultimate performance anchor for cracked concrete and seismic conditions



Features and Benefits

- very high load capacity
- ETA Option 1 approval for cracked and non-cracked concrete
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- seismic performance categories C1 and C2 for design of anchorages under seismic action
- material: steel
- zinc plated
- substrate type:
 - cracked concrete
 - non-cracked concrete



Part No.	Code	Size	L	d ₀	h ₀	h _{min}	h _{nom}	t _{fix,max}	Rec. Tension Load C20/25 Uncracked Concrete (kN)	Rec. Tension Load C20/25 Cracked Concrete (kN)	Pack 1
				(mm)	(mm)	(mm)	(mm)	(mm)			
609832120	WHA1H 12x85	M8	85 mm	12	80	120	70	10	9.52*	5.71*	50
609832121	WHA1H 12x125	M8	125 mm	12	80	120	70	50	9.52*	5.71*	25
609832150	WHA1H 15x110	M10	110 mm	15	95	140	85	15	14.29*	7.62*	25
609832151	WHA1H 15x136	M10	136 mm	15	95	140	85	45	14.29*	7.62*	25
609832180	WHA1H 18x117	M12	117 mm	18	105	160	95	10	17.20*	12.26*	20

* Recommended loads: are stated for single anchors; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4.
 The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design.
 For more information, please refer to the ETA report.

Complementary

- 511 WIS Brush
- 512 WIS Blow Pump
- 518 WD11 SD Stop Drill Bit

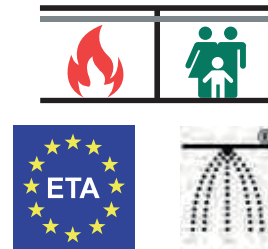
Complementary

- 519 WSDS+ 3CE Concrete Drill Bit

WCS1N Concrete Screw

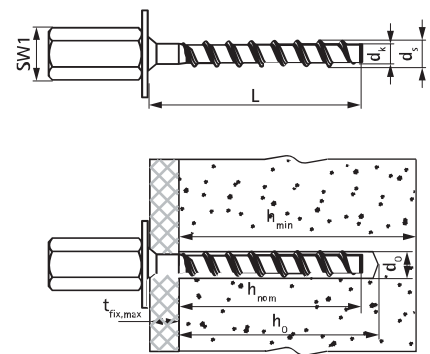
(L 03 60)

high performance concrete screw with a female internal M8/M10 thread



Features and Benefits

- high load capacity
- simple and quick installation procedure
- approved for use in precast prestressed hollow core slabs
- up to 3 anchoring depths provide maximum installation flexibility
- reduced edge and anchor spacing distances
- pre- and through-fixing
- material: steel
- zinc plated
- ETA Option 1 approval for cracked and non-cracked concrete
- ETA according to EAD 330747-00-0601 for multiple use for non-structural applications
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- complies with VdS CE 4001:2014-04 (05) and VdS VdS CE 4001:2018-01 (06) for applications with sprinkler systems in concrete elements
- substrate type:
 - cracked concrete
 - non-cracked concrete
 - precast pre-stressed hollow core slabs



Part No.	Code	Size	L	dk	ds	d0	h0	hmin	hnom	tfix,max	SW1	Rec. Tension Load C20/25 Concrete (kN)	Pack 1
6253606	WCS1N 6x35 M8/10	6	35 mm	5.1	7.5	6	40	80	35	0	13	1.43*	50
6253696	WCS1N 6x55 M8/10	6	55 mm	5.1	7.5	6	60	100	55	0	13	3.57*	50

* Recommended loads: are stated for multiple use for non-structural applications according to ETAG001, Part 6; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4. The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design. For more information, please refer to the ETA report.

Complementary

- 511 WIS Brush
- 512 WIS Blow Pump
- 519 WSDS+ 3CE Concrete Drill Bit

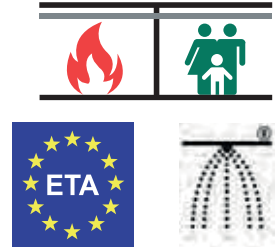
Complementary

- 520 WSDS+ HB Hollow Block Drill Bit

WCS1M Concrete Screw

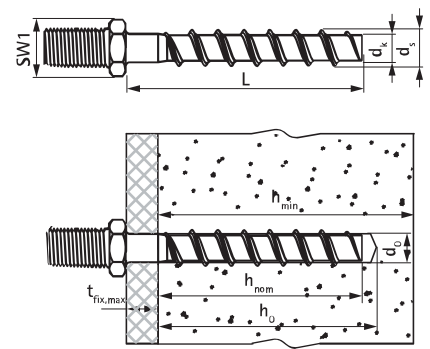
(L 03 65)

high performance concrete screw with male thread connection



Features and Benefits

- high load capacity
- simple and quick installation procedure
- approved for use in precast prestressed hollow core slabs
- up to 3 anchoring depths provide maximum installation flexibility
- reduced edge and anchor spacing distances
- pre- and through-fixing
- material: steel
- zinc plated
- ETA Option 1 approval for cracked and non-cracked concrete
- ETA according to EAD 330747-00-0601 for multiple use for non-structural applications
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- complies with VdS CE 4001:2014-04 (05) and VdS VdS CE 4001:2018-01 (06) for applications with sprinkler systems in concrete elements
- substrate type:
 - cracked concrete
 - non-cracked concrete
 - precast pre-stressed hollow core slabs



Part No.	Code	Size	L	d _k (mm)	d _s (mm)	d ₀ (mm)	h ₀ (mm)	h _{min} (mm)	h _{nom} (mm)	t _{fix,max} (mm)	SW1 (mm)	Rec. Tension Load C20/25 Concrete (kN)	Pack 1
6253104	WCS1M 6x35 M8	6	35 mm	5.1	7.5	6	40	80	35	0	10	1.43*	100
6253106	WCS1M 6x55 M8	6	55 mm	5.1	7.5	6	60	100	55	0	10	3.57*	100

* Recommended loads: are stated for multiple use for non-structural applications according to ETAG001, Part 6; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4.
 The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design.
 For more information, please refer to the ETA report.

Complementary

- 511 WIS Brush
- 512 WIS Blow Pump
- 519 WSDS+ 3CE Concrete Drill Bit

Complementary

- 520 WSDS+ HB Hollow Block Drill Bit

WCS1P Concrete Screw

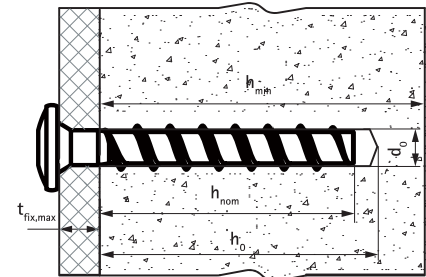
(L 03 70)

high performance concrete screw with a pan head with torx



Features and Benefits

- high load capacity
- through-fixing
- simple and quick installation procedure
- approved for use in precast prestressed hollow core slabs
- reduced edge and anchor spacing distances
- material: steel
- zinc plated
- ETA according to EAD 330747-00-0601 for multiple use for non-structural applications
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- complies with VdS CE 4001:2014-04 (05) and VdS VdS CE 4001:2018-01 (06) for applications with sprinkler systems in concrete elements
- substrate type:
 - cracked concrete
 - non-cracked concrete
 - precast pre-stressed hollow core slabs



Part No.	Code	Size	L	d _k (mm)	d _s (mm)	d _o (mm)	h _o (mm)	h _{min} (mm)	h _{nom} (mm)	t _{fix,max} (mm)	Drive	Rec. Tension Load C20/25 Concrete (kN)	Pack 1
6253006	WCS1P 6x40	6	40 mm	5.1	7.5	6	40	80	35	5	T30	1.43*	100

* Recommended loads: are stated for multiple use for non-structural applications according to ETAG001, Part 6; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4. The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design. For more information, please refer to the ETA report.

Complementary

- 511 WIS Brush
- 512 WIS Blow Pump
- 519 WSDS+ 3CE Concrete Drill Bit

Complementary

- 520 WSDS+ HB Hollow Block Drill Bit

WCS1H Concrete Screw

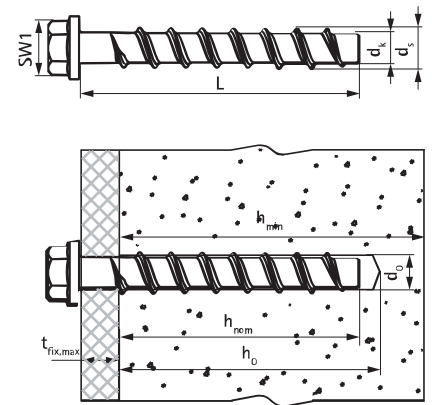
(L 03 75)

high performance corrosion resistant concrete screw with hexagon head



Features and Benefits

- high load capacity
- through-fixing
- approved for use in precast prestressed hollow core slabs
- up to 3 anchoring depths provide maximum installation flexibility
- reduced edge and anchor spacing distances
- material: steel
- surface treatment: zinc flake coated
- ETA Option 1 approval for cracked and non-cracked concrete
- ETA according to EAD 330747-00-0601 for multiple use for non-structural applications
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- seismic performance category C1 for design of anchorages under seismic action
- complies with VdS CE 4001:2014-04 (05) and VdS VdS CE 4001:2018-01 (06) for applications with sprinkler systems in concrete elements
- substrate type:
 - cracked concrete
 - non-cracked concrete
 - precast pre-stressed hollow core slabs



Part No.	Code	Size	L	dk	ds	do	h0	hmin	hnom	tfix,max	SW1	Rec. Tension Load C20/25 Uncracked Concrete (kN)	Rec. Tension Load C20/25 Cracked Concrete (kN)	Pack 1
				(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)				
6253304	WCS1H 6x40	6	40 mm	5.1	7.5	6	40	80	35	5	13	1.43**	1.43**	100
6253306	WCS1H 6x60	6	60 mm	5.1	7.5	6	60	100	55	5	13	4.29*	1.90*	100
6253408	WCS1H 8x70	8	70 mm	7.1	10.6	8	75	100	65	5	13	7.62*	5.71*	50
6253418	WCS1H 8x80	8	80 mm	7.1	10.6	8	75	100	65	15	13	7.62*	5.71*	50
6253428	WCS1H 8x100	8	100 mm	7.1	10.6	8	75	100	65	35	13	7.62*	5.71*	50
6253438	WCS1H 8x120	8	120 mm	7.1	10.6	8	75	120	65	55	13	7.62*	5.71*	50
6253506	WCS1H 10x60	10	60 mm	9.1	12.6	10	65	100	55	5	15	5.71*	4.29*	50
6253509	WCS1H 10x90	10	90 mm	9.1	12.6	10	95	100	85	25	15	11.90*	9.60*	50
6253510	WCS1H 10x100	10	100 mm	9.1	12.6	10	95	130	85	35	15	11.90*	9.60*	50
6253512	WCS1H 10x120	10	120 mm	9.1	12.6	10	95	130	85	55	15	11.90*	9.60*	50

* = Recommended loads: are stated for single anchors; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4.

** = Recommended load is stated for multiple use for non-structural applications according to ETAG001, Part 6.

The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design.

For more information, please refer to the ETA report.

Complementary

- 511 WIS Brush
- 512 WIS Blow Pump
- 519 WSDS+ 3CE Concrete Drill Bit

Complementary

- 520 WSDS+ HB Hollow Block Drill Bit

WCA1 Ceiling Anchor

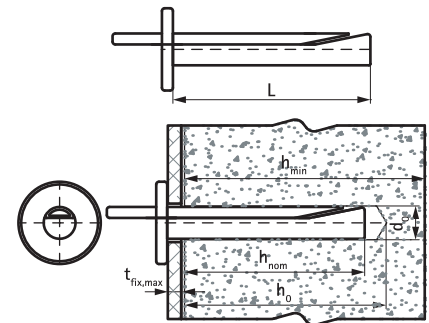
(L 03 80)

economical ceiling hammer-set anchor



Features and Benefits

- through-fixing
- simple and quick installation procedure
- correct anchor installation can be verified by simple visual check
- medium load capacity
- material: steel
- zinc plated
- ETA ETAG001 Part 6 approval for multiple use for non-structural applications
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- substrate type:
 - cracked concrete
 - non-cracked concrete



Part No.	Code	Size	L	d ₀ (mm)	h ₀ (mm)	h _{min} (mm)	h _{nom} (mm)	t _{fix,max} (mm)	Rec. Tension Load C20/25 Concrete (kN)	Pack 1	Pack 2
60963604	WCA1 6x40	6	36 mm	6	≥ 40	100	≥ 32	4.5	1.43*	100	1,600
60963665	WCA1 6x65	6	65 mm	6	≥ 40	100	≥ 32	35.0	1.43*	50	800

* Recommended loads: are stated for multiple use for non-structural applications according to ETAG001, Part 6; apply to anchors correctly installed at maximum embedment depth; include partial safety factor and an overall partial safety factor for action of 1.4. The partial safety factor for action depends on the type of loading and shall be taken from national regulations. All anchor failure modes and the entire relevant product European Technical Assessment must be considered for anchor design. For more information, please refer to the ETA report.

Complementary

519 WSDS+ 3CE Concrete Drill Bit

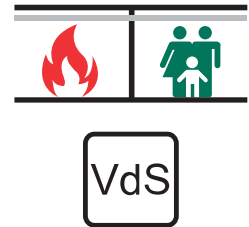
WGB-M Aerated Concrete Anchor

(L 03 82)

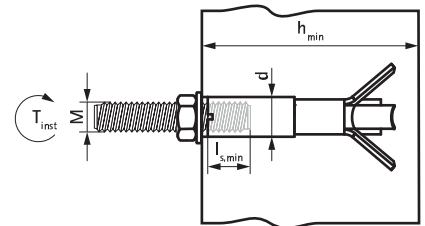


Features and Benefits

- internal thread connection allows flexible distance from the anchor to the fixture
- load can be applied immediately after installation
- installation does not require drilling
- four-way expansion provides high permissible loads, even in tensile areas of roofs and ceilings
- high load safety due to undercutting expansion
- material: steel
- zinc plated
- fire resistance class R30-R120 for design of anchorages under exposure to fire
- VdS approval for applications with stationary fire extinguishing systems



Part No.	Code	d (mm)	Thread (M)	$l_{s,min}$ (mm)	h_{min} (mm)	T_{inst} (Nm)
6103510	WGB-M	16	M10	10-18	175	8
6103512	WGB-M	16	M12	12-18	175	8



Complementary

- 506 WGB-M Setting Tool
- 515 WIS Threaded Rod
- 451 BIS Hexagon Nut

WGB-M Setting Tool

(L 03 83)



Features and Benefits

- for use with WGB-M M10 or M12 aerated concrete anchors

Part No.	Code	Size
6902511	WGB-M ST	M10/12

WIS Chemical Anchor WPSF100

(L 03 85)

universal chemical anchoring system for non-cracked concrete and masonry.



Features and Benefits

- reduced edge and anchor spacing distances
- always correct mixing ratio thanks to the static mixer nozzle
- for use with industry-standard silicone dispensing guns
- installations in wet and flooded holes without loss of load capacity
- cartridge may be used up over several times (each installation after a break requires new mixing nozzle)
- ETA Option 7 approval for non-cracked concrete
- A+ VOC emissions class
- ETA ETAG029 approval for hollow and solid masonry
- tested according to LEED 2009 EQ c4.1, SCAQMD rule 1168 (2005)
- substrate type:
 - non-cracked concrete
 - solid masonry
 - hollow masonry



Part No.	Code	ETA	LEED	VOC+	Cont.	Pack 1
6099113	WPSF100	ETA	LEED	VOC+	300 ml	12

For more information, please refer to the ETA report.

Complementary

- 509 WIS Nozzle
- 510 WIS Extension Pipe
- 511 WIS Brush

Complementary

- 512 WIS Blow Pump
- 513 WIS Dispenser Gun
- 514 WIS Plastic Mesh Sleeve

WIS Chemical Anchor WVSF200

(L 03 90)

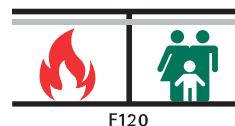
high performance chemical anchoring system for cracked concrete and rebar connections



Features and Benefits

- reduced edge and anchor spacing distances
- always correct mixing ratio thanks to the static mixer nozzle
- approved for use with rebars as anchors in non-cracked concrete
- cartridge may be used up over several times (each installation after a break requires new mixing nozzle)
- ETA Option 1 approval for cracked and non-cracked concrete
- A+ VOC emissions class
- ETA TR023 for post-installed rebar connections
- seismic performance category C1 for design of anchorages under seismic action
- tested according to LEED 2009 EQ c4.1, SCAQMD rule 1168 (2005)
- WRAS Material Approval for contact with potable water

- substrate type:
 - cracked concrete
 - non-cracked concrete



Part No.	Code	ETA	LEED	WRAS	VOC+	Seismic	Cont.	Pack 1
6099123	WVSF200	ETA	LEED	WRAS	VOC+	C1	300 ml	12
6099124	WVSF200	ETA	LEED	WRAS	VOC+	C1	345 ml	12
6099125	WVSF200	ETA	LEED	WRAS	VOC+	C1	410 ml	12
6099126	WVSF200W	ETA	LEED	WRAS	VOC+	C1	300 ml	12
6099127	WVSF200T	ETA	LEED	WRAS	VOC+	C1	300 ml	12

WVSF200W = winter version
 WVSF200T = tropical version
 For more information, please refer to the ETA report.

Complementary

- 509 WIS Nozzle
- 510 WIS Extension Pipe
- 511 WIS Brush

Complementary

- 512 WIS Blow Pump
- 513 WIS Dispenser Gun
- 514 WIS Plastic Mesh Sleeve

WIS Nozzle

(L 03 100)



Features and Benefits

- always correct mixing
- Part No. 609 9 990: 12 mixing elements
- Part No. 609 9 991: special advanced mixing elements

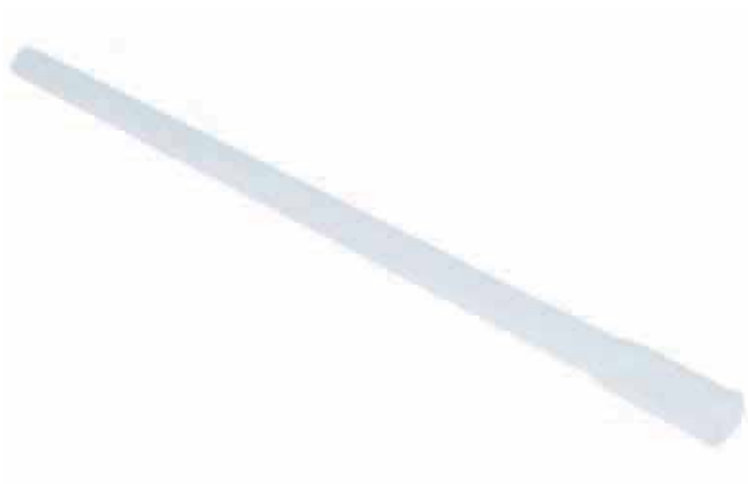
Part No.	Code	Pack 1
6099990	WIS NZZL S	12
6099991	WIS NZZL E	12

Complementary

- 507 WIS Chemical Anchor WPSF100
- 508 WIS Chemical Anchor WVSF200

WIS Extension Pipe

(L 03 105)



Features and Benefits

- fits standard and epoxy nozzles

Part No.	Code	L	Pack 1
6099992	WIS EP	185 mm	12

WIS Brush

(L 03 110)



Features and Benefits

- each brush suitable for cleaning two hole diameters
- hybrid brush (steel and natural bristle)
- Part No. 609 9 981: single brush for M12 and M16 hole
- Part No. 609 9 982: single brush for M20 and M24 hole
- Part No. 609 9 980: single brush for M8 and M10 hole

Part No.	Code	For	Pack 1
6099980	WIS BR M8/10	M8/M10	1
6099981	WIS BR M12/16	M12/M16	1
6099982	WIS BR M20/24	M20/M24	1

WIS Blow Pump

(L 03 115)



Features and Benefits

- high blowing capacity

Part No.	Code	Pack 1
6099985	WIS BP	1

WIS Dispenser Gun

(L 03 120)



Features and Benefits

- the 26:1 thrust ratio makes dispensing tools easy to use
- no free-play allows dispensing with precision
- metal backplate improves tool durability
- metal piston pushers extrude cartridges at correct angle
- metal trigger (not aluminum) improves tool durability
- thick 5 mm chamfered push plate with rubber pads improves tool durability

Part No.	Code	For	Pack 1
6099986	WIS DG 300ml	Cartridge 300ml	1
6099987	WIS DG 345ml	Cartridge 345ml	1
6099988	WIS DG 410ml	Cartridge 410ml	1
6099989	WIS DG 585ml	Cartridge 385/585ml	1

WIS Plastic Mesh Sleeve

16 - 20 mm

(L 03 125)



Features and Benefits

- end cap prevents resin leaking out of the sleeve in overhead installations
- for use with WPSF100 & WVSF200 chemical anchoring systems in hollow substrates
- sleeves for M8, M10 and M12 threaded rods

Part No.	Code	D (mm)	L	For	Pack 1
6097017	WIS PS 16x85	16	85 mm	M8, M10 threaded bar	10
6097018	WIS PS 16x130	16	130 mm	M8, M10 threaded bar	10
6097020	WIS PS 20x85	20	85 mm	M12 threaded bar	10

WIS Threaded Rod

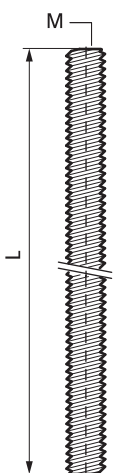
(L 03 130)



Features and Benefits

- according to DIN 976-1
- thread with 60° angle provides best performance
- material: steel, strength class 8.8
- zinc plated

Part No.	Code	Thread (M)	L	BndS
63039108	WIS TR M8x1000	M8	1 m	50
63039110	WIS TR M10x1000	M10	1 m	25
63039112	WIS TR M12x1000	M12	1 m	20
63039116	WIS TR M16x1000	M16	1 m	20



WIS Threaded Rod SSSt

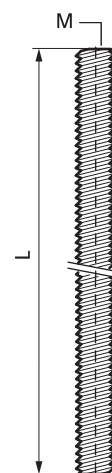
(L 03 135)



Features and Benefits

- according to DIN 976-1
- thread with 60° angle provides best performance
- material: stainless steel, A4

Part No.	Code	Thread (M)	L	BndS
63079108	WIS TR SSSt M8x1000	M8	1 m	50
63079110	WIS TR SSSt M10x1000	M10	1 m	25
63079112	WIS TR SSSt M12x1000	M12	1 m	20
63079116	WIS TR SSSt M16x1000	M16	1 m	20



WIS Stud Bolt

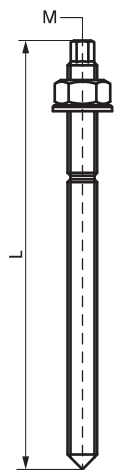
(L 03 140)



Features and Benefits

- pre-assembled nut and washer allow faster installation
- material: steel, strength class 5.8
- zinc plated

Part No.	Code	Thread (M)	L	Pack 1	Pack 2
60990811	WIS SB M8x110	M8	110 mm	10	160
60991013	WIS SB M10x130	M10	130 mm	10	160
60991016	WIS SB M10x160	M10	160 mm	10	80
60991219	WIS SB M12x190	M12	190 mm	10	80
60991622	WIS SB M16x220	M16	220 mm	10	80



WDI1 SD Stop Drill Bit

(L 03 145)



Features and Benefits

- three cutting edges increase drilling speed
- designed for drilling all concrete at controlled depth
- particularly suitable for high volume installations of anchors such as WDI1
- carbide tip with precision centering point resists overheating and provides trajectory control

Part No.	Code	L	LU (mm)	d ₀ (mm)	For	Pack 1	Pack 2
6951010	WDI1 SD 10x110/S	110 mm	32	10	WDI1 M8	10	150
6951012	WDI1 SD 12x130/S	130 mm	42	12	WDI1 M10	10	150

WSDS+ 3CE Concrete Drill Bit

(L 03 150)



Features and Benefits

- three cutting edges increase drilling speed
- designed for drilling all concrete
- drills through rebar without getting stuck
- carbide tip with precision centering point resists overheating and provides trajectory control
- three flute zone for fast dust evacuation, acceleration, and extraction

Part No.	Code	L	LU (mm)	d ₀ (mm)	Pack 1	Pack 2
69520611	WSDS+6x110/3CE	110 mm	50	6	1	250
69520616	WSDS+6x160/3CE	160 mm	100	6	1	200
69520621	WSDS+6x210/3CE	210 mm	150	6	1	150
69520816	WSDS+8x160/3CE	160 mm	100	8	1	200
69520821	WSDS+8x210/3CE	210 mm	150	8	1	150
69521021	WSDS+10x210/3CE	210 mm	150	10	1	100
69521026	WSDS+10x260/3CE	260 mm	200	10	1	100
69521216	WSDS+12x160/3CE	160 mm	100	12	1	150
69521221	WSDS+12x210/3CE	210 mm	150	12	1	100
69521226	WSDS+12x260/3CE	260 mm	200	12	1	100
69521621	WSDS+16x210/3CE	210 mm	150	16	1	100
69521626	WSDS+16x260/3CE	260 mm	200	16	1	100

WSDS+ HB Hollow Block Drill Bit

(L 03 155)



Features and Benefits

- designed for drilling hollow bricks and blocks
- long drill bit length allows drilling deep holes
- minimises damage done to the substrate
- round part of the drill ensures straight holes

Part No.	Code	L	LU (mm)	d ₀ (mm)	Pack 1	Pack 2
69530826	WSDS+8x260/HB	260 mm	200	8	1	100
69531026	WSDS+10x260/HB	260 mm	200	10	1	100
69531226	WSDS+12x260/HB	260 mm	200	12	1	100
69531626	WSDS+16x260/HB	260 mm	200	16	1	80

BIS HK

fixing to concrete, brick

(L 05 60)



Features and Benefits

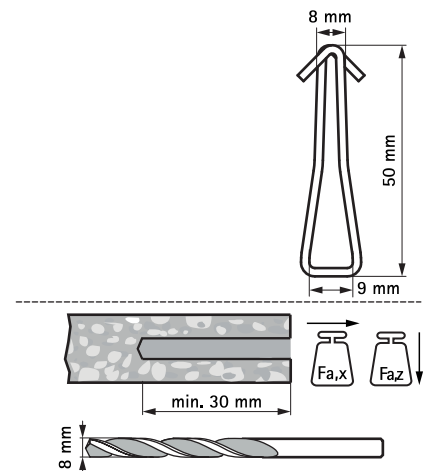
- for fixing of steel wire, suspension band or chain in concrete and solid stone
- for suspension of static loads such as air ducts, lowered ceilings, etc. to concrete
- also suitable for outside use
- drill 8 mm hole and hammer in HK wire anchor
- HK: for cables / BIS DobyGrip
- material: stainless steel 1.4401 (AISI 316)
- better fire resistance than plastic plugs
- tested by CSTB
- test report EPOD/06-05 (HK)



HK: Report EPOD/-6-05

Part No.	Model	F _{a,z} (N)	F _{a,x} (N)	CSTB	Pack 1	Pack 2
61073134	HK, without cap	800	800	CSTB	200	1,200
61073224	HK, with cap	800	800	CSTB	100	600

Max. allowed load (Fa) in concrete (350 kg/m³), drill hole Ø 8 mm.
Safety margin 1:4.



Complementary

- 403 BIS Suspension Band - Plated
- 460 BIS Chain (DIN 5685)
- 478 BIS DobyGrip Loop

Complementary

- 480 BIS DobyGrip Snap End Hook
- 481 BIS DobyGrip Wire Reel

WUP Uni Plug

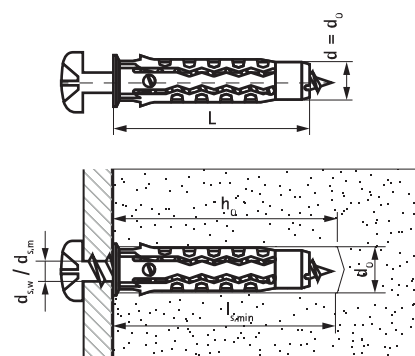
(L 07 05)

standard universal anchor for all types of substrates



Features and Benefits

- high load capacity
- can be used with wood screws, chipboard screws and metric bolts
- suitable for variety of substrates
- easily slides into holes
- does not slip past collar in deep holes
- does not expand prematurely
- resists rotation in holes
- Application:
 - shelves
 - wall-mounted cabinets
 - sanitary fixings
 - HVAC and plumbing fixings
- material: high quality PA6 polyamide
- substrate type:
 - lightweight concrete
 - concrete
 - masonry
 - hollow masonry
 - rock
 - sand-lime bricks
 - natural stone
 - gypsum



Part No.	Code	L	d ₀	h ₀	d _{s,w}	d _{s,m}	l _{s,min}	Rec. Tension Load Solid Brick	Rec. Tension Load Perforate d Brick	Rec. Tension Load C20/25 Concrete	Rec. Tension Load Lightweight Concrete	Rec. Tension Load Sandstone	Pack 1	Pack 2
								(kN)	(kN)	(kN)	(kN)	(kN)		
6100706	WUP 6x30	30 mm	6	40	3.5 - 5.0	M4	34	0.90	0.20	0.45	0.12	0.70	100	3,600
6100708	WUP 8x40	40 mm	8	50	4.5 - 6.0	M5	44	1.00	0.40	1.15	0.19	1.00	100	3,600
6100710	WUP 10x50	50 mm	10	70	6.0 - 8.0	M6	54	1.10	0.45	1.90	0.30	1.80	50	1,800
6100712	WUP 12x60	60 mm	12	70	8.0 - 10.0	M8	64	1.50	0.50	2.70	0.40	2.10	25	900

Given recommended tension loads have been reached using a maximum diameter wood screw and include a safety factor of 5.

WEP Expansion Plug

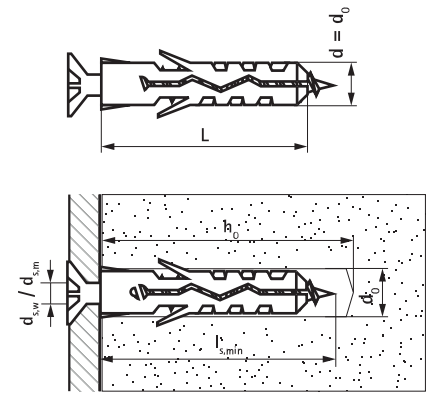
(L 07 20)

economical expansion anchor for all types of substrates



Features and Benefits

- can be used with wood screws, chipboard screws and metric bolts
 - suitable for solid substrates
 - does not expand prematurely
 - resists rotation in holes
 - Application:
 - shelves
 - wall-mounted cabinets
 - sanitary fixings
 - HVAC and plumbing fixings
 - material: high quality PA6 polyamide
- substrate type:
 - lightweight concrete
 - concrete
 - masonry
 - hollow masonry
 - rock
 - sand-lime bricks
 - natural stone
 - gypsum



Part No.	Code	L	d ₀	h ₀	d _{s,w}	d _{s,m}	l _{s,min}	Rec. Tension Load Solid Brick	Rec. Tension Load C20/25 Concrete	Rec. Tension Load Lightweight Concrete	Pack 1	Pack 2
								(kN)	(kN)	(kN)		
61001005	WEP 5x25	25 mm	5	35	2.6 - 4.0	M3	29	0.20	0.35	0.04	100	3,600
61001006	WEP 6x30	30 mm	6	40	3.5 - 5.0	M4	34	0.40	0.60	0.06	100	3,600
61001008	WEP 8x40	40 mm	8	55	4.5 - 6.0	M5	44	0.60	0.85	0.09	100	3,600
61001010	WEP 10x50	50 mm	10	65	6.0 - 8.0	M6	54	0.80	1.40	0.20	50	1,800
61001012	WEP 12x60	60 mm	12	80	8.0 - 10.0	M8	64	1.00	1.80	0.40	25	900
61001014	WEP 14x70	70 mm	14	90	10.0 - 12.0	M10	74	1.30	2.60	0.50	20	720

Given recommended tension loads have been reached using a maximum diameter wood screw and include a safety factor of 5.

WNP Nail Plug

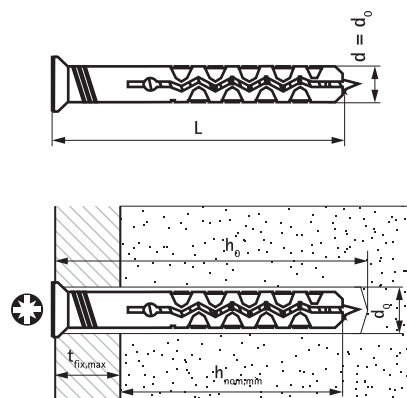
(L 07 15)

easy to install hammer-set anchor



Features and Benefits

- quick and easy to install
- pre-assembled
- through-fixing
- long expansion zone provides stability
- can be adjusted or dismantled
- Application:
 - skirtings
 - cable clamps
 - profiles
 - cabinets
- material: steel
- material: high quality PA6 polyamide
- zinc plated
- substrate type:
 - concrete
 - masonry
 - hollow masonry
 - rock
 - sand-lime bricks
 - natural stone



Part No.	Code	L	d ₀	h ₀	h _{nom,min}	t _{fix,max}	Drive	Rec. Tension Load Solid Brick (kN)	Rec. Tension Load C20/25 Concrete (kN)	Rec. Tension Load Sandstone (kN)	Pack 1	Pack 2
62230503	WNP 5x30	30 mm	5	40	25	5	PZ2	0.20	0.25	0.15	100	2,400
62230604	WNP 6x40	40 mm	6	50	30	10	PZ2	0.25	0.30	0.20	100	1,800
62230606	WNP 6x60	60 mm	6	70	30	30	PZ2	0.25	0.30	0.20	100	1,200
62230806	WNP 8x60	60 mm	8	70	40	20	PZ2	0.30	0.40	0.25	100	900
62230808	WNP 8x80	80 mm	8	90	40	40	PZ2	0.30	0.40	0.25	100	600
62230810	WNP 8x100	100 mm	8	110	40	60	PZ2	0.30	0.40	0.25	100	600

Given recommended loads include a safety factor of 5.

WPF Plasterboard Fixings

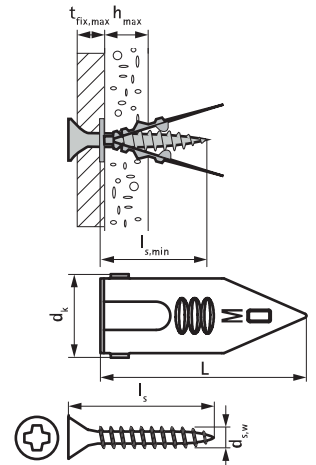
(L 07 22)

A classic hammer-in fixing for plasterboard



Features and Benefits

- quick and easy to install
- central thread guide provides optimum screw positioning
- does not require drilling
- sharp tip allows precise installation
- for use with \varnothing 3.5-5.0 mm wood or chipboard screws
- Application:
 - interior decorations
 - pictures
- Application:
 - lamps
 - electrical fittings
- material: steel
- zinc plated
- substrate type:
 - chipboard
 - plasterboard



Part No.	Code	Model	L	d _{s,w}	l _s	l _{s,min}	h _{max}	t _{fix,max}	Drive	Rec. Tension Load Plasterboard (h=12.5mm)	Pack 1	Pack 2
				(mm)	(mm)	(mm)	(mm)	(mm)		(kN)		
6110063	WPF 12x30	Screw excluded	30 mm	3.5 - 5.0	-	27	12.5	-	-	0.102*	200	4,800
6110092	WPF 12x30	Screw excluded	30 mm	3.5 - 5.0	-	27	12.5	-	-	0.102*	3,000	-
6110234	WPF 12x30/4x30	Screw included	30 mm	4.0	30	27	12.5	3	PZ2	0.102*	25	3,750
6110263	WPF 12x30/4x30	Screw included	30 mm	4.0	30	27	12.5	3	PZ2	0.102*	200	4,800
6110334	WPF 12x30/4x50	Screw included	30 mm	4.0	50	27	12.5	23	PZ2	0.102*	25	3,750

* Recommended loads are for tension, have been reached using a 4.0 mm diameter wood screw and include a safety factor of 2.

WCP Cavity Plug

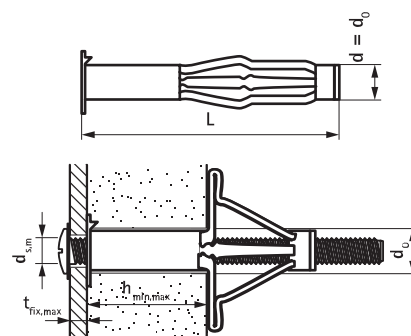
(L 07 25)

metal anchor with screw for cavity walls



Features and Benefits

- high load capacity and security
- usable with various screwdriver bit types
- Application:
 - shelves
 - wall-mounted cabinets
 - sanitary fixings
 - HVAC and plumbing fixings
- material: steel
- zinc plated
- substrate type:
 - hollow masonry
 - chipboard
 - plasterboard



Part No.	Code	L	d ₀	d _{s,m}	h _{min,max}	t _{fix,max}	Drive	Rec. Tension Load Vertically Perforated Brick (Hz 12)	Rec. Tension Load Cement Fiberboard (h=12mm)	Rec. Tension Load Chipboard (h=13mm)	Rec. Tension Load Plasterboard d (h=12.5m m)	Pack 1	Pack 2
		(mm)	(mm)	(mm)	(mm)	(mm)		(kN)	(kN)	(kN)	(kN)		
6105400	WCP 4x35	35 mm	8	M4	4 - 9	16	Philips	-	0.35	0.20	0.15	100	1,200
6105501	WCP 5x37	37 mm	10	M5	5 - 13	20	Philips	-	0.40	0.25	0.18	100	1,200
6105502	WCP 5x50	50 mm	10	M5	5 - 18	26	Philips	-	0.40	0.25	0.18	100	900
6105601	WCP 6x37	37 mm	12	M6	4 - 13	16	Philips	0.70	0.42	0.28	0.20	100	900
6105603	WCP 6x63	63 mm	12	M6	16 - 32	28	Philips	0.70	0.42	0.28	0.20	100	300

Given recommended loads include a safety factor of 3.

WRX Metal Plug

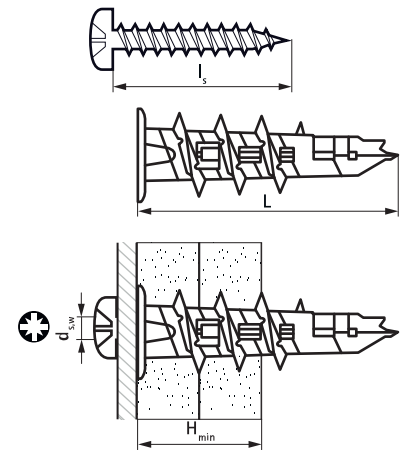
metal self-drilling anchor

(L 07 30)



Features and Benefits

- self-drilling
 - back twist lock allows screw removal without movement of the plug
 - sharp tip allows accurate positioning and installation
 - Application:
 - interior decorations
 - electrical fittings
 - material: die-cast zinc
- substrate type:
 - lightweight concrete
 - gypsum
 - chipboard
 - plasterboard



Part No.	Code	L	d _{sw}	l _s	h _{min}	Drive	Rec. Tension Load Chipboard (6mm pre drilling)	Rec. Tension Load Lightweight Concrete	Rec. Tension Load Gypsum Fiberboard	Rec. Tension Load Plasterboard (h=12.5mm)	Pack 1	Pack 2
			(mm)	(mm)	(mm)		(kN)	(kN)	(kN)	(kN)		
6229903	WRX MP 14x32	32 mm	4.5	30	12.5	PZ2	0.45	0.10	0.15	0.10	100	2,400

Given recommended loads include a safety factor of 3.

WRX Plastic Plug

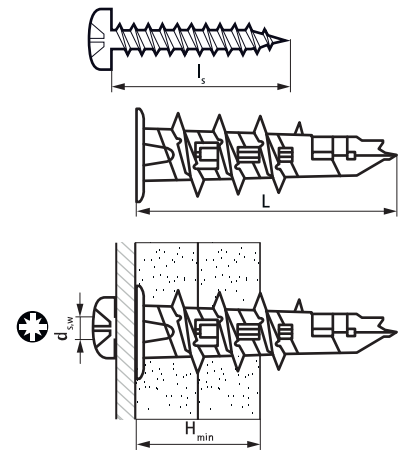
plastic self-drilling anchor

(L 07 35)



Features and Benefits

- self-drilling
 - back twist lock allows screw removal without movement of the plug
 - sharp tip allows accurate positioning and installation
 - Application:
 - interior decorations
 - electrical fittings
 - material: PA (polyamide) with fiber-glass reinforcement
- substrate type:
 - plasterboard



Part No.	Code	L	d _{s,w} (mm)	l _s (mm)	h _{min} (mm)	Drive	Rec. Tension Load Plasterboard (h=12.5mm) (kN)	Pack 1	Pack 2
6229904	WRX PP 14x32	32 mm	4.5	30	12.5	PZ2	0.09	100	2,400

Given recommended loads include a safety factor of 3.

BIS XL

fixing to double plaster board > 13 mm

(L 10 12)

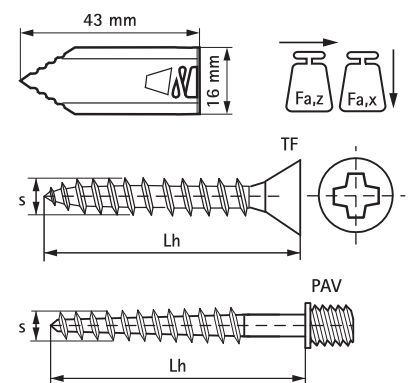
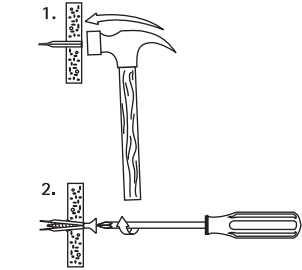


Features and Benefits

- hammer-in plug
- for heavy applications
 - applications: pipe fixings, radiators, heaters, airco-units, etc.
- for chipboard screw (Ø 4.0 - 5.0 mm, min. length 45 mm)
- easy and quick to use
 - no drill
 - plug anchors itself when tightening the screw
 - does not rotate on screwing
- material: steel
- better fire resistance than plastic plugs
- zinc plated

Part No.	Model	s (mm)	Lh (mm)	F _{a,z} (N)	F _{a,x} (N)	Pack 1	Pack 2
6114121	Incl. screws (TF)	4.0	50	250	700	12	120
6114143	Incl. screws (TF)	4.0	50	250	700	100	600
6114053	Without Screws	-	-	250	700	150	900

Max. allowed load in plasterboard (safety margin 1:2).



BIS Plasterboard Plug Startset

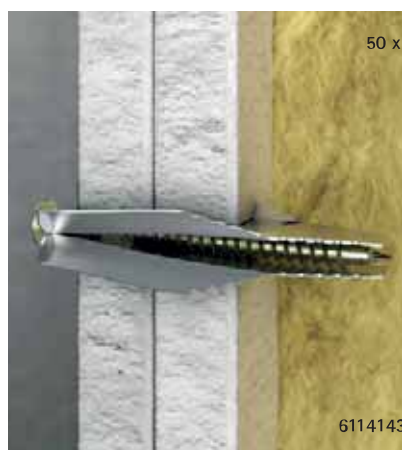
(L 10 14)



Features and Benefits

- easy and quick to use
 - no drilling needed, just hammer-in and screw
 - plug anchors itself when tightening the screw
 - does not rotate on screwing
 - versatile, quick and reliable!
- 100 pieces of various hammer-in plugs including screws
- set consists of various plugs for use in medium and heavy applications:
 - 50 pieces WPF incl. screws
 - 50 pieces BIS XL incl. screws

Part No.	Model	Pack 1	Pack 2
61863002	BIS Plasterboard Plugs Startset English	1	11



BIS TWIST

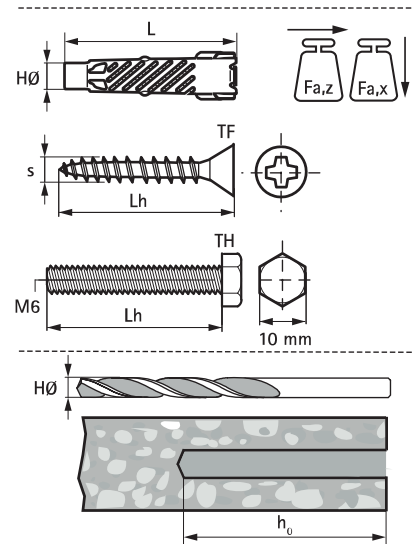
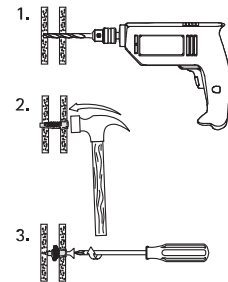
fixing to concrete, brick

(L 10 20)



Features and Benefits

- easy and quick to use
 - plug anchors itself when tightening the screw
 - does not rotate on screwing
- for (middle)heavy fixings in solid or hollow materials
- pre-drill hole \varnothing 8 mm or 10 mm and insert plug
- stays in position, when screw is removed
- with flat head
- with collar to prevent plug from falling into hollow space
- suitable for metric thread and chipboard screws
- expands in solid materials, strip up in hollow materials
- $H\varnothing$ 10mm: torque is max. 7.5 Nm
- material: steel
- better fire resistance than plastic plugs
- surface treatment: zinc plated, white passivated



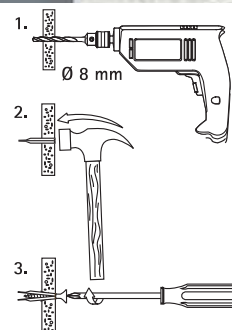
Part No.	Model	L	s	Lh	HØ	hØ	T _(max.)	F _{a,z}	F _{a,x}	Pack 1	Pack 2
			(mm)	(mm)	(mm)	(mm)	(Nm)	(N)	(N)		
6119171	Incl. screws (TF) and washers	45 mm	5.0	60	8	55	7.5	570	1,130	6	60
6119141	Incl. screws (TF) and washers	45 mm	5.0	60	8	55	7.5	570	1,130	12	120
6119641	Incl. screws (TF) and washers	50 mm	6.0	70	10	65	7.5	570	1,130	10	100
6119653	Incl. screws (TF) and washers	50 mm	6.0	70	10	65	7.5	570	1,130	50	300
6119731	Incl. bolts (TH) and washers	50 mm	6.0	60	10	60	7.5	600	1,520	10	100
6119753	Incl. bolts (TH) and washers	50 mm	6.0	60	10	60	7.5	600	1,520	50	300

Max. allowed load (Fa) in brick (safety margin 1:2).
Other materials on demand.

BIS CP

(L 10 24)

fixing to aerated concrete, plaster block

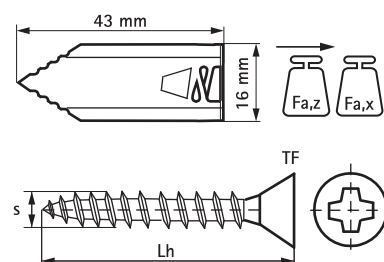


Features and Benefits

- hammer-in plug
- for medium applications into plaster block or aerated concrete block
- for chipboard screw (Ø 4.0 - 5.0 mm, min. length 45 mm)
- easy and quick to use
 - plug anchors itself when tightening the screw
 - does not rotate on screwing
- pre-drill hole Ø 8 mm to avoid breaking of material during screwing
- material: steel
- better fire resistance than plastic plugs
- surface treatment: zinc plated, colored

Part No.	Model	s (mm)	Lh (mm)	F _{a,z} (N)	F _{a,x} (N)	Pack 1	Pack 2
6117153	Incl. screws (TF)	4.0	50	400	750	100	600
6117063	Without Screws	-	-	400	750	150	900

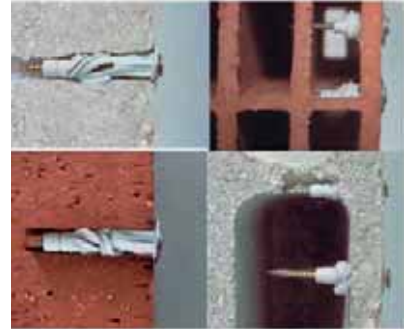
Max. allowed load in plaster block (safety margin 1:2).



BIS ARAYPLAST

fixing to concrete, brick

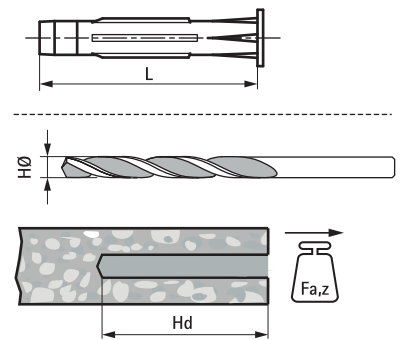
(L 10 68)



Features and Benefits

- for light duty fixings to e.g. brick (hollow or solid), block wall (hollow), etc.
- with collar to prevent plug from falling into hollow space
- material: PE (polyethylene)

Part No.	L	HØ (mm)	Pack 1	Pack 2
6118331	50 mm	8	40	800
6118371	50 mm	8	600	6,000
6118411	60 mm	10	15	150
6118461	60 mm	10	400	3,200



BIS Star Plug

(L 10 80)

fixing to aerated concrete, plaster block



Features and Benefits

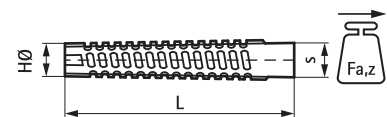
- for a fire safe fixing of pipes
- metal plug for wood and chipboard screws
- good grip because of external design (high pull-out resistance)
- insertion of hanger bolts is facilitated by the design of the internal shape (easy screw in)
- does not melt or burn with high temperature (important with gas pipes)
- dimension 6x32 mm and 8x38 mm can be hammered into low resistance aerated concrete without pre-drilling
- material: steel
- zinc plated, yellow passivated
- Part No. 610 3 860: zinc plated, blue passivated
- tested for fire safety
- tested according to DIN EN 1363-1: 1999-10



Part No.	L	s (mm)	HØ (mm)	Fa,z (N)	Pack 1	Pack 2
6103632	32 mm	6.0	7-8	60	100	500
6103838	38 mm	8.0	9-11	290	100	500
6103860	60 mm	8.0	9-11	490	100	500
6103960	60 mm	10.0	10-12	530	100	500

Max. allowed load (F_{a,z}) in aerated concrete (safety margin 1:3).

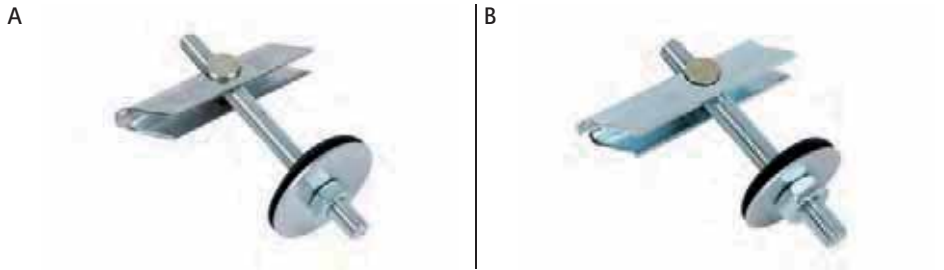
Exact drill hole diameter depends on the strength and the hardness of the building material.



BIS Toggle Plug (Stud-end)

(L 10 25)

fixing to hollow walls



Features and Benefits

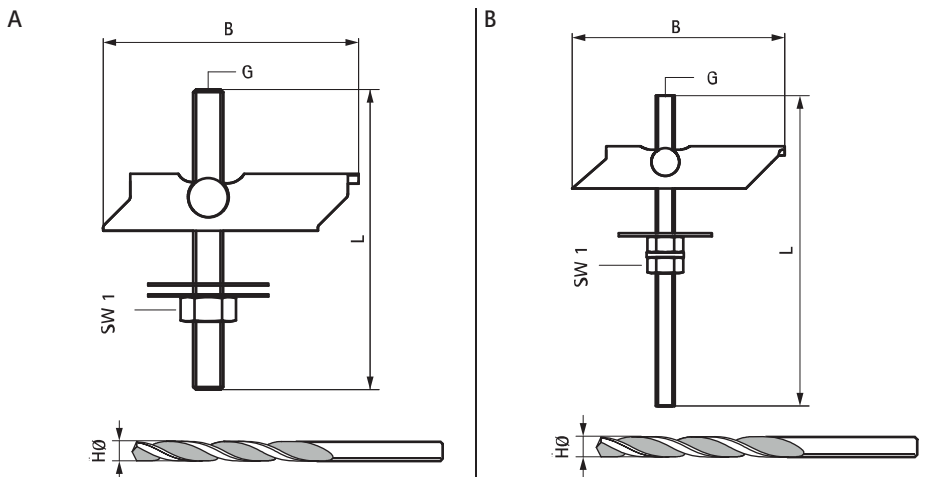
- U-profile with rotating shaft with stud bolt
- for fixing in hollow walls and hollow ceilings or profiled roofing sheets
- Part No. 067 0 604: for fixing of sprinkler pipes to roofing sheets (max. DN 50 - 2") according to VdS directives
- material: metal parts made of steel; protective washer made of rubber (Part No. 067 0 604)
- zinc plated
- with VdS-approval - certificate number G 4890027

Part No.	Model	G	L	B (mm)	HØ (mm)	SW1 (mm)	VdS	Pack 1
A 0670602	Stud-end	M6	100 mm	68.5	17	10	-	25
A 0670603	Stud-end	M8	100 mm	74.0	20	13	-	25
B 0670604	Stud-end	M10	100 mm	84.0	25	17	VdS	25

The loading values of the plug depend on the surface (commonly trapezium sheet, loading capacity per m² determining).



Cert.Nr.
G 4890027



BIS Toggle Plug

fixing to hollow walls

(L 10 86)

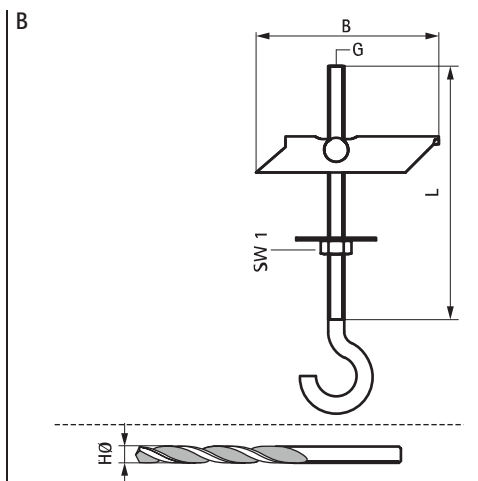
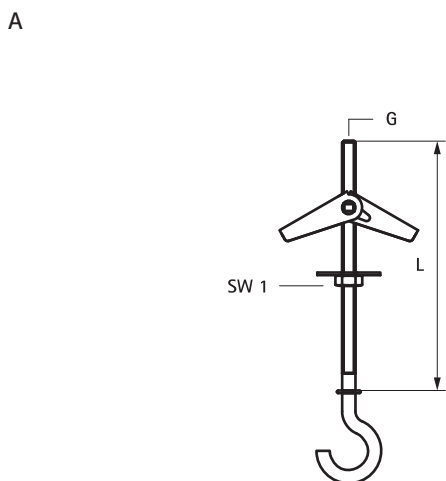


Features and Benefits

- U-profile with rotating shaft with stud bolt
- for fixing in hollow walls and hollow ceilings or profiled roofing sheets
- material: steel
- zinc plated

Part No.	Model	G	L	B (mm)	HØ (mm)	SW1 (mm)	Pack 1
A 0670620	Screw hook	M4	75 mm	-	-	7	25
A 0670621	Screw hook	M5	75 mm	-	-	8	25
A 0670622	Screw hook	M6	70 mm	-	-	10	15
B 0670716	Screw hook	M6	95 mm	68.5	17	10	20

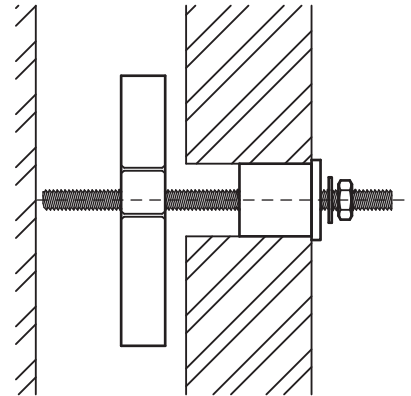
The loading values of the plug depend on the surface (commonly trapezium sheet, loading capacity per m² determining).



BIS Toggle Bolt

fixing to hollow walls

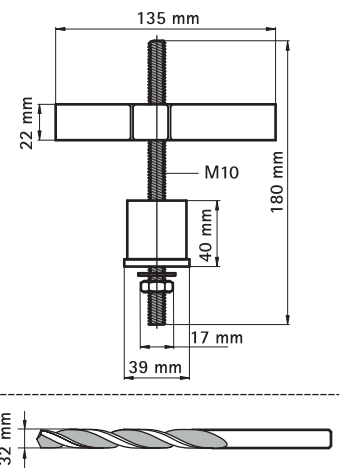
(L 10 88)



Features and Benefits

- for fixing in hollow walls
- material: metal parts made of steel; spacer collar of EPDM rubber; washer of PP (polypropylene)
- pre-galvanized

Part No.	Pack 1
0670600	20
<i>The max. allowed load ($F_{0,2}$) depends on the application, for a detailed load calculation please contact Walraven technical support.</i>	



BIS Hammer-in Shoulder Stud

(L 15 05)

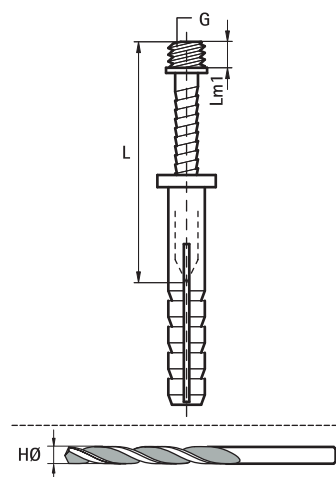
fixing to wall or ceiling



Features and Benefits

- hammer-in instead of screw-in
- impact head to prevent head damage
- plug with shoulder
- material: hammer-in stud made of steel; plug made of PA (polyamide), grey
- zinc plated, passivated

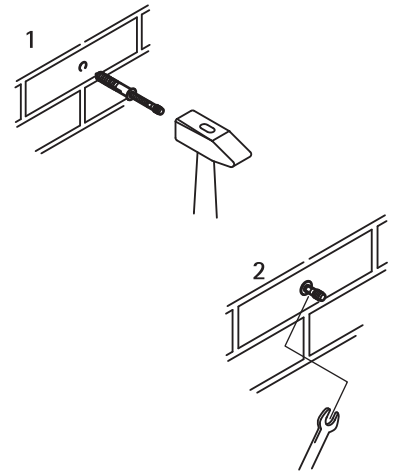
Part No.	G	L	Lm1 (mm)	HØ (mm)	Pack 1	Pack 2
6373640	M6	40 mm	6.0	6	100	1,200
6373850	M8	50 mm	6.0	8	100	1,200



BIS Hammer-in Stud

fixing to wall or ceiling

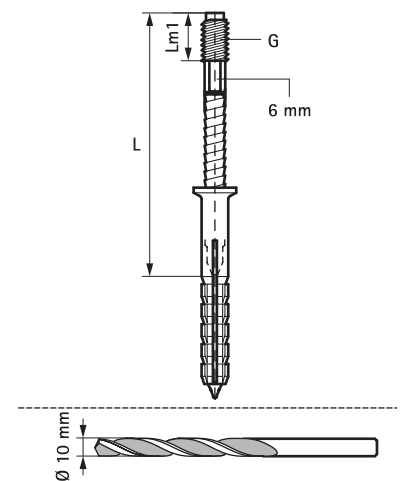
(L 15 10)



Features and Benefits

- impact head to prevent head damage
- with hexagon for fine setting
- plug with shoulder
- material: hammer-in stud made of steel;
- plug made of PA (polyamide), grey
- zinc plated

Part No.	G	L	Lm1 (mm)	Pack 1	Pack 2
6223808	M8	80 mm	14	100	500
6223810	M8	100 mm	34	100	500
6223812	M8	120 mm	34	100	500
6223815	M8	150 mm	50	100	500



BIS Nail Shoulder Stud

(L 15 20)

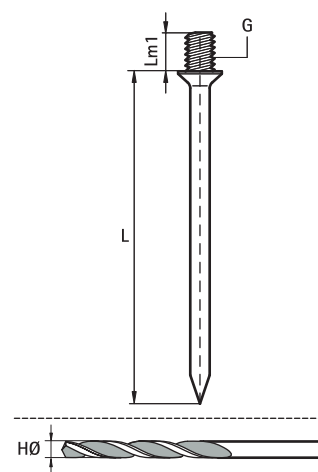
fixing to wall or ceiling



Features and Benefits

- material: tempered steel
- zinc plated

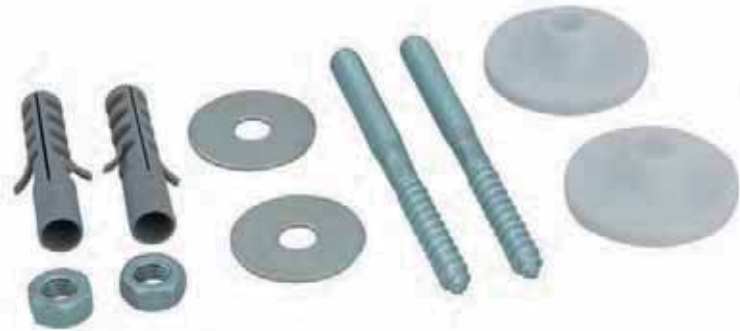
Part No.	G	L	Lm1 (mm)	HØ (mm)	Pack 1	Pack 2
6333618	M6	18 mm	8	4	100	3,000
6333625	M6	25 mm	8	4	100	3,000
6333630	M6	30 mm	8	4	100	2,000
6333640	M6	40 mm	8	4	100	2,000
6333655	M6	55 mm	8	4	100	1,800



BIS Wash Basin Plug Bolt Set

(L 20 05)

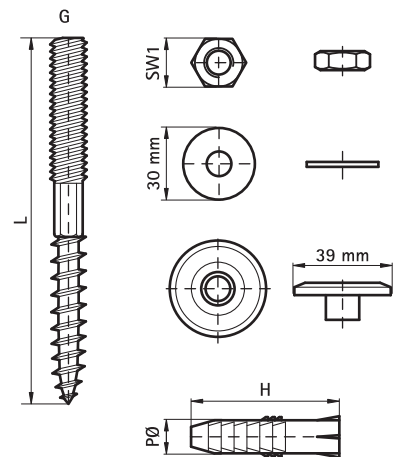
fixing of wash basins and hand basins



Features and Benefits

- fixing set for wash-hand basins
- material: metal parts made of steel 1.0332; washer of PP (polypropylene), white; plug of PA (polyamide)
- zinc plated
- consists of:
 - 2 Hanger Bolts
 - 2 Washers
 - 2 Guiding rings
 - 2 Hexagon nuts
 - 2 Plugs of PA (polyamide)

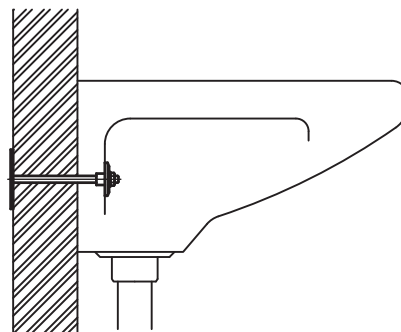
Part No.	G	L	H (mm)	PØ (mm)	SW1 (mm)	Pack 1
0667300	M8	90 mm	48	10	13	50
0657600	M10	110 mm	60	12	17	50
0657800	M10	140 mm	60	12	17	50
0657850	M10	140 mm	60	14	17	50



BIS Special Sanitary Ware Fixing Screw

fixing of wash basins and hand basins

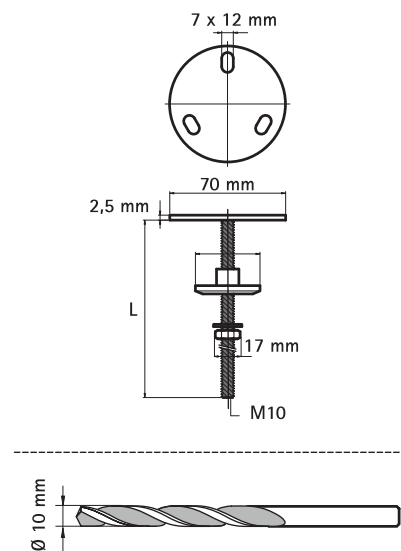
(L 20 15)



Features and Benefits

- for assembly in hollow walls and other walls where plugs cannot be used
- zinc plated
- fixing set for wash-hand basins
- 1 set
- material: metal parts made of steel; protection ring made of PP (polypropylene), white

Part No.	L	Pack 1
0670118	180 mm	25



BIS Wash Basin Hook

fixing of wash basins and hand basins

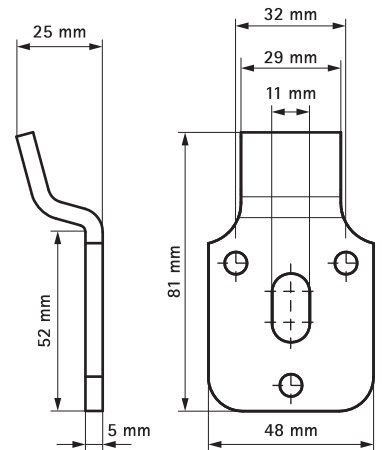
(L 20 30)



Features and Benefits

- with 3 fixing holes and 1 slotted hole
- zinc plated
- material: steel

Part No.	Pack 1
0670505	100



BIS Toilet Fixing Kit

(L 25 05)

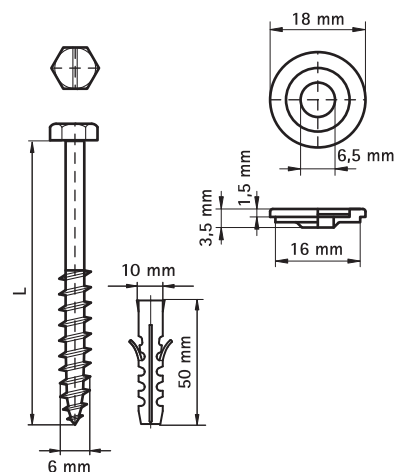
fixing of toilet



Features and Benefits

- consists of:
 - 2 Hexagon wood screws DIN 571 with slot
 - 4 End caps of 2 POM (2 x chrome, 2 x white)
 - 2 Protective washers of PP
 - 2 Plugs of PA (polyamide)

Part No.	Model	L	Pack 1
0653070	Hexagon wood screws: steel, zp	6 x 70 mm	25
0653080	Hexagon wood screws: steel, zp	6 x 80 mm	25
0659070	Hexagon wood screws: brass	6 x 70 mm	25
0657070	Hexagon wood screws: SSt	6 x 70 mm	25
0657080	Hexagon wood screws: SSt	6 x 80 mm	25



BISMAT[®] Interim Plug

temporary pipe enclosures

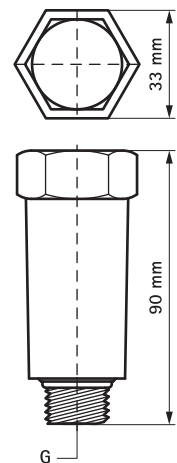
(L 30 05)



Features and Benefits

- for pressure test
- with plastic thread
- material: PP (polypropylene)

Part No.	G	Colour	Pack 1
0692021	G1/2"	White	50
0692027	G3/4"	White	50



M BIS Stainless Steel Pipe Support Fixings



BIS Clamps with Lining
BIS Bifix® 1301 Stainless Steel (M8, M10) 549



BIS Clamps
BIS Bifix® 300 Stainless Steel (M8, M10) 550



BIS Suspension Band
BIS Stainless Steel Suspension Band 551



BIS Clamps for Plastic Pipe
BIS Bifix® 415 Stainless Steel 552
BIS 434 Stainless Steel Clamp for PE-Pipe 553



BIS Expansion Device
BIS Stainless Steel Expansion Device (M10) 554



BIS RapidRail® - Fixing Rail
BIS RapidRail® Stainless Steel Fixing Rail 555



BIS RapidRail® - Cantilever Arms
BIS RapidRail® Stainless Steel Cantilever Arm 556



BIS RapidRail® - Wall Plates
BIS RapidRail® Stainless Steel Wall Plate 557



BIS Rail Props
BIS Stainless Steel Rail Prop 558



BIS Rail Accessories for Pipe Fixing
BIS RapidRail® Stainless Steel Slide Nut 559
BIS Stainless Steel Slide Nut 560
BIS RapidRail® Stainless Steel Hammerfix 561
BIS Stainless Steel Washer (Flat) 562
BIS Stainless Steel Washer (U-shaped) 563



BIS Rail Connectors
BIS Stainless Steel Rail Connector 564



BIS Rail Beam Clamps
BIS RapidRail® Stainless Steel Beam Clamp 565



BIS RapidStrut® - Rail
BIS RapidStrut® Stainless Steel Fixing Rail 566
BIS RapidStrut® Stainless Steel Fixing Rail Double 567



BIS RapidStrut® - Cantilever Arms
BIS RapidStrut® Stainless Steel Cantilever Arm 568

M BIS Stainless Steel Pipe Support Fixings



BIS Strut Wall Plates
 BIS Strut Stainless Steel Wall Plate Heavy 569



BIS Strut Rail Accessories for Pipe Fixing
 BIS Strut Stainless Steel Slide Nut 570
 BIS Strut Stainless Steel Slide Nut with Tabs 571
 BIS Strut Stainless Steel Tee-Bolt 572
 BIS Strut Stainless Steel Washer (Flat) 573
 BIS Strut Stainless Steel Washer (U-shaped) 574



BIS Wall Plates
 BIS Stainless Steel Wall Plate Resistance Welded 575
 BIS Stainless Steel Wall Plate CO₂ Welded 576
 BIS Stainless Steel Wall Plate with Welded Stud Bolt 672 577



BIS Supports for Plastic Pipe
 BIS Stainless Steel Pipe Reinforcement 578



BIS Strut Connectors
 BIS Strut Stainless Steel Connector 90° 579
 BIS Strut Stainless Steel Connector 90° 580
 BIS Strut Stainless Steel Connector 90° / 2D 581
 BIS Strut Stainless Steel Rail Clamp 582
 BIS Strut Stainless Steel U-Connector 583



BIS Strut Beam Clamps
 BIS Strut Stainless Steel Beam Clamp 584
 BIS Strut Stainless Steel Beam Clamp 585
 BIS Stainless Steel Beam Clamp Model O V2A 586



BIS Hanger Bolts
 BIS Stainless Steel Hanger Bolt 587



BIS Screws, Bolts, Nuts
 BIS Stainless Steel Hexagon Head Screw 588
 BIS Stainless Steel Hexagon Nut 589



BIS Chains, S-Hooks
 BIS Stainless Steel Chain (DIN 5685-1) 590
 BIS Stainless Steel S-Hook 591



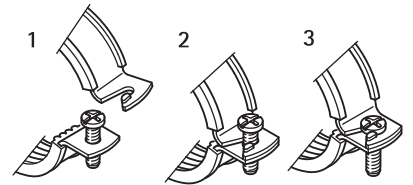
BIS Threaded Rods, Thread Connectors
 BIS Stainless Steel Threaded Rod 592
 BIS Stainless Steel Stud Connector 593
 BIS Stainless Steel Thread Adaptor 594

BIS Bifix® 1301 Stainless Steel

(M 05 05)

for stainless steel pipes Ø 11 - 250 mm

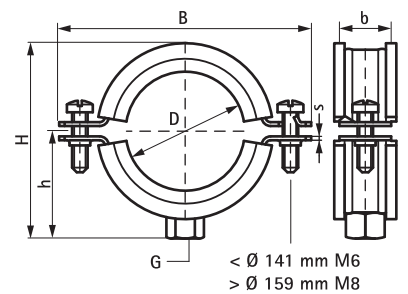
M8 - M10



Features and Benefits

- two-screw clamp
- with quick locking system
- material: stainless steel 1.4404 (AISI 316L)
- sound insulating lining according DIN 4109
- noise insulating lining, EPDM rubber, black
- age resistant lining

Part No.	D (mm)	D (")	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
3117015	11 - 14	1/4	8	M8	58	33	20	20 x 1.25	900	50
3117018	15 - 19	3/8	10	M8	64	39	23	20 x 1.25	900	50
3117023	20 - 23	1/2	15	M8	67	42	24	20 x 1.25	900	50
3117029	25 - 28	3/4	20	M8	72	47	27	20 x 1.25	900	50
3117035	31 - 35	1	25	M8	80	55	31	20 x 1.25	900	50
3117043	40 - 43	1 1/4	32	M8	87	62	35	20 x 1.25	900	50
3117049	47 - 51	1 1/2	40	M8	96	71	39	20 x 1.25	900	50
3117056	52 - 56	-	-	M8	100	75	41	20 x 1.25	900	50
3117063	57 - 64	2	50	M8	108	83	45	20 x 1.25	900	50
3117067	64 - 67	-	-	M8	109	87	46	20 x 2.00	1,350	25
3117076	70 - 76	2 1/2	65	M8	118	96	51	20 x 2.00	1,350	25
3117091	86 - 91	3	80	M8	130	108	57	20 x 2.00	1,350	25
3117106	100 - 106	-	-	M8	154	132	69	20 x 2.00	1,350	25
3117116	108 - 116	4	100	M8	158	136	71	20 x 2.50	1,710	25
3127018	15 - 19	3/8	10	M10	62	38	23	20 x 1.25	900	50
3127023	20 - 23	1/2	15	M10	64	43	25	20 x 1.25	900	50
3127029	25 - 28	3/4	20	M10	70	47	27	20 x 1.25	900	50
3127035	31 - 35	1	25	M10	78	55	31	20 x 1.25	900	50
3127043	40 - 43	1 1/4	32	M10	85	63	35	20 x 1.25	900	50
3127049	47 - 51	1 1/2	40	M10	97	72	39	20 x 1.25	900	50
3127056	52 - 56	-	-	M10	97	75	41	20 x 1.25	900	50
3127063	57 - 64	2	50	M10	102	82	44	20 x 1.25	900	50
3127067	64 - 67	-	-	M10	109	89	48	20 x 2.00	1,350	25
3127076	70 - 76	2 1/2	65	M10	118	98	52	20 x 2.00	1,350	25
3127085	79 - 85	-	-	M10	124	104	55	20 x 2.00	1,350	25
3127091	86 - 91	3	80	M10	130	109	58	20 x 2.00	1,350	25
3127106	100 - 106	-	-	M10	154	135	72	20 x 2.00	1,350	25
3127116	108 - 116	4	100	M10	158	137	72	20 x 2.50	1,710	25
3127132	124 - 132	-	-	M10	170	149	78	20 x 2.50	1,710	25
3127141	133 - 141	5	125	M10	179	159	83	20 x 2.50	1,710	25
3127168	159 - 168	6	150	M10	233	195	101	25 x 2.50	1,710	15
3127219	210 - 219	8	200	M10	285	247	126	25 x 2.50	1,710	10
3127250	244 - 250	-	-	M10	317	279	142	25 x 2.50	1,710	10



Complementary

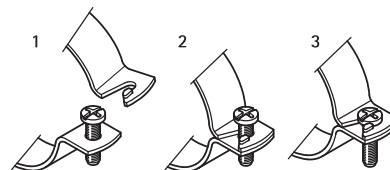
- 555 BIS RapidRail® Stainless Steel Fixing Rail
- 566 BIS RapidStrut® Stainless Steel Fixing Rail
- 587 BIS Stainless Steel Hanger Bolt

BIS Bifix[®] 300 Stainless Steel

(M 10 05)

for stainless steel pipes Ø 15 - 219 mm

M8 - M10



Features and Benefits

- two-screw clamp
- with quick locking system
- material: stainless steel 1.4404 (AISI 316L)

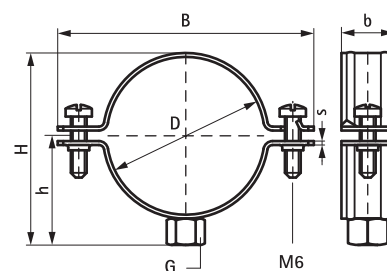


RAL-GZ 655/B
Cert.Nr. 2004-09

Part No.	D (mm)	D (°)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	RAL	Pack 1
3017017	15 - 19	3/8	10	M8	56	31	19	20 x 1.25	1,000	-	50
3017022	20 - 22	1/2	15	M8	58	33	20	20 x 1.25	1,000	-	50
3017030	25 - 28	3/4	20	M8	64	39	23	20 x 1.25	1,000	-	50
3017034	31 - 35	1	25	M8	72	47	27	20 x 1.25	1,000	-	50
3017042	40 - 43	1 1/4	32	M8	80	54	31	20 x 1.25	1,000	-	50
3017051	47 - 51	1 1/2	40	M8	87	62	35	20 x 1.25	1,000	-	50
3017060	54 - 60	-	-	M8	96	71	39	20 x 1.25	1,000	-	50
3017076	72 - 76	-	-	M8	109	86	46	20 x 2.00	1,500	RAL ¹	25
3017089	85 - 89	3	80	M8	124	101	54	20 x 2.00	1,500	RAL ¹	25
3017118	110 - 118	4	100	M8	154	131	69	20 x 2.50	1,900	RAL ¹	25
3027068	62 - 68	-	-	M10	102	80	44	20 x 2.00	1,500	RAL ¹	50
3027076	72 - 76	-	-	M10	109	87	48	20 x 2.00	1,500	RAL ¹	25
3027085	79 - 85	-	-	M10	118	96	52	20 x 2.00	1,500	RAL ¹	25
3027089	85 - 89	3	80	M10	124	102	55	20 x 2.00	1,500	RAL ¹	25
3027105	100 - 105	-	-	M10	139	117	62	20 x 2.00	1,500	RAL ¹	25
3027111	106 - 111	-	-	M10	146	124	66	20 x 2.50	1,900	RAL ¹	25
3027118	110 - 118	4	100	M10	154	132	70	20 x 2.50	1,900	RAL ¹	25
3027127	122 - 127	-	-	M10	163	140	74	20 x 2.50	1,900	RAL ¹	25
3027134	129 - 134	-	-	M10	170	148	78	20 x 2.50	1,900	RAL ¹	25
3027144	139 - 144	5	125	M10	179	157	83	20 x 2.50	1,900	RAL ¹	25
3027155	150 - 155	-	-	M10	192	172	91	20 x 2.50	1,900	RAL ¹	25
3027162	157 - 162	-	-	M10	196	174	91	20 x 2.50	1,900	RAL ¹	25
3027169	164 - 169	6	150	M10	203	181	95	20 x 2.50	1,900	RAL ¹	25
3027200	193 - 200	-	-	M10	256	216	112	25 x 2.50	1,900	RAL ¹	15
3027219	212 - 219	8	200	M10	273	233	121	25 x 2.50	1,900	RAL ¹	15

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/B.

For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.



Complementary

- 555 BIS RapidRail[®] Stainless Steel Fixing Rail
- 566 BIS RapidStrut[®] Stainless Steel Fixing Rail
- 587 BIS Stainless Steel Hanger Bolt

Alternative

- 549 BIS Bifix[®] 1301 Stainless Steel

BIS Stainless Steel Suspension Band

(M 13 05)

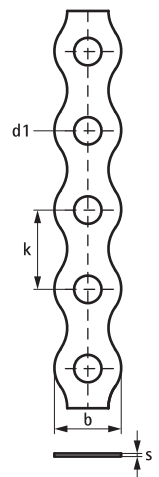
for vertical PVC downpipes, parallel conducts and suspended installations, etc.



Features and Benefits

- flexible system with multiple applications
- dispenser cassette allows easy handling and storage
- material: stainless steel 1.4401 (AISI 316)

Part No.	L	b x s (mm)	d1 (mm)	k (mm)	F _{a,z} (N)	Pack 1	App.
0833012	10 m	12 x 0.8	5.0	14.0	1,160	10	roll
0833017	10 m	17 x 0.8	7.0	20.0	1,560	10	roll
0833026	10 m	26 x 1.0	8.0	25.0	3,690	10	roll

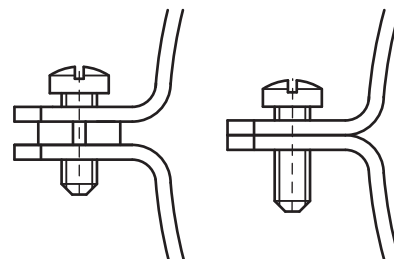


BIS Bifix[®] 415 Stainless Steel

for plastic pipes Ø 32 - 200 mm

M8

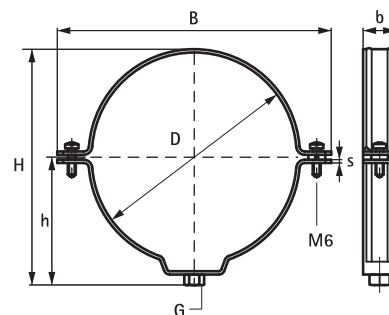
(M 15 05)



Features and Benefits

- two-screw clamp
- with quick locking system
- with removable spacer washers, making the clamp suitable for either sliding or anchoring
- inside profile to protect pipes from damage
- material: stainless steel 1.4404 (AISI 316L)

Part No.	D (mm)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
4157032	32	25	M8	71	53	32	20 x 1.5	1,310	25
4157040	40	32	M8	85	61	36	20 x 1.5	1,310	25
4157050	50	40	M8	96	63	40	20 x 1.5	1,310	25
4157070	70	-	M8	109	89	50	20 x 1.5	1,310	25
4157075	75	70	M8	114	94	54	20 x 1.5	1,310	25
4157080	80	-	M8	119	101	56	20 x 1.5	1,310	25
4157090	90	80	M8	129	109	61	20 x 1.5	1,310	25
4157100	100	-	M8	139	119	66	20 x 1.5	1,310	25
4157110	110	100	M8	149	129	71	20 x 1.5	1,310	25
4157125	125	125	M8	164	145	80	20 x 1.5	1,310	25
4157160	160	150	M8	208	180	96	20 x 1.5	1,310	25
4157200	200	200	M8	247	221	117	20 x 1.5	1,310	25



Complementary

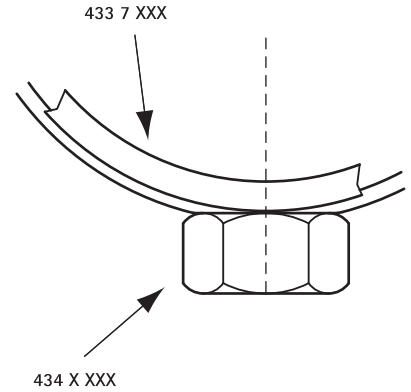
587 BIS Stainless Steel Hanger Bolt

BIS 434 Stainless Steel Clamp for PE-Pipe

(M 15 10)

for plastic pipes \varnothing 32 - 200 mm

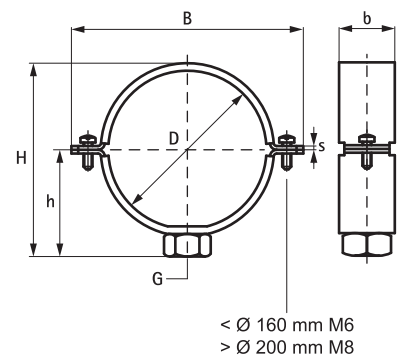
M10



Features and Benefits

- two-screw clamp
- for rigid fixing point fastening it is necessary to use metal clamp liners (Part No. 433 7 XXX)
- screws secured with anti-loss washer
- material: stainless steel 1.4401 (AISI 316)

Part No.	D (mm)	DN	G	B (mm)	H (mm)	h (mm)	b x s (mm)	F _{a,z} (N)	Pack 1
4347032	32	25	M10	75	50	30	30 x 3.0	4,160	50
4347040	40	32	M10	82	58	34	30 x 3.0	4,160	50
4347050	50	40	M10	92	69	39	30 x 3.0	4,160	50
4347056	56	50	M10	98	74	42	30 x 3.0	4,160	50
4347063	63	57	M10	105	81	45	30 x 3.0	4,160	50
4347075	75	70	M10	117	94	51	30 x 3.0	4,160	25
4347090	90	80	M10	132	108	59	30 x 3.0	4,160	25
4347110	110	100	M10	152	128	69	30 x 3.0	4,160	25
4347125	125	125	M10	167	143	76	30 x 3.0	4,160	25
4347160	160	150	M10	202	178	92	30 x 3.0	4,160	25
4347200	200	200	M10	278	218	112	30 x 3.0	4,160	10



Complementary

- 575 BIS Stainless Steel Wall Plate Resistance Welded
- 587 BIS Stainless Steel Hanger Bolt
- 74 BIS Metal Liner 434 Clamp

Complementary

- 75 BIS Lining 434 Clamp

BIS Stainless Steel Expansion Device (M10)

(M 19 05)

single expansion device for pipe extensions

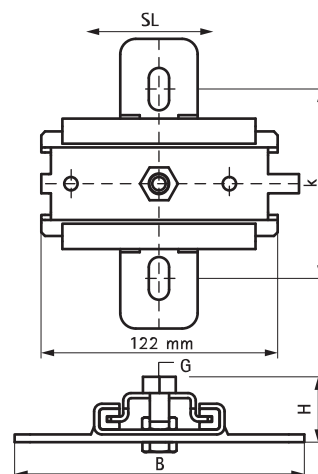


Features and Benefits

- single bracket for pipe extensions
- fix in combination with RapidStrut Rails and Cantilever arms
- can be combined with stainless steel pipe clamps M10
- metal parts made of stainless steel 1.4404; plastic parts made of PA (polyamide)
- friction coefficient $\mu = 0.18$; Sliding friction coefficient $\mu = 0.14$
- temperature resistance up to $+120\text{ }^{\circ}\text{C}$

Part No.	Model	G	B	H	d1	k	SL (max.)	F _{a,z}	F _{a,z 2}	Pack 1
			(mm)	(mm)	(mm)	(mm)	(mm)	(N)	(N)	
6667410	Single	M10	150	46	20 x 12.5	100	80	2,300	2,300	10

F_{a,z} = standing mounted; F_{a,z 2} = suspended.



Complementary

- 549 BIS Bifix® 1301 Stainless Steel
- 566 BIS RapidStrut® Stainless Steel Fixing Rail
- 556 BIS RapidRail® Stainless Steel Cantilever Arm

Complementary

- 571 BIS Strut Stainless Steel Slide Nut with Tabs
- 572 BIS Strut Stainless Steel Tee-Bolt
- 588 BIS Stainless Steel Hexagon Head Screw

Alternative

- 140 BIS Slide Block GFRP (BUP1000)

BIS RapidRail® Stainless Steel Fixing Rail

(M 20 05)

suspension and support



Features and Benefits

- C-profile
- for a quick and easy fixing
- with continuous perforation
- distance between rail end and first hole is always equal
- a continuous graduated centimetre scale on one side
- material: stainless steel 1.4404 (AISI 316L)



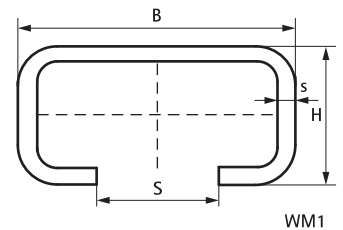
RAL-GZ 655/C
Cert.Nr. 2012-07

Part No.	Type	L	B (mm)	H (mm)	s (mm)	S (mm)	RAL	BndS	BndL
6507001	WM1	2 m	30	15	2.00	15	-	20	480
6507015	WM15	2 m	30	20	1.75	15	-	20	480
6507002	WM2	2 m	30	30	2.00	15	RAL ¹	20	400

RAL¹ = tested, certified and monitored by a third party according to RAL-GZ 655/C.

For detailed technical information about our RAL marked products, please see the RAL datasheet in our web catalogue.

For more information about the max. allowed load ($F_{0,2}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidRail®'.



Complementary

- 559 BIS RapidRail® Stainless Steel Slide Nut
- 561 BIS RapidRail® Stainless Steel Hammerfix

BIS RapidRail® Stainless Steel Cantilever Arm

(M 25 05)

fixing to wall or ceiling

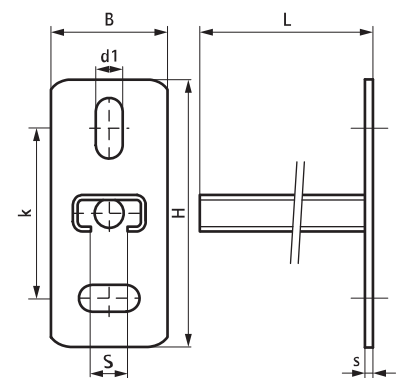


Features and Benefits

- wall plate with welded C-profile
- slots at 90° to each other to simplify fixing
- CO₂ welded
- material: stainless steel 1.4404 (AISI 316L)

Part No.	L	B	H	s1	d1	S	k	From Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
6607120	200 mm	48	110	5.0	25 x 11	15	70	WM1 - 30x15	20
6607230	300 mm	48	110	5.0	25 x 11	15	70	WM2 - 30x30	10
6607250	500 mm	48	110	5.0	25 x 11	15	70	WM2 - 30x30	20

For more information about the max. allowed load (F_{a,z}) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidRail®'.



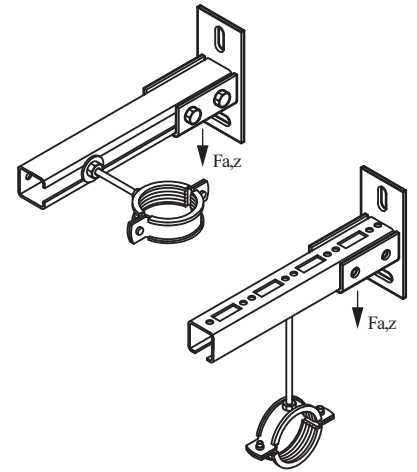
Complementary

- 558 BIS Stainless Steel Rail Prop
- 559 BIS RapidRail® Stainless Steel Slide Nut
- 561 BIS RapidRail® Stainless Steel Hammerfix

BIS RapidRail® Stainless Steel Wall Plate

(M 27 05)

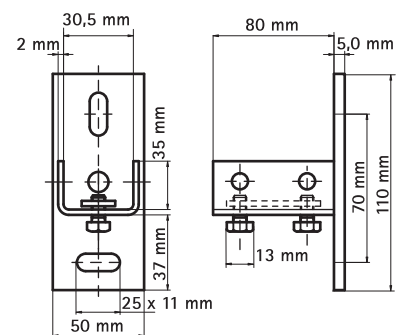
fixing to wall



Features and Benefits

- U-profile welded on wall plate
- for wall fixing of rail
- rail can be fixed with slot downwards or sideways
- slots at 90° to each other to simplify fixing
- with pre-assembled double slide nut
- material: stainless steel 1.4401 (AISI 316)

Part No.	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
6617200	15.0	WM1, 15, 2	2,850	25



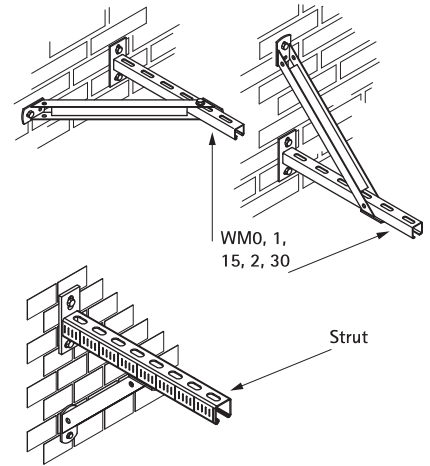
Complementary

555 BIS RapidRail® Stainless Steel Fixing Rail

BIS Stainless Steel Rail Prop

reinforcement of cantilever arm

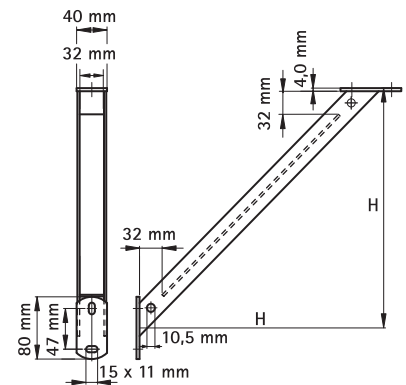
(M 28 05)



Features and Benefits

- 45° support bracket
- for fixing support under, top or on side of a cantilever arm
- also used to strengthen rail constructions
- CO₂ welded
- material: stainless steel 1.4401 (AISI 316)

Part No.	H (mm)	For Rail	Pack 1
6627220	250	WM1, 15, 2, Strut	10



Complementary

- 555 BIS RapidRail® Stainless Steel Fixing Rail
- 556 BIS RapidRail® Stainless Steel Cantilever Arm

BIS RapidRail® Stainless Steel Slide Nut

(M 31 05)

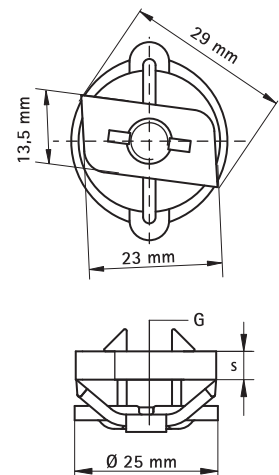
fixing to BIS RapidRail®



Features and Benefits

- slide nut with washer and BIS RapidRail® spring
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of stainless steel 1.4401 (AISI 316); spring(s) made of POM (polyoxymethylene), blue

Part No.	G	b x s (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1	Pack 2
6517306	M6	13.5 x 4.0	7.5	WM1, 15, 2	2,000	50	500
6517308	M8	13.5 x 5.0	15.0	WM1, 15, 2	5,000	50	500
6517310	M10	14.0 x 5.0	15.0	WM1, 15, 2	4,750	50	500



Complementary

- 555 BIS RapidRail® Stainless Steel Fixing Rail
- 556 BIS RapidRail® Stainless Steel Cantilever Arm

Alternative

- 561 BIS RapidRail® Stainless Steel Hammerfix

BIS Stainless Steel Slide Nut

(M 31 10)

fixing to BIS RapidRail®

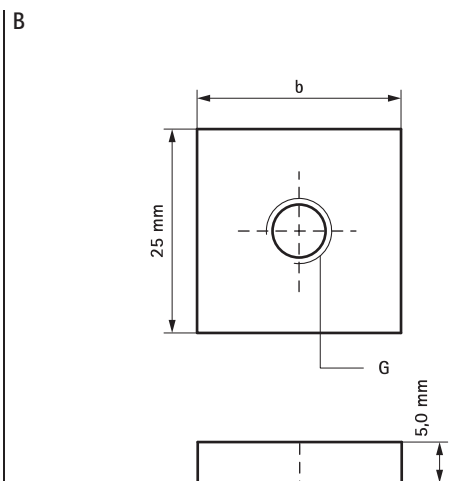
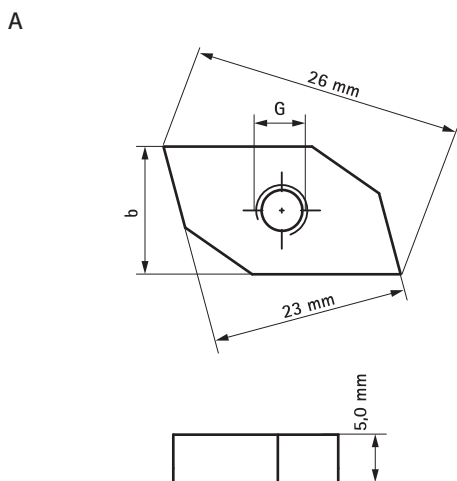


Features and Benefits

■ because of shape the nut fits in rail

■ material: stainless steel 1.4401 (AISI 316)

Part No.	G	b (mm)	T _(max.) (Nm)	For Rail	Pack 1	Pack 2
A 6511008	M8	13.5	15.0	WM1, 15, 2	50	1,000
A 6511010	M10	14.0	15.0	WM1, 15, 2	50	1,000
B 6511012	M12	25.0	30.0	WM1, 15, 2	50	500



Complementary

- 555 BIS RapidRail® Stainless Steel Fixing Rail
- 556 BIS RapidRail® Stainless Steel Cantilever Arm

Alternative

- 559 BIS RapidRail® Stainless Steel Slide Nut

BIS RapidRail® Stainless Steel Hammerfix

(M 31 25)

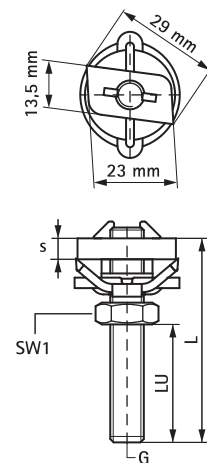
fixing to BIS RapidRail®



Features and Benefits

- slide nut with stud bolt, washer and BIS RapidRail® spring
- ready-to-use pre-assembled for a quick fixing, and retains assembly in place before final tightening
- material: metal parts made of stainless steel 1.4401 (AISI 316); spring(s) made of POM (polyoxymethylene), blue

Part No.	G	L	LU (mm)	b x s (mm)	SW1 (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1	Pack 2
6527062	M6	25 mm	11	13.5 x 4.0	10	7.5	WM1, 15, 2	2,000	25	250
6527084	M8	40 mm	25	13.5 x 5.0	13	15.0	WM1, 15, 2	5,000	25	250
6527088	M8	80 mm	65	13.5 x 5.0	13	15.0	WM1, 15, 2	5,000	25	250
6527094	M10	40 mm	22	14.0 x 5.0	17	15.0	WM1, 15, 2	4,750	25	250
6527098	M10	80 mm	62	14.0 x 5.0	17	15.0	WM1, 15, 2	4,750	25	250



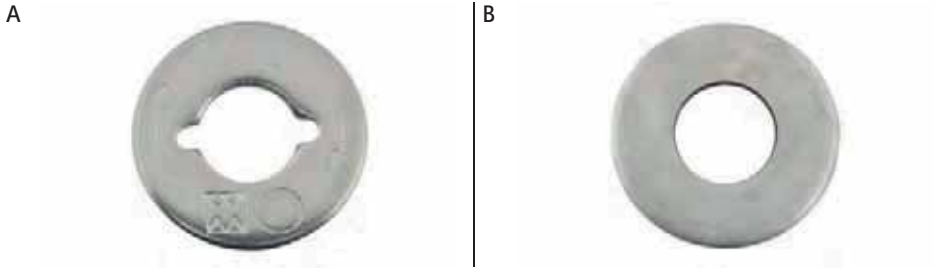
Complementary

- 555 BIS RapidRail® Stainless Steel Fixing Rail
- 556 BIS RapidRail® Stainless Steel Cantilever Arm

BIS Stainless Steel Washer (Flat)

(M 31 30)

fixing to BIS RapidRail®

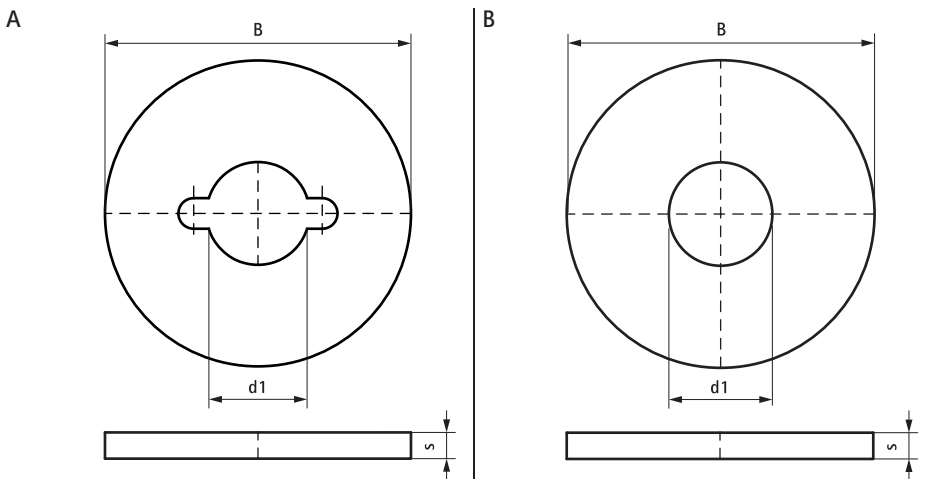
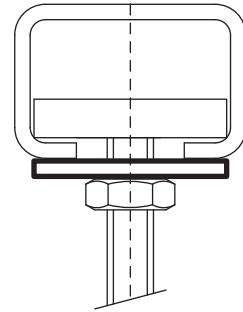


Features and Benefits

- flat washer
- material: stainless steel 1.4401 (AISI 316)

Part No.	Type	B (mm)	s (mm)	d1 (mm)	For Rail	Pack 1	Pack 2
A 6537006	A	25	2.50	∅ 6.5	WM1, 15, 2	50	500
A 6537008	A	25	2.50	∅ 8.5	WM1, 15, 2	50	500
A 6537010	A	25	2.50	∅ 10.5	WM1, 15, 2	50	500
B 6537012	B	30	3.00	∅ 13.0	WM1, 15, 2	50	500
B 6537016	B	30	3.00	∅ 17.0	WM1, 15, 2	50	500

∅ 10.5 and above tested for fire safety.



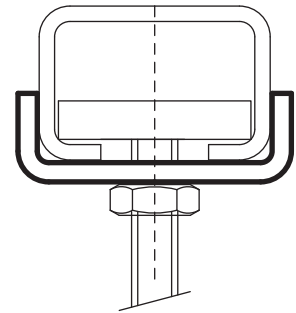
Complementary

- 555 BIS RapidRail® Stainless Steel Fixing Rail
- 556 BIS RapidRail® Stainless Steel Cantilever Arm

BIS Stainless Steel Washer (U-shaped)

fixing to BIS RapidRail®

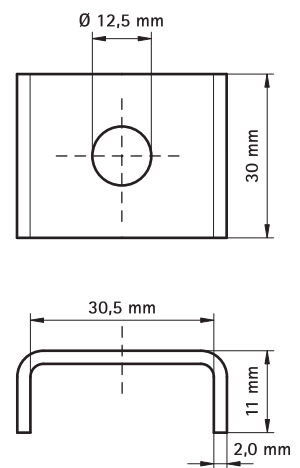
(M 31 40)



Features and Benefits

- U-shaped washer
- U-shaped for extra stability
- material: stainless steel 1.4401 (AISI 316)

Part No.	For Rail	Pack 1	Pack 2
6537813	WM1, 15, 2	50	250



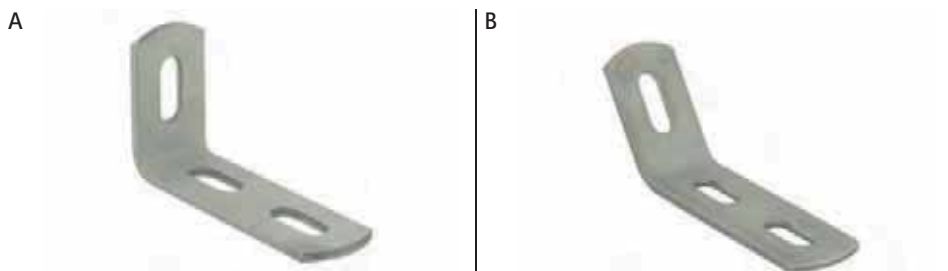
Complementary

- 555 BIS RapidRail® Stainless Steel Fixing Rail
- 556 BIS RapidRail® Stainless Steel Cantilever Arm

BIS Stainless Steel Rail Connector

(M 34 05)

to make BIS RapidRail® fabrications

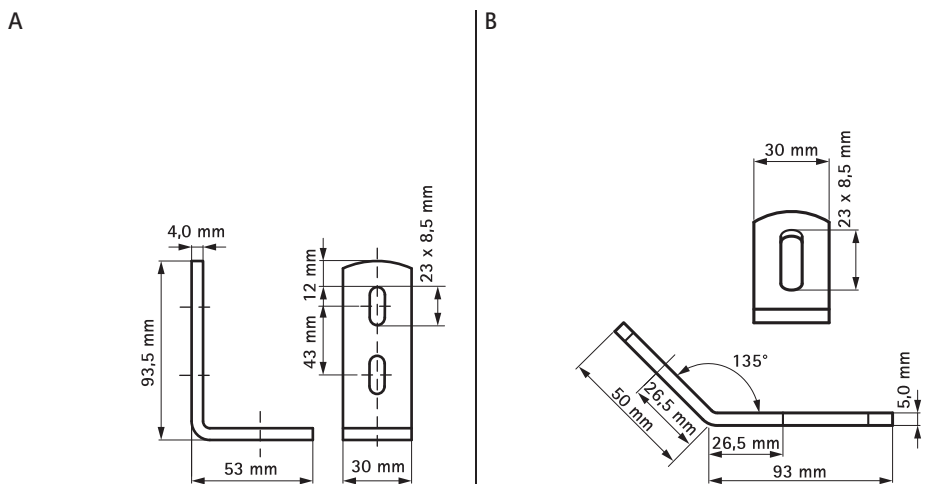


Features and Benefits

■ to make rail fabrications

■ material: stainless steel 1.4401 (AISI 316)

Part No.	a (°)	For Rail	Pack 1
A 6587090	90°	WM1, 15, 2	50
B 6587135	135°	WM1, 15, 2	50



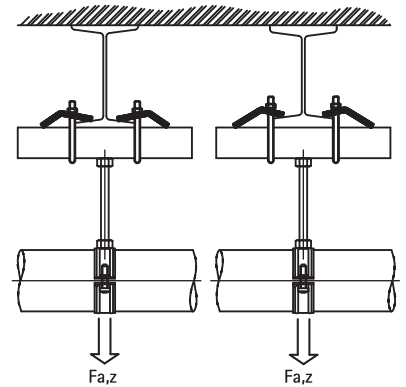
Complementary

555 BIS RapidRail® Stainless Steel Fixing Rail

BIS RapidRail® Stainless Steel Beam Clamp

fixing to steel beam

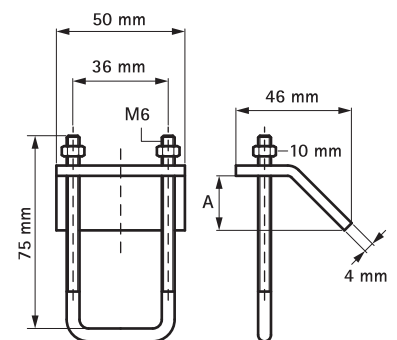
(M 37 05)



Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- material: stainless steel 1.4401 (AISI 316)
- always use 2 beam clamps per fixing

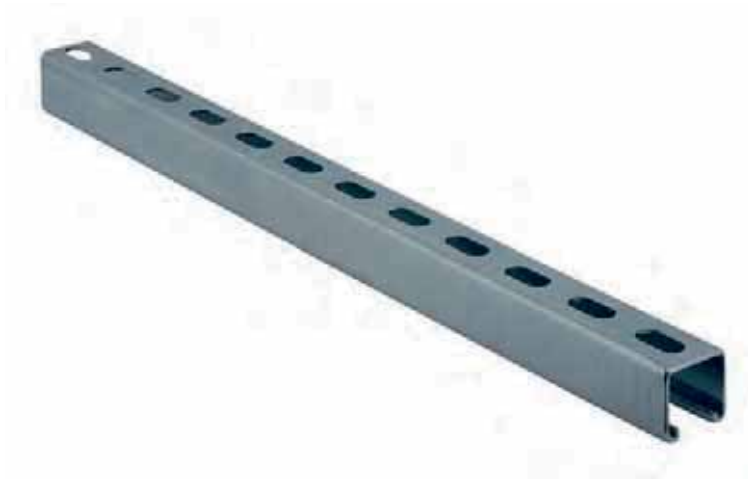
Part No.	A (mm)	SW1 (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
6587011	< 16	10	7.5	WM1, 15, 2	4,500	50



BIS RapidStrut® Stainless Steel Fixing Rail

(M 45 05)

suspension and support



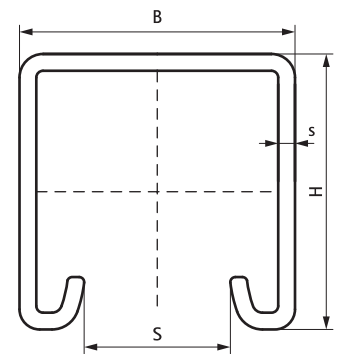
Features and Benefits

- universal rail system
- distance between rail end and first hole is always equal
- a continuous graduated centimetre scale on one side
- inward formed flanges with serrated profile for extra grip
- material: stainless steel 1.4404 (AISI 316L)

Part No.	L	B (mm)	H (mm)	s (mm)	S (mm)	BndS	BndL
6507627	6 m	41	21	2.50	22	60	600
6507347	3 m	41	41	2.50	22	30	150
6507647	6 m	41	41	2.50	22	60	300

Strut 41x41x2.5 and above tested for fire safety.

For more information about the max. allowed load ($F_{a,z}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'.



Complementary

- 570 BIS Strut Stainless Steel Slide Nut
- 572 BIS Strut Stainless Steel Tee-Bolt

BIS RapidStrut® Stainless Steel Fixing Rail Double

(M 45 10)

suspension and support



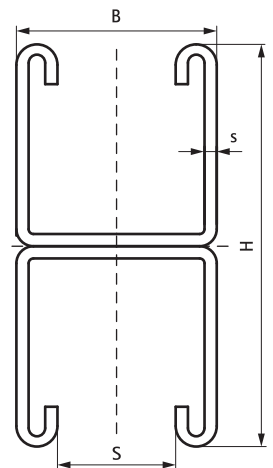
Features and Benefits

- universal rail system
- distance between rail end and first hole is always equal
- a continuous graduated centimetre scale on one side
- inward formed flanges with serrated profile for extra grip
- material: stainless steel 1.4404 (AISI 316L)
- for more information about the max. allowed load ($F_{a,z}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'

Part No.	L	B	H	s	B x H x s	S	BndS	BndL	App.
		(mm)	(mm)	(mm)	(mm)	(mm)			
6507646	6 m	41	41	2.50	41x41x2.50	22	60	300	m.

Strut 41x41x2.5 and above tested for fire safety.

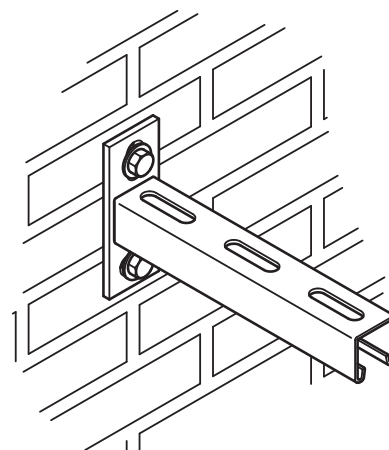
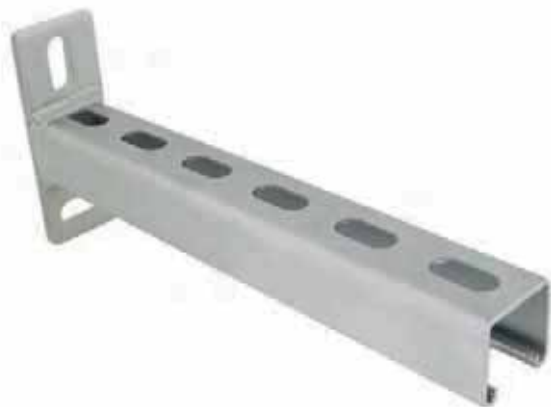
For more information about the max. allowed load ($F_{a,z}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'.



BIS RapidStrut® Stainless Steel Cantilever Arm

(M 50 05)

fixing to wall

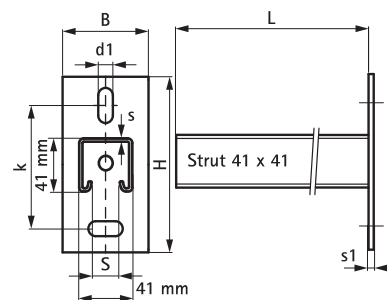


Features and Benefits

- wall plate welded on Strut Profile
- slots at 90° to each other to simplify fixing
- CO₂ welded
- inward formed flanges with serrated profile for extra grip
- material: stainless steel 1.4401 (AISI 316)

Part No.	L	B	H	s	s1	d1	S	k	From Rail	Pack 1
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
6607861	150 mm	45	130	2.5	8.0	30 x 13	22	87.5	Strut 41x41	10
6607870	200 mm	45	130	2.5	8.0	30 x 13	22	87.5	Strut 41x41	10
6607862	300 mm	45	130	2.5	8.0	30 x 13	22	87.5	Strut 41x41	10
6607874	400 mm	45	130	2.5	8.0	30 x 13	22	87.5	Strut 41x41	10
6607863	450 mm	45	130	2.5	8.0	30 x 13	22	87.5	Strut 41x41	10
6607873	500 mm	45	130	2.5	8.0	30 x 13	22	87.5	Strut 41x41	10
6607864	600 mm	45	130	2.5	8.0	30 x 13	22	87.5	Strut 41x41	8
6607865	750 mm	45	130	2.5	8.0	30 x 13	22	87.5	Strut 41x41	8

For more information about the max. allowed load ($F_{0,z}$) please refer to the loading tables or our online datasheet 'Technical Details BIS RapidStrut®'.



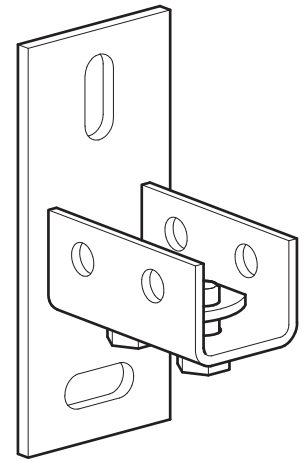
Complementary

- 570 BIS Strut Stainless Steel Slide Nut
- 572 BIS Strut Stainless Steel Tee-Bolt
- 571 BIS Strut Stainless Steel Slide Nut with Tabs

BIS Strut Stainless Steel Wall Plate Heavy

(M 52 05)

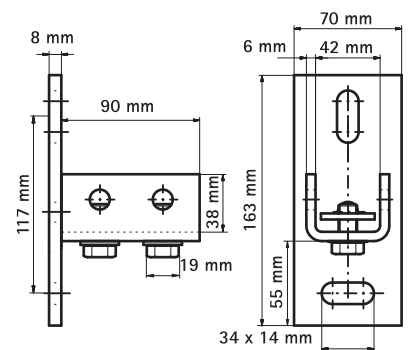
fixing to wall



Features and Benefits

- U-profile welded on wall plate
- for wall fixing of rail
- rail can be fixed with slot downwards or sideways
- with pre-assembled slide nuts
- heavy design
- material: stainless steel 1.4401 (AISI 316)

Part No.	T _(max.) (Nm)	For Rail	Pack 1
6571804	-	Strut	10



BIS Strut Stainless Steel Slide Nut

(M 55 04)

fixing to Strut rail

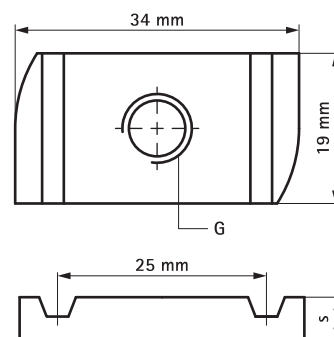


Features and Benefits

- material: stainless steel 1.4401 (AISI 316)

Part No.	G	L	s (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1	Pack 2
6517706	M6	-	5.0	7.5	Strut	5,300	25	250
6517708	M8	-	6.0	15.0	Strut	6,000	25	250
6517710	M10	-	8.0	15.0	Strut	9,500	25	250
6517712	M12	-	9.0	30.0	Strut	10,000	25	250

M10 and above tested for fire safety.



Complementary

- 566 BIS RapidStrut® Stainless Steel Fixing Rail
- 568 BIS RapidStrut® Stainless Steel Cantilever Arm

Alternative

- 571 BIS Strut Stainless Steel Slide Nut with Tabs

BIS Strut Stainless Steel Slide Nut with Tabs

(M 55 08)

fixing to Strut rail

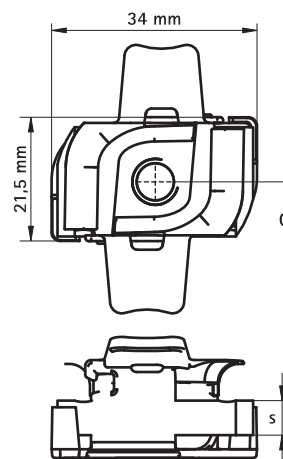


Features and Benefits

- slide nut with plastic 'tabs'
- for all types of Strut Rail
- for tight fixing of accessories (e.g. connectors) on rail
- with plastic tabs which simplifies inserting and positioning
- material: slide nut made of stainless steel 1.4401 (AISI 316); 'wings' made of PP (polypropylene), blue

Part No.	G	s (mm)	T _(max.) (Nm)	For Rail	F _{a,z} (N)	Pack 1
651867006	M6	5.0	7.5	Strut	5,300	100
651867008	M8	6.0	15.0	Strut	6,000	100
651867010	M10	8.0	15.0	Strut	9,500	100
651867012	M12	9.0	30.0	Strut	10,000	100

M10 and above tested for fire safety.



Complementary

- 566 BIS RapidStrut® Stainless Steel Fixing Rail
- 568 BIS RapidStrut® Stainless Steel Cantilever Arm

BIS Strut Stainless Steel Tee-Bolt

(M 55 12)

fixing to Strut rail

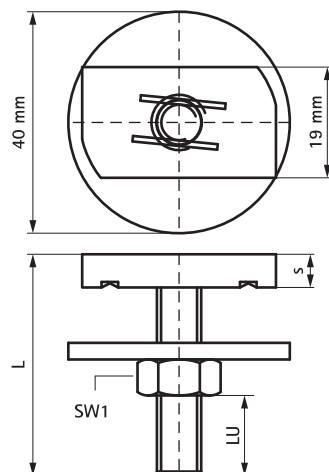


Features and Benefits

- slide nut with stud bolt and washer
- material: stainless steel

Part No.	G	L	LU (mm)	s (mm)	SW1 (mm)	For Rail	Pack 1	Pack 2
6527734	M8	40 mm	18.0	6.0	13	Strut	25	250
6527744	M10	50 mm	24.0	8.0	17	Strut	25	250
6527754	M12	50 mm	21.5	9.0	19	Strut	25	250

M10 and above tested for fire safety.



Complementary

- 566 BIS RapidStrut® Stainless Steel Fixing Rail
- 568 BIS RapidStrut® Stainless Steel Cantilever Arm

BIS Strut Stainless Steel Washer (Flat)

(M 55 16)

fixing to Strut rail

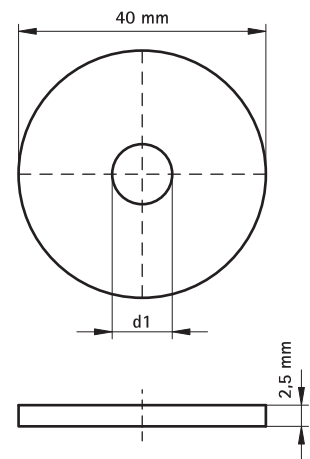


Features and Benefits

- flat washer
- material: stainless steel 1.4401 (AISI 316)

Part No.	d1 (mm)	For Rail	Pack 1
6537508	Ø 8.5	Strut	100
6537510	Ø 10.5	Strut	100
6537512	Ø 12.5	Strut	100

Ø 10.5 and above tested for fire safety.



Complementary

- 566 BIS RapidStrut® Stainless Steel Fixing Rail
- 568 BIS RapidStrut® Stainless Steel Cantilever Arm

BIS Strut Stainless Steel Washer (U-shaped)

(M 55 19)

to make Strut rail fabrications

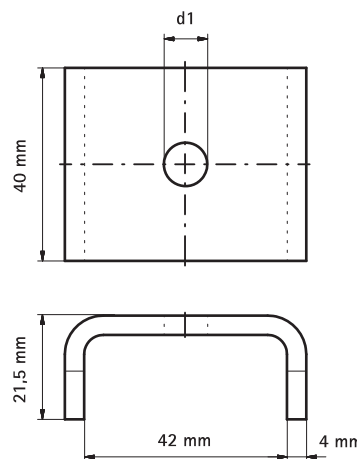


Features and Benefits

- U-shaped washer
- U-shaped for extra stability
- material: stainless steel 1.4401 (AISI 316)

Part No.	d1 (mm)	For Rail	Pack 1
6571008	Ø 9.0	Strut	50
6571010	Ø 11.0	Strut	50
6571012	Ø 13.0	Strut	50
6571016	Ø 17.0	Strut	50

Ø 11.0 and above tested for fire safety.



Complementary

- 566 BIS RapidStrut® Stainless Steel Fixing Rail
- 568 BIS RapidStrut® Stainless Steel Cantilever Arm

BIS Stainless Steel Wall Plate Resistance Welded

(M 65 05)

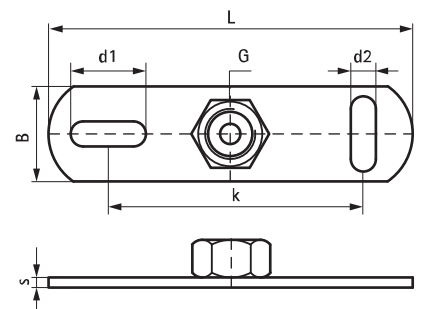
fixing to wall or ceiling



Features and Benefits

- slots at 90° to each other to simplify fixing
- with resistance welded connection nut
- Part No. 670 7 0XX: material: stainless steel 1.4301 (AISI 304)
- Part No. 671 7 0XX: material: stainless steel 1.4404 (AISI 316L)

Part No.	G	L	B	s	d1	d2	k	F _{a,z} (N)	Pack 1	Pack 2
6707006	M6	80 mm	25	3.0	15 x 8.5	15 x 8.5	50	2,500	50	125
6707008	M8	80 mm	25	3.0	15 x 8.5	15 x 8.5	50	2,500	50	250
6707010	M10	80 mm	25	3.0	15 x 8.5	15 x 8.5	50	2,500	50	250
6717010	M10	145 mm	35	3.0	30 x 11.0	25 x 11.0	100	3,000	40	-



Complementary

592 BIS Stainless Steel Threaded Rod

BIS Stainless Steel Wall Plate Resistance Welded

(M 65 07)

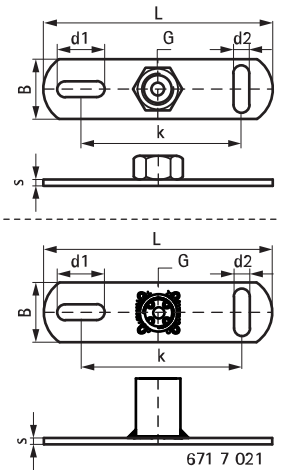
fixing to wall or ceiling



Features and Benefits

- slots at 90° to each other to simplify fixing
- material: stainless steel 1.4404 (AISI 316L)
- with CO₂ welded connection nut

Part No.	G	L	B	s	d1	d2	k	F _{az} (N)	Pack 1
			(mm)	(mm)	(mm)	(mm)	(mm)		
6717012	M12	145 mm	35	3.0	30 x 11.0	25 x 11.0	100	3,500	40
6717016	M16	145 mm	35	3.0	30 x 11.0	25 x 11.0	100	3,500	50
6717021	G½"	145 mm	35	3.0	30 x 11.0	25 x 11.0	100	3,000	50



Complementary

592 BIS Stainless Steel Threaded Rod

BIS Stainless Steel Wall Plate with Welded Stud Bolt 672

(M 65 10)

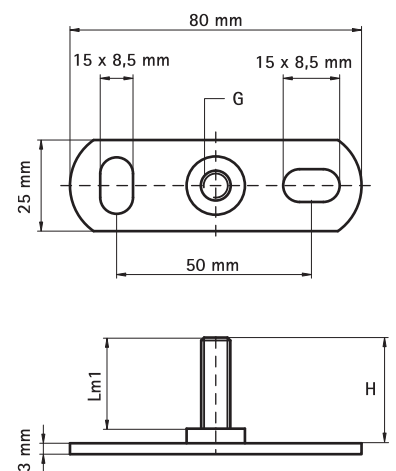
fixing to wall or ceiling



Features and Benefits

- slots at 90° to each other to simplify fixing
- material: stainless steel 1.4301 (AISI 304)
- with resistance welded male stud bolt

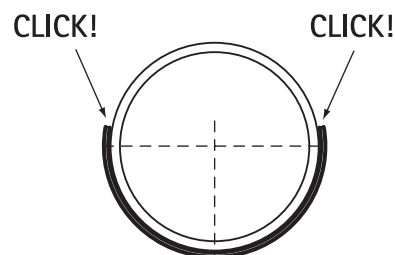
Part No.	G	H (mm)	Lm1 (mm)	F _{a,z} (N)	Pack 1	Pack 2
6727008	M8	44	35	2,500	50	200



BIS Stainless Steel Pipe Reinforcement

(M 70 05)

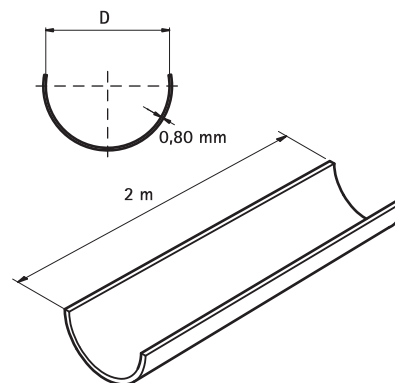
support of plastic pipe Ø 75 - 160 mm



Features and Benefits

- self-gripping and continuous support for plastic pipes to prevent unsatisfactory deflections
 - allows for longer distance between supports (fixing distance with reinforcement is 1.5 times longer than the distance without reinforcement)
 - controls direction of pipe expansion. Maintains alignment of pipe, and prohibits "snaking"
 - reinforcement fits inside insulation
 - lightweight and economical, also 3 meter lengths are easy to handle
 - eases handling and speeds installation of PEX tubing
 - can be cut with hand tools
- material: stainless steel 1.4301 (AISI 304)
 - to be used with e.g. BISMAT® 5000, BIS Bifix® 5000 and BIS Polymat®

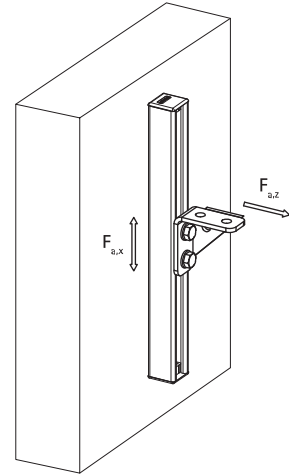
Part No.	D (mm)	L	Pack 1	BndS
0637291	110 - 125	2 m	2	2



BIS Strut Stainless Steel Connector 90°

(M 60 05)

to make Strut rail fabrications

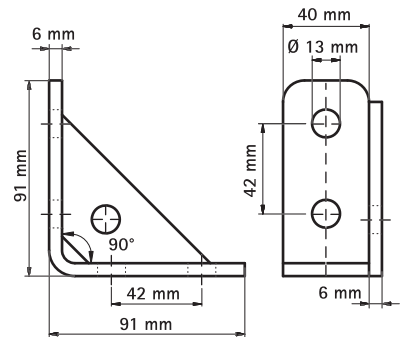


Features and Benefits

- to make fabrication with Strut Rail
- material: stainless steel 1.4401 (AISI 316)
- easy fitting due to rounded edges

Part No.	a (°)	For Rail	$F_{a,z}$ (N)	$F_{a,z2}$ (N)	$F_{a,x}$ (N)	$F_{a,x2}$ (N)	Pack 1
6571291	90°	Strut	4.000	8.000	3.000	7.000	25

$F_{a,z}$: max. allowed load acc. RAL GZ-655D (with rail 41x41x1.5).
 $F_{a,z2}$: max. allowed load (with rail 41x41x2.5).
 $F_{a,x}$: max. allowed load acc. RAL GZ-655D (with rail 41x41x1.5 and bolted 2 x M12 - 30Nm).
 $F_{a,x2}$: max. allowed load (with rail 41x41x2.5 and bolted 2 x M12 - 60Nm).



BIS Strut Stainless Steel Connector 90°

(M 60 10)

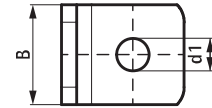
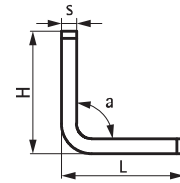
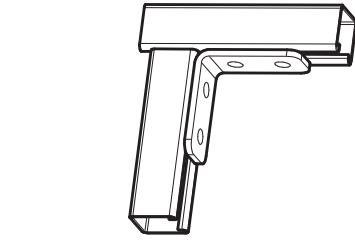
to make Strut rail fabrications



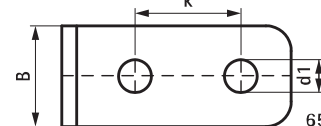
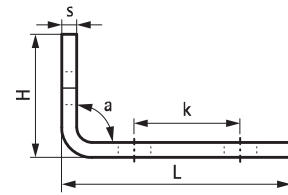
Features and Benefits

- to make fabrication with Strut Rail
- material: stainless steel 1.4401 (AISI 316)
- easy fitting due to rounded edges

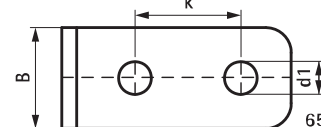
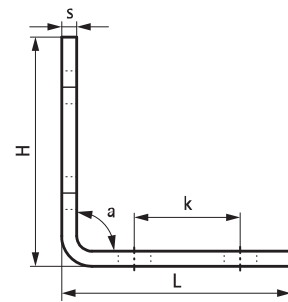
Part No.	L	B	H	s	d1	k	a	For Rail	Pack 1
		(mm)	(mm)	(mm)	(mm)	(mm)	(°)		
6571221	91 mm	40	49	6.0	13	42	90°	Strut	25
6571228	91 mm	40	91	6.0	13	42	90°	Strut	25



657 1 201



657 1 221



657 1 228

Complementary

566 BIS RapidStrut® Stainless Steel Fixing Rail

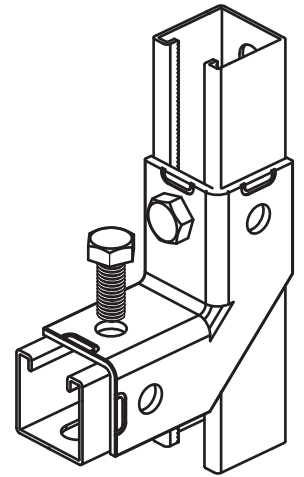
Alternative

579 BIS Strut Stainless Steel Connector 90°

BIS Strut Stainless Steel Connector 90° / 2D

(M 60 110)

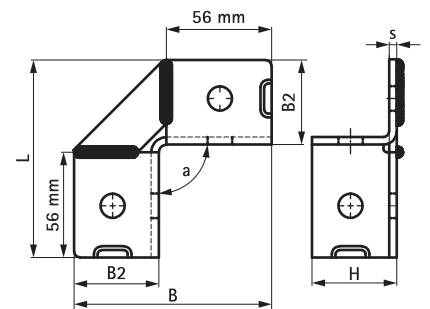
to make Strut rail fabrications



Features and Benefits

- flexible connector allows different rail positioning
- material: stainless steel 1.4401 (AISI 316)
- strong connection by surrounding the rail

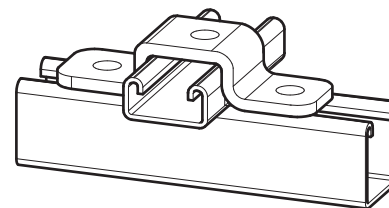
Part No.	d (mm)	Model	L	B	B2	H	s	k	a	For Rail	Pack 1
66597914	13 mm	2+2 / 90	105 mm	105	45	45	4.0	-	90	Strut	10



BIS Strut Stainless Steel Rail Clamp

(M 60 15)

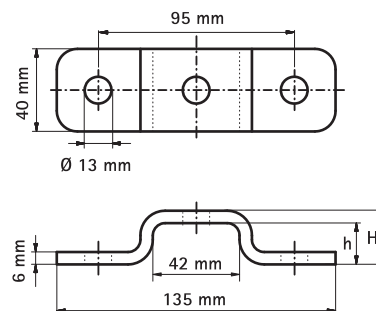
to make Strut rail fabrications



Features and Benefits

- to make fabrication with Strut Rail
- material: stainless steel 1.4401 (AISI 316)
- easy fitting due to rounded edges

Part No.	H (mm)	h (mm)	For Rail	Pack 1
6571402	26	20	Strut 41x21	25
6571404	46	40	Strut 41x41	25



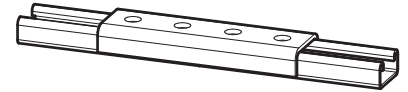
Complementary

566 BIS RapidStrut® Stainless Steel Fixing Rail

BIS Strut Stainless Steel U-Connector

(M 60 20)

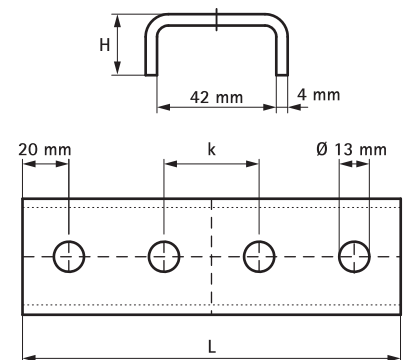
to make Strut rail fabrications



Features and Benefits

- U-shaped for extra stability
- material: stainless steel 1.4401 (AISI 316)
- to make fabrication with Strut Rail

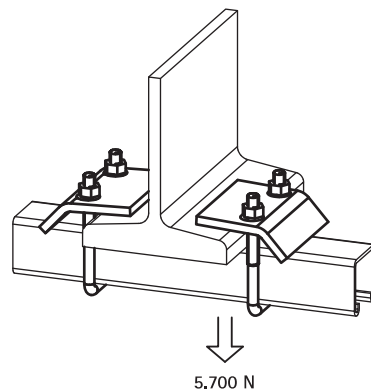
Part No.	L	H (mm)	For Rail	Pack 1
6571121	164 mm	21.5	Strut 41x21	20
6571141	164 mm	41.5	Strut 41x41	10



BIS Strut Stainless Steel Beam Clamp

(M 62 15)

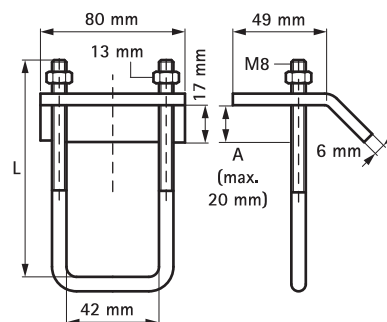
to make Strut rail fabrications



Features and Benefits

- for a solid fixing to steel construction
- material: stainless steel 1.4401 (AISI 316)
- without the need for welding or drilling
- always use 2 beam clamps per fixing

Part No.	A (mm)	L	For Rail	Pack 1
6571711	< 20	90 mm	Strut 41x21 + 41x41	25
6571721	< 20	130 mm	Strut 41x21 + 41x41 + 41x41D	25



BIS Strut Stainless Steel Beam Clamp

(M 62 17)

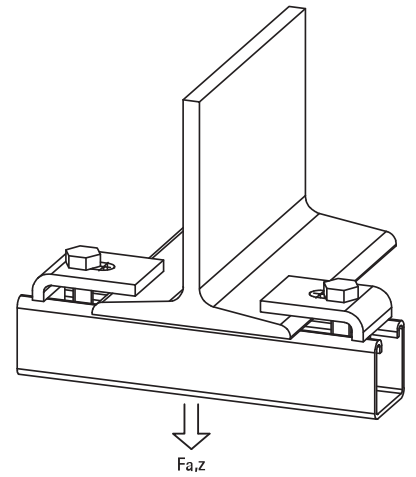
to make Strut rail fabrications



657 1 731



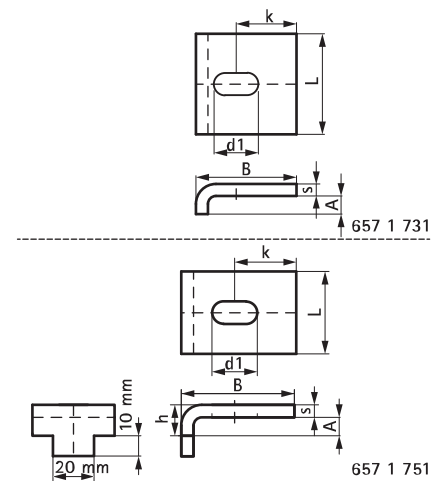
657 1 751



Features and Benefits

- for a solid fixing to steel construction
- material: stainless steel
- without the need for welding or drilling
- always use 2 beam clamps per fixing

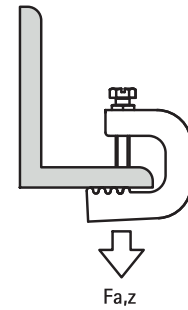
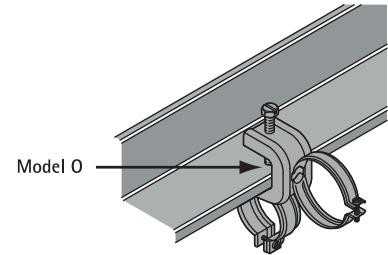
Part No.	A (mm)	L	B (mm)	h (mm)	s (mm)	d1 (mm)	k (mm)	F _{a,z} (N)	Pack 1
6571731	10	50 mm	50	-	6.0	22 x 11	30	8,000	50
6571751	10	40 mm	55	15	6.0	22 x 11	30	8,000	50



BIS Stainless Steel Beam Clamp Model O V2A

(M 62 25)

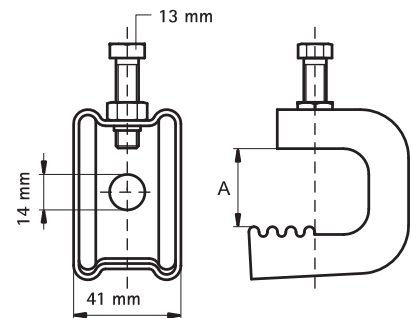
for flange



Features and Benefits

- for a solid fixing to steel construction without the need for welding or drilling
- up to flange thickness 45 mm
- with hole \varnothing 14 mm for fixing of BIS IC-clamp, stud bolt or S-Hook
- with serration for increased security
- material: stainless steel 1.4301 (AISI 304)
- see also: IC-clamp (for conduit or cable)

Part No.	A (mm)	$F_{a,z}$ (N)	Pack 1
6077720	≤ 20	1,100	25
6077730	≤ 30	1,200	25
6077745	≤ 45	1,300	25



BIS Stainless Steel Hanger Bolt

fixing to wall or ceiling

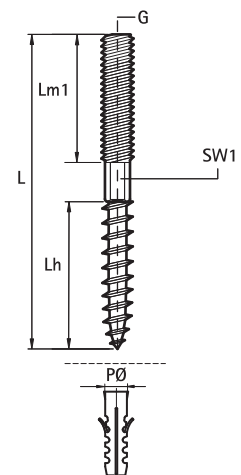
(M 75 05)



Features and Benefits

■ material: stainless steel 1.4301 (AISI 304)

Part No.	G	L	Lh (mm)	Lm1 (mm)	PØ (mm)	Pack 1
6267805	M8	50 mm	23	27	10	100
6267808	M8	80 mm	35	35	10	100
6267810	M8	100 mm	50	40	10	100
6267812	M8	120 mm	50	40	10	100
6267816	M8	160 mm	45	50	10	50
6287006	M10	60 mm	20	40	12	100
6287008	M10	80 mm	40	40	12	100
6287012	M10	120 mm	50	40	12	50
6287016	M10	160 mm	60	50	12	50



BIS Stainless Steel Hexagon Head Screw

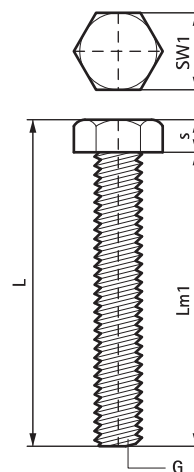
(M 80 05)



Features and Benefits

- material: stainless steel 1.4401 (AISI 316)

Part No.	Type	G	L	s	Lm1	SW1	Pack 1	Pack 2
				(mm)	(mm)	(mm)		
6147825	ISO 4017	M8	30 mm	5.0	25	13	100	-
6147840	ISO 4017	M8	45 mm	5.0	40	13	100	-
6147860	ISO 4017	M8	65 mm	5.0	60	13	50	200
6148025	ISO 4017	M10	29 mm	4.0	25	17	100	-
6148040	ISO 4017	M10	45 mm	5.0	40	17	100	-
6148060	ISO 4017	M10	65 mm	5.0	60	17	50	100
6148225	ISO 4017	M12	29 mm	4.0	25	19	50	100
6148240	ISO 4017	M12	45 mm	5.0	40	19	50	200



Complementary

- 562 BIS Stainless Steel Washer (Flat)
- 589 BIS Stainless Steel Hexagon Nut

BIS Stainless Steel Hexagon Nut

(M 80 10)

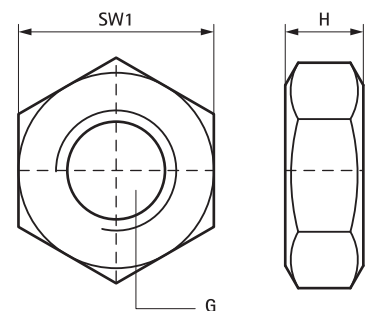


Features and Benefits

- material: stainless steel 1.4401 (AISI 316)

Part No.	Type	G	H (mm)	SW1 (mm)	Pack 1
6127006	ISO 4032	M6	5.2	10	50
6127008	ISO 4032	M8	6.8	13	50
6127010	ISO 4032	M10	8.4	17	50
6127012	ISO 4032	M12	10.8	19	100
6127016	ISO 4032	M16	14.8	24	100

M10 and above tested for fire safety.



BIS Stainless Steel Chain (DIN 5685-1)

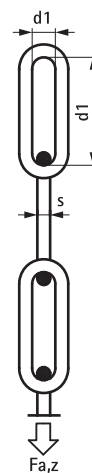
(M 85 05)



Features and Benefits

- long link
- according to DIN 5685-1
- material: stainless steel 1.4301 (AISI 304)

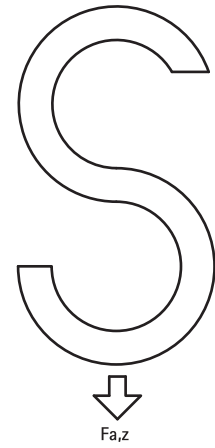
Part No.	L	s (mm)	d1 (mm)	F _{a,z} (N)	Pack 1
0917015	30 m	3.0	26 x 5.4	700	30
0917017	30 m	4.0	32 x 7.2	1,100	30



BIS Stainless Steel S-Hook

(M 85 10)

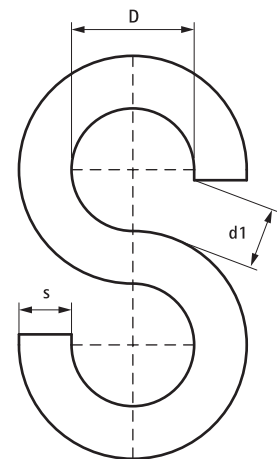
11 mm



Features and Benefits

- material: stainless steel

Part No.	D (mm)	s (mm)	d1 (mm)	F _{a,z} (N)	Pack 1	Pack 2
6947040	11	4.0	5.0 mm	250	25	200



BIS Stainless Steel Threaded Rod

(M 90 05)

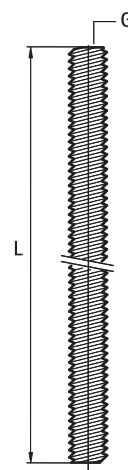
fixing to wall or ceiling



Features and Benefits

- according to DIN 976-1
- material: stainless steel

Part No.	Type	G	L	Material	BndS
6307006	DIN 976-1	M6	1 m	1.4301 (AISI 304)	100
6307008	DIN 976-1	M8	1 m	1.4301 (AISI 304)	50
6307010	DIN 976-1	M10	1 m	1.4301 (AISI 304)	25
6307012	DIN 976-1	M12	1 m	1.4301 (AISI 304)	20
6307016	DIN 976-1	M16	1 m	1.4301 (AISI 304)	10
6307020	DIN 976-1	M20	1 m	1.4301 (AISI 304)	5



Complementary

- 589 BIS Stainless Steel Hexagon Nut
- 562 BIS Stainless Steel Washer (Flat)
- 593 BIS Stainless Steel Stud Connector

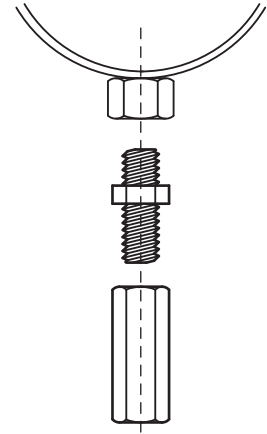
Complementary

- 594 BIS Stainless Steel Thread Adaptor
- 575 BIS Stainless Steel Wall Plate Resistance Welded

BIS Stainless Steel Stud Connector

adjustment of thread connection

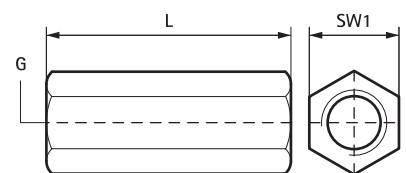
(M 90 10)



Features and Benefits

■ to connect 2 male threaded components ■ material: stainless steel 1.4301 (AISI 304)

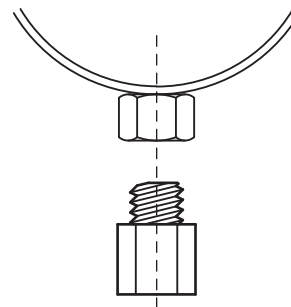
Part No.	G	L	SW1 (mm)	F _{a,z} (N)	Pack 1
6457625	M6	25 mm	10	11,800	100
6457830	M8	30 mm	13	21,400	100
6457930	M10	30 mm	17	27,000	50
6457240	M12	40 mm	19	30,300	50



BIS Stainless Steel Thread Adaptor

(M 90 15)

adjustment of thread connection

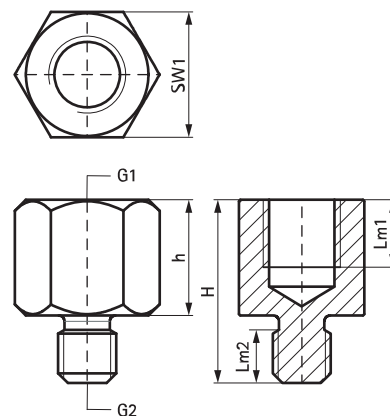


Features and Benefits

- to enlarge or reduce the thread size in the connection of clamps, etc.
- material: stainless steel 1.4401 (AISI 316)
- tested for fire safety



Part No.	H (mm)	h (mm)	G1	G2	Lm1 (mm)	Lm2 (mm)	SW1 (mm)	Pack 1	Pack 2
6477210	23	15	M10	M8	9.0	6.0	13	50	500
6477308	21	13	M8	M10	7.0	6.0	13	50	500



N BIS Pipe Identification



BIS Text Card Holders

BIS IKS-2000 [®] Text Card Holder	596
BIS IKS-2000 [®] Mounting Band	597
BIS IKS-2000 [®] Velcro	598



BIS Text cards

BIS IKS-2000 [®] Text Card (DIN 2403)	599
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BIS IKS-2000[®] Text Card Holder

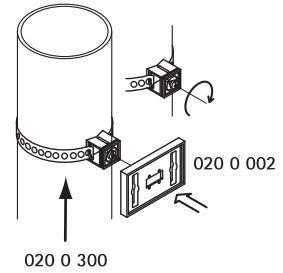
(N 30 05)



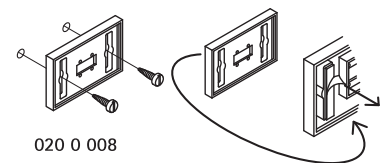
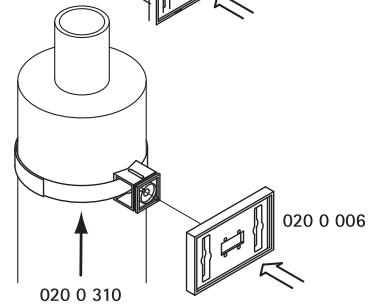
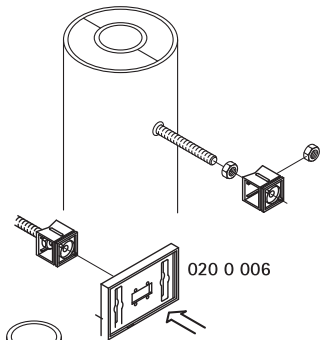
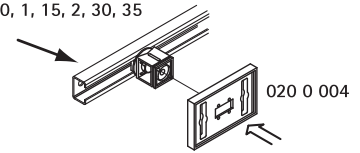
Features and Benefits

- material: POM (polyoxymethylene), green
- temperature resistance from -15 °C to +160 °C

Part No.	Model	Pack 1	Pack 2
0200002	With threaded connector for fixing by BIS IKS 2000 [®] Mounting Band (Part No. 020 0 300)	10	100
0200004	With threaded connector and slide nut for fixing to BIS RapidRail [®] type WM0, 1, 15, 2, 30 or 35	10	250
0200006	With threaded connector for fixing to threaded rod or by BIS IKS-2000 [®] Velcro (Part No. 020 0 310)	10	250
0200008	Self-adhesive or for fixing on walls using screws	10	100
0200040	Transparent cover plate	250	-



BIS RapidRail[®]
WM0, 1, 15, 2, 30, 35

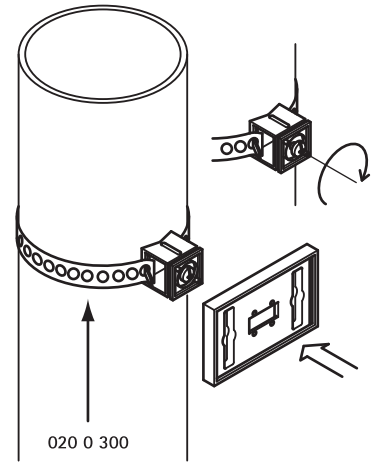


Complementary

- 597 BIS IKS-2000[®] Mounting Band
- 598 BIS IKS-2000[®] Velcro

BIS IKS-2000[®] Mounting Band

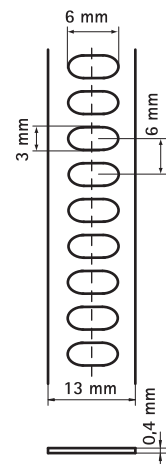
(N 30 10)



Features and Benefits

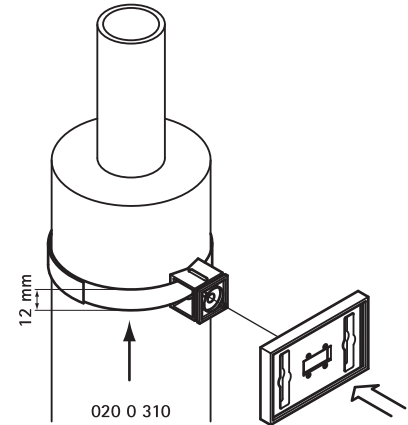
- for fastening of IKS Text Card Holders
- material: stainless steel 1.4404 (AISI 316L)

Part No.	L	Pack 1	Pack 2	App.
0200300	20 m	1	10	roll



BIS IKS-2000[®] Velcro

(N 30 15)



Features and Benefits

- for fastening of IKS Text Card Holders

Part No.	L	b (mm)	Pack 1	Pack 2	App.
0200310	25 m	12	1	48	roll

BIS IKS 2000[®] Text Card (DIN 2403)

(N 35 05)

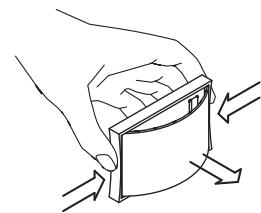
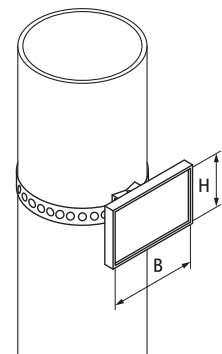
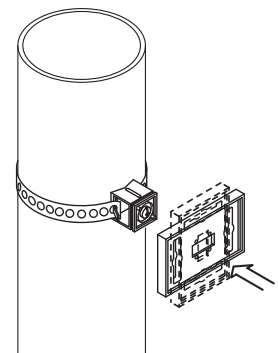
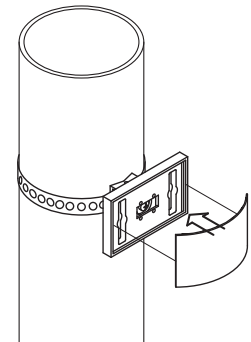
identification of pipes



Features and Benefits

- text card colours according to DIN 2403
- various printing possibilities (full-colours, logo, symbols, barcode, etc.)
- full-colour only on white text card
- Part No. 020 0 02X: printing (1 colour or full-colour)
- material: hard PVC (polyvinylchloride)
- resistant to UV, ozone and chemicals
- resistant to scratches, washable

Part No.	B (mm)	H (mm)	Colour	Medium	Pack 1	Pack 2
0200101	86	54	White	-	1	250
0200102	86	54	Green	water	1	500
0200103	86	54	Blue	oxygen	1	500
0200104	86	54	Red	steam	1	500
0200105	86	54	Grey	air	1	500
0200106	86	54	Yellow	flammable gasses	1	500
0200112	86	54	Transparent	-	1	100
0200021	-	-	1-colour	-	1	-
0200024	-	-	Full-colour	-	1	-



U BIS Fire Protection Systems



Pacifyre®

Pacifyre® MK II Fire Sleeve (P)	603
Pacifyre® MK II Fire Sleeve (M) - Small	604
Pacifyre® MK II Fire Sleeve (M) - Medium	605
Pacifyre® MK II Fire Sleeve (M) - Large	606
Pacifyre® IWM III Fire Strip	607
Pacifyre® EFC Fire Collar	608
Pacifyre® AWM III Fire Collar	609
Pacifyre® BFC	610
Pacifyre® FPM	611
Pacifyre® ID-Card	612
Pacifyre® S Silicone Fire Sealant	613
Pacifyre® A Acrylic Fire Sealant	614



Tangit

Tangit FP 550 2C Fire Protection Foam	615
Tangit FP 800 Fire Protection Coating	616
Tangit FP 504 Spare Mixer Pack	617
Tangit 2C Pistol PP6	618
CS P1 PU Foam Gun	619

Pacifyre[®] MK II Fire Sleeve

Fire, smoke and noise barrier



Broad safety applications

The BIS Pacifyre[®] MK II Fire Sleeve is a single component fire sleeve with which you can make an aperture for pipes smoke free and fire resistant. In homes, factories, hospitals, offices or other residential buildings the BIS Pacifyre[®] MK II is installed around pipes through floors, ceilings, solid walls and modular walls.

BIS Pacifyre[®] MK II Fire Sleeves ensure fire compartments that effortlessly comply with the building regulations.

Find out more about this unique fire sleeve on our website.

Pacifyre[®] MK II Fire Sleeve (P)

(U 04 05)

for penetrations of plastic pipes (non-insulated) 15 - 204 mm



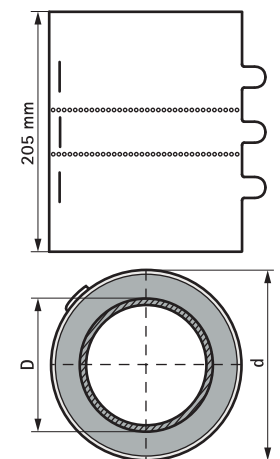
Features and Benefits

- for pipe penetrations in accordance with e.g. DIN 4102-11 or DIN EN 1366-3 in walls (solid walls or light partition walls) and ceilings with fire protection requirements
- the sleeve provides a guaranteed protection against fire, smoke and noise expansion and contraction of the pipe remains possible
- minimum space required, therefore can be applied in areas of hard accessibility
- a higher flexibility due to minimal overhang on wall and ceiling seals
- no tools, drilling or extra fixing materials needed
- simple and easy to install
- maintenance free
- noise reduction test report from IRB (Fraunhofer Institut - Germany) available
- tested according to EN 1366-3
- in accordance with many EU country building regulations



Part No.	D (mm)	DN	d (mm)	Pack 1	Pack 2
2151015017	15 - 17	15	40	1	9
2151018020	18 - 20	20	45	1	9
2154024026	23 - 28	25	50	1	9
2154030032	29 - 36	32	55	1	9
2154039041	38 - 44	40	65	1	8
2154048050	46 - 52	50	75	1	8
2154051053	48 - 55	52	75	1	8
2154054056	52 - 58	56	80	1	8
2154057059	55 - 61	58	85	1	8
2154063065	61 - 67	63	90	1	8
2154075077	70 - 79	75	100	1	6
2154078080	74 - 82	80	105	1	6
2154090092	86 - 94	90	115	1	6
2154108110	104 - 113	110	135	1	6
2158123125	120 - 128	125	160	1	5
2158135137	131 - 139	135	170	1	5
2158138140	136 - 144	140	175	1	5
2158159161	155 - 164	160	195	1	5
2152198200	195 - 204	200	245	1	4

For Pacifyre[®] MK II Fire Sleeves in other sizes, please contact your Walraven Sales Company.



Complementary

- 615 Tangit FP 550 2C Fire Protection Foam
- 616 Tangit FP 800 Fire Protection Coating
- 611 Pacifyre[®] FPM

Complementary

- 612 Pacifyre[®] ID-Card

Pacifyre® MK II Fire Sleeve (M) – Small

(U 04 10)

for penetrations of metal pipes (insulated or non-insulated) 15 - 89 mm



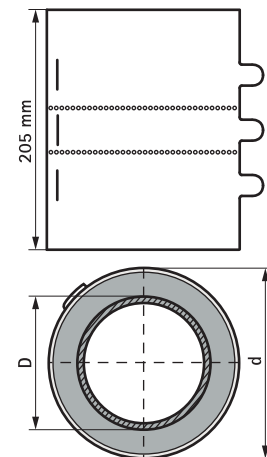
Features and Benefits

- for pipe penetrations of insulated or non-insulated metal pipes in accordance with e.g. BS476-20, in walls (solid walls or light partition walls) and ceilings with fire protection requirements
- the sleeve provides a guaranteed protection against fire, smoke and noise
- expansion and contraction of the pipe remains possible
- minimum space required, therefore can be applied in areas of hard accessibility
- a higher flexibility due to minimal overhang on wall and ceiling seals
- no tools, drilling or extra fixing materials needed
- simple and easy to install
- maintenance free
- noise reduction test report from IRB (Fraunhofer Institut - Germany) available
- tested according to EN 1366-3
- in accordance with many EU country building regulations



Part No.	D (mm)	D (")	DN	d (mm)	Pack 1	Pack 2
2141015017	15 - 17	3/8	10	39	1	9
2141018020	18 - 20	-	-	42	1	9
2141021023	21 - 23	1/2	15	45	1	9
2141027029	27 - 29	3/4	20	51	1	12
2141033035	33 - 35	1	25	57	1	9
2141042044	42 - 44	1 1/4	32	66	1	8
2141048050	48 - 50	1 1/2	40	72	1	8
2141060062	60 - 62	2	50	84	1	8
2141075077	75 - 77	2 1/2	65	99	1	6
2141087089	87 - 89	3	80	111	1	6

For Pacifyre® MK II Fire Sleeves in other sizes, please contact your Walraven Sales Company.



Complementary

- 615 Tangit FP 550 2C Fire Protection Foam
- 616 Tangit FP 800 Fire Protection Coating
- 611 Pacifyre® FPM

Complementary

- 612 Pacifyre® ID-Card

Pacifyre[®] MK II Fire Sleeve (M) – Medium

(U0411)

for penetrations of metal pipes (insulated or non-insulated) 114 - 170 mm



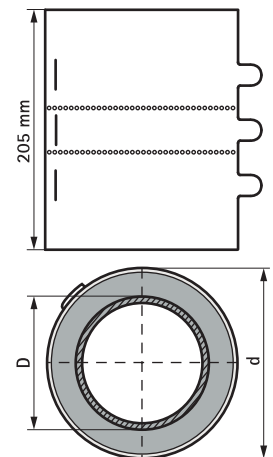
Features and Benefits

- for pipe penetrations of insulated or non-insulated metal pipes in accordance with e.g. BS476-20, in walls (solid walls or light partition walls) and ceilings with fire protection requirements
- the sleeve provides a guaranteed protection against fire, smoke and noise expansion and contraction of the pipe remains possible
- minimum space required, therefore can be applied in areas of hard accessibility
- a higher flexibility due to minimal overhang on wall and ceiling seals
- no tools, drilling or extra fixing materials needed
- simple and easy to install
- maintenance free
- noise reduction test report from IRB (Fraunhofer Institut - Germany) available
- tested according to EN 1366-3
- in accordance with many EU country building regulations



Part No.	D (mm)	D (°)	DN	d (mm)	Pack 1	Pack 2
2141114116	114 - 116	4	100	138	1	6
2141138140	138 - 140	5	125	162	1	-
2141168170	168 - 170	6	150	192	1	-

For Pacifyre[®] MK II Fire Sleeves in other sizes, please contact your Walraven Sales Company.



Complementary

- 615 Tangit FP 550 2C Fire Protection Foam
- 616 Tangit FP 800 Fire Protection Coating
- 611 Pacifyre[®] FPM

Complementary

- 612 Pacifyre[®] ID-Card

Pacifyre[®] MK II Fire Sleeve (M) – Large

(U 04 12)

for penetrations of metal pipes (insulated or non-insulated) 219 - 275 mm



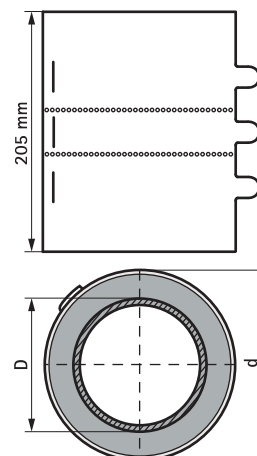
Features and Benefits

- for pipe penetrations of insulated or non-insulated metal pipes in accordance with e.g. BS476-20, in walls (solid walls or light partition walls) and ceilings with fire protection requirements
- the sleeve provides a guaranteed protection against fire, smoke and noise
- expansion and contraction of the pipe remains possible
- minimum space required, therefore can be applied in areas of hard accessibility
- a higher flexibility due to minimal overhang on wall and ceiling seals
- no tools, drilling or extra fixing materials needed
- simple and easy to install
- maintenance free
- noise reduction test report from IRB (Fraunhofer Institut - Germany) available
- tested according to EN 1366-3
- in accordance with many EU country building regulations



Part No.	D (mm)	D (")	DN	d (mm)	Pack 1	Pack 2
2141219221	219 - 221	8	200	243	1	-
2141273275	273 - 275	10	250	297	1	-

For Pacifyre[®] MK II Fire Sleeves in other sizes, please contact your Walraven Sales Company.



Complementary

- 615 Tangit FP 550 2C Fire Protection Foam
- 616 Tangit FP 800 Fire Protection Coating
- 611 Pacifyre[®] FPM

Complementary

- 612 Pacifyre[®] ID-Card

Pacifyre® IWM III Fire Strip

(U 04 20)

for penetrations of insulated or non-insulated flammable pipes and multi-layer pipes

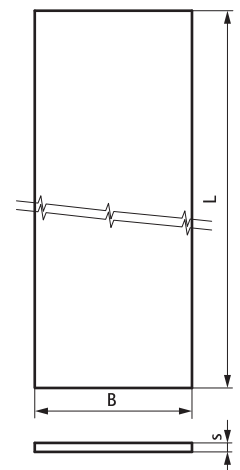


Features and Benefits

- Fire Strip for plastic (combustible) pipes and pipe systems. For apertures in walls (solid walls or light partition walls) and ceilings with fire protection requirements in accordance with UK Legislation
- no tools, drilling or extra fixing materials needed
- only 1 roll for numerous penetrations
- easily to build in: simply place the roll around the pipe, slide into the aperture, finished!
- suitable for damp conditions
- minimum of layers required, so a smaller drillhole is possible
- suitable for areas which are difficult to access, like corners
- problem solver: easy on-site modification
- maintenance free
- zero distance is possible between fire collars
- high flexibility due to self-adhesive strip
- tested according to EN 1366-3



Part No.	L	B (mm)	s (mm)	Pack 1	App.
2136050125	12.50 m	50	2.0	1	roll



Complementary

- 611 Pacifyre® FPM
- 612 Pacifyre® ID-Card

Pacifyre® EFC Fire Collar

(U 04 25)

for penetrations of plastic pipes and multi-layer pipes



Features and Benefits

- suitable for areas which are difficult to access, like corners
- a small number of intumescent layers required, so a smaller drill hole is possible
- suitable for damp conditions
- problem solver: easy on-site modification
- penetrations in corners by using partial Fire Collar allowed by regulations (only 2/3 wrapping necessary)
- only 1 box for numerous penetrations and all pipe dimensions
- high flexibility due to self-adhesive strip
- no waste
- all fixing materials included
- tested according to EN 1366-3
- European approval: ETA-13/0793

Part No.	Model	Type	Cont.	Pack 1	Pack 2
2132100600	-	-	Carton box	1	-
2132100601	-	-	3 m Stainless Steel Band	1	-
2132100602	-	-	Refill set: 18 fixing hooks + plugs, screws and washers	1	18
2132100603	Card for walls and ceilings	International	-	1	-

*Box content: 3m. Pacifyre® EFC Stainless Band, 10m. Pacifyre® EFC Intumescent, 18 x Pacifyre® EFC Stainless Hook, 1 x Pacifyre® EFC Fixing Set (18 x Pan-Head Torx screw, 18 x Washer, 18 x BIS Starplug), 1 x Pacifyre® EFC Assembly instruction, 6 x Pacifyre® ID-Card



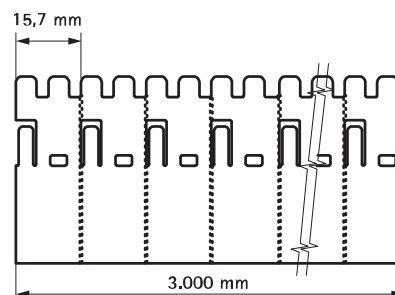
213 2 100 600



213 2 100601



213 2 100602



Pacifyre® AWM III Fire Collar

(U 04 35)

for penetrations with flammable pipes 15 - 200 mm

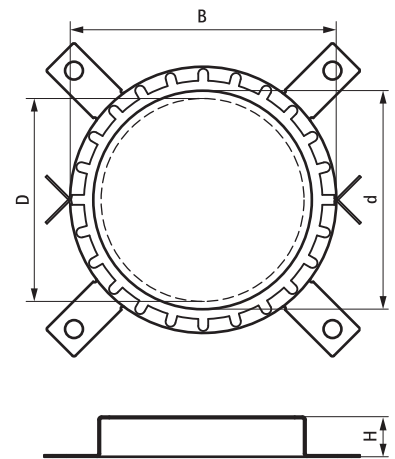


Features and Benefits

- built-up fire collar for plastic (combustible) pipes and pipe systems. For apertures in walls (solid walls or light partition walls) and ceilings with fire protection in accordance with UK Legislation
- suitable for damp conditions
- low collar height, allowing building of bends, sockets and T-joints close to the wall or ceiling
- should be fitted to both sides of a wall and on one side below a ceiling
- build in is possible without additional fixings (by simply bending and sliding the fixing tabs)
- economical alternative for the Pacifyre® AWM II in standard installation situations
- in problematic built-in situations the use of an oversized collar is permitted (up to max. 3 sizes bigger)
- easily installed due to 2 part collar construction
- various finish possibilities, e.g. acrylic sealant, mortar, etc.
- maintenance free
- zero distance is possible between fire collars
- tested according to EN 1366-3
- European approval: ETA-13/0906



Part No.	D (mm)	d (mm)	Model	B (mm)	H (mm)	Pack 1
2135032034	15 - 32	38	2 fixing tabs	47	26	10
2135040042	20 - 40	46	2 fixing tabs	55	26	10
2135050052	25 - 50	56	2 fixing tabs	65	26	10
2135063065	32 - 63	69	4 fixing tabs	82	26	10
2135075077	40 - 75	81	4 fixing tabs	94	26	10
2135090092	50 - 90	96	4 fixing tabs	114	26	10
2135110112	63 - 110	116	4 fixing tabs	134	26	10
2135125125	75 - 125	132	4 fixing tabs	150	40	10
2135140140	90 - 140	144	4 fixing tabs	168	40	2
2135160160	110 - 160	164	4 fixing tabs	188	40	2
2135180180	125 - 180	184	4 fixing tabs	218	40	2
2135200200	140 - 200	204	4 fixing tabs	238	40	2



Complementary

- 611 Pacifyre® FPM
- 612 Pacifyre® ID-Card

Pacifyre® BFC

for flammable pipe penetrations 0 - 160 mm

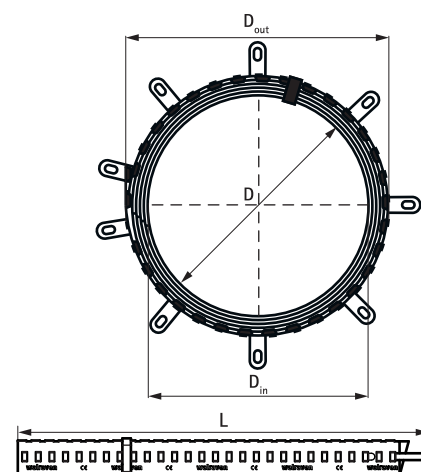
(U 04 38)



Features and Benefits

- easy to install
- suitable for damp conditions
- for thin- and thick-walled pipes
- for flexible walls, solid walls and ceilings
- up to 2 hours fire protection in wall penetrations
- up to 4 hours fire protection on floor/ceiling penetrations
- oversized for increased flexibility
- low height of 42.5 mm

Part No.	D	D in (Inner Ø)	D out (Outer Ø)	Model	L	# of fixing points needed	Pack 1
	(mm)	(mm)	(mm)				
2133000050	0 - 50	56	70	2 layers	267 mm	2	2
2133000063	51 - 63	67	90	3 layers	313 mm	3	2
2133000075	64 - 75	80	100	3 layers	345 mm	3	2
2133000090	76 - 90	98	125	4 layers	423 mm	3	2
2133000110	91 - 110	118	150	4 layers	487 mm	3	2
2133000125	111 - 125	130	160	5 layers	533 mm	4	2
2133000140	126 - 140	145	180	6 layers	595 mm	4	2
2133000160	141 - 160	165	200	6 layers	659 mm	4	2



Complementary

- 611 Pacifyre® FPM
- 614 Pacifyre® A Acrylic Fire Sealant

Alternative

- 608 Pacifyre® EFC Fire Collar
- 609 Pacifyre® AWM III Fire Collar

Pacifyre® FPM

(U 04 82)

for fire safe and smoke tight sealing of penetrations, joints and other apertures



Features and Benefits

- for sealing around:
 - Pacifyre Sleeves, Collars or Strips
 - cables and pipes according to sections 4.2 and 4.3 of MLAR2005/LAR/RbALei of the German construction regulation when applicable
- non shrink
- any texture, from free-flowing to very firm
- good surface adhesion
- complies with DIN 4102, EN 13501, EN 998-2
- recommended for sealing ventilation flaps, ventilation ducts and fire protection doors (leading firestop element should refer to a class A1 fire rated mortar sealant)
- can be used by hand or with a mortar gun



Part No.	CE	Cont.	Pack 1
2180015300	CE	15 kg	1

Complementary

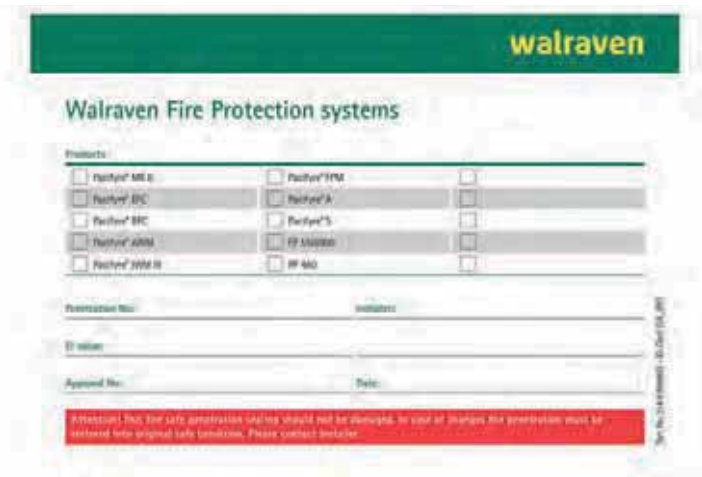
- 603 Pacifyre® MK II Fire Sleeve (P)
- 607 Pacifyre® IWM III Fire Strip
- 608 Pacifyre® EFC Fire Collar

Complementary

- 609 Pacifyre® AWM III Fire Collar
- 612 Pacifyre® ID-Card

Pacifyre® ID-Card

(U 04 85)



Features and Benefits

- for identification of pipe penetrations sealed with Pacifyre® and/or Tangit products

Part No.	Model	Type	Pack 1
2149999912	Card for walls and ceilings	Sverige	1
2149999913	Card for walls and ceilings	Danmark	1
2159999913	Self adhesive, for pipes and log books	Danmark	1



Pacifyre® S Silicone Fire Sealant

(U 04 95)



Features and Benefits

- fire resistant and smoke tight up to 4 hours
- suitable for linear joints in walls and floors with max. 25% movement
- for sealing annular joints around pipes, fire collars and fire sleeves or wraps
- very good adhesion to most substrates
- easy to apply
- colour fast and UV-stable
- remains permanently elastic after curing
- skin formation in approx. 20 min.
- curing rate 1mm/24h
- 16 shore A hardness
- indoor emission level A+
- temperature resistance from -10 °C to +140 °C
- application temperature: +5 °C up to +30 °C
- fire class B1 (DIN 4102-2)
- CE marked
- tested and approved according to EN 1366-4 and EN 1366-3
- for more information, please refer to the Declaration of Performance / ETA, www.walraven.com/pacifyre

Part No.	Colour	CE	ETA	DoP	Cont.	Pack 1
2180100020	White	CE	ETA	0749 CPR 16-1007	300 ml	12

Complementary

- 603 Pacifyre® MK II Fire Sleeve (P)
- 608 Pacifyre® EFC Fire Collar
- 610 Pacifyre® BFC

Complementary

- 612 Pacifyre® ID-Card
- 618 Tangit 2C Pistol PP6
- 513 WIS Dispenser Gun

Pacifyre[®] A Acrylic Fire Sealant

(U 04 100)



Features and Benefits

- fire resistant and smoke tight up to 4 hours
- suitable for static linear joints in walls and floors with max. 12.5% movement
- for sealing annular joints around pipes, fire collars and fire sleeves or wraps
- for sealing cracks in concrete and plaster
- excellent adhesion to many porous substrates
- colour fast, waterproof and paintable after curing
- remains elastic after curing
- skin formation in approx. 20 min.
- shrinkage approx. 15% (DIN 52451)
- activation temperature $\geq 120\text{ }^{\circ}\text{C}$
- indoor emission level A+
- temperature resistance from $-20\text{ }^{\circ}\text{C}$ to $+80\text{ }^{\circ}\text{C}$
- application temperature: $+5\text{ }^{\circ}\text{C}$ up to $+30\text{ }^{\circ}\text{C}$
- sound reduction up to 62dB
- CE marked
- tested according to EN 1366-3, EN 1366-4 and EN ISO 717-1
- for more information, please refer to the Declaration of Performance / ETA, www.walraven.com/pacifyre

Part No.	Colour	CE	ETA	DoP	Cont.	Pack 1
2180100010	White	CE	ETA	0749 CPR 16-1008	300 ml	12

Complementary

- 603 Pacifyre[®] MK II Fire Sleeve (P)
- 608 Pacifyre[®] EFC Fire Collar
- 610 Pacifyre[®] BFC

Complementary

- 612 Pacifyre[®] ID-Card
- 618 Tangit 2C Pistol PP6
- 513 WIS Dispenser Gun

Tangit FP 550 2C Fire Protection Foam

(U 08 05)

sealing of penetrations



Features and Benefits

- for fire-proof and smoke-proof sealing of partitions for pipes, cables and combinations
- also for light partition walls greater than 10 cm thick
- fire-proof and gas-tight for at least 90 minutes
- reliable and automatic filler for a wide variety of partitions
- user friendly for instructed first time users
- discard the initial material (about 3 strokes) until the components are being thoroughly mixed
- the cartridge can be closed again once the opening has been cleaned
- always apply with Tangit 2C Pistol PP6
- excellent and economical foam yield (approx. 3.5 litres)
- legislatively safe
- rapid hardening: can be cut after approx. 4 minutes; fully hardened after approx. 20 minutes
- tested according to EN 1366-3
- compliant with DIN 4102 and MLAR 2005/LAR/RbALei
- flame-retardant as per DIN 4102 (B1)
- replacement mixing tubes are available (Tangit FP 504 Spare Mixer Pack)
- for further information please refer to our other technical documents



Part No.	Colour	Cont.	Pack 1
2181550	Pink	300 ml	6

Complementary

- 603 Pacifyre® MK II Fire Sleeve (P)
- 616 Tangit FP 800 Fire Protection Coating
- 617 Tangit FP 504 Spare Mixer Pack

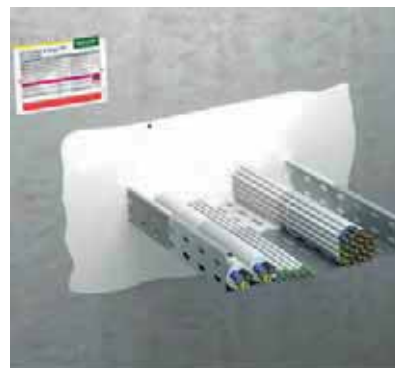
Complementary

- 618 Tangit 2C Pistol PP6
- 612 Pacifyre® ID-Card

Tangit FP 800 Fire Protection Coating

(U 08 10)

for finishing of cables and cable trays



Features and Benefits

- Tangit FP 800 Fire Protection Coating is an integral part of the Tangit FP 550 2C Fire Protection Foam system
- for final coating of partitions for pipes and cables and combination partitions with Tangit FP 550
- for coating cables, cable bundles and cable trays to stop fire spreading
- creates a reliable protective coating when heated
- simple to apply with a soft brush
- sprayable (using a standard airless sprayer)
- smoketight in combination with Tangit FP 550 2C Fire Protection Foam
- no halogens, heavy metal compounds or organic solvents
- tested according to EN 1366-3
- DIN 4102 compliant
- licensed by the DIBT
- marker signs should be placed on fire protection partitions



Part No.	Colour	Cont.	Pack 1
2181801	White	1 kg	2

Complementary

- 615 Tangit FP 550 2C Fire Protection Foam
- 612 Pacifyre® ID-Card

Tangit FP 504 Spare Mixer Pack

(U 08 55)

for applying Tangit FP 550 2C Fire Protection Foam



Features and Benefits

- thorough mixing of the two components of Tangit FP 550 fire protection foam
- as extra mixing tubes for emptying the remnants from opened Tangit FP 550 cartridges
- specially designed for Tangit FP 550 2C Fire Protection Foam
- optimised design for improved mixing and an easier flow



Part No.	Set	Pack.
2181504	10 pcs.	4 sets

Complementary

615 Tangit FP 550 2C Fire Protection Foam

Tangit 2C Pistol PP6

for application of Tangit products

(U 08 60)



Features and Benefits

- European quality brand
- reduced pressure required due to optimised transmission
- ergonomic design
- robust, all-metal construction
- application of Tangit FP 550 2C Fire Protection Foam
- using two-component cartridges



Part No.	Pack 1
2181526	6

Complementary

615 Tangit FP 550 2C Fire Protection Foam

CS P1 PU Foam Gun

to apply fire resistant sealant

(U 08 65)



Features and Benefits

- easy to handle, good dosing
- for applying Tangit FP 100 Fire Protection 1C Foam

Part No.	Model	Cont.	Pack 1
2181111	CS P1 PU Foam Gun	-	1

BIS Pacifyre® Fire Resistance Testing

Fire Resistance Testing

Pacifyre® MK II
Fire Sleeve

Tested according to:

Approved in:



EN 1366-3
BS 476-20
NEN 6069
DIN 4102-11

België / Belgique, České republice, Danmark, Deutschland, France, Nederland, Polska, Россия, Schweiz / Suisse, Sverige, United Kingdom, USA, Україна

Tested and approved by:



Pacifyre® AWM III
Fire Collar

Tested according to:

Approved in:



EN 1366-3
BS 476-20
DIN 4102-11
NEN 6069
ETAG 026

EU countries

National approvals in:

België / Belgique, České republice, Danmark, Deutschland, Österreich, Polska, Schweiz / Suisse, Sverige, Nederland, Україна

Tested and approved by:



Pacifyre® EFC
Fire Collar

Tested according to:

Approved in:



NEN 6069
EN 1366-3
ETAG 026

EU countries

National approvals in:

Nederland

Tested and approved by:



Pacifyre® BFC
Fire Collar

Tested according to:

Approved in:



EN 1366-3
ETAG 026

EU countries

Tested and approved by:



BIS Pacifyre® Fire Resistance Testing (cont.)

Fire Resistance Testing

Pacifyre® A
Acrylic Fire Sealant

Tested according to:

Approved in:



EN 1366-3
EN 1366-4
ETAG 026

EU countries

Tested and
approved by:



Pacifyre® S
Silicone Fire Sealant

Tested according to:

Approved in:



EN 1366-4
ETAG 026

EU countries

Tested and
approved by:



BIS Pacifyre® Fire Resistance Testing (cont.)

Fire Resistance Testing

Tested according to:

Product

EN 1366-3 EN 1366-4 EN 998-2

Tested and approved by:

Pacifyre® FPM
Fire Protection Mortar



Tangit FP 550
2C Fire Protection Foam



Tangit FP 800
Fire Protection Coating



Pacifyre® A
Acrylic Fire Sealant



Pacifyre® S
Silicone Fire Sealant



The Tangit FP 550 system is approved in Austria, Belgium, Germany and the Netherlands. For more information please see www.walraven.com.

Y Sealing, Glueing, Filling



Tangit Water- and Gas Sealings

Tangit Unilock Screw Thread Sealing

624

Tangit M 3000 Expansion Resin

625

Tangit Unilock Screw thread Sealing

(Y 10 05)

sealing of screw thread



Features and Benefits

- immediate sealing of water, gas and compressed air lines
- no further tools or sealing material necessary
- ready for use from the dispenser and easy to apply
- for threaded connections to 6" (168.3 mm) of metal (steel, stainless steel, cast iron, etc.) or plastic (PVC-U, PVC-C, PP, PE)
- for conical as well as cylindrical connections
- resistant in combination with:
 - cold and hot drinking water applications (up to 16 bar with max. temperature of +85 °C)
 - hot water applications (up to 7 bar with max. temperature of +130 °C)
 - mains gas applications (up to 5 bar with temperature from -20 °C to +70 °C)
- resistant in combination with:
 - natural gas
 - liquid gas (gas phase)
 - condensed gas
 - compressed air
 - up to 55 % lower costs and up to 45 % faster than hemp
 - according to EN 751-2
 - material: PA (polyamide)
 - multiple nylon rope impregnated in a solution based on silicones
 - vibration- and weather resistant
 - DVGW certificated



Part No.	L	Pack 1
2181100	80 m	20
2181160	160 m	20

Tangit M 3000 Expansion Resin

(Y 10 10)



Features and Benefits

- 2 component expansion resin
- for a quick sealing of gaps round any type of pipe for eg. gas (in heating rooms \geq 130 kw), (drainage)water and electrocables
- thermal chargeable (650 °C, 30 min., pressure 0.1 bar, medium: air)
- water proof in combinaton with Tangit Sealing hose M4082 (pressure 1 bar)
- gastight (pressure 3 bar)
- does not shrink
- tensile strength 30 KN
- resistant to torsion (twisting moment 240 Nm)
- resistant against ageing and rotting
- not biodegradable
- resistant to oil, water and solvents
- resistant to al common building materials and plastics
- can be cut after 5 minutes
- tested according DVGW-VP 601 (DE)
- incl. 6 mixer nozzles, extension nozzle and masking tape
- packaging: cartridge 300 ml



Part No.	Model	Pack 1
2183000	Tangit M 3000 Expansion resin	6
2184082	Tangit M4082 Sealing hose	6

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Information: Steel Pipes

Steel pipe suitable for screwing				Weight			L
D		s	empty	filled	insulated	(max.)*	
(mm)	(")	(DN)	(mm)	(kg / m)	(kg / m)	(kg / m)	m
10.2	1/8	6	2.00	0.41	0.44	0.59	1.25
13.5	1/4	8	2.35	0.65	0.71	0.88	1.50
17.2	3/8	10	2.35	0.85	0.97	1.17	2.25
21.3	1/2	15	2.65	1.22	1.42	1.63	2.75
26.9	3/4	20	2.65	1.58	1.95	2.20	3.00
33.7	1	25	3.25	2.44	3.02	3.51	3.50
42.4	1 1/4	32	3.25	3.14	4.15	4.86	3.75
48.3	1 1/2	40	3.25	3.61	4.98	5.94	4.25
60.3	2	50	3.65	5.10	7.31	8.83	4.75
76.1	2 1/2	65	3.65	6.51	10.23	12.77	5.50
88.9	3	80	4.05	8.47	13.59	17.08	6.00
114.3	4	100	4.50	12.10	20.80	26.31	6.00
139.7	5	125	4.85	16.20	29.47	35.45	6.00
165.1	6	150	4.85	19.20	38.16	44.83	6.00

Steel pipe (seamless)				Weight			L
D		s	empty	filled	insulated	(max.)*	
(mm)	(")	(DN)	(mm)	(kg / m)	(kg / m)	(kg / m)	m
10.2	1/8	6	1.6	0.34	0.38	0.53	1.25
13.5	1/4	8	1.8	0.52	0.60	0.77	1.50
17.2	3/8	10	1.8	0.68	0.83	1.02	2.25
21.3	1/2	15	2.0	0.96	1.19	1.40	2.75
26.9	3/4	20	2.3	1.40	1.79	2.22	3.00
33.7	1	25	2.6	1.99	2.63	3.12	3.50
42.4	1 1/4	32	2.6	2.55	3.64	4.39	3.75
48.3	1 1/2	40	2.6	2.93	4.39	5.39	4.25
60.3	2	50	2.9	4.11	6.44	8.03	4.75
76.1	2 1/2	65	2.9	5.24	9.12	11.70	5.50
88.9	3	80	3.2	6.76	12.10	15.72	6.00
114.3	4	100	3.6	9.83	18.83	24.25	6.00
139.7	5	125	4.0	13.40	27.02	33.05	6.00
168.3	6	150	4.5	18.20	38.37	43.66	6.00
219.1	8	200	6.3	33.10	67.75	72.95	6.00
273.0	10	250	6.3	41.40	96.11	104.15	6.00
323.9	12	300	7.1	55.50	131.57	141.56	6.00
355.6	14	350	8.0	68.60	160.95	170.74	6.00
406.4	16	400	8.8	86.30	207.05	217.91	6.00
457.0	18	450	10.0	110.00	262.67	274.44	6.00
508.0	20	500	11.0	135.00	323.79	335.87	6.00
610.0	24	600	12.5	184.00	457.26	471.16	6.00

Norm:
DIN EN 10255 - 11/2004

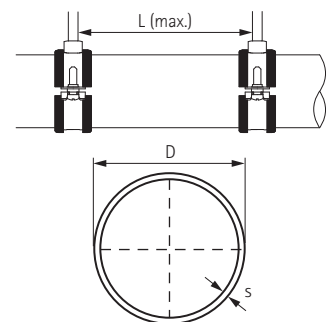
Material:
Steel 33-2, according to DIN 17100

Insulation:
mineral wool (density = 80 kg/m³)

Norm:
DIN EN 10220 - 03/2003

Material:
Steel 37

Insulation:
mineral wool (density = 80 kg/m³)



This datasheet is to be used as a tool for selecting the correct fixing materials only. Although Walraven does everything possible to ensure the accuracy of all data within this sheet, we cannot be held responsible for information supplied by third parties, i.e. standardisation institutes and pipe manufacturers.

* Maximum recommended fixing distance according to DIN 1988-2 (TRWI). The exact distances depend on the specific pipe-type and -manufacturer!

Information: Steel Pipes / Cast Iron Pipe

Welded steel pipe				Weight			L (max.)*
D		s	empty	filled	insulated		
(mm)	(")		(DN)	(kg / m)	(kg / m)	(kg / m)	m
10.2	1/8	6	1.6	0.34	0.38	0.53	1.25
13.5	1/4	8	1.8	0.52	0.60	0.77	1.50
17.2	3/8	10	1.8	0.68	0.83	1.02	2.25
21.3	1/2	15	2.0	0.95	1.19	1.40	2.75
26.9	3/4	20	2.0	1.23	1.64	2.07	3.00
33.7	1	25	2.0	1.56	2.25	2.74	3.50
42.4	1 1/4	32	2.3	2.27	3.39	4.17	3.75
48.3	1 1/2	40	2.3	2.61	4.11	5.13	4.25
60.3	2	50	2.3	3.29	5.73	7.38	4.75
76.1	2 1/2	65	2.6	4.71	8.66	11.29	5.50
88.9	3	80	2.9	6.15	11.57	15.17	6.00
114.3	4	100	3.2	8.77	17.91	23.31	6.00
139.7	5	125	3.6	12.10	25.88	31.92	6.00
168.3	6	150	4.0	16.20	36.57	43.16	6.00
219.1	8	200	4.5	23.80	58.78	66.55	6.00
273.0	10	250	5.0	33.00	88.13	96.81	6.00
323.9	12	300	5.6	44.00	121.84	131.49	6.00
355.6	14	350	5.6	48.30	142.06	153.04	6.00
406.4	16	400	6.3	62.20	184.80	196.81	6.00
457.0	18	450	6.3	70.00	226.01	239.27	6.00
508.0	20	500	6.3	77.90	270.56	286.13	6.00

Norm:
DIN EN 10220 - 03/2003

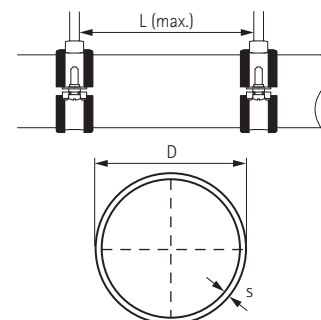
Material:
Steel 37-2

Insulation:
mineral wool (density = 80 kg/m³)

Cast iron pipe				Weight			L (max.)*
D		s	empty	filled	insulated		
(mm)	Tol. (mm)		(DN)	(kg / m)	(kg / m)	(kg / m)	m
48		40	3.0	3.10	4.48	-	2.00
58		50	3.5	4.30	6.34	-	2.00
78	+2.0 / -1.0	70	3.5	5.90	9.86	-	2.00
83		75	3.5	6.30	10.83	-	2.00
110		100	3.5	8.40	16.73	-	1.50
135		125	4.0	11.80	24.46	-	1.50
160	+2.0 / -2.0	150	4.0	14.10	32.24	-	1.50
210		200	5.0	23.10	54.50	-	1.50
274	+2.5 / -2.5	250	5.5	33.30	87.60	-	1.50
326		300	6.0	43.20	120.60	-	1.50
429	+2.0 / -3.0	400	8.1	77.65	211.49	-	1.50
532	+2.0 / -3.5	500	9.0	107.21	314.71	-	1.50
635	+2.0 / -4.0	600	9.9	140.95	438.20	-	1.50

Norm:
DIN 19522 - 01/2000

Material:
Cast iron according to ISO 185 (EN 587)



This datasheet is to be used as a tool for selecting the correct fixing materials only. Although Walraven does everything possible to ensure the accuracy of all data within this sheet, we cannot be held responsible for information supplied by third parties, i.e. standardisation institutes and pipe manufacturers.

* Maximum recommended fixing distance according to DIN 1988-2 (TRWI). The exact distances depend on the specific pipe-type and -manufacturer!

Information: Copper Pipe / PE-Pipe

Copper pipe				Weight			L (max.)*
D			s	empty	filled	insulated	
(mm)	(")	(DN)	(mm)	(kg / m)	(kg / m)	(kg / m)	m
10.0	-	-	1.0	0.25	0.30	0.45	1.00
12.0	-	10	1.0	0.31	0.39	0.55	1.25
15.0	-	-	1.0	0.39	0.52	0.70	1.25
18.0	-	15	1.0	0.48	0.68	0.87	1.50
22.0	-	20	1.0	0.59	0.90	1.11	2.00
28.0	-	25	1.5	1.11	1.60	2.05	2.25
35.0	-	32	1.5	1.41	2.21	2.70	2.75
42.0	-	40	1.5	1.70	2.89	3.69	3.00
54.0	-	50	2.0	2.91	4.87	6.19	3.50
64.0	-	-	2.0	3.47	6.29	8.19	4.00
76.1	-	65	2.0	4.14	8.22	10.93	4.25
88.9	-	80	2.0	4.86	10.52	14.26	4.75
108.0	-	-	2.5	7.37	15.70	20.98	5.00
133.0	-	-	3.0	10.90	23.57	29.50	5.00
159.0	-	-	3.0	13.09	31.46	38.06	5.00
219.0	-	-	3.0	18.12	53.73	61.87	5.00
267.0	-	-	3.0	22.10	75.60	-	5.00

Norm:

EN 1057 - 05/1996 (ex. DIN 1786)

Material:

Copper according to EN 1412

Insulation:

 mineral wool (density = 80 kg/m³)

PE pipe				Weight			L (max.)*
D			s	empty	filled	insulated	
(mm)	(")	(DN)	(mm)	(kg / m)	(kg / m)	(kg / m)	m
50	-	-	1.8	0.29	1.98	-	1.05
63	-	-	2.0	0.40	3.13	-	1.20
75	-	-	2.3	0.55	4.44	-	1.30
90	-	-	2.8	0.79	6.38	-	1.45
110	-	-	3.4	1.17	9.53	-	1.60
125	-	-	3.9	1.51	12.29	-	1.70
140	-	-	4.3	1.88	15.43	-	1.80
160	-	-	4.9	2.42	19.13	-	1.90
180	-	-	5.5	3.07	25.49	-	2.00
200	-	-	6.2	3.84	31.47	-	2.00
225	-	-	6.9	4.77	39.79	-	2.25
250	-	-	7.7	5.92	49.12	-	2.50
280	-	-	8.6	7.40	61.64	-	2.80
315	-	-	9.7	9.37	77.96	-	3.15

Norm:

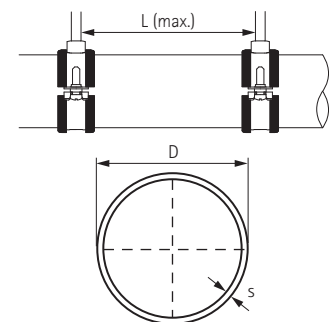
DIN 8074 - 08/1999

Series: 16

SDR: 33

Material:

HD PE



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* Maximum recommended fixing distance according to DIN 1988-2 (TRWI). The exact distances depend on the specific pipe-type and -manufacturer!

Information: PE-Pipe / PVC-Pipe

PE pipe			Weight			L	
D		s	empty	filled	insulated	(max.)*	
(mm)	(")	(DN)	(kg / m)	(kg / m)	(kg / m)	m	
40	-	-	1.8	0.23	1.27	-	0.95
50	-	-	2.0	0.31	1.98	-	1.05
63	-	-	2.5	0.49	3.13	-	1.20
75	-	-	2.9	0.68	4.43	-	1.30
90	-	-	3.5	0.98	6.39	-	1.45
110	-	-	4.2	1.43	9.53	-	1.60
125	-	-	4.8	1.84	12.29	-	1.70
140	-	-	5.4	2.32	15.42	-	1.80
160	-	-	6.2	3.04	20.14	-	1.90
180	-	-	6.9	3.79	25.47	-	2.00
200	-	-	7.7	4.69	31.44	-	2.00
225	-	-	8.6	5.89	39.79	-	2.25
250	-	-	9.6	7.30	49.12	-	2.50
280	-	-	10.7	9.10	61.60	-	2.80
315	-	-	12.1	11.60	77.98	-	3.00

PVC pipe			Weight			L	
D		s	empty	filled	insulated	(max.)*	
(mm)	(")	(DN)	(kg / m)	(kg / m)	(kg / m)	m	
40	-	-	1.8	0.33	1.37	-	0.90
50	-	-	1.8	0.42	2.11	-	1.10
63	-	-	1.9	0.56	3.31	-	1.20
75	-	-	2.2	0.78	4.69	-	1.35
90	-	-	2.7	1.13	6.75	-	1.50
110	-	-	3.2	1.64	10.07	-	1.70
125	-	-	3.7	2.13	12.99	-	1.80
140	-	-	4.1	2.65	16.29	-	1.95
160	-	-	4.7	3.44	21.24	-	2.10
180	-	-	5.3	4.37	26.90	-	2.20
200	-	-	5.9	5.37	33.17	-	2.30
225	-	-	6.6	6.76	41.97	-	2.40
250	-	-	7.3	8.31	51.81	-	2.50
280	-	-	8.2	10.40	64.95	-	2.80
315	-	-	9.2	13.20	82.26	-	3.00

Norm:

DIN 8074 - 08/1999

Series:

12,5

SDR:

26

Material:

HD PE

Norm:

DIN 8062 - 11/1988

Series:

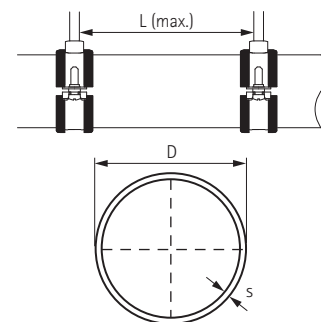
3

SDR:

34,3

Material:

PVC-U (unplasticized)



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* Maximum recommended fixing distance according to DIN 1988-2 (TRWI). The exact distances depend on the specific pipe-type and -manufacturer!

Information: PVC-Pipe

PVC pipe				Weight			L
D			s	empty	filled	insulated	(max.)*
(mm)	(")	(DN)	(mm)	(kg / m)	(kg / m)	(kg / m)	m
25	-	-	1.5	0.17	0.55	-	0.65
32	-	-	1.8	0.26	0.90	-	0.70
40	-	-	1.9	0.35	1.38	-	0.90
50	-	-	2.4	0.55	2.16	-	1.10
63	-	-	3.0	0.85	3.40	-	1.20
75	-	-	3.6	1.22	4.83	-	1.35
90	-	-	4.3	1.75	6.95	-	1.50
110	-	-	5.3	2.61	10.37	-	1.70
125	-	-	6.0	3.34	13.36	-	1.80
140	-	-	6.7	4.18	16.76	-	1.95
160	-	-	7.7	5.47	21.88	-	2.10
180	-	-	8.6	6.88	27.69	-	2.20
200	-	-	9.6	8.51	34.17	-	2.30
225	-	-	10.8	10.80	43.28	-	2.40
250	-	-	11.9	13.20	53.37	-	2.50
280	-	-	13.4	16.60	66.93	-	2.80
315	-	-	15.0	20.90	84.66	-	3.00

Norm:

DIN 8062 - 11/1988

Series:

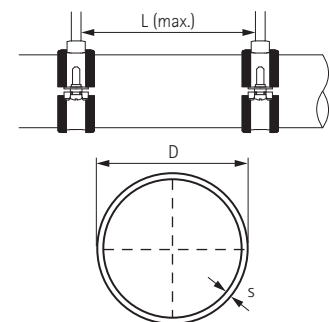
4

SDR:

21

Material:

PVC-U (unplasticized)

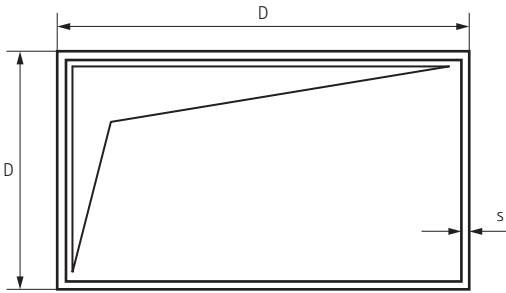


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* Maximum recommended fixing distance according to DIN 1988-2 (TRWI). The exact distances depend on the specific pipe-type and -manufacturer!

Information: Air Ducts (Non-Insulated)

Declaration of weight in kg/m



D (mm)	s = 0.75 mm			s = 0.88 mm						D (mm)
	200	224	250	280	315	355	400	450	500	
200	6.1	6.5	6.9	8.6	9.2	10.0	10.8	11.7	12.6	200
224	-	6.9	7.3	9.1	9.7	10.4	11.2	12.1	13.0	224
250	-	-	7.7	9.5	10.1	10.9	11.7	12.6	13.5	250
280	-	-	-	10.1	10.7	11.4	12.2	13.1	14.0	280
315	-	-	-	-	11.3	12.0	12.8	13.7	14.6	315
355	-	-	-	-	-	12.8	13.6	14.5	15.4	355
400	-	-	-	-	-	-	14.4	15.3	16.2	400
450	-	-	-	-	-	-	-	16.2	17.1	450
500	-	-	-	-	-	-	-	-	18.0	500

Values for the calculation:

Density air duct: Steel plate $\rho_p = 7,850 \text{ kg/m}^3$

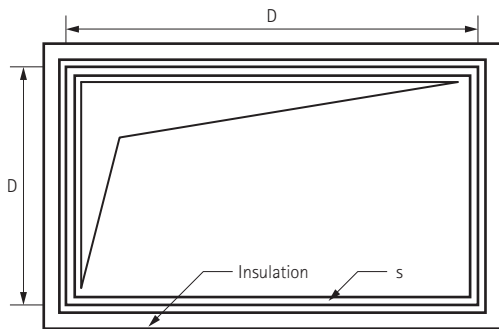
Weights for flanges and duct bracing were estimated.

D (mm)	s = 1.00 mm						s = 1.13 mm						s = 1.5 mm				D (mm)
	560	630	710	800	900	1,000	1,120	1,250	1,400	1,600	1,800	2,000	2,240	2,500	2,800	3,150	
200	15.5	16.9	18.6	20.4	22.5	24.5	30.4	33.4	36.9	41.5	46.1	50.7	62.3	68.9	76.5	85.5	200
224	16.0	17.4	19.1	20.9	22.9	25.0	31.0	34.0	37.5	42.1	46.7	51.3	62.9	69.5	77.1	86.1	224
250	16.5	18.0	19.6	21.4	23.5	25.5	31.6	34.6	38.1	42.7	47.3	51.9	63.5	70.2	77.8	86.7	250
280	17.1	18.6	20.2	22.0	24.1	26.1	32.3	35.3	38.7	43.4	48.0	52.6	64.3	70.9	78.6	87.5	280
315	17.9	19.3	20.9	22.8	24.8	26.8	33.1	36.1	39.6	44.2	48.8	53.4	65.2	71.8	79.5	88.4	315
355	18.7	20.1	21.7	23.6	25.6	27.7	34.0	37.0	40.5	45.1	49.7	54.3	66.2	72.8	80.5	89.4	355
400	19.6	21.0	22.7	24.5	26.5	28.6	35.1	38.1	41.5	46.1	50.7	55.4	67.4	74.0	81.6	90.6	400
450	20.6	22.0	23.7	25.5	27.6	29.6	36.2	39.2	42.7	47.3	51.9	56.5	68.6	75.3	82.9	91.8	450
500	21.6	23.1	24.7	26.5	28.6	30.6	37.4	40.4	43.8	48.4	53.0	57.7	69.9	76.5	84.2	93.1	500
560	22.9	24.3	25.9	27.8	29.8	31.8	38.7	41.7	45.2	49.8	54.4	59.0	71.4	78.1	85.7	94.7	560
630	-	25.7	27.3	29.2	31.2	33.3	40.4	43.4	46.8	51.4	56.0	60.7	73.2	79.9	87.5	96.4	630
710	-	-	29.0	30.8	32.9	34.9	42.2	45.2	48.7	53.3	57.9	62.5	75.3	81.9	89.5	98.5	710
800	-	-	-	32.7	34.7	36.7	44.3	47.3	50.7	55.4	60.0	64.6	77.6	84.2	91.8	100.8	800
900	-	-	-	-	36.7	38.8	46.6	49.6	53.0	57.7	62.3	67.3	80.1	86.7	94.4	103.3	900
1,000	-	-	-	-	-	40.8	48.9	51.9	55.4	60.0	64.6	69.2	82.7	89.3	96.9	105.9	1,000
1,120	-	-	-	-	-	-	51.7	54.7	58.1	62.7	67.3	72.0	85.7	92.4	100.0	108.9	1,120
1,250	-	-	-	-	-	-	-	57.7	61.1	65.7	70.3	75.0	89.0	95.7	103.3	112.3	1,250
1,400	-	-	-	-	-	-	-	-	64.6	69.2	73.8	78.4	92.9	99.5	107.2	116.1	1,400
1,600	-	-	-	-	-	-	-	-	-	73.8	78.4	83.0	98.0	104.6	112.3	121.2	1,600
1,800	-	-	-	-	-	-	-	-	-	-	83.0	87.6	103.1	109.7	117.4	126.3	1,800
2,000	-	-	-	-	-	-	-	-	-	-	-	92.3	108.2	114.8	122.5	131.4	2,000
2,240	-	-	-	-	-	-	-	-	-	-	-	-	114.3	120.9	128.6	137.5	2,240
2,500	-	-	-	-	-	-	-	-	-	-	-	-	-	127.6	135.2	144.1	2,500
2,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	142.9	151.8	2,800
3,150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160.7	3,150

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Information: Air Ducts (Insulated)

Declaration of weight in kg/m



D (mm)	s = 0.75 mm			s = 0.88 mm						D (mm)
	200	224	250	280	315	355	400	450	500	
200	9.2	9.9	10.3	12.2	13.1	14.0	15.1	16.3	17.6	200
224	-	10.4	10.8	12.8	13.6	14.6	15.7	16.9	18.1	224
250	-	-	11.4	13.4	14.3	15.3	16.3	17.6	18.8	250
280	-	-	-	14.2	15.0	16.0	17.1	18.3	19.5	280
315	-	-	-	-	15.9	16.8	17.9	19.1	20.4	315
355	-	-	-	-	-	17.8	18.9	20.1	21.3	355
400	-	-	-	-	-	-	20.0	21.2	22.4	400
450	-	-	-	-	-	-	-	22.4	23.7	450
500	-	-	-	-	-	-	-	-	24.9	500

Values for the calculation:

Density air duct: Steel plate zp. = 7,850 kg/m³

Density insulation: Mineral wool = approx. 80 kg/m³

Weights for flanges and duct bracing were estimated.

D (mm)	s = 1.0 mm						s = 1.13 mm						s = 1.25 mm				D (mm)
	560	630	710	800	900	1,000	1,120	1,250	1,400	1,600	1,800	2,000	2,240	2,500	2,800	3,150	
200	20.9	22.8	24.9	27.3	30.0	32.7	39.4	43.2	47.7	53.5	59.4	65.3	78.4	86.7	96.2	107.4	200
224	21.5	23.4	25.6	28.0	30.6	33.3	40.1	43.9	48.4	54.3	60.1	66.0	79.1	87.4	97.0	108.2	224
250	22.2	24.1	26.2	28.7	31.3	34.0	40.9	44.7	49.1	55.0	60.9	66.8	80.0	88.3	97.8	109.0	250
280	23.0	24.9	27.1	29.5	32.1	34.8	41.8	45.6	50.0	55.9	61.8	67.7	80.9	89.2	98.8	110.0	280
315	24.0	25.8	28.0	30.4	33.1	35.8	42.8	46.6	51.0	56.9	62.8	68.7	82.0	90.3	99.9	111.1	315
355	25.0	26.9	29.1	31.4	34.2	36.8	44.0	47.8	52.2	58.1	64.0	69.9	83.3	91.6	101.2	112.4	355
400	26.2	28.1	30.3	32.7	35.4	38.0	45.3	49.1	53.5	59.4	65.3	71.2	84.8	93.1	102.6	113.8	400
450	27.6	29.5	31.6	34.0	36.7	39.4	46.8	50.6	55.0	60.9	66.8	72.7	86.4	94.7	104.2	115.4	450
500	28.9	30.8	33.0	35.4	38.0	40.7	48.2	52.1	56.5	62.4	68.3	74.2	88.0	96.2	105.8	117.0	500
560	30.5	32.4	34.6	37.0	39.7	42.3	50.0	53.8	58.3	64.2	70.0	75.9	89.9	98.2	107.7	118.9	560
630	-	34.3	36.4	38.9	41.5	44.2	52.1	55.9	60.3	66.2	72.1	78.0	92.1	100.4	110.0	121.1	630
710	-	-	38.6	41.0	43.7	46.4	54.4	58.3	62.7	68.6	74.5	80.4	94.7	103.0	112.5	123.7	710
800	-	-	-	43.4	46.1	48.8	57.1	60.9	65.3	71.2	77.1	83.0	97.5	105.8	115.4	126.6	800
900	-	-	-	-	48.8	51.5	60.0	63.9	68.3	74.2	80.1	86.0	100.7	109.0	118.6	129.8	900
1,000	-	-	-	-	-	54.1	63.0	66.8	71.2	77.1	83.0	88.9	103.9	112.2	121.8	132.9	1,000
1,120	-	-	-	-	-	-	66.5	70.3	74.8	80.7	86.5	92.4	107.7	116.0	125.6	136.8	1,120
1,250	-	-	-	-	-	-	-	74.2	78.6	84.5	90.4	96.3	111.9	120.2	129.8	140.9	1,250
1,400	-	-	-	-	-	-	-	-	83.0	88.9	94.8	100.7	116.7	125.0	134.5	145.7	1,400
1,600	-	-	-	-	-	-	-	-	-	94.8	100.7	106.6	123.1	131.4	140.9	152.1	1,600
1,800	-	-	-	-	-	-	-	-	-	-	106.6	112.5	129.4	137.7	147.3	158.5	1,800
2,000	-	-	-	-	-	-	-	-	-	-	-	118.4	135.8	144.1	153.7	164.9	2,000
2,240	-	-	-	-	-	-	-	-	-	-	-	-	143.5	151.8	161.4	172.5	2,240
2,500	-	-	-	-	-	-	-	-	-	-	-	-	-	160.1	169.6	180.8	2,500
2,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179.2	190.4	2,800
3,150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201.6	3,150

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Information: Material Properties Plastics

ABS – Acrylonitrile–Butadiene–Styrene

Temperature-resistance:

Permanently up to 70 °C, briefly up to 85 °C and to about minus 40 °C*.

Resistant to:

Formic acid, citric acid, lactic acid.

Conditionally resistant to:

Hydrochloric acid, sulphuric acid.

Not resistant to:

Acetone, petrol, benzene, solvents for paints and lacquers, butyric acid, chlorine, acetic acid, nitric acid.

PA – PolyAmide (Nylon)

Temperature-resistance:

Permanently up to about 90 °C, briefly up to about 130 °C and to about minus 40 °C*.

Resistant to:

Petrol, benzene, diesel oil, acetone, solvents for paints and lacquers, oils and greases.

Low tendency to stress cracking.

Not resistant to:

Bleach, most acids, chlorine.

PA–GV – Polyamide, fibreglass reinforced

Temperature-resistance:

Permanently up to about 100–110 °C, briefly up to 160 °C and to about minus 40 °C*.

Resistant to:

Petrol, benzene, diesel oil, acetone, solvents for paints and lacquers, oils and greases.

Low tendency to stress cracking.

Not resistant to:

Bleach, most acids, chlorine.

PE – PolyEthylene

Temperature-resistance:

Hard types permanently up to about 90 °C, briefly up to about 105 °C
soft types permanently up to about 80 °C, briefly up to about 100 °C
and to about minus 40 °C*.

Resistant to:

Alkalis and inorganic acids.

Conditionally resistant to:

Acetone, organic acids, petrol, benzene, diesel oil, most oils.

Not resistant to:

Chlorine, hydrocarbons, oxidising acids.

POM – PolyOxyMethylene

(polyacetal, polyformaldehyde)

Temperature-resistance:

Permanently up to about 100 °C, briefly up to about 130 °C and to minus 40 °C*.

Resistant to:

Acetone, ether, petrol, weak acetic acid, benzene, heating oil, oils and greases, toluene.

Not resistant to:

Methylene chloride, trichloroethylene, hydrochloric acid, nitric acid, sulphuric acid.

PP – PolyPropylene

Temperature-resistance:

Permanently about 90 °C, briefly up to about 110 °C and to about minus 30 °C*.

Resistance to chemicals generally as for polyethylene.

PS – PolyStyrene

Temperature-resistance:

Because of its relatively high sensitivity to the effects of chemicals, its use is not recommended at temperatures above normal room temperature, about 25 °C.

Resistance to cold: to about minus 40 °C*.

Resistant to:

Alkalis, most acids, alcohol.

Conditionally resistant to:

Oils and greases.

Not resistant to:

Butyric acid, concentrated nitric acid, concentrated acetic acid, acetone, ether, petrol and benzene, solvents for paints and lacquers, chlorine, diesel fuel.

PVC (hard) – PolyVinylChloride (hard)

Temperature-resistance:

Permanently up to about 65 °C, briefly up to about 75 °C and to about minus 30 °C*.

Resistant to:

Weak acids, alkalis, oils and greases, petrol.

Not resistant to:

Strong acids, benzene, acetone, iodine, toluene, trichloroethylene.

*The minus values apply only for parts in the quiescent condition with no severe impact stress.

Information: Surface Treatment

To improve the corrosion resistance of steel products, Walraven uses all kinds of methods. Below you will find an overview:

BIS UltraProtect® 1000 system

The BIS UltraProtect® 1000 system is the ideal and most durable solution for securing or supporting mechanical installations, solar systems and many other types of installations. The products in the BIS UltraProtect® 1000 system have very high corrosion resistance and can be applied in C1-C4 environments. BIS UltraProtect® 1000 products effortlessly withstand a salt spray test of at least 1,000 hours* (in accordance with ISO 9227). Although the system utilizes a relatively thin protective coating, the corrosion resistance is high. Not only does the BIS UltraProtect® 1000 system offer a smooth and fine finish, the products are also visually appealing. An additional benefit of the relatively thin protective coating is that threaded products are also well protected against corrosion. The BIS UltraProtect® 1000 products, including threaded items such as bolts, nuts and threaded rods, have superior corrosion resistance.**

Zinc plating (blue)

The protective coating is applied in an electrolytic process after cleaning, degreasing and pickling. The thickness of the layer of zinc is between 5 and 15 µm and is determined by the current intensity and the duration of the galvanizing process. After the galvanizing process the products are passivated to extend the protection period.

Pre-galvanizing

Pre-galvanizing is a continuous thermal galvanizing process applied before material treatment in manufacturing processes. The strip steel is guided through a bath containing liquid zinc after having been cleaned, degreased and pickled. The thickness of the layer of zinc is between 20 and 25 µm. Later the steel is cut to the required width. The sides of this cut material are not galvanized. This is also the case with any holes that may be drilled in the pre-galvanized material. The sides of material thinner than 1,5 mm are protected somewhat by the zinc layer on the top and bottom by the electrolytic process of 'pulling together'.

This surface protection is suitable for threaded products, which are to be used indoors or in a non-corrosive environment.

* Until the occurrence of maximum 5% red rust.

** The warranty conditions are applicable for C1-C4 corrosive environments according to ISO 12944-2. See our website walraven.com for further information.

Hot dip galvanizing

The products to be treated are cleaned, degreased and pickled and subsequently put into an immersion bath of liquid zinc. The immersion bath has a temperature of 550 °C. In this process an alloy of zinc/iron develops on the surface and is then covered by a layer of pure zinc.

The thickness of the zinc layer varies between 50 and 100 µm. In consequence the process is less suitable for products with threaded holes or rods. Hot dip galvanized products are suitable for indoor as well as outdoor use and also for damp and light-corrosive environments.

The application for hot dip galvanizing processes is limited to the heavy systems.

Stainless steel 316 (1.4401) and 316L (1.4404)

Stainless steel 316 is one of the best corrosion resistant types of stainless steel. It offers a superior corrosion resistance in many corrosive environments. The protective layer is damaged by treatments such as punching, drilling and welding. That is why, after the last treatment, all stainless steel products receive an extra treatment which pickles and passivates to restore the protective layer. Products from stainless steel 316 can be applied in aggressive situations such as a sea climate and industry.

Powder coating

A protective layer of epoxy powder in any specified color is baked onto pre-treated products. The pre-treatment may differ per product and per application. In marine environment, the most durable solution is the combination of BIS UltraProtect® 1000 combined with powder coating.

The combined treatment reaches well over 1,000 hours in salt spray test without any signs of red rust.

Information: Surface Treatment (cont.)

Delta-Tone 9000

Delta-Tone 9000 consists of zinc and aluminium particles that are held together by an inorganic binder. This offers an effective protection against corrosion even with a limited thickness of the coating. Delta-Tone 9000 is applied in an immersion/centrifugal or spray process and then dried at a temperature of 200 °C. With this method an even layer is formed over the whole product with a thickness of 10 – 12 µm. Subsequently Delta-Tone 9000 forms a connection with the metal underneath.

In contrast to electrolytic and thermal galvanizing, with Delta-Tone 9000 there is no danger of hydrogen embrittlement in materials with an increased carbon content, such as spring steel. To improve the corrosion resistance, the process can be repeated which increases the thickness each time by 10 – 12 µm.

Products protected by Delta-Tone 9000 are suitable for outdoor use as well as moderate corrosive environments.

Surface treatment	Thickness protection layer (µm)	Hours until 5% red rust*
BIS UltraProtect® 1000	- **	1,000
Zinc plating (blue)	5 - 10	72
Pre-galvanizing	20 - 25	150
Hot dip galvanizing	50 - 80	300 - 600
Powder coating	100	1,000
Delta-Tone 9000	10 - 12	480

* Until the occurrence of maximum 5% red rust.

** Method and thickness protection layer differ per product.

Walraven products are not treated with surface treatments containing Chromium 6.

Salt-spray test

To compare the protection duration of various surface treatments, a salt-spray test is carried out according to ISO 9227. In this test products are placed in a closed cabinet and sprayed with a salt solution. The products will start to corrode. The point at which 'white' and then 'red' rust appears is noted down.

This test does not give a perfect protection duration (this depends on the surroundings in which the product is applied), but does offer a comparative view of the various surface treatments.

Information: Thermal Expansion

ABS – Acrylonitrile–Butadiene–Styrene

Temperature-resistance:

Permanently up to 70 °C, briefly up to 85 °C and to about minus 40 °C*.

Resistant to:

Formic acid, citric acid, lactic acid.

Conditionally resistant to:

Hydrochloric acid, sulphuric acid.

Not resistant to:

Acetone, petrol, benzene, solvents for paints and lacquers, butyric acid, chlorine, acetic acid, nitric acid.

PA – PolyAmide (Nylon)

Temperature-resistance:

Permanently up to about 90 °C, briefly up to about 130 °C and to about minus 40 °C*.

Resistant to:

Petrol, benzene, diesel oil, acetone, solvents for paints and lacquers, oils and greases.

Low tendency to stress cracking.

Not resistant to:

Bleach, most acids, chlorine.

PA–GV – Polyamide, fibreglass reinforced

Temperature-resistance:

Permanently up to about 100-110 °C, briefly up to 160 °C and to about minus 40 °C*.

Resistant to:

Petrol, benzene, diesel oil, acetone, solvents for paints and lacquers, oils and greases.

Low tendency to stress cracking.

Not resistant to:

Bleach, most acids, chlorine.

PE – PolyEthylene

Temperature-resistance:

Hard types permanently up to about 90 °C, briefly up to about 105 °C
soft types permanently up to about 80 °C, briefly up to about 100 °C
and to about minus 40 °C*.

Resistant to:

Alkalis and inorganic acids.

Conditionally resistant to:

Acetone, organic acids, petrol, benzene, diesel oil, most oils.

Not resistant to:

Chlorine, hydrocarbons, oxidising acids.

POM – PolyOxyMethylene

(polyacetal, polyformaldehyde)

Temperature-resistance:

Permanently up to about 100 °C, briefly up to about 130 °C and to minus 40 °C*.

Resistant to:

Acetone, ether, petrol, weak acetic acid, benzene, heating oil, oils and greases, toluene.

Not resistant to:

Methylene chloride, trichloroethylene, hydrochloric acid, nitric acid, sulphuric acid.

PP – PolyPropylene

Temperature-resistance:

Permanently about 90 °C, briefly up to about 110 °C and to about minus 30 °C*.

Resistance to chemicals generally as for polyethylene.

PS – PolyStyrene

Temperature-resistance:

Because of its relatively high sensitivity to the effects of chemicals, its use is not recommended at temperatures above normal room temperature, about 25 °C.

Resistance to cold: to about minus 40 °C*.

Resistant to:

Alkalis, most acids, alcohol.

Conditionally resistant to:

Oils and greases.

Not resistant to:

Butyric acid, concentrated nitric acid, concentrated acetic acid, acetone, ether, petrol and benzene, solvents for paints and lacquers, chlorine, diesel fuel.

PVC (hard) – PolyVinylChloride (hard)

Temperature-resistance:

Permanently up to about 65 °C, briefly up to about 75 °C and to about minus 30 °C*.

Resistant to:

Weak acids, alkalis, oils and greases, petrol.

Not resistant to:

Strong acids, benzene, acetone, iodine, toluene, trichloroethylene.

*The minus values apply only for parts in the quiescent condition with no severe impact stress.

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0200040	596	0805108	63	0835006	437	0854308	93	0880022	115
0200101	599	0805110	63	0835012	406	0854313	91	0880027	115
0200102	599	0805112	63	0835017	406	0854316	90	0880028	115
0200103	599	0805115	63	0835026	406	0854325	90	0880033	115
0200104	599	0805116	63	0835503	433	0854332	92	0880035	115
0200105	599	0805118	63	0839018	409	0854338	95	0880042	115
0200106	599	0805120	63	0840051	45	0854356	87	0880048	115
0200112	599	0805122	63	0840052	45	0854358	87	0880054	115
0200300	597	0805125	63	0840204	44	0854510	88	0880057	115
0200310	598	0805126	63	0840254	44	0854612	85	0880060	115
0635316	439	0805132	63	0840304	44	0854615	85	0880076	115
0635320	439	0811032	71	0845205	46	0854618	85	0880089	115
0635325	439	0811040	71	0845255	46	0854622	85	0880108	115
0635332	439	0811050	71	0845304	46	0854628	85	0880114	115
0635340	439	0811056	71	0845408	46	0854631	85	0880133	115
0635350	439	0811063	71	0845506	46	0854635	85	0880139	115
0635356	439	0811070	71	08505216	98	0854638	85	0880159	115
0635363	439	0811075	71	08505220	98	0854642	85	0880168	115
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0635390	439	0811090	71	08506120	98	0854654	85	0880273	115
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0635392	439	0811110	71	0853010	96	0855006	93	0880355	115
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0637291	578	0811140	71	0853015	96	0855012	83	0880406	115
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0653080	544	0811180	71	0853022	96	0855018	83	0881088	119
0657070	544	0811200	71	0853025	96	0855022	83	0881114	119
0657080	544	0814025	72	0853028	96	0855028	83	0881133	119
0657600	541	0828012	67	0853035	96	0855031	83	0881139	119
0657800	541	0828015	67	0853208	97	0855035	83	0881159	119
0657850	541	0828022	67	0853210	97	0855038	83	0881168	119
0659070	544	0828028	67	0853212	97	0855042	83	0881219	119
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0670604	535	0831017	403	0854010	81	0855822	84	0909061	397
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0670716	536	0832019	404	0854022	81	0860021	62	0909151	398
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0912025	461	1487010	103	2025010	291	2084308076	55	2149999913	612
0912027	461	1800025	104	2025012	291	2084310090	55	2151015017	603
0912030	461	1800032	104	2025014	291	2084310114	55	2151018020	603
0913032	461	1800040	104	2025016	291	2084312140	55	2152198200	603
0917015	590	1800050	104	2025020	291	2084314168	55	2154024026	603
0917017	590	1800063	104	2025022	291	2084316219	55	2154030032	603
09409005	483	1800070	104	2025024	291	2084316273	55	2154039041	603
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09481103	478	1800100	104	2055008	292	2105140	294	2154054056	603
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09482265	479	2005018	295	2055023	292	2132100603	608	2158138140	603
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09482285	479	2005035	295	2061006	293	2133000090	610	2180100010	614
09486201	480	2005040	295	2061010	293	2133000110	610	2180100020	613
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09489000	482	2005055	295	2061019	293	2133000160	610	2181160	624
09489001	482	2005060	295	2061022	293	2135032034	609	2181504	617
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09489215	481	2005070	295	2061035	293	2135050052	609	2181550	615
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1300040	100	2005080	295	2062006	293	2135075077	609	2183000	625
1300050	100	2005085	295	2062010	293	2135090092	609	2184082	625
1300060	100	2005090	295	2062013	293	2135110112	609	2210000	119
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1300075	100	2005100	295	2062019	293	2135140140	609	2210015	109
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1370160	100	2015027	290	2084306021	55	2141075077	604	2210108	109
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2212114	111	2215168	114	3027144	550	3127029	549	3188056	38
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2213015	112	2215324	114	3027169	550	3127049	549	3188075	38
2213017	112	2622010	123	3027200	550	3127056	549	3188078	38
2213021	112	2622015	123	3027219	550	3127063	549	3188090	38
2213027	112	2622020	123	31085014	23	3127067	549	3188110	38
2213033	112	2622025	123	31085019	23	3127076	549	3188125	38
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2213064	112	3008014	48	31085052	23	3127141	549	3205028	59
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33035024	50	33068360	52	33148227	29	33435061	28	3373035	14
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33035087	50	33078023	53	33168364	30	33435127	28	3374043	14
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33035137	50	33078058	53	33178029	31	33435183	28	3385018	33
33035144	50	33078065	53	33178035	31	33435194	28	3385022	33
33035153	50	33078071	53	33178045	31	33435205	28	3385028	33
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33038058	51	33078408	53	33178227	31	3363035	25	3393243	36
33038065	51	33078436	53	33178250	31	3363043	25	3396014	26
33038071	51	33078458	53	33178275	31	3363051	25	3396019	26
33048078	51	33078509	53	33178325	31	3363054	25	3396023	26
33048085	51	33138019	29	33178364	31	3363062	25	3396028	26
33048092	51	33138023	29	33178408	31	3363070	41	3396035	26
33048106	51	33138029	29	33178458	31	3363075	41	3396039	26
33048116	51	33138035	29	33178509	31	3363080	41	3396045	26
33048133	51	33138045	29	33335014	27	3363090	41	3396052	26
33048140	51	33138051	29	33335019	27	3363100	41	3396058	26
33048154	51	33138059	29	33335024	27	3363125	41	3396064	26

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3396070	26	3413054	16	4103300	143	4125031	149	4347032	553
3396079	26	3413063	16	4103315	143	4125036	149	4347040	553
3396083	26	3414018	19	4103355	143	4125038	149	4347050	553
3396091	26	3414023	19	4103400	143	4157032	552	4347056	553
3396105	26	3414028	19	4103450	143	4157040	552	4347063	553
3396115	26	3414035	19	4103500	143	4157050	552	4347075	553
3396130	26	3414043	19	4103560	143	4157070	552	4347090	553
3396140	26	3414053	19	4103600	143	4157075	552	4347110	553
3396160	26	3414063	19	4103630	143	4157080	552	4347125	553
3396169	26	3423168	17	4109070	148	4157090	552	4347160	553
3396180	26	3423210	17	4109080	148	4157100	552	4347200	553
3396200	26	3423219	17	4109090	148	4157110	552	4383032	73
3396210	26	3483018	37	4109100	148	4157125	552	4383040	73
3396225	26	3483023	37	4109110	148	4157160	552	4383050	73
3403018	16	3483028	37	4109130	148	4157200	552	4383056	73
3403023	16	3483035	37	4109150	148	4191810	78	4383063	73
3403028	16	3483043	37	4115080	142	4200008	66	4383075	73
3403035	16	3483053	37	4115100	142	4200010	66	4383090	73
3403043	16	3505015	60	4115125	142	4200012	66	4383110	73
3403053	16	3505022	60	4115140	142	4200015	66	4383125	73
3403054	16	3505028	60	4115150	142	4200022	66	4383140	73
3403063	16	3515015	60	4115160	142	4200028	66	4383160	73
3403064	17	3515022	60	4115180	142	4323070	40	4383161	73
3403070	17	3515028	60	4115200	142	4323080	40	4383200	73
3403080	17	3535015	35	4115250	142	4323100	40	4383225	73
3403091	17	3535017	35	4115315	142	4323125	40	4383250	73
3403105	17	3535021	35	4115355	142	4323150	40	4383315	73
3403114	17	3535027	35	4115400	142	4323200	40	4389930	75
3403119	17	3535033	35	4115450	142	4337040	74	4443032	70
3403125	17	3861021	61	4115500	142	4337050	74	4443040	70
3403141	17	3861027	61	4115560	142	4337056	74	4443050	70
3404018	19	3861033	61	4115600	142	4337063	74	4443056	70
3404023	19	3861043	61	4115630	142	4337075	74	4443063	70
3404028	19	3861061	61	4115710	142	4337090	74	4443070	70
3404035	19	3862040	61	4115800	142	4337110	74	4443075	70
3404043	19	3862050	61	4115900	142	4337125	74	4443080	70
3404053	19	3862070	61	4115997	142	4337160	74	4443090	70
3404063	19	3862100	61	4115998	142	4337200	74	4443100	70
3404080	21	3862125	61	4115999	142	4337250	74	4443110	70
3404091	21	3862150	61	4120080	147	4337315	74	4443125	70
3404114	21	4001080	76	4120090	147	4343025	73	4443160	70
3404141	21	4001100	76	4120100	147	4343032	73	4443200	70
3408070	43	4031080	77	4120110	147	4343040	73	4448032	69
3408075	43	4031100	77	4120130	147	4343050	73	4448040	69
3408100	43	4103080	143	4120150	147	4343056	73	4448050	69
3408125	43	4103100	143	4120180	147	4343063	73	4448056	69
3408137	43	4103112	143	4120200	147	4343075	73	4448063	69
3408150	43	4103125	143	4125001	144	4343080	73	4448070	69
3408200	43	4103140	143	4125003	144	4343090	73	4448075	69
3413014	16	4103150	143	4125004	145	4343100	73	4448080	69
3413018	16	4103160	143	4125005	145	4343110	73	4448090	69
3413023	16	4103180	143	4125006	146	4343125	73	4448100	69
3413028	16	4103200	143	4125007	146	4343160	73	4448110	69
3413035	16	4103225	143	4125008	146	4343200	73	4448125	69
3413043	16	4103250	143	4125009	129	4343250	73	4448160	69
3413053	16	4103280	143	4125010	129	4343315	73	4448200	69

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4503027	57	50122416	355	51124013	364	52021857	369	56522502	383
4503033	57	50122420	355	51124020	364	52022009	372	56522552	383
4503042	57	50122430	355	51420607	362	52022404	369	57020005	388
4503048	57	50122604	355	51420613	362	52022407	369	57020055	388
4503060	57	50122609	355	51420620	362	52022412	370	57020057	388
4503076	57	50122616	355	51420657	362	52022452	370	57020105	387
4503089	57	50122620	355	51420663	362	52022454	369	57420605	389
4503114	57	50122630	355	51420670	362	52022457	369	57420655	389
4503139	57	50123209	355	51520607	363	52023004	369	57420805	389
4503168	57	50123216	355	51520613	363	52023007	369	57420855	389
4503219	57	50123220	355	51520620	363	52023012	370	57421005	389
4535021	56	50123230	355	51520657	363	52023052	370	57421055	389
4535027	56	50124009	355	51520663	363	52023054	369	59030050	391
4535034	56	50124016	355	51520670	363	52023057	369	59131600	392
4535042	56	50124020	355	51802224	352	52090709	368	59132000	392
4535048	56	50124030	355	51802254	352	52090714	368	59132500	392
4535060	56	50320004	354	51803208	352	52090721	368	59491624	393
4535076	56	50320009	354	51803216	352	52090732	368	5952060	105
4535089	56	50320016	354	51803256	352	52091209	368	5952080	105
4535114	56	50320020	354	51803258	352	52091214	368	6003006	420
4535140	56	50320030	354	51804224	352	52091221	368	6003008	420
4535168	56	50320066	354	51805208	352	52091232	368	6003010	420
4535219	56	50327504	359	51805216	352	52323412	371	6003012	420
4601021	65	50327509	359	5191000	432	52323425	371	6003016	420
4601027	65	50327516	359	52020020	370	52323452	371	6003310	420
4601033	65	50327520	359	52020604	369	52323455	371	6003908	420
4601043	65	50327530	359	52020607	369	52350010	373	6003910	420
4601048	65	50327566	359	52020704	369	52350018	373	6003911	420
4601061	65	50327570	359	52020707	369	53122617	367	6003912	420
4608027	58	50420609	360	52020712	370	53420717	365	6015110	421
4608033	58	50420616	360	52020752	370	53420757	365	6015112	421
4608042	58	50420620	360	52020754	369	53421117	365	6070000	205
4608048	58	50420809	360	52020757	369	53421167	365	6070300	207
4608060	58	50420816	360	52020904	369	53920017	366	6070400	207
4608077	58	50425609	358	52020907	369	54020000	376	6071000	205
4608089	58	50425616	358	52020912	370	54420800	377	6071300	208
4608114	58	50520604	356	52020952	370	54421000	377	6071400	208
4608140	58	50520609	356	52020954	369	55020008	375	6071500	208
4608168	58	50520616	356	52020957	369	55922058	374	6071600	208
4608273	58	50520620	356	52021104	369	55922510	374	6072002	302
4923135	176	50520630	356	52021107	369	55922550	374	6073300	301
50020004	353	50521616	357	52021112	370	56020002	386	6073400	301
50020009	353	50620809	361	52021152	370	56030025	385	6073500	301
50020016	353	51121707	364	52021154	369	56090025	385	6073600	301
50020020	353	51121713	364	52021404	369	56090075	385	6073800	301
50020030	353	51121720	364	52021407	369	56091075	384	6076000	424
50020054	353	51122407	364	52021412	370	56520106	381	6077020	422
50020059	353	51122413	364	52021452	370	56520156	381	6077030	422
50020066	353	51122420	364	52021454	369	56521101	380	6077045	422
50020070	353	51122607	364	52021457	369	56521102	383	6077220	423
50121709	355	51122613	364	52021609	372	56521600	379	6077225	423
50121716	355	51122620	364	52021804	369	56521601	380	6077231	423
50121720	355	51123207	364	52021807	369	56521602	383	6077238	423
50121730	355	51123213	364	52021812	370	56521652	383	6077244	423
50122404	355	51123220	364	52021852	370	56521654	382	6077720	586
50122409	355	51124007	364	52021854	369	56522501	380	6077730	586

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6077745	586	6099987	513	6110063	525	6143930	447	6223810	539
6078008	425	6099988	513	6110092	525	6143935	447	6223812	539
6078010	425	6099989	513	6110234	525	6143950	447	6223815	539
6078031	303	6099990	509	6110263	525	6143990	447	6229903	527
60963604	504	6099991	509	6110334	525	614581213	322	6229904	528
60963665	504	6099992	510	6114053	529	614581216	322	6253006	502
6097017	514	61001005	523	6114121	529	614581614	322	6253104	501
6097018	514	61001006	523	6114143	529	614581616	322	6253106	501
6097020	514	61001008	523	6117063	532	6147825	588	6253304	503
609831080	496	61001010	523	6117153	532	6147840	588	6253306	503
609831081	496	61001012	523	6118331	533	6147860	588	6253408	503
609831082	496	61001014	523	6118371	533	6148025	588	6253418	503
609831100	496	6100706	522	6118411	533	6148040	588	6253428	503
609831101	496	6100708	522	6118461	533	6148060	588	6253438	503
609831102	496	6100710	522	6119141	531	61480830	446	6253506	503
609831120	496	6100712	522	6119171	531	61480860	446	6253509	503
609831121	496	6101063	94	6119641	531	61480880	446	6253510	503
609831160	496	6103006	487	6119653	531	61481030	446	6253512	503
609832120	499	6103008	487	6119731	531	61481060	446	6253606	500
609832121	499	6103010	487	6119753	531	61481080	446	6253696	500
609832150	499	6103012	487	6123006	451	61481230	446	6263606	441
609832151	499	6103016	487	6123008	451	61481260	446	6263609	441
609832180	499	6103106	488	6123010	451	61481280	446	6263612	441
609837080	497	6103108	488	6123012	451	6148225	588	6263615	441
609837081	497	6103110	488	6123016	451	6148240	588	6263805	441
609837082	497	6103112	488	6123020	451	6174413	452	6263806	441
609837100	497	6103116	488	6123021	451	6174516	452	6263808	441
609837101	497	6103206	490	6127006	589	6174519	452	6263810	441
609837102	497	6103208	490	6127008	589	6183805	458	6263812	441
609837120	497	6103210	490	6127010	589	6183806	458	6263815	441
609837121	497	6103212	490	6127012	589	6183807	458	6263816	441
609837122	497	6103510	505	6127016	589	6183808	458	6263818	441
609837123	497	6103512	505	61281008	450	6183809	458	6263820	441
609837160	497	6103608	495	61281010	450	6183810	458	6267805	587
609871080	498	6103610	495	61281012	450	6183812	458	6267808	587
609871081	498	6103612	495	6133010	456	6185405054	459	6267810	587
609871100	498	6103616	495	6133011	456	6185505054	459	6267812	587
609871101	498	6103632	534	6133012	456	6185506044	459	6267816	587
609871120	498	6103708	489	6133015	456	6185606044	459	62680810	440
609871121	498	6103710	489	61380825	455	61863002	530	62680820	440
60990811	517	6103712	489	61380860	455	6193006	458	62681010	440
60991013	517	6103716	489	61380880	455	6193008	458	62681020	440
60991016	517	6103838	534	61381025	455	6193010	458	6283006	441
6099113	507	6103860	534	61381030	455	6213006	390	6283008	441
60991219	517	6103960	534	61381230	455	6213008	390	6283010	441
6099123	508	6105400	526	61381260	455	6213010	390	6283011	441
6099124	508	6105501	526	6143620	447	6213106	390	6283012	441
6099125	508	6105502	526	6143630	447	6213206	390	6283014	441
6099126	508	6105601	526	6143816	447	6213208	390	6283018	441
6099127	508	6105603	526	6143820	447	62230503	524	6283020	441
60991622	517	6107006	494	6143825	447	62230604	524	6283210	441
6099980	511	6107008	494	6143835	447	62230606	524	6283212	441
6099981	511	6107010	494	6143860	447	62230806	524	6283214	441
6099982	511	6107012	494	6143880	447	62230808	524	6287006	587
6099985	512	61073134	521	6143920	447	62230810	524	6287008	587
6099986	513	61073224	521	6143925	447	6223808	539	6287012	587

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6287016	587	6313818	466	6473008	476	6505325	224	6517310	559
6293221	471	6313820	466	6473206	476	6505342	224	6517706	570
6293233	471	63181010	465	6473210	476	6505344	224	6517708	570
6298221	470	63181020	465	6473212	476	6505345	224	6517710	570
6298233	470	6323002	466	6473221	476	6505365	224	6517712	570
6303006	469	6323004	466	6473308	476	6505385	224	65178016	253
6303008	469	6323005	466	6473312	476	6505515	155	6518006	252
6303010	469	6323006	466	6473316	476	6505600	155	6518008	252
6303012	469	6323007	466	6473321	476	6505601	155	6518010	252
6303014	469	6323008	466	6473408	476	6505602	155	6518012	252
6303016	469	6323009	466	6473410	476	6505615	155	6518106	252
6303020	469	6323010	466	6473416	476	6505622	224	6518108	252
6303024	469	6323012	466	6473421	476	6505624	224	6518110	252
6303206	469	6323016	466	6473510	476	6505625	224	6518112	252
6303208	469	6323018	466	6473512	476	6505626	226	6518206	252
6303210	469	6323020	466	6473521	476	6505630	155	6518208	252
6303212	469	63281010	465	6473621	476	6505635	155	6518210	252
6303216	469	63281020	465	6473721	476	6505642	224	6518212	252
6303306	469	6333618	540	6477210	594	6505644	224	6518606	256
6303308	469	6333625	540	6477308	594	6505645	224	6518608	256
6303310	469	6333630	540	6501646	227	6505646	226	6518610	256
6303312	469	6333640	540	6501666	227	6505665	224	6518612	256
6303316	469	6333655	540	6501686	227	6505666	226	651867006	571
63039108	515	6353635	442	65018227	225	6505685	224	651867008	571
63039110	515	6353650	442	65018242	225	6505686	226	651867010	571
63039112	515	6353680	442	65018247	225	65058252	223	651867012	571
63039116	515	6353850	442	65018327	225	65058352	223	651868006	255
6307006	592	6353860	442	65018342	225	65058652	223	651868008	255
6307008	592	6353880	442	65018347	225	6507001	555	651868010	255
6307010	592	6353890	442	65018367	225	6507002	555	651868012	255
6307012	592	6373640	538	65018627	225	6507015	555	65188006	250
6307016	592	6373850	538	65018642	225	6507347	566	65188008	250
6307020	592	6413006	473	65018647	225	6507627	566	65188010	250
63079108	516	6413008	473	65018667	225	6507646	567	65188012	250
63079110	516	6413158	472	65018687	225	6507647	566	6519006	178
63079112	516	6413258	472	65019610	318	6511008	560	6519008	178
63079116	516	6413358	472	65019612	318	6511010	560	6519010	178
63081008	467	6413458	472	6505000	155	6511012	560	6519910	180
63081010	467	6413558	472	6505001	155	6513006	178	6519911	180
63081012	467	6413658	472	6505002	155	6513008	178	6519912	180
63081016	467	6453016	475	6505003	157	6513010	178	6519913	180
63082008	467	6453240	475	6505015	155	6513106	177	6520100	184
63082010	467	6453625	475	6505030	155	6513108	177	6520110	184
63082012	467	6453830	475	6505222	224	6513110	177	6520200	184
63082016	467	6453930	475	6505224	224	6513208	182	6520210	184
6313802	466	6453940	475	6505225	224	6513709	181	65219204	321
6313803	466	6455006	477	6505235	155	6515008	179	65219207	321
6313804	466	6455008	477	6505242	224	6515010	179	6523002	183
6313805	466	6455010	477	6505244	224	6515012	179	6523003	183
6313806	466	6457240	593	6505245	224	6517006	251	6523004	183
6313807	466	6457625	593	6505293	158	6517008	251	6523005	183
6313808	466	6457830	593	6505294	158	6517010	251	6523006	183
6313809	466	6457930	593	6505297	159	6517012	251	6523008	183
6313810	466	6458240	474	6505298	159	6517016	254	6523010	183
6313812	466	6458830	474	6505322	224	6517306	559	6523016	183
6313815	466	6458940	474	6505324	224	6517308	559	6523602	183

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6523603	183	6533512	262	6571404	582	6594031	289	6603886	230
6523604	183	6535008	189	6571711	584	6594032	289	6603923	228
6523802	183	6535010	189	6571721	584	6594035	288	6603926	228
6523803	183	6535109	189	6571731	585	6601894	231	6603928	228
6523804	183	6535110	189	6571751	585	6601911	162	6607120	556
6523805	183	6535112	189	6571804	569	6601912	162	6607230	556
6523806	183	6535312	190	6581800	319	6601913	162	6607250	556
6523807	183	6537006	562	6581801	319	6601914	162	6607861	568
6523808	183	6537008	562	6583060	203	6601915	162	6607862	568
6523809	183	6537010	562	6583090	203	6603010	170	6607863	568
6523810	183	6537012	562	6583109	194	6603015	160	6607864	568
6523812	183	6537016	562	6583113	194	6603019	160	6607865	568
6523815	183	6537508	573	6583309	195	6603115	160	6607870	568
6523818	183	6537510	573	6584001	192	6603120	160	6607873	568
6523820	183	6537512	573	6584002	192	6603125	160	6607874	568
6525004	185	6537813	563	6584003	192	6603130	160	6613200	163
6525203	185	65381008	186	6584011	192	6603215	160	6613235	163
6525803	185	65381010	186	6584051	193	6603220	160	6613250	164
6525804	185	65381012	186	6584052	193	6603225	160	6613300	165
6525806	185	65381016	186	6584053	193	6603230	160	6613820	171
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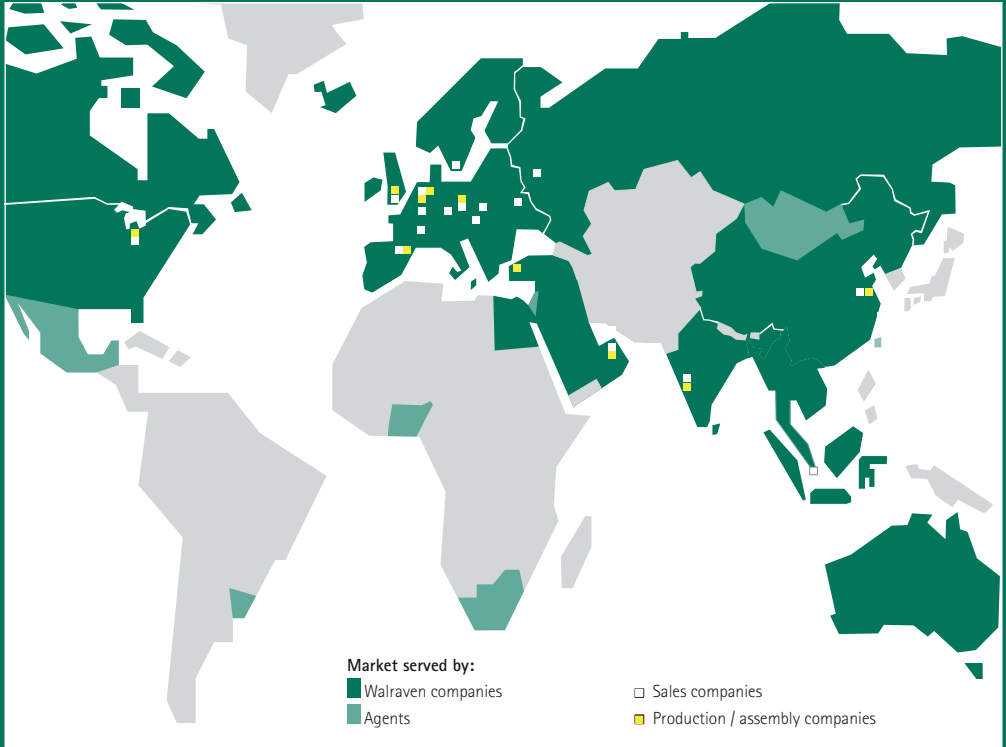
J. van Walraven Holding B.V. declares that research was done into the applicability of CE marking for all Walraven pipe support products. Research showed that, at present, no CE marking following the Construction Products Directive (305/2011/EU) is applicable for these products.

Furthermore, J. van Walraven Holding B.V. declares that as soon as any legal obligation following the Construction Products Directive will be applicable to one or more of Walraven's pipe support products, J. van Walraven Holding B.V. will comply with all legal obligations.

The quality and/or surface treatment of any adjoining components, as well as climate conditions, may alter the performance or corrosion resistance of Walraven products. If required, please consult us for more information before use. Our company cannot be held liable for any loss or damage caused by non-compliance, or by any non authorised modification to the product.

For questions and / or comments regarding the content of this catalogue you can send an email to nl-mijd-catalogue@walraven.com.

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