



General Information Usage Instructions

3,14
Pipe Clip 2 Screw
2 Screw pipe clip with sound insulation
Material : Steel DD11 - EN 10111
EPDM/SBR black SHORE A = 45[±]5°
Temperature durability: -50°C up to +110°C
Sound insulation value on average: 22 dB(A)
Finish : Electro zinc plated - EN ISO 12229

Standard R

Art. No.	D	D	H	L	W	H	HT	T	S	P2	EuroPU	PU	100	
	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)				
1250158	3/8	14.0-17.0	M8	55	20	34	20	1.0	M5	0.600	82.16	100	3.7	100
1250166	3/8	17.0-20.0	M8	58	20	36	22	1.0	M5	0.8	83.04	100	4.0	100
1250229	1/2	21.0-24.0	M8	59	20	40	23	1.0	M5	0.600	84.22	100	4.4	100
1250289	3/4	27.0-30.0	M8	60	20	46	26	1.0	M5	0.600	86.39	100	4.9	100
1250358	1	33.0-36.0	M8	73	20	62	30	1.0	M5	0.600	90.26	100	5.9	100
1250408		38.0-41.0	M8	79	20	68	31	1.0	M5	0.600	94.25	100	5.9	100
1250428	1 1/4	42.0-45.0	M8	82	20	80	34	1.0	M5	0.600	94.25	100	6.3	50
1250488	1 1/2	48.0-51.0	M8	89	20	86	37	1.0	M5	0.600	96.40	100	6.7	50
1250548		54.0-57.0	M8	96	20	73	41	1.5	M5	1.400	105.84	100	9	50
1250608	2	59.0-62.0	M8	101	20	79	43	1.5	M5	1.400	108.13	100	10.2	50
1250708		67.0-72.0	M8	116	25	94	53	1.5	M5	1.900	141.60	100	14.7	50
1250788	2 1/2	72.0-78.0	M8	123	25	100	56	1.5	M5	1.900	142.65	100	14.9	50
1250888	3	84.0-89.0	M8	134	25	109	61	1.5	M5	2.300	166.02	100	19.9	50
1251148	4	109.0-114.0	M8	162	29	139	81	1.5	M5	2.900	198.01	100	23.9	50
1251015		14.0-17.0	M8 / M10	55	20	34	20	1.0	M5	0.600	80.19	100	3.7	100
1251018	3/8	17.0-20.0	M8 / M10	58	20	36	22	1.0	M5	0.600	82.02	100	4	100
1251022	1/2	21.0-24.0	M8 / M10	60	20	40	23	1.0	M5	0.600	83.21	100	4.4	100
1251029	3/4	27.0-30.0	M8 / M10	66	20	46	26	1.0	M5	0.600	83.63	100	4.9	100
1251035	1	33.0-36.0	M8 / M10	73	20	62	30	1.0	M5	0.600	87.24	100	5.9	100
1251040		38.0-41.0	M8 / M10	79	20	68	31	1.0	M5	0.600	88.24	100	5.9	100
1251042	1 1/4	42.0-45.0	M8 / M10	82	20	80	34	1.0	M5	0.600	88.24	100	6.3	50
1251048	1 1/2	48.0-51.0	M8 / M10	89	20	86	37	1.0	M5	0.600	88.43	100	6.7	50
1251054		54.0-57.0	M8 / M10	96	20	73	41	1.5	M5	1.400	122.68	100	9	50
1251060	2	59.0-62.0	M8 / M10	101	20	79	43	1.5	M5	1.400	125.13	100	10.2	50
1251070		67.0-72.0	M8 / M10	116	25	94	53	1.5	M5	1.900	151.63	100	14.7	50
1251076	2 1/2	72.0-78.0	M8 / M10	123	29	100	56	1.5	M5	1.900	152.68	100	14.9	50
1251089	3	84.0-89.0	M8 / M10	134	25	109	61	1.5	M5	2.300	176.96	100	19.9	50
1251114	4	109.0-114.0	M8 / M10	162	29	139	81	1.5	M5	2.900	198.03	100	23.9	50

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1 Product description

2 Material description

3 Standard finish description

4 Product picture

5 Table with product numbers & technical data

6 Page number, section 1 - page 1




7 Technical drawing of product with main dimensions

8 Product approvals

9 Catalogue edition



Abbreviations used in product tables

D	(mm)	Diameter
DN		Diameter nominal
OD	(mm)	Outside diameter
G		Thread dimension
L	(mm)	Length
ΔL	(mm)	Slide movement
W	(mm)	Width
H	(mm)	Height
T	(mm)	Thickness
LxW		Slot Dimension (length x width)
R		Radius
S		Screw dimension
F3	(kN)	Maximum allowable tensile load
F4	(kN)	Maximum allowable slip load
δmax	(mm)	Maximum deflection
f=1/200L		Deflection limit at 1/200 of the span
f=1/360L		Deflection limit at 1/360 of the span
T	(kN)	Tightening Torque
λ	(W/(m.K))	Thermal conductivity
μ		Water Vapour Permeability
kg/m		Weight per meter
 /100		Weight per 100 pieces
PU		Price Unit
h/PU		List Price per Price Unit
		Box quantity
		Thickness
Wy	(cm ³)	Section modulus Axis y-y
iy	(cm)	Radius of gyration
Iy	(cm ⁴)	Moment of inertia Axis y-y
e1	(mm)	Centre of gravity

Approvals Reference List

	Factory Mutual Research approval
	ISO 9001 approved products
	Underwriters Laboratories approval
	Loss Prevention Certification Broad approval
	German product approval
	France product approval
	German Building approval
	Fire rating approval
	German RAL approval



Technical information channels & fittings

Introduction

Unistrut channels and fittings offer total flexibility in design and construction of assemblies for framing applications.

Unistrut products are available in a range of materials and finishes. These finishes offer differing degrees of corrosion protection for use in a variety of environments. Where required, factory decorative finishes, such as powder coating, are available to order.

Materials

Channels are cold rolled from 1.5mm, 2.0mm and 2.5mm steel strip and are available in Plain Oiled Mild Steel, Pre-Galvanised Mild Steel, Hot-Dip Galvanised Mild Steel, Stainless Steel A4 1.4404 and Stainless Steel A2 1.4301 Mild Steel channels are rolled using material formed from BS EN 10149-3 guaranteed yield 280/Nmm² and minimum ultimate tensile strength 370/Nmm².

Unistrut fittings are pressed from hot rolled, pickled and oiled plate, or strip steel mainly from grade HR1P of grade Z275 mild steel.

Unistrut nuts, with the exception of type PNP16ZP are made from SAE 1010 cold heading quality steel bar. The M12 and M16 version are case hardened after manufacturing.

Finishes

Hot-Dip Galvanised

Channels are Hot-Dip Galvanised in accordance with EN ISO1461. The minimum average Zinc Coating is as follows: Cold rolled from 1.5mm, 2.0mm and 2.5mm steel-325g/m². The mean Coating thickness is 45µ. Fittings spun galvanised – (Weight) 335g/m²

Pre-Galvanised

Pre-Galvanising is to BS EN 10147 1992 (Coating Z275) The mean coating thickness is approximately 20µ.

Plated

Channel nuts and bolts are zinc electroplated according to EN ISO 12229.

Range

Channels are available in plain, continuous slotted and in multiple channel combinations. Channels with a height of 21mm are available with slots 25x11mm.

Channels with a height of 41mm or more are available with slots 28x14mm all slot patterns have a pitch of 50mm. Combination channels manufactured from Pre-Galvanised steel are spot welded, whilst Hot-Dip Galvanised channels are continuous seam welded.

Standard channel lengths are 2m, 3m or 6m.

Cut channel lengths can be supplied subject to a cutting charge.

Weights

The weights published in this catalogue are generally based on Pre-Galvanised channel. Weights may vary slightly with other finishes.

Ordering

The product numbers for the channels can be determined according to the below mentioned matrix.

Product code matrix Unistrut channels

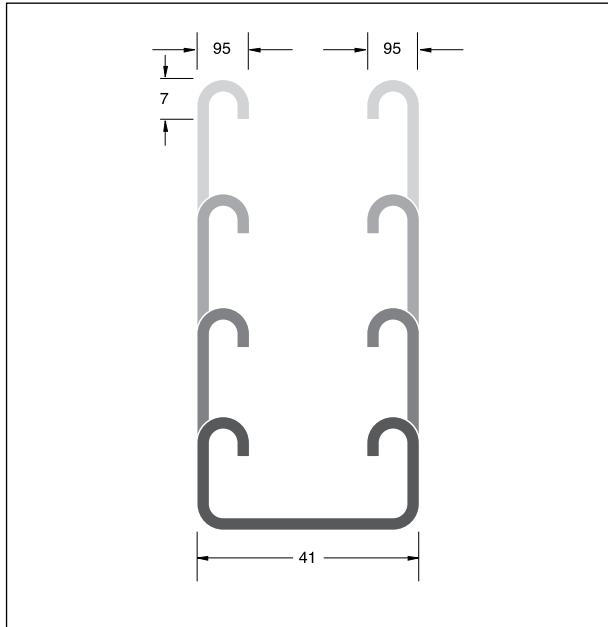
P10 P1000	1 single	1 serrated 2 mm	1 no perforations	1 plain oil	1 1 meter long
P11 T1100	2 double welded	2 serrated 4 mm	2 14x28 mm	2 pre galvanised	2 2 meter long
P20 P2000	3 double cont. s.w.		perforation	3 hot dip galvanised	3 3 meter long
P31 T3100	4 70 mm flat plate		3 11x25 mm	4 stainless A4 1.4404	6 6 meter long
P33 P3300	5 60 mm flat plate		perforation	5 Zinc plated	
P40 P4000			4 14 mm post pierce	6 Delta-Tone	
P50 P5000			5 13x45 & 17 mm	7	
P55 P5500			6 14 mm perforation	8 Brass	
P80 P8000				9 stainless A2 1.4301	



Technical information channels

Introduction

Unistrut channels are produced in a range of sizes from either 1.5, 2.0, 2.5 or 3.0mm gauge strip steel. The profile width and the intumed channel lip remains constant throughout the range, permitting the comprehensive selection of fittings and channel nuts to be used for all channels.



Standard Unistrut channel ensures a high load carrying capacity whilst the thinner Uni range channel provides economical support for lighter loads, maintaining total flexibility in the design and construction of assemblies required for framing applications.

Performance

Unistrut channels meet the requirements of BS 6946: 1988 and RAL-42 655/2. Detailed information about the technical performance of Unistrut channel is provided in the catalogue. Data published is based on mild steel channel.

Our technical department will be pleased to advise on any additional information relating to the design and use of Unistrut products.

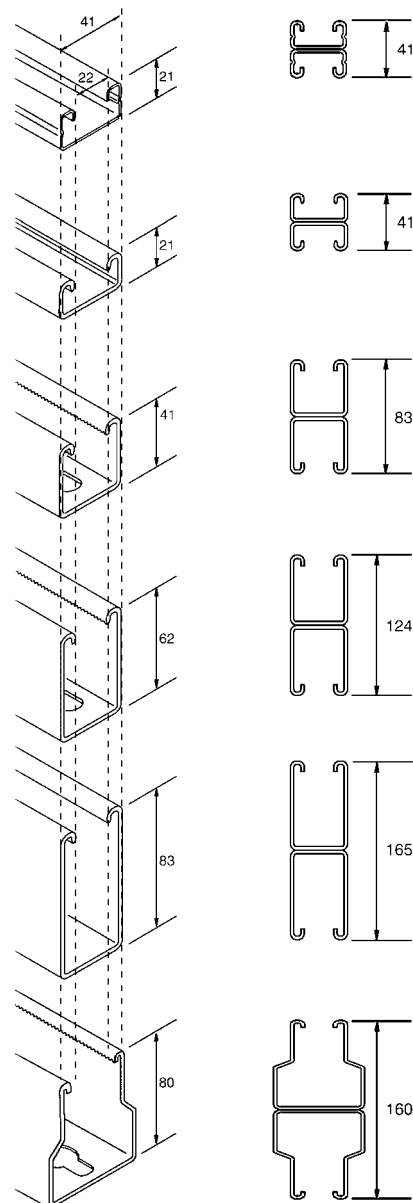
Beam loads

Allowable uniformly distributed loads are shown for various simple spans (ie. beam on two supports with adequate lateral restraint). For loads concentrated at the centre of the spans, multiply the load by 0.5 and the deflection by 0.8.

Stress 175N/mm^2 is recommended on long spans where deflection is not a factor (guaranteed yield 280N/mm^2).

Deflection $1/200$ span is recommended to avoid undue deflections.

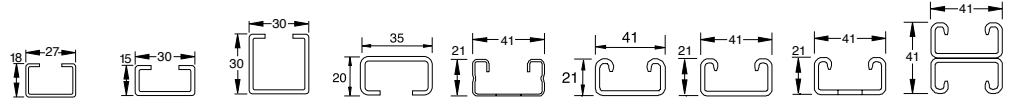
Deflection $1/360$ span is recommended where imperceptible deflection is required.





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Support Overview & Load Data



Channel:	UNI0	UNI1	UNI2	UNI3	T4000T	T3100T	P3300	P3300T10	P3301T10
Technical details:									
Wall thickness t (mm)	1.25	2.0	2.0	2.5	1.5	2.0	2.5	2.5	2.5
Area of section A (cm ²)	0.715	1.044	1.64	1.72	1.30	1.74	2.32	1.97	4.64
Weight (Kg/m)	0.61	0.89	1.3	2.5	1.16	1.43	1.91	1.76	3.76
Standard length (m)	2.3 & 6	2.3 & 6	2.3 & 6	2 & 6	2.3 & 6	3 & 6	3 & 6	3 & 6	3 & 6
Outer dimensions HxW (mm)	18x27	15x30	30x30	20x35	21x41	21x41	21x41	21x41	41x41
Slot size LxW (mm)	20x10.5	20x10.5	20x10.5	20x10.5	25x11	25x11	plain	25x11	25x11
Slot pitch (mm)	50 mm	50 mm	50 mm	50 mm	50 mm	50 mm		50 mm	50 mm

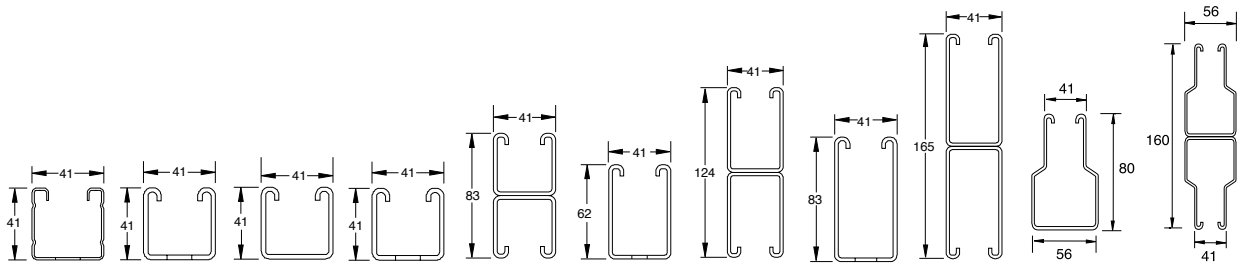
Finish:	I = on application		I = standard							
Plain oil	1									
Pre galvanised	2									
Hot dip galvanised	3									
Stainless steel A4 1.4404										
Stainless steel A2 1.4301										

Elements of section:																			
Axis X-X																			
Centre of gravity 1 e1 (mm)		9.44	7.94	15.6	10.58	10.69	11.33	12.28	11.01	20.63									
Centre of gravity 2 e2 (mm)		8.56	7.06	14.4	9.42	9.96	9.67	8.35	9.62	20.63									
Moment of Inertia Iy (cm ⁴)		0.30	0.29	1.75	0.87	0.75	0.96	1.19	0.98	5.64									
Section modulus Wy (cm ³)		0.32	0.36	1.12	0.82	0.70	0.88	0.97	0.89	2.73									
Radius of gyration Iy (cm)		0.65	0.53	1.03	0.71	0.76	0.74	0.71	0.70	1.10									
Allowable stress Gmax (N/mm ²)		140	140	140	140	160	175	175	175	175									
Axis Y-Y																			
Moment of Inertia Iz (cm ⁴)		0.94	1.5	2.68	3.15	3.64	4.63	5.34	5.29	10.68									
Section modulus Wz (cm ³)		0.70	1.0	1.79	1.85	1.76	2.24	2.59	2.56	5.18									
Radius of gyration Iz (cm)		1.15	1.2	1.27	1.36	1.67	1.63	1.51	1.63	1.51									

Point Load:																			
		Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)
250		0.716	0.37	0.874	0.44	2.620	0.22	1.836	0.33	1.957	0.41	2.295	0.39	2.712	0.36	2.492	0.40	7.613	0.21
500		0.357	1.48	0.434	1.75	1.308	0.89	0.916	1.31	0.976	1.66	1.145	1.55	1.354	1.45	1.246	1.61	3.806	0.86
750		0.237	3.34	0.288	3.94	0.869	2.00	0.607	2.95	0.652	3.73	0.760	3.49	0.903	3.26	0.829	3.63	2.536	1.94
1000		0.176	5.94	0.214	7.02	0.649	3.56	0.452	5.25	0.486	6.63	0.567	6.20	0.677	5.79	0.623	6.46	1.903	3.44
1250		0.140	9.33	0.170	11.04	0.516	5.57	0.358	8.21	0.387	10.37	0.450	9.69	0.540	9.06	0.495	10.09	1.521	5.38
1500		0.116	13.54	0.139	15.87	0.426	8.02	0.296	11.88	0.324	14.94	0.372	13.99	0.451	13.04	0.412	14.54	1.265	7.74
1750		0.097	18.28	0.118	21.83	0.363	10.97	0.251	16.24	0.280	20.33	0.316	19.10	0.387	17.75	0.353	19.78	1.084	10.54
2000		0.084	24.09	0.100	28.32	0.314	14.33	0.216	21.24	0.240	26.55	0.275	25.10	0.338	23.19	0.309	25.84	0.952	13.77
2250		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.844	17.42
2500		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.760	21.49
2750		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.692	26.03
3000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.633	30.98



Support Overview & Load Data



T2000T	T1100T	P1000	P1000T	P1001T	P5500T	P5501T	P5000T	P5001	P8000T	P8001T
1.5	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.0	3.0
1.92	2.51	3.35	3.00	6.00	4.03	8.76	5.06	10.82	6.36	12.71
1.72	2.18	2.88	2.73	5.47	3.60	7.50	4.48	9.26	5.39	10.78
3 & 6	3 & 6	3 & 6	3 & 6	3 & 6	3 & 6	3 & 6	3 & 6	3 & 6	3 & 6	3 & 6
41x41	41x41	41x41	41x41	83x41	62x41	124x41	83x41	165x41	80x56	160x56
28x14	30x14	plain	28x14	28x14	28x14	28x14	28x14	28x14	13x40	13x40
50 mm	50 mm		50 mm	50 mm	50 mm	50 mm	50 mm	50 mm	60.7 mm	60.7 mm

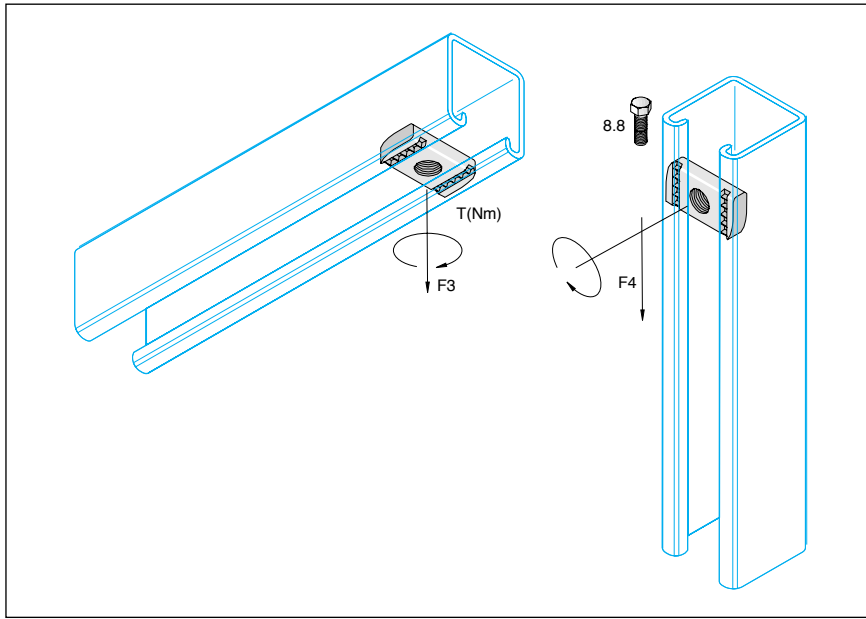
20.82	20.64	23.26	21.30	41.30	31.60	61.98	41.90	82.60	45.44	80.00
20.48	20.36	18.04	20.00	41.30	30.38	61.98	40.70	82.60	34.56	80.00
4.24	5.33	7.21	6.10	36.21	17.67	109.76	37.76	243.17	51.8	257.3
2.04	2.58	3.10	2.87	8.77	5.59	17.70	9.01	29.44	11.4	32.2
1.48	1.42	1.46	1.42	2.45	2.09	3.53	2.72	4.74	2.85	4.50
160	175	175	175	175	167	167	132	132	160	160
6.10	9.17	9.23	9.17	18.34	13.07	26.26	16.95	34.00	27.77	55.54
2.95	4.44	4.47	4.44	8.88	6.33	12.72	8.21	16.48	9.92	19.84
1.78	1.74	1.66	1.74	1.74	1.79	1.72	1.82	1.77	2.09	2.09

Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)	Fmax (kN)	fmax (mm)
5.710	0.21	6.605	0.19	8.677	0.18	8.034	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.855	0.84	3.302	0.77	4.336	0.76	4.017	0.84	-	-	-	-	-	-	-	-	-	-	14.580	00.35	-	-
1.903	1.89	2.202	1.73	2.889	1.72	2.678	1.88	8.182	0.97	4.964	1.20	-	-	6.298	0.71	-	-	9.712	0.79	-	-
1.428	3.36	1.651	3.07	2.168	3.06	2.006	3.34	6.136	1.72	3.723	2.14	-	-	4.724	1.27	-	-	7.270	1.40	20.500	0.79
1.138	5.25	1.321	4.80	1.731	4.78	1.604	5.23	4.910	2.69	2.977	3.34	-	-	3.777	1.98	12.267	1.00	5.805	2.19	16.426	1.24
0.952	7.63	1.101	6.92	1.442	6.88	1.339	7.53	4.091	3.87	2.482	4.82	7.873	2.46	3.149	2.86	10.222	1.44	4.825	3.15	13.665	1.79
0.804	10.41	0.944	9.41	1.236	9.36	1.148	10.25	3.057	5.27	2.124	6.55	6.749	3.34	2.698	3.89	8.760	1.96	4.125	4.29	11.690	2.44
0.701	13.66	0.826	12.29	1.084	12.23	1.001	13.38	3.066	6.89	1.859	8.56	5.906	4.38	2.359	5.09	7.667	2.56	3.595	5.60	10.205	3.19
0.623	17.43	0.734	15.56	0.961	15.48	0.893	16.94	2.727	8.72	1.653	10.84	5.248	5.54	2.099	6.44	6.813	3.24	3.185	7.10	9.045	4.03
0.553	21.08	0.660	19.21	0.863	19.11	0.800	20.92	2.453	10.77	1.486	13.38	4.724	6.83	1.888	7.94	6.131	4.00	2.855	8.78	8.119	4.99
0.500	25.59	0.600	23.24	0.785	23.13	0.726	25.31	2.232	13.02	1.354	16.19	4.292	8.27	1.717	9.62	5.577	4.84	2.585	10.69	7.357	6.04
0.454	30.47	0.550	27.66	0.721	27.52	0.667	30.12	2.045	15.50	1.241	19.27	3.934	9.84	1.575	11.45	5.111	5.77	2.355	12.66	6.720	7.19



1.008

Technical Information Channel Nuts



	Art. Nr. 5	T (Nm)	F3 kN	F4 kN
 P1000 41 2	PNP06ZP	12	4,70	0,49
	PNP08ZP	28	5,78	1,56
	PNP10ZP	55	6,86	3,40
	PNP12ZP	95	8,82	5,88
	PNP16ZP	125	10,30	7,35
	M16SN*	95	8,82	
 P3300 21 41 2	PNP06ZP	12	4,70	0,49
	PNP08ZP	28	5,78	1,56
	PNP10ZP	55	6,86	3,40
	PNP12AZ	60	6,86	2,64
	M16SN*	95	8,82	
 P4000 21 41 2	PNP06ZP	12	3,33	0,49
	PNP08ZP	28	3,53	1,56
	PNP10ZP	40	3,92	1,66
	PNP12AZP	40	4,41	1,96
	M16SN*	40	3,92	
 T1100 41 2	PNP06ZP	12	3,45	0,49
	PNP08ZP	28	4,65	1,56
	PNP10ZP	55	5,4	2,5
	PNP12ZP	55	6,6	4,55
 T3100 21 41 2	PNP06ZP	12	3,45	0,49
	PNP08ZP	28	4,65	1,56
	PNP10ZP	55	5,4	2,5
	PNP12AZP	55	5,65	4,55

	Art. Nr. 4	T (Nm.)	F3 kN	F4 kN
 P1000 41 4	PNP06SS	6,5	2,45	0,19
	PNP08SS	16	4,41	0,49
	PNP10SS	31,5	6,86	1,17
	PNP12ASS	55	6,86	1,66
	PNP16SS	125	10,30	3,92
 P3300 21 41 4	PNP06SS	6,5	2,45	0,19
	PNP08SS	16	4,41	0,49
	PNP10SS	31,5	6,86	1,17
	PNP12ASS	55	6,86	1,66

*M16SN Hot forged



Technical Information Unistrut Fittings

Standard dimensions

The dimensions shown relate to all Unistrut fittings except where noted on the part drawing. (see Fig. B)

Fitting Thickness	: 6 mm unless stated
Hole Size	: 14 mm diameter
Hole Spacing	: 20 mm from end of fitting 48 mm centre to centre
Fitting Width	: 40 mm unless otherwise stated

All dimensions subject to commercial tolerances

Fitting Application

All part drawings illustrate only one application of each fitting. In most cases many other applications are possible. The Unistrut members shown in the illustration are P1000, 41 mm square except where noted otherwise. All 14 mm diameter holes use 12 mm x 25 mm hex head screws quality 8.8 and 12 mm Unistrut nuts PNP12ZP depending on the Unistrut channel used. Nuts and bolts are not included with the fitting and must be ordered separately.

Design load data

Where applicable, design data is based on a minimum safety factor of 2,5.

Many load diagrams indicate different design loads. These loads vary with the thickness of the steel from which the Unistrut channel is formed.

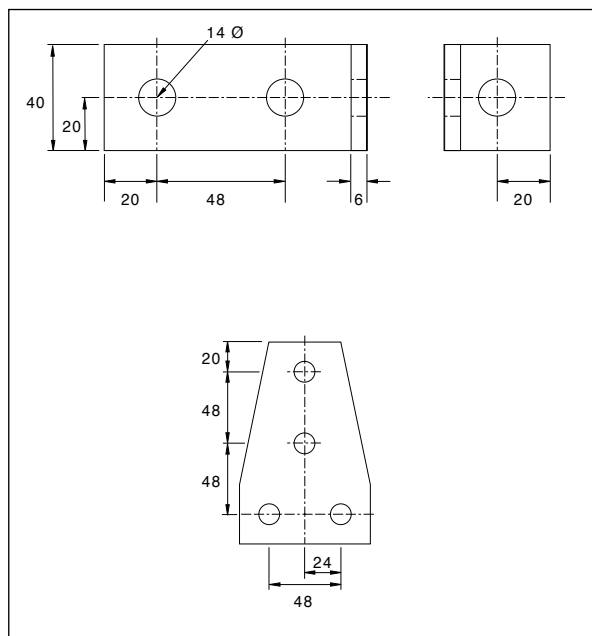
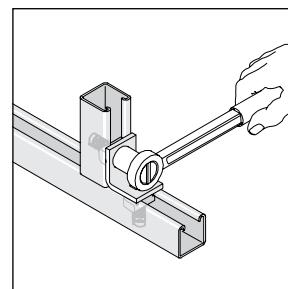
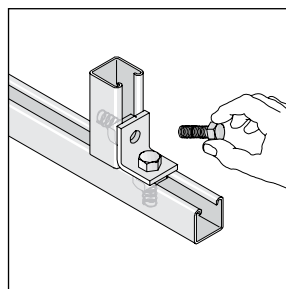
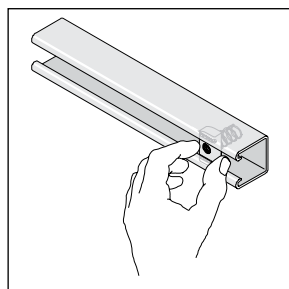
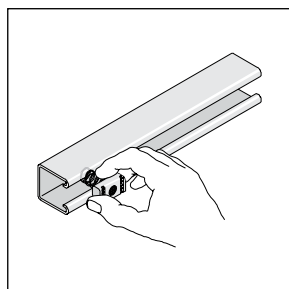


Fig. B





1.010

Pipeclips Clamping Ranges

Pipe Diameter		Mini	Perfekt 1-S	Standard N	Standard R&SS Clamping range	Perfekt-N	Perfekt-R	Solid N	Solid R	Solid S	DIN 3567A	PUN	KS	GKS	Massiv-R-SS	Massiv-N-SS	
DN mm	Inch																
10		10						15-19	14-18	14-18				10	10		
12		12			14-17									12			
13	1/4"				14-17											14-20	14-20
15		15	15-16	17-20	14-17		15-20	20-24	19-23	19-23		15	15	15		14-20	14-20
16		16	15-16	17-20	17-20		15-20									14-20	14-20
18	3/8"	18	17-18	17-20	17-20	18-20	15-20					18	18			14-20	14-20
19			17-18	17-20	17-20	18-20	15-20									14-20	14-20
20			21-22	21-24	17-20	18-20	21-25	25-30	24-28	24-28				20	20-26	20-26	
22	1/2"	22	21-22	21-24	21-24	21-25	21-25		29-33	29-33	22	22	22		20-26	20-26	
23			21-22		21-24	21-25	21-25		29-33	29-33					20-26	20-26	
25			21-22		27-30*	21-25	21-25	31-35	33-37	33-37				25	25	20-26	20-26
28	3/4"	28	27-28*		27-30	27-32	26-31	36-41				28	28		25-31	25-31	
28	3/4"	28	27-28	32-34	27-30	27-32	26-31	36-41			27	28	28		25-31	25-31	
32			27-28	32-34	33-36	27-32	32-36	40-45	40-45	40-45				30	32	32-38	32-38
35	1"	35	33-35	38-41	33-36	33-38	32-36				34	35	35		32-38	32-38	
38			34-35	38-41	38-41	33-38									32-38	32-38	
40			40-41*	40-43	38-41	42,5-46*	42-46*	48-53	47-52	47-52				40	40-46	40-46	
42	1 1/4"	42	40-41		42-43	42,5-46	42-46	54-59	53-58	53-58	43	42	2/44,5		40-46	40-46	
46			42-43	48-51		42,5-46	42-46	54-59	53-58	53-58					40-46	40-46	
48	1 1/2"	48	48-49*	48-51	48-51	48,5-53	46-50	54-59	53-58	53-58	49	48	48		48-54	48-54	
50			49-50		48-51	48,3-53	46-50	60-65	60-65	60-65				50	48-54	48-54	
52				54-57		48,5-53	50-54	67-72	67-72	67-72					48-54	48-54	
53			54-55	54-57	54-57	48,5-53	50-54	67-72	67-72	67-72					48-54	48-54	
54			54-55		54-57		50-54	67-72	67-72	67-72		54	54		53-55	53-55	
55				54-57				67-72	67-72	67-72							
57/58			57-58	59-63	54-57		56-60	67-72	67-72	67-72		57			56-62	56-62	
60	2"		60-61	67-72	59-62	60,5-65	56-60	67-72	67-72	67-72	61	60	60		56-62	56-62	
64				67-72	67-72*	60,5-65	63-68	67-72	67-72	67-72			64				
65				67-72	67-72*	60,5-65	63-68	76-81	73-78	73-78					65		
70				71-77	67-72	68-73	68-73	82-85	79-85	79-85		70	70		72-78*	72-78*	
73				71-77	72-78	68-73	68-73	82-85	79-85	79-85					72-78	72-78	
76	2 1/2"				72-78	73-77	75-80	82-85	79-85	79-85	77	76	76		72-78	72-78	
80				85-90				88-94	88-93	88-93				80			
84				85-90	84-89	84-90	84-89					83			86-91*	86-91*	
89	3"				84-89	84-90	88-92				89	89	89		86-91	86-91	
101				107-114		97-103	97-102					102	102	100			
108				107-114	109-114	109-114	109-114				108		108		108-116	108-116	
110				107-114	109-114	109-114	109-114					110			110	110	
116	4"				109-114	109-114	113-119				115	114	115		108-116	108-116	
121							113-119								108-116	108-116	
125						123-130	122-127	140-146	138-145	138-145		125	125	125	122-130	122-130	
133							131-136				133	133	133		132-140	132-140	
135							131-136								132-140	132-140	
139	5"					140/145	137-142				140	140	140		139-147	139-147	
159															150		
159	6"					160/165	159-168				159	160	160		157-165	157-165	
168						160/165	159-168				169	165	165		165-170	165-170	
194											194	168	168		165-170	165-170	
200								219-226	219-225	219-225					200		
210															208/216	208/216	
216															208/216	208/216	
219											220	219			216/224	216/224	
225																	
244																	
250								267-273	265-273	265-273					250	250	
273											273				265/275	265/275	
315															315	315	
326											324				322/330	322/330	
400								406,4	406,4	406,4	407				400	400	
500								508,0	508,0	508,0	508				500	500	



Technical Information Pipe weights

DN	Size "	Ø Outside (mm)	thickness (mm)	weight (Kg/m)	plus water (Kg/m)	plus isol. (Kg/m)	span (m)
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Pipes according DIN 2440

8	1/4"	13.5	2.35	0.65	0.80	1.0	2.00
10	3/8"	17.2	2.35	0.85	1.00	1.3	2.25
15	1/2"	21.3	2.65	1.22	1.60	1.8	2.75
20	3/4"	26.9	2.65	1.58	2.20	2.5	3.00
25	1"	33.7	3.25	2.44	3.40	3.9	3.50
32	1 1/4"	42.4	3.25	3.14	4.70	5.5	3.75
40	1 1/2"	48.3	3.25	3.61	5.60	6.5	4.25
50	2"	60.3	3.65	5.10	8.20	10.0	4.75
65	2 1/2"	76.1	3.65	6.51	11.40	14.0	5.50
80	3"	88.9	4.05	8.47	15.10	18.5	6.00
100	4"	114.3	4.50	12.10	22.90	28.3	6.00
125	5"	139.7	4.85	16.20	32.20	38.3	6.00

Steel pipes according to DIN 2448

10	3/8"	17.2	1.80	0.69	0.90	1.1	2.25
15	1/2"	21.3	2.00	0.96	1.30	1.5	2.75
20	3/4"	26.9	2.30	1.41	2.0	2.2	3.00
25	1"	33.7	2.60	2.01	2.9	3.4	3.50
32	1 1/4"	42.4	2.60	2.70	4.2	5.0	3.75
40	1 1/2"	48.3	2.60	2.95	4.8	5.7	4.25
46		51.0	2.60	3.12	5.2	6.4	4.40
50		57.0	2.90	3.90	6.7	8.5	4.60
50	2"	60.3	2.90	4.14	7.0	8.8	4.75
57		63.5	2.90	4.36	7.5	9.5	4.75
65	2 1/2"	76.1	2.90	5.28	9.8	12.4	5.50
76		82.5	3.20	6.31	11.7	14.9	5.75
80	3"	88.9	3.20	6.81	13.0	16.4	6.00
94		101.6	3.60	8.76	16.9	21.9	6.00
100		108.0	3.60	9.33	18.5	23.7	6.00
100	4"	114.3	3.60	9.90	20.2	25.6	6.00
		127.0	4.00	12.20	24.9	30.6	6.00
125		133.0	4.00	12.80	26.7	32.6	6.00
125	5"	139.7	4.00	13.50	28.8	34.9	6.00
		152.4	4.50	16.40	34.5	41.0	6.00
150		159.0	4.50	17.10	37.0	43.5	6.00
150	6"	168.3	4.50	18.10	40.4	47.1	6.00
		177.8	5.00	21.30	46.1	53.1	6.00
		193.7	5.60	26.00	54.5	61.9	6.00
200	8"	219.1	6.30	33.10	68.7	76.7	6.00
		244.5	6.30	37.00	96.6	92.9	6.00
250	10"	273.0	6.30	41.60	100.1	109.5	6.00
300	12"	323.9	7.10	55.60	138.1	148.7	6.00
350		355.6	8.00	68.60	168.3	179.8	6.00
400	16"	406.4	8.80	85.90	215.6	228.3	6.00
500	20"	508.0	11.00	135.00	337.7	353.0	6.00

Copper pipes DIN 1786 and 1754

8		10.0	1.00	0.25	0.3	0.5	1.00
10		12.0	1.00	0.31	0.4	0.6	1.25
12		15.0	1.00	0.39	0.6	0.7	1.25
15		18.0	1.00	0.47	0.7	0.9	1.50
20		22.0	1.00	0.59	1.0	1.2	2.00
25		28.0	1.50	1.11	1.7	2.2	2.25
32		35.0	1.50	1.42	2.4	2.9	2.75
40		42.0	1.50	1.70	3.0	3.9	3.00
50		54.0	2.00	2.91	5.2	6.5	3.50
50		64.0	2.00	3.47	6.7	8.7	4.00
65		76.1	2.00	4.14	8.7	11.3	4.25
80		88.9	2.00	4.90	11.1	14.5	4.75
100		108.0	2.50	7.37	16.6	21.8	5.00
125		133.0	3.00	10.90	24.8	30.7	5.00
125		159.0	4.00	17.3	37.2	43.0	5.00

DN	Size "	Ø Outside (mm)	thickness (mm)	weight (Kg/m)	plus water (Kg/m)	plus isol. (Kg/m)	span (m)
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Mapress copper pipes DIN EN 1057

10		12.0	1.00	0.31	0.4	0.6	1.25
12		15.0	1.00	0.39	0.5	0.7	1.25
12		15.0	1.50	0.57	0.7	0.9	1.25
15		18.0	1.00	0.48	0.7	0.9	1.50
15		18.0	1.50	0.59	0.8	1.0	1.50
20		22.0	1.00	0.69	1.0	1.2	2.00
20		32.0	1.50	0.86	1.2	1.5	2.00
25		28.0	1.00	1.05	1.5	1.8	2.25
25		28.0	1.50	1.11	1.6	2.1	2.25
32		35.0	1.50	1.41	2.2	2.6	2.75
40		42.0	1.50	1.70	2.9	3.9	3.00
50		54.0	2.00	1.96	4.9	6.3	3.50

Welded Steel pipes acc. DIN 2458

10		17.2	2.00	0.75	1.0	1.2	2.25
15		21.3	2.00	0.96	1.3	1.5	2.75
20		26.9	2.00	1.23	1.8	2.0	3.00
25		33.7	2.30	1.78	2.7	3.2	3.50
32		44.5	2.60	2.70	4.2	5.0	3.75
40		48.3	2.60	2.93	4.8	5.7	4.25
		51.0	2.60	3.10	5.2	6.4	4.40
50		57.0	2.90	3.87	6.7	8.5	4.60
		60.3	2.90	4.11	7.0	8.8	4.75
		63.5	2.90	4.33	7.5	9.5	4.75
65		76.1	2.90	5.24	9.8	12.4	5.50
		82.5	3.20	6.26	11.7	14.9	5.75
80		88.9	3.20	6.76	13.0	16.4	6.00
		101.6	3.60	8.70	16.9	21.9	6.00
		108.0	3.60	9.27	18.5	23.7	6.00
100		114.3	3.60	9.83	20.2	25.6	6.00
		127.0	4.00	12.10	24.9	30.6	6.00
		133.0	4.00	12.07	26.7	32.6	6.00
125		139.7	4.00	13.40	28.8	34.9	6.00
		152.4	4.50	16.40	34.6	41.0	6.00
		159.0	4.50	17.10	37.0	43.5	6.00
150		168.3	4.50	18.20	40.4	47.1	6.00
		177.8	5.00	21.30	46.1	53.1	6.00
		193.7	5.60	26.00	54.5	61.9	6.00
200		219.1	6.30	33.10	68.7	76.7	6.00
		244.5	6.30	37.00	96.6	92.9	6.00
250		273.0	6.30	41.40	100.1	109.5	6.00
300		323.9	7.10	55.50	138.0	148.7	6.00
350		355.6	8.00	63.60	168.3	179.8	6.00
400		406.4	8.80	86.30	215.6	228.3	6.00
500		508.0	11.00	135.00	337.7	353.0	6.00

Stainless Steel acc. DIN 17455

10		17.2	1.00	0.41	0.9	1.1	1.25
15		21.3	2.00	0.97	1.3	1.5	1.50
20		26.9	2.00	1.25	1.8	2.1	2.00
25		33.7	2.00	1.58	2.5	3.0	2.25
32		42.4	2.00	2.02	3.4	4.3	2.75
40		48.3	2.00	2.31	4.1	5.0	3.00
50		60.3	2.00	2.92	5.8	7.6	4.00
65		76.1	2.00	3.70	8.3	10.8	4.25
80		88.9	2.00	4.35	10.6	14.0	4.75
100		114.3	2.60	7.27	17.5	22.9	5.00
125		139.7	2.60	8.92	24.3	30.3	5.00
150		168.3	3.20	13.20	35.5	42.2	5.00
200		219.1	3.20	17.30	55.0	63.0	5.00
250		273.0	3.20	21.60	80.1	89.5	5.00
300		323.9	3.20	25.70	108.1	118.8	5.00
400		406.4	3.20	32.30	162.0	174.7	5.00
500		508.0	3.20	40.40	243.0	258.4	5.00



Technical Information Pipe weights

DN	Size	Ø Outside (mm)	thickness (mm)	weight (Kg/m)	plus water (Kg/m)	span (m)
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Drainpipes according to DIN 19500

50		60.0	3.50	5.30	7.50	0.60
70		80.0	3.50	7.10	11.28	0.80
100		112.0	4.00	10.30	18.79	1.15
125		137.0	4.00	13.70	26.76	1.35
150		162.0	5.00	17.30	35.43	1.60
200		212.0	6.00	32.70	64.10	2.00

Ductile pipes (SML,ML) DIN EN 877 / DIN19522

40		48.0	3.0	3.10	4.50	±1.5 meter (Based upon manufacturers data)
50		58.0	3.5	4.30	6.40	
70		78.0	3.5	5.90	9.90	
80		83.0	3.5	6.30	10.50	
100		110.0	3.5	8.40	17.70	
125		135.0	4.0	11.80	24.50	
150		160.0	4.0	14.10	32.30	
200		210.0	5.0	23.10	54.60	
250		274.0	5.5	33.30	87.70	
300		326.0	6.0	43.20	120.80	
400		429.0	6.3	60.0	193.3	
500		532.0	7.0	82.6	290.1	
600		635.0	7.7	108.5	405.6	

Drainpipes, PE (Geberit) DIN 8074

30		32.0	3.00	0.26	0.8	0.50
40		40.0	3.00	0.33	1.2	0.50
50		50.0	3.00	0.42	1.9	0.80
56		56.0	3.00	0.47	2.4	0.80
70		75.0	3.00	0.65	4.4	0.80
90		90.0	3.50	0.91	6.3	0.90
100		110.0	4.30	1.35	9.4	1.10
125		125.0	4.90	1.75	12.2	1.30
150		160.0	6.20	2.84	20.0	1.60
200		200.0	6.20	3.58	31.3	2.00
200		200.0	7.70	4.42	31.3	2.00
250		250.0	7.80	5.63	48.8	2.00
300		315.0	9.80	8.92	77.4	2.00
300		315.0	12.20	11.02	77.4	2.00

Drainpipes, PVC, hard DIN 8062 / DIN 19532 (Reihe 3)

32		40.0	1.80	0.33	1.0	0.50
40		50.0	1.80	0.42	1.7	0.50
50		63.0	1.90	0.56	2.8	0.60
65		75.0	2.20	0.78	3.9	0.75
80		90.0	2.70	1.13	5.6	0.85
100		110.0	3.20	1.64	8.4	1.15
125		125.0	3.70	2.13	10.9	1.25
125		140.0	4.10	2.65	13.6	1.50

Drainpipes PP-SDR 17.6 (Simana) DIN 8077

		25.0	1.80	0.13	0.4	0.50
		32.0	1.80	0.17	0.6	0.70
		40.0	2.30	0.27	1.0	0.80
		50.0	2.90	0.42	2.0	1.00
		63.0	3.60	0.66	3.1	1.30
		75.0	4.30	0.94	4.4	1.40
		90.0	5.10	1.33	6.3	1.50
		110.0	6.30	1.99	9.4	1.60
		125.0	7.10	2.55	12.2	1.80
		140.0	8.00	3.20	15.3	1.90
		160.0	9.10	4.17	20.0	2.00
		180.0	10.20	5.25	25.3	2.10
		200.0	11.40	6.50	31.2	2.20
		225.0	12.80	8.19	39.4	2.30
		250.0	14.20	10.10	48.7	2.50
		280.0	15.90	12.60	61.0	2.60
		315.0	17.90	16.00	77.2	2.80
		355.0	20.10	20.30	98.1	3.00
		400.0	22.70	25.70	124.5	3.20
		500.0	28.40	40.20	194.5	3.80

DN	Size	Ø Outside (mm)	thickness (mm)	weight (Kg/m)	plus water (Kg/m)	span (m)
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Mannesmann Mapress Stainless Steel Pipes

12		15.0	1.00	0.35	0.5	1.25
15		18.0	1.00	0.42	0.6	1.50
20		22.0	1.20	0.62	0.9	2.00
25		28.0	1.50	0.80	1.3	2.25
32		35.0	1.50	1.26	2.1	2.75
40		42.0	1.50	1.52	2.7	3.00
50		54.0	2.00	2.63	4.6	3.50
65		76.1	2.00	3.71	7.8	4.25
80		88.9	2.00	4.35	10.0	4.75
100		108.0	2.00	5.31	13.8	5.00

Mannesmann Mapress C-Steel Pipes

10		14.0	1.20	0.34	0.4	1.25
12		17.0	1.20	0.43	0.6	1.25
15		20.0	1.20	0.54	0.7	1.50
20		24.0	1.50	0.82	1.1	2.00
25		30.0	1.50	1.05	1.6	2.25
32		37.0	1.50	1.32	2.1	2.75
40		44.0	1.50	1.62	2.8	3.00
50		56.0	1.50	2.10	4.2	3.50

Gerberit Mepla

12		16.0	2.25	0.13	0.3	1.50
15		20.0	2.50	0.19	0.4	1.50
20		26.0	3.00	0.30	0.6	1.50
25		32.0	3.00	0.42	1.0	2.00
32		40.0	3.50	0.60	1.5	2.00
40		50.0	4.00	0.84	2.2	2.50
50		63.0	4.50	1.11	3.4	2.50
65		75.0	4.70	1.45	4.8	3.00

Uponor Unipipe white

		14.0	2.00	0.09	0.2	1.20
		16.0	2.00	0.12	0.3	1.20
		18.0	2.00	0.13	0.3	1.20
		20.0	2.25	0.18	0.4	1.30
		25.0	2.50	0.24	0.6	1.50
		32.0	3.00	0.32	0.9	1.60
		40.0	4.00	0.51	1.3	1.70
		50.0	4.50	0.74	2.1	2.00
		63.0	6.00	1.22	3.3	2.20
		75.0	7.50	1.79	4.6	2.40
		90.0	8.50	2.56	6.8	2.40
		110.0	10.00	3.63	10.0	2.40

Size	DIN24145 mm	weight per meter by thickness				
		0.4 mm	0.6 mm	0.8 mm	1.0 mm	1.2 mm

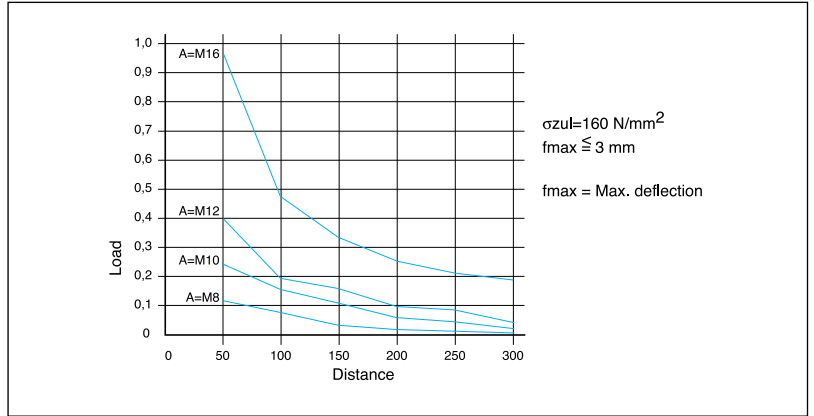
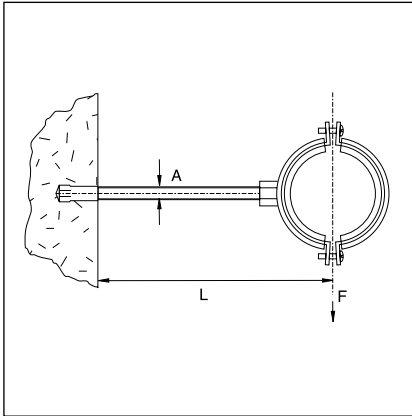
Ventilation ducts

	80	0.4	0.9	1.35		
100	100	0.6	1.1	1.69	2.25	
	112	0.6	1.2	1.89	2.52	
125	125	0.6	1.4	2.11	2.81	
	140	0.6	1.5	2.36	3.15	
150	150	0.6		2.53	3.38	
	160	0.6		2.70	3.60	
180	180	0.6		3.07	4.05	
	200	0.6		3.38	4.50	5.63
224	224	0.6		3.78	5.04	6.30
	250	0.6		4.22	5.63	7.03
280	280	0.6		4.73	6.30	7.88
300	300	0.6		5.06	6.75	8.44
315	315	0.6		5.32	7.09	8.86
355	355	0.8		5.99	7.99	10.00
400	400	0.8		6.75	9.00	11.30
						13.77
450	450	0.8			10.13	12.70
						15.49
500	500	0.8			11.25	14.10
						17.21
560	560	1.0			12.60	15.80
						19.28
600	600	1.0			13.50	16.80
						20.65
630	630	1.0			14.18	17.70
						21.69
710	710	1.0			15.98	20.00
						24.44
800	800	1.0				22.50
						27.54
900	900	1.0				25.30
						30.98
1000	1000	1.2				28.10
						34.42

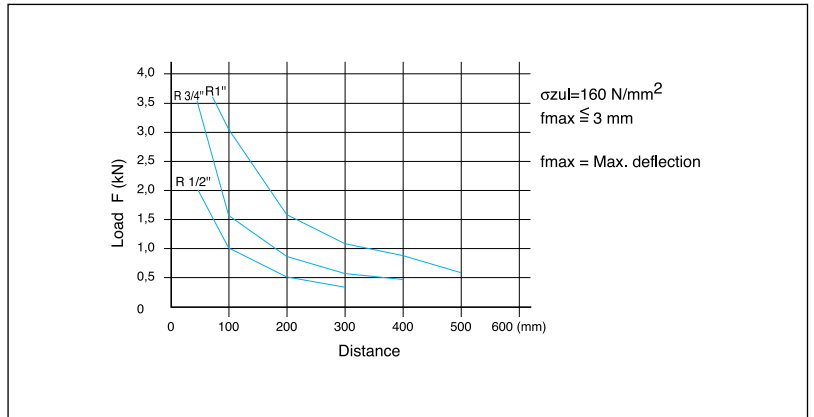
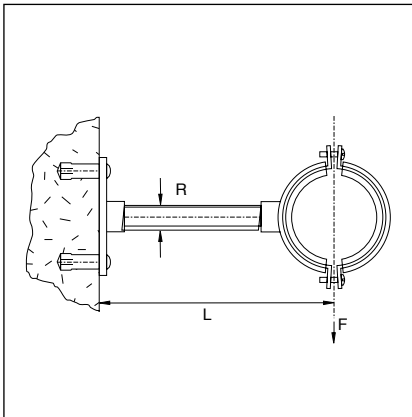


1.014

Loading data on threaded rod



Loading data on threaded tube



Pipe expansion table

PE 0,2 (mm/mK)

Cu 0,0165 (mm/mK)

PP 0,15 (mm/mK)

Fe 0,0115 (mm/mK)

PVC 0,08 (mm/mK)

ΔL = Pipe expansion

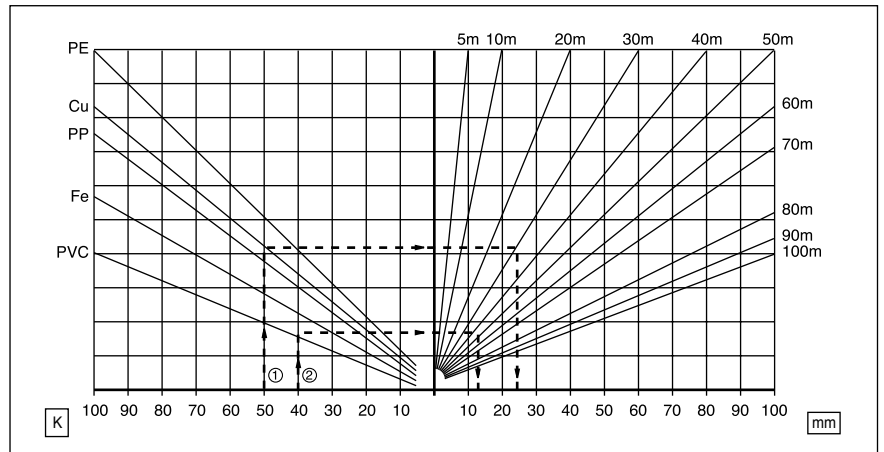
L = Length of tube

ΔT = Temperature difference

a = Expansion coefficient

$$\Delta L = L \cdot \Delta T \cdot a$$

(mm) (m) (mm/m k)



Note: Plastic pipes (PE, PP, PVC) multiply the expansion value from the chart by 10.

Example 1: Cu, 30 m
 Temperature difference: $\Delta T = 50 \text{ K}$
 Dilatation: $\Delta L = 24,75 \text{ mm}$

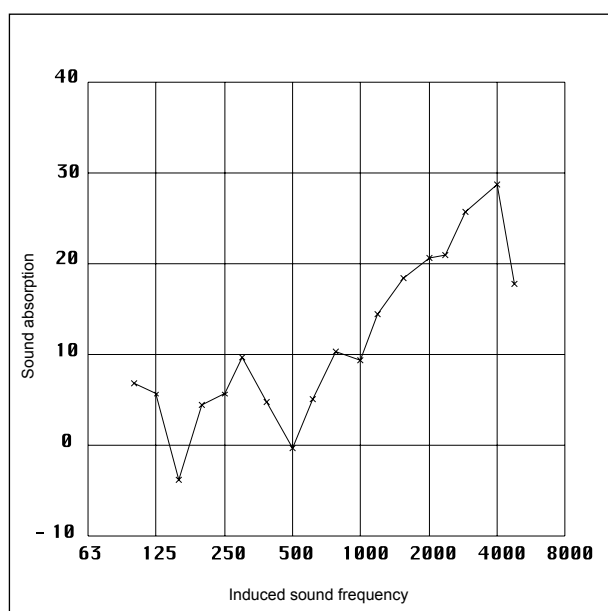
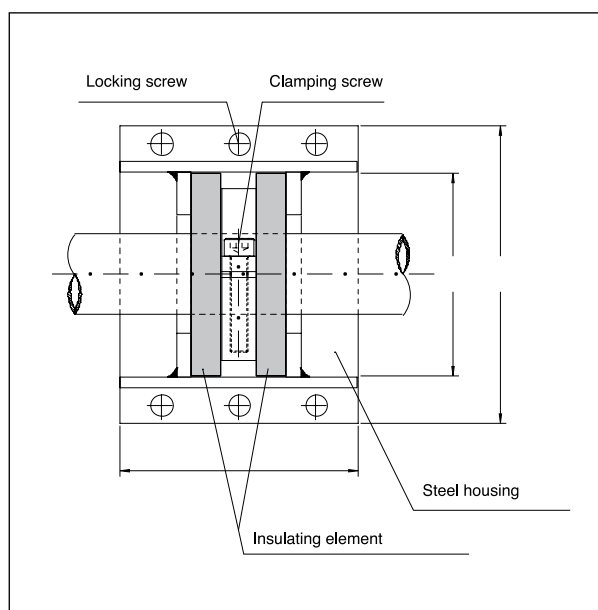
Example 2: PVC, 40 m
 Temperature difference: $\Delta T = 40 \text{ K}$
 Dilatation: $\Delta L = 128 \text{ mm}$



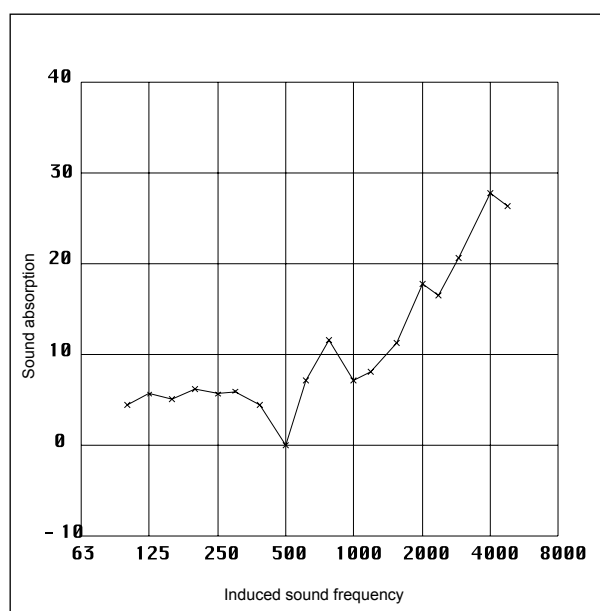
Technical Information Fixpoint Herkules

Technical details

- The clamping ring must be fastened to the torque mentioned in the table
- The fixed point needs to be positioned between two supports
- The max. anchor loads of the fixed point configuration are mentioned in the table



Fixed point installed without axial loading
Sound absorption 20.7 dB (A) measured with an induced sound frequency of 2000 Hz



Fixed point installed with 2.1 kN axial load
Sound absorption 17.7 dB (A) measured with an induced sound frequency of 2000 Hz

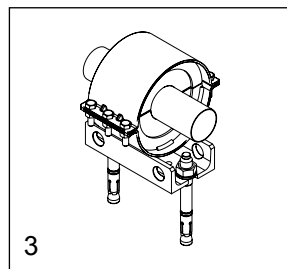
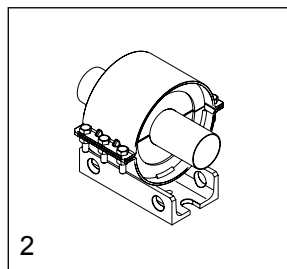
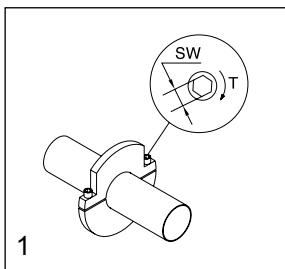
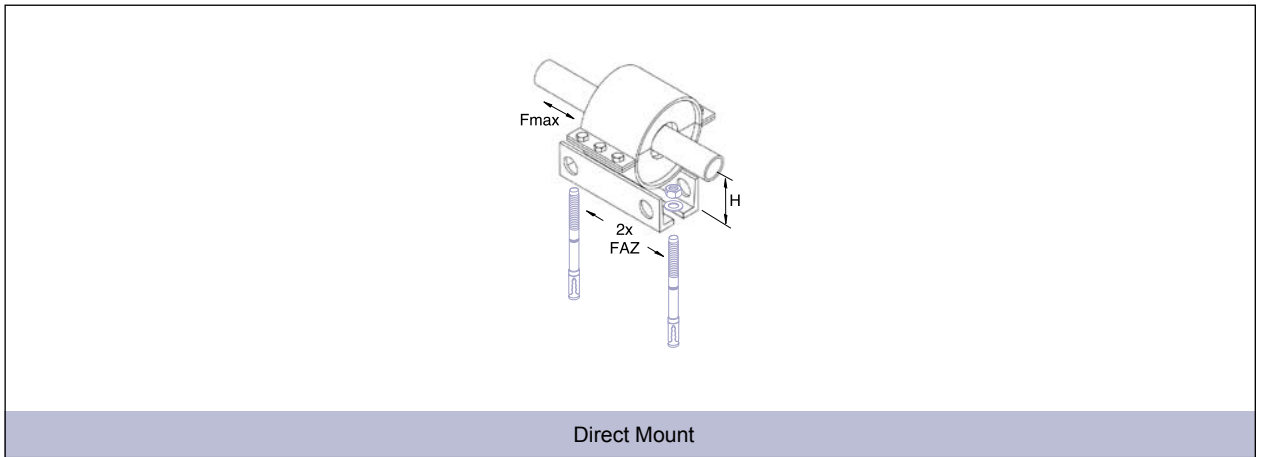


1.016

Technical Information Fixpoint Herkules

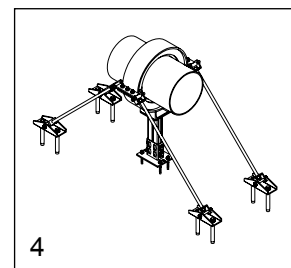
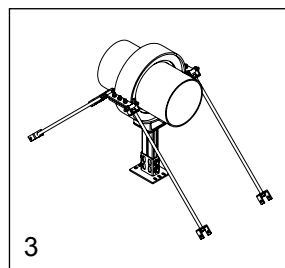
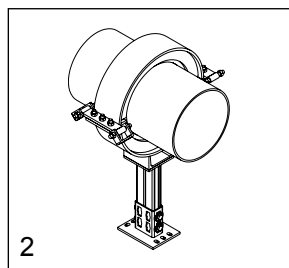
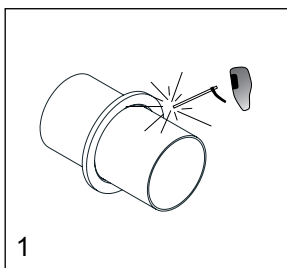
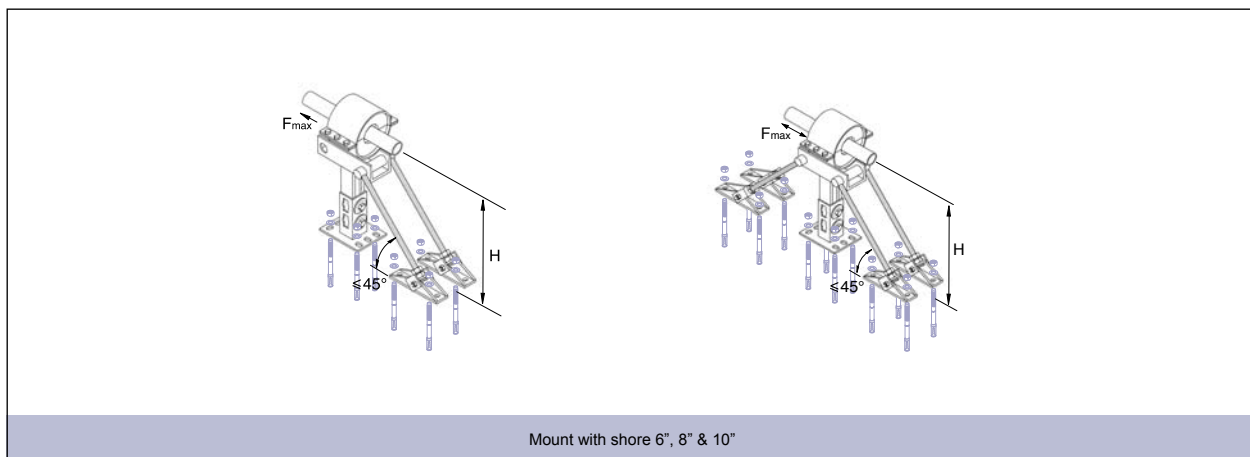
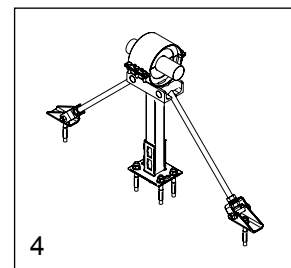
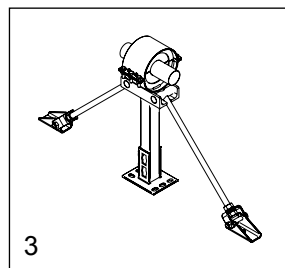
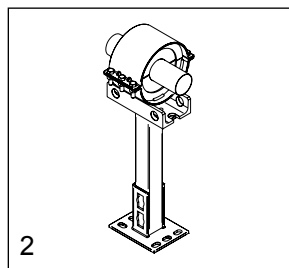
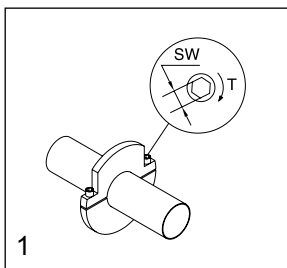
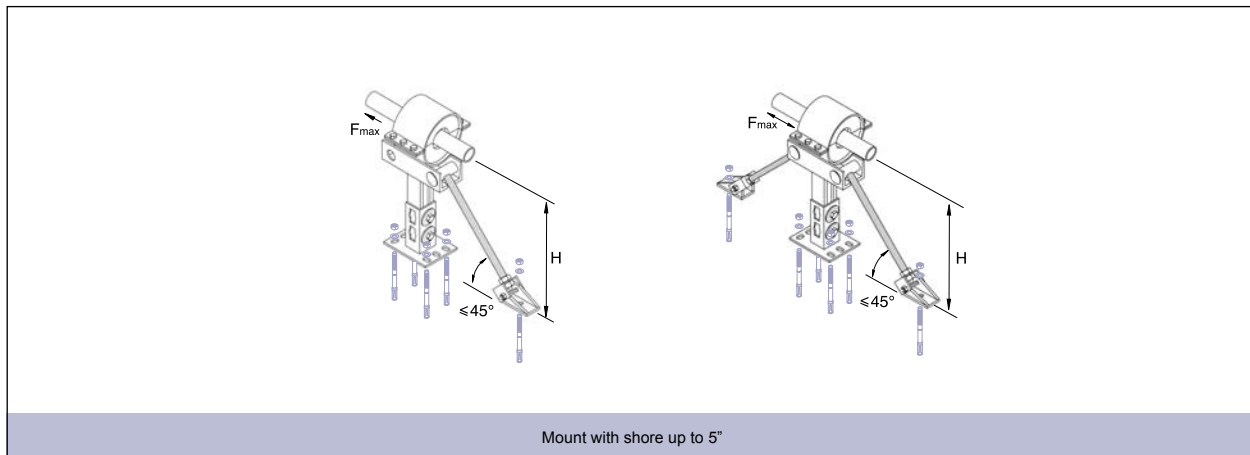
Art. Nr. T < +120°C	Art. Nr. T > +220°C	D		T Nm	Direct Mount			Mount with single shore						Mount with double shore										
		mm	"		H mm	FAZ		Fmax kN	min H mm		max H Qty		FAZ		min H mm		max H Qty		FAZ		Fmax kN			
					Typ	Qty	Typ	Qty	Typ	Qty	Typ	Qty	Typ	Qty	Typ	Qty	Typ	Qty	Typ	Qty	Typ	Qty		
1501151	1502151	15	-	15	72	12/10	2	5	200 - 1000	10/10	4	12/10	1	3										
1501181	1502181	18	3/8	15	72	12/10	2	5	200 - 1000	10/10	4	12/10	1	3										
1501221	1502221	22	1/2	15	72	12/10	2	5	200 - 1000	10/10	4	12/10	1	3										
1501281	1502281	28	3/4	15	72	12/10	2	5	200 - 1000	10/10	4	12/10	1	3										
1501352	1502352	35	1	15	85	12/10	2	5	200 - 1000	10/10	4	16/10	1	5										
1501422	1502422	42	1 1/4	15	85	12/10	2	5	200 - 1000	10/10	4	16/10	1	5										
1501483	1502483	48	1 1/2	30	100	16/20	2	8	200 - 1000	10/10	4	16/10	2	10										
1501543	1502543	54	-	30	100	16/20	2	8	200 - 1000	10/10	4	16/10	2	10										
1501573	1502573	57	-	30	100	16/20	2	8	200 - 1000	10/10	4	16/10	2	10										
1501603	1502603	60	2	30	100	16/20	2	8	200 - 1000	10/10	4	16/10	2	10										
1501764	1502764	76	2 1/2	30	115	16/20	2	10	-	-	-	-	-	200 - 1000	10/10	4	16/20	8	15					
1501894	1502894	89	3	30	115	16/20	2	10	-	-	-	-	-	200 - 1000	10/10	4	16/20	8	15					
1501145	1502145	114	4	60	158	16/20	2	10	-	-	-	-	-	200 - 1000	10/10	4	20/30	8	20					
1501405	1502405	140	5	60	158	16/20	2	10	-	-	-	-	-	200 - 1000	10/10	4	20/30	8	20					
1501686	1502686	168	6	weld	-	-	-	-	-	-	-	-	-	310 - 1000	10/10	4	20/60	8	30					
1501197	1502197	219	8	weld	-	-	-	-	-	-	-	-	-	330 - 1000	10/10	4	20/60	8	30					
1501738	1502738	273	10	weld	-	-	-	-	-	-	-	-	-	370 - 1000	10/10	4	20/60	8	30					

Installation Instructions Fixpoint Herkules





Installation Instructions Fixpoint Herkules



⚠ Weld 5x50 mm according DIN1912T5

⚠ Always use 4 diagonal braces DIN975-M16:8.8



1.018

RAL-Quality Hallmark



The quality association- Gütegemeinschaft Rohrbefestigung e.V.

The "Gütegemeinschaft Rohrbefestigung e.V." is an across-the-board organisation of producers aimed at addressing the task of creating a set of engineering rules and regulations covering quality assurance and quality control. Since December 2003, it has been officially recognized by RAL - the German Institute for Quality Assurance and Certification.

Comparability

The foremost aim of the "Gütegemeinschaft Rohrbefestigung e.V." is to allow the performance and quality of pipe fixing systems made by different manufactures to be objectively compared with one another. This is done by defining a standard assessment process to ascertain the technical data of pipe fixing systems. This will result in a level of transparency in the market which will directly benefit the customer.

Quality

"Certified quality" is another item which is high on our list of priorities. Each and every product series must prove its performance qualities in an initial test before a quality mark can be awarded. Afterwards, regular tests then ensure that the quality and performance of the quality-assured products are maintained. The members own control systems are supplemented by neutral and independent external quality controls carried out by internationally recognized testing centres such as the MPA-NRW and the KIWA.

Reliability and trust

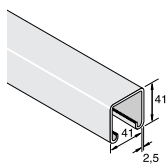
The "Gütegemeinschaft Rohrbefestigung e.V." strictly monitors the use of the quality mark imposing severe punishment for any case of misuse. External controls conducted by neutral test centres serve to protect the users of the quality mark just as much as the specifications concerning the disclosure of the technical data of products and contributes to creating a justifiable confidence in a neutral quality mark.

Benefits for the trade

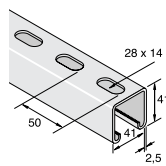
- Simple to select just the right type of fixture
- Reliable load capacity of the fixture
- High-level of safety proven in neutral tests carried out by recognized test centres
- Practice-oriented, comparable maker's specification
- Certainty of installing a quality product
- Certified products support the master crafted design

Benefits for planners & architects

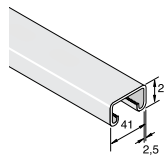
- Reliable technical rules and regulations
- Certified product/packaging facilitate installation controls
- Easier to check product quality
- Maker's product specifications certified
- Safety during the planning phase
- Tendering of quality products



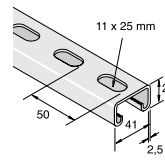
P1000



P1000T



P3300



P3300T



Mini



Standard-R



Standard-N



Standard-P

**For additional information:
Internet: www.safe-connection.de**



Perfekt-R



Perfekt-N



UNI Solid N



UNI Solid R



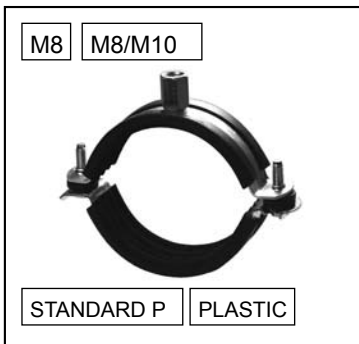
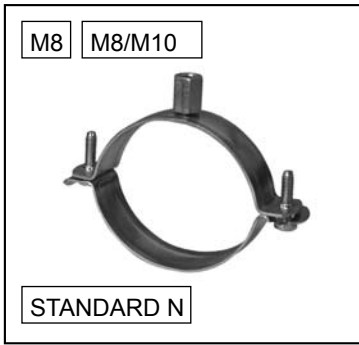
UNI Solid R



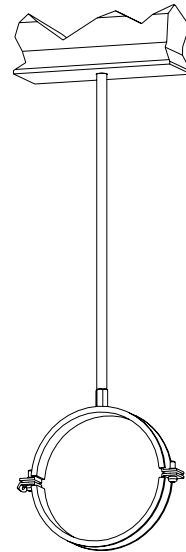
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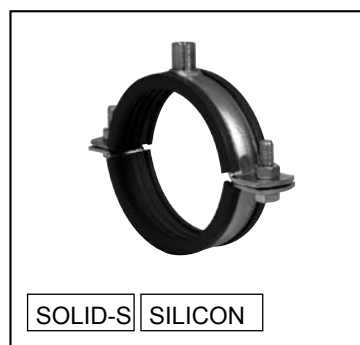
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3594/9014



Installation



IBMB Nr.
3145/2404



IBMB Nr.
3146/2414

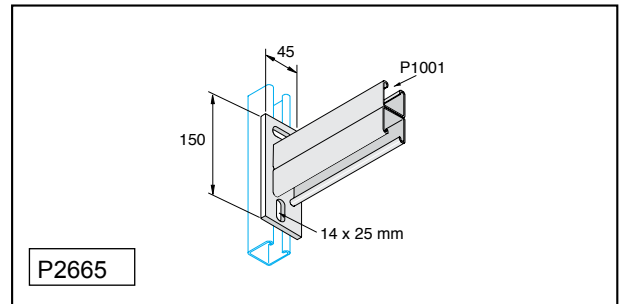
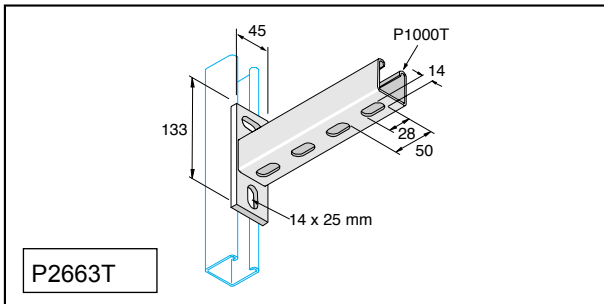


1.020

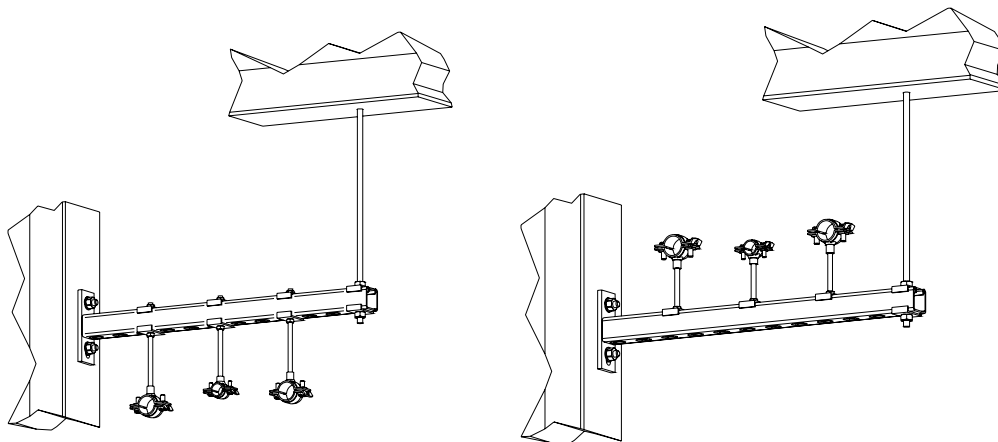
Fire Rating Approved Products



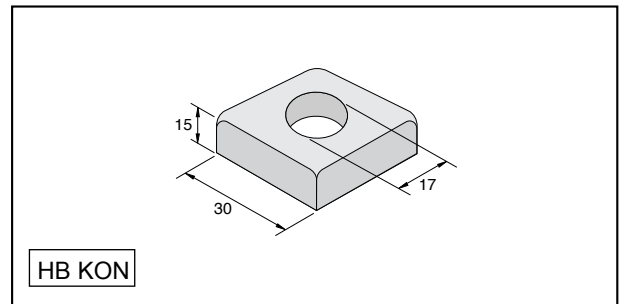
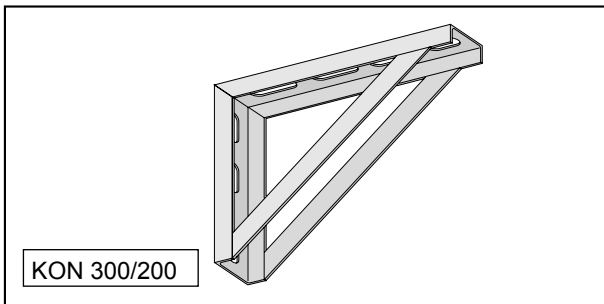
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3925/2404



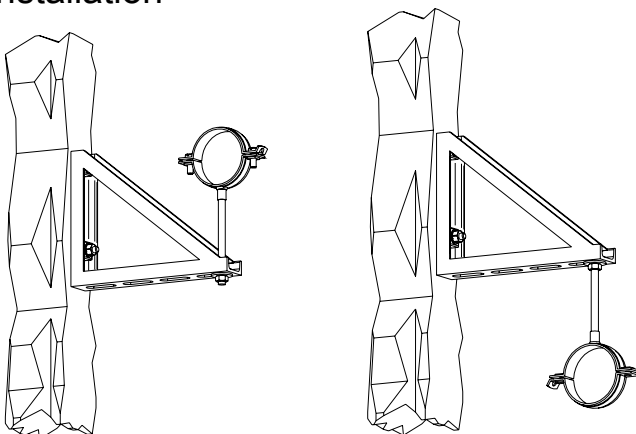
Installation



IBMB Nr.
3925/2404



Installation

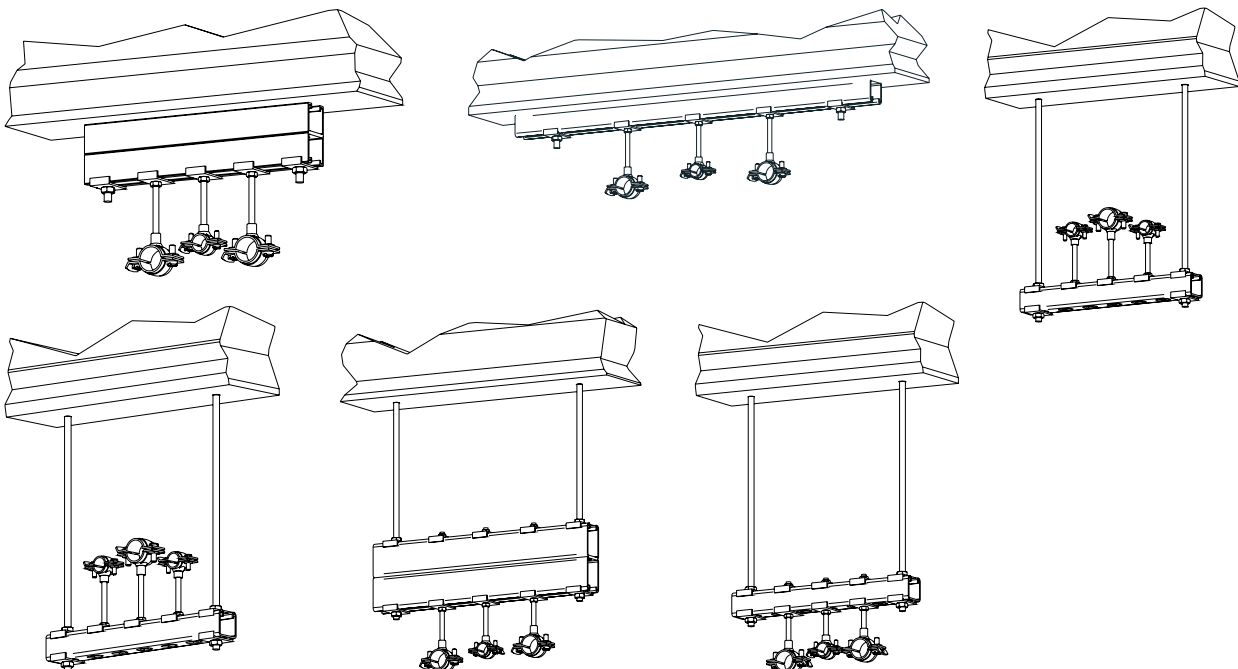
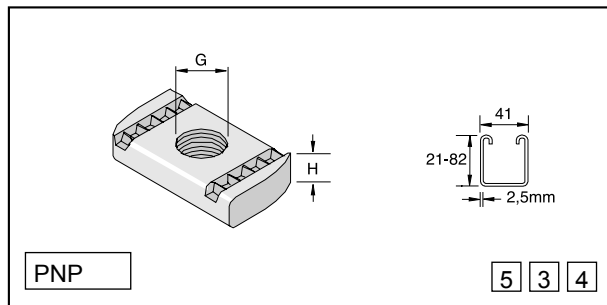
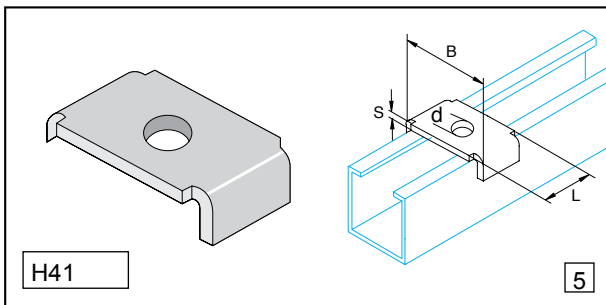
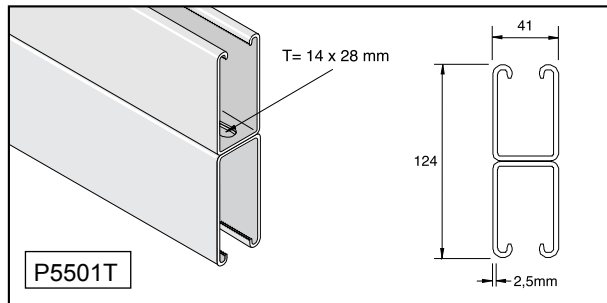
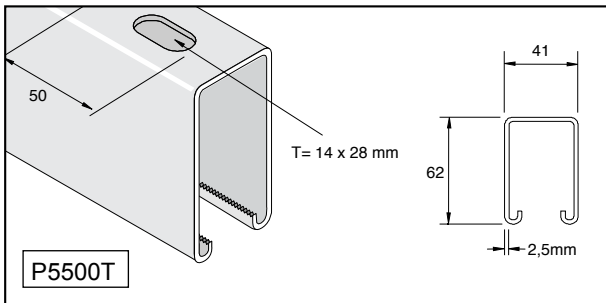
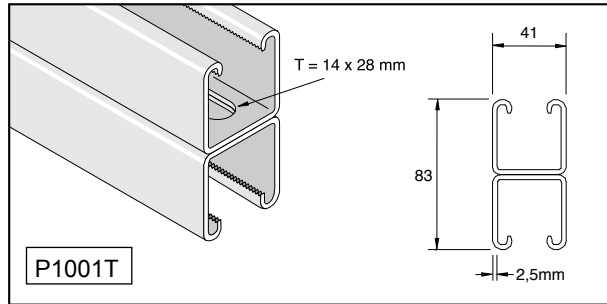
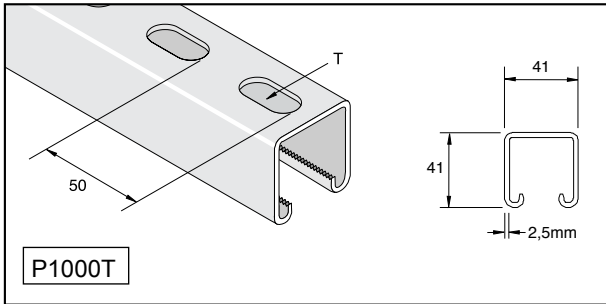




Fire Rating Approved Products



IBMB Nr.
3925/2404





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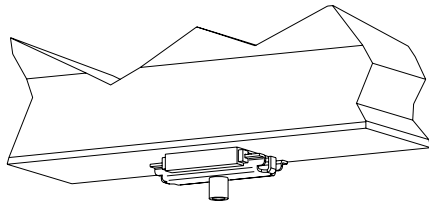
Fire Rating Approved Products



IBMB Nr.
3677/1695



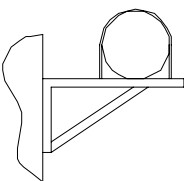
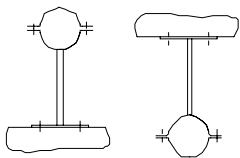
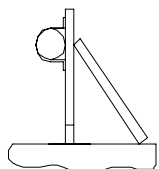
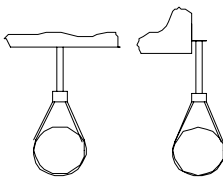
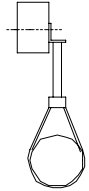
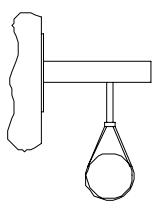
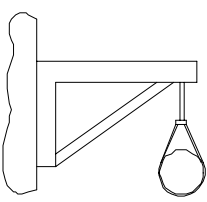
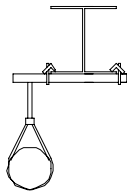
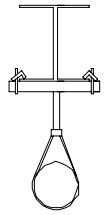
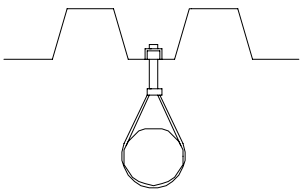
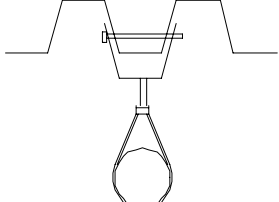
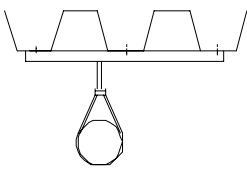
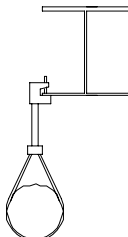
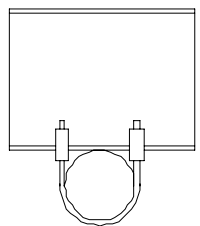
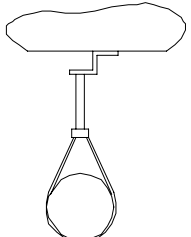
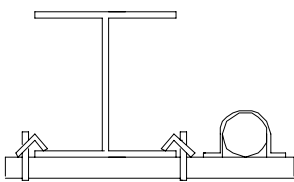
Installation





Standard Sprinkler Supports



 <p>SECTION 1</p>	 <p>SECTION 2</p>	 <p>SECTION 3</p>	 <p>SECTION 4</p>
 <p>SECTION 5</p>	 <p>SECTION 6</p>	 <p>SECTION 7</p>	 <p>SECTION 8</p>
 <p>SECTION 9</p>	 <p>SECTION 10</p>	 <p>SECTION 11</p>	 <p>SECTION 12</p>
 <p>SECTION 13</p>	 <p>SECTION 14</p>	 <p>SECTION 15</p>	 <p>SECTION 16</p>

We offer a wide range of standard sprinkler supports which can be pre-assembled in house. Our Application Engineering Department can assist you in finding the best Sprinkler Support Solution. Detailed technical Catalog / CD-Rom available on request.

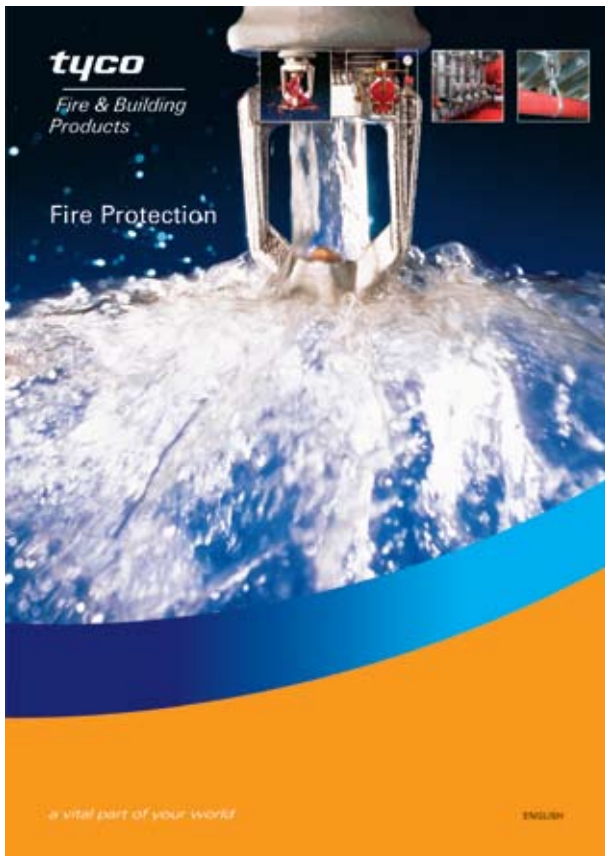


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Cable Management Solutions Catalogue



Fire Protection catalogue





Mechanical catalogue

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