

STAUFF



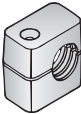
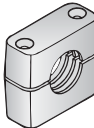
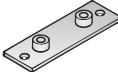
Clamps

**Local solutions for
individual customers
worldwide**

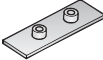
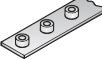
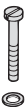
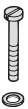
PIPE, TUBE AND HOSE CLAMPS

	Profile, Approvals and Register of Establishments	2
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STANDARD SERIES according to DIN 3015, Part 1 (for Pipe O.D. 6 to 102 mm)	Order Codes - Components Dimensions - Components Complete Clamps – Order Codes	4 / 5 / 6 7 / 8 / 9 10 / 11 / 12
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SPECIAL CLAMPS / ACCESSORIES	RI-Clamps (Pipe Clamps with Rubber Insert) Heavy Series - Twin Design Multi Group Weld Plate RAP-MGR Angled and Bridge Weld Plates Elongated Weld Plates Safety Washers according to DIN 463 Agricultural Clamps, Adjustment Clamps Clamps for Industrial Electric Applications and Electric Cables Hi-Clean Clamps for Industrial Clean Rooms Saddle Clamps for Cylinder Supply Lines	28 29 30 31 31 31 31 32 32 33
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FLAT STEEL U-BOLT CLAMPS	FB RUK	43
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CLAMPS ACCORDING TO DIN	DIN 3567, Type A DIN 3567, Type B DIN 1592 DIN 1593 DIN 1596 DIN 1597	47 47 48 48 49 49
TECHNICAL APPENDIX	Design of Clamp Bodies Installation Information Standard Materials: Properties and Technical Information Special Materials: Properties and Technical Information Standard Property Classes for Bolts and Screws Thread Chart: Metric vs. UNC Thread Recommended Distance between Clamps Basic Mounting Instructions Tightening Torques and Maximum Loads in Pipe Direction	50 51 52 53 54 54 54 54 55
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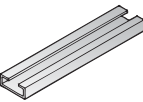
according to **DIN 3015, Part 1**

ALSO AVAILABLE					CLAMP BODY consisting of two clamp halves	SINGLE WELD PLATE SP	ELONGATED WELD PLATE SPV	CHANNEL RAIL ADAPTOR CRA
Extensive range of special clamping systems and accessories, e.g. for noise and vibration reducing installation, for electric applications and cables or for particular mounting purposes					 Group 1	 Group 1	 Group 1	suitable for several types of channel rails, see page 12
see pages 28 to 32					 Group 1A -8	 Group 1A -8	 Group 1A -8	
Custom designed pipe clamps (machined and injection moulding versions) according to customer's specifications or based on STAUFF developments								
see pages 34 to 35								
MATERIAL & SURFACE FINISHING CODE (ALL DISPLAYED OPTIONS ARE STANDARD DELIVERY)					SEE COMPONENT PART IDENTIFICATION	W2	W2	W3*
ORDERING INFORMATION					**** * STAUFF GROUP OUTSIDE DIAMETER OF PIPE IN MM MATERIAL & DESIGN OF CLAMP BODY	SP * * * SINGLE WELD PLATE SP STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	SPV * * * SINGLE WELD PLATE SPV STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	CRA 1-8 * * * CHANNEL RAIL ADAPTOR CRA TYPE OF THREAD MATERIAL & SURFACE FINISHING
STAUFF GROUP	DIN GROUP	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN INCH	NOMINAL BORE PIPE IN INCH				
1	0	6			106 ***	SP 1 * * *	SPV 1 * * *	CRA 1-8 * * *
		6,4	1/4		106,4 ***			
		8	5/16		108 ***			
		9,5	3/8		109,5 ***			
		10		1/8	110 ***			
		12			112 ***			
1A	1	6			106A ***	SP 1A * * *	SPV 1A * * *	
		6,4	1/4		106,4A ***			
		8	5/16		108A ***			
		9,5	3/8		109,5A ***			
		10		1/8	110A ***			
		12			112A ***			
2	2	12,7	1/2		212,7 ***	SP 2 * * *	SPV 2 * * *	
		13,5		1/4	213,5 ***			
		14			214 ***			
		15			215 ***			
		16	5/8		216 ***			
		17,2		3/8	217,2 ***			
3	3	18			218 ***	SP 3 * * *	SPV 3 * * *	
		19	3/4		319 ***			
		20			320 ***			
		21,3		1/2	321,3 ***			
		22	7/8		322 ***			
		25			325 ***			
4	4	25,4	1		325,4 ***	SP 4 * * *	SPV 4 * * *	
		26,9		3/4	426,9 ***			
		28			428 ***			
		30			430 ***			
		32	1 1/4		532 ***			
		33,7		1	533,7 ***			
5	5	35			535 ***	SP 5 * * *	SPV 5 * * *	
		38	1 1/2		538 ***			
		40			540 ***			
		42		1 1/4	542 ***			
		44,5	1 3/4		644,5 ***			
		48,3		1 1/2	648,3 ***			
6	6	50,8	2		650,8 ***	SP 6 * * *	SPV 6 * * *	
		57,2	2 1/4		757,2 ***			
		60,3		2	760,3 ***			
		63,5	2 1/2		763,5 ***			
		70	2 3/4		770 ***			
		73		2 1/2 except DIN EN 10220	773 ***			
7	7	76,1	3	2 1/2 DIN EN 10220 only	776,1 ***	SP 7 * * *	SPV 7 * * *	
		88,9	3 1/2	3	888,9 ***			
		102	4		8102L ***			
8	8					SP 8 * * *	SPV 8 * * *	

* zinc plated, blue chromated - Fe/Zn 8 B

TWIN WELD PLATE DSP	GROUP WELD PLATE RAP	COVER PLATE DP	HEXAGON HEAD BOLT AS	INSERT E	HEXAGON HEAD BOLT ASE	SOCKET CAP SCREW IS	SLOTTED HEAD SCREW LI	STACKING BOLT AF
 Group 1	 Group 1	 Group 1	DIN 931/933 for use with COVER PLATE DP		no cover plate for use with INSERT E	ISO 4762 	ISO 1207 	
Group 1A -6	Group 1A -6	Group 1A -8						
W2	W1	W3	W3	STEEL / PLASTIC	W3	W3	W3	W3
DSP *** TWIN WELD PLATE STAUFF GROUP PIPE CENTER SPACING TYPE OF THREAD MATERIAL & SURFACE FINISHING	RAP *** GROUP WELD PLATE STAUFF GROUP PIPE CENTER SPACING NUMBER OF CLAMPS TYPE OF THREAD MATERIAL & SURFACE FINISHING	DP *** COVER PLATE STAUFF GROUP MATERIAL & SURFACE FINISHING	AS *** HEXAGON HEAD BOLT STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	E * INSERT MATERIAL (S/P)	ASE *** HEXAGON HEAD BOLT STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	IS *** SOCKET HEAD SCREW STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	LI *** SLOTTED HEAD SCREW STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	AF *** STACKING BOLT STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING
DSP 1/40 ***	RAP 1/31/10 ***	DP 1 **	AS 1 M ** (M6 x 30)		ASE 1 M ** (M6 x 27)	IS 1 M ** (M6 x 20)	LI 1 M ** (M6 x 20)	AF 1 ***
DSP 1A/37 ***	RAP 1A/37/10 ***	DP 1A **	AS 1A M ** (M6 x 30)		ASE 1A M ** (M6 x 27)	IS 1A M ** (M6 x 20)	LI 1A M ** (M6 x 20)	AF 1A ***
DSP 2/44 ***	RAP 2/44/10 ***	DP 2 **	AS 2 M ** (M6 x 35)	E * S for Steel P for Plastic	ASE 2 M ** (M6 x 32)	IS 2 M ** (M6 x 25)	LI 2 M ** (M6 x 25)	AF 2 ***
DSP 3/52 ***	RAP 3/52/10 **	DP 3 **	AS 3 M ** (M6 x 40)		ASE 3 M ** (M6 x 35)	IS 3 M ** (M6 x 30)	LI 3 M ** (M6 x 30)	AF 3 ***
DSP 4/60 ***	RAP 4/60/5 ***	DP 4 **	AS 4 M ** (M6 x 45)		ASE 4 M ** (M6 x 42)	IS 4 M ** (M6 x 35)	LI 4 M ** (M6 x 35)	AF 4 ***
DSP 5/75 ***	RAP 5/75/5 ***	DP 5 **	AS 5 M ** (M6 x 60)		ASE 5 M ** (M6 x 57)	IS 5 M ** (M6 x 50)	LI 5 M ** (M6 x 50)	AF 5 ***
DSP 6/90 ***	RAP 6/90/5 ***	DP 6 **	AS 6 M ** (M6 x 70)		ASE 6 M ** (M6 x 65)	IS 6 M ** (M6 x 60)	LI 6 M ** (M6 x 60)	AF 6 ***
---	---	DP 7 **	AS 7 M ** (M6 x 100)	---	---	IS 7 M ** (M6 x 90)	---	AF 7 ***
---	---	DP 8 **	AS 8 M ** (M6 x 125)	---	---	IS 8 M ** (M6 x 110)	---	AF 8 ***

according to **DIN 3015, Part 1**

SAFETY WASHER SI	SAFETY LOCKING PLATE SIG	MOUNTING RAIL TS	HEXAGON RAIL NUT SM
DIN 93 for use with HEXAGON HEAD BOLT AS 	 Group 1  Group 1A -6		
W3	W3	W1	W1
SI 6,4 **	SIG ** **	TS **-* **	SM1-8/1D * **
SAFETY WASHER SI MATERIAL & SURFACE FINISHING	SAFETY LOCKING PLATE SIG STAUFF GROUP MATERIAL & SURFACE FINISHING	MOUNTING RAIL TS HEIGHT OF RAIL IN MM LENGTH OF RAIL IN M MATERIAL & SURFACE FINISHING	HEXAGON RAIL NUT SM TYPE OF THREAD MATERIAL & SURFACE FINISHING
SI 6,4 **	SIG 1 **	TS **-* ** available heights: 11, 14 and 30 mm available lengths: 1m and 2 m	SM1-8/1D * **
	SIG 1A **		
	SIG 2 **		
	SIG 3 **		
	SIG 4 **		
	SIG 5 **		
	SIG 6 **		
	SIG 7 **		
	SIG 8 **		

COMPONENT PART IDENTIFICATION
 FOR STANDARD SERIES CLAMP
 BODIES AND COMPONENTS
CLAMP BODY

MATERIAL	DESIGN	COLOUR	CODE
Polypropylene	profiled inside, with tension clearance	green	PP
Polypropylene	smooth inside, without tension clearance	green	PPH
Polyamide	profiled inside, with tension clearance	black	PA
Polyamide	smooth inside, without tension clearance	black	PAH
Santoprene	profiled inside, with tension clearance	black	SA
Santoprene	smooth inside, without tension clearance	black	SAH
Aluminium	profiled inside, with tension clearance	aluminium	AL

Aluminium is available up to STAUFF Group 6 only. Alternative materials, designs and colours in addition to the above stated standard are available upon request.

METAL PARTS

MATERIAL	SURFACE FINISHING	CODE
carbon steel St37	untreated	W1
carbon steel St37	phosphated	W2
carbon steel St 37	zinc/nickel coated	W3
stainless steel A2 - 1.4301 / 1.4305 (AISI 304/303)		W4
stainless steel A4 - 1.4401 / 1.4571 (AISI 316/316Ti)		W5

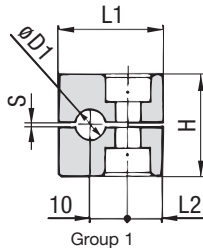
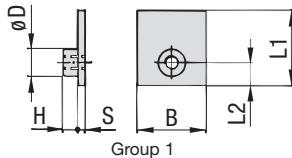
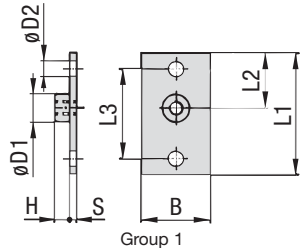
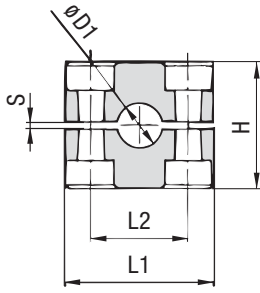
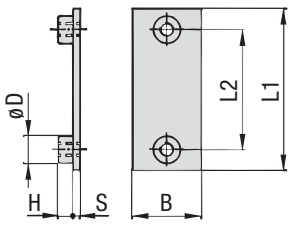
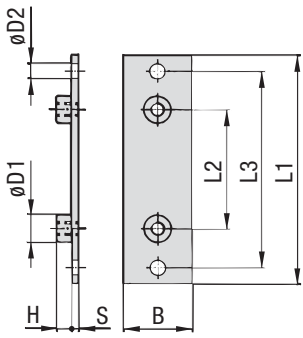
Alternative materials and surface finishings in addition to the above stated standard are available upon request.

THREADED PARTS

TYPE OF THREAD	CODE
Metric Thread	M
UNC Thread	U

All threaded parts are available with Metric or UNC Thread on request.

according to DIN 3015, Part 1

MATERIAL & SURFACE FINISHING OF METAL PARTS			CLAMP BODY consisting of two clamp halves						SINGLE WELD PLATE SP						ELONGATED WELD PLATE SPV												
carbon steel St37, untreated carbon steel St37, phosphated carbon steel St37, zinc/nickel coated stainless steel A2 - 1.4301/1.4305 (AISI304/303) stainless steel A4 - 1.4401/1.4571 (AISI316/316Ti) Alternative materials and surface finishings in addition to the above stated standard are available upon request.			W1 W2 W3 W4 W5																								
						Group 1						Group 1						Group 1									
																											
Group 1A -8						Group 1A -8						Group 1A -8															

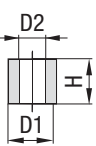
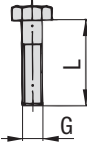
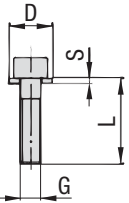
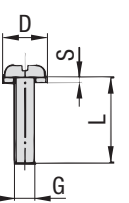
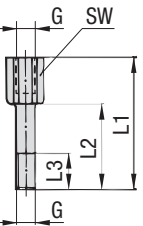
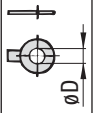
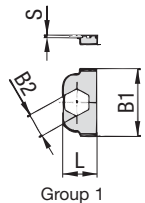
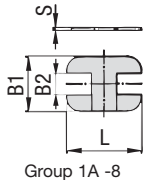
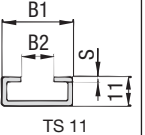
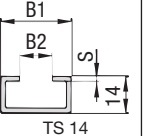
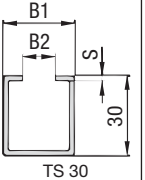
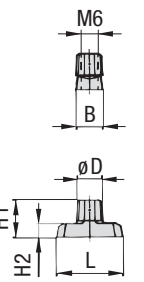
MATERIAL & SURFACE FINISHING CODE			SEE COMPONENT PART IDENTIFICATION						W2						W2									
STAUFF GROUP	DIN GROUP	OUTSIDE DIAMETER PIPE IN MM	L1	L2	Inside Surface			Width	L1	L2	B	S	H	ØD	L1	L2	L3	B	S	H	ØD1	ØD2		
					profiled		smooth																	
		ØD1			H	S	H																	
1	0	6	28	9,5	27	0,4 min.	26	30	31,5	10	30	3	6,5	12	58	24,5	44	30	3	6,5	12	6,5		
		6,4																						
		8																						
		9,5																						
		10																						
1A	1	12	37	20	27	0,4 min.	26	30	36	20	30	3	6,5	12	64	20	50	30	3	6,5	12	6,5		
		6																						
		6,4																						
		8																						
		9,5																						
2	2	10	42	26	33	0,6 min.	32	30	42	26	30	3	6,5	12	70	26	56	30	3	6,5	12	6,5		
		12																						
		12,7																						
		13,5																						
		14																						
3	3	15	50	33	36	0,6 min.	35,5	30	50	33	30	3	6,5	12	78	33	64	30	3	6,5	12	6,5		
		16																						
		17,2																						
		18																						
		19																						
4	4	20	59	40	42	0,6 min.	41,5	30	60	40	30	3	6,5	12	87	40	73	30	3	6,5	12	6,5		
		21,3																						
		22																						
		25																						
		25,4																						
5	5	26,9	71	52	58	0,8 min.	56,5	30	71	52	30	3	6,5	12	100	52	86	30	3	6,5	12	6,5		
		28																						
		30																						
		32																						
		33,7																						
6	6	35	86	66	66	0,8 min.	64,5	30	88	66	30	3	6,5	12	115	66	100	30	3	6,5	12	6,5		
		38																						
		40																						
		42																						
		44,5																						
7	7	48,3	121	94	93	0,8 min.	92	30	122	94	30	5	6,5	12	150	94	136	30	5	6,5	12	6,5		
		50,8																						
		57,2																						
		60,3																						
		63,5																						
8	8	70	147	120	118	0,8 min.	116	30	148	120	30	5	6,5	12	178	120	162	30	5	6,5	12	6,5		
		73																						
		76,1																						
		88,9																						
		102																						

according to **DIN 3015, Part 1**

CHANNEL RAIL ADAPTOR CRA	TWIN WELD PLATE DSP	GROUP WELD PLATE RAP	COVER PLATE DP	HEXAGON HEAD BOLT AS
suitable for several types of channel rails, see page 12	Group 1 Group 1A-6	Group 1 Group 1A-6	Group 1 Group 1A-8	DIN 931/933 for use with COVERPLATE DP
W3*	W2	W1	W3	W3
G L1 L2 L3 B1 B2 H1 H2 H3	L1 L2 L3 B S H ØD	L1 L2 L3 B S H ØD	L1 L2 B S ØD	G x L
	87 40 40 30 3 6,5 12	314 31 31 30 4 6,5 12	28 9,5 30 3 7	M6 x 30
	77 20 37 30 3 6,5 12	373 20 37 30 4 6,5 12	34 20 30 3 7	M6 x 30
	86 26 44 30 3 6,5 12	442 26 44 30 4 6,5 12	40,5 26 30 3 7	M6 x 35
M6 21 35 40 16 19 6 13 20,5	102 33 52 30 3 6,5 12	521 33 52 30 4 6,5 12	48 33 30 3 7	M6 x 40
	120 40 60 30 3 6,5 12	300 40 60 30 4 6,5 12	57 40 30 3 7	M6 x 45
	145 52 75 30 3 6,5 12	378 52 75 30 4 6,5 12	70 52 30 3 7	M6 x 60
	178 66 90 30 3 6,5 12	450 66 90 30 4 6,5 12	86 66 30 3 7	M6 x 70
	---	---	118 94 30 5 7	M6 x 100
	---	---	144 120 30 5 7	M6 x 125

* zinc plated, blue chromated - Fe/Zn 8 B

according to **DIN 3015, Part 1**

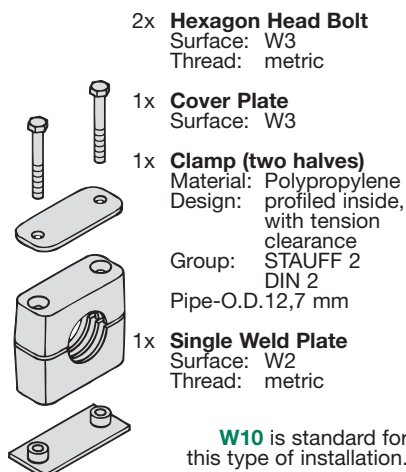
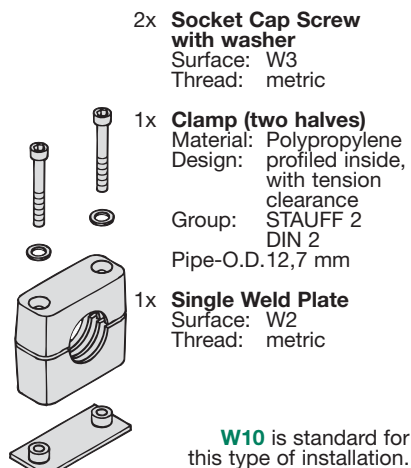
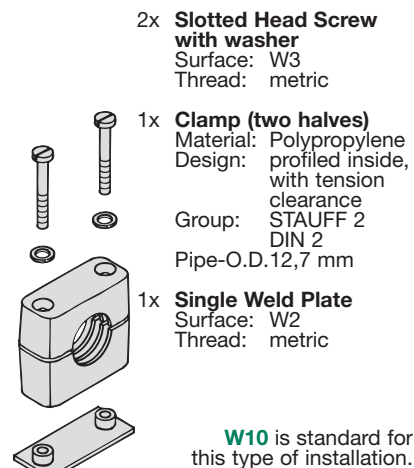
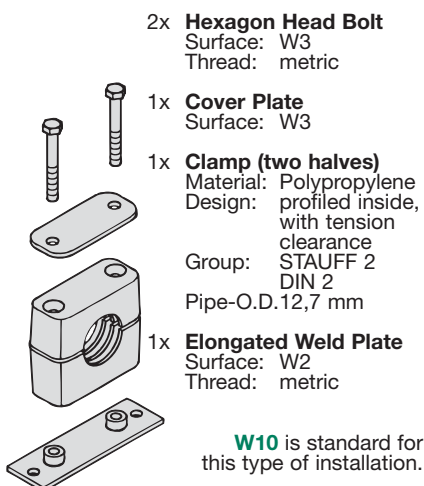
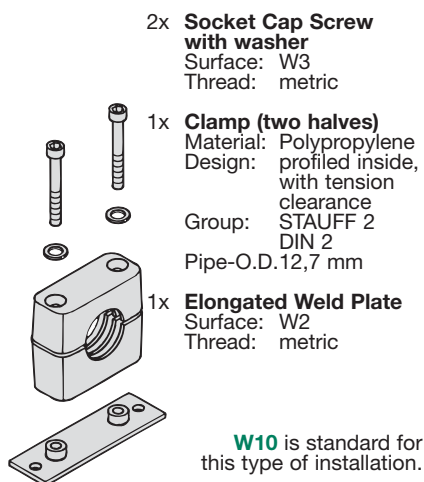
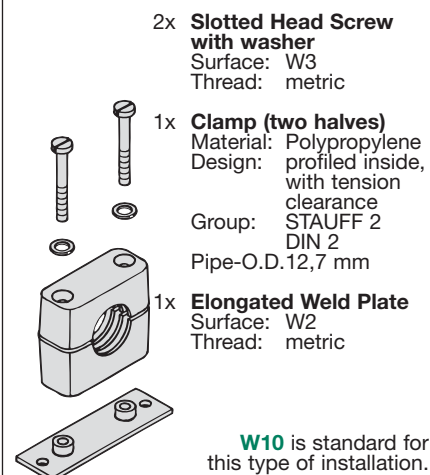
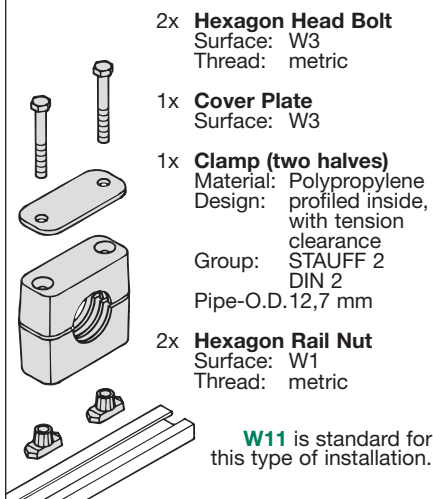
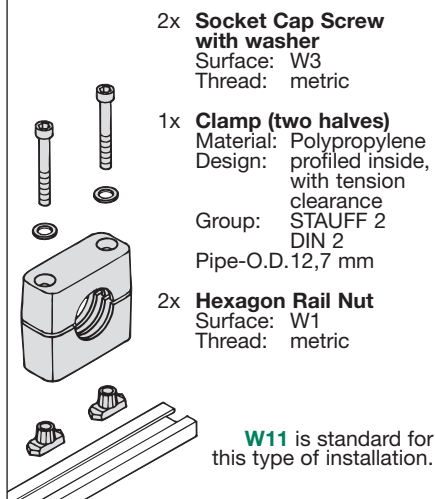
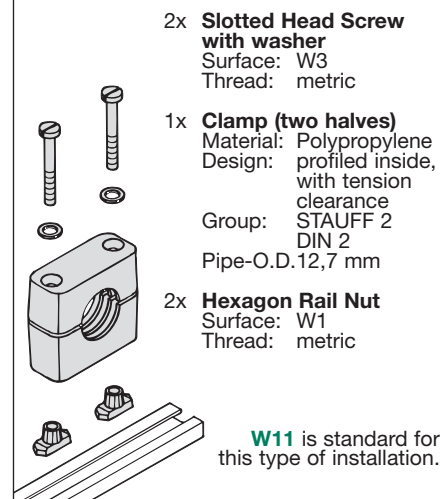
INSERT E	HEXAGON HEAD BOLT ASE	SOCKET CAP SCREW IS	SLOTTED HEAD SCREW LI	STACKING BOLT AF	SAFETY WASHER SI	SAFETY LOCKING PLATE SIG	MOUNTING RAIL TS	HEXAGON RAIL NUT SM
	 no cover plate for use with INSERT E	ISO 4762 	ISO 1207 			 Group 1  Group 1A -8	 TS 11  TS 14  TS 30	
STEEL / PLASTIC	W3	W3	W3	W3	W3	W3	W1	W1
D1 D2 H	G x L	G x L D S	G x L D S	G L1 L2 L3 SW	ØD	L B1 B2 S	B1 B2 S	L B H1 H2 ØD
11,8 6,5 7,8 (S) 8,6 (P)	M6 x 27	M6 x 20 11 0,8	M6 x 20 11 0,8	M6 34 20 12 min. 11	6,4	16 32 11,2 1	28 11 2	25,5 10,2 13,5 5,5 12
	M6 x 27	M6 x 20 11 0,8	M6 x 20 11 0,8	M6 34 20 12 min. 11		33 28 11,2 1		
	M6 x 32	M6 x 25 11 0,8	M6 x 25 11 0,8	M6 40 25 12 min. 11		39 28 11,2 1		
	M6 x 35	M6 x 30 11 0,8	M6 x 30 11 0,8	M6 44 30 12 min. 11		47 28 11,2 1		
	M6 x 42	M6 x 35 11 0,8	M6 x 35 11 0,8	M6 49 35 12 min. 11		56 28 11,2 1		
	M6 x 57	M6 x 50 11 0,8	M6 x 50 11 0,8	M6 64 50 12 min. 11		69 28 11,2 1		
	M6 x 65	M6 x 60 11 0,8	M6 x 60 11 0,8	M6 74 60 12 min. 11		85 28 11,2 1		
---	---	M6 x 90 11 0,8	---	M6 99 85 12 min. 11		117 28 11,2 1		
---	---	M6 x 110 11 0,8	---	M6 124 110 12 min. 11		143 28 11,2 1		

according to DIN 3015, Part 1

① ***	② ****,*	③ ***	④ **** - **	⑤ *	⑥ W**	⑦ *	
① TYPE OF INSTALLATION		③ MATERIAL & DESIGN OF CLAMP BODY *1		④ MOUNTING & FITTING COMBINATION		⑦ ASSEMBLING & PACKAGING	
no code	without mounting plate, rail adaptor or rail nuts	PP	Polypropylene, profiled inside, with tension clearance	DP - AS	Cover Plate / Hexagon Head Bolt	no code	components supplied separately (standard)
SP	Single Weld Plate	PPH	Polypropylene, smooth inside, without tension clearance	DP - IS	Cover Plate / Socket Cap Screw	A	assembled (optional)
SPV	Elongated Weld Plate	PA	Polyamide, profiled inside, with tension clearance	IS	Socket Cap Screw with washer	K	packed in kits (optional)
CRA	Channel Rail Adaptor	PAH	Polyamide, smooth inside, without tension clearance	LI *3	Slotted Head Screw with washer		
DSP *3	Twin Weld Plate	SA	Santoprene, profiled inside, with tension clearance	SIG - AF	Safety Locking Plate / Stacking Bolt		
RAP *3	Group Weld Plate	SAH	Santoprene, smooth inside, without tension clearance	EP-AS	Insert EP / Hexagon Head Bolt (without Cover Plate)		
SM	Hexagon Rail Nut	AL *2	Aluminium, profiled inside, with tension clearance	ES-AS	Insert ES / Hexagon Head Bolt (without Cover Plate)		
② STAUFF GROUP & SIZE OF CLAMP BODY		② STAUFF GROUP & SIZE OF CLAMP BODY CONTINUATION		⑤ TYPE OF THREAD		⑥ MATERIAL & SURFACE FINISHING OF METAL PARTS *6	
Group	Tube O.D. in mm	Tube O.D. in mm	Tube O.D. in mm	Group	Tube O.D. in mm	Tube O.D. in mm	Tube O.D. in mm
STAUFF 1 DIN 0	6	6,4	8	STAUFF 5 DIN 5	32	33,7	35
	1/4	5/16	3/8		1 1/4	1 1/2	1 3/4
	106	106,4	108		532	533,7	535
	109,5	110	112		538	540	542
STAUFF 1A DIN 1	6	6,4	8	6	44,5	48,3	50,8
	106A	106,4A	108A		1 1/4	1 1/2	2
	109,5A	110A	112A		644,5	648,3	650,8
STAUFF 2 DIN 2	12,7	13,5	14	STAUFF 7 DIN 7	57,2	60,3	63,5
	1/2	5/8	3/4		2 1/4	2 1/2	2 3/4
	212,7	213,5	214		757,2	760,3	763,5
	215	216	217,2		770	773	776,1
	218	319	320		770	773	776,1
STAUFF 3 DIN 3	19	20	21,3		770	773	776,1
	321,3	322	325		770	773	776,1
	325,4	426,9	428		770	773	776,1
	430				770	773	776,1
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TECHNICAL NOTES

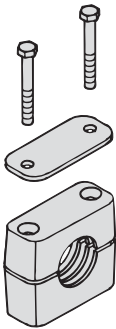
- *1** SEE MATERIAL PROPERTIES ON PAGE 52. OTHER CLAMP BODY MATERIALS AND COLOURS ARE AVAILABLE UPON REQUEST.
- *2** AVAILABLE FOR STAUFF GROUP 1A TO 6 ONLY. (DIN GROUP 1 TO 6).
- *3** AVAILABLE FOR STAUFF GROUP 1 TO 6 ONLY. (DIN GROUP 0 TO 6).
- *4** NOMINAL BORE, EXCEPT DIN EN 10220.
- *5** NOMINAL BORE, ONLY DIN EN 10220.
- *6** INDIVIDUAL COMBINATIONS OF ALTERNATIVE SURFACE FINISHINGS AND SPECIAL PROPERTY MATERIALS ARE AVAILABLE UPON REQUEST.

according to **DIN 3015, Part 1**
SP 212,7 PP-DP-AS M W10

SP 212,7 PP-IS M W10

SP 212,7 PP-LIM W10

SPV 212,7 PP-DP-AS M W10

SPV 212,7 PP-IS M W10

SPV 212,7 PP-LI M W10

SM 212,7 PP-DP-AS M W11

SM 212,7 PP-IS M W11

SM 212,7 PP-LI M W11


▼ PLEASE TURN THE PAGE HERE ▼

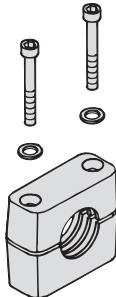
according to **DIN 3015, Part 1**
212,7 PP-DP-AS M W3

- 2x **Hexagon Head Bolt**
Surface: W3
Thread: metric
- 1x **Cover Plate**
Surface: W3
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 2
DIN 2
Pipe-O.D.12,7 mm


W3 is standard for
this type of installation.

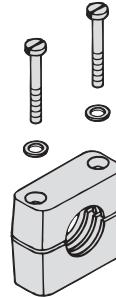
212,7 PP-IS M W3

- 2x **Socket Cap Screw with washer**
Surface: W3
Thread: metric
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 2
DIN 2
Pipe-O.D.12,7 mm


W3 is standard for
this type of installation.

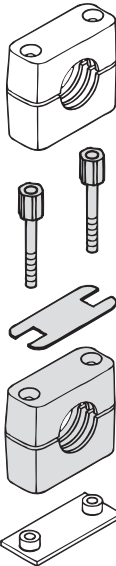
212,7 PP-LI M W3

- 2x **Slotted Head Screw with washer**
Surface: W3
Thread: metric
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 2
DIN 2
Pipe-O.D.12,7 mm


W3 is standard for
this type of installation.

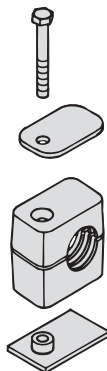
212,7 PP-SIG-AF M W3

- 2x **Stacking Bolt**
Surface: W3
Thread: metric
- 1x **Safety Locking Plate**
Surface: W3
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 2
DIN 2
Pipe-O.D.12,7 mm


W3 is standard for
this type of installation.

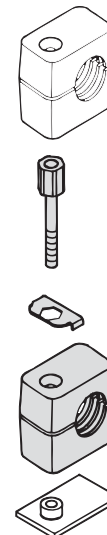
SP 106 PP-DP-AS M W10

- 1x **Hexagon Head Bolt**
Surface: W3
Thread: metric
- 1x **Cover Plate**
Surface: W3
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 1
DIN 0
Pipe-O.D.6 mm
- 1x **Single Weld Plate**
Surface: W2
Thread: metric


W10 is standard for
this type of installation.

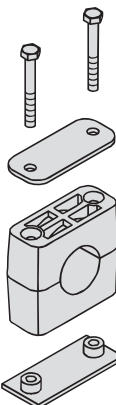
106 PP-SIG-AF M W3

- 1x **Stacking Bolt**
Surface: W3
Thread: metric
- 1x **Safety Locking Plate**
Surface: W3
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 1
DIN 0
Pipe-O.D.6 mm


W3 is standard for
this type of installation.

SP 212,7 PPH-DP-AS M W10

- 2x **Hexagon Head Bolt**
Surface: W3
Thread: metric
- 1x **Cover Plate**
Surface: W3
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: smooth inside,
without tension
clearance
Group: STAUFF 2
DIN 2
Pipe-O.D.12,7 mm
- 1x **Single Weld Plate**
Surface: W2
Thread: metric


W10 is standard for
this type of installation.

**NOTES REGARDING THE USE OF
THE CHANNEL RAIL ADAPTOR CRA**

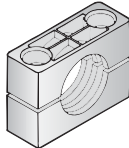
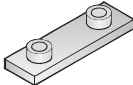
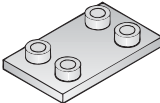
 The CHANNEL RAIL ADAPTOR Type **CRA** is amongst
others suitable for the following channel rails:

UNISTRUT-Rails
 P 1000, P 1000T, P 1000V, P 1000VT, P 1001
 P 2000, P 2000T
 P 3003, P 3003T, P 3300V, P 3300VT, P 3301
 P 4000, P 4000T
 P 5000, P 5000T, P 5001, P 5500, P 5500T, P 5501

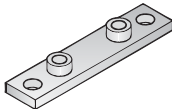
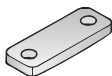
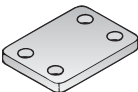
HALFEN-Rails
 HM 41/41
 HZA 41/22
 HZM 41/41
 HZM 41/22
 HL 41/41, HL 41/B2

HILTI-Rails
 MQ-21, MQ-41, MQ-52, MQ-72
 MQ-21U, MQ-41U, MQ-72U
 MQ-21D, MQ-41D, MQ-52-72D

according to **DIN 3015, Part 2**

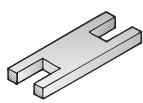
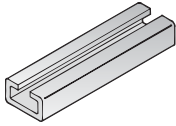
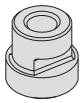
ALSO AVAILABLE					CLAMP BODY consisting of two clamp halves	WELD PLATE FOR SINGLE CLAMPS SPAL	WELD PLATE FOR DOUBLE CLAMPS SPAS
Extensive range of special clamping systems and accessories, e.g. for noise and vibration reducing installation, for electric applications and cables or for particular mounting purposes see pages 28 to 32 Custom designed pipe clamps (machined and injection moulding versions) according to customer's specifications or based on STAUFF developments see pages 34 to 35							
MATERIAL & SURFACE FINISHING CODE (ALL DISPLAYED OPTIONS ARE STANDARD DELIVERY)					SEE COMPONENT PART IDENTIFICATION	3S- 7S: W2 8S-12S: W1	3S- 7S: W2 8S-12S: W1
ORDERING INFORMATION					*** **	SPAL *** **	SPAS *** **
STAUFF GROUP	DIN GROUP	O.D. OF PIPE / TUBE / HOSE IN MM	O.D. OF PIPE / TUBE / HOSE IN INCH	NOMINAL BORE PIPE IN INCH	STAUFF GROUP (SEE BELOW) OUTSIDE DIAMETERS IN MM MATERIAL & DESIGN OF CLAMP BODY	WELD PLATE FOR SINGLE CLAMPS SPAL STAUFF GROUP TYPE OF THREAD & MATERIAL & SURFACE FINISHING	WELD PLATE FOR DOUBLE CLAMPS SPAS STAUFF GROUP TYPE OF THREAD & MATERIAL & SURFACE FINISHING
3S	1	6 6,4 8 9,5 10 12 12,7 13,5 14 15 16 17,2 18	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{5}{8}$	$\frac{1}{8}$ $\frac{1}{4}$ $\frac{3}{8}$	3006 *** 3006,4 *** 3008 *** 3009,5 *** 3010 *** 3012 *** 3012,7 *** 3013,5 *** 3014 *** 3015 *** 3016 *** 3017,2 *** 3018 ***	SPAL 3S ***	SPAS 3S ***
4S	2	19 20 21,3 22 25 25,4 26,9 28 30	$\frac{3}{4}$ $\frac{7}{8}$ 1	$\frac{1}{2}$ $\frac{3}{4}$	4019 *** 4020 *** 4021,3 *** 4022 *** 4025 *** 4025,4 *** 4026,9 *** 4028 *** 4030 ***	SPAL 4S ***	SPAS 4S ***
5S	3	30 32 33,7 35 38 40 42	$1\frac{1}{4}$ $1\frac{1}{2}$	1 $1\frac{1}{4}$	5030 *** 5032 *** 5033,7 *** 5035 *** 5038 *** 5040 *** 5042 ***	SPAL 5S ***	SPAS 5S ***
6S	4	38 42 44,5 48,3 50,8 55 57 60,3 63,5 65 70	$1\frac{1}{2}$ $1\frac{3}{4}$ 2 $2\frac{1}{4}$ $2\frac{1}{2}$ $2\frac{3}{4}$	$1\frac{1}{4}$ $1\frac{1}{2}$ 2	6038 *** 6042 *** 6044,5 *** 6048,3 *** 6050,8 *** 6055 *** 6057 *** 6060,3 *** 6063,5 *** 6065 *** 6070 ***	SPAL 6S ***	SPAS 6S ***
7S	5	65 70 73 75 76,1 80 82,5 88,9	$2\frac{7}{8}$ 3 $3\frac{1}{4}$ $3\frac{1}{2}$	$2\frac{1}{2}$ except DIN EN 10220 $2\frac{1}{2}$ DIN EN 10220 only 3	7065 *** 7070 *** 7073 *** 7075 *** 7076,1 *** 7080 *** 7082,5 *** 7088,9 ***	SPAL 7S ***	SPAS 7S ***
8S	6	88,9 100 102 108 114 127 133	$3\frac{1}{2}$ $4\frac{1}{4}$ 5 $5\frac{1}{4}$	3 $3\frac{1}{2}$ 4	8088,9 *** 8100 *** 8102 *** 8108 *** 8114 *** 8127 *** 8133 ***	SPAL 8S ***	SPAS 8S ***
9S	7	133 140 152 159 165 168	$5\frac{1}{4}$ 6 $6\frac{1}{4}$ $6\frac{1}{2}$	5 6	9133 *** 9140 *** 9152 *** 9159 *** 9165 *** 9168 ***	SPAL 9S ***	SPAS 9S ***
10S	8	168 177,8 193,7 216 219	7 $7\frac{7}{8}$ $8\frac{1}{2}$	6 8	10168 *** 10177,8 *** 10193,7 *** 10216 *** 10219 ***	SPAL 10S ***	SPAS 10S ***
11S	9	219 273 324	8 10 12	8 10 12	11219 *** 11273 *** 11324 ***	SPAL 11S ***	SPAS 11S ***
12S	10	356 406	14 16	14 16	12356 *** 12406 ***	SPAL 12S ***	SPAS 12S ***

according to DIN 3015, Part 2

CHANNEL RAIL ADAPTOR CRA	ELONGATED WELD PLATE FOR SINGLE CLAMPS SPAL/DUEB	COVER PLATE FOR SINGLE CLAMPS DPAL	COVER PLATE FOR DOUBLE CLAMPS DPAS	HEXAGON HEAD BOLT AS	SOCKET CAP SCREW IS	STACKING BOLT AF
suitable for several types of channel rails, see page 21  Group 3S - 6S				DIN 931/933 	ISO 4762  Group 3S - 6S	 Group 3S - 10S
W3*	3S- 7S: W2 8S-12S: W1	3S- 7S: W2 8S-12S: W1	3S- 7S: W2 8S-12S: W1	W1	W1	W2
CRA *** **	SPAL/DUEB *** **	DPAL *** **	DPAS *** **	AS *** **	IS *** **	AF *** **
CHANNEL-RAIL- ADAPTOR CRA STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	ELONGATED WELD PLATE FOR SINGLE CLAMPS SPAL/DUEB STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	COVER PLATE FOR SINGLE CLAMPS DPAL STAUFF GROUP MATERIAL & SURFACE FINISHING	COVER PLATE FOR DOUBLE CLAMPS DPAS STAUFF GROUP MATERIAL & SURFACE FINISHING	HEXAGON HEAD BOLT AS STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	SOCKET CAP SCREW IS STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	STACKING BOLT AF STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING
CRA 3S M ** for use with bolt M10 x 40	SPAL/DUEB 3S ***	DPAL 3S **	DPAS 3S **	AS 3S M ** (M10 x 45)	IS 3S M ** (M10 x 30)	AF 3S ***
CRA 4S M ** for use with bolt M10 x 55	SPAL/DUEB 4S ***	DPAL 4S **	DPAS 4S **	AS 4S M ** (M10 x 60)	IS 4S M ** (M10 x 40)	AF 4S ***
CRA 5S M ** for use with bolt M10 x 65	SPAL/DUEB 5S ***	DPAL 5S **	DPAS 5S **	AS 5S M ** (M10 x 70)	IS 5S M ** (M10 x 50)	AF 5S ***
CRA 6S M ** for use with bolt M12 x 100	SPAL/DUEB 6S ***	DPAL 6S **	DPAS 6S **	AS 6S M ** (M12 x 100)	IS 6S M ** (M12 x 80)	AF 6S ***
---	SPAL/DUEB 7S ***	DPAL 7S **	DPAS 7S **	AS 7S M ** (M16 x 130)	---	AF 7S ***
---	SPAL/DUEB 8S ***	DPAL 8S **	DPAS 8S **	AS 8S M ** (M20 x 190)	---	AF 8S ***
---	SPAL/DUEB 9S ***	DPAL 9S **	DPAS 9S **	AS 9S M ** (M24 x 220)	---	AF 9S ***
---	SPAL/DUEB 10S ***	DPAL 10S **	DPAS 10S **	AS 10S M ** (M30 x 300)	---	AF 10S ***
---	SPAL/DUEB 11S ***	DPAL 11S **	DPAS 11S **	AS 11S M ** (M30 x 450)	---	---
---	SPAL/DUEB 12S ***	DPAL 12S **	DPAS 12S **	AS 12S M ** (M30 x 560)	---	---

* zinc plated, blue chromated - Fe/Zn 8 B

according to **DIN 3015, Part 2**

SAFETY WASHER SI	SAFETY LOCKING PLATE SIP	MOUNTING RAIL STSV	MOUNTING RAIL NUT GMV
DIN 93 for use with HEXAGON HEAD BOLT AS 	 Group 3S - 10S	 up to Group 6S	 up to Group 6S
W3	3S- 7S: W2 8S-10S: W1	W1	W3
SI *** ↓ SAFETY WASHER ↓ INNER DIAMETER ↓ MATERIAL & SURFACE FINISHING	SIP *** ↓ SAFETY LOCKING PLATE ↓ STAUFF GROUP ↓ MATERIAL & SURFACE FINISHING	STSV *** ↓ MOUNTING RAIL ↓ LENGTH OF RAIL IN M ↓ MATERIAL & SURFACE FINISHING	GMV *** ↓ MOUNTING RAIL NUT ↓ STAUFF GROUP (3-S OR 6S) ↓ TYPE OF THREAD ↓ MATERIAL & SURFACE FINISHING
SI 10,5 **	SIP 3S **	STSV *** available lengths: 1m and 2m	GMV 3-5S * **
SI 10,5 **	SIP 4S **		
SI 10,5 **	SIP 5S **		
SI 13 **	SIP 6S **		GMV 6S * **
SI 17 **	SIP 7S **	---	---
SI 21 **	SIP 8S **	---	---
SI 25 **	SIP 9S **	---	---
SI 31 **	SIP 10S **	---	---
SI 31 **	---	---	---
SI 31 **	---	---	---

**COMPONENT PART IDENTIFICATION
FOR HEAVY SERIES CLAMP
BODIES AND COMPONENTS**
CLAMP BODY

MATERIAL	DESIGN	COLOUR	CODE
Polypropylene	profiled inside, with tension clearance	green	PP
Polypropylene	smooth inside, without tension clearance	green	PPH
Polyamide	profiled inside, with tension clearance	black	PA
Polyamide	smooth inside, without tension clearance	black	PAH
Santoprene	profiled inside, with tension clearance	black	SA
Santoprene	smooth inside, without tension clearance	black	SAH
Aluminium	profiled inside, with tension clearance	aluminium	AL

PPH, PAH, SA and SAH are available up to STAUFF Group 6S only.
Alternative materials, designs and colours in addition to the above
stated standard are available upon request.

METAL PARTS

MATERIAL	SURFACE FINISHING	CODE
carbon steel St37	untreated	W1
carbon steel St37	phosphated	W2
carbon steel St37	zinc/nickel coated	W3
stainless steel A2 - 1.4301 / 1.4305 (AISI 304/303)		W4
stainless steel A4 - 1.4401 / 1.4571 (AISI 316/316Ti)		W5

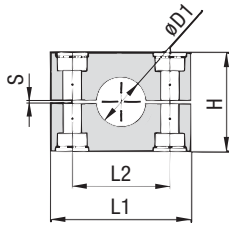
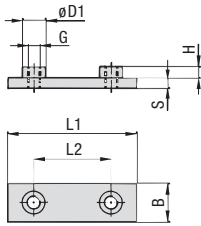
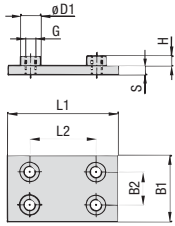
Alternative materials and surface finishings in addition to the above
stated standard are available upon request

THREADED PARTS

TYPE OF THREAD	CODE
Metric Thread	M
UNC Thread	U

All threaded parts are available with Metric or UNC Thread on request.

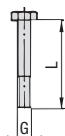
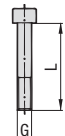
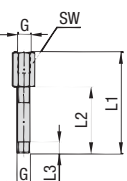
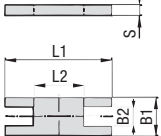
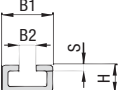
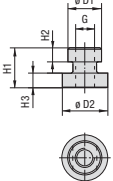
according to DIN 3015, Part 2

MATERIAL & SURFACE FINISHING OF METAL PARTS			CLAMP BODY consisting of two clamp halves				WELD PLATE FOR SINGLE CLAMPS SPAL								WELD PLATE FOR DOUBLE CLAMPS SPAS										
carbon steel St37, untreated			W1																						
carbon steel St37, phosphated			W2																						
carbon steel St37, zinc/nickel coated			W3																						
stainless steel A2 - 1.4301/1.4305 (AISI304/303)			W4																						
stainless steel A4 - 1.4401/1.4571 (AISI316/316Ti)			W5																						
MATERIAL & SURFACE FINISHING CODE			SEE COMPONENT PART IDENTIFICATION				3S- 7S: W2 8S-12S: W1								3S- 7S: W2 8S-12S: W1										
STAUFF GROUP	DIN GROUP	O.D. OF PIPE / TUBE / HOSE Ø D1 IN MM	L1		L2	Inside Surface			Width	L1	L2	B	S	H	G	ØD1	L1	L2	B1	B2	S	H	G	ØD1	
			PP/PA	AL		profiled	smooth	H																	S
3S	1	6																							
		6,4																							
		8																							
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		16																							
		17,2																							
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4S	2	19																							
		20																							
		21,3																							
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		25,4																							
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		30																							
		32																							
5S	3	30																							
		32																							
		33,7																							
		35																							
		38																							
		40																							
		42																							
		44,5																							
		48,3																							
		50,8																							
6S	4	55																							
		57																							
		60,3																							
		63,5																							
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7S	5	82,5																							
		88,9																							
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		102																							
		108																							
		114																							
		127																							
		133																							
		140																							
		152																							
8S	6	159																							
		165																							
		168																							
		168																							
		177,8																							
		193,7																							
		216																							
		219																							
		219																							
		273																							
9S	7	324																							
		356																							
		406																							
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* zinc plated, blue chromated - Fe/Zn 8 B

according to **DIN 3015, Part 2**

HEXAGON HEAD BOLT AS	SOCKET CAP SCREW IS	STACKING BOLT AF	SAFETY WASHER SI	SAFETY LOCKING PLATE SIP	MOUNTING RAIL STSV	MOUNTING RAIL NUT GMV																						
DIN 931/933 	ISO 4762  Group 3S - 6S	 Group 3S - 10S	DIN 93 for use with HEXAGON HEAD BOLT AS 	 Group 3S - 10S	 up to Group 6S	 up to Group 6S																						
W1	W1	W2					W3	3S- 7S: W2 8S-10S: W1					W1				W3											
G x L	G x L	G	L1	L2	L3	SW	øD	L1	L2	B1	B2	S	B1	B2	H	S	øD1	øD2	H1	H2	H3	G						
M10 x 45	M10 x 30	M10	49	25	15 min.	15	10,5	57	13	30	15,2	8	40	13	22	5	17,8	24	21	7,6	7,4	M 10						
M10 x 60	M10 x 40	M10	65	40	15 min.	15	10,5	70	26	30	15,2	8																
M10 x 70	M10 x 50	M10	77	51	15 min.	15	10,5	85	40	30	15,2	8																
M12 x 100	M12 x 80	M12	110	82	18 min.	17	13,0	116	68	45	17,2	10																
M16 x 130	- - -	M16	144	110	24 min.	21	17,0	153	96	60	22	10	- - -						- - -									
M20 x 190	- - -	M20	200	150	30 min.	27	21,0	206	130	80	28	15	- - -						- - -									
M24 x 220	- - -	M24	240	180	50 min.	30	25,0	251	166	90	31	15	- - -						- - -									
M30 x 300	- - -	M30	331	256	62 min.	46	31,0	317	205	120	49	25	- - -						- - -									
M30 x 450	- - -	- - -					31,0	- - -					- - -						- - -									
M30 x 560	- - -	- - -					31,0	- - -					- - -						- - -									

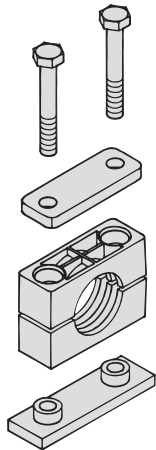


according to DIN 3015, Part 2

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① TYPE OF INSTALLATION		③ MATERIAL & DESIGN OF CLAMP BODY *1		④ MOUNTING & FITTING COMBINATION		⑦ ASSEMBLING & PACKAGING																																																																																																																																																																																																																																																																																																																																												
<table><tr><td>no code</td><td>without mounting plate, rail adaptor or rail nuts</td></tr><tr><td>SPAL</td><td>Weld Plate for Single Clamps</td></tr><tr><td>SPAS</td><td>Weld Plate for Double Clamps</td></tr><tr><td>SPAL/DUEB</td><td>Elongated Weld Plate for Single Clamps</td></tr><tr><td>CRA *2*3</td><td>Channel Rail Adaptor</td></tr><tr><td>GMV *2</td><td>Mounting Rail Nut</td></tr></table>		no code	without mounting plate, rail adaptor or rail nuts	SPAL	Weld Plate for Single Clamps	SPAS	Weld Plate for Double Clamps	SPAL/DUEB	Elongated Weld Plate for Single Clamps	CRA *2*3	Channel Rail Adaptor	GMV *2	Mounting Rail Nut	<table><tr><td>PP</td><td>Polypropylene, profiled inside, with tension clearance</td></tr><tr><td>PPH*2</td><td>Polypropylene, smooth inside, without tension clearance</td></tr><tr><td>PA</td><td>Polyamide, profiled inside, with tension clearance</td></tr><tr><td>PAH *2</td><td>Polyamide, smooth inside, without tension clearance</td></tr><tr><td>SA *2</td><td>Santoprene, profiled inside, with tension clearance</td></tr><tr><td>SAH*2</td><td>Santoprene, smooth inside, without tension clearance</td></tr><tr><td>AL</td><td>Aluminium, profiled inside, with tension clearance</td></tr></table>		PP	Polypropylene, profiled inside, with tension clearance	PPH*2	Polypropylene, smooth inside, without tension clearance	PA	Polyamide, profiled inside, with tension clearance	PAH *2	Polyamide, smooth inside, without tension clearance	SA *2	Santoprene, profiled inside, with tension clearance	SAH*2	Santoprene, smooth inside, without tension clearance	AL	Aluminium, profiled inside, with tension clearance	<table><tr><td>DPAL - AS</td><td>Single Cover Plate / Hexagon Head Bolt</td></tr><tr><td>DPAS - AS</td><td>Double Cover Plate / Hexagon Head Bolt</td></tr><tr><td>DPAL - IS</td><td>Single Cover Plate / Socket Cap Screw</td></tr><tr><td>IS *2</td><td>Socket Cap Screw</td></tr><tr><td>SIP - AF*4</td><td>Safety Locking Plate / Stacking Bolt</td></tr></table>		DPAL - AS	Single Cover Plate / Hexagon Head Bolt	DPAS - AS	Double Cover Plate / Hexagon Head Bolt	DPAL - IS	Single Cover Plate / Socket Cap Screw	IS *2	Socket Cap Screw	SIP - AF*4	Safety Locking Plate / Stacking Bolt	<table><tr><td>no code</td><td>components supplied separately (standard)</td></tr><tr><td>A</td><td>assembled (optional)</td></tr><tr><td>K</td><td>packed in kits (optional)</td></tr></table>	no code	components supplied separately (standard)	A	assembled (optional)	K	packed in kits (optional)																																																																																																																																																																																																																																																																																																		
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② STAUFF GROUP & SIZE OF CLAMP BODY		② STAUFF GROUP & SIZE OF CLAMP BODY CONTINUATION		⑤ TYPE OF THREAD		⑥ MATERIAL & SURFACE FINISHING OF METAL PARTS *7																																																																																																																																																																																																																																																																																																																																												
<table><tr><th>Group</th><th>Tube O.D. in mm</th><th>Tube O.D. in inch</th><th>Nominal Bore Pipe</th><th>Material Code</th></tr><tr><td rowspan="10">STAUFF 3S DIN 1</td><td>6</td><td></td><td></td><td>3006</td></tr><tr><td>6,4</td><td>1/4</td><td></td><td>3006,4</td></tr><tr><td>8</td><td>5/16</td><td></td><td>3008</td></tr><tr><td>9,5</td><td>3/8</td><td></td><td>3009,5</td></tr><tr><td>10</td><td></td><td>1/8</td><td>3010</td></tr><tr><td>12</td><td></td><td></td><td>3012</td></tr><tr><td>12,7</td><td>1/2</td><td></td><td>3012,7</td></tr><tr><td>13,5</td><td></td><td>1/4</td><td>3013,5</td></tr><tr><td>14</td><td></td><td></td><td>3014</td></tr><tr><td>15</td><td></td><td></td><td>3015</td></tr><tr><td rowspan="10">STAUFF 4S DIN 2</td><td>16</td><td>5/8</td><td></td><td>3016</td></tr><tr><td>17,2</td><td>3/4</td><td></td><td>3017,2</td></tr><tr><td>18</td><td></td><td></td><td>3018</td></tr><tr><td>19</td><td>3/4</td><td></td><td>4019</td></tr><tr><td>20</td><td></td><td></td><td>4020</td></tr><tr><td>21,3</td><td></td><td>1/2</td><td>4021,3</td></tr><tr><td>22</td><td>7/8</td><td></td><td>4022</td></tr><tr><td>25</td><td></td><td></td><td>4025</td></tr><tr><td>25,4</td><td>1</td><td></td><td>4025,4</td></tr><tr><td>26,9</td><td>3/4</td><td></td><td>4026,9</td></tr><tr><td rowspan="10">STAUFF 5S DIN 3</td><td>28</td><td></td><td></td><td>4028</td></tr><tr><td>30</td><td></td><td></td><td>4030</td></tr><tr><td>30</td><td></td><td></td><td>5030</td></tr><tr><td>32</td><td>1 1/4</td><td></td><td>5032</td></tr><tr><td>33,7</td><td></td><td>1</td><td>5033,7</td></tr><tr><td>35</td><td></td><td></td><td>5035</td></tr><tr><td>38</td><td>1 1/2</td><td></td><td>5038</td></tr><tr><td>40</td><td></td><td></td><td>5040</td></tr><tr><td>42</td><td></td><td>1 1/4</td><td>5042</td></tr><tr><td>38</td><td>1 1/2</td><td></td><td>6038</td></tr><tr><td rowspan="8">STAUFF 6S DIN 4</td><td>42</td><td></td><td>1 1/4</td><td>6042</td></tr><tr><td>44,5</td><td>1 3/4</td><td></td><td>6044,5</td></tr><tr><td>48,3</td><td></td><td>1 1/2</td><td>6048,3</td></tr><tr><td>50,8</td><td>2</td><td></td><td>6050,8</td></tr><tr><td>55</td><td></td><td></td><td>6055</td></tr><tr><td>57</td><td>2 1/4</td><td></td><td>6057</td></tr></table>		Group	Tube O.D. in mm	Tube O.D. in inch	Nominal Bore Pipe	Material Code	STAUFF 3S DIN 1	6			3006	6,4	1/4		3006,4	8	5/16		3008	9,5	3/8		3009,5	10		1/8	3010	12			3012	12,7	1/2		3012,7	13,5		1/4	3013,5	14			3014	15			3015	STAUFF 4S DIN 2	16	5/8		3016	17,2	3/4		3017,2	18			3018	19	3/4		4019	20			4020	21,3		1/2	4021,3	22	7/8		4022	25			4025	25,4	1		4025,4	26,9	3/4		4026,9	STAUFF 5S DIN 3	28			4028	30			4030	30			5030	32	1 1/4		5032	33,7		1	5033,7	35			5035	38	1 1/2		5038	40			5040	42		1 1/4	5042	38	1 1/2		6038	STAUFF 6S DIN 4	42		1 1/4	6042	44,5	1 3/4		6044,5	48,3		1 1/2	6048,3	50,8	2		6050,8	55			6055	57	2 1/4		6057	<table><tr><th>Group</th><th>Tube O.D. in mm</th><th>Tube O.D. in inch</th><th>Nominal Bore Pipe</th><th>Material Code</th></tr><tr><td rowspan="10">6S 4</td><td>60,3</td><td></td><td>2</td><td>6060,3</td></tr><tr><td>63,5</td><td>2 1/2</td><td></td><td>6063,5</td></tr><tr><td>65</td><td></td><td></td><td>6065</td></tr><tr><td>70</td><td></td><td></td><td>6070</td></tr><tr><td>65</td><td></td><td></td><td>7065</td></tr><tr><td>70</td><td></td><td></td><td>7070</td></tr><tr><td>73</td><td>2 7/8</td><td>2 1/2</td><td>7073 *5</td></tr><tr><td>75</td><td></td><td></td><td>7075</td></tr><tr><td>76,1</td><td>3</td><td>2 1/2</td><td>7076,1 *6</td></tr><tr><td>80</td><td></td><td></td><td>7080</td></tr><tr><td rowspan="10">7S 5</td><td>82,5</td><td>3 1/4</td><td></td><td>7082,5</td></tr><tr><td>88,9</td><td></td><td>3</td><td>7088,9</td></tr><tr><td>88,9</td><td></td><td>3</td><td>8088,9</td></tr><tr><td>100</td><td></td><td></td><td>8100</td></tr><tr><td>102</td><td></td><td>3 1/2</td><td>8102</td></tr><tr><td>108</td><td>4 1/4</td><td></td><td>8108</td></tr><tr><td>114</td><td></td><td>4</td><td>8114</td></tr><tr><td>127</td><td>5</td><td></td><td>8127</td></tr><tr><td>133</td><td>5 1/4</td><td></td><td>8133</td></tr><tr><td>133</td><td>5 1/4</td><td></td><td>9133</td></tr><tr><td rowspan="10">8S 6</td><td>140</td><td></td><td>5</td><td>9140</td></tr><tr><td>152</td><td>6</td><td></td><td>9152</td></tr><tr><td>159</td><td>6 1/4</td><td></td><td>9159</td></tr><tr><td>165</td><td>6 1/2</td><td></td><td>9165</td></tr><tr><td>168</td><td></td><td>6</td><td>9168</td></tr><tr><td>168</td><td></td><td>6</td><td>10168</td></tr><tr><td>177,8</td><td>7</td><td></td><td>10177,8</td></tr><tr><td>193,7</td><td>7 5/8</td><td></td><td>10193,7</td></tr><tr><td>216</td><td>8 1/2</td><td></td><td>10216</td></tr><tr><td>219</td><td></td><td>8</td><td>10219</td></tr><tr><td rowspan="10">10S 8</td><td>219</td><td></td><td>8</td><td>11219</td></tr><tr><td>273</td><td></td><td>10</td><td>11273</td></tr><tr><td>324</td><td></td><td>12</td><td>11324</td></tr><tr><td>356</td><td></td><td>14</td><td>12356</td></tr><tr><td>406</td><td></td><td>16</td><td>12406</td></tr></table>		Group	Tube O.D. in mm	Tube O.D. in inch	Nominal Bore Pipe	Material Code	6S 4	60,3		2	6060,3	63,5	2 1/2		6063,5	65			6065	70			6070	65			7065	70			7070	73	2 7/8	2 1/2	7073 *5	75			7075	76,1	3	2 1/2	7076,1 *6	80			7080	7S 5	82,5	3 1/4		7082,5	88,9		3	7088,9	88,9		3	8088,9	100			8100	102		3 1/2	8102	108	4 1/4		8108	114		4	8114	127	5		8127	133	5 1/4		8133	133	5 1/4		9133	8S 6	140		5	9140	152	6		9152	159	6 1/4		9159	165	6 1/2		9165	168		6	9168	168		6	10168	177,8	7		10177,8	193,7	7 5/8		10193,7	216	8 1/2		10216	219		8	10219	10S 8	219		8	11219	273		10	11273	324		12	11324	356		14	12356	406		16	12406	<table><tr><td>M</td><td>Metric Thread</td></tr><tr><td>U</td><td>UNC Thread</td></tr></table>		M	Metric Thread	U	UNC Thread	<table><tr><td>W1</td><td>all parts are untreated</td></tr><tr><td>W2</td><td>all parts are phosphated</td></tr><tr><td>W3</td><td>all parts are zinc/nickel coated</td></tr><tr><td>W4</td><td>all metal parts made of stainless steel A2 - 1.4301/1.4305 (AISI 304/303)</td></tr><tr><td>W5</td><td>all metal parts made of stainless steel A4 - 1.4401/1.4571 (AISI 316/316Ti)</td></tr><tr><td>W10</td><td>weld plate phosphated, all other parts zinc/nickel coated</td></tr><tr><td>W12</td><td>weld plate and cover plate phosphated, bolts untreated</td></tr><tr><td>W13</td><td>rail nut zinc/nickel coated, cover plate phosphated, bolts untreated</td></tr><tr><td>W15</td><td>weld plate and cover plate phosphated, bolts zinc/nickel coated</td></tr><tr><td>W16</td><td>rail nut zinc/nickel coated, cover plate phosphated, bolts zinc/nickel coated</td></tr><tr><td>W17</td><td>safety locking plate phosphated, stacking bolts zinc/nickel coated</td></tr><tr><td>W18</td><td>safety locking plate untreated, stacking bolts phosphated</td></tr><tr><td>W19</td><td>cover plate phosphated, bolts untreated</td></tr></table>	W1	all parts are untreated	W2	all parts are phosphated	W3	all parts are zinc/nickel coated	W4	all metal parts made of stainless steel A2 - 1.4301/1.4305 (AISI 304/303)	W5	all metal parts made of stainless steel A4 - 1.4401/1.4571 (AISI 316/316Ti)	W10	weld plate phosphated, all other parts zinc/nickel coated	W12	weld plate and cover plate phosphated, bolts untreated	W13	rail nut zinc/nickel coated, cover plate phosphated, bolts untreated	W15	weld plate and cover plate phosphated, bolts zinc/nickel coated	W16	rail nut zinc/nickel coated, cover plate phosphated, bolts zinc/nickel coated	W17	safety locking plate phosphated, stacking bolts zinc/nickel coated	W18	safety locking plate untreated, stacking bolts phosphated	W19	cover plate phosphated, bolts untreated
Group	Tube O.D. in mm	Tube O.D. in inch	Nominal Bore Pipe	Material Code																																																																																																																																																																																																																																																																																																																																														
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	W1	all parts are untreated																																																																																																																																																																																																																																																																																																																																																
	W2	all parts are phosphated																																																																																																																																																																																																																																																																																																																																																
	W3	all parts are zinc/nickel coated																																																																																																																																																																																																																																																																																																																																																
W4	all metal parts made of stainless steel A2 - 1.4301/1.4305 (AISI 304/303)																																																																																																																																																																																																																																																																																																																																																	
W5	all metal parts made of stainless steel A4 - 1.4401/1.4571 (AISI 316/316Ti)																																																																																																																																																																																																																																																																																																																																																	
W10	weld plate phosphated, all other parts zinc/nickel coated																																																																																																																																																																																																																																																																																																																																																	
W12	weld plate and cover plate phosphated, bolts untreated																																																																																																																																																																																																																																																																																																																																																	
W13	rail nut zinc/nickel coated, cover plate phosphated, bolts untreated																																																																																																																																																																																																																																																																																																																																																	
W15	weld plate and cover plate phosphated, bolts zinc/nickel coated																																																																																																																																																																																																																																																																																																																																																	
W16	rail nut zinc/nickel coated, cover plate phosphated, bolts zinc/nickel coated																																																																																																																																																																																																																																																																																																																																																	
W17	safety locking plate phosphated, stacking bolts zinc/nickel coated																																																																																																																																																																																																																																																																																																																																																	
W18	safety locking plate untreated, stacking bolts phosphated																																																																																																																																																																																																																																																																																																																																																	
W19	cover plate phosphated, bolts untreated																																																																																																																																																																																																																																																																																																																																																	

TECHNICAL NOTES

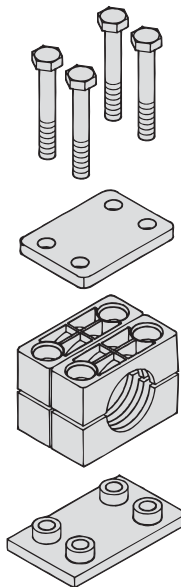
- *1 SEE MATERIAL PROPERTIES ON PAGE 52. OTHER CLAMP BODY MATERIALS AND COLOURS ARE AVAILABLE UPON REQUEST.
- *2 AVAILABLE FOR STAUFF GROUP 3S TO 6S ONLY (DIN GROUPS 1 TO 4).
- *3 SPECIAL BOLT LENGTHS REQUIRED. SUPPLIED WHEN ORDERED AS KITS.
- *4 AVAILABLE FOR STAUFF GROUP 3S TO 10S ONLY (DIN GROUPS 1 TO 8).
- *5 NOMINAL BORE, EXCEPT DIN EN 10220.
- *6 NOMINAL BORE, ONLY DIN EN 10220.
- *7 INDIVIDUAL COMBINATIONS OF ALTERNATIVE SURFACE FINISHINGS AND SPECIAL PROPERTY MATERIALS ARE AVAILABLE UPON REQUEST.

according to **DIN 3015, Part 2**
SPAL 3006 PP-DPAL-AS M W12


- 2x **Hexagon Head Bolt**
Surface: W1, untreated
Thread: metric
- 1x **Cover Plate for Single Clamps**
Surface: W2, phosphated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance

Group: STAUFF 3S / DIN 1
Pipe-O.D. 6 mm
- 1x **Weld Plate for Single Clamps**
Surface: W2, phosphated
Thread: metric

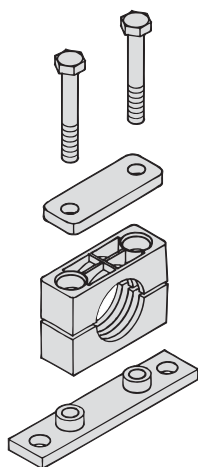
W12 (up to Group 7S) or **W1** (Group 8S to 12S) are standards for this type of installation.

SPAS 3006 PP-DPAS-AS M W12


- 4x **Hexagon Head Bolt**
Surface: W1, untreated
Thread: metric
- 1x **Cover Plate for Double Clamps**
Surface: W2, phosphated
- 2x **Clamp (four halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance

Group: STAUFF 3S / DIN 1
Pipe-O.D. 6 mm
- 1x **Weld Plate for Double Clamps**
Surface: W2, phosphated
Thread: metric

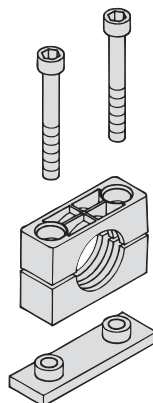
W12 (up to Group 7S) or **W1** (Group 8S to 12S) are standards for this type of installation.

SPAL/DUEB 3006 PP-DPAL-AS M W12


- 2x **Hexagon Head Bolt**
Surface: W1, untreated
Thread: metric
- 1x **Cover Plate for Single Clamps**
Surface: W2, phosphated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance

Group: STAUFF 3S / DIN 1
Pipe-O.D. 6 mm
- 1x **Elongated Weld Plate for Single Clamps**
Surface: W2, phosphated
Thread: metric

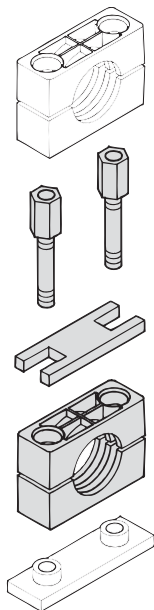
W12 (up to Group 7S) or **W1** (Group 8S to 12S) are standards for this type of installation.

SPAL 3006 PP-IS M W12


- 2x **Socket Cap Screw**
Surface: W1, untreated
Thread: metric
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance

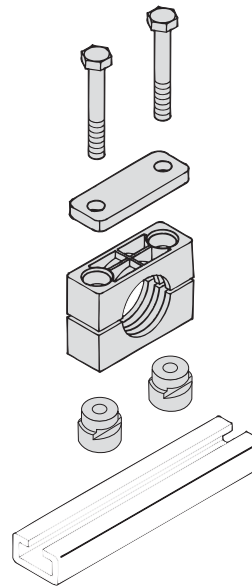
Group: STAUFF 3S / DIN 1
Pipe-O.D. 6 mm
- 1x **Weld Plate for Single Clamps**
Surface: W2, phosphated
Thread: metric

W12 (up to Group 6S) is standard for this type of installation.

according to **DIN 3015, Part 2**
3006 PP-SIP-AF M W2


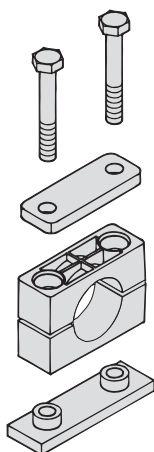
- 2x **Stacking Bolt**
Surface: W2, phosphated
Thread: metric
- 1x **Safety Locking plate**
Surface: W2, phosphated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 3S / DIN 1
Pipe-O.D. 6 mm

W2 (up to Group 7S) or **W18** (Group 8S to 10S) are standards for this type of installation.

GMV 3006 PP-DPAL-AS M W13


- 2x **Hexagon Head Bolt**
Surface: W1, untreated
Thread: metric
- 1x **Cover Plate for Single Clamps**
Surface: W2, phosphated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 3S / DIN 1
Pipe-O.D. 6 mm
- 2x **Mounting Rail Nut**
Surface: W3, zinc/nickel coated
Thread: metric

W13 (up to Group 6S) is standard for this type of installation. This combination is available up to Group 6S only.

SPAL 3006 PPH-DPAL-AS M W12


- 2x **Hexagon Head Bolt**
Surface: W1, untreated
Thread: metric
- 1x **Cover Plate for Single Clamps**
Surface: W2, phosphated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: smooth inside, without tension clearance
Group: STAUFF 3S / DIN 1
Pipe-O.D. 6 mm
- 1x **Weld Plate for Single Clamps**
Surface: W2, phosphated
Thread: metric

W12 (up to Group 7S) or **W1** (Group 8S to 12S) are standards for this type of installation.

NOTES REGARDING THE USE OF THE CHANNEL RAIL ADAPTOR CRA

The CHANNEL RAIL ADAPTOR Type **CRA** is amongst others suitable for the following channel rails:

UNISTRUT-Rails

P 1000, P 1000T, P 1000V, P 1000VT, P 1001
P 2000, P 2000T
P 3003, P 3003T, P 3300V, P 3300VT, P 3301
P 4000, P 4000T
P 5000, P 5000T, P 5001, P 5500, P 5500T, P 5501

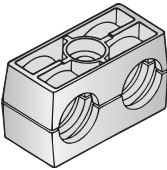
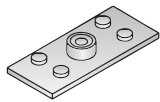
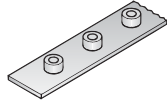
HALFEN-Rails

HM 41/41
HZA 41/22
HZM 41/41
H2M 41/22
HL 41/41, HL 41/B2

HILTI-Rails

MQ-21, MQ-41, MQ-52, MQ-72
MQ-21U, MQ-41U, MQ-72U
MQ-21D, MQ-41D, MQ-52-72D

according to **DIN 3015, Part 3**

ALSO AVAILABLE					CLAMP BODY consisting of two clamp halves	SINGLE WELD PLATE SP	GROUP WELD PLATE RAP	CHANNEL RAIL ADAPTOR CRA
Extensive range of special clamping systems and accessories, e.g. for noise and vibration reducing installation, for electric applications and cables or for particular mounting purposes see pages 28 to 32 Custom designed pipe clamps (machined and injection moulding versions) according to customer's specifications or based on STAUFF developments see pages 34 to 35								suitable for several types of channel rails, see page 27 
MATERIAL & SURFACE FINISHING CODE (ALL DISPLAYED OPTIONS ARE STANDARD DELIVERY)					SEE COMPONENT PART IDENTIFICATION	W2	W1	W3*
ORDERING INFORMATION					***,*/**,* **	SP *** **	RAP ***/**/* **	CRA *** **
STAUFF GROUP	DIN GROUP	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN INCH	NOMINAL BORE PIPE IN INCH	STAUFF GROUP OUTSIDE DIAMETERS OF BOTH PIPES IN MM MATERIAL & DESIGN OF CLAMP BODY	SINGLE WELD PLATE SP STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	GROUP WELD PLATE RAP STAUFF GROUP PIPE CENTER SPACING NUMBER OF CLAMPS TYPE OF THREAD MATERIAL & SURFACE FINISHING	CHANNEL RAIL ADAPTOR CRA STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING
1D	1	6 6,4 8 9,5 10 12	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	$\frac{1}{8}$	106/06 *** 106,4/06,4 *** 108/08 *** 109,5/09,5 *** 110/10 *** 112/12 ***	SP 1D * **	RAP 1D/40/5 * **	CRA 1D M ** for use with bolt M6 x 35
2D	2	12,7 13,5 14 15 16 17,2 18	$\frac{1}{2}$ $\frac{5}{8}$	$\frac{1}{4}$ $\frac{3}{8}$	212,7/12,7 *** 213,5/13,5 *** 214/14 *** 215/15 *** 216/16 *** 217,2/17,2 *** 218/18 ***	SP 2D * **	RAP 2D/58/5 * **	CRA 2D M ** for use with bolt M8 x 35
3D	3	19 20 21,3 22 25 25,4	$\frac{3}{4}$ $\frac{7}{8}$ 1	$\frac{1}{2}$	319/19 *** 320/20 *** 321,3/21,3 *** 322/22 *** 325/25 *** 325,4/25,4 ***	SP 3D * **	RAP 3D/72/5 * **	CRA 3D M ** for use with bolt M8 x 45
4D	4	26,9 28 30	$\frac{3}{4}$	$\frac{3}{4}$	426,9/26,9 *** 428/28 *** 430/30 ***	SP 4D * **	RAP 4D/90/5 * **	CRA 4D M ** for use with bolt M8 x 50
5D	5	32 33,7 35 38 40 42			532/32 *** 533,7/33,7 *** 535/35 *** 538/38 *** 540/40 *** 542/42 ***	SP 5D * **	RAP 5D/112/5 * **	CRA 5D M ** for use with bolt M8 x 60

COMPONENT PART IDENTIFICATION FOR TWIN SERIES CLAMP BODIES AND COMPONENTS

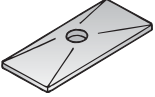
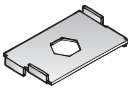
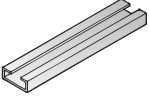
CLAMP BODY

MATERIAL	DESIGN	COLOUR	CODE	MATERIAL	DESIGN	COLOUR	CODE
Polypropylene	profiled inside, with tension clearance	green	PP	Polyamide	profiled inside, with tension clearance	black	PA
Polypropylene	smooth inside, without tension clearance	green	PPH	Polyamide	smooth inside, without tension clearance	black	PAH

Alternative materials, designs and colours in addition to the above stated standard are available upon request.

* zinc plated, blue chromated - Fe/Zn 8 B

according to **DIN 3015, Part 3**

COVER PLATE GD	HEXAGON HEAD BOLT AS	STACKING BOLT AF	SAFETY LOCKING PLATE SI	SAFETY LOCKING PLATE SIV	MOUNTING RAIL TS	HEXAGON RAIL NUT SM
	DIN 931/933 			for multi-level assembly, prevents upper clamp from turning  Group 1D - 3D		 SM 1-8/1D SM 2-5D
W3	W3	W3	W3	W3	W1	W1 / W3
GD ***	AS ***	AF ***	SI *****	SIV *****	TS ***	SM ***
COVER PLATE GD ↓ STAUFF GROUP ↓ MATERIAL & SURFACE FINISHING	HEXAGON HEAD BOLT AS ↓ STAUFF GROUP ↓ TYPE OF THREAD ↓ MATERIAL & SURFACE FINISHING	STACKING BOLT AF ↓ STAUFF GROUP ↓ TYPE OF THREAD ↓ MATERIAL & SURFACE FINISHING	SAFETY LOCKING PLATE SI ↓ STAUFF GROUP (1D OR 2-5D ONLY) ↓ MATERIAL & SURFACE FINISHING	SAFETY LOCKING PLATE SIV ↓ STAUFF GROUP (1D OR 2-3D ONLY) ↓ MATERIAL & SURFACE FINISHING	MOUNTING RAIL TS ↓ HEIGHT OF RAIL IN MM ↓ LENGTH OF RAIL IN M ↓ MATERIAL & SURFACE FINISHING	HEXAGON RAIL NUT SM ↓ STAUFF GROUP (1-8/1D OR 2-5D ONLY) ↓ TYPE OF THREAD ↓ MATERIAL & SURFACE FINISHING
GD 1D **	AS 1D M ** (M6 x 35)	AF 1D ***	SI 1D **	SIV 1D **		SM 1-8/1D * W1
GD 2D **	AS 2D M ** (M8 x 35)	AF 2D ***		SIV 2-3D **	TS *** available heights: 11, 14 and 30 mm available lengths: 1m and 2 m	
GD 3D **	AS 3D M ** (M8 x 45)	AF 3D ***	SI 2-5D **			SM 2-5D * W3
GD 4D **	AS 4D M ** (M8 x 50)	AF 4D ***		---		
GD 5D **	AS 5D M ** (M8 x 60)	AF 5D ***		---		

COMPONENT PART IDENTIFICATION FOR TWIN SERIES CLAMP BODIES AND COMPONENTS**METAL PARTS** Alternative materials and surface finishings in addition to the below stated standard are available upon request

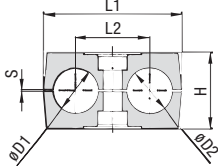
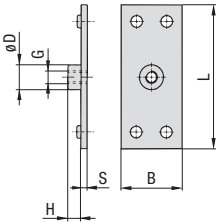
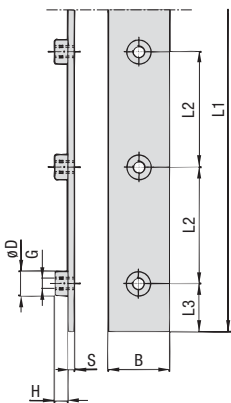
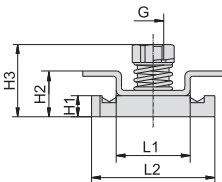
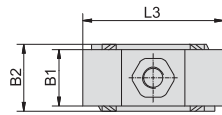
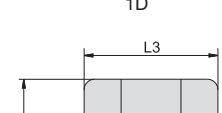
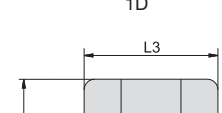
MATERIAL	SURFACE FINISHING	CODE
carbon steel St37	untreated	W1
carbon steel St37	phosphated	W2
carbon steel St37	zinc/nickel coated	W3
stainless steel A2 - 1.4301/1.4305 (AISI 304/303)		W4
stainless steel A4 - 1.4401/1.4571 (AISI 316/316Ti)		W5

THREADED PARTS

TYPE OF THREAD	CODE
Metric Thread	M
UNC Thread	U

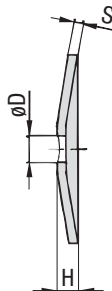
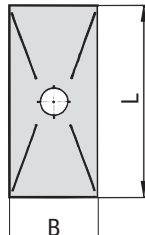
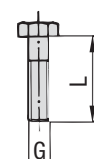
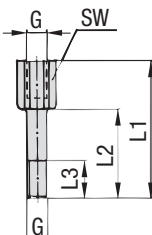
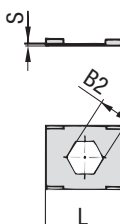
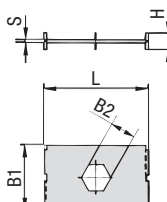
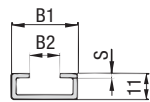
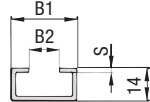
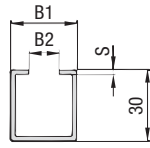
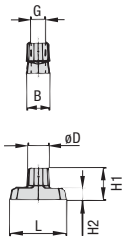
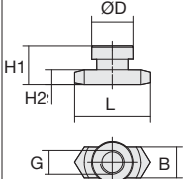
All threaded parts are available with Metric or UNC Thread on request.

according to **DIN 3015, Part 3**

MATERIAL & SURFACE FINISHING OF METAL PARTS			CLAMP BODY consisting of two clamp halves			SINGLE WELD PLATE SP			GROUP WELD PLATE RAP			CHANNEL RAIL ADAPTOR CRA																			
carbon steel St37, untreated W1																															
carbon steel St37, phosphated W2																															
carbon steel St37, zinc/nickel coated W3																															
stainless steel A2 - 1.4301/1.4305 (AISI304/303) W4																															
stainless steel A4 - 1.4401/1.4571 (AISI316/316Ti) W5																															
Alternative materials and surface finishings in addition to the above stated standard are available upon request.																															
MATERIAL & SURFACE FINISHING CODE			SEE COMPONENT PART IDENTIFICATION			W2			W1			W3*																			
STAUFF GROUP	DIN GROUP	OUTSIDE DIAMETER PIPE / TUBE / HOSE Ø D1 / Ø D2 IN MM							L	B	S	H	øD	G	L1	L2	L3	B	S	H	øD	G	G	L1	L2	L3	B1	B2	H1	H2	H3
			Inside Surface																												
			L1	L2	gerippt		glatt																								
1D	1	6	36	20	27	0,6 min.	26,5	30	37	30	3	6,5	12	M6	196	40	18	30	3	6,5	12	M6	M6	21	35	40	16	19	6	13	20,5
2D	2	12,7	53	29	27	0,7 min.	26,5	30	55	30	5	6	14	M8	288	58	28	30	5	6	14	M8	M8	21	35	38	53	19	9	17	23,5
3D	3	19	67	36	37	0,7 min.	36,5	30	70	30	5	6	14	M8	358	72	35	30	5	6	14	M8	M8	21	35	38	53	19	9	17	23,5
4D	4	26,9	80	45	40	0,7 min.	38	30	85	30	5	6	14	M8	445	90	42	30	5	6	14	M8	M8	21	35	38	80	19	9	17	23,5
		28																													
5D	5	30	106	56	53	0,7 min.	52	30	110	30	5	6	14	M8	558	112	55	30	5	6	14	M8	M8	21	35	38	80	19	9	17	23,5

* zinc plated, blue chromated - Fe/Zn 8 B

according to **DIN 3015, Part 3**

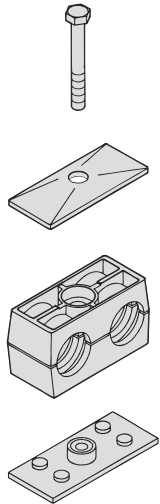
COVER PLATE GD	HEXAGON HEAD BOLT AS	STACKING BOLT AF	SAFETY LOCKING PLATE SI	SAFETY LOCKING PLATE SIV	MOUNTING RAIL TS	HEXAGON RAIL NUT SM																										
 	DIN 931/933 			for multi-level assembly, prevents upper clamp from turning  Group 1D - 3D	 TS 11  TS 14  TS 30	 SM 1-8/1D  SM 2-5D																										
W3	W3	W3	W3	W3	W1	W1/W3																										
L	B	H	S	øD	G x L	G	L1	L2	L3	SW	L	B1	B2	S	L	B1	B2	S	H	Nominal Size	B1	B2	S	L	B	H1	H2	øD	G			
34	30	7	3	7	M6 x 35	M6	34	20	12 min.	11	27	22	11,2	0,5	27	28	11,1	1	7								25,5	10,2	13,5	5,5	12	M6
52	30	7	3	9	M8 x 35	M8	33	20	12 min.	12	27	22	12,2	0,5	45	28	12,1	1	7													
65	30	7	3	9	M8 x 45	M8	44	29	12 min.	12	27	22	12,2	0,5	45	28	12,1	1	7	TS 11 TS 14 TS 30	28	11	2				25,5	10,4	13	5	14	M8
79	30	7	3	9	M8 x 50	M8	49	34	12 min.	12	27	22	12,2	0,5	---																	
102	30	7	3	9	M8 x 60	M8	61	46	12 min.	12	27	22	12,2	0,5	---																	

according to DIN 3015, Part 3

① ***	② ***,*/**,*	③ ****	④ ** - **	⑤ *	⑥ W**	⑦ *																																																																																																																																					
① TYPE OF INSTALLATION <table><tr><td>no code</td><td>without mounting plate, rail adaptor or rail nuts</td></tr><tr><td>SP</td><td>Single Weld Plate</td></tr><tr><td>RAP</td><td>Group Weld Plate</td></tr><tr><td>CRA</td><td>Channel Rail Adaptor</td></tr><tr><td>SM</td><td>Hexagon Rail Nut</td></tr></table>		no code	without mounting plate, rail adaptor or rail nuts	SP	Single Weld Plate	RAP	Group Weld Plate	CRA	Channel Rail Adaptor	SM	Hexagon Rail Nut	③ MATERIAL & DESIGN OF CLAMP BODY *1 <table><tr><td>PP</td><td>Polypropylene, profiled inside, with tension clearance</td></tr><tr><td>PPH</td><td>Polypropylene, smooth inside, without tension clearance</td></tr><tr><td>PA</td><td>Polyamide, profiled inside, with tension clearance</td></tr><tr><td>PAH</td><td>Polyamide, smooth inside, without tension clearance</td></tr></table>	PP	Polypropylene, profiled inside, with tension clearance	PPH	Polypropylene, smooth inside, without tension clearance	PA	Polyamide, profiled inside, with tension clearance	PAH	Polyamide, smooth inside, without tension clearance	④ MOUNTING & FITTING COMBINATION <table><tr><td>GD - AS</td><td>Cover Plate / Hexagon Head Bolt</td></tr><tr><td>SI - AF</td><td>Safety Locking Plate / Stacking Bolt</td></tr></table>	GD - AS	Cover Plate / Hexagon Head Bolt	SI - AF	Safety Locking Plate / Stacking Bolt	⑤ TYPE OF THREAD <table><tr><td>M</td><td>Metric Thread</td></tr><tr><td>U</td><td>UNC Thread</td></tr></table>	M	Metric Thread	U	UNC Thread	⑦ ASSEMBLING & PACKAGING <table><tr><td>no code</td><td>components supplied separately (standard)</td></tr><tr><td>A</td><td>assembled (optional)</td></tr><tr><td>K</td><td>packed in kits (optional)</td></tr></table>	no code	components supplied separately (standard)	A	assembled (optional)	K	packed in kits (optional)																																																																																																						
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② STAUFF GROUP & SIZE OF CLAMP BODY *3 <table><tr><th>Group</th><th>Tube O.D. in mm</th><th>Tube O.D. in inch</th><th>Nominal Bore Pipe</th><th>Material Code</th></tr><tr><td rowspan="5">STAUFF 1D DIN 1</td><td>6</td><td></td><td></td><td>106/06</td></tr><tr><td>6,4</td><td>1/4</td><td></td><td>106,4/06,4</td></tr><tr><td>8</td><td>5/16</td><td></td><td>108/08</td></tr><tr><td>9,5</td><td>3/8</td><td></td><td>109,5/09,5</td></tr><tr><td>10</td><td></td><td>1/8</td><td>110/10</td></tr><tr><td rowspan="5">STAUFF 2D DIN 2</td><td>12</td><td></td><td></td><td>112/12</td></tr><tr><td>12,7</td><td>1/2</td><td></td><td>212,7/12,7</td></tr><tr><td>13,5</td><td></td><td>1/4</td><td>213,5/13,5</td></tr><tr><td>14</td><td></td><td></td><td>214/14</td></tr><tr><td>15</td><td></td><td></td><td>215/15</td></tr><tr><td rowspan="5">STAUFF 3D DIN 3</td><td>16</td><td>5/8</td><td></td><td>216/16</td></tr><tr><td>17,2</td><td></td><td>3/8</td><td>217,2/17,2</td></tr><tr><td>18</td><td></td><td></td><td>218/18</td></tr><tr><td>19</td><td>3/4</td><td></td><td>319/19</td></tr><tr><td>20</td><td></td><td></td><td>320/20</td></tr><tr><td rowspan="5">STAUFF 4D DIN 4</td><td>21,3</td><td></td><td>1/2</td><td>321,3/21,3</td></tr><tr><td>22</td><td>7/8</td><td></td><td>322/22</td></tr><tr><td>25</td><td></td><td></td><td>325/25</td></tr><tr><td>25,4</td><td>1</td><td></td><td>325,4/25,4</td></tr><tr><td>26,9</td><td></td><td>3/4</td><td>426,9/26,9</td></tr><tr><td rowspan="5">STAUFF 5D DIN 5</td><td>28</td><td></td><td></td><td>428/28</td></tr><tr><td>30</td><td></td><td></td><td>430/30</td></tr><tr><td>32</td><td></td><td></td><td>532/32</td></tr><tr><td>33,7</td><td></td><td></td><td>533,7/33,7</td></tr><tr><td>35</td><td></td><td></td><td>535/35</td></tr><tr><td rowspan="3">STAUFF 6D DIN 6</td><td>38</td><td></td><td></td><td>538/38</td></tr><tr><td>40</td><td></td><td></td><td>540/40</td></tr><tr><td>42</td><td></td><td></td><td>542/42</td></tr></table>		Group	Tube O.D. in mm	Tube O.D. in inch	Nominal Bore Pipe	Material Code	STAUFF 1D DIN 1	6			106/06	6,4	1/4		106,4/06,4	8	5/16		108/08	9,5	3/8		109,5/09,5	10		1/8	110/10	STAUFF 2D DIN 2	12			112/12	12,7	1/2		212,7/12,7	13,5		1/4	213,5/13,5	14			214/14	15			215/15	STAUFF 3D DIN 3	16	5/8		216/16	17,2		3/8	217,2/17,2	18			218/18	19	3/4		319/19	20			320/20	STAUFF 4D DIN 4	21,3		1/2	321,3/21,3	22	7/8		322/22	25			325/25	25,4	1		325,4/25,4	26,9		3/4	426,9/26,9	STAUFF 5D DIN 5	28			428/28	30			430/30	32			532/32	33,7			533,7/33,7	35			535/35	STAUFF 6D DIN 6	38			538/38	40			540/40	42			542/42	⑥ MATERIAL & SURFACE FINISHING OF METAL PARTS *2 <table><tr><td>W1</td><td>all parts are untreated</td></tr><tr><td>W2</td><td>all parts are phosphated</td></tr><tr><td>W3</td><td>all parts are zinc/nickel coated</td></tr><tr><td>W4</td><td>all metal parts made of stainless steel A2 - 1.4301/1.4305 (AISI 304/303)</td></tr><tr><td>W5</td><td>all metal parts made of stainless steel A4 - 1.4401/1.4571 (AISI 316/316Ti)</td></tr><tr><td>W10</td><td>weld plate phosphated, all other parts zinc/nickel coated</td></tr><tr><td>W11</td><td>rail nut untreated, all other parts zinc/nickel coated</td></tr></table>	W1	all parts are untreated	W2	all parts are phosphated	W3	all parts are zinc/nickel coated	W4	all metal parts made of stainless steel A2 - 1.4301/1.4305 (AISI 304/303)	W5	all metal parts made of stainless steel A4 - 1.4401/1.4571 (AISI 316/316Ti)	W10	weld plate phosphated, all other parts zinc/nickel coated	W11	rail nut untreated, all other parts zinc/nickel coated
Group	Tube O.D. in mm	Tube O.D. in inch	Nominal Bore Pipe	Material Code																																																																																																																																							
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STAUFF 2D DIN 2	12			112/12																																																																																																																																							
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	13,5		1/4	213,5/13,5																																																																																																																																							
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	15			215/15																																																																																																																																							
STAUFF 3D DIN 3	16	5/8		216/16																																																																																																																																							
	17,2		3/8	217,2/17,2																																																																																																																																							
	18			218/18																																																																																																																																							
	19	3/4		319/19																																																																																																																																							
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STAUFF 4D DIN 4	21,3		1/2	321,3/21,3																																																																																																																																							
	22	7/8		322/22																																																																																																																																							
	25			325/25																																																																																																																																							
	25,4	1		325,4/25,4																																																																																																																																							
	26,9		3/4	426,9/26,9																																																																																																																																							
STAUFF 5D DIN 5	28			428/28																																																																																																																																							
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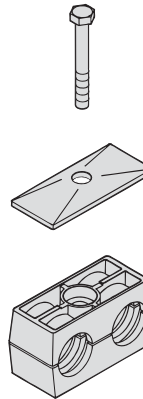
TECHNICAL NOTES

- *1** SEE MATERIAL PROPERTIES ON PAGE 52. OTHER CLAMP BODY MATERIALS AND COLOURS ARE AVAILABLE UPON REQUEST.
- *2** INDIVIDUAL COMBINATIONS OF ALTERNATIVE SURFACE FINISHINGS AND SPECIAL PROPERTY MATERIALS ARE AVAILABLE UPON REQUEST.
- *3** TWIN CLAMPS WITH DIFFERENT OUTSIDE DIAMETERS ARE ALSO AVAILABLE ON REQUEST.

according to **DIN 3015, Part 3**
SP 106/06 PP-GD-AS M W10


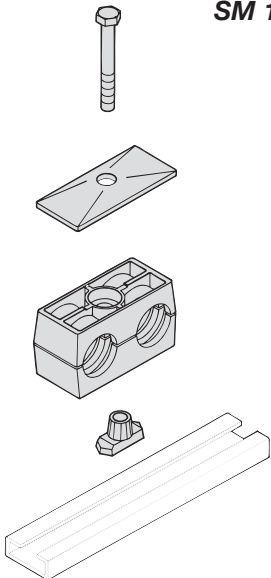
- 1x **Hexagon Head Bolt**
Surface: W3, zinc/nickel coated
Thread: metric
- 1x **Cover Plate**
Surface: W3, zinc/nickel coated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 1D / DIN 1
Pipe-O.D. both 6 mm
- 1x **Weld Plate**
Surface: W2, phosphated
Thread: metric

W10 is standard for this type of installation.

106/06 PP-GD-AS M W3


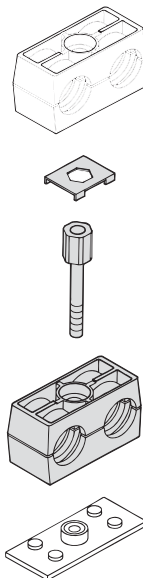
- 1x **Hexagon Head Bolt**
Surface: W3, zinc/nickel coated
Thread: metric
- 1x **Cover Plate**
Surface: W3, zinc/nickel coated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 1D / DIN 1
Pipe-O.D. both 6 mm

W3 is standard for this type of installation.

SM 106/06 PP-GD-AS M W11


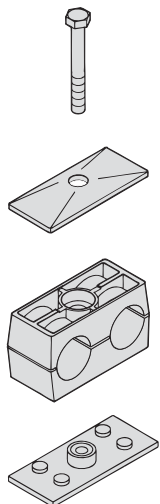
- 1x **Hexagon Head Bolt**
Surface: W3, zinc/nickel coated
Thread: metric
- 1x **Cover Plate**
Surface: W3, zinc/nickel coated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 1D / DIN 1
Pipe-O.D. both 6 mm
- 1x **Mounting Rail Nut**
Surface: W1, untreated
Thread: metric

W11 (Group 1D) or **W3** (Group 2D-5D) are standards for this type of installation.

106/06 PP-SI-AF M W3


- 1x **Safety Locking Plate**
Surface: W3, zinc/nickel coated
- 1x **Stacking Bolt**
Surface: W3, zinc/nickel coated
Thread: metric
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 1D / DIN 1
Pipe-O.D. both 6 mm

W3 is standard for this type of installation.

SP 106/06 PPH-GD-AS M W10


- 1x **Hexagon Head Bolt**
Surface: W3, zinc/nickel coated
Thread: metric
- 1x **Cover Plate**
Surface: W3, zinc/nickel coated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: smooth inside, without tension clearance
Group: STAUFF 1D / DIN 1
Pipe-O.D. both 6 mm
- 1x **Weld Plate**
Surface: W2, phosphated
Thread: metric

W10 is standard for this type of installation.

NOTES REGARDING THE USE OF THE CHANNEL RAIL ADAPTOR CRA

 The CHANNEL RAIL ADAPTOR Type **CRA** is amongst others suitable for the following channel rails:

UNISTRUT-Rails

 P1000, P1000T, P1000V, P1000VT, P1001
 P2000, P2000T
 P3003, P3003T, P3300V, P3300VT, P3301
 P4000, P4000T
 P5000, P5000T, P5001, P5500, P5500T, P5501

HALFEN-Rails

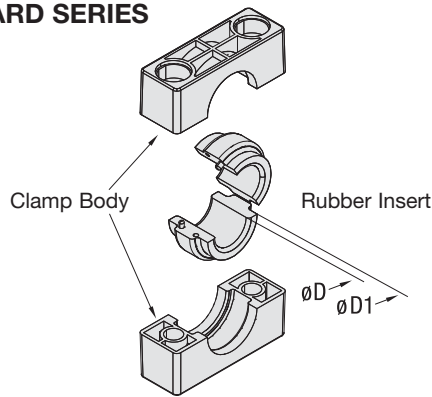
 HM 41/41
 HZA 41/22
 HZM 41/41
 HZM 41/22
 HL 41/41, HL 41/B2

HILTI-Rails

 MQ-21, MQ-41, MQ-52, MQ-72
 MQ-21U, MQ-41U, MQ-72U
 MQ-21D, MQ-41D, MQ-52-72D

RI-CLAMPS (Pipe Clamps with Rubber Insert)

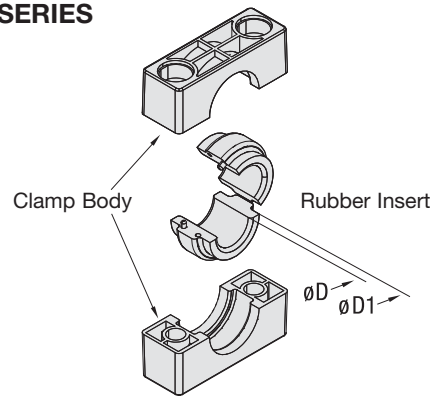
STANDARD SERIES



STAUFF Group	DIN Group	Pipe-O.D.		Order Code		
		Ø D [mm]	Ø D1 [mm]	Rubber Insert	Clamp Body	Rubber Insert + Clamp Body
4	4	6	25	RI 06 (4+4S)	4 xxR	406 xxR
		8		RI 08 (4+4S)	4 xxR	408 xxR
		10		RI 10 (4+4S)	4 xxR	410 xxR
		12		RI 12 (4+4S)	4 xxR	412 xxR
		12,7		RI 12,7 (4+4S)	4 xxR	412,7 xxR
		14		RI 14 (4+4S)	4 xxR	414 xxR
		15		RI 15 (4+4S)	4 xxR	415 xxR
		16		RI 16 (4+4S)	4 xxR	416 xxR
		17,2		RI 17,2 (4+4S)	4 xxR	417,2 xxR
		18		RI 18 (4+4S)	4 xxR	418 xxR
6	6	19	38	RI 19 (4+4S)	4 xxR	419 xxR
		20		RI 20 (6+5S)	6 xxR	620 xxR
		21,3		RI 21,3 (6+5S)	6 xxR	621,3 xxR
		22		RI 22 (6+5S)	6 xxR	622 xxR
		25		RI 25 (6+5S)	6 xxR	625 xxR
		26,9		RI 26,9 (6+5S)	6 xxR	626,9 xxR
		28		RI 28 (6+5S)	6 xxR	628 xxR
		30		RI 30 (6+5S)	6 xxR	630 xxR
		32		RI 32 (6+5S)	6 xxR	632 xxR

Other diameters are available on request.

HEAVY SERIES



STAUFF Group	DIN Group	Pipe-O.D.		Order Code		
		Ø D [mm]	Ø D1 [mm]	Rubber Insert	Clamp Body	Rubber Insert + Clamp Body
4S	2	06	25	RI 06 (4+4S)	4S xxR	4006 xxR
		08		RI 08 (4+4S)	4S xxR	4008 xxR
		10		RI 10 (4+4S)	4S xxR	4010 xxR
		12		RI 12 (4+4S)	4S xxR	4012 xxR
		12,7		RI 12,7 (4+4S)	4S xxR	4012,7 xxR
		14		RI 14 (4+4S)	4S xxR	4014 xxR
		15		RI 15 (4+4S)	4S xxR	4015 xxR
		16		RI 16 (4+4S)	4S xxR	4016 xxR
		17,2		RI 17,2 (4+4S)	4S xxR	4017,2 xxR
		18		RI 18 (4+4S)	4S xxR	4018 xxR
5S	3	19	38	RI 19 (4+4S)	4S xxR	4019 xxR
		20		RI 20 (6+5S)	5S xxR	5020 xxR
		21,3		RI 21,3 (6+5S)	5S xxR	5021,3 xxR
		22		RI 22 (6+5S)	5S xxR	5022 xxR
		25		RI 25 (6+5S)	5S xxR	5025 xxR
		26,9		RI 26,9 (6+5S)	5S xxR	5026,9 xxR
		28		RI 28 (6+5S)	5S xxR	5028 xxR
		30		RI 30 (6+5S)	5S xxR	5030 xxR
		32		RI 32 (6+5S)	5S xxR	5032 xxR
6S	4	32	64	RI 32 (6S)	6S xxR	6032 xxR
		33,7		RI 33,7 (6S)	6S xxR	6033,7 xxR
		35		RI 35 (6S)	6S xxR	6035 xxR
		38,7		RI 38,7 (6S)	6S xxR	6038,7 xxR
		40		RI 40 (6S)	6S xxR	6040 xxR
		42		RI 42 (6S)	6S xxR	6042 xxR
		45,5		RI 45,5 (6S)	6S xxR	6045,5 xxR
		48		RI 48 (6S)	6S xxR	6048 xxR
		51		RI 51 (6S)	6S xxR	6051 xxR
		53,4		RI 53,4 (6S)	6S xxR	6053,4 xxR
7S	5	56,4	88	RI 56,4 (6S)	6S xxR	6056,4 xxR
		55		RI 55 (7S)	7S xxR	7055 xxR
		57		RI 57 (7S)	7S xxR	7057 xxR
		60		RI 60 (7S)	7S xxR	7060 xxR
		65		RI 65 (7S)	7S xxR	7065 xxR
		70		RI 70 (7S)	7S xxR	7070 xxR
		72		RI 72 (7S)	7S xxR	7072 xxR
		76		RI 76 (7S)	7S xxR	7076 xxR
8S	6	80	114	RI 80 (8S)	8S xxR	8080 xxR
		88,9		RI 88,9 (8S)	8S xxR	8088,9 xxR

Other sizes and diameters are available on request.

Clamp Body	Material XX
	Polypropylene PP Polyamide PA
Elastomer Insert	Material
	Thermoplastic Elastomer (TPE)
Elastomer Insert	Material Properties
Mechanical Properties Shore Hardness: Modulus of Elasticity: Tensile Stress:	73 A 16 N/mm ² at 23°C (acc. to ASTM D 412) 8,3 N/mm ² (acc. to ASTM D 412)
Temperature Properties Temperature Resistance:	-40°C - +125°C
Chemical Properties weak acids, solvents benzine, mineral oils alcohol, other oils, seawater	consistent conditionally consistent consistent

Attention!

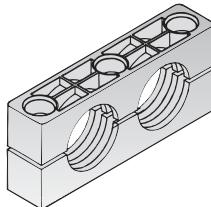
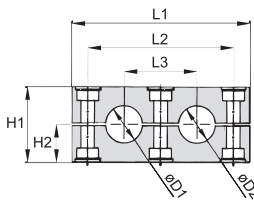
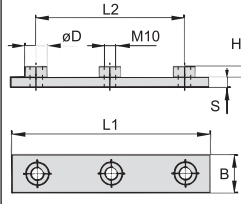
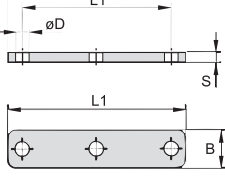
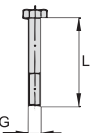
The relation between tube O.D. and RI-clamp size does not match with that of standard series (profiled and smooth bore).

For dimensions of clamp bodies please refer to the dimensional tables of the standard series, respectively heavy series.



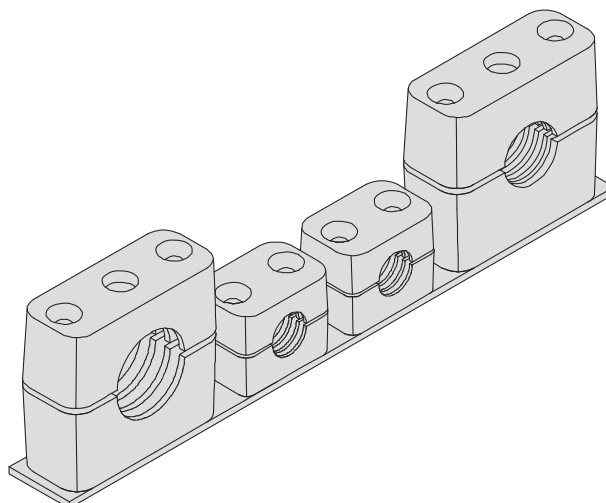
HEAVY SERIES - TWIN DESIGN

ORDER CODES / DIMENSIONS

MATERIAL & DESIGN OF CLAMP BODY				CLAMP BODY consisting of two clamp halves		WELD PLATE		COVER PLATE		HEXAGON HEAD BOLT											
Polypropylene, profiled inside, with tension clearance				PP		SPAD		DPAD		AS											
Polyamide, profiled inside, with tension clearance				PA						DIN 931/933											
MATERIAL & SURFACE FINISHING OF METAL PARTS						W1		W1		W1											
carbon steel St37, untreated				W1																	
carbon steel St37, phosphated				W2																	
carbon steel St37, zinc/nickel coated				W3																	
stainless steel A2 - 1.4301/1.4305 (AISI304)				W4																	
stainless steel A4 - 1.4401/1.4571 (AISI316/316Ti)				W5																	
TYPE OF THREAD																					
Metric Thread				M																	
UNC Thread				U																	
MATERIAL & SURFACE FINISHING (STANDARD DELIVERY / DETAILS ABOVE)				SEE COMPONENT PART IDENTIFICATION		W1		W1		W1											
ORDERING INFORMATION				****,*/**,* **		SPAD *** **		DPAD *** **		AS *** **											
STAUFF GROUP	OUTSIDE DIAMETER PIPE / TUBE / HOSE Ø D1/D2 IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE Ø D1/D2 IN INCH	NOMINAL BORE PIPE IN INCH	FIRST DIGIT OF STAUFF GROUP (SEE BELOW)	OUTSIDE DIAMETERS OF PIPES IN MM	MATERIAL & DESIGN OF CLAMP BODY	WELD PLATE SPAD	FIRST 2 DIGITS OF STAUFF GROUP (SEE BELOW)	TYPE OF THREAD	MATERIAL & SURFACE FINISHING	COVER PLATE DPAD	FIRST 2 DIGITS OF STAUFF GROUP (SEE BELOW)	TYPE OF THREAD	MATERIAL & SURFACE FINISHING	HEXAGON HEAD BOLT AS	FIRST 2 DIGITS OF STAUFF GROUP (SEE BELOW)	TYPE OF THREAD	MATERIAL & SURFACE FINISHING			
4S-D	19/19	3/4 / 3/4		4019/19 **			SPAD 4S * **	DPAD 4S **	AS 4S M ** (M10 x 60)												
	20/20			4020/20 **																	
	21,3/21,3		1/2 / 1/2	4021,3/21,3 **																	
	22/22	7/8 / 7/8		4022/22 **																	
	25,4/25,4	1 / 1		4025,4/25,4 **																	
	26,9/26,9		3/4 / 3/4	4026,9/26,9 **																	
5S-D	32/32	1 1/4 / 1 1/4		5032/32 **			SPAD 5S * **	DPAD 5S **	AS 5S M ** (M10 x 70)												
	33,7/33,7		1 / 1	5033,7/33,7 **																	
	38/38	1 1/2 / 1 1/2		5038/38 **																	
	40/40			5040/40 **																	
	42/42		1 1/4 / 1 1/4	5042/42 **																	
																					
STAUFF GROUP	OUTSIDE DIAMETER PIPE / TUBE / HOSE Ø D1/D2 IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE Ø D1/D2 IN INCH	NOMINAL BORE PIPE IN INCH	L1	L2	L3	H1	H2	Width	L1	L2	B	S	H	ØD	L1	L2	B	S	ØD	G x L
4S-D	19/19	3/4 / 3/4																			
	20/20																				
	21,3/21,3		1/2 / 1/2	115	90	45	48	24	30	130	90	30	8	8,5	18	115	90	30	8	11	M10 x 60
	22/22	7/8 / 7/8																			
	25,4/25,4	1 / 1																			
	26,9/26,9		3/4 / 3/4																		
5S-D	32/32	1 1/4 / 1 1/4																			
	33,7/33,7		1 / 1	145	120	60	60	30	30	160	120	30	8	8,5	18	145	120	30	8	11	M10 x 70
	38/38	1 1/2 / 1 1/2																			
	40/40																				
	42/42		1 1/4 / 1 1/4																		

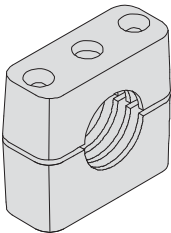
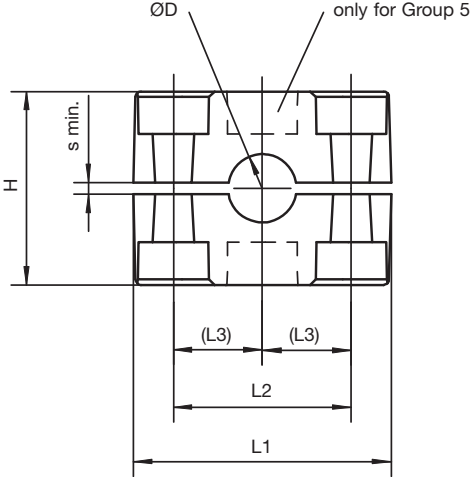
Multi Group Weld Plate RAP-MGR

for Standard Series Clamps, Groups 2 and 5



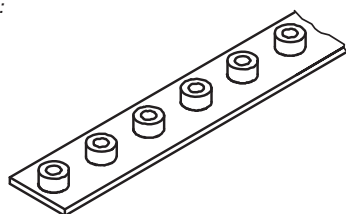
example of mounting

Clamp Body

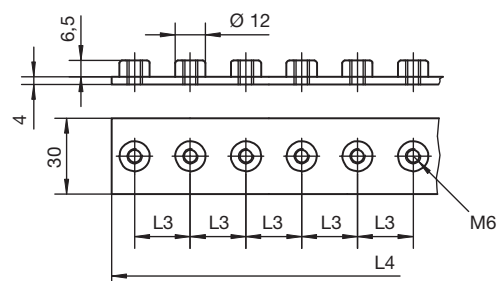
	Group	ØD in mm	Group									
	2	8	208 **		H	s min.	ØD	only for Group 5	L1	L2	L3	
		10	210 **									
		12	212 **									
		12,7	212,7 **									
		13,5	213,5 **									
		14	214 **									
		15	215 **									
		16	216 **									
		17,2	217,2 **									
		18	218 **									
		5	20									520 ** - MGR
			21,3									521,3 ** - MGR
	22		522 ** - MGR									
	23		523 ** - MGR									
	25		525 ** - MGR									
	26,9		526,9 ** - MGR									
	28		528 ** - MGR									
	30		530 ** - MGR									
	32		532 ** - MGR									
	33,7		533,7 ** - MGR									
	35		535 ** - MGR									
	38		538 ** - MGR									
	40	540 ** - MGR										
	42	542 ** - MGR										
** = Clamp Body Material: PP Polypropylene PA Polyamide Other diameters / materials / designs upon request.				Group	L1	L2	L3	H	s			
				2	42	26	-	33	0,4			
				5	71	52	26	58	0,8			
				All dimensions in mm.								

Multi Group Weld Plate

Ordering Example:

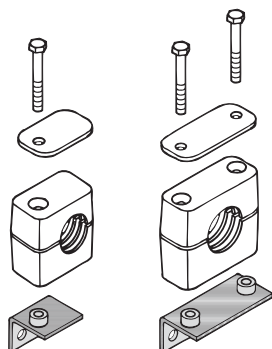


RAP-MGR **25/312** **M** **W1**
 Multi Group Weld Plate Length of Weld Plate Metric Thread Material Code (St37, untreated)



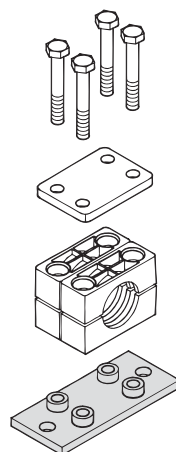
All dimensions in mm.	Number of Weld Nuts	L3	L4
RAP-MGR 25/156	6	26	156
RAP-MGR 25/234	9		234
RAP-MGR 25/312	12		312
RAP-MGR 25/390	15		390
RAP-MGR 25/520	20		520
RAP-MGR 25/700	27		700

Also available ...

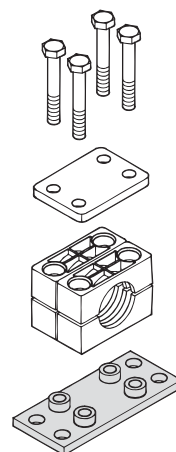


ANGLED WELD PLATES
TYPE WSP

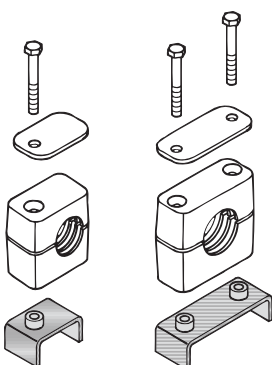
Group 3S - 9S



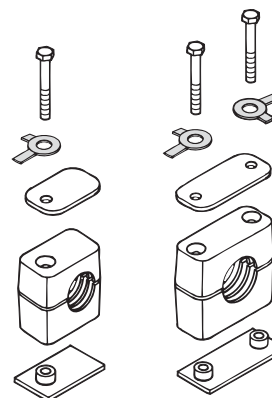
Group 10S - 12S



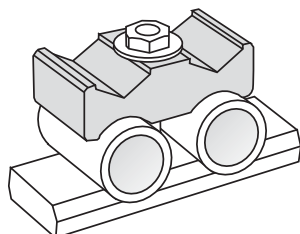
ELONGATED WELD PLATES FOR DOUBLE CLAMPS
TYPE SPAS/DUEB



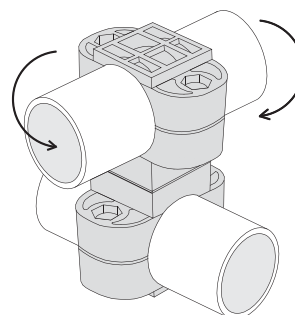
BRIDGE WELD PLATES
TYPE BSP



SAFETY WASHERS
TYPE SI-6,4 DIN 463 W3



AGRICULTURAL CLAMPS
TYPE AG



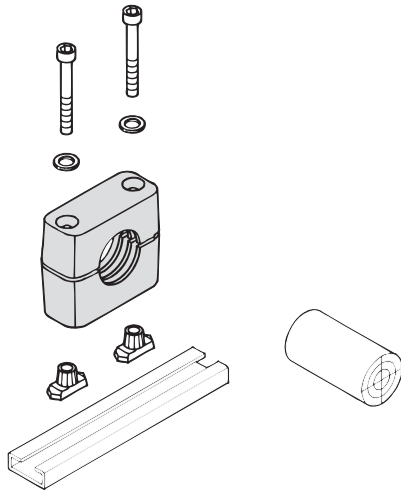
ADJUSTMENT CLAMPS

CONSULT STAUFF FOR FURTHER DETAILS.

Clamps For Industrial Electric Applications And Electric Cables
ORDER CODE
430 PP (clamp body only)

(or other Standard-Series clamps with the corresponding diameter)

Accessories see Standard Series



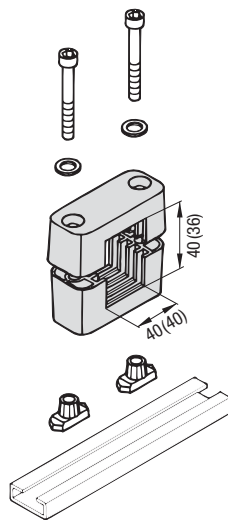
For proximity switches according to DIN EN 60947-5-2 or similar

Proximity switch – **round** construction, 30 mm diameter – fastened with a Group 4 Standard-Series clamp mounted on mounting rail with hexagon rail nuts. Loosening of the bolts provides **axial and horizontal position adjustment**.

ORDER CODE
540-40 PP-VK (clamp body only)

540-36 PP-VK (clamp body only)

Accessories see Standard Series



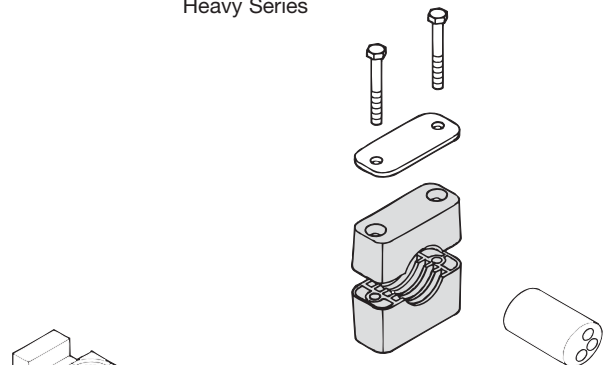
For proximity switches according to DIN EN 60947-5-2 or similar

Proximity switch – **rectangular** construction, 40 mm square – fastened with Group 5 Standard-Series clamp mounted on mounting rail with hexagon rail nuts. Loosening of the bolts provides **axial and horizontal position adjustment**.

ORDER CODE
620-50 PP (Standard-Series)

6040-72 PP (Heavy-Series)

Accessories see Standard Series and Heavy Series

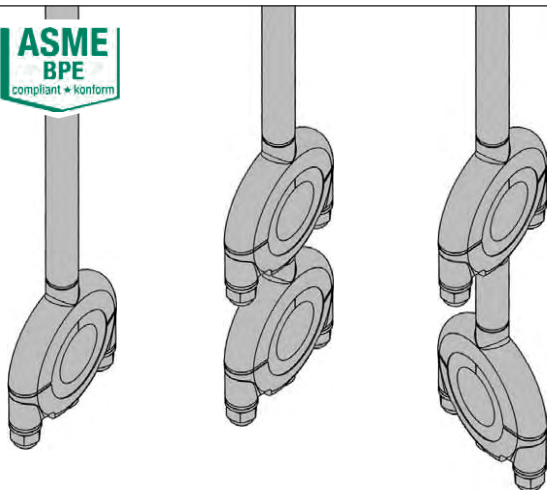

 For clamping of electric cables:
STAUFF-Oval Clamps

Group 6 Standard-Series for cable diameters between 20 and 50 mm.
 Group 6 S Heavy-Series for cable diameters between 40 and 72 mm.

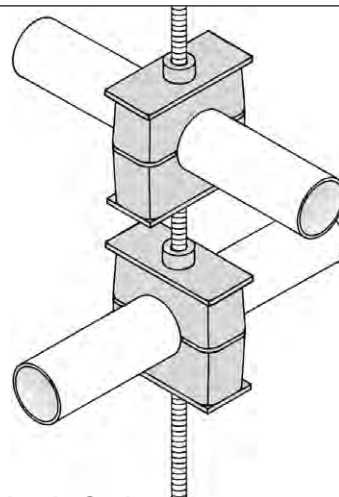
Bolt types:

Standard-Series: Hexagon Head Bolt in conjunction with cover plate. Socket Cap Screw with washer. Slotted Head Screw with washer.

Heavy Series: Hexagon Head Bolt in conjunction with cover plate. For varying cable diameters only the bolt length needs to be varied.

Hi-Clean Clamps for Industrial Clean Rooms

Hi-Clean Stainless Steel Series

- clamping of industrial pipes, tubes and other lines with outer diameters between 6,4 mm and 168,4 mm
- appropriately rounded-off edges and corners to prevent dirt adhesion; no exposed threads; plastic components, which comply with the specifications of the FDA (Food and Drug Administration of the United States)
- all metal components are manufactured from corrosion-resistant stainless steel, upon request with electrolytically high-gloss polished material surfaces

 Please consult **STAUFF** for further details.

Hi-Clean Plastic Series

- clamping of industrial pipes, tubes and other lines with outer diameters between 6,4 mm and 152 mm
- smooth surfaces to prevent dirt adhesion
- all plastic components optionally available in Polypropylene (blue) and Santoprene (natural)
- all metal components are manufactured from corrosion-resistant stainless steel, upon request with electrolytically high-gloss polished material surfaces

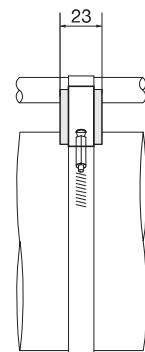
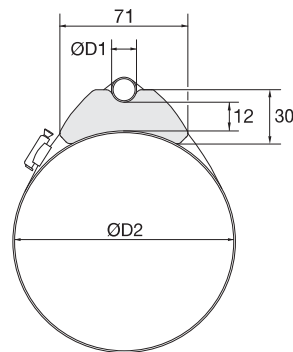
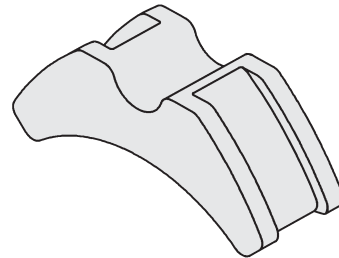
 Please consult **STAUFF** for further details.

Saddle Clamps For Cylinder Supply Lines (Order Code ZR 518)

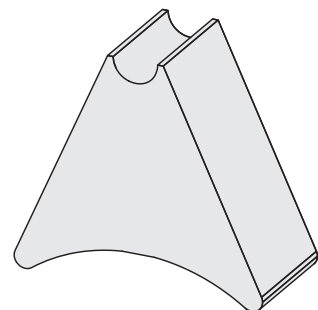
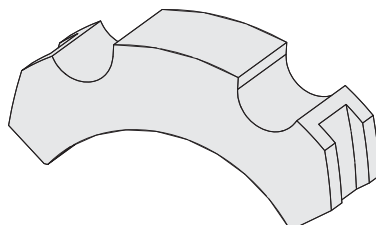
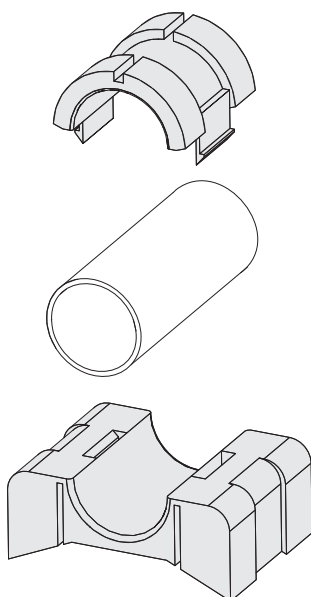
Material: **Thermoplastic Elastomer (TPE)**
 Shore Hardness: **75±5 A**
 Colour: **Black (Standard)**
 Order Code: **ZR 518**

Outer Diameter of Pipes in mm		Steel Strap Dimensions in mm	
ØD1	ØD2	Length	Width
10 - 22 Depending on ØD2	50 - 70	196 - 254	13
	60 - 80	225 - 284	13
	70 - 90	254 - 314	13
	80 - 105	284 - 359	13
	90 - 120	314 - 404	13
	105 - 140	359 - 464	13
	125 - 160	419 - 525	13
	145 - 180	479 - 586	13
	165 - 200	540 - 647	13

Steel Strap is not included in scope of delivery.



Saddle Clamps for Cylinder Supply Lines (Custom Designs)



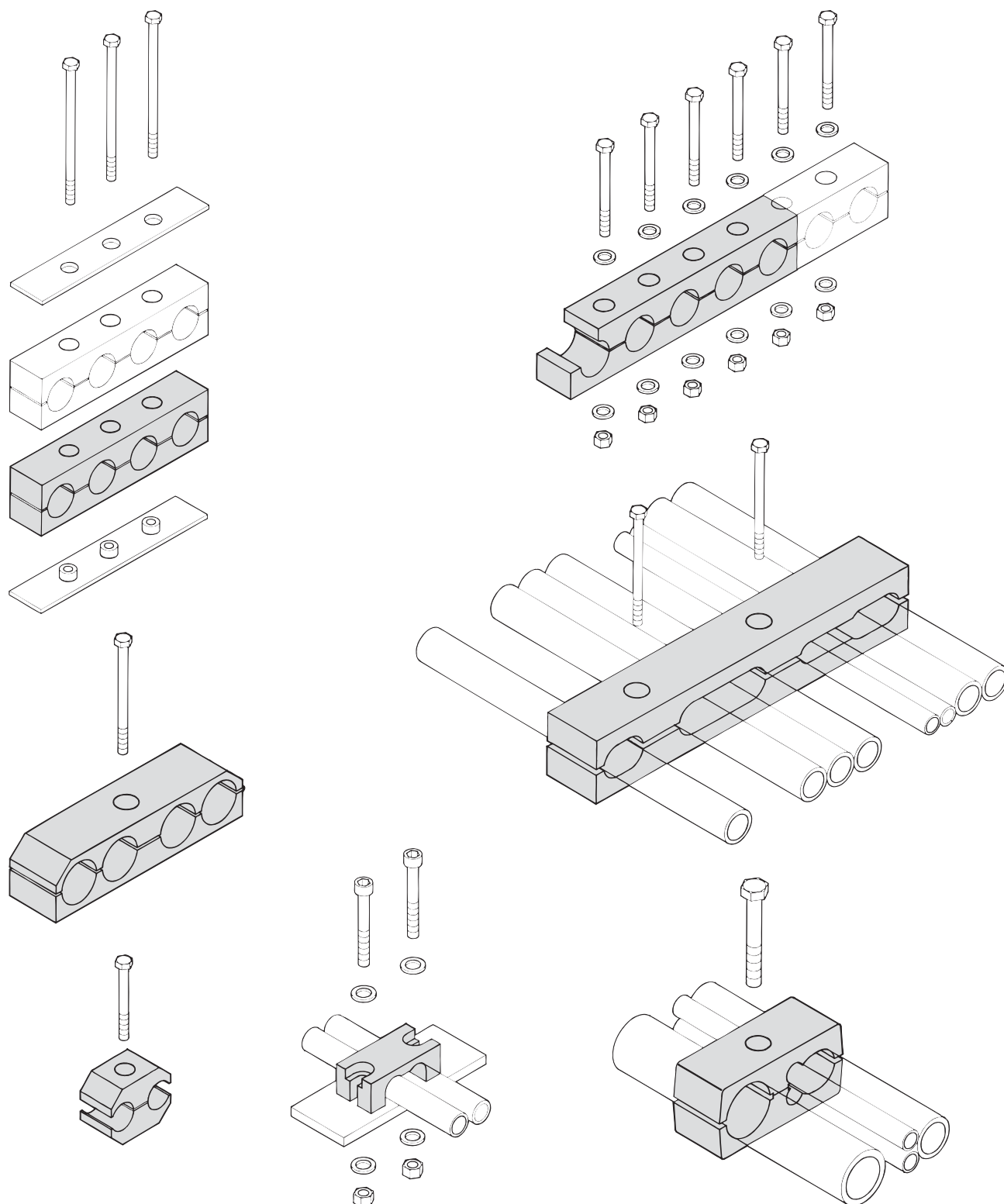
Custom-designed saddle clamps according to customer's specifications or based on STAUFF developments are available on request.

Custom-designed pipe clamps / hose clamps in addition to the Original-STAUFF-Clamp range according to customer's specifications or based on STAUFF developments.

MACHINED VERSION

Dimensions and designs acc. to customer's specifications.

Materials: plastics, metals, non-ferrous metals



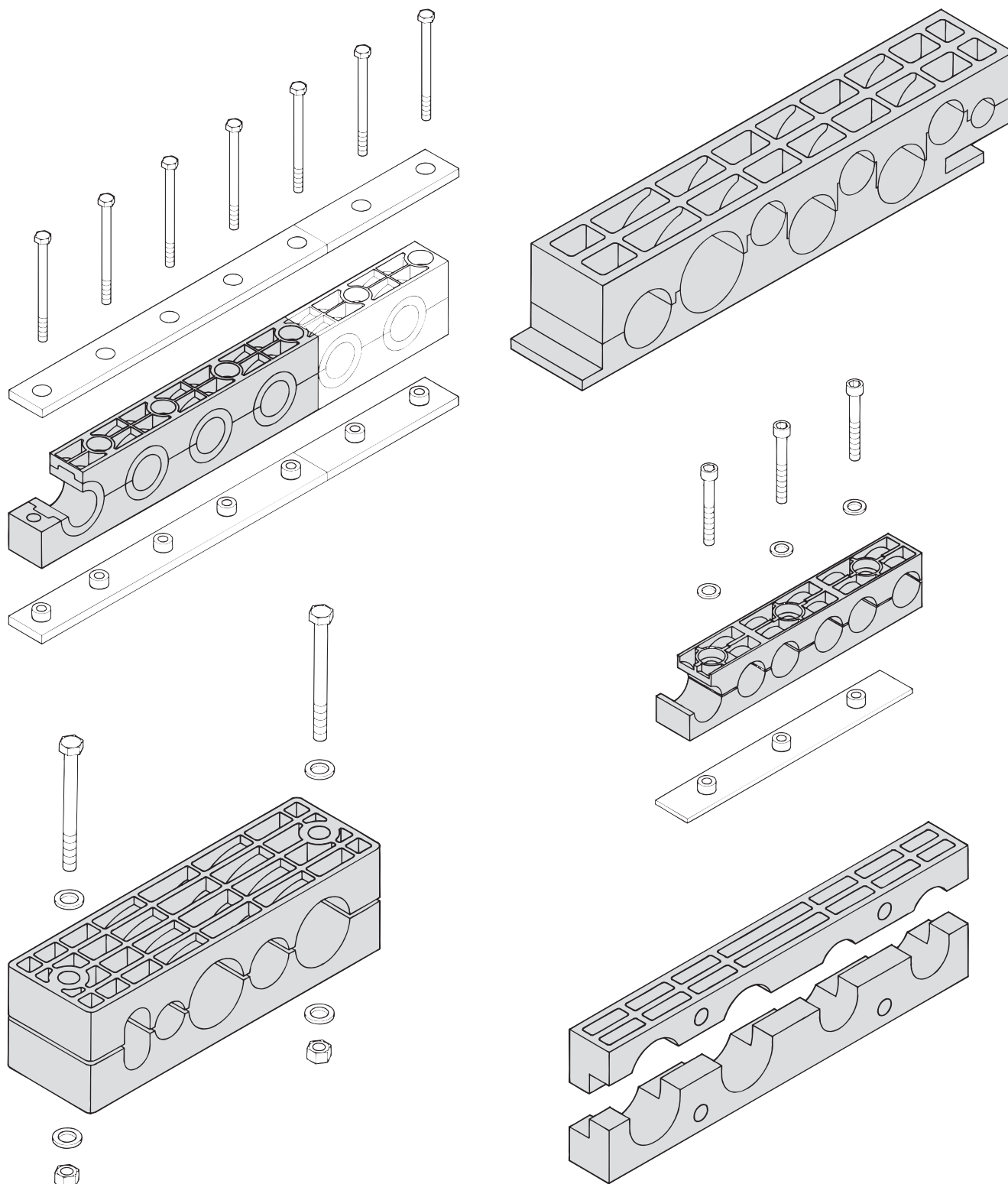
Accessories such as weld plates, cover plates, bolts as well as rubber inserts are available on request.

Custom-designed pipe, clamps / hose clamps in addition to the Original-STAUFF-Clamp range according to customer's specifications or based on STAUFF developments.

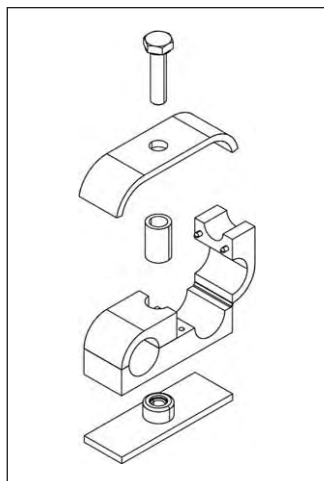
INJECTION MOULDING VERSIONS

Max. dimensions: Length 1000 mm · Height 80 mm · Width 70 mm

Materials: Polypropylene, Polyamide
Other thermoplastics on request.



Accessories such as weld plates, cover plates, bolts as well as rubber inserts are available on request.



FEATURES

- compact design
- quick and easy installation
- vibration and noise reducing
- UV, ozone and weathering resistant

MATERIALS AND SURFACES

- **Clamp Body:** thermoplastic elastomer (87 Shore-A)
- **Weld Plate:** steel, phosphated (W2)
- **Hexagon Rail:** steel, untreated (W1)
- **Cover Plate and Accessories:** steel, zinc/nickel coated (W3)
- Further materials and surface finishings are available upon request.

TYPES

- **STAUFF Groups 1, 2 and 3:** single-line clamps
- **STAUFF Group 1D, 2D and 3D:** double-line clamps with identical diameters, also available with different diameters (upon request)
- also available with anti-twist feature

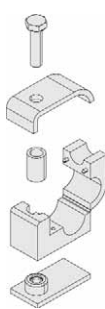
APPLICATIONS

- perfect for the vibration and noise reducing installation of pipes, tubes, hoses and cables for applications in which space is limited (Hydraulics and Pneumatics, Mechanical and Plant Engineering, Instrumentation)

Clamp Body Groups 1 to 3		Clamp Body Groups 1D to 3D		Weld Plate LBBU-SP Groups 1 to 3		Cover Plate LBBU-DP Groups 1 to 3		Sleeve LBBU-HUE									
				Weld Plate LBBU-SP Groups 1D to 3D		Cover Plate LBBU-DP Groups 1D to 3D											
MATERIALS & SURFACES (Delivery Standard)		Clamp Body with Film Hinge SA 87 Shore-A						Weld Plate LBBU-SP W2 steel, phosphated				Cover Plate LBBU-DP W3 steel, zinc/nickel coated				Sleeve LBBU-HUE W3 steel, zinc/nickel coated	
STAUFF Group	diameter ØD1 / ØD2 in mm (inch)	L1	L2	L3	H1	H2	B	Thread	L1	L2	Width	L1	L2	R	H	Width	L
1	6 - 6,4 (1/4) - 8 (5/16) 9,5 (3/8) - 10 - 11 12 - 12,7	34	15	9	10	20	20	M8 (UNC 5/16"-18 on request)	34	9	20	15	9	10	16	20	Type of Mounting SP: 13,5 Type of Mounting SM: 12,8 Type of Mounting PM: 18,8
2	4 - 6 - 6,4 (1/4) - 8 (5/16) 9,5 (3/8) - 10 - 11 - 12 12,7 (1/2) - 13,5 - 14 - 15 16 (5/8) - 17,2 - 18 19 (3/4) - 20	39	18	9	12	24	20	M8 (UNC 5/16"-18 on request)	39	9	20	18	9	12	20	20	Type of Mounting SP: 17,5 Type of Mounting SM: 16,8 Type of Mounting PM: 22,7
3	21,3 - 22 (7/8) - 23 25 - 25,4 (1) - 28 30 - 32 (1 1/4)	57,5	23,5	15	20	40	30	M8 (UNC 5/16"-18 on request)	57,5	15	30	23,5	15	19,5	28	30	Type of Mounting SP: 33,5 Type of Mounting SM: 32,8 Type of Mounting PM: 38,8
1D	4 - 6 - 6,4 (1/4) 8 (5/16) - 9,5 (3/8) - 10 11 - 12 - 12,7 (1/2)	50	30	-	10	20	20	M8 (UNC 5/16"-18 on request)	50	-	20	30	-	10	16	20	Type of Mounting SP: 13,5 Type of Mounting SM: 12,8 Type of Mounting PM: 18,8
2D	4 - 6 - 8 (5/16) - 9,5 (3/8) 10 - 11 - 12 - 12,7 (1/2) 13,5 - 14 - 15 - 16 (3/8) 17,2 - 18 - 19 (3/4) - 20	59	35	-	12	24	20	M8 (UNC 5/16"-18 on request)	59	-	20	35	-	12	20	20	Type of Mounting SP: 17,5 Type of Mounting SM: 16,8 Type of Mounting PM: 22,7
3D	21,3 - 22 (7/8) - 23 25 - 25,4 (1) - 28 30 - 32 (1 1/4)	86	47	-	20	40	30	M8 (UNC 5/16"-18 on request)	86	-	30	47	-	19,5	28	30	Type of Mounting SP: 33,5 Type of Mounting SM: 32,8 Type of Mounting PM: 38,8



TYPE OF MOUNTING SP with Weld Plate LBBU-SP



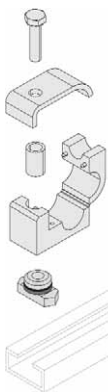
Ordering Codes for Clamp Combinations

- example for STAUFF Group 2:
LBBU SP 216 SA-DP-AS M8 W10
- example for STAUFF Group 2D:
LBBU SP 216/16 SA-DP-AS M8 W10

consisting of:

Hexagon Head Bolt AS
Cover Plate LBBU-DP
Sleeve LBBU-HUE
Clamp Body LBBU
Weld Plate LBBU-SP

TYPE OF MOUNTING SM with Hexagon Rail Nut SM



Ordering Codes for Clamp Combinations

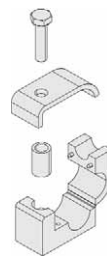
- example for STAUFF Group 2:
LBBU SM 216 SA-DP-AS M8 W3
- example for STAUFF Group 2D:
LBBU SM 216/16 SA-DP-AS M8 W3

consisting of:

Hexagon Head Bolt AS
Cover Plate LBBU-DP
Sleeve LBBU-HUE
Clamp Body LBBU
Hexagon Rail Nut SM

Mounting Rail to be ordered separately.

TYPE OF MOUNTING PM for Panel Mounting



Ordering Codes for Clamp Combinations

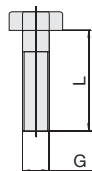
- example for STAUFF Group 2:
LBBU PM 216 SA-DP-AS M8 W3
- example for STAUFF Group 2D:
LBBU PM 216/16 SA-DP-AS M8 W3

consisting of:

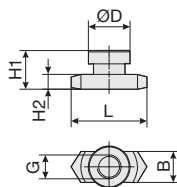
Hexagon Head Bolt AS
Cover Plate LBBU-DP
Sleeve LBBU-HUE
Clamp Body LBBU

without Weld Plate
without Hexagon Rail Nut

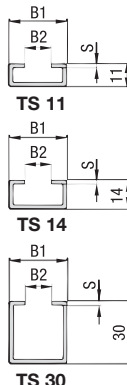
Hexagon Head Bolt AS
DIN EN 4014/4017 (DIN 931/933)



Hexagon Rail Nut SM
identical to Twin Series Hexagon Rail Nut SM 2-5D according to DIN 3015, Part 3



Mounting Rail TS



Hexagon Head Bolt AS	Hexagon Rail Nut SM						Mounting Rail TS			
W3 steel, zinc/nickel coated	W3 steel, zinc/nickel coated						W1 steel, untreated			
G x L	L	B	H1	H2	ØD	G	Nominal Size	B1	B2	S
Types of Mounting SP and SM: M8 x 25 (UNC 5/16"-18x1" on request) Type of Mounting PM*: M8 x 30 (UNC 5/16"-18x1"1/4 on request)										
Types of Mounting SP and SM: M8 x 28 (UNC 5/16"-18x1"1/8 on request) Type of Mounting PM*: M8 x 35 (UNC 5/16"-18x1"3/8 on request)										
Types of Mounting SP and SM: M8 x 45 (UNC 5/16"-18x1"3/4 on request) Type of Mounting PM*: M8 x 50 (UNC 5/16"-18x2" on request)										
Types of Mounting SP and SM: M8 x 25 (UNC 5/16"-18x1" on request) Type of Mounting PM*: M8 x 30 (UNC 5/16"-18x1"1/4 on request)	25,5	10,4	13	5	14	M8	TS 11 TS 14 TS 30	28	11	2
Types of Mounting SP and SM: M8 x 28 (UNC 5/16"-18x1"1/8 on request) Type of Mounting PM*: M8 x 35 (UNC 5/16"-18x1"3/8 on request)										
Types of Mounting SP and SM: M8 x 45 (UNC 5/16"-18x1"3/4 on request) Type of Mounting PM*: M8 x 50 (UNC 5/16"-18x2" on request)										

ORDERING CODES

Clamp Body	LBBU 215/15 SA M8	Clamp Body LBBU	STAUFF Group	Diameter ØD in mm	Material	Through Hole for Bolts M8
Weld Plate	LBBU-SP 2D M8 W2	Weld Plate LBBU-SP	STAUFF Group	Thread Type (M8)	Material & Surface	
Cover Plate	LBBU-DP 2D M8 W3	Cover Plate LBBU-DP	STAUFF Group	Through Hole for Bolts M8	Material & Surface	
Sleeve	LBBU-HUE 2/2D SP M8 W3	Sleeve LBBU-HUE	STAUFF Group	Type of Mounting (SP, SM or PM)	Through Hole for Bolts M8	Material & Surface
Hexagon Head Bolt	AS M8x28 W3	Hexagon Head Bolt AS	Bolt Dimensions G x L	Material & Surface		
Hexagon Rail Nut	SM 2-5D M W3	Hexagon Rail Nut SM	Thread Type (M8)	Material & Surface		
Mounting Rail	TS 11 - 1 W1	Mounting Rail TS	Height in mm	Length in m (1m or 2m)	Material & Surface	

MATERIAL - CLAMP BODY
SA thermoplastic elastomer (87 Shore-A)

MATERIALS & SURFACES - METAL PARTS
W1 steel, untreated
W2 steel, phosphated
W3 steel, zinc/nickel coated

THREADS AND THROUGH HOLES
M8 Metric Thread M8 for parts without thread:
through hole suitable for M8

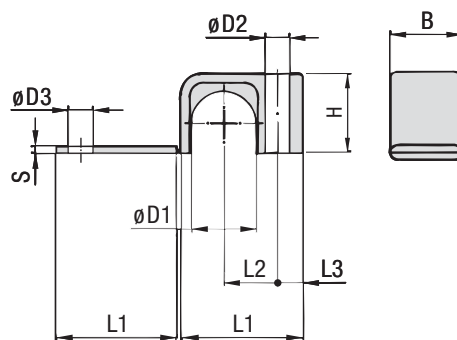
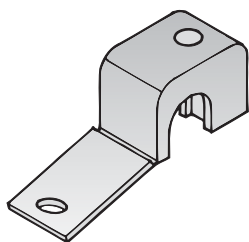
U5/16
UNC Thread 5/16"-18 (on request) for parts without thread:
through hole suitable for 5/16"-18 UNC

* Note: PM bolt lengths designed for a substructure integrated thread.



Applications: Pneumatics, Instrumentation and Automotive Technology, Machine Tool Industry, Lubrication, Mechanical Engineering

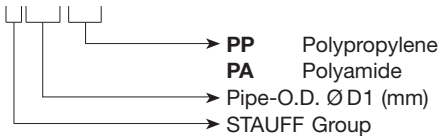
Type LB



STAUFF Group	Outside diameter Tube or Hose Ø D1 mm	inch	Nominal bore Pipe inch	L1	L2	L3	B	H	S	øD2	øD3	Clamp Material XX	Colour
1	03,2	1/8		22	9	6,5	12	10,5	2	6,8	7	PP PA	black yellow
	06												
	06,4	1/4											
	08												
2	09,5	3/8		27	11	7	16	15	2	6,8	7	PP PA	black yellow
	10		1/8										
	11,1												
	12												
3	12,7	1/2		34	15	7	20	22,5	2	6,8	7	PP PA	black yellow
	13,5		1/4										
	14												
	15												
	16	5/8											
	17,2		3/8										
4	18			42	19	7	20	30	2	6,8	7	PP PA	black yellow
	19	3/4											
	20												
	21,3		1/2										
	22												
	25												
	25,4	1											

ORDER CODE

LB * xx**

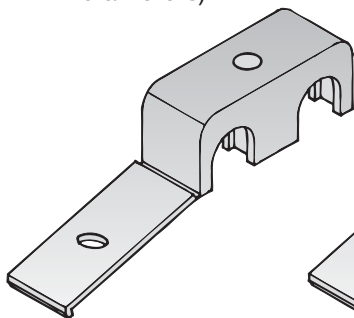


Other thermoplastics and diameters on request.

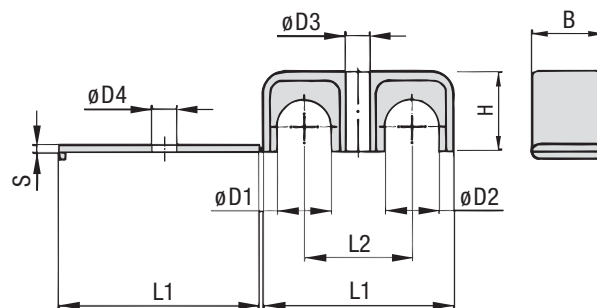
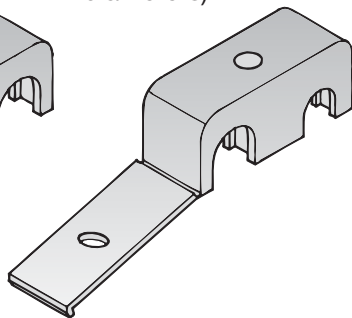
Applications: Pneumatics, Instrumentation and Automotive Technology, Machine Tool Industry, Lubrication, Mechanical Engineering

Type LBG

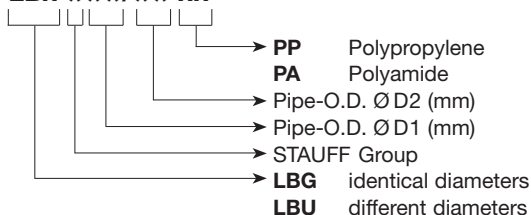
(identical diameters)


Type LBU

(different diameters)



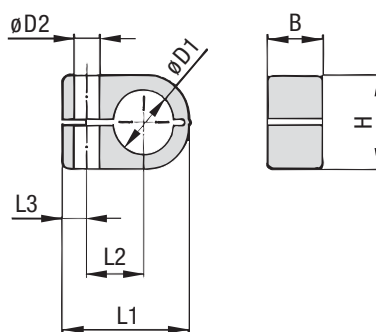
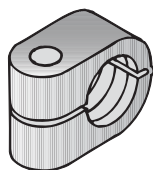
STAUFF Group	Outside diameter Tube or Hose Ø D1/D2 mm	Nominal bore Pipe inch	L1	L2	B	H	S	ØD3	ØD4	Clamp Material XX	Colour
1	03,2/03,2	1/8 / 1/8	31	18	12	10,5	2	6,8	7	PP PA	black yellow
	06/06										
	06,4/06,4	1/4 / 1/4									
	08/08										
2	09,5/09,5	3/8 / 3/8	39	22	16	14,5	2	6,8	7	PP PA	black yellow
	10/10	1/8 / 1/8									
	11,1/11,1										
	12/12										
3	12,7/12,7	1/2 / 1/2	53	30	20	22,5	2	6,8	7	PP PA	black yellow
	13,5/13,5	1/4 / 1/4									
	14/14										
	15/15										
	16/16	5/8 / 5/8									
	17,2/17,2	3/8 / 3/8									
4	18/18		70	38	20	30	2	6,8	7	PP PA	black yellow
	19/19	3/4 / 3/4									
	20/20										
	21,3/21,3	1/2 / 1/2									
	22/22										
	25/25										
	25,4/25,4	1 / 1									

ORDER CODE
LBx */** xx**

Type
LBG Double pipe clamp for two identical diameters

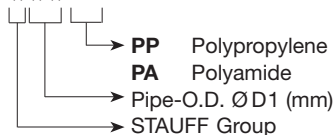
LBU Double pipe clamp for two different diameters

Other thermoplastics and diameters on request.

Applications: Pneumatics, Instrumentation and Automotive Technology, Machine Tool Industry, Lubrication, Mechanical Engineering. Also suitable for cables and hoses.

Type LN


STAUFF Group	Outside diameter Tube or Hose ØD1 mm	Nominal bore Pipe inch	L1	L2	L3	B	H	ØD2	Clamp Material XX	Colour
1	06		22	9	7	14,5	13,5	6,8	PP PA	green black
	06,4	1/4								
	08									
2	08		27	11	7	14,5	18,5	6,8	PP PA	green black
	09,5	3/8								
	10									
	12									
	12,7	1/2								
3	10		33	15	7	14,5	23,5	6,8	PP PA	green black
	12									
	12,7	1/2								
	13,5									
	14	1/4								
	15									
4	16	5/8	40	19	7	14,5	30,5	6,8	PP PA	green black
	14									
	15									
	16	5/8								
	17,2	3/8								
	18									
	19	3/4								
	20									
	21,3	1/2								
	22									

ORDER CODE
LN * xx**


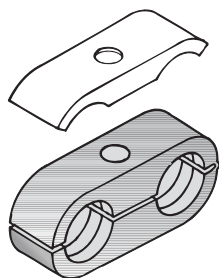
Other thermoplastics and diameters on request.



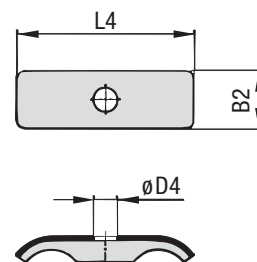
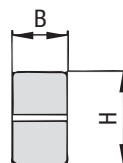
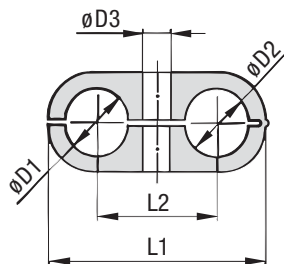
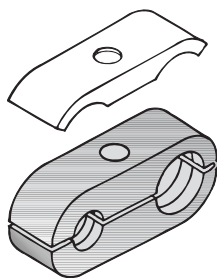
Applications: Pneumatics, Instrumentation and Automotive Technology, Machine Tool Industry, Lubrication, Mechanical Engineering. Also suitable for cables and hoses.

Type LNGF

(identical diameters)


Type LNUF

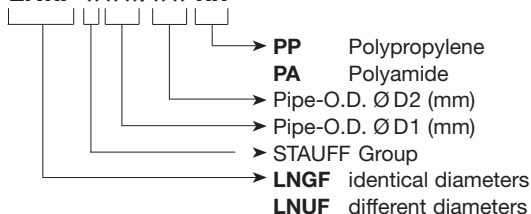
(different diameters)



STAUFF Group	Outside diameter Tube or Hose Ø D1/D2 mm	Nominal bore Pipe inch	L1	L2	B	H	Ø D3	L4	B2	Ø D4	Clamp Material XX	Colour	Cover Plate
1	06/06												
	06,4/06,4	1/4 / 1/4	32	18	14,5	13,5	6,8	29,5	15,5	6,8	PP PA	green black	DPL1
	08/08												
2	08/08												
	09,5/09,5	3/8 / 3/8											
	10/10	1/8 / 1/8	41	22	14,5	18,5	6,8	40	15,5	6,8	PP PA	green black	DPL2
	12/12												
3	12,7/12,7	1/2 / 1/2											
	10/10	1/8 / 1/8											
	12/12												
	12,7/12,7	1/2 / 1/2											
	13,5/13,5	1/4 / 1/4	54	30	14,5	23,5	6,8	51	16	6,8	PP PA	green black	DPL3
	14/14												
4	15/15												
	16/16	5/8 / 5/8											
	17,2/17,2	3/8 / 3/8											
	18/18		70	38	14,5	30,5	6,8	63,5	16	6,8	PP PA	green black	DPL4
	19/19	3/4 / 3/4											
	20/20												
	21,3/21,3	1/2 / 1/2											
	22/22												

ORDER CODE

LNxF ***/** xx


Type

LNGF Double pipe clamp for two identical diameters
LNUF Double pipe clamp for two different diameters (on request only)

Accessories

Cover Plate DPL
 Steel, zinc/nickel coated

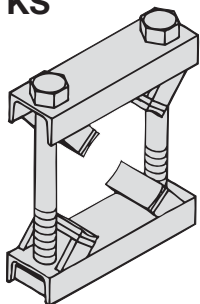
Information

Max. tightening torque: 2,5 Nm

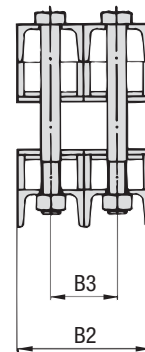
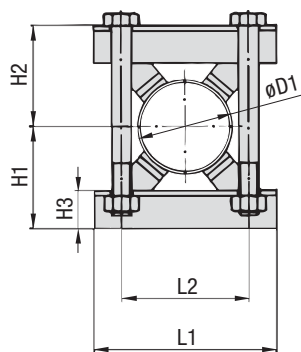
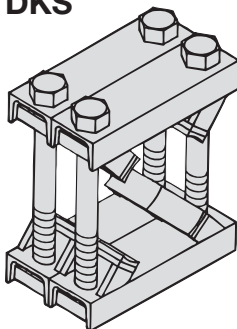
Other thermoplastics and diameters on request.

Two-part-weld-construction with plastic pads

KS

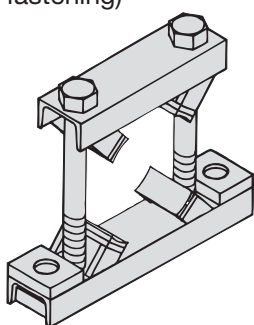


DKS



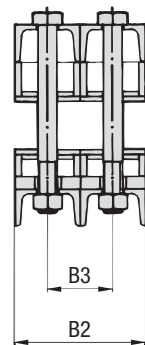
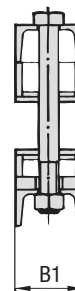
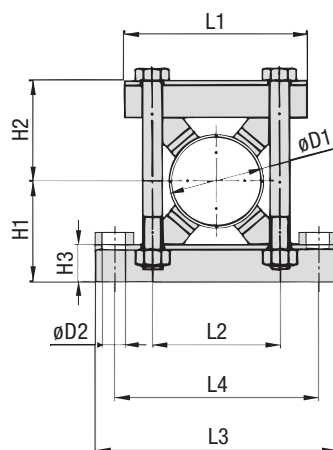
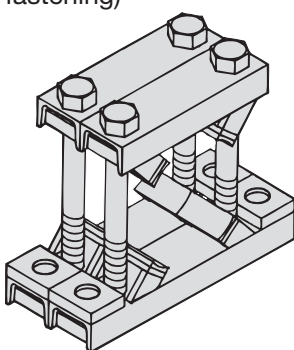
KSV

(for anchor bolt fastening)



DKSV

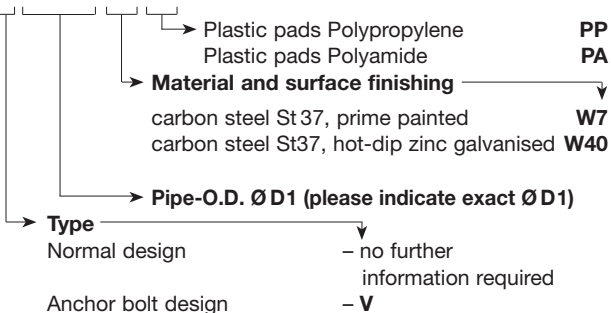
(for anchor bolt fastening)



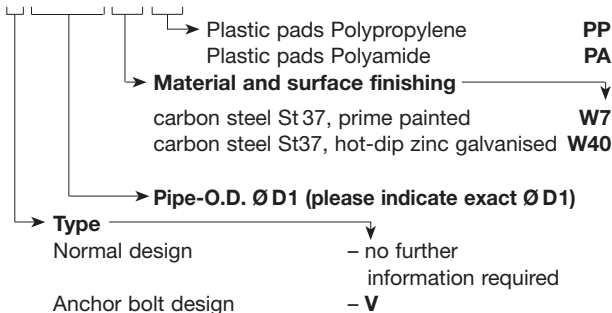
Pipe-O.D. Ø D1 in mm	L1	L2	L3	L4	H1	H2	H3	H4	B1	B2	B3	D2	Hexagon Head Bolt	Number of plastic pads
220 to 275	420	330	580	490	220	220	60	90	140	290	150	35	M30 x 420	4
276 to 325	460	370	620	530	240	240	60	90	140	290	150	35	M30 x 460	4
326 to 370	510	420	670	580	260	260	60	90	140	290	150	35	M30 x 500	4
371 to 425	570	480	750	640	290	290	60	90	140	290	150	35	M30 x 560	4
426 to 485	620	530	800	730	305	305	60	90	140	290	150	35	M30 x 590	4
486 to 550	680	590	860	790	370	370	60	90	140	290	150	35	M30 x 720	4
551 to 630	760	670	940	870	410	410	60	90	140	290	150	35	M30 x 800	5
631 to 715	845	755	1025	955	452	452	60	90	140	290	150	35	M30 x 884	5
716 to 800	940	850	1120	1050	495	495	60	90	140	290	150	35	M30 x 970	5

ORDER CODES

KSx **** xx xx

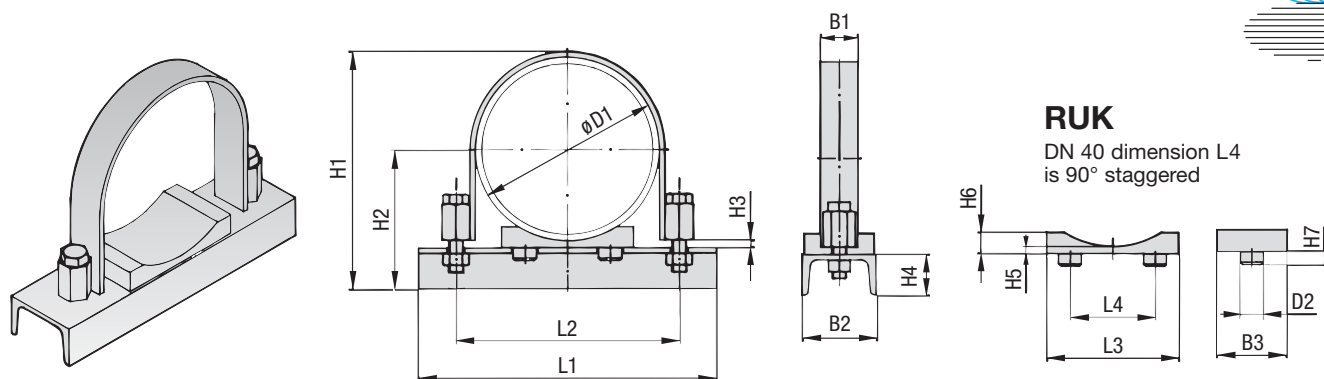


DKSx **** xx xx



Other materials, surface finishings and diameters on request.

with plastic pipe saddle Type RUK and U-profile (to be used as fixed point clamps only!)



DN	Pipe-O.D. Ø D1		Flat Steel U-Bolt Clamp FB						U-profile	Plastic Pipe Saddle RUK							Accessories	
	mm	Nominal Bore inch	L1	L2	H1	H2	H3	B1 Flat Steel	B2 x H4	L3	L4	B3	D2	H5	H6	H7	Hexagon Head Bolts	
40	48,3	1½	100	76	95	67	5	20 x 3	DIN 1026 50 x 38	24	25	35	8	5	8	5	M10 x 40	
50	57		115	85	103	71,5				38	25	50	10		10	6		
	60,3	2		88	106	73,2												
65	76,1	2½	132	104	122	81	8	40 x 4	DIN 1026 80 x 45	75	40	70	15	8	17	10	M12 x 55	
80	88,9	3	160	122	146	97,5												
100	108		170	140	165	107												
	114,3	4	180	147	171	110												
125	133		210	165	190	119,5												
	139,7	5		172	197	123												
150	159		265	201	220	132,5				40 x 6	140	90	75	25	8	26	10	M16 x 75
	168,3	6	275	211	230	137												
175	193,7		305	236	255	150				40 x 8	220	150	75	30	8	32	10	M20 x 80
200	216		320	260	277	161												
	219,1	8		261	280	162,5												
250	267		380	325	328	186,5												
	273	10	385	330	334	189,5												
300	318		440	375	384	212												
	323,9	12	450	382	390	215												
350	355,6	14	480	420	421	236	12	60 x 8	DIN 1026 100 x 50	220	150	75	30	8	32	10	M24 x 100	
	368		490	430	434	242												
400	406,4	16	550	470	472	261												
	419			482	485	267,5												
	457	18		585	520	523												286,5
500	508	20	630	570	574	312												
	521		640	585	587	319												

ORDER CODES

FB + RUK complete

FB + RUK/xx *,* W1**

→ Pipe-O.D. Ø D1 (mm)
 → PP – Polypropylene
 → PA – Polyamide

Plastic Pipe Saddle

RUK *,* xx**

→ PP – Polypropylene
 → PA – Polyamide
 → Pipe-O.D. Ø D1 (mm)

Clamp consisting of: (for FB + RUK only)

1 x Flat steel U-bolt clamp
 1 x RUK/xx
 1 x U-profile c/w nuts
 2 x Hexagon head bolts DIN EN ISO 4014/4017

Material

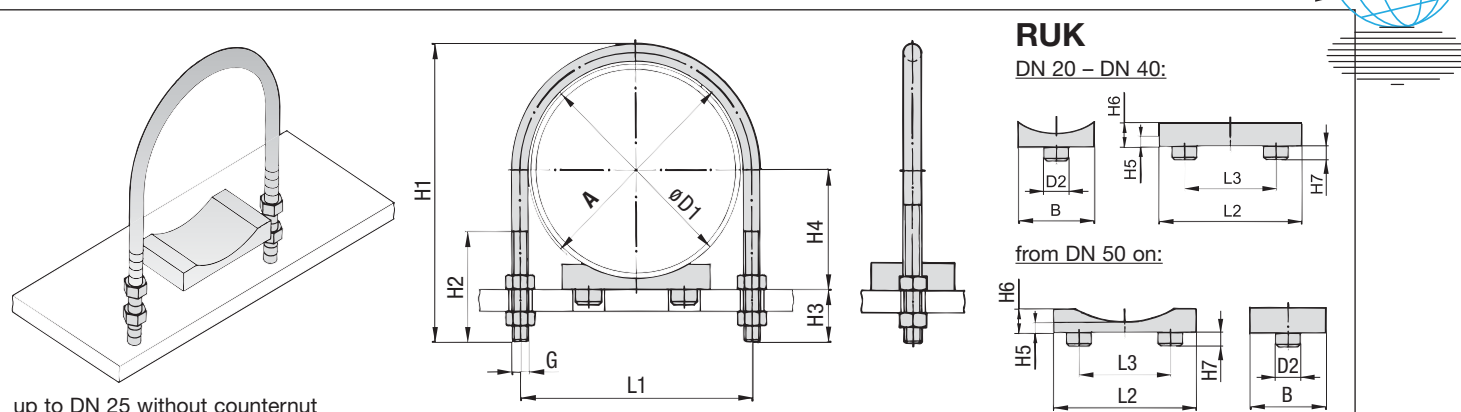
Metal parts: **W1:** carbon steel St 37, untreated

Other materials and surface finishings on request.

Information

Items are supplied non-assembled.

with plastic pipe saddle - short - RUK



DN	Pipe-O.D. ØD1		Round Steel U-Bolt RB							Plastic Pipe Saddle RUK						
	mm	Nominal Bore inch	A	L1	H1	H2	H3	H4	G	L2	L3	B	H5	H6	H7	D2
20	25		30	40	73,5	41	30	17,5	M 10	35	25	24	5	8	5	8
	26,9	3/4						18,5								
25	30		38	48	81	48	30	20								
	33,7	1						22								
32	38		46	56	89	48	30	24								
	42,4	1 1/4						26,2								
40	44,5		52	62	100	55	35	27,2	M 12	38	25	50	5	10	6	10
	48,3	1 1/2						29								
50	57		64	76	118	63	39	33,5								
	60,3	2						35,2								
65	76,1	2 1/2	82	94	135	77	41	43	M 16	75	40	70	8	17	10	15
80	88,9	3	94	106	152	82	49	62								
100	108		120	136	190	105	51	65								
	114,3	4						74,5								
125	133		148	164	217	105	51	78	M 20	140	90	75	8	26	10	25
	139,7	5						87,5								
150	159		176	192	247	125	59	92								
	168,3	6						105								
175	193,7		202	218	273	125	59	116	M 24	220	150	75	8	32	30	30
	216							117,5								
200	219,1	8	228	248	311	125	62	141,5								
	267	10						144,5								
250	273		282	302	364	125	62	167	M 24	220	150	75	8	32	30	30
	318							170								
300	323,9	12	332	352	418	145	70	186								
	355,6	14						192								
350	368		378	402	475	145	70	211								
	406,4	16						217,5								
400	419		428	452	526	145	70	262								
	508	20						269								
500	521		530	554	627	145	70	269								

ORDER CODES

RB + RUK complete RBxx RUK/xx ***,*

Pipe-O.D. ØD1 (mm)
PP – Polypropylene
PA – Polyamide

Material and surface finishing

carbon steel St37, untreated **W1**
carbon steel St37, zinc plated, **W66**
thick film passivated
stainless steel A4 - 1.4401/1.4571 **W5**
(AISI 316/316Ti)
carbon steel St 37, plastic coated **W6**

Clamp consisting of:

1 x Round Steel U-Bolt, 4 x Nuts DIN EN ISO 4032,
1 x Plastic Pipe Saddle RUK/xx

Round Steel U-Bolt RBxx A *** kompl

Dimension A

Material and surface finishing

carbon steel St37, untreated **W1**
carbon steel St37, zinc plated, **W66**
thick film passivated
stainless steel A4 - 1.4401/1.4571 **W5**
(AISI 316/316Ti)
carbon steel St 37, plastic coated **W6**

Clamp consisting of:

1 x Round Steel U-Bolt
4 x Nuts DIN EN ISO 4032

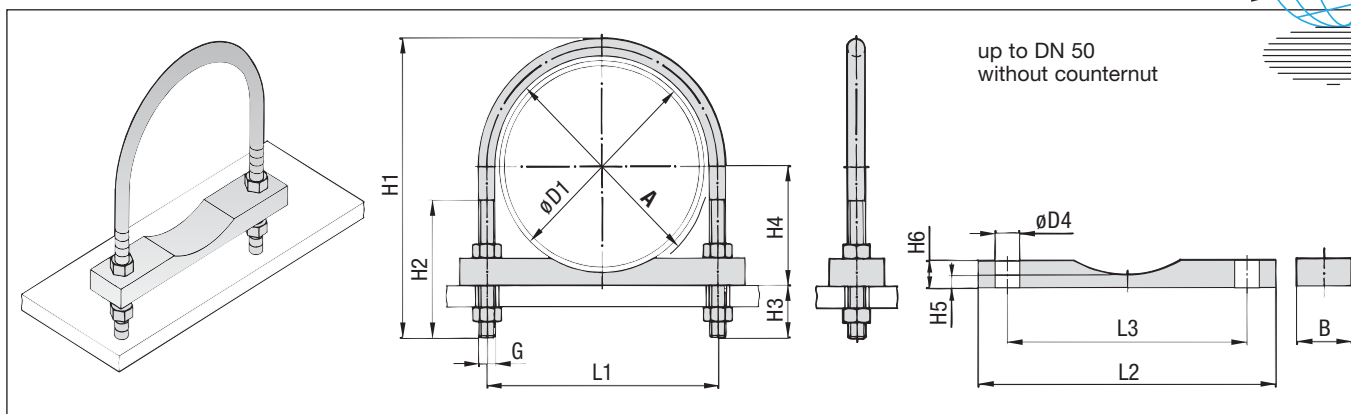
Plastic Pipe Saddle RUK ***,* xx

PP – Polypropylene
PA – Polyamide
Pipe-O.D. ØD1 (mm)

Information

Items are supplied non-assembled. Other materials and surface finishings on request.

with plastic pipe saddle - long - RUL



DN	Pipe-O.D. ØD1		Round Steel U-Bolt RB							Plastic Pipe Saddle RUL					
	mm	Nominal Bore inch	A	L1	H1	H2	H3	H4	G	L2	L3	B	H5	H6	øD4
20	25		30	40	73,5	41	30	17,5	M10	75	40	30	5	12	11
	26,9	3/4						18,5							
25	30		38	48	81	48	30	20	M10	80	48	30	5	12	11
	33,7	1						22							
32	38		46	56	89	48	30	24	M10	90	56	30	5	12	11
	42,4	1 1/4						26,2							
40	44,5		52	62	100	55	35	27,2	M12	95	62	35	5	15	14
	48,3	1 1/2						29							
50	57		64	76	118	63	39	33,5	M12	110	76	35	5	15	14
	60,3	2						35,2							
65	76,1	2 1/2	82	94	135	77	39	43	M12	135	94	35	5	15	14
	88,9	3						54,5							
80	88,9	3	94	106	152	82	39	54,5	M12	145	106	35	5	15	14
	108							64							
100	114,3	4	120	136	190	105	47	67	M16	190	136	40	10	20	18
	133							76,5							
125	139,7	5	148	164	217	105	47	80	M16	220	164	40	10	20	18
	159							91,5							
150	168,3	6	176	192	247	105	47	96	M16	250	192	40	10	20	18
	193,7							109							
175	193,7		202	218	273	105	47	109	M16	270	218	40	10	20	18
	216							120							
200	219,1	8	228	248	311	125	55	121,5	M20	315	248	50	12	25	22
	267							145,5							
250	273	10	282	302	364	125	55	148,5	M20	370	302	50	12	25	22
	318							174							
300	323,9	12	332	352	418	125	55	177	M20	420	352	50	12	25	22
	355,6	14						193							
350	368		378	402	475	125	55	199	M20	480	402	50	12	25	22
	406,4	16						218							
400	419		428	452	526	145	63	224,5	M24	540	452	60	15	30	26
	508	20						269							
500	521		530	554	627	145	63	276	M24	640	554	60	15	30	26

ORDER CODES

RB + RUL complete

RBxx RUL/xx ***,*

→ Pipe-O.D. ØD1 (mm)
→ PP – Polypropylene
→ PA – Polyamide

Material and surface finishing

carbon steel St 37, untreated **W1**
carbon steel St 37, zinc plated, thick film passivated **W66**
stainless steel A4 - 1.4401/1.4571 **W5**
(AISI 316/316Ti)
carbon steel St 37, plastic coated **W6**

Clamp consisting of:

1 x Round Steel U-Bolt, 4 x Nuts DIN EN ISO 4032,
1 x Plastic Pipe Saddle RUL/xx

Round Steel U-Bolt

RBxx A *** kompl

→ Dimension A

Material and surface finishing

carbon steel St 37, untreated **W1**
carbon steel St 37, zinc plated, thick film passivated **W66**
stainless steel A4 - 1.4401/1.4571 **W5**
(AISI 316/316Ti)
carbon steel St 37, plastic coated **W6**

Clamp consisting of:

1 x Round Steel U-Bolt
4 x Nuts DIN EN ISO 4032

Plastic Pipe Saddle

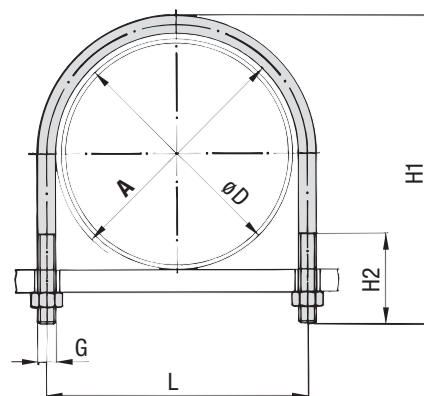
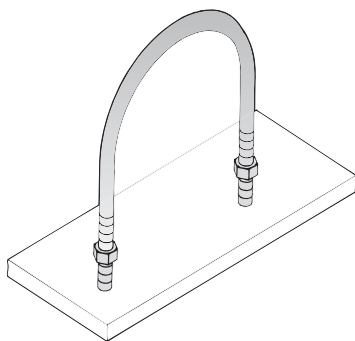
RUL ***,* xx

→ PP – Polypropylene
→ PA – Polyamide
→ Pipe-O.D. ØD1 (mm)

Information

Items are supplied non-assembled. Other materials and surface finishings on request.

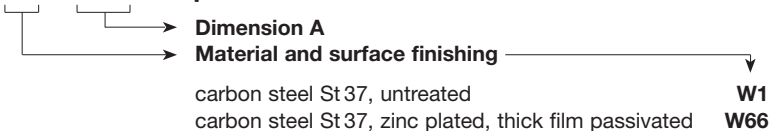
according to **DIN 3570, Type A**



DN	Pipe-O.D. ØD		Round Steel U-Bolt RBD								
	mm	Nominal Bore inch	A	L	H1	H2	G				
20	25		30	40	70	40	M10				
	26,9	¾									
25	30		38	48	76			50	M12		
	33,7	1									
32	38		46	56	86	60				M16	
	42,4	1¼									
40	44,5		52	62	92						70
	48,3	1½									
50	57		64	76	109		80				
	60,3	2									
65	76,1	2½	82	94	125						
80	88,9	3	94	106	138						
100	108		120	136	171	90		M30			
	114,3	4									
125	133		148	164	191				100	M36	
	139,7	5									
150	159		176	192	217		110				M42
	168,3	6									
175	193,7		202	218	249						
200	216		228	248	283	120		M48			
	219,1	8									
250	267		282	302	334				140	M60	
	273	10									
300	318		332	352	385		160				M72
	323,9	12									
350	355,6	14	378	402	435						
	368										
400	406,4	16	428	452	487	200		M96			
	419										
500	508	20	530	554	589				220	M108	
	521										

ORDER CODE

RBDxx A * kompl**



Clamp consisting of:

1 x Round Steel U-Bolt
2 x Nuts DIN EN ISO 4032

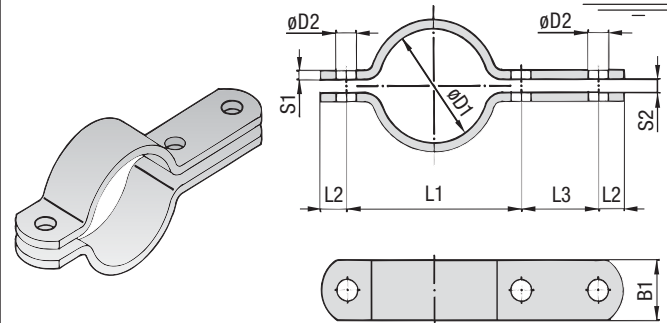
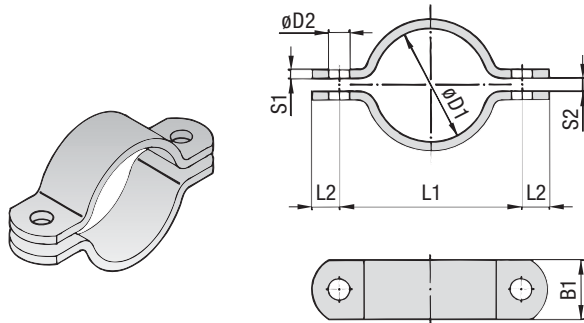
Information

Items are supplied non-assembled.

Other materials and surface finishings on request.

according to **DIN 3567, Type A**

according to **DIN 3567, Type B**



STAUFF Group ØD1	Nominal Size		L1	L2	S1	S2	D2	B1	Accessories Hexagon Head Bolts Hexagon Nuts
	mm	Pipe inch							
20	15		57	15	5	7	11,5	30	M10 x 30 M10
22			59						
25			62						
27	3/4	66							
30	25		68						
34		1	72						
38	32		76						
43		1 1/4	82						
45	40		84						
49		1 1/2	88						
57	50		104	18	6	9	14	40	M12 x 35 M12
61		2	108						
77	65	2 1/2	122						
89	80	3	136						
108	100		172	24	8	11	18	50	M16 x 45 M16
115		4	178						
133	125		196						
140			204						
159	150		222						
169			232						
194	175		258						
216	200		280						
220			284						
267	250		342						
273			348						
318	300		392						
324			398						
368	350		444						
407	400		498	36	10	18	27	70	M24 x 60 M24
419			510						
521	500		614						

ORDER CODE

DIN 3567 A - * xx**

Material and surface finishing
STAUFF Group ØD1

MATERIAL AND SURFACE FINISHING

STAUFF Group 20 – 521 **W1** carbon steel St37, untreated
1 clamp is consisting of 2 clamp halves

Other materials, surface finishings and diameters on request.
Bolts and nuts do not belong to the delivery standard.

STAUFF Group ØD1	Nominal Size		L1	L2	L3	S1	S2	D2	B1	Accessories Hexagon Head Bolts Hexagon Nuts
	mm	Pipe inch								
20	15		57	15	46	5	7	11,5	30	M10 x 30 M10
22			59							
25			62							
27	3/4	66								
30	25		68							
34		1	72							
38	32		76							
43		1 1/4	82							
45	40		84							
49		1 1/2	88							
57	50		104	18	54	6	9	14	40	M12 x 35 M12
61		2	108							
77	65	2 1/2	122							
89	80	3	136							
108	100		172	24	70	8	11	18	50	M16 x 45 M16
115		4	178							
133	125		196							
140			204							
159	150		222							
169			232							
194	175		258							
216	200		280							
220			284							
267	250		342	30	86	8	14	23	60	M20 x 50 M20
273			348							
318	300		392							
324			398							
368	350		444							
407	400		498	36	104	10	18	27	70	M24 x 60 M24
419			510							
521	500		614							

ORDER CODE

DIN 3567 B - * xx**

Material and surface finishing
STAUFF Group ØD1

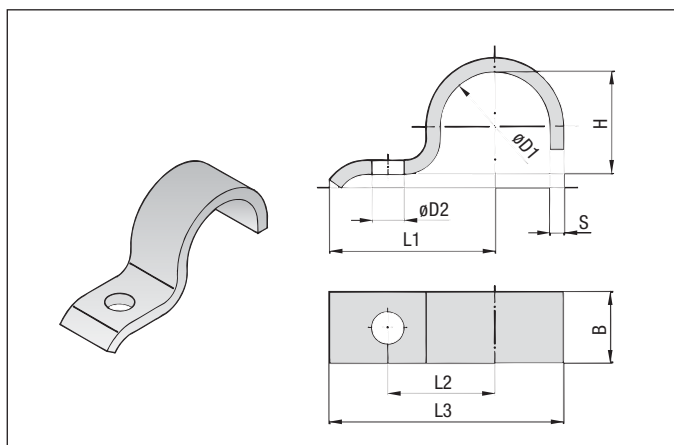
MATERIAL AND SURFACE FINISHING

STAUFF Group 20 – 521 **W1** carbon steel St37, untreated
1 clamp is consisting of 2 clamp halves

Other materials, surface finishings and diameters on request.
Bolts and nuts do not belong to the delivery standard.

according to **DIN 1592**

according to **DIN 1593**



STAUFF Group ØD1	Diameter range	L1	L2	L3	H	D2	B	S
7	5,5 – 7	22	14	27,5	5	6,6	16	2
9	7 – 9	27	18	33,5	6		20	
13	9,5 – 13	40	25	49,5	9	11	25	3
15,5	13 – 15,5	41	26	52	12			
19	15,5 – 19	43	28	55,5	15			
23	20 – 23	51	35	67	19	14	30	5
26	23 – 26	52	36	70	22			
28,5	26 – 28,5	53	37	73	24			
31	28,5 – 31	55	39	75,5	27			
36	33 – 36	57	41	81	32	14	40	5
39	36 – 39	59	43	83,5	34			
43	39 – 43	68	48	94,5	38	18		
46	43 – 46	70	50	98	41			
49	46 – 49	73	53	105,5	44	18	40	8
52*	49 – 52	76	56	110	47			
58	53 – 58	78	58	115	52			
61	58 – 61	80	60	118,5	57			

* similar to DIN 1592

ORDER CODE

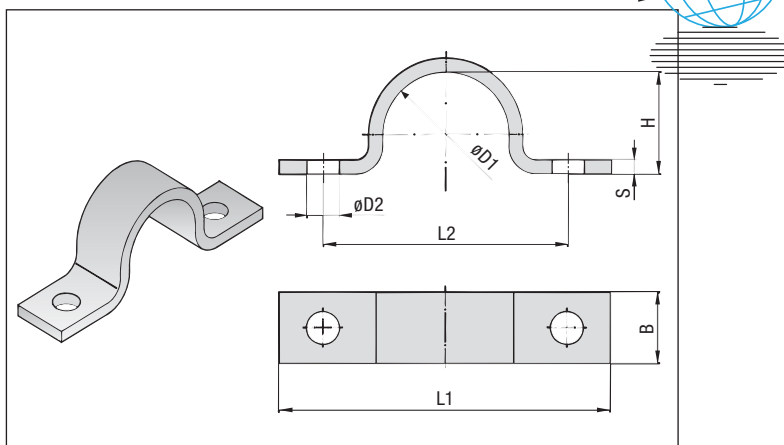
DIN 1592-* xx**

→ Material and surface finishing
→ STAUFF Group ØD1

MATERIAL AND SURFACE FINISHING

STAUFF Group 7 – 49 **W66** carbon steel St 37, zinc plated, thick film passivated
STAUFF Group 52 – 61 **W1** carbon steel St 37, untreated (Surface finishing on request only)

Other materials, surface finishings and diameters on request.



STAUFF Group ØD1	Diameter range	L1	L2	H	D2	B	S
7	5,5 – 7	44	28	5	6,6	16	2
9	7 – 9	48	32	6	6,6	20	2
13	9,5 – 13	52	36	9			
15,5	13 – 15,5	56	40	12			
19	15,5 – 19	60	44	15			
23	20 – 23	82	56	19	11	25	3
26	23 – 26	84	58	22			
28,5	26 – 28,5	90	64	24			
31	28,5 – 31			27			
36	33 – 36	106	80	32	11	30	5
39	36 – 39	110	84	34			
43	39 – 43	120	88	38	14		
46	43 – 46	122	90	41			
49	46 – 49			44			
58	53 – 58	142	110	52	14	40	5
61	58 – 61			57			
71	67 – 71	152	120	66	18		
77	73 – 77	176	136	72			
81	77 – 81	184	144	76	18	40	8
91	86 – 91	198	158	85			
103	99 – 103	214	174	98			
109	105 – 109	220	180	104			
115	110 – 115	226	186	109			

ORDER CODE

DIN 1593-* xx**

→ Material and surface finishing
→ STAUFF Group ØD1

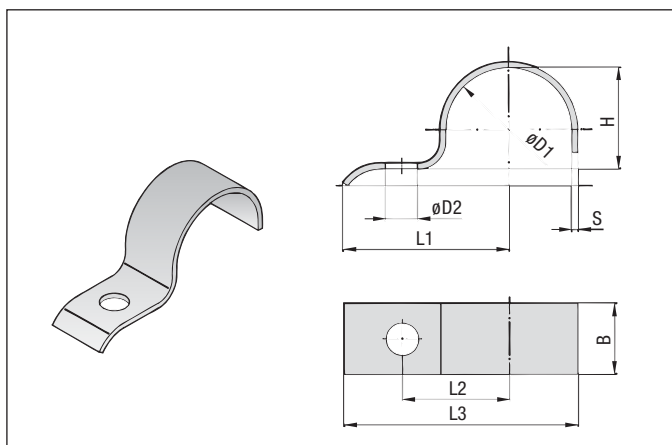
MATERIAL AND SURFACE FINISHING

STAUFF Group 7 – 77 **W66** carbon steel St 37, zinc plated, thick film passivated
STAUFF Group 81 – 115 **W1** carbon steel St 37, untreated (Surface finishing on request only)

Other materials, surface finishings and diameters on request.

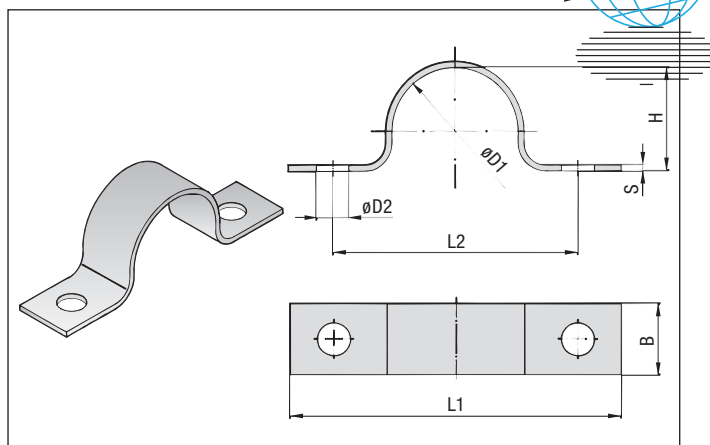
according to **DIN 1596**

according to **DIN 1597**



STAUFF Group ØD1	Diameter range	L1	L2	L3	H	D2	B	S
7	5,5 – 7	26	14	31,5	5	6,6	16	2
9	7 – 9	28	16	34,5	6			
13	9,5 – 13	30	18	38,5	9	6,6	20	2
15,5	13 – 15,5	32	20	41,75	12			
19	15,5 – 19	34	22	45,5	15			
23	20 – 23	43	28	57,5	19	9	25	3
26	23 – 26	44	29	60	22			
28,5	26 – 28,5	47	32	64,25	24			
31	28,5 – 31			65,5	27			
33*	31 – 33	56	36	75,5	29	11	30	3
36	33 – 36	57	40	78	32			
39	36 – 39	59	42	81,5	34			
43	39 – 43	61	44	85,5	38			
46	43 – 46	62	45	88	41	14	40	4
49	46 – 49	67	48	95,5	44			
52*	49 – 52	72	53	102	47			
58	53 – 58	74	55	107	52			
61	58 – 61	77	58	111,5	56			

* similar to DIN 1596



STAUFF Group ØD1	Diameter range	L1	L2	H	D2	B	S
7	5,5 – 7	44	28	5	5,5	16	1,5
9	7 – 9	48	32	6			
13	9,5 – 13	52	36	9			
15,5	13 – 15,5	56	40	12	6,6	20	2
19	15,5 – 19	60	44	15			
23	20 – 23	76	56	19			
26	23 – 26	78	58	22			
28,5	26 – 28,5	84	64	24	9	25	3
31	28,5 – 31			27			
33*	31 – 33	92	72	29			
36	33 – 36	104	80	32			
39	36 – 39	108	84	34	11	30	3
43	39 – 43	112	88	38			
46	43 – 46	114	90	41			
49	46 – 49	118	90	44			
52*	49 – 52	134	106	47	11	30	3
58	53 – 58	138	110	52			
61	58 – 61			56			

* similar to DIN 1597

ORDER CODE

DIN 1596 - * xx**

→ Material and surface finishing
→ STAUFF Group ØD1

MATERIAL AND SURFACE FINISHING

STAUFF Group 7 – 61 **W66** carbon steel St 37, zinc plated, thick film passivated

Other materials, surface finishings and diameters on request.

ORDER CODE

DIN 1597 - * xx**

→ Material and surface finishing
→ STAUFF Group ØD1

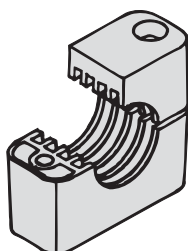
MATERIAL AND SURFACE FINISHING

STAUFF Group 7 – 61 **W66** carbon steel St 37, zinc plated, thick film passivated

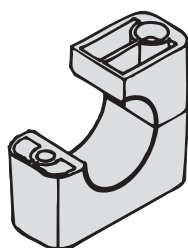
Other materials, surface finishings and diameters on request.

Design of Clamp Bodies

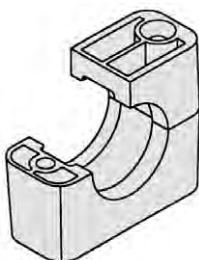
STANDARD SERIES



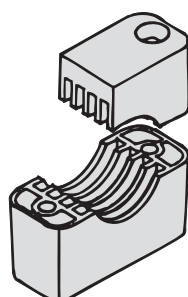
Standard design
– profiled inside –



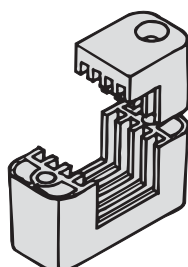
H-design
– smooth inside –
(recommended for hoses)



RI-design
for rubber inserts

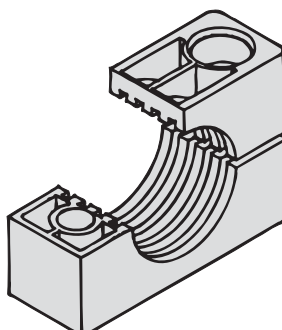


Oval design

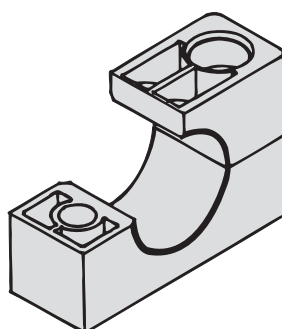


Rectangular design

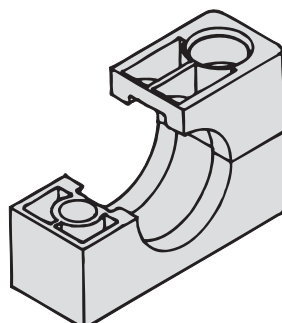
HEAVY SERIES



Standard design
– profiled inside –

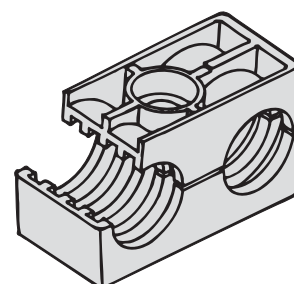


H-design
– smooth inside –
(recommended for hoses)

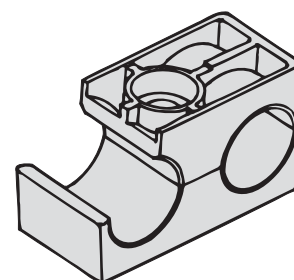


RI-design
for rubber inserts

TWIN SERIES



Standard design
– profiled inside –



H-design
– smooth inside –
(recommended for hoses)

Installation Information

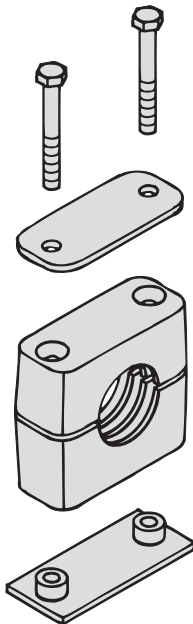
**INSTALLATION ON
WELD PLATES**

STAUFF weld plates are available for the following Series:

- Standard Series
- Heavy Series
- Twin Series
- Special Clamps

For best alignment of STAUFF clamps it is recommended to mark their location first. Weld plates, push on bottom half of clamp, install pipe, mount top half of clamp and cover plate and bolt unit together.

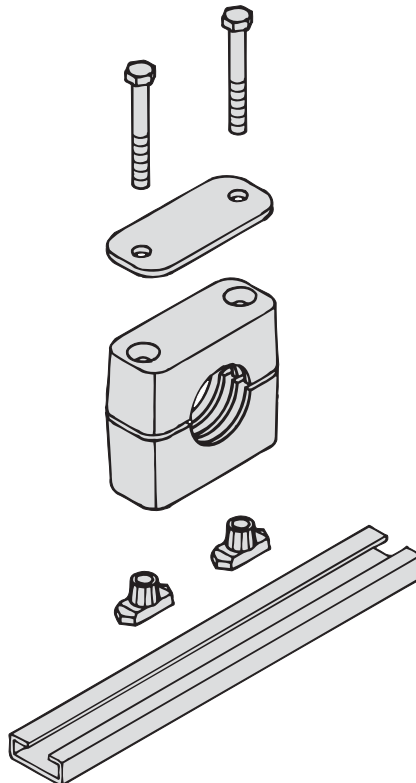
In order to avoid damage to the clamp bodies it is recommended to mount the plastic clamp bodies after having welded the weld plates.

**INSTALLATION ON
MOUNTING RAILS**

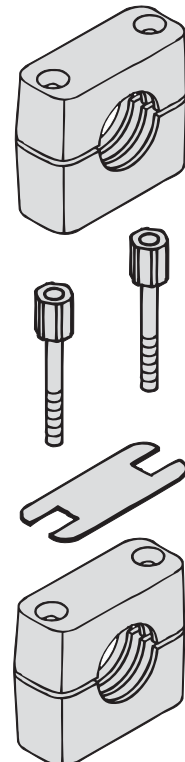
STAUFF mounting rails can be used with the following Series:

- Standard Series
- Heavy Series (Group 3S – 6S)
- Twin Series
- Special Clamps

STAUFF mounting rails are available in four different height sizes. The rails are either welded or bolted to the supporting construction. For Standard and Twin Series insert hexagon rail nut and turn to lock. For Heavy Series slide in rail nut. Push on bottom half of clamp, install pipe, mount top half of clamp and cover plate and bolt unit together. Clamp units can be adjusted before being firmly bolted.

**MULTI-LEVEL ASSEMBLY**

STAUFF multi-level pipe clamps permit easy stacking of several tubes or pipes of the same group. (Twin Clamps group 2 – 5 allow stacking of different group sizes.) The clamps are connected by stacking bolts (AF). Safety plates (SIG/SIP/SI) inserted between the clamps prevent stacking bolts from turning. STAUFF stacking assembly can be fitted to weld plates or to rails.



Standard Materials: Properties and Technical Information

CLAMP BODIES

MATERIAL	PP	PA	AL	SA
	POLYPROPYLENE Copolymeric	POLYAMIDE *1	ALUMINIUM AlSi12	THERMOPLASTIC ELASTOMER
COLOUR	 GREEN	 BLACK	 NATURAL	 BLACK

MECHANICAL PROPERTIES

Tensile E-Module	1073 N/mm ² (ISO 527)	> 1400 N/mm ² (ISO 527)	> 65000 N/mm ²	113 N/mm ² at 23°C (ASTM D 412)
Notch Impact Strength	7,5 kJ/m ² at 23°C (acc. to Charpy / ISO 179/1eA)	> 15 kJ/m ² at 23°C (acc. to Charpy / ISO 179/1eA)	---	---
Low Temperature Notch Impact Strength	3,1 kJ/m ² at -30°C (acc. to Charpy / ISO 179/1eA)	> 3 kJ/m ² at -30°C (acc. to Charpy / ISO 179/1eA)	---	---
Tensile Strength at Yield (Tensile Strength)	25 N/mm ² (ISO 527)	> 55 N/mm ² (ISO 527)	> 150 N/mm ² (DIN EN 10002)	15,9 N/mm ² (ASTM D 412)
Ball Indentation Hardness (Brinell Hardness)	45,4 N/mm ² (ISO 2039-1)	> 65 N/mm ² (ISO 2039-1)	> 55 HBS	---
Shore Hardness	---	---	---	87A (ISO 868)

THERMAL PROPERTIES

Recommended Temperature Range (Minimum / Maximum)	-30°C ... +90°C	-40°C ... +120°C	up to 300°C *2	-40°C ... +125°C
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CHEMICAL PROPERTIES

Weak Acids, Solvents	conditionally consistent	conditionally consistent	conditionally consistent	consistent
Benzine, Mineral Oils	conditionally consistent	consistent	consistent	conditionally consistent
Alcohol, Other Oils, Seawater	consistent	consistent	consistent	consistent

NOTES

*1 The stated information has been defined for conditions according to ISO 1110.

*2 Tensile strengths, fatigue strength (under reversed bending stress) and impact bending toughness rise constantly at decreasing temperature level, the breaking elongation normally decreases at a decreasing temperature level.

The above stated information is shown without any obligation and does not release you from own test arrangements. Tightening Torques and Maximum Loads need to be considered (see page 55).

METAL PARTS

Unless otherwise stated, all metal parts are made of carbon steel St37, surface finishing according to order code.

Surface Finishings

In addition to the standard surface finishings stated (if zinc/nickel coated usually Fe/Zn Ni (12...16) 4/A/T2 according to DIN 50962, if phosphated usually Fe/Znph r 10 according to DIN EN 12476) several alternative finishings are also available on request.

Stainless Steel Metal Parts

All metal parts are also **available ex stock** in two different stainless steel qualities:

Stainless Steel A2 - 1.4301/1.4305 (AISI 304/303)
Stainless Steel A4 - 1.4401/1.4571 (AISI 316/316Ti)

Threads

All threaded parts are available with UNC-threads on request (see thread-chart on page 54).



Special Materials: Properties and Technical Information

CLAMP BODIES			
PAVO	PA-FF	PPDA	PP6853
POLYAMIDE *1	POLYAMIDE *1	POLYPROPYLENE	POLYPROPYLENE
 GREY	 BLACK	 WHITE	 WHITE
MECHANICAL PROPERTIES			
1500 N/mm ² (ISO 527-1/-2)	1100 N/mm ² (ISO 527-1/-2)	2200 N/mm ² (ISO 527 / bei 23°C 50 mm/min)	1440 N/mm ² (ICE 60811-1-1)
35 kJ/m ² at 23°C (acc. to Charpy / ISO 179/1eA)	20 kJ/m ² at 23°C (acc. to Charpy / ISO 179/1eA)	11,8 kJ/m ² at 23°C (acc. to IZOD / ISO 180/1A)	16 kJ/m ² at 23°C (acc. to IZOD / ISO 179/1eU)
- - -	- - -	4,9 kJ/m ² bei -25°C (acc. to IZOD / ISO 180/1A)	- - -
45 N/mm ² (ISO 527-1/-2)	50 N/mm ² (ISO 527-1/-2)	15,1 N/mm ² (ISO 527 / bei 23°C 50 mm/min)	20,4 N/mm ² (ICE 60811-1-1)
100 N/mm ² (ISO 2039-1)	100 N/mm ² (ISO 2039-1)	- - -	- - -
- - -	- - -	- - -	- - -
THERMAL PROPERTIES			
-30°C ... +120°C	-30°C ... +120°C	-25°C ... +90°C	-25°C ... +90°C
SPECIAL PROPERTIES			
PREVENTIVE FIRE PROTECTION Tested and approved according to UL94 ("Vertical Burning Test") - classification: 94V-0 (thickness: 0,4mm) Tested and approved according to DIN 5510, Part 2 - combustibility classification: S3 - smoke development classification: SR2 - dripping classification: ST2 Tested and approved according to NF F 16-101 - classification: I3 / F2	PREVENTIVE FIRE PROTECTION Tested and approved according to DIN 5510, Part 2 - combustibility classification: S4 - smoke development classification: SR2 - dripping classification: ST2	PREVENTIVE FIRE PROTECTION Tested and approved according to Def Stan 07-247 - assessment: category B Approved by the UK MoD	PREVENTIVE FIRE PROTECTION Tested and approved according to BS 6853 - assessment: category 1a Compliant with the requirements of London Underground / Metronet (standard 2-01001-002: "Fire Safety Performance of Materials") Tested and approved according to DIN 5510, Part 2 - combustibility classification: S3 - smoke development classification: SR2 - dripping classification: ST2 Tested and approved according to Def Stan 07-247 - assessment: category B
NOTES *1 The stated information has been defined for conditions according to ISO 1110.			

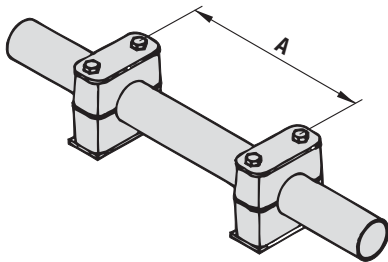
STANDARD PROPERTY CLASSES FOR BOLTS AND SCREWS

Unless otherwise stated, the following property classes apply as standard for bolts and screws offered by STAUFF:

Bolt type	Designation	Material and surface finishings	Standard property class
Hexagon Head Bolt	AS	W1, W2, W3	8.8
		W4	A2-70
		W5	A4-70
Socket Cap Screw	IS	W1, W2, W3	8.8
		W4	A2-70
		W5	A4-70
Slotted Head Screws	LI	W1, W2, W3	4.8
		W4	A2-70
		W5	A4-70

This information indicates the minimum requirements.
Higher property classes are tolerable and available on request.
Please consult STAUFF for further information.

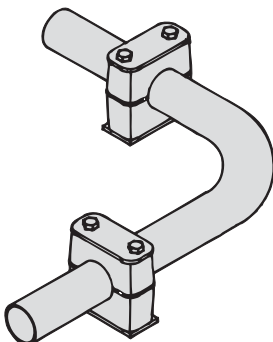
RECOMMENDED DISTANCE BETWEEN CLAMPS



The recommended distances between clamps stated below are standard values and are valid for static loads.

Pipe-O.D. [mm]	Distance A [m]	Pipe-O.D. [mm]	Distance A [m]
6,0 – 12,7	1,0	114,0 – 168,0	5,0
12,7 – 22,0	1,2	168,0 – 219,0	6,0
22,0 – 32,0	1,5	219,0 – 324,0	6,7
32,0 – 38,0	2,0	324,0 – 356,0	7,0
38,0 – 57,0	2,7	356,0 – 406,0	7,5
57,0 – 75,0	3,0	406,0 – 419,0	8,2
75,0 – 76,1	3,5	419,0 – 508,0	8,5
76,1 – 88,9	3,7	508,0 – 521,0	9,0
88,9 – 102,0	4,0	521,0 – 558,0	10,0
102,0 – 114,0	4,5	558,0 – 800,0	12,5

BASIC MOUNTING INSTRUCTIONS



Pipe bends should be supported by STAUFF clamps as near to the bends as possible.

Furthermore, it is recommended to design these clamps as fixed point clamps.

The first clamp should be placed directly behind the threaded connection or coupling. This protects the threaded connection or coupling from vibrations.

If valves are incorporated in the pipelines, it is recommended that support is provided in front of and behind these valves.

THREAD CHART

Metric vs. UNC Thread

STANDARD SERIES

STAUFF Group	Metric Thread	UNC Thread
1	M 6	1/4 – 20 UNC
1A		
2		
3		
4		
5		
6		
7		
8		

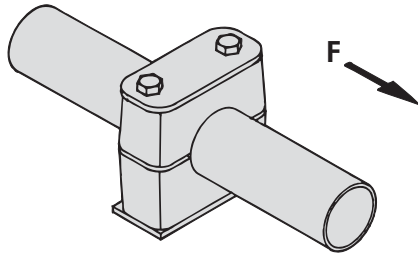
HEAVY SERIES

STAUFF Group	Metric Thread	UNC Thread
3S	M 10	3/8 – 16 UNC
4S		
5S		
6S	M 12	7/16 – 14 UNC
7S	M 16	5/8 – 11 UNC
8S	M 20	3/4 – 10 UNC
9S	M 24	7/8 – 9 UNC
10S	M 30	1 1/8 – 7 UNC
11S	M 30	1 1/4 – 7 UNC
12S		

TWIN SERIES

STAUFF Group	Metric Thread	UNC Thread
1D	M 6	1/4 – 20 UNC
2D	M 8	5/16 – 18 UNC
3D		
4D		
5D		

Tightening Torques And Maximum Loads In Pipe Direction



All tightening torques and maximum loads in pipe direction refer to clamps with cover plates and hexagon head bolts acc. to DIN EN ISO 4014/4017 (DIN 931/933).

The max. load in pipe direction (acc. to DIN 3015, part 10) is an average value, determined by three tests at 23° C with a steel pipe acc. to DIN EN 10220, St 37 – rolled surface – taking static friction into consideration.

Sliding starts when the shown values (**F**) are reached.

STANDARD SERIES (according to DIN 3015, part 1)

STAUFF Group	Hexagon Head Bolt DIN EN ISO 4014/4017 (DIN 931/933)	Polypropylene		Polyamide		Aluminum	
		Tightening torque [Nm]	Max. load in pipe direction F [kN]	Tightening torque [Nm]	Max. load in pipe direction F [kN]	Tightening torque [Nm]	Max. load in pipe direction F [kN]
1	M 6	8	0,6	10	0,6	12	3,5
1A		8	1,1	10	0,7	12	4,2
2		8	1,3	10	0,8	12	4,3
3		8	1,4	10	1,6	12	4,9
4		8	1,5	10	1,7	12	5,0
5		8	1,9	10	2,0	12	7,3
6		8	2,0	10	2,5	12	8,9

HEAVY SERIES (according to DIN 3015, part 2)

STAUFF Group	Hexagon Head Bolt DIN EN ISO 4014/4017 (DIN 931/933)	Polypropylene		Polyamide		Aluminum	
		Tightening torque [Nm]	Max. load in pipe direction F [kN]	Tightening torque [Nm]	Max. load in pipe direction F [kN]	Tightening torque [Nm]	Max. load in pipe direction F [kN]
3 S	M 10	12	1,6	20	4,2	30	12,1
4 S		12	2,9	20	4,5	30	15,1
5 S		15	3,3	25	5,1	35	15,5
6 S	M 12	30	8,2	40	9,3	55	29,4
7 S	M 16	45	11,0	55	15,8	120	34,9
8 S	M 20	80	14,0	150	21,0	220	50,0
9 S	M 24	110	28,0	200	32,0	250	70,6
10 S	M 30	180	40,0	350	48,0	500	84,5
11 S		200	119,0	370	125,0	500	181,5
12 S		270	168,0	450	180,0	600	244,5

TWIN SERIES (according to DIN 3015, part 3)

STAUFF Group	Hexagon Head Bolt DIN EN ISO 4014/4017 (DIN 931/933)	Polypropylene		Polyamide	
		Tightening torque [Nm]	Max. load in pipe direction F [kN]	Tightening torque [Nm]	Max. load in pipe direction F [kN]
1 D	M 6	5	0,9	5	0,9
2 D	M 8	12	2,1	12	2,2
3 D		12	1,9	12	2,0
4 D		12	2,7	12	2,9
5 D		8	1,7	8	2,5

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