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Stauff Clamps

40 Years of Experience Worldwide Distribution Prompt Delivery

In most industrial countries STAUFF Clamps symbolise quick and easy pipe and hose installation as well as a clean distinct pipe lay-out.

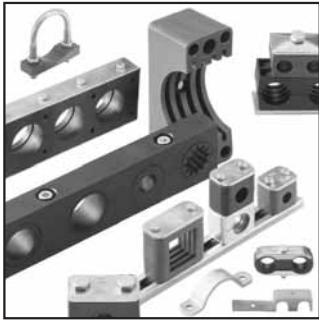
The vibration and noise reducing features are appreciated as being an important contribution to environmental protection.

Apart from the technical sophistication of STAUFF Clamps, the second-to-none delivery, prompt service even for special constructions, STAUFF Clamps are also the most economical to install and available in:

- ◆ Standard-Series
- ◆ Twin-Series
- ◆ Heavy-Series

STAUFF Clamp applications are almost unlimited. Due to the extraordinary wide program range, all areas of pipe, tube and hose installation are covered:

- ◆ Industrial Hydraulics
- ◆ Mobile Hydraulics
- ◆ Marine Hydraulics
- ◆ General Industrial Pipe Construction
- ◆ Mining Industry
- ◆ Nuclear Reactor Construction
- ◆ Instrumentation and Control Technology
- ◆ Pneumatics.



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50 Years of Experience Worldwide Distribution Prompt Delivery

In most industrial countries STAUFF Clamps symbolise quick and easy pipe and hose installations as well as a clean distinct pipe layout.

The vibration and noise reducing features are appreciated as being an important contribution to environmental protection.

Apart from the technical sophistication of STAUFF Clamps, the second-to-none delivery, prompt service even for special constructions, STAUFF Clamps are also the most economical ones to install.

STAUFF Clamps applications are almost unlimited. Due to the extraordinary wide product range, all areas of pipe, tube and hose installation are covered:

- Industrial Hydraulics
- Mobile Hydraulics
- Marine Hydraulics
- Offshore
- General Industrial Pipe Construction
- Mining Industry
- Nuclear Reactor Construction
- Instrumentation and Control Technology
- Pneumatics

STAUFF Clamps have been approved by:

- Bureau Veritas
- Department of the Navy, New York
- Germanischer Lloyd
- Lloyd's Register of Shipping
- Registro Italiano Navale
- TÜV
- United States Coast Guard

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**Distributors and warehouses
in all industrial countries.**

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according to **DIN 3015, Part 1**

ALSO AVAILABLE

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

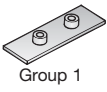
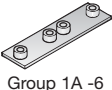
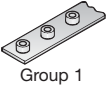
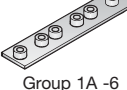








see pages 28 to 32

Custom designed pipe clamps (machined and injection moulding versions) according to customer's specifications or based on STAUFF developments

see pages 34 to 35




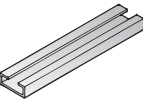

ORDERING INFORMATION					CLAMP BODY consisting of two clamp halves	SINGLE WELD PLATE SP	ELONGATED WELD PLATE SPV	CHANNEL RAIL ADAPTOR CRA
STAUFF GROUP	DIN GROUP	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN INCH	NOMINAL BORE PIPE IN INCH	***,* *** ↓ STAUFF GROUP ↓ OUTSIDE 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
1	0	6			106 ***	SP 1 ***	SPV 1 ***	
		6,4	1/4		106,4 ***			
		8	5/16		108 ***			
		9,5	3/8		109,5 ***			
		10		1/8	110 ***			
1A	1	12			112 ***	SP 1A ***	SPV 1A ***	
		6			106A ***			
		6,4	1/4		106,4A ***			
		8	5/16		108A ***			
		9,5	3/8		109,5A ***			
2	2	10		1/8	110A ***	SP 2 ***	SPV 2 ***	
		12			112A ***			
		12,7	1/2		212,7 ***			
		13,5		1/4	213,5 ***			
		14			214 ***			
		15			215 ***			
3	3	16	5/8		216 ***	SP 3 ***	SPV 3 ***	CRA 1-8 ***
		17,2		3/8	217,2 ***			
		18			218 ***			
		19	3/4		319 ***			
		20			320 ***			
4	4	21,3		1/2	321,3 ***	SP 4 ***	SPV 4 ***	
		22	7/8		322 ***			
		25			325 ***			
		25,4	1		325,4 ***			
5	5	26,9		3/4	426,9 ***	SP 5 ***	SPV 5 ***	
		28			428 ***			
		30			430 ***			
		32	1 1/4		532 ***			
		33,7		1	533,7 ***			
6	6	35			535 ***	SP 6 ***	SPV 6 ***	
		38	1 1/2		538 ***			
		40			540 ***			
		42		1 1/4	542 ***			
7	7	44,5	1 3/4		644,5 ***	SP 7 ***	SPV 7 ***	
		48,3		1 1/2	648,3 ***			
		50,8	2		650,8 ***			
		57,2	2 1/4		757,2 ***			
		60,3		2	760,3 ***			
8	8	63,5	2 1/2		763,5 ***	SP 8 ***	SPV 8 ***	
		70	2 3/4		770 ***			
		73		2 1/2 except DIN EN 10220	3 ***			
		76,1	3	2 1/2 DIN EN 10220 only	76,1 ***			
		88,9	3 1/2	3	888,9 ***			
		102	4		8102L ***			

according to **DIN 3015, Part 1**

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 1A -6	 Group 1  Group 1A -6	 Group 1  Group 1A -8	DIN EN ISO 4014 / 4017 (DIN 931/933) for use with COVER PLATE DP 		no cover plate for use with INSERT E 	DIN EN ISO 4762 (DIN 912) 	DIN EN ISO 1207 (DIN 84) 		
W2	W1	W3	W3	STEEL / PLASTIC	W3	W3	W3	W3	
DSP * ** * ** * ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	RAP * ** * ** * ** * ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	DP * ** * ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	AS * ** * ** * ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	E * ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	ASE * ** * ** * ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	IS * ** * ** * ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	LI * ** * ** * ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	AF * ** * ** * ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	
TWIN WELD PLATE DSP STAUFF GROUP PIPE CENTER SPACING PIPE TYPE OF THREAD MATERIAL & SURFACE FINISHING	GROUP WELD PLATE RAP STAUFF GROUP PIPE CENTER SPACING NUMBER OF CLAMPS PIPE TYPE OF THREAD MATERIAL & SURFACE FINISHING	COVER PLATE DP STAUFF GROUP MATERIAL & SURFACE FINISHING	HEXAGON HEAD BOLT AS STAUFF GROUP PIPE TYPE OF THREAD MATERIAL & SURFACE FINISHING	INSERT E MATERIAL (S/P)	HEXAGON HEAD BOLT ASE STAUFF GROUP PIPE TYPE OF THREAD MATERIAL & SURFACE FINISHING	SOCKET HEAD SCREW IS STAUFF GROUP PIPE TYPE OF THREAD MATERIAL & SURFACE FINISHING	SLOTTED HEAD SCREW LI STAUFF GROUP PIPE TYPE OF THREAD MATERIAL & SURFACE FINISHING	STACKING BOLT AF STAUFF GROUP PIPE TYPE OF THREAD MATERIAL & SURFACE FINISHING	
DSP 1/40 * ** *	RAP 1/30/10 * ** *	DP 1 * **	AS 1 M * ** (M6 x 30)	E * S for Steel P for Plastic	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)		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 * ** *

▶ PLEASE TURN THE PAGE HERE ▶

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 **			

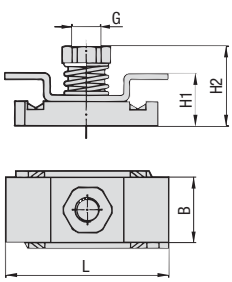
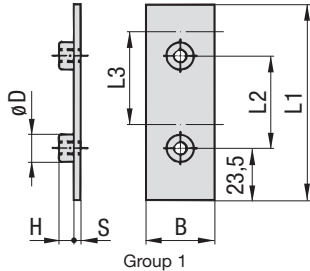
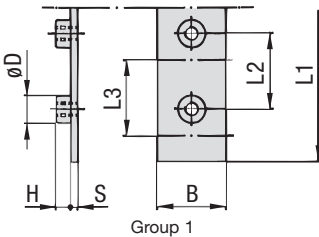
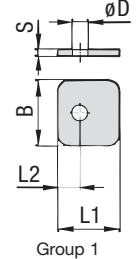
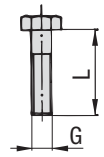
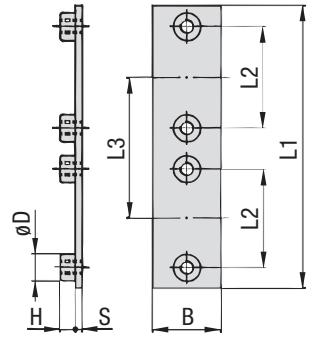
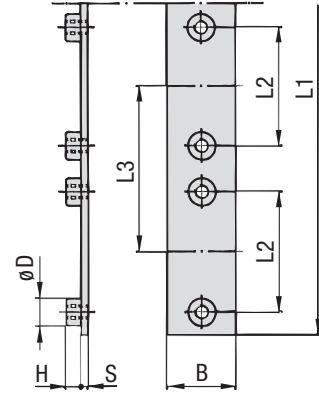
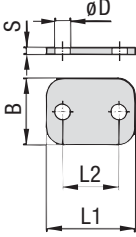
COMPONENT PART IDENTIFICATION FOR STANDARD SERIES CLAMP BODIES AND COMPONENTS			
CLAMP BODY			
MATERIAL	DESIGN	COLOUR	CODE
Polypropylene	profiled inside, with tension clearance	green	PP
Polypropylene	smooth inside, without tension clearance	green	PPH
Polyamide	profiled inside, with tension clearance	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)		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.			
* Note: The changeover of the material code W3 from the surface finishing »carbon steel St 37, zinc plated« to the chromium(VI) free surface finishing »carbon steel St 37, zinc/nickel coated« will proceed gradually from April 2007 on. We apologise for the temporary occurrence of some mixed deliveries.			

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	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			
Alternative materials and surface finishings in addition to the above stated standard are available upon request.				
* Please see note on page 6.				

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	
					profild	smooth	H																S
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	6	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	
		6,4																					
		8																					
		9,5																					
		10																					
2	2	12,7	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	
		13,5																					
		14																					
		15																					
		16																					
3	3	17,2	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	
		18																					
		19																					
		20																					
		21,3																					
4	4	22	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	
		25																					
		25,4																					
		26,9																					
		28																					
5	5	30	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	
		32																					
		33,7																					
		35																					
		38																					
6	6	40	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	
		42																					
		44,5																					
		48,3																					
		50,8																					
7	7	57,2	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	
		60,3																					
		63,5																					
		70																					
		73																					
8	8	76,1	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	
		88,9																					
		102																					

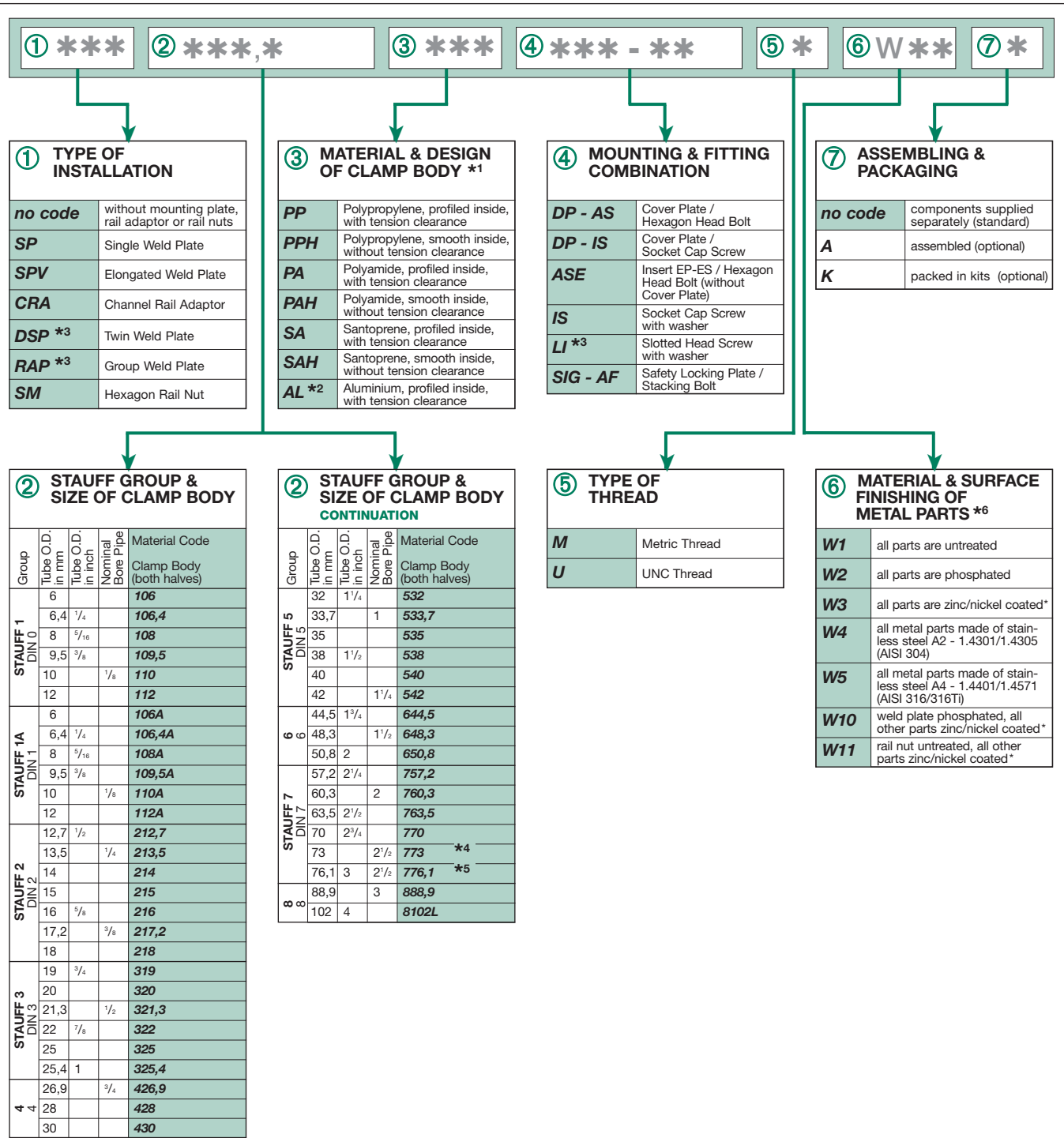
according to **DIN 3015, Part 1**

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 						 <p>Group 1</p>							 <p>Group 1</p>							 <p>Group 1</p>					DIN EN ISO 4014 / 4017 (DIN 931/933) for use with COVERPLATE DP 		
						 <p>Group 1A-6</p>							 <p>Group 1A-6</p>							 <p>Group 1A-8</p>							
W3						W2							W1							W3					W3		
G	L	B	H1	H2		L1	L2	L3	B	S	H	ØD	L1	L2	L3	B	S	H	ØD	L1	L2	B	S	ØD	G x L		
M6	40	16	13	20,5		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		
						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
																					144	120	30	5	7	M6 x 125	

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					
			<p>no cover plate for use with INSERT E</p>												<p>Group 1</p>				<p>TS 11</p>								
															<p>Group 1A-8</p>				<p>TS 14</p>								<p>TS 30</p>
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 TYPE OF INSTALLATION

no code	without mounting plate, rail adaptor or rail nuts
SP	Single Weld Plate
SPV	Elongated Weld Plate
CRA	Channel Rail Adaptor
DSP *3	Twin Weld Plate
RAP *3	Group Weld Plate
SM	Hexagon Rail Nut

③ MATERIAL & DESIGN OF CLAMP BODY *1

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
SA	Santoprene, profiled inside, with tension clearance
SAH	Santoprene, smooth inside, without tension clearance
AL *2	Aluminium, profiled inside, with tension clearance

④ MOUNTING & FITTING COMBINATION

DP - AS	Cover Plate / Hexagon Head Bolt
DP - IS	Cover Plate / Socket Cap Screw
ASE	Insert EP-ES / Hexagon Head Bolt (without Cover Plate)
IS	Socket Cap Screw with washer
LI *3	Slotted Head Screw with washer
SIG - AF	Safety Locking Plate / Stacking Bolt

⑦ ASSEMBLING & PACKAGING

no code	components supplied separately (standard)
A	assembled (optional)
K	packed in kits (optional)

② STAUFF GROUP & SIZE OF CLAMP BODY

Group	Tube O.D. in mm	Tube O.D. in inch	Nominal Bore Pipe	Material Code
STAUFF 1 DIN 0	6			106
	6,4	1/4		106,4
	8	5/16		108
	9,5	3/8		109,5
	10		1/8	110
STAUFF 1A DIN 1	6			106A
	6,4	1/4		106,4A
	8	5/16		108A
	9,5	3/8		109,5A
	10		1/8	110A
STAUFF 2 DIN 2	12			112A
	12,7	1/2		212,7
	13,5		1/4	213,5
	14			214
	15			215
	16	5/8		216
	17,2		3/8	217,2
	18			218
STAUFF 3 DIN 3	19	3/4		319
	20			320
	21,3		1/2	321,3
	22		7/8	322
	25			325
	25,4	1		325,4
	26,9		3/4	426,9
4	28			428
	30			430

② STAUFF GROUP & SIZE OF CLAMP BODY CONTINUATION

Group	Tube O.D. in mm	Tube O.D. in inch	Nominal Bore Pipe	Material Code
STAUFF 5 DIN 5	32	1 1/4		532
	33,7		1	533,7
	35			535
	38	1 1/2		538
	40			540
6	42		1 1/4	542
	44,5	1 3/4		644,5
	48,3		1 1/2	648,3
	50,8	2		650,8
	STAUFF 7 DIN 7	57,2	2 1/4	
60,3			2	760,3
63,5		2 1/2		763,5
70		2 3/4		770
73			2 1/2	773 *4
8	76,1	3	2 1/2	776,1 *5
	88,9		3	888,9
	102	4		8102L

⑤ TYPE OF THREAD

M	Metric Thread
U	UNC Thread

⑥ MATERIAL & SURFACE FINISHING OF METAL PARTS *6

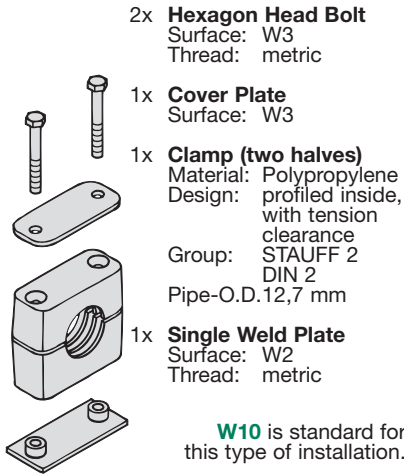
W1	all parts are untreated
W2	all parts are phosphated
W3	all parts are zinc/nickel coated*
W4	all metal parts made of stainless steel A2 - 1.4301/1.4305 (AISI 304)
W5	all metal parts made of stainless steel A4 - 1.4401/1.4571 (AISI 316/316Ti)
W10	weld plate phosphated, all other parts zinc/nickel coated*
W11	rail nut untreated, all other parts zinc/nickel coated*

TECHNICAL NOTES

- * NOTE: THE CHANGEOVER OF THE MATERIAL CODE W3 FROM THE SURFACE FINISHING »CARBON STEEL ST 37, ZINC PLATED« TO THE CHROMIUM(VI) FREE SURFACE FINISHING »CARBON STEEL ST 37, ZINC/NICKEL COATED« WILL PROCEED GRADUALLY FROM APRIL 2007 ON. WE APOLOGISE FOR THE TEMPORARY OCCURRENCE OF SOME MIXED DELIVERIES.
- *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

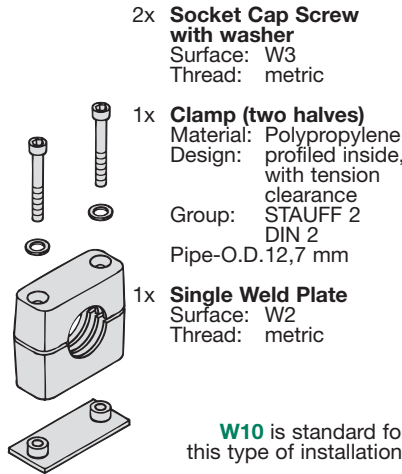
SP 212,7 PP DP-AS M W10



- 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
- 1x **Single Weld Plate**
Surface: W2
Thread: metric

W10 is standard for this type of installation.

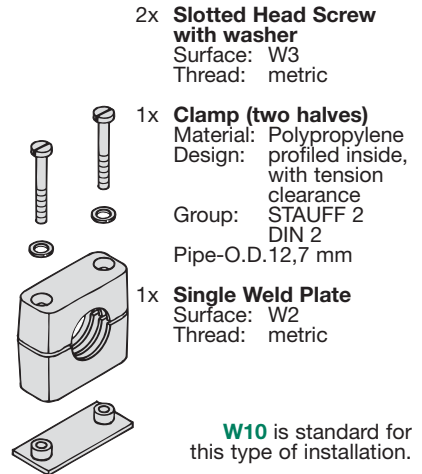
SP 212,7 PP IS M W10



- 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
- 1x **Single Weld Plate**
Surface: W2
Thread: metric

W10 is standard for this type of installation.

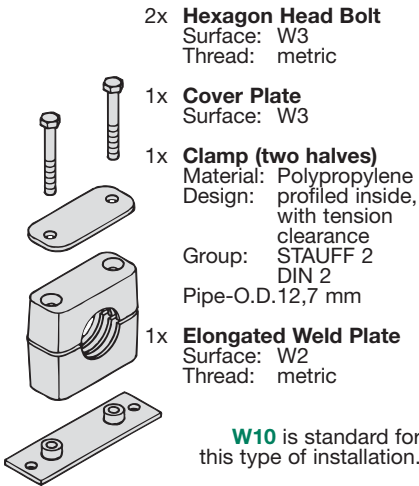
SP 212,7 PP LI M W10



- 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
- 1x **Single Weld Plate**
Surface: W2
Thread: metric

W10 is standard for this type of installation.

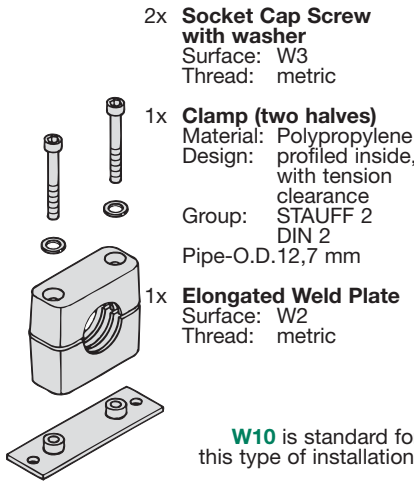
SPV 212,7 PP DP-AS M W10



- 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
- 1x **Elongated Weld Plate**
Surface: W2
Thread: metric

W10 is standard for this type of installation.

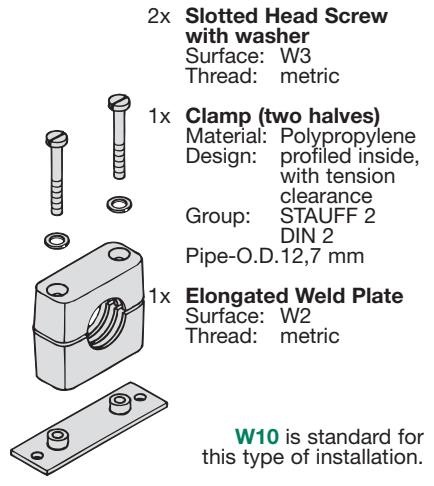
SPV 212,7 PP IS M W10



- 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
- 1x **Elongated Weld Plate**
Surface: W2
Thread: metric

W10 is standard for this type of installation.

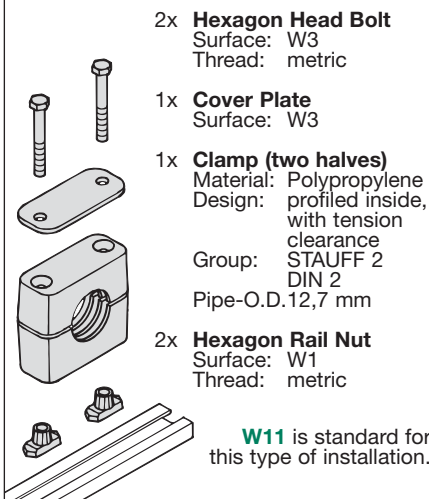
SPV 212,7 PP LI M W10



- 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
- 1x **Elongated Weld Plate**
Surface: W2
Thread: metric

W10 is standard for this type of installation.

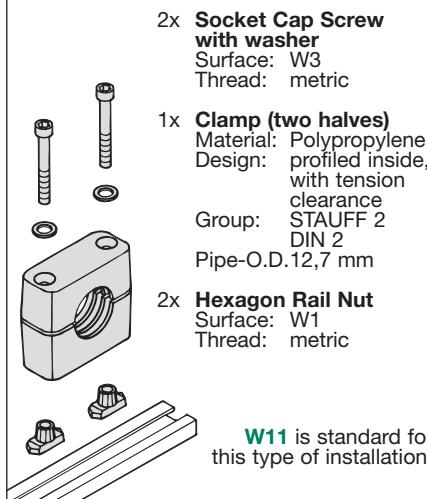
SM 212,7 PP DP-AS M W11



- 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
- 2x **Hexagon Rail Nut**
Surface: W1
Thread: metric

W11 is standard for this type of installation.

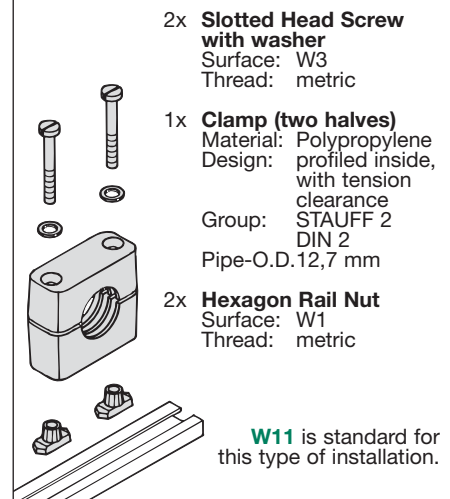
SM 212,7 PP IS M W11



- 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
- 2x **Hexagon Rail Nut**
Surface: W1
Thread: metric

W11 is standard for this type of installation.

SM 212,7 PP LI M W11



- 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
- 2x **Hexagon Rail Nut**
Surface: W1
Thread: metric

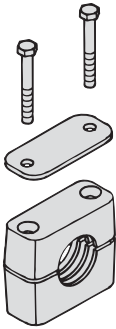
W11 is standard for this type of installation.

▶ PLEASE TURN THE PAGE HERE ▶

according to **DIN 3015, Part 1**

212,7 PP DP-AS M W3

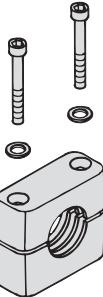
- 2x **Hexagon Head Bolt**
Surface: W3
Thread: metric
- 1x **Cover Plate**
Surface: W3
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 2
DIN 2
Pipe-O.D.12,7 mm



W3 is standard for this type of installation.

212,7 PP IS M W3

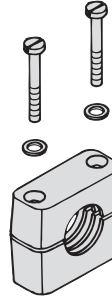
- 2x **Socket Cap Screw with washer**
Surface: W3
Thread: metric
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 2
DIN 2
Pipe-O.D.12,7 mm



W3 is standard for this type of installation.

212,7 PP LI M W3

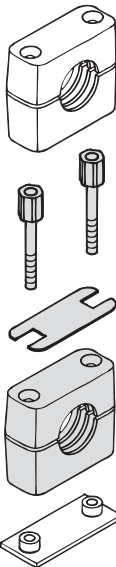
- 2x **Slotted Head Screw with washer**
Surface: W3
Thread: metric
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 2
DIN 2
Pipe-O.D.12,7 mm



W3 is standard for this type of installation.

212,7 PP SIG-AF M W3

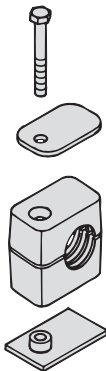
- 2x **Stacking Bolt**
Surface: W3
Thread: metric
- 1x **Safety Locking Plate**
Surface: W3
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 2
DIN 2
Pipe-O.D.12,7 mm



W3 is standard for this type of installation.

SP 106 PP DP-AS M W10

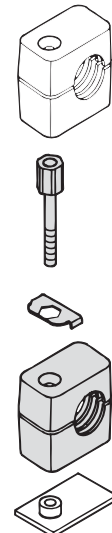
- 1x **Hexagon Head Bolt**
Surface: W3
Thread: metric
- 1x **Cover Plate**
Surface: W3
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 1
DIN 0
Pipe-O.D.6 mm
- 1x **Single Weld Plate**
Surface: W2
Thread: metric



W10 is standard for this type of installation.

106 PP SIG-AF M W3

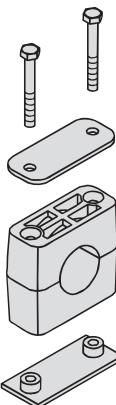
- 1x **Stacking Bolt**
Surface: W3
Thread: metric
- 1x **Safety Locking Plate**
Surface: W3
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 1
DIN 0
Pipe-O.D.6 mm



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.

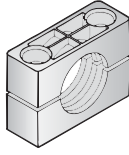
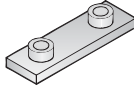
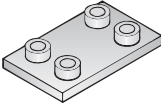
NOTES REGARDING THE USE OF THE CHANNEL RAIL ADAPTOR CRA

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


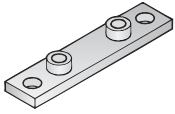
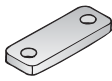
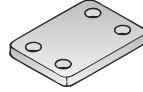



- UNISTRUT**-Rails
P1000, P1000T, P1000V, P1000VT, P1001
P2000, P2000T
P3003, P3003T, P3300V, P3300VT, P3301
P4000, P4000T
P5000, P5000T, P5001, P5500, P5500T, P5501

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


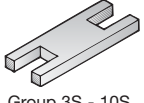
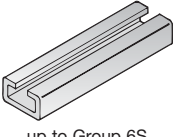
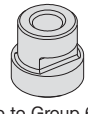
according to **DIN 3015, Part 2**

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)	WELD PLATE FOR SINGLE CLAMPS SPAL	WELD PLATE FOR DOUBLE CLAMPS SPAS					
					OUTSIDE DIAMETERS IN MM	STAUFF GROUP	STAUFF GROUP					
					MATERIAL & DESIGN OF CLAMP BODY <td>TYPE OF THREAD & MATERIAL & SURFACE FINISHING <td>TYPE OF THREAD & MATERIAL & SURFACE FINISHING </td></td>	TYPE OF THREAD & MATERIAL & SURFACE FINISHING <td>TYPE OF THREAD & MATERIAL & SURFACE FINISHING </td>	TYPE OF THREAD & MATERIAL & SURFACE FINISHING					
3S	1	6	1/4	1/8	3006 ***	SPAL 3S ***	SPAS 3S ***					
		6,4			3006,4 ***							
		8			3008 ***							
		8,5	3009,5 ***									
		10	3010 ***									
		12	3012 ***									
		12,7	3012,7 ***									
		13,5	3013,5 ***									
		14	3014 ***									
		15	3015 ***									
16	3016 ***											
17,2	3017,2 ***											
18	3018 ***											
4S	2	19	3/8	1/2	4019 ***	SPAL 4S ***	SPAS 4S ***					
		20			4020 ***							
		21,3	4021,3 ***									
		22	4022 ***									
		25	4025 ***									
		25,4	4025,4 ***									
		26,9	4026,9 ***									
		28	4028 ***									
		30	4030 ***									
		5S	3		30			1 1/4	1	5030 ***	SPAL 5S ***	SPAS 5S ***
32	5032 ***											
33,7	5033,7 ***											
35	5035 ***											
38	5038 ***											
40	5040 ***											
42	5042 ***											
6S	4			38	1 1/2	1 1/4	6038 ***	SPAL 6S ***		SPAS 6S ***		
				42			6042 ***					
				44,5	6044,5 ***							
		48,3	6048,3 ***									
		50,8	6050,8 ***									
		55	6055 ***									
		57	6057 ***									
		60,3	6060,3 ***									
		63,5	6063,5 ***									
		65	6065 ***									
70	6070 ***											
7S	5	65	2 7/8	2 1/2 except DIN EN 10220 2 1/2 DIN EN 10220 only	7065 ***	SPAL 7S ***	SPAS 7S ***					
		70			7070 ***							
		73	7073 ***									
		75	7075 ***									
		76,1	7076,1 ***									
		80	7080 ***									
		82,5	7082,5 ***									
		88,9	7088,9 ***									
		8S	6		88,9			3 1/2	3	8088,9 ***	SPAL 8S ***	SPAS 8S ***
					100					8100 ***		
102	8102 ***											
108	8108 ***											
114	8114 ***											
127	8127 ***											
133	8133 ***											
9S	7			133	5 1/4	5	9133 ***	SPAL 9S ***		SPAS 9S ***		
				140			9140 ***					
				152	9152 ***							
		159	9159 ***									
		165	9165 ***									
		168	9168 ***									
		10S	8	168	6		6		10168 ***		SPAL 10S ***	SPAS 10S ***
				177,8					10177,8 ***			
				193,7	10193,7 ***							
				216	10216 ***							
219	10219 ***											
11S	9			219	8	8		11219 ***	SPAL 11S ***	SPAS 11S ***		
		273	11273 ***									
		324	11324 ***									
		12S	10	356	14		14	12356 ***			SPAL 12S ***	SPAS 12S ***
406	12406 ***											

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 EN ISO 4014 / 4017 (DIN 931/933) 	DIN EN ISO 4762 (DIN 912) 	 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	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
STAUFF GROUP	STAUFF GROUP	STAUFF GROUP	STAUFF GROUP	STAUFF GROUP	STAUFF GROUP	STAUFF GROUP
TYPE OF THREAD	TYPE OF THREAD	TYPE OF THREAD	TYPE OF THREAD	TYPE OF THREAD	TYPE OF THREAD	TYPE OF THREAD
MATERIAL & SURFACE FINISHING	MATERIAL & SURFACE FINISHING	MATERIAL & SURFACE FINISHING	MATERIAL & SURFACE FINISHING	MATERIAL & SURFACE FINISHING	MATERIAL & SURFACE FINISHING	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)	---	---

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 ** **	SIP ** **	STSV * **	GMV * ** **
SAFETY WASHER SI INNER DIAMETER MATERIAL & SURFACE FINISHING	SAFETY LOCKING PLATE SIP STAUFF GROUP MATERIAL & SURFACE FINISHING	MOUNTING RAIL STSV LENGTH OF RAIL IN M MATERIAL & SURFACE FINISHING	MOUNTING RAIL NUT GMV STAUFF GROUP (3-5S OR 6S) TYPE OF THREAD MATERIAL & SURFACE FINISHING
<i>SI 10,5 **</i>	<i>SIP 3S **</i>	STSV * ** available lengths: 1m and 2m	GMV 3-5S * **
<i>SI 10,5 **</i>	<i>SIP 4S **</i>		
<i>SI 10,5 **</i>	<i>SIP 5S **</i>		
<i>SI 13 **</i>	<i>SIP 6S **</i>		
<i>SI 17 **</i>	<i>SIP 7S **</i>	---	---
<i>SI 21 **</i>	<i>SIP 8S **</i>	---	---
<i>SI 25 **</i>	<i>SIP 9S **</i>	---	---
<i>SI 31 **</i>	<i>SIP 10S **</i>	---	---
<i>SI 31 **</i>	---	---	---
<i>SI 31 **</i>	---	---	---

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)		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.			
* Note: The changeover of the material code W3 from the surface finishing »carbon steel St 37, zinc plated« to the chromium(VI) free surface finishing »carbon steel St 37, zinc/nickel coated« will proceed gradually from April 2007 on. We apologise for the temporary occurrence of some mixed deliveries.			

according to DIN 3015, Part 2

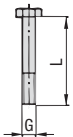
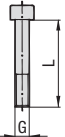
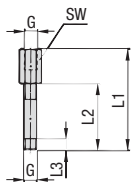

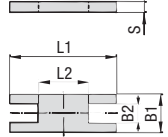
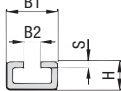
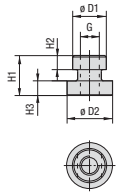
MATERIAL & SURFACE FINISHING OF METAL PARTS			CLAMP BODY consisting of two clamp halves							WELD PLATE FOR SINGLE CLAMPS SPAL							WELD PLATE FOR DOUBLE CLAMPS SPAS																																																				
carbon steel St37, untreated																																																																					
carbon steel St37, phosphated																																																																					
carbon steel St37, zinc/nickel coated*																																																																					
stainless steel A2 - 1.4301/1.4305 (AISI304)																																																																					
stainless steel A4 - 1.4401/1.4571 (AISI316/316Ti)																																																																					
*Please see note on page 15.			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	profilled	smooth	H	S	H																	H	S	H	G	ØD1																																							
3S	1	6	55	56	33	32	0,6 min.	30,5	30,5	74	33	30	8	8	M10	18	74	33	60	30,5	8	8	M10	18																																													
		6,4																																																																			
		8																																																																			
		9,5																																																																			
		10																																																																			
		12																																																																			
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		15																																																																			
16																																																																					
17,2																																																																					
18																																																																					
4S	2	19	70	70	45	48	0,6 min.	46,5	30,5	86	45	30	8	8	M10	18	86	45	60	30,5	8	8	M10	18																																													
		20																																																																			
		21,3																																																																			
		22																																																																			
		25																																																																			
		25,4																																																																			
		26,9																																																																			
		28																																																																			
		30																																																																			
		5S																							3	30	85	85	60	60	0,6 min.	58	30,5	100	60	30	8	8	M10	18	100	60	60	30,5	8	8	M10	18																					
32																																																																					
33,7																																																																					
35																																																																					
38																																																																					
40																																																																					
42																																																																					
6S	4		38	115	120	90	89	2 min.	87	45	140	90	45	10	8	M12	20	140	90	90	46	10	8	M12		20																																											
			42																																																																		
			44,5																																																																		
		48,3																																																																			
		50,8																																																																			
		55																																																																			
		57																																																																			
		60,3																																																																			
		63,5																																																																			
		65																																																																			
70																																																																					
7S	5	65	152	150	122	120	2 min.	60	180	122	60	10	12	M16	24	180	122	120	61	10	12	M16	24																																														
		70																																																																			
		73																																																																			
		75																																																																			
		76,1																																																																			
		80																																																																			
		82,5																																																																			
		88,9																																																																			
		8S																						6	88,9	206	208	168	168	2 min.	80	226	168	80	15	18	M20	30	226	168	160	81	15	18	M20	30																							
																									100																																												
102																																																																					
108																																																																					
114																																																																					
127																																																																					
133																																																																					
9S	7		133	251	255	205	200	3 min.	91	270	205	90	15	21	M24	35	270	205	180	91	15	21	M24		35																																												
			140																																																																		
			152																																																																		
		159																																																																			
		165																																																																			
		168																																																																			
		10S	8																					168		336	326	265	270	3 min.	120	340	265	120	25	21	M30	45	340	265	240	121	25	21	M30	45																							
																								177,8																																													
																								193,7																																													
																								216																																													
219																																																																					
11S	9			219	470	470	395	410	8 min.	162	520	395	160	30	38	M30	50	520	395	324	166	30	38	M30	50																																												
				273																																																																	
				324																																																																	
				12S																																											10	356	630	630	534	530	20 min.	182	680	534	180	30	38	M30	50	680	534	364	186	30	38	M30	50
																																																406																					

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						
W3					3S- 7S: W2 8S-12S: W1								3S- 7S: W2 8S-12S: W1					3S- 7S: W2 8S-12S: W1						
G	L	B	H1	H2	L1	L2	L3	B	S	H	G	øD1	øD2	L1	L2	B	S	øD	L1	L2	B1	B2	S	øD
M10	38	22	18,5	27,5	113	33	85	30	8	8	M10	18	13	55	33	30	8	11	55	33	60	30	8	11
					125	45	97	30	8	8	M10	18	13	70	45	30	8	11	70	45	60	30	8	11
					140	60	112	30	8	8	M10	18	13	83	60	30	8	11	83	60	60	30	8	11
M12	45	25	17	27,5	187	90	155	45	10	8	M12	20	16	115	90	45	10	14	116	90	90	46	10	14
---	---	---	---	---	238	122	198	60	10	12	M16	24	21	152	122	60	10	19	153	122	120	61	10	19
---	---	---	---	---	309	168	259	80	15	18	M20	30	26	206	168	80	15	22	206	168	160	81	15	22
---	---	---	---	---	370	205	310	90	15	21	M24	35	31	251	205	90	15	26	251	205	180	91	15	26
---	---	---	---	---	440	265	380	120	25	21	M30	45	31	320	265	120	25	35	320	265	240	120	25	35
---	---	---	---	---	590	395	530	160	30	38	M30	50	31	470	395	160	30	35	470	395	321	166	30	35
---	---	---	---	---	750	534	690	180	30	38	M30	50	31	630	534	180	30	35	630	534	361	186	30	35

▼ PLEASE TURN THE PAGE HERE ▼

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 EN ISO 4014 / 4017 (DIN 931/933) 	DIN EN ISO 4762 (DIN 912)  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	---	19,8 24 23 8,8 8,2 M 12
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

① ***	② *****,*	③ ***	④ ***** - **	⑤ *	⑥ W**	⑦ *
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<p>① TYPE OF INSTALLATION</p> <table border="1" style="width:100%; border-collapse: collapse;"> <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	<p>③ MATERIAL & DESIGN OF CLAMP BODY *1</p> <table border="1" style="width:100%; border-collapse: collapse;"> <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	<p>④ MOUNTING & FITTING COMBINATION</p> <table border="1" style="width:100%; border-collapse: collapse;"> <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
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<p>② STAUFF GROUP & SIZE OF CLAMP BODY</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <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> </thead> <tbody> <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>1 1/4</td><td></td><td>5042</td></tr> <tr><td>42</td><td>1 1/2</td><td></td><td>6038</td></tr> <tr><td rowspan="6">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> </tbody> </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	42	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	<p>② STAUFF GROUP & SIZE OF CLAMP BODY CONTINUATION</p> <table border="1" style="width:100%; 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	177,8	7		10177,8																																																																																																																																																																																																																																																																																																																							
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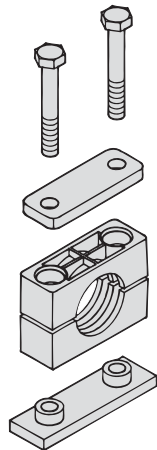
<p>⑦ ASSEMBLING & PACKAGING</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>no code</td> <td>components supplied separately (standard)</td> </tr> <tr> <td>A</td> <td>assembled (optional)</td> </tr> <tr> <td>K</td> <td>packed in kits (optional)</td> </tr> </table>	no code	components supplied separately (standard)	A	assembled (optional)	K	packed in kits (optional)	<p>⑥ MATERIAL & SURFACE FINISHING OF METAL PARTS *7</p> <table border="1" style="width:100%; border-collapse: collapse;"> <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)</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)	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
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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

- * NOTE: THE CHANGEOVER OF THE MATERIAL CODE W3 FROM THE SURFACE FINISHING »CARBON STEEL ST 37, ZINC PLATED« TO THE CHROMIUM(VI) FREE SURFACE FINISHING »CARBON STEEL ST 37, ZINC/NICKEL COATED« WILL PROCEED GRADUALLY FROM APRIL 2007 ON. WE APOLOGISE FOR THE TEMPORARY OCCURRENCE OF SOME MIXED DELIVERIES.
- *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

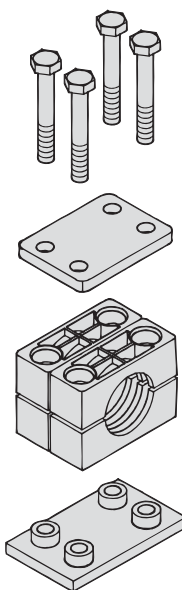


- 2x **Hexagon Head Bolt**
Surface: W1, untreated
Thread: metric
- 1x **Cover Plate for Single Clamps**
Surface: W2, phosphated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance

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

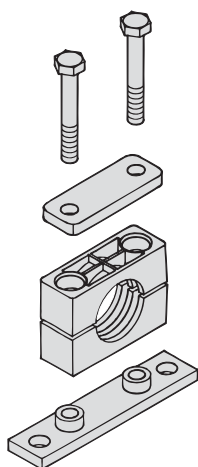


- 4x **Hexagon Head Bolt**
Surface: W1, untreated
Thread: metric
- 1x **Cover Plate for Double Clamps**
Surface: W2, phosphated
- 2x **Clamp (four halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance

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

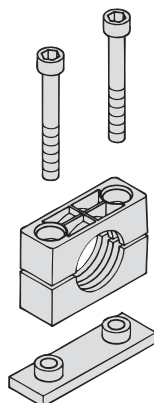


- 2x **Hexagon Head Bolt**
Surface: W1, untreated
Thread: metric
- 1x **Cover Plate for Single Clamps**
Surface: W2, phosphated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance

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



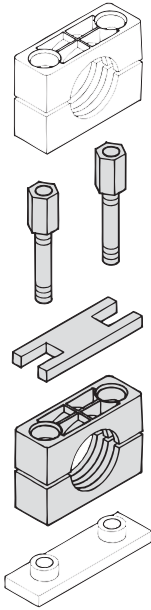
- 2x **Socket Cap Screw**
Surface: W1, untreated
Thread: metric
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance

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**

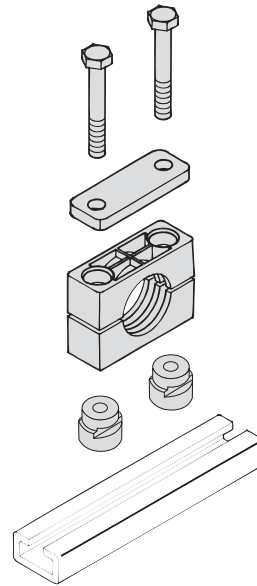
3006 PP SIP-AF M W2



- 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.

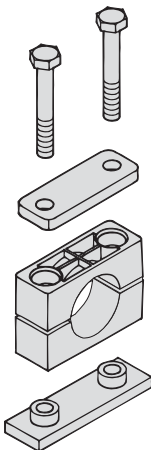
GMV 3006 PP DPAL-AS M W13



- 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 suitable for the following channel rails:

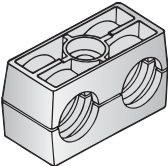
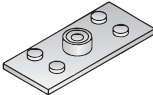
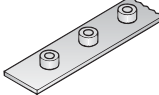

UNISTRUT-Rails

- 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

according to **DIN 3015, Part 3**

<p>ALSO AVAILABLE</p> <p>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</p> <p><i>see pages 28 to 32</i></p> <p>Custom designed pipe clamps (machined and injection moulding versions) according to customer's specifications or based on STAUFF developments</p> <p><i>see pages 34 to 35</i></p>	<p>CLAMP BODY consisting of two clamp halves</p> 	<p>SINGLE WELD PLATE SP</p> 	<p>GROUP WELD PLATE RAP</p> 	<p>CHANNEL RAIL ADAPTOR CRA</p> 
	<p>SEE COMPONENT PART IDENTIFICATION</p>	<p>W2</p>	<p>W1</p>	<p>W3</p> <p>suitable for several types of channel rails, see page 27</p>

<p>MATERIAL & SURFACE FINISHING CODE (ALL DISPLAYED OPTIONS ARE STANDARD DELIVERY)</p>	<p>SEE COMPONENT PART IDENTIFICATION</p>	<p>W2</p>	<p>W1</p>	<p>W3</p>
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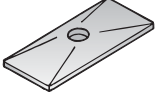



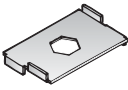
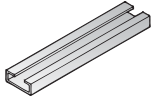


ORDERING INFORMATION					****/****/****	SP ****	RAP ****/****/****	CRA ****
STAUFF GROUP	DIN GROUP	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN INCH	NOMINAL BORE PIPE IN INCH	STAUFF GROUP OUTSIDE DIAMETERS OF BOTH PIPES IN MM MATERIAL & DESIGN OF CLAMP BODY	SINGLE 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			106/06 ****	SP 1D ***	RAP 1D/40/5 ****	CRA 1D M ** for use with bolt M6 x 35
		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 ****			
2D	2	12			112/12 ****	SP 2D ***	RAP 2D/58/5 ****	CRA 2D M ** for use with bolt M8 x 35
		12,7	1/2		212,7/12,7 ****			
		13,5		1/4	213,5/13,5 ****			
		14			214/14 ****			
		15			215/15 ****			
3D	3	16	5/8		216/16 ****	SP 3D ***	RAP 3D/72/5 ****	CRA 3D M ** for use with bolt M8 x 45
		17,2		3/8	217,2/17,2 ****			
		18			218/18 ****			
		19	3/4		319/19 ****			
		20		1/2	320/20 ****			
4D	4	21,3			321,3/21,3 ****	SP 4D ***	RAP 4D/90/5 ****	CRA 4D M ** for use with bolt M8 x 50
		22	7/8		322/22 ****			
		25			325/25 ****			
		25,4	1		325,4/25,4 ****			
		26,9		3/4	426,9/26,9 ****			
5D	5	28			428/28 ****	SP 5D ***	RAP 5D/112/5 ****	CRA 5D M ** for use with bolt M8 x 60
		30			430/30 ****			
		32			532/32 ****			
		33,7			533,7/33,7 ****			
		35			535/35 ****			
			538/38 ****					
			540/40 ****					
			542/42 ****					

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.

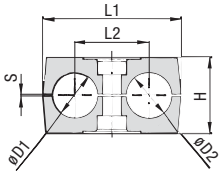
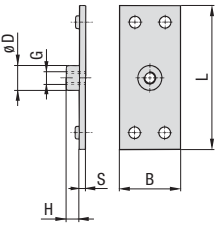
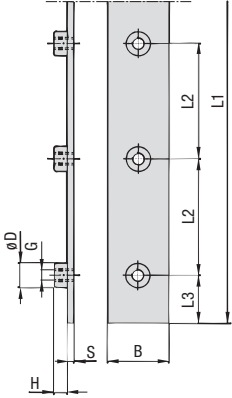
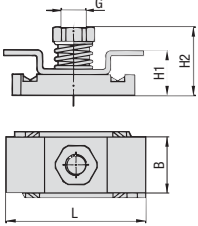
according to **DIN 3015, Part 3**

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 EN ISO 4014 / 4017 (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		THREADED PARTS	
MATERIAL	SURFACE FINISHING	CODE	TYPE OF THREAD	CODE		
carbon steel St37	untreated	W1	Metric Thread	M		
carbon steel St37	phosphated	W2	UNC Thread	U		
carbon steel St37	zinc/nickel coated*	W3	All threaded parts are available with Metric or UNC Thread on request.			
stainless steel A2 - 1.4301/1.4305 (AISI 304)		W4	* Please see note on page 26.			
stainless steel A4 - 1.4401/1.4571 (AISI 316/316Ti)		W5				

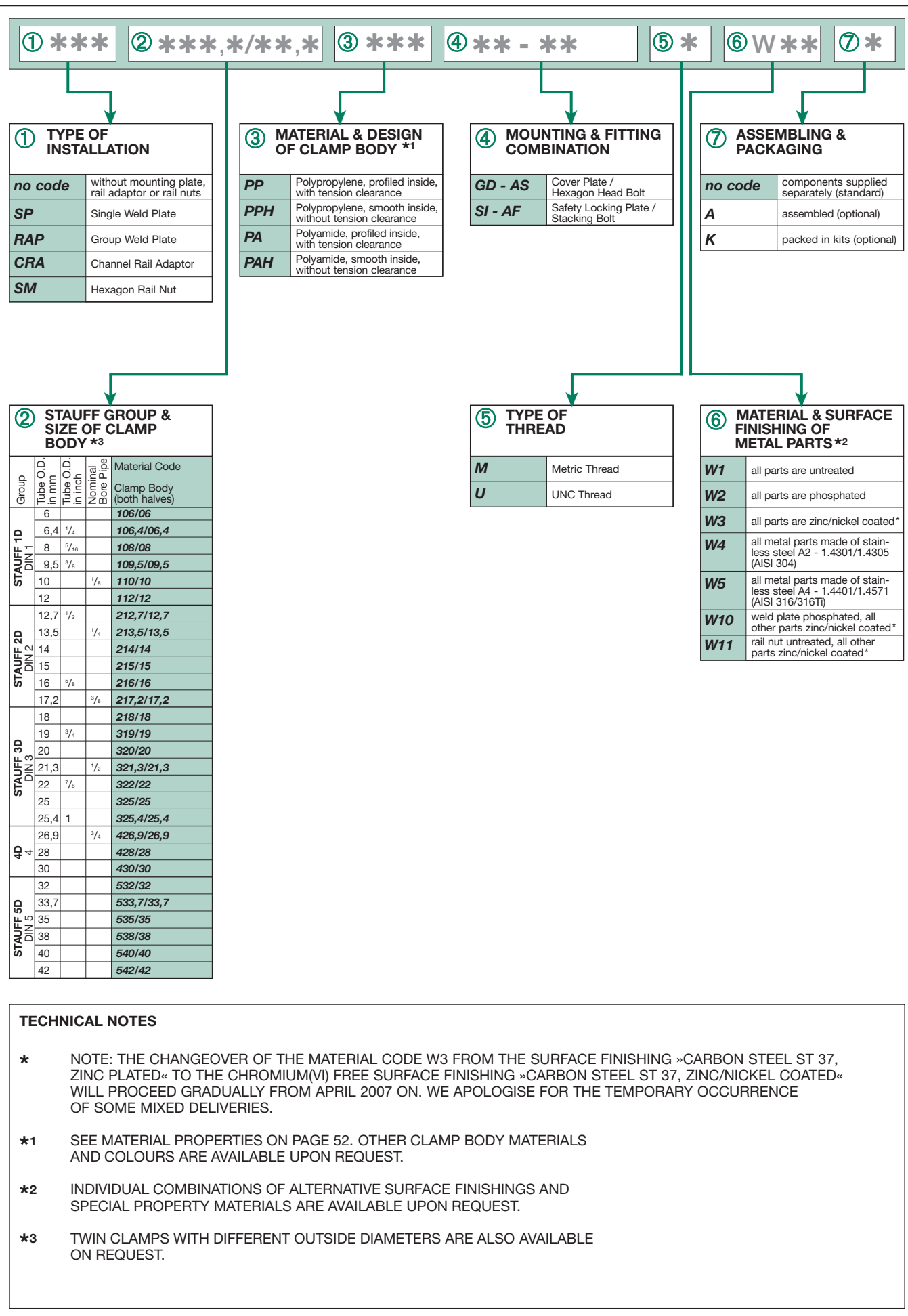
according to DIN 3015, Part 3

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																											
carbon steel St37, phosphated																											
carbon steel St37, zinc/nickel coated*																											
stainless steel A2 - 1.4301/1.4305 (AISI304)																											
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.																											
Please see note on page 26.																											
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	Inside Surface						L	B	S	H	ØD	G	L1	L2	L3	B	S	H	ØD	G	G	L	B	H1	H2
			L1	L2	profiled		smooth	Width																			
			H	S	H	Width																					
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	40	16	13	20,5
		6,4																									
		8																									
		9,5																									
		10																									
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	38	53	18,5	27,5
		13,5																									
		14																									
		15																									
		16																									
3D	3	17,2	67	36	37	0,7 min.	36,5	30	70	30	5	6	14	M8	358	72	35	30	5	6	14	M8	M8	38	80	18,5	27,5
		18																									
		19																									
		20																									
		21,3																									
4D	4	22	80	45	40	0,7 min.	38	30	85	30	5	6	14	M8	445	90	42	30	5	6	14	M8	M8	38	80	18,5	27,5
		25,4																									
		26,9																									
5D	5	28	106	56	53	0,7 min.	52	30	110	30	5	6	14	M8	558	112	55	30	5	6	14	M8	M8	38	80	18,5	27,5
		30																									
		32																									
		33,7																									
		35																									

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 EN ISO 4014 / 4017 (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	TS 11 TS 14 TS 30	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		28 11 2	25,5 10,4 13 5 14 M8
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			
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

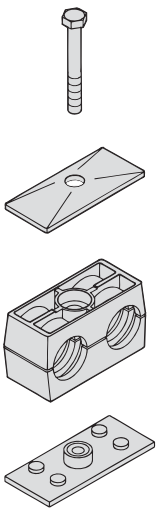


TECHNICAL NOTES

- * NOTE: THE CHANGEOVER OF THE MATERIAL CODE W3 FROM THE SURFACE FINISHING »CARBON STEEL ST 37, ZINC PLATED« TO THE CHROMIUM(VI) FREE SURFACE FINISHING »CARBON STEEL ST 37, ZINC/NICKEL COATED« WILL PROCEED GRADUALLY FROM APRIL 2007 ON. WE APOLOGISE FOR THE TEMPORARY OCCURRENCE OF SOME MIXED DELIVERIES.
- *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**

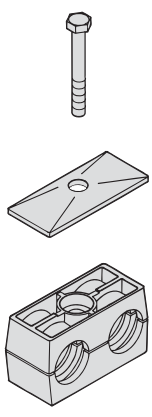
SP 106/06 PP GD-AS M W10



- 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.

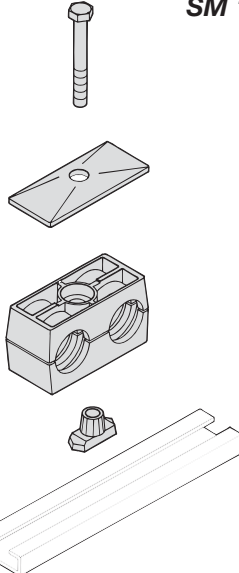
106/06 PP GD-AS M W3



- 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.

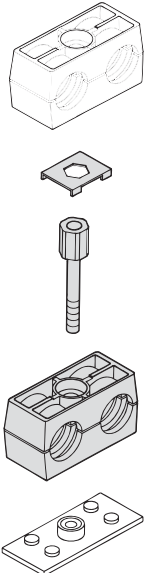
SM 106/06 PP GD-AS M W11



- 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.

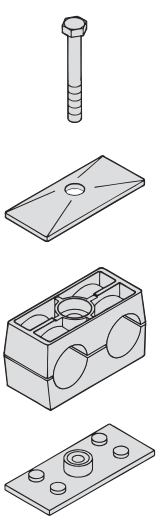
106/06 PP SI-AF M W3



- 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.

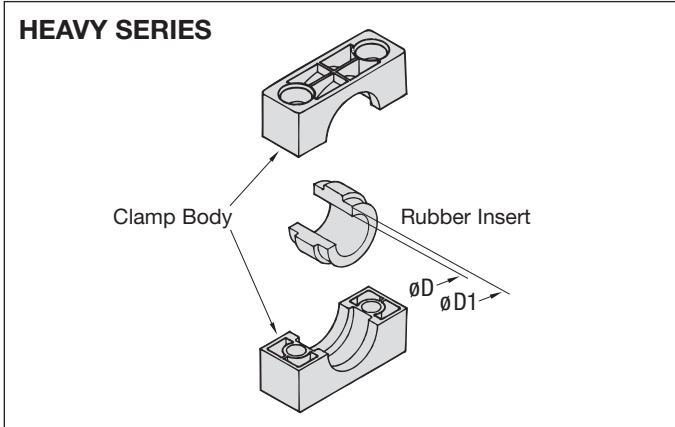
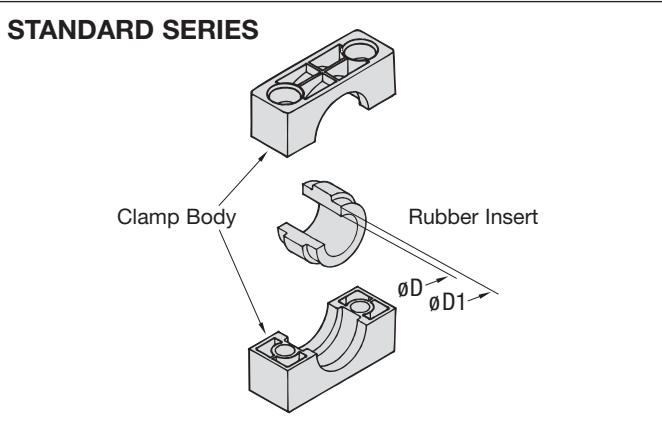
NOTES REGARDING THE USE OF THE CHANNEL RAIL ADAPTOR CRA

The CHANNEL RAIL ADAPTOR Type **CRA** is 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

RI-CLAMPS (Pipe Clamps with Rubber Insert)



STAUFF Group	DIN Group	Pipe-O.D.		Order Code			
		ØD [mm]	ØD1 [mm]	Rubber Insert	Clamp Body	Rubber Insert + Clamp Body	
4	4	25	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
			19		RI 19 (4+4S)	4 xxR	419 xxR
6	6	38	20	38	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.

STAUFF Group	DIN Group	Pipe-O.D.		Order Code							
		ØD [mm]	ØD1 [mm]	Rubber Insert	Clamp Body	Rubber Insert + Clamp Body					
4S	2	25	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				
			19		RI 19 (4+4S)	4S xxR	4019 xxR				
5S	3	38	20	38	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	64	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							
56,4	RI 56,4 (6S)	6S xxR		6056,4 xxR							
7S	5	88	55	88	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	114	80	114	RI 80 (8S)	8S xxR	8080 xxR				
			88,9		RI 88,9 (8S)	8S xxR	8088,9 xxR				

Other 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	73 A Shore Hardness: 16 N/mm ² at 23°C (acc. to ASTM D 412) Modulus of Elasticity: 8,3 N/mm ² (acc. to ASTM D 412) Tensile Stress:
Temperature Properties	Temperature Resistance: -40°C - +125°C
Chemical Properties	weak acids, solvents benzine, mineral oils alcohol, other oils, seawater
	consistent conditionally consistent consistent

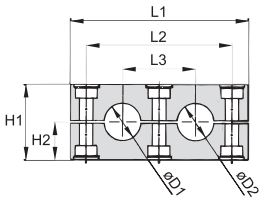
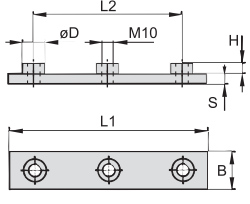
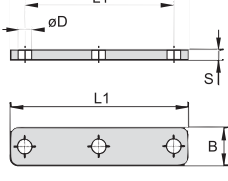
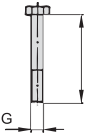
Attention!

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.

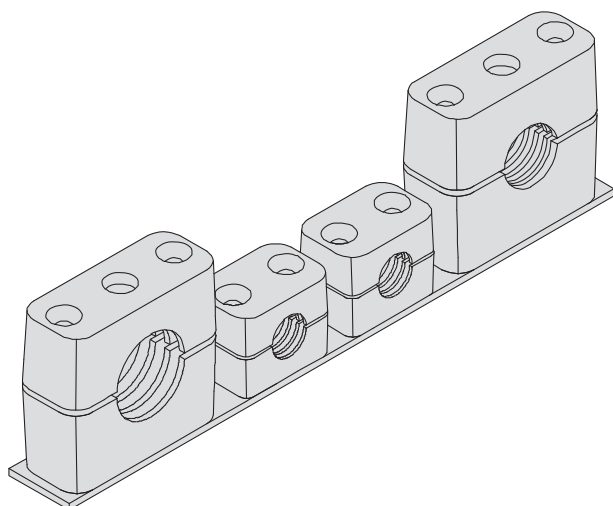
HEAVY SERIES - TWIN DESIGN

ORDER CODES / DIMENSIONS

MATERIAL & DESIGN OF CLAMP BODY				CLAMP BODY consisting of two clamp halves			WELD PLATE				COVER PLATE				HEXAGON HEAD BOLT AS								
Polypropylene, profiled inside, with tension clearance				PP			SPAD				DPAD				DIN EN ISO 4014 / 4017 (DIN 931/933)								
Polyamide, profiled inside, with tension clearance				PA																			
MATERIAL & SURFACE FINISHING OF METAL PARTS																							
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 ØD1/D2 IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE ØD1/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)	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 ØD1/D2 IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE ØD1/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																				
5S-D	32/32	1 1/4 / 1 1/4																					
	33,7/33,7		1 / 1																				
	38/38		1 1/2 / 1 1/2		144	120	60	60	30	30	160	120	30	8	8,5	18	144	120	30	8	11	M10 x 70	
	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	Dimensions (mm)				
			L1	L2	L3	H	s
2	8	208 **					
	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	522 ** - MGR					
	33,7	533,7 ** - MGR					
	35	535 ** - MGR					
	38	538 ** - MGR					
	40	540 ** - MGR					
	42	542 ** - MGR					

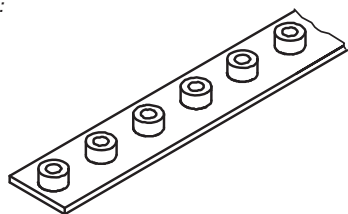
Group	L1	L2	L3	H	s
2	42	26	-	33	0,4
5	71	52	26	58	0,8

** = Clamp Body Material: **PP** Polypropylene **PA** Polyamide
Other diameters / materials / designs upon request.

All dimensions in mm.

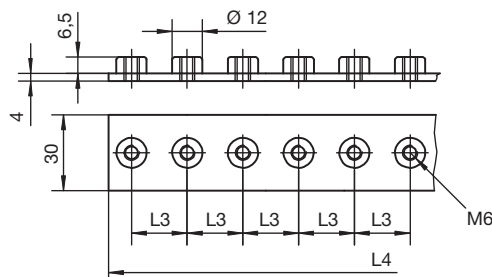
Multi Group Weld Plate

Ordering Example:



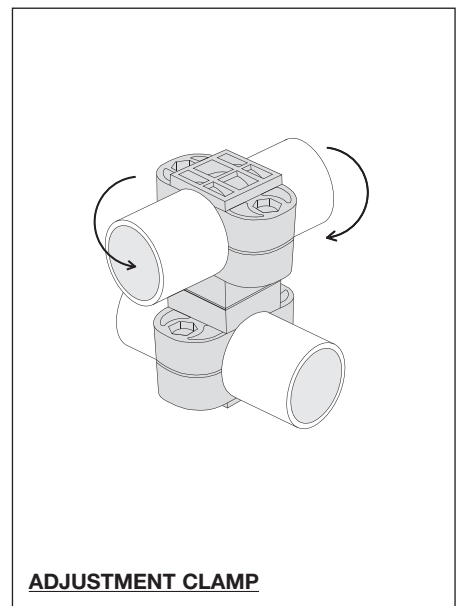
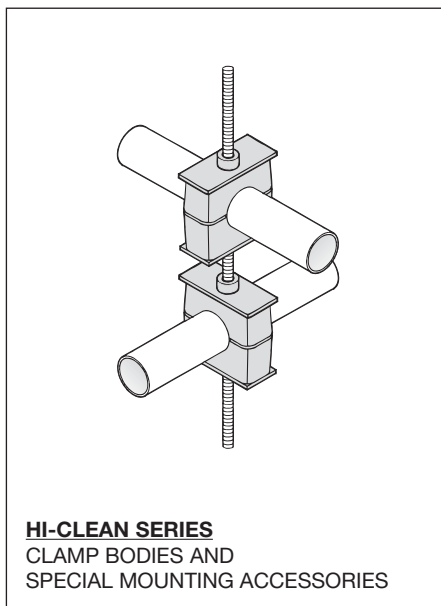
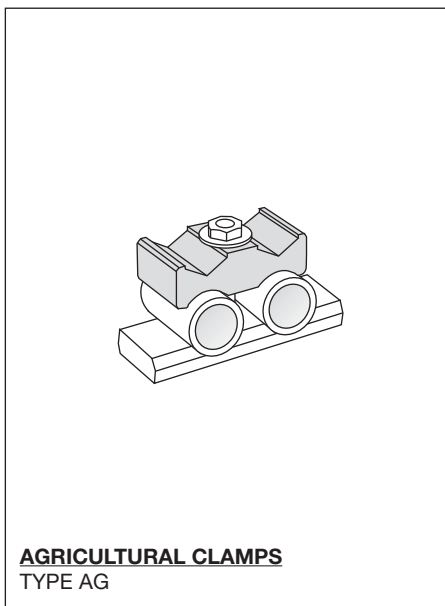
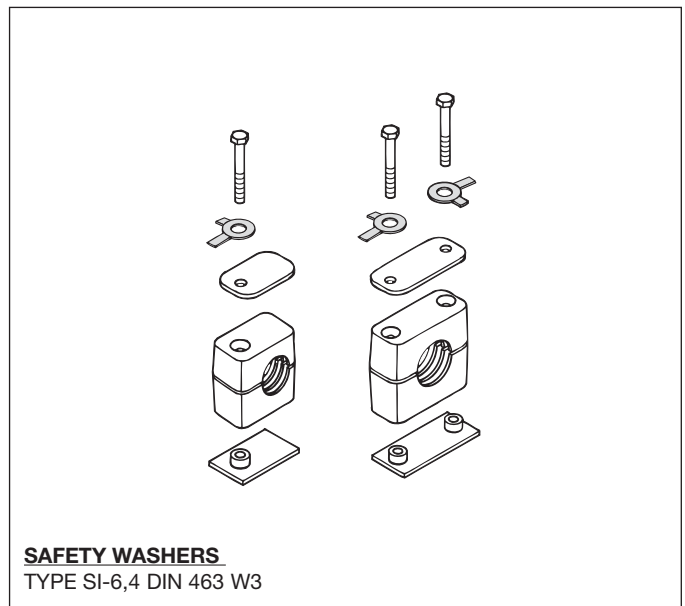
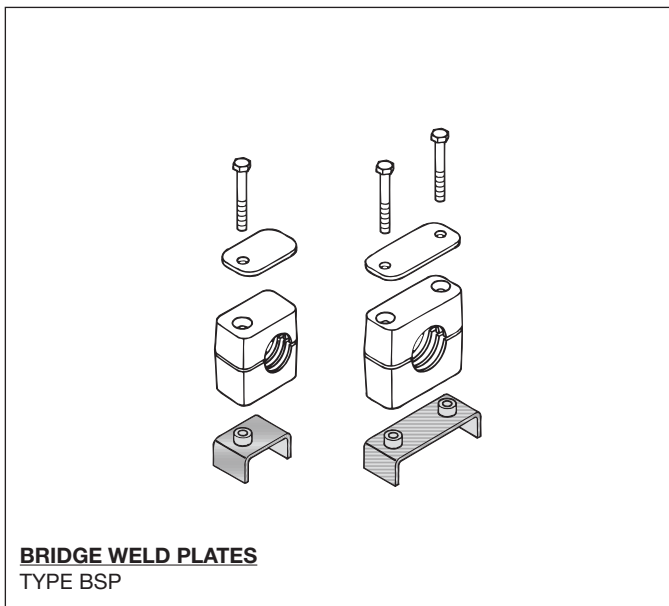
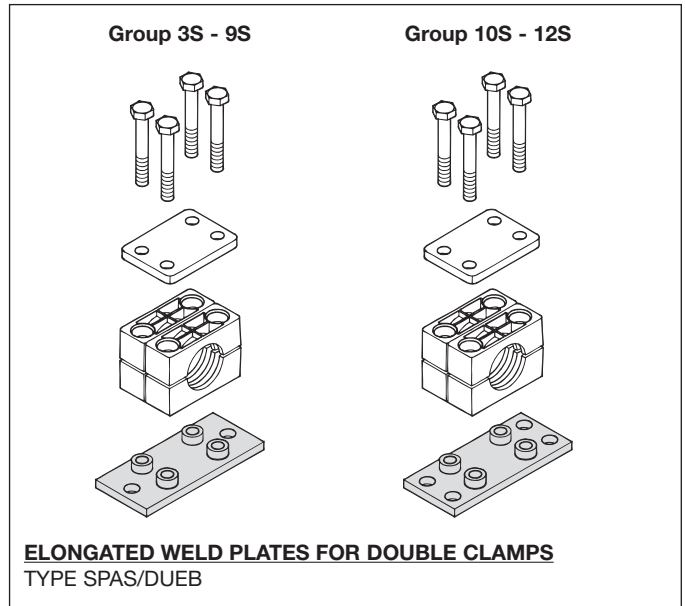
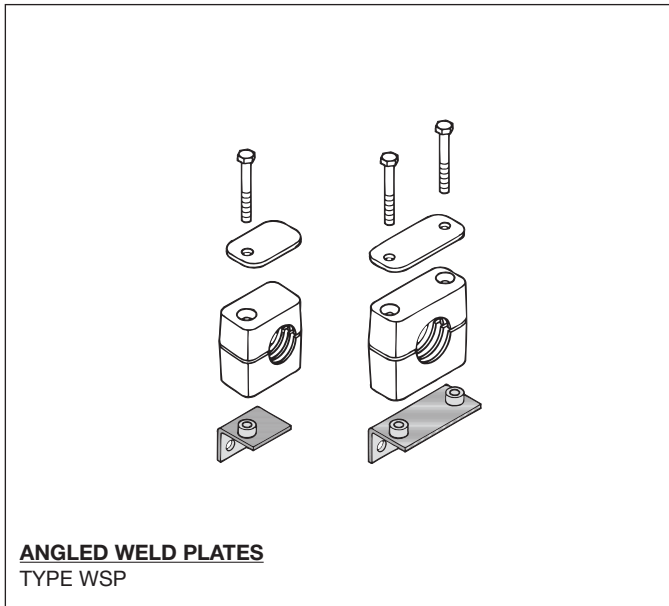
RAP-MGR 25/312 M W1

RAP-MGR: Multi Group Weld Plate
 25/312: Length of Weld Plate (25 mm) / Group 2 and 5
 M: Metric Thread
 W1: 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 ...



CONSULT STAUFF FOR FURTHER DETAILS.

Pipe 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

ORDER CODE

540-40 PP-VK
(clamp body only)

540-36 PP-VK
(clamp body only)

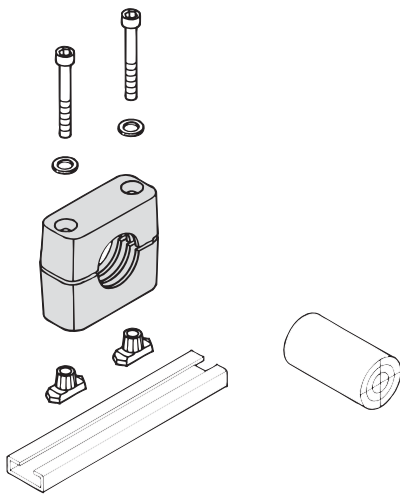
Accessories see Standard Series

ORDER CODE

620-50 PP
(Standard-Series)

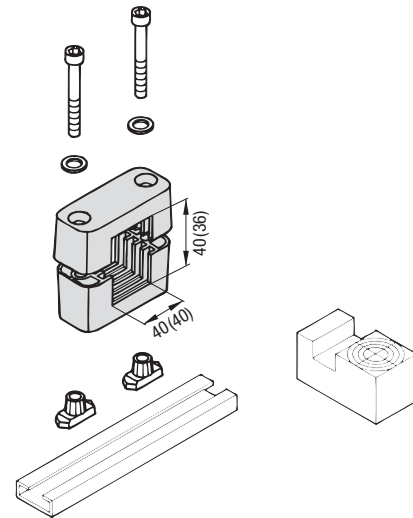
6040-72 PP
(Heavy-Series)

Accessories see Standard Series and Heavy Series



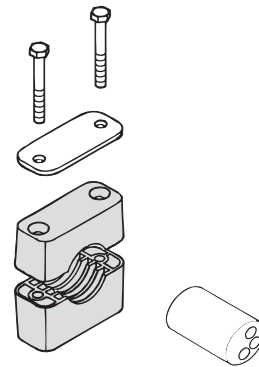
For proximity switches according to DIN EN 60947-5-2 or similar

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**.



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**.



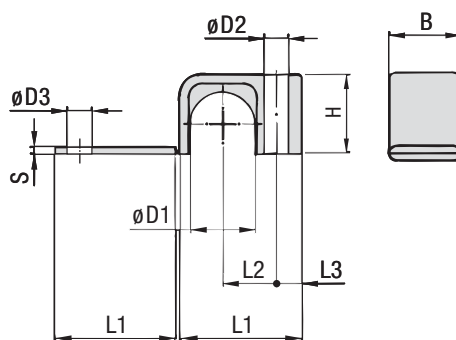
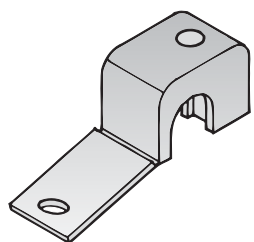
For clamping of electric cables:
STAUFF-Oval Clamps

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.

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

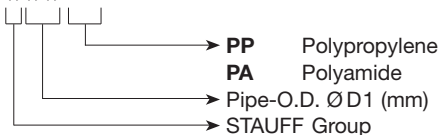
Type LB



STAUFF Group	Outside diameter Tube or Hose Ø D1 mm	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	19	3/4	42	19	7	20	30	2	6,8	7	PP PA	black yellow
	20											
	21,3	1/2										
	22											
	25											
	25,4	1										

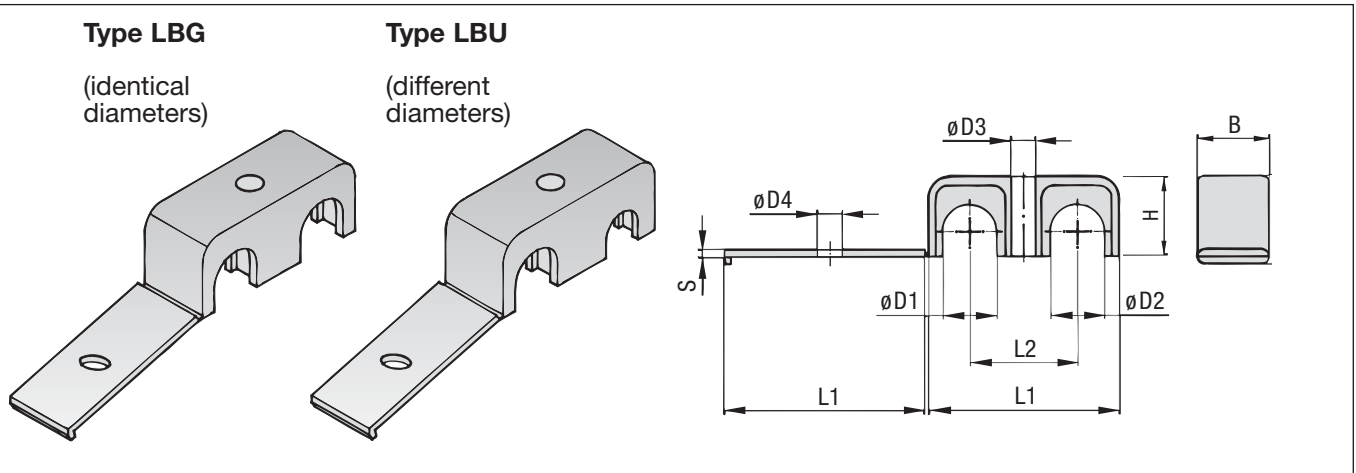
ORDER CODE

LB * xx**



Other thermoplastics and diameters on request.

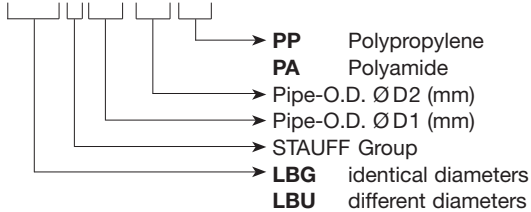
Applications: Pneumatics, Instrumentation and Automotive Technology, Machine Tool Industry, Lubrication, Mechanical Engineering



STAUFF Group	Outside diameter Tube or Hose ØD1/D2		Nominal bore Pipe inch	L1	L2	B	H	S	ØD3	ØD4	Clamp Material XX	Colour
	mm	inch										
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**



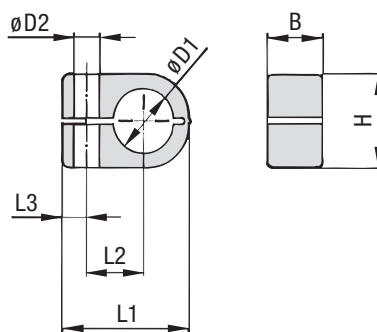
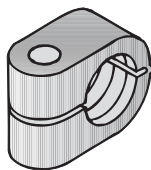
Type

- 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.

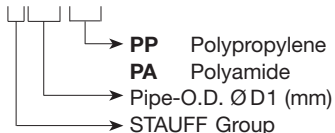
Type LN



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	1/8								
	12									
	12,7	1/2								
3	10	1/8	33	15	7	14,5	23,5	6,8	PP PA	green black
	12									
	12,7	1/2								
	13,5	1/4								
	14									
	15									
	16	5/8								
4	14		40	19	7	14,5	30,5	6,8	PP PA	green black
	15									
	16	5/8								
	17,2	3/8								
	18									
	19	3/4								
	20									
	21,3	1/2								
	22									

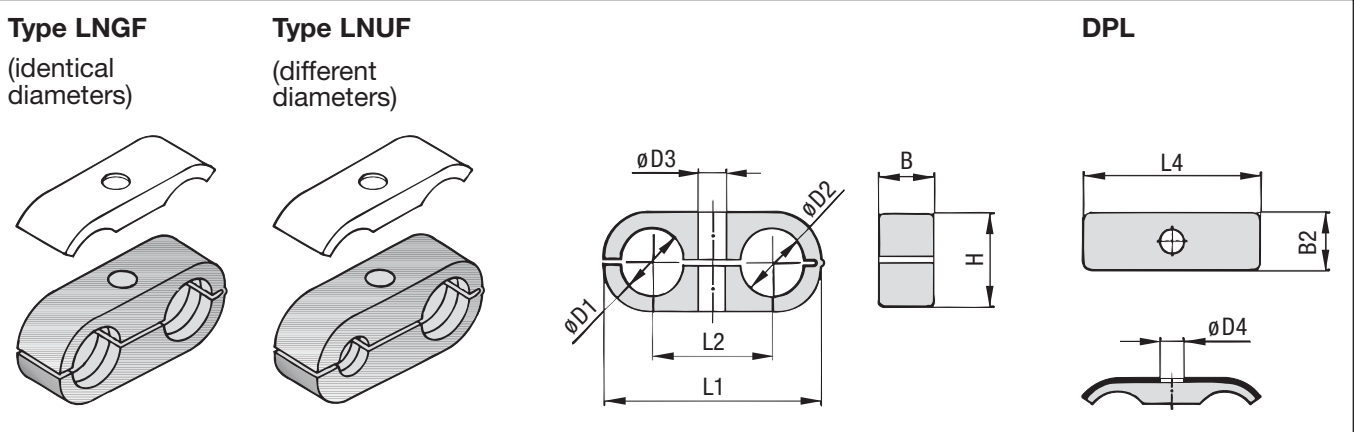
ORDER CODE

LN * xx**



Other thermoplastics and diameters on request.

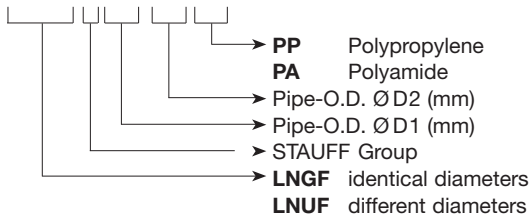
Applications: Pneumatics, Instrumentation and Automotive Technology, Machine Tool Industry, Lubrication, Mechanical Engineering. Also suitable for cables and hoses.



STAUFF Group	Outside diameter Tube or Hose ØD1/D2 mm	Nominal bore Pipe inch	L1	L2	B	H	ØD3	L4	B2	ØD4	Clamp Material XX	Colour	Cover Plate
1	06/06		32	18	14,5	13,5	6,8	29,5	15,5	6,8	PP PA	green black	DPL 1
	06,4/06,4	1/4 / 1/4											
	08/08												
2	08/08		41	22	14,5	18,5	6,8	40	15,5	6,8	PP PA	green black	DPL 2
	09,5/09,5	3/8 / 3/8											
	10/10	1/8 / 1/8											
	12/12												
3	12,7/12,7	1/2 / 1/2	54	30	14,5	23,5	6,8	51	16	6,8	PP PA	green black	DPL 3
	10/10	1/8 / 1/8											
	12/12												
	13,5/13,5	1/4 / 1/4											
	14/14												
	15/15												
16/16	5/8 / 5/8												
4	14/14		70	38	14,5	30,5	6,8	63,5	16	6,8	PP PA	green black	DPL 4
	15/15												
	16/16	5/8 / 5/8											
	17,2/17,2	3/8 / 3/8											
	18/18												
	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

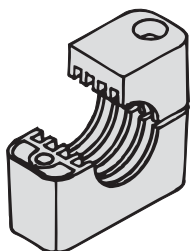
Information

Max. tightening torque: 2,5 Nm

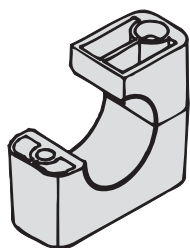
Other thermoplastics and diameters on request.

Design of Clamp Bodies

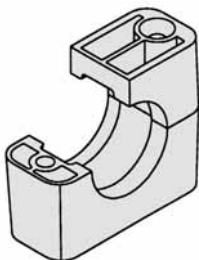
STANDARD SERIES



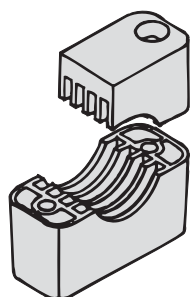
Standard design
– profiled inside –



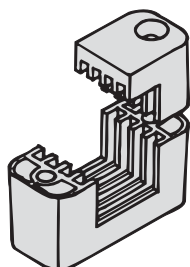
H-design
– smooth inside –
(recommended for hoses)



RI-design
for rubber inserts

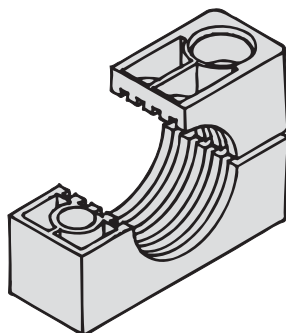


Oval design

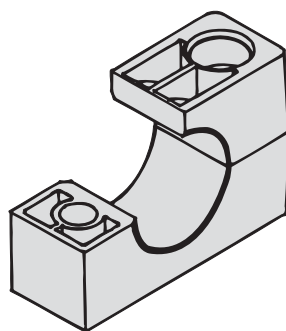


Rectangular design

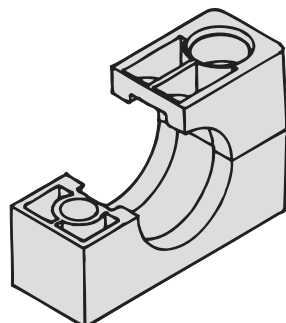
HEAVY SERIES



Standard design
– profiled inside –

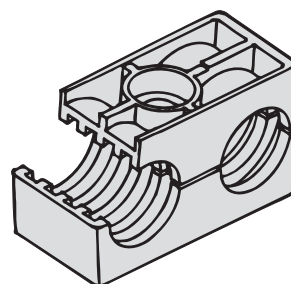


H-design
– smooth inside –
(recommended for hoses)

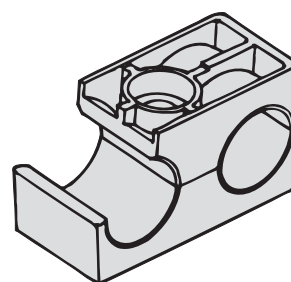


RI-design
for rubber inserts

TWIN SERIES



Standard design
– profiled inside –



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

Installation Information

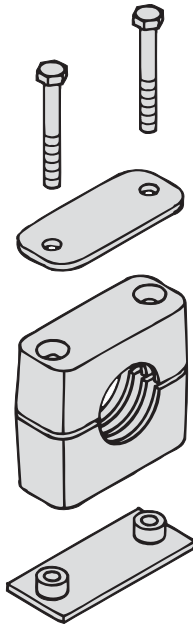
INSTALLATION ON WELD PLATES

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.

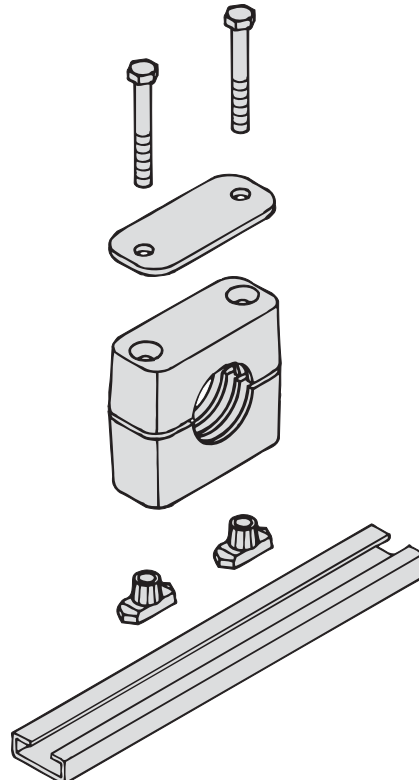


INSTALLATION ON MOUNTING RAILS

STAUFF mounting rails can be used with the following Series:

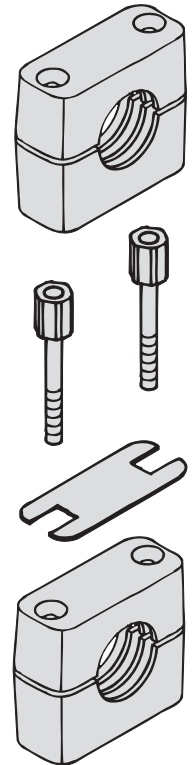
- Standard Series
- Heavy Series (Group 3S – 6S)
- Twin Series
- Special Clamps

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.



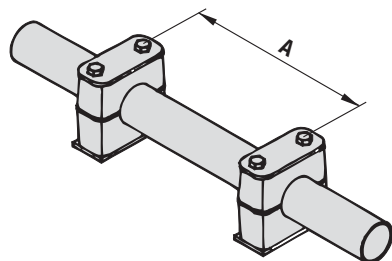
Standard Materials: Properties and Technical Information

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
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	<p>*1 The stated information has been defined for conditions according to ISO 1110.</p> <p>*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.</p> <p>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).</p>			
METAL PARTS				
<p>Unless otherwise stated, all metal parts are made of carbon steel St37, surface finishing according to order code.</p> <p>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.</p> <p>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) Stainless Steel A4 - 1.4401/1.4571 (AISI 316/316Ti)</p> <p>Threads All threaded parts are available with UNC-threads on request (see thread-chart on page 54).</p>				

Special Materials: Properties and Technical Information

CLAMP BODIES				
PAVO	PA-FF	PPDA	PP6853	PP-AC
POLYAMIDE *1	POLYAMIDE*1	POLYPROPYLENE	POLYPROPYLENE	POLYPROPYLENE
 BLACK	 BLACK	 WHITE	 WHITE	 BLACK
MECHANICAL PROPERTIES				
1500 N/mm ² (ISO 527-1/-2)	1100 N/mm ² (ISO 527-1/-2)	2200 N/mm ² (ISO 527 / at 23°C 50 mm/min)	1440 N/mm ² (ICE 60811-1-1)	1170 N/mm ² (ISO 527)
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 Charpy / ISO 179/1eU)	6,1 kJ/m ² at 23° C (acc. to Charpy / ISO 180/1A)
- - -	- - -	4,9 kJ/m ² at -25°C (acc. to IZOD / ISO 180/1A)	- - -	3,6 kJ/m ² at -20° C (acc. to Charpy / 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 / at 23°C 50 mm/min)	20,4 N/mm ² (ICE 60811-1-1)	26 N/mm ² (ISO 527-2)
100 N/mm ² (ISO 2039-1)	100 N/mm ² (ISO 2039-1)	- - -	- - -	57 N/mm ² (ISO 2039)
- - -	- - -	- - -	- - -	- - -
THERMAL PROPERTIES				
-30°C ... +120°C	-30°C ... +120°C	-25°C ... +90°C	-25°C ... +90°C	-20°C ... +90°C
SPECIAL PROPERTIES				
<p>PREVENTIVE FIRE PROTECTION</p> <p>Tested and approved according to UL94 ("Vertical Burning Test") - classification: 94V-0 (thickness: 0,4mm)</p> <p>Tested and approved according to DIN 5510, Part 2 - combustibility classification: S3 - smoke development classification: SR2 - dripping classification: ST2</p> <p>Tested and approved according to NF F 16-101 - classification: I3 / F2</p>	<p>PREVENTIVE FIRE PROTECTION</p> <p>Tested and approved according to DIN 5510, Part 2 - combustibility classification: S4 - smoke development classification: SR2 - dripping classification: ST2</p>	<p>PREVENTIVE FIRE PROTECTION</p> <p>Tested and approved according to Def Stan 07-247 - assessment: category B</p> <p>Approved by the UK MoD</p>	<p>PREVENTIVE FIRE PROTECTION</p> <p>Tested and approved according to BS 6853 - assessment: category 1a</p> <p>Compliant with the requirements of London Underground / Metronet (standard 2-01001-002: "Fire Safety Performance of Materials")</p> <p>Tested and approved according to DIN 5510, Part 2 - combustibility classification: S3 - smoke development classification: SR2 - dripping classification: ST2</p> <p>Tested and approved according to Def Stan 07-247 - assessment: category B</p>	<p>CORROSION PREVENTION</p> <p>Salt spray cabinet trials according to ISO 9227 / ASTM B117 and also internal 5 cycles SO2 studies</p> <p>- delays the formation of crevice corrosion by depositing a special corrosion protection inhibitor in the gap between clamp body and stainless steel pipe - lengthens maintenance intervals - minimises servicing requirements and costs - delivers tremendous potential savings</p>
<p>NOTES *1 The stated information has been defined for conditions according to ISO 1110.</p>				

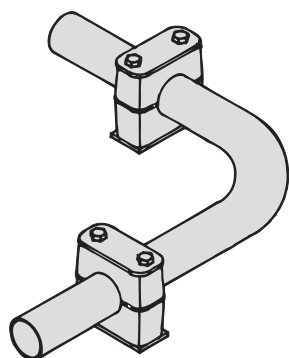
RECOMMENDED DISTANCE BETWEEN CLAMPS



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

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

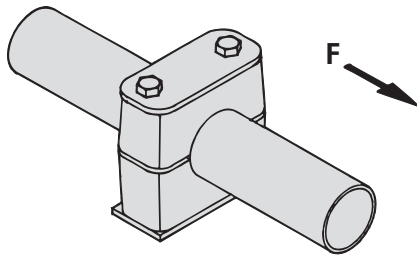
HEAVY SERIES

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]
3S	M 10	12	1,6	20	4,2	30	12,1
4S		12	2,9	20	4,5	30	15,1
5S		15	3,3	25	5,1	35	15,5
6S	M 12	30	8,2	40	9,3	55	29,4
7S	M 16	45	11,0	55	15,8	120	34,9
8S	M 20	80	14,0	150	21,0	220	50,0
9S	M 24	110	28,0	200	32,0	250	70,6
10S	M 30	180	40,0	350	48,0	500	84,5
11S		200	119,0	370	125,0	500	181,5
12S		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]
1D	M 6	5	0,9	5	0,9
2D	M 8	12	2,1	12	2,2
3D		12	1,9	12	2,0
4D		12	2,7	12	2,9
5D		8	1,7	8	2,5

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