



Clamps

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.

Local solutions for
individual customers
worldwide



Walter Stauffenberg GmbH & Co. KG

P.O. Box 1745 • 58777 Werdohl • Germany
 Im Ehrenfeld 4 • 58791 Werdohl • Germany
 Telephone: + 49 2392 916-0
 Facsimile: + 49 2392 2505
 E-Mail: sales@stauff.com
 Internet: www.stauff.com

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

AUSTRALIA

STAUFF Corporation Pty. Ltd.
 P.O. Box 227
 Unanderra, NSW, 2526
 24-26 Doyle Avenue
 Unanderra Wollongong, NSW, 2526
 Telephone: +61 2 4271 18 77
 Facsimile: +61 2 4271 84 32
 sales@stauff.com.au

BRAZIL

STAUFF Brasil Ltda.
 Avenida Gupê 10767
 Galpão 2 - Bloco A
 Barueri - São Paulo
 CEP 06422-120
 Telephone: +55 11 47 72 72 00
 Facsimile: +55 11 47 72 72 10
 stauff@stauffbrasil.com

CANADA

STAUFF Canada Ltd.
 866 Milner Avenue
 Scarborough
 Ontario M1B 5N7
 Telephone: +1 416 282 46 08
 Facsimile: +1 416 282 30 39
 sales@stauffcanada.com

CHINA

STAUFF International Trading
 (Shanghai) Co., Ltd.
 Shangdian Mansion, Pudong
 551, Gaoke Road (W.)
 200126 Shanghai
 Telefon: +86 21 58 45 65 60
 Telefax: +86 21 58 45 66 80
 stauffsh@public.sta.net.cn

FRANCE

STAUFF S.A.
 230, Avenue du Grain d'Or
 Z.I. de Vineuil - Blois Sud
 41354 Vineuil-cedex
 Telephone: +33 2 54 50 55 50
 Facsimile: +33 2 54 42 29 19
 direction@stauffsa.com

INDIA

STAUFF India Pvt. Ltd.
 Gat. No. 2340
 Pune Nagar Road, Wagholi
 Pune, 412207
 Telephone: +91 20 3293 0124
 Facsimile: +91 20 2705 1567
 sales@stauffindia.com

IRELAND

STAUFF Ireland Ltd.
 Unit B3
 Weatherwell Business Park
 Clondalkin
 Dublin 22
 Telephone: +353 1457 4936
 Facsimile: +353 1467 0687
 sales@stauff.ie

ITALY

STAUFF Italia s.r.l.
 Viale Nuova Valassina 78
 angolo Via Baragiola sn
 20033 Desio (Mi)
 Telephone: +39 0362 63 80 70
 Facsimile: +39 0362 63 80 69
 sales@stauff.it

KOREA

STAUFF Korea Ltd.
 1500-12, Dadae-Dong
 Saha-Ku
 Pusan, 604-826
 Telephone: +82 51 266 6666
 Facsimile: +82 51 266 8866
 info@stauff.co.kr

NEW ZEALAND

STAUFF Corporation (NZ) Ltd.
 P. O. Box 58517
 Greenmount, Auckland
 Unit D, 103 Harris Road
 East Tamaki, Auckland
 Telephone: +64 9 271 48 12
 Facsimile: +64 9 271 48 32
 info@stauff.co.nz

POLAND

STAUFF Polska Sp. z o.o.
 ul. Rdestowa 51
 81-591 Gdynia
 Telephone: +48 58 660 11 60
 Facsimile: +48 58 629 79 52
 sales@stauff.pl

RUSSIAN FEDERATION

STAUFF LLC
 Office 205, Building 7
 11, Scharikopodschipnikovskaya
 Moscow, 115088
 Telephone: +7 495 223 89 61 and
 +7 495 679 90 08
 Facsimile: +7 495 679 90 48
 sales@stauff.ru

UNITED KINGDOM

STAUFF UK Ltd.
 500, Carlisle Street East
 Off Downgate Drive
 Sheffield, S4 8BS
 Telephone: +44 114 251 85 18
 Facsimile: +44 114 251 85 19
 sales@stauff.co.uk

UNITED STATES OF AMERICA

STAUFF Corporation
 7 Wm. Demarest Place
 Waldwick, 07463-1542
 New Jersey
 Telephone: +1 201 444 78 00
 Facsimile: +1 201 444 78 52
 sales@stauffusa.com

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

PIPE, TUBE AND HOSE CLAMPS

Page

	Profile, Approvals and Register of Establishments	2
	Index	3
STANDARD SERIES according to DIN 3015, Part 1 (for Pipe O.D. 6 to 102 mm)	Order Codes - Components Dimensions - Components Complete Clamps – Order Codes	4 / 5 / 6 7 / 8 / 9 10 / 11 / 12
HEAVY SERIES according to DIN 3015, Part 2 (for Pipe O.D. 6 to 450 mm)	Order Codes - Components Dimensions - Components Complete Clamps – Order Codes	13 / 14 / 15 16 / 17 / 18 19 / 20 / 21
TWIN SERIES according to DIN 3015, Part 3 (for Pipe O.D. 6 to 42 mm)	Order Codes - Components Dimensions - Components Complete Clamps – Order Codes	22 / 23 24 / 25 26 / 27
SPECIAL CLAMPS / ACCESSORIES	RI-Clamps (Pipe Clamps with Rubber Insert) Heavy Series - Twin Design Multi Group Weld Plate RAP-MGR Angled, Bridge and Elongated Weld Plates, Safety Washers Adjustment Clamp, Agricultural Clamp Hi-Clean Clamps and Accessories Clamps for Industrial Electric Applications and Cables Saddle Clamps for Cylinder Supply Lines	28 29 30 31 31 31 32 33
CUSTOM DESIGNED CLAMPS	Machined Versions Injection Moulding Versions	34 35
LIGHT SERIES	LB LBG LBU LN LNGF LNUF	36 37 38 39
CONSTRUCTION SERIES	KS KSV DKS DKSV	40
FLAT STEEL U-BOLT CLAMPS	FB RUK	41
ROUND STEEL U-BOLT CLAMPS	RB RUK RB RUL RBD according to DIN 3570, Type A	42 43 44
CLAMPS ACCORDING TO DIN	DIN 3567, Type A DIN 3567, Type B DIN 1592 DIN 1593 DIN 1596 DIN 1597	45 45 46 46 47 47
TECHNICAL APPENDIX	Design of Clamp Bodies Installation Information Standard Materials: Properties and Technical Information Special Materials: Properties and Technical Information Recommended Distance between Clamps Basic Mounting Instructions Thread Chart: Metric vs. UNC Thread Tightening Torques and Maximum Loads in Pipe Direction	48 49 50 51 52 52 52 53
	General Information / Terms of Liability	53

according to **DIN 3015, Part 1**
ALSO AVAILABLE

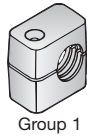
Extensive range of special clamping systems and accessories, e.g. for noise and vibration reducing installation, for electric applications and cables or for particular mounting purposes

see pages 28 to 32

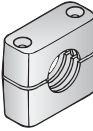
Custom designed pipe clamps (machined and injection moulding versions) according to customer's specifications or based on STAUFF developments

see pages 34 to 35

MATERIAL & SURFACE FINISHING CODE
 (ALL DISPLAYED OPTIONS ARE STANDARD DELIVERY)

 CLAMP BODY
 consisting of two
 clamp halves


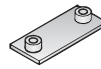
Group 1



Group 1A -8

 SINGLE
 WELD PLATE
SP

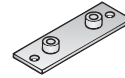

Group 1



Group 1A -8

 ELONGATED
 WELD PLATE
SPV


Group 1



Group 1A -8

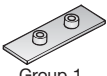
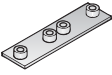
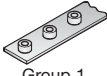
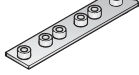
 CHANNEL RAIL
 ADAPTOR
CRA

suitable for several
 types of channel rails,
 see page 12


ORDERING INFORMATION

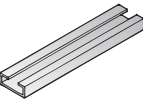
ORDERING INFORMATION					***,* ***	SP ***	SPV ***	CRA 1-8 ***
STAUFF GROUP	DIN GROUP	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN INCH	NOMINAL BORE PIPE IN INCH	STAUFF GROUP OUTSIDE DIAMETER OF PIPE IN MM MATERIAL & DESIGN OF CLAMP BODY	SINGLE WELD PLATE SP STAUFF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

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 TYPE OF THREAD MATERIAL & SURFACE FINISHING	GROUP WELD PLATE RAP STAUFF GROUP PIPE CENTER SPACING NUMBER OF CLAMPS TYPE OF THREAD MATERIAL & SURFACE FINISHING	COVER PLATE DP STAUFF GROUP MATERIAL & SURFACE FINISHING	HEXAGON HEAD BOLT AS STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	INSERT E MATERIAL (S/P)	HEXAGON HEAD BOLT ASE STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	SOCKET CAP SCREW IS STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	SLOTTED HEAD SCREW LI STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	STACKING BOLT AF STAUFF GROUP 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 * **

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according to **DIN 3015, Part 1**

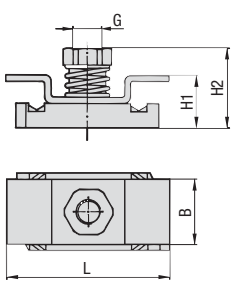
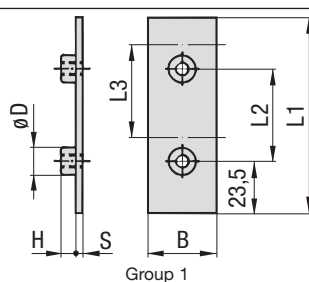
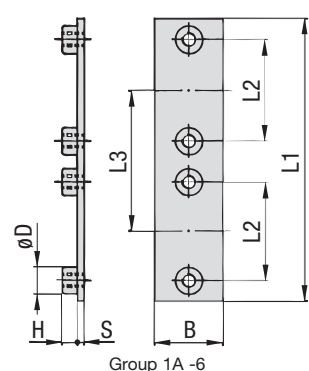
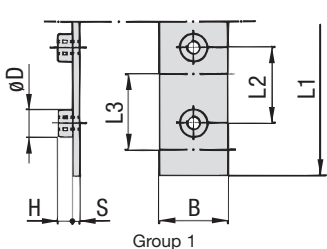
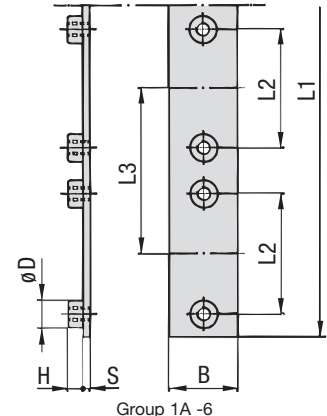
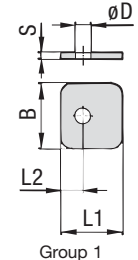
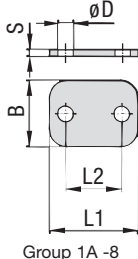
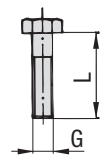
SAFETY WASHER SI	SAFETY LOCKING PLATE SIG	MOUNTING RAIL TS	HEXAGON RAIL NUT SM
DIN 93 for use with HEXAGON HEAD BOLT AS 	 Group 1  Group 1A -6		
W3	W3	W1	W1
SI 6,4 **	SIG ** **	TS **-* **	SM1-8/1D ** **
SAFETY WASHER SI ↓ MATERIAL & SURFACE FINISHING	SAFETY LOCKING PLATE SIG ↓ STAUFF GROUP ↓ MATERIAL & 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.			

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					
		ØD1			profiled		smooth																				
					H	S																	H				
1	0	6 6,4 8 8,5 10 12	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					
1A	1	6 6,4 8 8,5 10 12	37	20	27	0,4 min.	26	30	36	20	30	3	6,5	12	64	20	50	30	3	6,5	12	6,5					
2	2	12,7 13,5 14 15 16 17,2 18	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					
3	3	19 20 21,3 22 25 25,4	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					
4	4	26,9 28 30	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					
5	5	32 32,7 35 38 40 42	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					
6	6	44,5 48,3 50,8	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					
7	7	57,2 60,3 63,5 70 73 76,1	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					
8	8	88,9 102	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					

according to **DIN 3015, Part 1**

CHANNEL RAIL ADAPTOR CRA	TWIN WELD PLATE DSP	GROUP WELD PLATE RAP	COVER PLATE DP	HEXAGON HEAD BOLT AS																				
suitable for several types of channel rails, see page 12 	 Group 1  Group 1A -6	 Group 1  Group 1A -6	 Group 1  Group 1A -8	DIN EN ISO 4014 / 4017 (DIN 931/933) for use with COVERPLATE DP 																				
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	5	7	M6 x 100		
					---				---				---				144	120	30	5	7	M6 x 125		

according to **DIN 3015, Part 1**

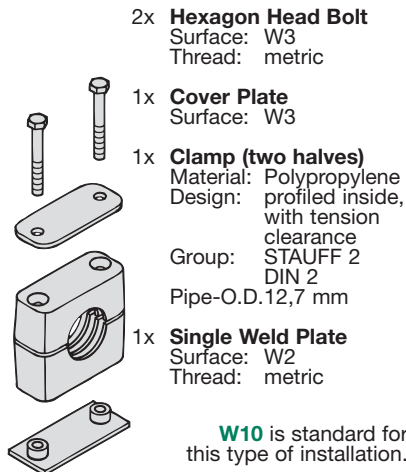
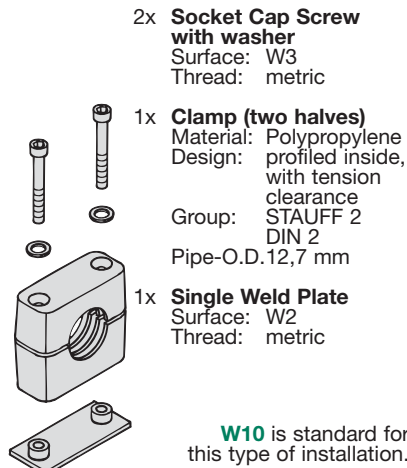
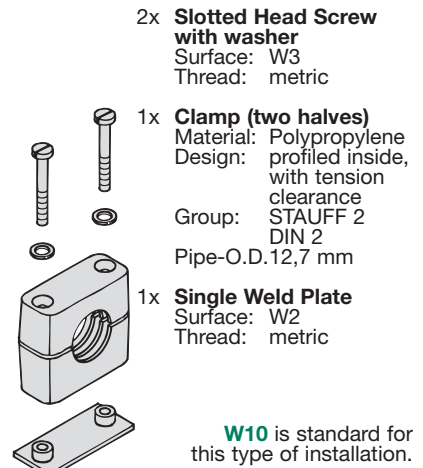
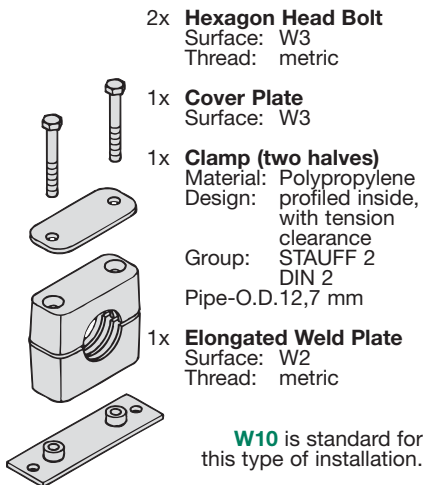
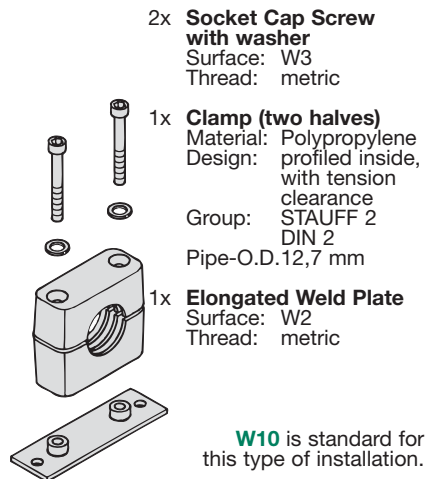
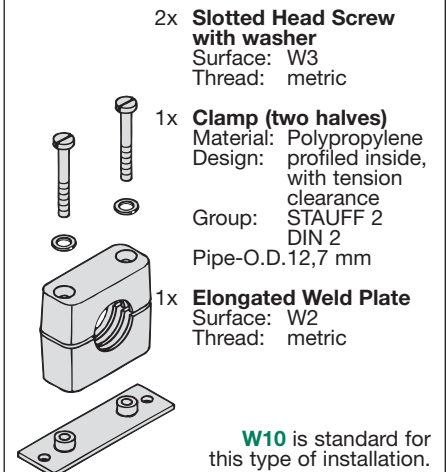
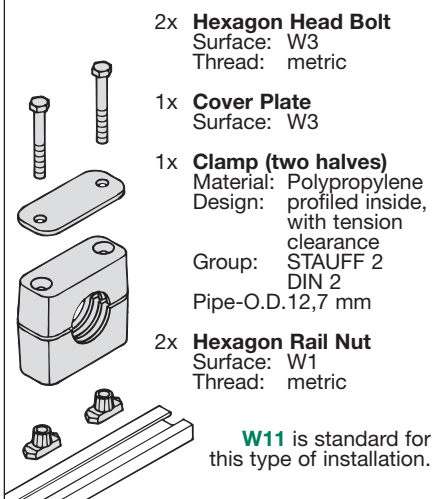
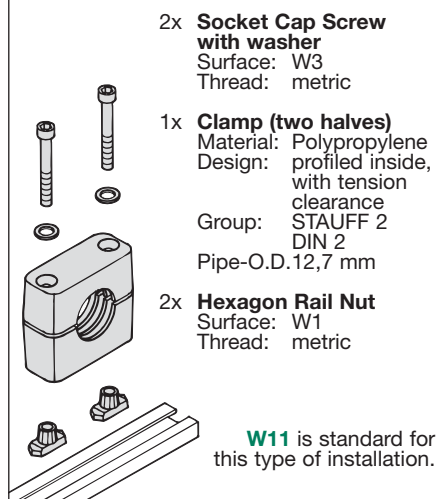
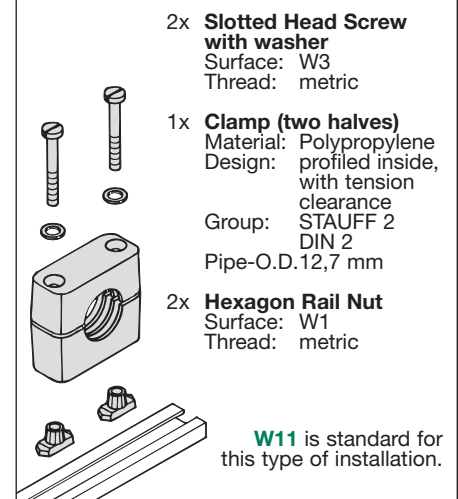
INSERT E	HEXAGON HEAD BOLT ASE	SOCKET CAP SCREW IS	SLOTTED HEAD SCREW LI	STACKING BOLT AF	SAFETY WASHER SI	SAFETY LOCKING PLATE SIG	MOUNTING RAIL TS	HEXAGON RAIL NUT SM
	no cover plate for use with INSERT E 	DIN EN ISO 4762 (DIN 912) 	DIN EN ISO 1207 (DIN 84) 			 Group 1 TS 11 TS 14 TS 30 Group 1A - 8	 TS 11 TS 14 TS 30	
STEEL / PLASTIC	W3	W3	W3	W3	W3	W3	W1	W1
D1 D2 H	G x L	G x L D S	G x L D S	G L1 L2 L3 SW	ØD	L B1 B2 S	B1 B2 S	L B H1 H2 ØD
11,8 6,5 7,8 (S) 8,6 (P)	M6 x 27	M6 x 20 11 0,8	M6 x 20 11 0,8	M6 34 20 12 min. 11	6,4	16 32 11,2 1	28 11 2	25,5 10,2 13,5 5,5 12
	M6 x 27	M6 x 20 11 0,8	M6 x 20 11 0,8	M6 34 20 12 min. 11		33 28 11,2 1		
	M6 x 32	M6 x 25 11 0,8	M6 x 25 11 0,8	M6 40 25 12 min. 11		39 28 11,2 1		
	M6 x 35	M6 x 30 11 0,8	M6 x 30 11 0,8	M6 44 30 12 min. 11		47 28 11,2 1		
	M6 x 42	M6 x 35 11 0,8	M6 x 35 11 0,8	M6 49 35 12 min. 11		56 28 11,2 1		
	M6 x 57	M6 x 50 11 0,8	M6 x 50 11 0,8	M6 64 50 12 min. 11		69 28 11,2 1		
	M6 x 65	M6 x 60 11 0,8	M6 x 60 11 0,8	M6 74 60 12 min. 11		85 28 11,2 1		
---	---	M6 x 90 11 0,8	---	M6 99 85 12 min. 11	6,4	117 28 11,2 1	28 11 2	25,5 10,2 13,5 5,5 12
---	---	M6 x 110 11 0,8	---	M6 124 110 12 min. 11		143 28 11,2 1		

according to DIN 3015, Part 1

① ***	② ***,*	③ ***	④ *** - **	⑤ *	⑥ W**	⑦ *	
① TYPE OF INSTALLATION		③ MATERIAL & DESIGN OF CLAMP BODY *1		④ MOUNTING & FITTING COMBINATION		⑦ ASSEMBLING & PACKAGING	
no code	without mounting plate, rail adaptor or rail nuts	PP	Polypropylene, profiled inside, with tension clearance	DP - AS	Cover Plate / Hexagon Head Bolt	no code	components supplied separately (standard)
SP	Single Weld Plate	PPH	Polypropylene, smooth inside, without tension clearance	DP - IS	Cover Plate / Socket Cap Screw	A	assembled (optional)
SPV	Elongated Weld Plate	PA	Polyamide, profiled inside, with tension clearance	ASE	Insert EP-ES / Hexagon Head Bolt (without Cover Plate)	K	packed in kits (optional)
CRA	Channel Rail Adaptor	PAH	Polyamide, smooth inside, without tension clearance	IS	Socket Cap Screw with washer		
DSP *3	Twin Weld Plate	SA	Santoprene, profiled inside, with tension clearance	LI *3	Slotted Head Screw with washer		
RAP *3	Group Weld Plate	SAH	Santoprene, smooth inside, without tension clearance	SIG - AF	Safety Locking Plate / Stacking Bolt		
SM	Hexagon Rail Nut	AL *2	Aluminium, profiled inside, with tension clearance				
② STAUFF GROUP & SIZE OF CLAMP BODY		② STAUFF GROUP & SIZE OF CLAMP BODY CONTINUATION		⑤ TYPE OF THREAD		⑥ MATERIAL & SURFACE FINISHING OF METAL PARTS *6	
Group	Tube O.D. in mm	Tube O.D. in mm	Tube O.D. in mm	Group	Tube O.D. in mm	Tube O.D. in mm	Tube O.D. in mm
STAUFF 1 DIN 0	6	6,4	8	STAUFF 5 DIN 5	32	33,7	35
	1/4	5/16	3/8		1 1/4	1 1/2	2
	106	106,4	108		532	533,7	535
	109,5	110	112		538	540	542
STAUFF 1A DIN 1	6	6,4	8	6	44,5	48,3	50,8
	106A	106,4A	108A		1 1/4	1 1/2	2
	109,5A	110A	112A		644,5	648,3	650,8
STAUFF 2 DIN 2	12,7	13,5	14	7	57,2	60,3	63,5
	1/2	5/8	3/4		2 1/4	2 1/2	2 3/4
	212,7	213,5	214		757,2	760,3	763,5
	215	216	217,2		770	773	776,1
STAUFF 3 DIN 3	19	20	21,3	8	73	76,1	88,9
	3/4	1	1 1/4		2 1/2	2 3/4	3
	321,3	322	325		888,9	8102L	
4	26,9	28	30				
	426,9	428	430				

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

SP 212,7 PP IS M W10

SP 212,7 PP LI M W10

SPV 212,7 PP DP-AS M W10

SPV 212,7 PP IS M W10

SPV 212,7 PP LI M W10

SM 212,7 PP DP-AS M W11

SM 212,7 PP IS M W11

SM 212,7 PP LI M W11


▼ PLEASE TURN THE PAGE HERE ▼

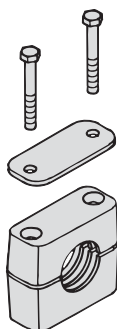
according to **DIN 3015, Part 1**

212,7 PP DP-AS M W3

2x **Hexagon Head Bolt**
Surface: W3
Thread: metric

1x **Cover Plate**
Surface: W3

1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 2
DIN 2
Pipe-O.D. 12,7 mm

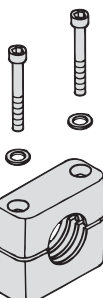


W3 is standard for
this type of installation.

212,7 PP IS M W3

2x **Socket Cap Screw
with washer**
Surface: W3
Thread: metric

1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 2
DIN 2
Pipe-O.D. 12,7 mm

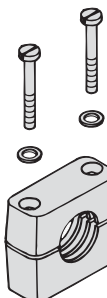


W3 is standard for
this type of installation.

212,7 PP LI M W3

2x **Slotted Head Screw
with washer**
Surface: W3
Thread: metric

1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 2
DIN 2
Pipe-O.D. 12,7 mm



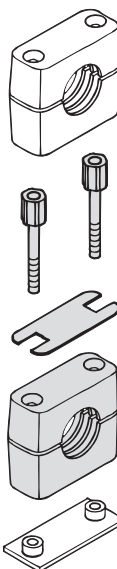
W3 is standard for
this type of installation.

212,7 PP SIG-AF M W3

2x **Stacking Bolt**
Surface: W3
Thread: metric

1x **Safety Locking Plate**
Surface: W3

1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 2
DIN 2
Pipe-O.D. 12,7 mm



W3 is standard for
this type of installation.

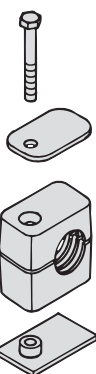
SP 106 PP DP-AS M W10

1x **Hexagon Head Bolt**
Surface: W3
Thread: metric

1x **Cover Plate**
Surface: W3

1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 1
DIN 0
Pipe-O.D. 6 mm

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



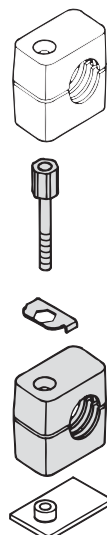
W10 is standard for
this type of installation.

106 PP SIG-AF M W3

1x **Stacking Bolt**
Surface: W3
Thread: metric

1x **Safety Locking Plate**
Surface: W3

1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 1
DIN 0
Pipe-O.D. 6 mm



W3 is standard for
this type of installation.

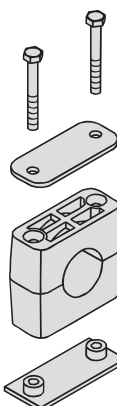
SP 212,7 PPH DP-AS M W10

2x **Hexagon Head Bolt**
Surface: W3
Thread: metric

1x **Cover Plate**
Surface: W3

1x **Clamp (two halves)**
Material: Polypropylene
Design: smooth inside,
without tension
clearance
Group: STAUFF 2
DIN 2
Pipe-O.D. 12,7 mm

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



W10 is standard for
this type of installation.

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

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

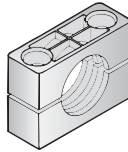
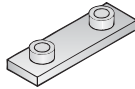
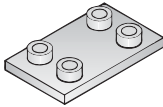
UNISTRUT-Rails

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

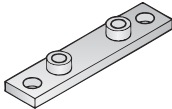
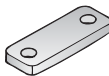
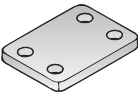
HALFEN-Rails

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

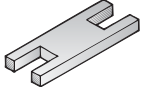
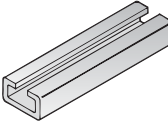
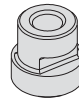
according to **DIN 3015, Part 2**

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) OUTSIDE DIAMETERS IN MM MATERIAL & DESIGN OF CLAMP BODY	WELD PLATE FOR SINGLE CLAMPS SPAL STAUFF GROUP TYPE OF THREAD & MATERIAL & SURFACE FINISHING	WELD PLATE FOR DOUBLE CLAMPS SPAS STAUFF GROUP TYPE OF THREAD & MATERIAL & SURFACE FINISHING
3S	1	6 6,4 8 9,5 10 12 12,7 13,5 14 15 16 17,2 18	 $\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{5}{8}$ $\frac{3}{8}$	 $\frac{1}{8}$ $\frac{1}{4}$ <			

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

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
SI 10,5 **	SIP 3S **	STSV ** * available lengths: 1m and 2m	GMV 3-5S * **
SI 10,5 **	SIP 4S **		
SI 10,5 **	SIP 5S **		
SI 13 **	SIP 6S **		GMV 6S * **
SI 17 **	SIP 7S **	---	---
SI 21 **	SIP 8S **	---	---
SI 25 **	SIP 9S **	---	---
SI 31 **	SIP 10S **	---	---
SI 31 **	---	---	---
SI 31 **	---	---	---

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

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

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

METAL PARTS

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

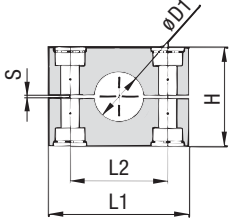
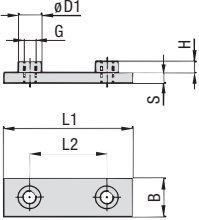
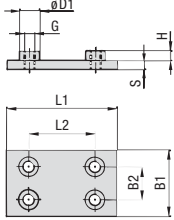
Alternative materials and surface finishings in addition to the above
stated standard are available upon request

THREADED PARTS

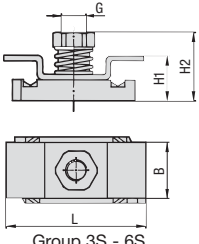
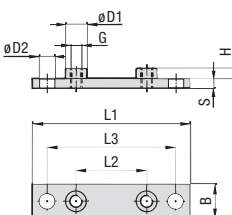
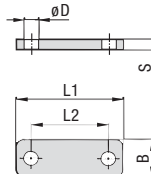
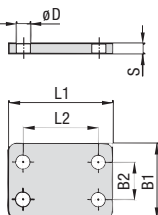
TYPE OF THREAD	CODE
Metric Thread	M
UNC Thread	U

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.

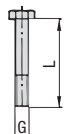
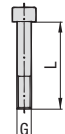
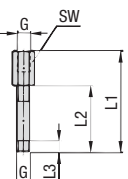
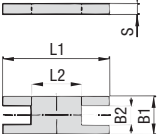
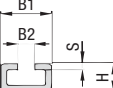
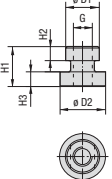
MATERIAL & SURFACE FINISHING OF METAL PARTS			CLAMP BODY consisting of two clamp halves				WELD PLATE FOR SINGLE CLAMPS SPAL							WELD PLATE FOR DOUBLE CLAMPS SPAS										
carbon steel St37, untreated			W1																					
carbon steel St37, phosphated			W2																					
carbon steel St37, zinc/nickel coated*			W3																					
stainless steel A2 - 1.4301/1.4305 (AISI304)			W4																					
stainless steel A4 - 1.4401/1.4571 (AISI316/316Ti)			W5																					
*Please see note on page 15.																								
MATERIAL & SURFACE FINISHING CODE			SEE COMPONENT PART IDENTIFICATION				3S- 7S: W2 8S-12S: W1							3S- 7S: W2 8S-12S: W1										
STAUFF GROUP	DIN GROUP	O.D. OF PIPE / TUBE / HOSE Ø D1 IN MM	L1		L2	Inside Surface		Width	L1	L2	B	S	H	G	ØD1	L1	L2	B1	B2	S	H	G	ØD1	
			PP/PA	AL		H	S																	H
3S	1	6 6,4 8 9,5 10 12 12,7 13,5 14 15 16 17,2 18	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
4S	2	19 20 21,3 22 25 25,4 26,9 28 30	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
5S	3	30 32 33,7 35 38 40 42	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
6S	4	38 42 44,5 48,3 50,8 55 57 60,3 63,5 65 70	115	120	90	89	2 min.	87	45	140	90	45	10	8	M12	20	140	90	90	46	10	8	M12	20
7S	5	65 70 73 75 76,1 80 82,5 88,9	152	150	122	120	2 min.		60	180	122	60	10	12	M16	24	180	122	120	61	10	12	M16	24
8S	6	88,9 100 102 108 114 127 133	206	208	168	168	2 min.		80	226	168	80	15	18	M20	30	226	168	160	81	15	18	M20	30
9S	7	133 140 152 159 165 168	251	255	205	200	3 min.		91	270	205	90	15	21	M24	35	270	205	180	91	15	21	M24	35
10S	8	168 177,8 193,7 216 219	336	326	265	270	3 min.		120	340	265	120	25	21	M30	45	340	265	240	121	25	21	M30	45
11S	9	219 273 324	470	470	395	410	8 min.		162	520	395	160	30	38	M30	50	520	395	324	166	30	38	M30	50
12S	10	356 406	630	630	534	530	20 min.		182	680	534	180	30	38	M30	50	680	534	364	186	30	38	M30	50

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**

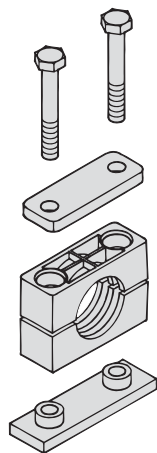
HEXAGON HEAD BOLT AS	SOCKET CAP SCREW IS	STACKING BOLT AF	SAFETY WASHER SI	SAFETY LOCKING PLATE SIP	MOUNTING RAIL STSV	MOUNTING RAIL NUT GMV																									
DIN EN ISO 4014 / 4017 (DIN 931/933) 	DIN EN ISO 4762 (DIN 912)  Group 3S - 6S	 Group 3S - 10S	DIN 93 for use with HEXAGON HEAD BOLT AS 	 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																			
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 *																																																																																																																																																																																																																																																																																																																																														
① TYPE OF INSTALLATION		③ MATERIAL & DESIGN OF CLAMP BODY *1		④ MOUNTING & FITTING COMBINATION		⑦ ASSEMBLING & PACKAGING																																																																																																																																																																																																																																																																																																																																														
<table><tr><td>no code</td><td>without mounting plate, rail adaptor or rail nuts</td></tr><tr><td>SPAL</td><td>Weld Plate for Single Clamps</td></tr><tr><td>SPAS</td><td>Weld Plate for Double Clamps</td></tr><tr><td>SPAL/DUEB</td><td>Elongated Weld Plate for Single Clamps</td></tr><tr><td>CRA *2*3</td><td>Channel Rail Adaptor</td></tr><tr><td>GMV *2</td><td>Mounting Rail Nut</td></tr></table>		no code	without mounting plate, rail adaptor or rail nuts	SPAL	Weld Plate for Single Clamps	SPAS	Weld Plate for Double Clamps	SPAL/DUEB	Elongated Weld Plate for Single Clamps	CRA *2*3	Channel Rail Adaptor	GMV *2	Mounting Rail Nut	<table><tr><td>PP</td><td>Polypropylene, profiled inside, with tension clearance</td></tr><tr><td>PPH*2</td><td>Polypropylene, smooth inside, without tension clearance</td></tr><tr><td>PA</td><td>Polyamide, profiled inside, with tension clearance</td></tr><tr><td>PAH*2</td><td>Polyamide, smooth inside, without tension clearance</td></tr><tr><td>SA *2</td><td>Santoprene, profiled inside, with tension clearance</td></tr><tr><td>SAH*2</td><td>Santoprene, smooth inside, without tension clearance</td></tr><tr><td>AL</td><td>Aluminium, profiled inside, with tension clearance</td></tr></table>		PP	Polypropylene, profiled inside, with tension clearance	PPH*2	Polypropylene, smooth inside, without tension clearance	PA	Polyamide, profiled inside, with tension clearance	PAH*2	Polyamide, smooth inside, without tension clearance	SA *2	Santoprene, profiled inside, with tension clearance	SAH*2	Santoprene, smooth inside, without tension clearance	AL	Aluminium, profiled inside, with tension clearance	<table><tr><td>DPAL - AS</td><td>Single Cover Plate / Hexagon Head Bolt</td></tr><tr><td>DPAS - AS</td><td>Double Cover Plate / Hexagon Head Bolt</td></tr><tr><td>DPAL - IS</td><td>Single Cover Plate / Socket Cap Screw</td></tr><tr><td>IS *2</td><td>Socket Cap Screw</td></tr><tr><td>SIP - AF*4</td><td>Safety Locking Plate / Stacking Bolt</td></tr></table>		DPAL - AS	Single Cover Plate / Hexagon Head Bolt	DPAS - AS	Double Cover Plate / Hexagon Head Bolt	DPAL - IS	Single Cover Plate / Socket Cap Screw	IS *2	Socket Cap Screw	SIP - AF*4	Safety Locking Plate / Stacking Bolt	<table><tr><td>no code</td><td>components supplied separately (standard)</td></tr><tr><td>A</td><td>assembled (optional)</td></tr><tr><td>K</td><td>packed in kits (optional)</td></tr></table>	no code	components supplied separately (standard)	A	assembled (optional)	K	packed in kits (optional)																																																																																																																																																																																																																																																																																																				
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② STAUFF GROUP & SIZE OF CLAMP BODY		② STAUFF GROUP & SIZE OF CLAMP BODY CONTINUATION		⑤ TYPE OF THREAD		⑥ MATERIAL & SURFACE FINISHING OF METAL PARTS *7																																																																																																																																																																																																																																																																																																																																														
<table><tr><td>Group</td><td>Tube O.D. in mm</td><td>Tube O.D. in inch</td><td>Nominal Bore Pipe</td><td>Material Code</td></tr><tr><td rowspan="10">STAUFF 3S DIN 1</td><td>6</td><td></td><td></td><td>3006</td></tr><tr><td>6,4</td><td>1/4</td><td></td><td>3006,4</td></tr><tr><td>8</td><td>5/16</td><td></td><td>3008</td></tr><tr><td>9,5</td><td>3/8</td><td></td><td>3009,5</td></tr><tr><td>10</td><td></td><td>1/8</td><td>3010</td></tr><tr><td>12</td><td></td><td></td><td>3012</td></tr><tr><td>12,7</td><td>1/2</td><td></td><td>3012,7</td></tr><tr><td>13,5</td><td></td><td>1/4</td><td>3013,5</td></tr><tr><td>14</td><td></td><td></td><td>3014</td></tr><tr><td>15</td><td></td><td></td><td>3015</td></tr><tr><td rowspan="10">STAUFF 4S DIN 2</td><td>16</td><td>5/8</td><td></td><td>3016</td></tr><tr><td>17,2</td><td>3/8</td><td></td><td>3017,2</td></tr><tr><td>18</td><td></td><td></td><td>3018</td></tr><tr><td>19</td><td>3/4</td><td></td><td>4019</td></tr><tr><td>20</td><td></td><td></td><td>4020</td></tr><tr><td>21,3</td><td></td><td>1/2</td><td>4021,3</td></tr><tr><td>22</td><td>7/8</td><td></td><td>4022</td></tr><tr><td>25</td><td></td><td></td><td>4025</td></tr><tr><td>25,4</td><td>1</td><td></td><td>4025,4</td></tr><tr><td>26,9</td><td>3/4</td><td></td><td>4026,9</td></tr><tr><td rowspan="10">STAUFF 5S DIN 3</td><td>28</td><td></td><td></td><td>4028</td></tr><tr><td>30</td><td></td><td></td><td>4030</td></tr><tr><td>30</td><td></td><td></td><td>5030</td></tr><tr><td>32</td><td>1 1/4</td><td></td><td>5032</td></tr><tr><td>33,7</td><td></td><td>1</td><td>5033,7</td></tr><tr><td>35</td><td></td><td></td><td>5035</td></tr><tr><td>38</td><td>1 1/2</td><td></td><td>5038</td></tr><tr><td>40</td><td></td><td></td><td>5040</td></tr><tr><td>42</td><td></td><td>1 1/4</td><td>5042</td></tr><tr><td>38</td><td>1 1/2</td><td></td><td>6038</td></tr><tr><td rowspan="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></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	3/8		3017,2	18			3018	19	3/4		4019	20			4020	21,3		1/2	4021,3	22	7/8		4022	25			4025	25,4	1		4025,4	26,9	3/4		4026,9	STAUFF 5S DIN 3	28			4028	30			4030	30			5030	32	1 1/4		5032	33,7		1	5033,7	35			5035	38	1 1/2		5038	40			5040	42		1 1/4	5042	38	1 1/2		6038	STAUFF 6S DIN 4	42		1 1/4	6042	44,5	1 3/4		6044,5	48,3		1 1/2	6048,3	50,8	2		6050,8	55			6055	57	2 1/4		6057	<table><tr><td>Group</td><td>Tube O.D. in mm</td><td>Tube O.D. in inch</td><td>Nominal Bore Pipe</td><td>Material Code</td></tr><tr><td rowspan="4">STAUFF 6S DIN 4</td><td>60,3</td><td></td><td>2</td><td>6060,3</td></tr><tr><td>63,5</td><td>2 1/2</td><td></td><td>6063,5</td></tr><tr><td>65</td><td></td><td></td><td>6065</td></tr><tr><td>70</td><td></td><td></td><td>6070</td></tr><tr><td rowspan="9">STAUFF 7S DIN 5</td><td>65</td><td></td><td></td><td>7065</td></tr><tr><td>70</td><td></td><td></td><td>7070</td></tr><tr><td>73</td><td>2 7/8</td><td>2 1/2</td><td>7073 *5</td></tr><tr><td>75</td><td></td><td></td><td>7075</td></tr><tr><td>76,1</td><td>3</td><td>2 1/2</td><td>7076,1 *6</td></tr><tr><td>80</td><td></td><td></td><td>7080</td></tr><tr><td>82,5</td><td>3 1/4</td><td></td><td>7082,5</td></tr><tr><td>88,9</td><td></td><td>3</td><td>7088,9</td></tr><tr><td>88,9</td><td></td><td>3</td><td>8088,9</td></tr><tr><td rowspan="10">STAUFF 8S DIN 6</td><td>100</td><td></td><td></td><td>8100</td></tr><tr><td>102</td><td></td><td>3 1/2</td><td>8102</td></tr><tr><td>108</td><td>4 1/4</td><td></td><td>8108</td></tr><tr><td>114</td><td></td><td>4</td><td>8114</td></tr><tr><td>127</td><td>5</td><td></td><td>8127</td></tr><tr><td>133</td><td>5 1/4</td><td></td><td>8133</td></tr><tr><td>133</td><td>5 1/4</td><td></td><td>9133</td></tr><tr><td>140</td><td></td><td>5</td><td>9140</td></tr><tr><td>152</td><td>6</td><td></td><td>9152</td></tr><tr><td>159</td><td>6 1/4</td><td></td><td>9159</td></tr><tr><td rowspan="5">STAUFF 9S DIN 7</td><td>165</td><td>6 1/2</td><td></td><td>9165</td></tr><tr><td>168</td><td></td><td>6</td><td>9168</td></tr><tr><td>168</td><td></td><td>6</td><td>10168</td></tr><tr><td>177,8</td><td>7</td><td></td><td>10177,8</td></tr><tr><td>193,7</td><td>7 5/8</td><td></td><td>10193,7</td></tr><tr><td rowspan="5">STAUFF 10S DIN 8</td><td>216</td><td>8 1/2</td><td></td><td>10216</td></tr><tr><td>219</td><td></td><td>8</td><td>10219</td></tr><tr><td>219</td><td></td><td>8</td><td>11219</td></tr><tr><td>273</td><td></td><td>10</td><td>11273</td></tr><tr><td>324</td><td>12</td><td></td><td>11324</td></tr><tr><td rowspan="2">STAUFF 11S DIN 9</td><td>356</td><td></td><td>14</td><td>12356</td></tr><tr><td>406</td><td></td><td>16</td><td>12406</td></tr></table>		Group	Tube O.D. in mm	Tube O.D. in inch	Nominal Bore Pipe	Material Code	STAUFF 6S DIN 4	60,3		2	6060,3	63,5	2 1/2		6063,5	65			6065	70			6070	STAUFF 7S DIN 5	65			7065	70			7070	73	2 7/8	2 1/2	7073 *5	75			7075	76,1	3	2 1/2	7076,1 *6	80			7080	82,5	3 1/4		7082,5	88,9		3	7088,9	88,9		3	8088,9	STAUFF 8S DIN 6	100			8100	102		3 1/2	8102	108	4 1/4		8108	114		4	8114	127	5		8127	133	5 1/4		8133	133	5 1/4		9133	140		5	9140	152	6		9152	159	6 1/4		9159	STAUFF 9S DIN 7	165	6 1/2		9165	168		6	9168	168		6	10168	177,8	7		10177,8	193,7	7 5/8		10193,7	STAUFF 10S DIN 8	216	8 1/2		10216	219		8	10219	219		8	11219	273		10	11273	324	12		11324	STAUFF 11S DIN 9	356		14	12356	406		16	12406	<table><tr><td>M</td><td>Metric Thread</td></tr><tr><td>U</td><td>UNC Thread</td></tr></table>		M	Metric Thread	U	UNC Thread	<table><tr><td>W1</td><td>all parts are untreated</td></tr><tr><td>W2</td><td>all parts are phosphated</td></tr><tr><td>W3</td><td>all parts are zinc/nickel coated *</td></tr><tr><td>W4</td><td>all metal parts made of stainless steel A2 - 1.4301/1.4305 (AISI 304)</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
Group	Tube O.D. in mm	Tube O.D. in inch	Nominal Bore Pipe	Material Code																																																																																																																																																																																																																																																																																																																																																
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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																																																																																																																																																																																																																																																																																																																																																			

TECHNICAL NOTES

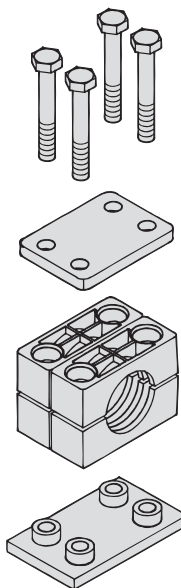
- * NOTE: THE CHANGEOVER OF THE MATERIAL CODE W3 FROM THE SURFACE FINISHING »CARBON STEEL ST 37, ZINC PLATED« TO THE CHROMIUM(VI) FREE SURFACE FINISHING »CARBON STEEL ST 37, ZINC/NICKEL COATED« WILL PROCEED GRADUALLY FROM APRIL 2007 ON. WE APOLOGISE FOR THE TEMPORARY OCCURRENCE OF SOME MIXED DELIVERIES.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

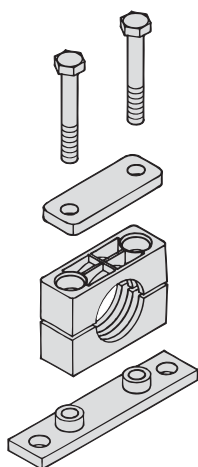
W12 (up to Group 7S) or **W1** (Group 8S to 12S) are standards for this type of installation.

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

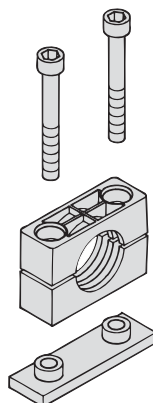
W12 (up to Group 7S) or **W1** (Group 8S to 12S) are standards for this type of installation.

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

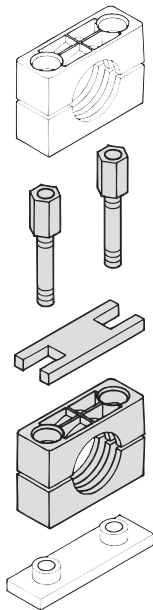
W12 (up to Group 7S) or **W1** (Group 8S to 12S) are standards for this type of installation.

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

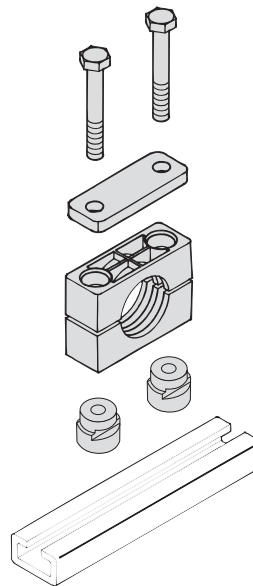
Group: STAUFF 3S / DIN 1
Pipe-O.D. 6 mm
- 1x **Weld Plate for Single Clamps**
Surface: W2, phosphated
Thread: metric

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

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


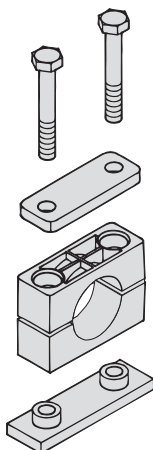
- 2x **Stacking Bolt**
Surface: W2, phosphated
Thread: metric
- 1x **Safety Locking plate**
Surface: W2, phosphated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside,
with tension
clearance
Group: STAUFF 3S / DIN 1
Pipe-O.D. 6 mm

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
HZA 41/41
HZA 41/22
HL 41/41, HL 41/B2

according to **DIN 3015, Part 3**

ALSO AVAILABLE

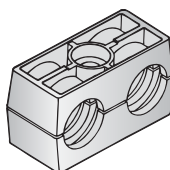
Extensive range of special clamping systems and accessories, e.g. for noise and vibration reducing installation, for electric applications and cables or for particular mounting purposes

see pages 28 to 32

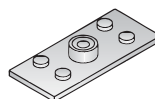
Custom designed pipe clamps (machined and injection moulding versions) according to customer's specifications or based on STAUFF developments

see pages 34 to 35

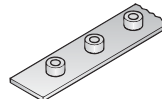
CLAMP BODY
consisting of two
clamp halves



SINGLE
WELD PLATE
SP



GROUP WELD
PLATE
RAP



CHANNEL RAIL
ADAPTOR
CRA

suitable for several
types of channel rails,
see page 27



MATERIAL & SURFACE FINISHING CODE
(ALL DISPLAYED OPTIONS ARE STANDARD DELIVERY)

SEE COMPONENT
PART IDENTIFICATION

W2

W1

W3

ORDERING INFORMATION

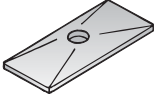
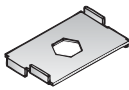
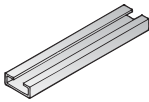
					****/****	SP ****	RAP ****/****	CRA ****
STAUFF GROUP	DIN GROUP	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE IN INCH	NOMINAL BORE PIPE IN INCH	STAUFF GROUP OUTSIDE DIAMETERS OF BOTH PIPES IN MM MATERIAL & DESIGN OF CLAMP BODY	SINGLE WELD PLATE STAUFF GROUP TYPE OF THREAD MATERIAL & SURFACE FINISHING	GROUP WELD PLATE STAUFF GROUP PIPE CENTER SPACING NUMBER OF CLAMPS TYPE OF THREAD MATERIAL & SURFACE FINISHING	CHANNEL RAIL ADAPTOR 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 ****			
		12			112/12 ****			
2D	2	12,7	1/2		212,7/12,7 ****	SP 2D * **	RAP 2D/58/5 * **	CRA 2D M ** for use with bolt M8 x 35
		13,5		1/4	213,5/13,5 ****			
		14			214/14 ****			
		15			215/15 ****			
		16	5/8		216/16 ****			
		17,2		3/8	217,2/17,2 ****			
3D	3	18			218/18 ****	SP 3D * **	RAP 3D/72/5 * **	CRA 3D M ** for use with bolt M8 x 45
		19	3/4		319/19 ****			
		20		1/2	320/20 ****			
		21,3			321,3/21,3 ****			
		22	7/8		322/22 ****			
		25			325/25 ****			
4D	4	25,4	1		325,4/25,4 ****	SP 4D * **	RAP 4D/90/5 * **	CRA 4D M ** for use with bolt M8 x 50
		26,9		3/4	426,9/26,9 ****			
		28			428/28 ****			
5D	5	30			430/30 ****	SP 5D * **	RAP 5D/112/5 * **	CRA 5D M ** for use with bolt M8 x 60
		32			532/32 ****			
		33,7			533,7/33,7 ****			
		35			535/35 ****			
		38			538/38 ****			
		40			540/40 ****			
		42			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 *** ↓ COVER PLATE GD ↓ STAUFF GROUP ↓ MATERIAL & SURFACE FINISHING	AS *** * ↓ HEXAGON HEAD BOLT AS ↓ STAUFF GROUP ↓ TYPE OF THREAD ↓ MATERIAL & SURFACE FINISHING	AF *** * ↓ STACKING BOLT AF ↓ STAUFF GROUP ↓ TYPE OF THREAD ↓ MATERIAL & SURFACE FINISHING	SI ***** ↓ SAFETY LOCKING PLATE SI ↓ STAUFF GROUP (1D OR 2-5D ONLY) ↓ MATERIAL & SURFACE FINISHING	SIV ***** ↓ SAFETY LOCKING PLATE SIV ↓ STAUFF GROUP (1D OR 2-3D ONLY) ↓ MATERIAL & SURFACE FINISHING	TS ***-*** ↓ MOUNTING RAIL TS ↓ HEIGHT OF RAIL IN MM ↓ LENGTH OF RAIL IN M ↓ MATERIAL & SURFACE FINISHING	SM *** * ↓ 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 **	TS ***-*** available heights: 11, 14 and 30 mm available lengths: 1m and 2 m	SM 1-8/1D * W1
GD 2D **	AS 2D M ** (M8 x 35)	AF 2D ***	SI 2-5D **	SIV 2-3D **		SM 2-5D * W3
GD 3D **	AS 3D M ** (M8 x 45)	AF 3D ***				
GD 4D **	AS 4D M ** (M8 x 50)	AF 4D ***				
GD 5D **	AS 5D M ** (M8 x 60)	AF 5D ***				

COMPONENT PART IDENTIFICATION FOR TWIN SERIES CLAMP BODIES AND COMPONENTS

METAL PARTS

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

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

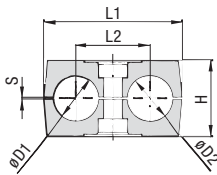
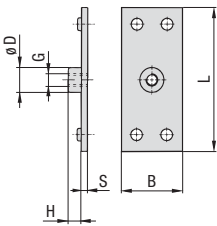
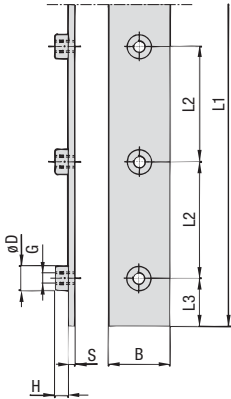
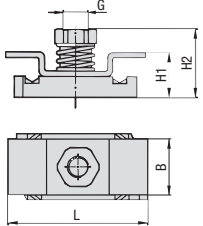
THREADED PARTS

TYPE OF THREAD	CODE
Metric Thread	M
UNC Thread	U

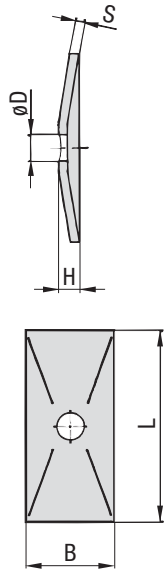
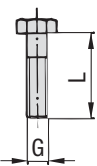
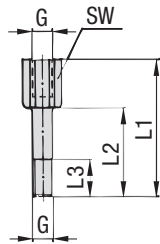
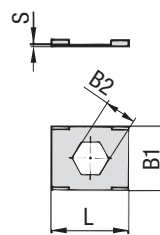
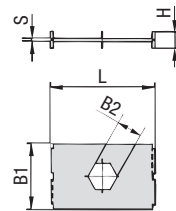
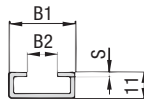
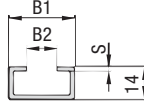
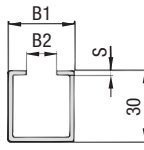
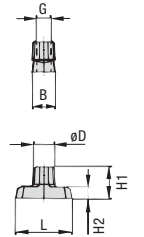
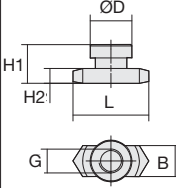
All threaded parts are available with Metric or UNC Thread on request.

*Please see note on page 26.

according to **DIN 3015, Part 3**

MATERIAL & SURFACE FINISHING OF METAL PARTS			CLAMP BODY consisting of two clamp halves				SINGLE WELD PLATE SP				GROUP WELD PLATE RAP				CHANNEL RAIL ADAPTOR CRA												
carbon steel St37, untreated W1																											
carbon steel St37, phosphated W2																											
carbon steel St37, zinc/nickel coated* W3																											
stainless steel A2 - 1.4301/1.4305 (AISI304) 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 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							L	B	S	H	ØD	G	L1	L2	L3	B	S	H	ØD	G	G	L	B	H1	H2
			Inside Surface																								
			L1	L2	profiled		smooth																				
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	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
		12,7																									
		13,5																									
		14																									
		15																									
3D	3	16	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	53	18,5	27,5
		17,2																									
		18																									
		19																									
		20																									
4D	4	21,3	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
		22																									
		25																									
		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																									
5D	5	38																									
		40																									
		42																									

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							25,5	10,2	13,5	5,5	12	M6	
52	30	7	3	9	M8 x 35	M8	33	20	12 min.	12	27	22	12,2	0,5	45	28	12,1	1	7													
65	30	7	3	9	M8 x 45	M8	44	29	12 min.	12	27	22	12,2	0,5	45	28	12,1	1	7	TS 11 TS 14 TS 30	28	11	2				25,5	10,4	13	5	14	M8
79	30	7	3	9	M8 x 50	M8	49	34	12 min.	12	27	22	12,2	0,5	---																	
102	30	7	3	9	M8 x 60	M8	61	46	12 min.	12	27	22	12,2	0,5	---																	

according to DIN 3015, Part 3

① ***	② ***,*/**,*	③ ***	④ ** - **	⑤ *	⑥ W**	⑦ *																																																																																																																																											
① TYPE OF INSTALLATION <table 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>SP</td> <td>Single Weld Plate</td> </tr> <tr> <td>RAP</td> <td>Group Weld Plate</td> </tr> <tr> <td>CRA</td> <td>Channel Rail Adaptor</td> </tr> <tr> <td>SM</td> <td>Hexagon Rail Nut</td> </tr> </table>	no code	without mounting plate, rail adaptor or rail nuts	SP	Single Weld Plate	RAP	Group Weld Plate	CRA	Channel Rail Adaptor	SM	Hexagon Rail Nut	③ MATERIAL & DESIGN OF CLAMP BODY *1 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>PP</td> <td>Polypropylene, profiled inside, with tension clearance</td> </tr> <tr> <td>PPH</td> <td>Polypropylene, smooth inside, without tension clearance</td> </tr> <tr> <td>PA</td> <td>Polyamide, profiled inside, with tension clearance</td> </tr> <tr> <td>PAH</td> <td>Polyamide, smooth inside, without tension clearance</td> </tr> </table>	PP	Polypropylene, profiled inside, with tension clearance	PPH	Polypropylene, smooth inside, without tension clearance	PA	Polyamide, profiled inside, with tension clearance	PAH	Polyamide, smooth inside, without tension clearance	④ MOUNTING & FITTING COMBINATION <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>GD - AS</td> <td>Cover Plate / Hexagon Head Bolt</td> </tr> <tr> <td>SI - AF</td> <td>Safety Locking Plate / Stacking Bolt</td> </tr> </table>	GD - AS	Cover Plate / Hexagon Head Bolt	SI - AF	Safety Locking Plate / Stacking Bolt	⑦ ASSEMBLING & PACKAGING <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)																																																																																																																		
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② STAUFF GROUP & SIZE OF CLAMP BODY *3 <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="5">STAUFF 1D DIN 1</td> <td>6</td> <td></td> <td></td> <td>106/06</td> </tr> <tr> <td>6,4</td> <td>1/4</td> <td></td> <td>106,4/06,4</td> </tr> <tr> <td>8</td> <td>5/16</td> <td></td> <td>108/08</td> </tr> <tr> <td>9,5</td> <td>3/8</td> <td></td> <td>109,5/09,5</td> </tr> <tr> <td>10</td> <td></td> <td>1/8</td> <td>110/10</td> </tr> <tr> <td rowspan="5">STAUFF 2D DIN 2</td> <td>12</td> <td></td> <td></td> <td>112/12</td> </tr> <tr> <td>12,7</td> <td>1/2</td> <td></td> <td>212,7/12,7</td> </tr> <tr> <td>13,5</td> <td></td> <td>1/2</td> <td>213,5/13,5</td> </tr> <tr> <td>14</td> <td></td> <td></td> <td>214/14</td> </tr> <tr> <td>15</td> <td></td> <td></td> <td>215/15</td> </tr> <tr> <td rowspan="5">STAUFF 3D DIN 3</td> <td>16</td> <td>5/8</td> <td></td> <td>216/16</td> </tr> <tr> <td>17,2</td> <td></td> <td>3/8</td> <td>217,2/17,2</td> </tr> <tr> <td>18</td> <td></td> <td></td> <td>218/18</td> </tr> <tr> <td>19</td> <td></td> <td>3/4</td> <td>319/19</td> </tr> <tr> <td>20</td> <td></td> <td></td> <td>320/20</td> </tr> <tr> <td rowspan="5">STAUFF 4D DIN 4</td> <td>21,3</td> <td></td> <td>1/2</td> <td>321,3/21,3</td> </tr> <tr> <td>22</td> <td></td> <td>7/8</td> <td>322/22</td> </tr> <tr> <td>25</td> <td></td> <td></td> <td>325/25</td> </tr> <tr> <td>25,4</td> <td>1</td> <td></td> <td>325,4/25,4</td> </tr> <tr> <td>26,9</td> <td></td> <td>3/4</td> <td>426,9/26,9</td> </tr> <tr> <td rowspan="5">STAUFF 5D DIN 5</td> <td>28</td> <td></td> <td></td> <td>428/28</td> </tr> <tr> <td>30</td> <td></td> <td></td> <td>430/30</td> </tr> <tr> <td>32</td> <td></td> <td></td> <td>532/32</td> </tr> <tr> <td>33,7</td> <td></td> <td></td> <td>533,7/33,7</td> </tr> <tr> <td>35</td> <td></td> <td></td> <td>535/35</td> </tr> <tr> <td></td> <td>38</td> <td></td> <td></td> <td>538/38</td> </tr> <tr> <td></td> <td>40</td> <td></td> <td></td> <td>540/40</td> </tr> <tr> <td></td> <td>42</td> <td></td> <td></td> <td>542/42</td> </tr> </tbody> </table>	Group	Tube O.D. in mm	Tube O.D. in inch	Nominal Bore Pipe	Material Code	STAUFF 1D DIN 1	6			106/06	6,4	1/4		106,4/06,4	8	5/16		108/08	9,5	3/8		109,5/09,5	10		1/8	110/10	STAUFF 2D DIN 2	12			112/12	12,7	1/2		212,7/12,7	13,5		1/2	213,5/13,5	14			214/14	15			215/15	STAUFF 3D DIN 3	16	5/8		216/16	17,2		3/8	217,2/17,2	18			218/18	19		3/4	319/19	20			320/20	STAUFF 4D DIN 4	21,3		1/2	321,3/21,3	22		7/8	322/22	25			325/25	25,4	1		325,4/25,4	26,9		3/4	426,9/26,9	STAUFF 5D DIN 5	28			428/28	30			430/30	32			532/32	33,7			533,7/33,7	35			535/35		38			538/38		40			540/40		42			542/42	⑤ TYPE OF THREAD <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>M</td> <td>Metric Thread</td> </tr> <tr> <td>U</td> <td>UNC Thread</td> </tr> </table>	M	Metric Thread	U	UNC Thread	⑥ MATERIAL & SURFACE FINISHING OF METAL PARTS *2 <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>W11</td> <td>rail nut untreated, all other parts zinc/nickel coated*</td> </tr> </table>	W1	all parts are untreated	W2	all parts are phosphated	W3	all parts are zinc/nickel coated*	W4	all metal parts made of stainless steel A2 - 1.4301/1.4305 (AISI 304)	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*
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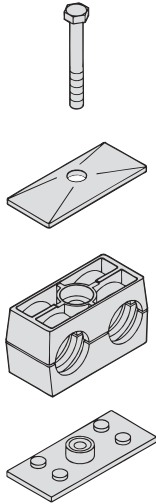
TECHNICAL NOTES

* 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.

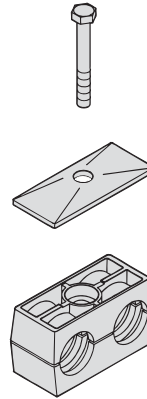
*2 INDIVIDUAL COMBINATIONS OF ALTERNATIVE SURFACE FINISHINGS AND SPECIAL PROPERTY MATERIALS ARE AVAILABLE UPON REQUEST.

*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


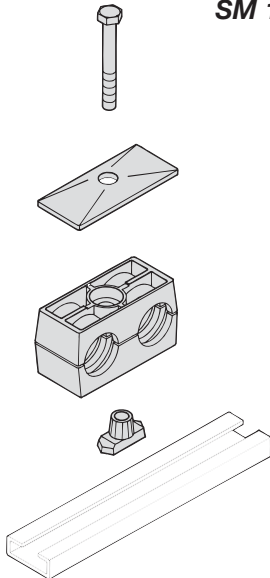
- 1x **Hexagon Head Bolt**
Surface: W3, zinc/nickel coated
Thread: metric
- 1x **Cover Plate**
Surface: W3, zinc/nickel coated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 1D / DIN 1
Pipe-O.D. both 6 mm
- 1x **Weld Plate**
Surface: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

W10 is standard for this type of installation.

106/06 PP GD-AS M W3


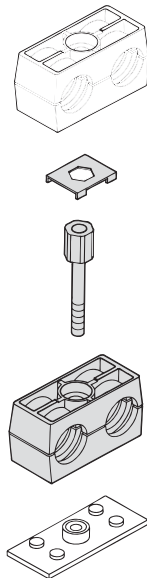
- 1x **Hexagon Head Bolt**
Surface: W3, zinc/nickel coated
Thread: metric
- 1x **Cover Plate**
Surface: W3, zinc/nickel coated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 1D / DIN 1
Pipe-O.D. both 6 mm

W3 is standard for this type of installation.

SM 106/06 PP GD-AS M W11


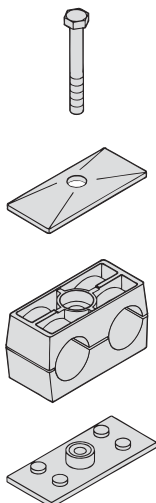
- 1x **Hexagon Head Bolt**
Surface: W3, zinc/nickel coated
Thread: metric
- 1x **Cover Plate**
Surface: W3, zinc/nickel coated
- 1x **Clamp (two halves)**
Material: Polypropylene
Design: profiled inside, with tension clearance
Group: STAUFF 1D / DIN 1
Pipe-O.D. both 6 mm
- 1x **Mounting Rail Nut**
Surface: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

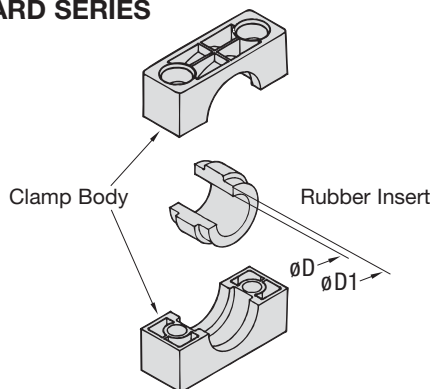
The CHANNEL RAIL ADAPTOR Type **CRA** is suitable for the following channel rails:

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

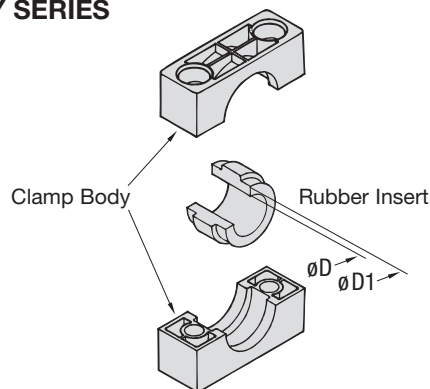
HALFEN-Rails

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)
STANDARD SERIES


STAUFF Group	DIN Group	Pipe-O.D.		Order Code		
		ØD [mm]	ØD1 [mm]	Rubber Insert	Clamp Body	Rubber Insert + Clamp Body
4	4	6	25	RI 06 (4+4S)	4 xxR	406 xxR
		8		RI 08 (4+4S)	4 xxR	408 xxR
		10		RI 10 (4+4S)	4 xxR	410 xxR
		12		RI 12 (4+4S)	4 xxR	412 xxR
		12,7		RI 12,7 (4+4S)	4 xxR	412,7 xxR
		14		RI 14 (4+4S)	4 xxR	414 xxR
		15		RI 15 (4+4S)	4 xxR	415 xxR
		16		RI 16 (4+4S)	4 xxR	416 xxR
		17,2		RI 17,2 (4+4S)	4 xxR	417,2 xxR
		18		RI 18 (4+4S)	4 xxR	418 xxR
6	6	19	38	RI 19 (4+4S)	4 xxR	419 xxR
		20		RI 20 (6+5S)	6 xxR	620 xxR
		21,3		RI 21,3 (6+5S)	6 xxR	621,3 xxR
		22		RI 22 (6+5S)	6 xxR	622 xxR
		25		RI 25 (6+5S)	6 xxR	625 xxR
		26,9		RI 26,9 (6+5S)	6 xxR	626,9 xxR
		28		RI 28 (6+5S)	6 xxR	628 xxR
		30		RI 30 (6+5S)	6 xxR	630 xxR
		32		RI 32 (6+5S)	6 xxR	632 xxR

Other diameters are available on request.

HEAVY SERIES


STAUFF Group	DIN Group	Pipe-O.D.		Order Code		
		ØD [mm]	ØD1 [mm]	Rubber Insert	Clamp Body	Rubber Insert + Clamp Body
4S	2	06	25	RI 06 (4+4S)	4S xxR	4006 xxR
		08		RI 08 (4+4S)	4S xxR	4008 xxR
		10		RI 10 (4+4S)	4S xxR	4010 xxR
		12		RI 12 (4+4S)	4S xxR	4012 xxR
		12,7		RI 12,7 (4+4S)	4S xxR	4012,7 xxR
		14		RI 14 (4+4S)	4S xxR	4014 xxR
		15		RI 15 (4+4S)	4S xxR	4015 xxR
		16		RI 16 (4+4S)	4S xxR	4016 xxR
		17,2		RI 17,2 (4+4S)	4S xxR	4017,2 xxR
		18		RI 18 (4+4S)	4S xxR	4018 xxR
5S	3	19	38	RI 19 (4+4S)	4S xxR	4019 xxR
		20		RI 20 (6+5S)	5S xxR	5020 xxR
		21,3		RI 21,3 (6+5S)	5S xxR	5021,3 xxR
		22		RI 22 (6+5S)	5S xxR	5022 xxR
		25		RI 25 (6+5S)	5S xxR	5025 xxR
		26,9		RI 26,9 (6+5S)	5S xxR	5026,9 xxR
		28		RI 28 (6+5S)	5S xxR	5028 xxR
		30		RI 30 (6+5S)	5S xxR	5030 xxR
		32		RI 32 (6+5S)	5S xxR	5032 xxR
6S	4	32	64	RI 32 (6S)	6S xxR	6032 xxR
		33,7		RI 33,7 (6S)	6S xxR	6033,7 xxR
		35		RI 35 (6S)	6S xxR	6035 xxR
		38,7		RI 38,7 (6S)	6S xxR	6038,7 xxR
		40		RI 40 (6S)	6S xxR	6040 xxR
		42		RI 42 (6S)	6S xxR	6042 xxR
		45,5		RI 45,5 (6S)	6S xxR	6045,5 xxR
		48		RI 48 (6S)	6S xxR	6048 xxR
		51		RI 51 (6S)	6S xxR	6051 xxR
		53,4		RI 53,4 (6S)	6S xxR	6053,4 xxR
7S	5	56,4	88	RI 56,4 (6S)	6S xxR	6056,4 xxR
		55		RI 55 (7S)	7S xxR	7055 xxR
		57		RI 57 (7S)	7S xxR	7057 xxR
		60		RI 60 (7S)	7S xxR	7060 xxR
		65		RI 65 (7S)	7S xxR	7065 xxR
		70		RI 70 (7S)	7S xxR	7070 xxR
		72		RI 72 (7S)	7S xxR	7072 xxR
		76		RI 76 (7S)	7S xxR	7076 xxR
8S	6	80	114	RI 80 (8S)	8S xxR	8080 xxR
		88,9		RI 88,9 (8S)	8S xxR	8088,9 xxR

Other diameters are available on request.

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

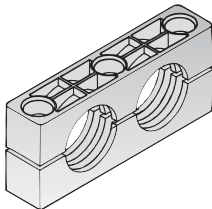
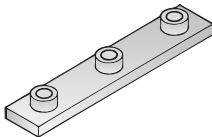
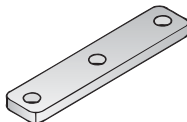
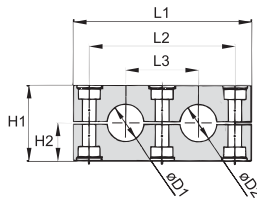
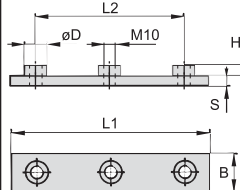
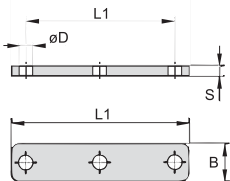
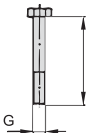
Attention!

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

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

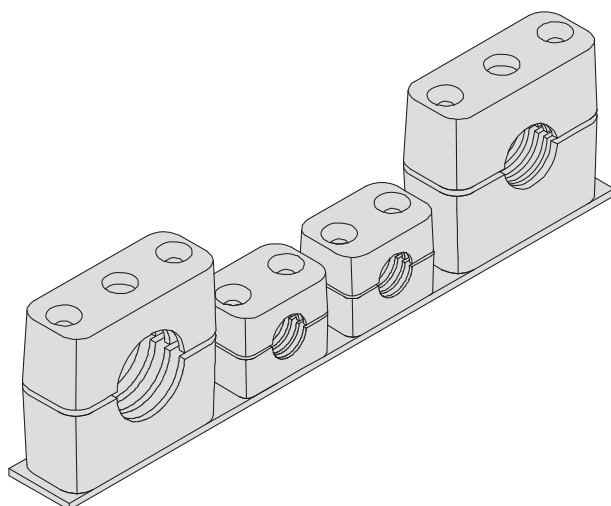
HEAVY SERIES - TWIN DESIGN

ORDER CODES / DIMENSIONS

MATERIAL & DESIGN OF CLAMP BODY				CLAMP BODY consisting of two clamp halves			WELD PLATE			COVER PLATE			HEXAGON HEAD BOLT AS											
Polypropylene, profiled inside, with tension clearance				PP												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 Ø D1 / D2 IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE Ø D1 / D2 IN INCH	NOMINAL BORE PIPE IN INCH	FIRST DIGIT OF STAUFF GROUP (SEE BELOW)	OUTSIDE DIAMETERS OF PIPES IN MM	MATERIAL & DESIGN OF CLAMP BODY	WELD PLATE SPAD	FIRST 2 DIGITS OF STAUFF GROUP (SEE BELOW)	TYPE OF THREAD	MATERIAL & SURFACE FINISHING	COVER PLATE DPAD	FIRST 2 DIGITS OF STAUFF GROUP (SEE BELOW)	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	¾ / ¾				4019/19 **	SPAD 4S * **				DPAD 4S **			AS 4S M ** (M10 x 60)										
	20/20					4020/20 **																		
	21,3/21,3		½ / ½			4021,3/21,3 **																		
	22/22	⅞ / ⅞				4022/22 **																		
	25,4/25,4	1 / 1				4025,4/25,4 **																		
	26,9/26,9		¾ / ¾			4026,9/26,9 **																		
5S-D	32/32	1¼ / 1¼				5032/32 **	SPAD 5S * **				DPAD 5S **			AS 5S M ** (M10 x 70)										
	33,7/33,7		1 / 1			5033,7/33,7 **																		
	38/38	1½ / 1½				5038/38 **																		
	40/40					5040/40 **																		
	42/42		1¼ / 1¼			5042/42 **																		
																								
STAUFF GROUP	OUTSIDE DIAMETER PIPE / TUBE / HOSE Ø D1 / D2 IN MM	OUTSIDE DIAMETER PIPE / TUBE / HOSE Ø D1 / D2 IN INCH	NOMINAL BORE PIPE IN INCH	L1	L2	L3	H1	H2	Width	L1	L2	B	S	H	ØD	L1	L2	B	S	ØD	G x L			
4S-D	19/19	¾ / ¾																						
	20/20																							
	21,3/21,3		½ / ½				115	90	45	48	24	30	130	90	30	8	8,5	18	115	90	30	8	11	M10 x 60
	22/22	⅞ / ⅞																						
	25,4/25,4	1 / 1																						
	26,9/26,9		¾ / ¾																					
5S-D	32/32	1¼ / 1¼																						
	33,7/33,7		1 / 1																					
	38/38	1½ / 1½					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		1¼ / 1¼																					

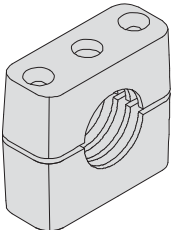
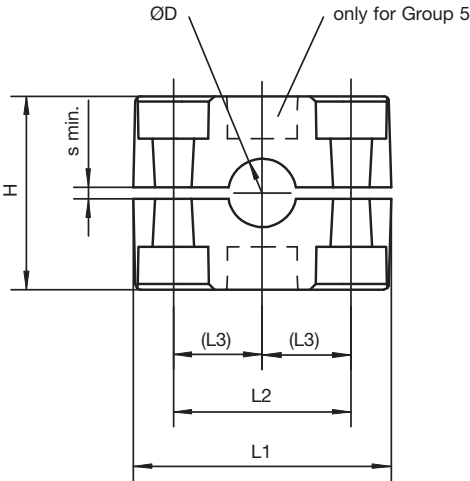
Multi Group Weld Plate RAP-MGR

for Standard Series Clamps, Groups 2 and 5



example of mounting

Clamp Body

	Group	ØD in mm	Group						
	2	8	208 **						
		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
				All dimensions in mm.					

**** = Clamp Body Material:** **PP** Polypropylene **PA** Polyamide

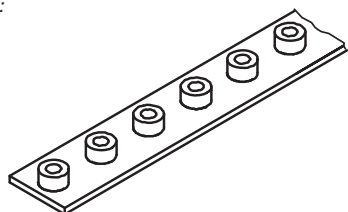
Other diameters / materials / designs upon request.

** = Clamp Body Material: PP Polypropylene PA Polyamide

Other diameters / materials / designs upon request.

Multi Group Weld Plate

Ordering Example:



RAP-MGR 25/312 M W1

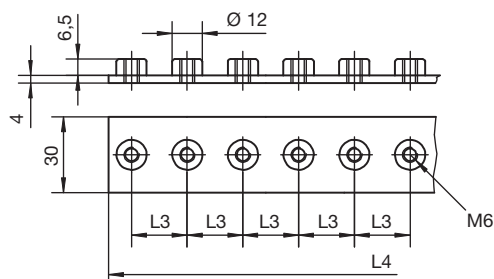
Material Code
(St37, untreated)

Metric Thread

Length of Weld Plate

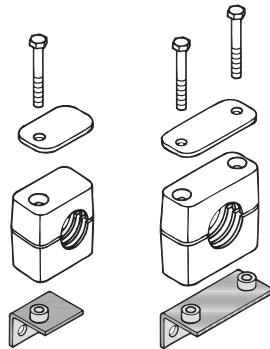
Group 2 and 5

Multi Group Weld Plate



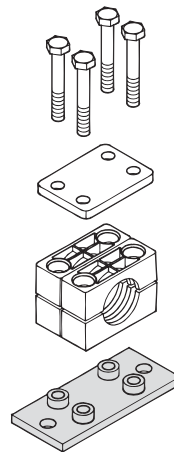
All dimensions in mm.	Number of Weld Nuts	L3	L4
RAP-MGR 25/156	6	26	156
RAP-MGR 25/234	9		234
RAP-MGR 25/312	12		312
RAP-MGR 25/390	15		390
RAP-MGR 25/520	20		520
RAP-MGR 25/700	27		700

Also available ...

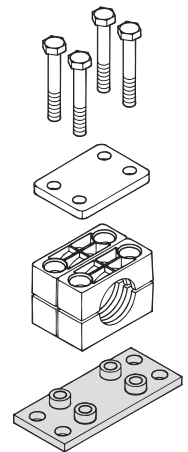


ANGLED WELD PLATES
TYPE WSP

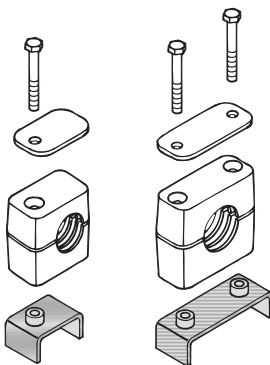
Group 3S - 9S



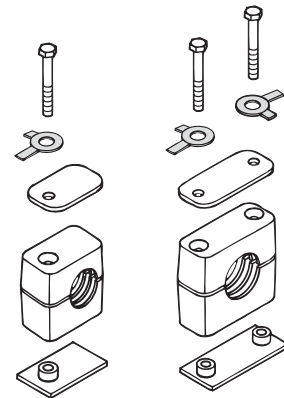
Group 10S - 12S



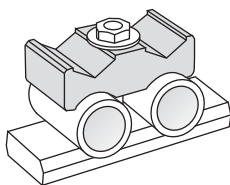
ELONGATED WELD PLATES FOR DOUBLE CLAMPS
TYPE SPAS/DUEB



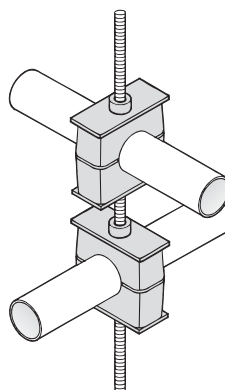
BRIDGE WELD PLATES
TYPE BSP



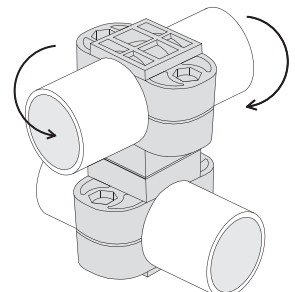
SAFETY WASHERS
TYPE SI-6,4 DIN 463 W3



AGRICULTURAL CLAMPS
TYPE AG



HI-CLEAN SERIES
CLAMP BODIES AND
SPECIAL MOUNTING ACCESSORIES



ADJUSTMENT CLAMP

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

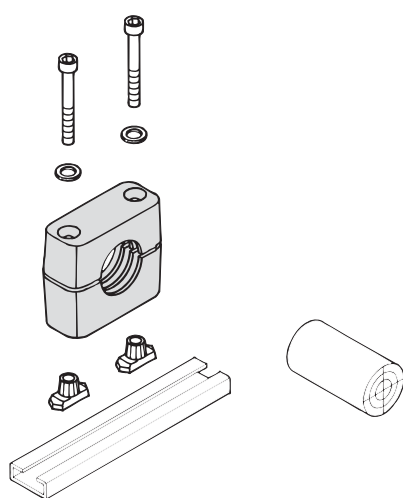
620-50 PP

(Standard-Series)

6040-72 PP

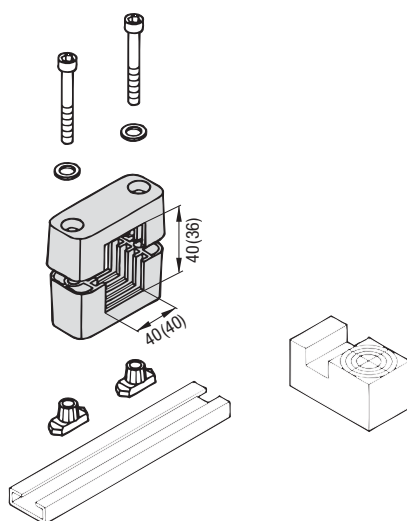
(Heavy-Series)

Accessories see Standard Series and Heavy Series



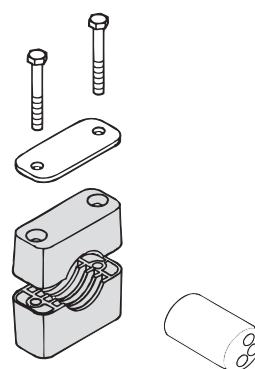
For proximity switches according to DIN EN 60947-5-2 or similar

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.

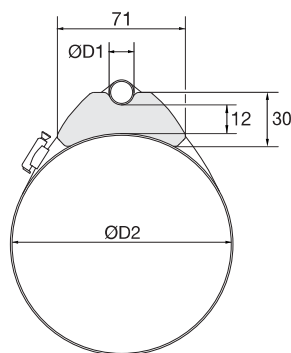
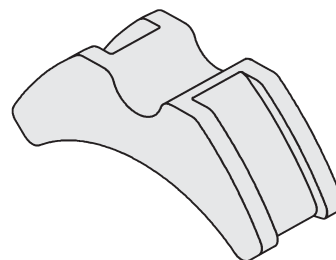
Bolt types:
Standard-Series: Hexagon Head Bolt in conjunction with cover plate. Socket Cap Screw with washer. Slotted Head Screw with washer.
Heavy Series: Hexagon Head Bolt in conjunction with cover plate. For varying cable diameters only the bolt length needs to be varied.

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

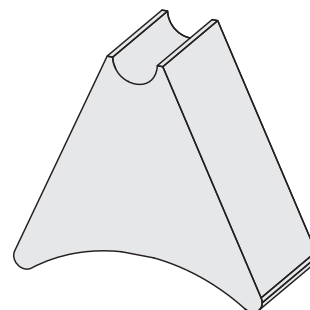
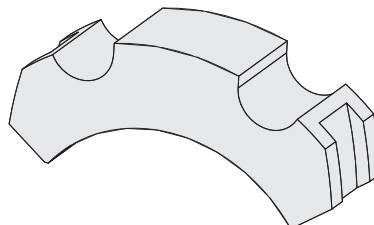
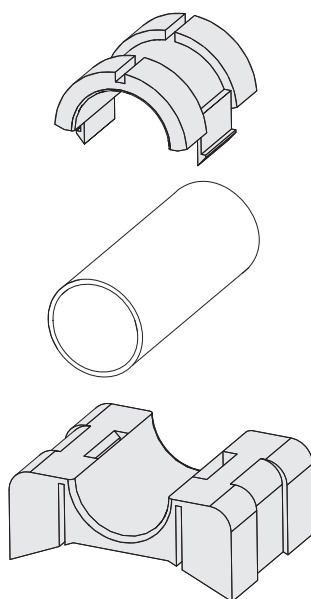
Material: **Thermoplastic Elastomer (TPE)**
 Shore Hardness: **75±5 A**
 Colour: **Black (Standard)**
 Order Code: **ZR 518**

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

Steel Strap is not included in scope of delivery.



Saddle Clamps for Cylinder Supply Lines (Custom Designs)



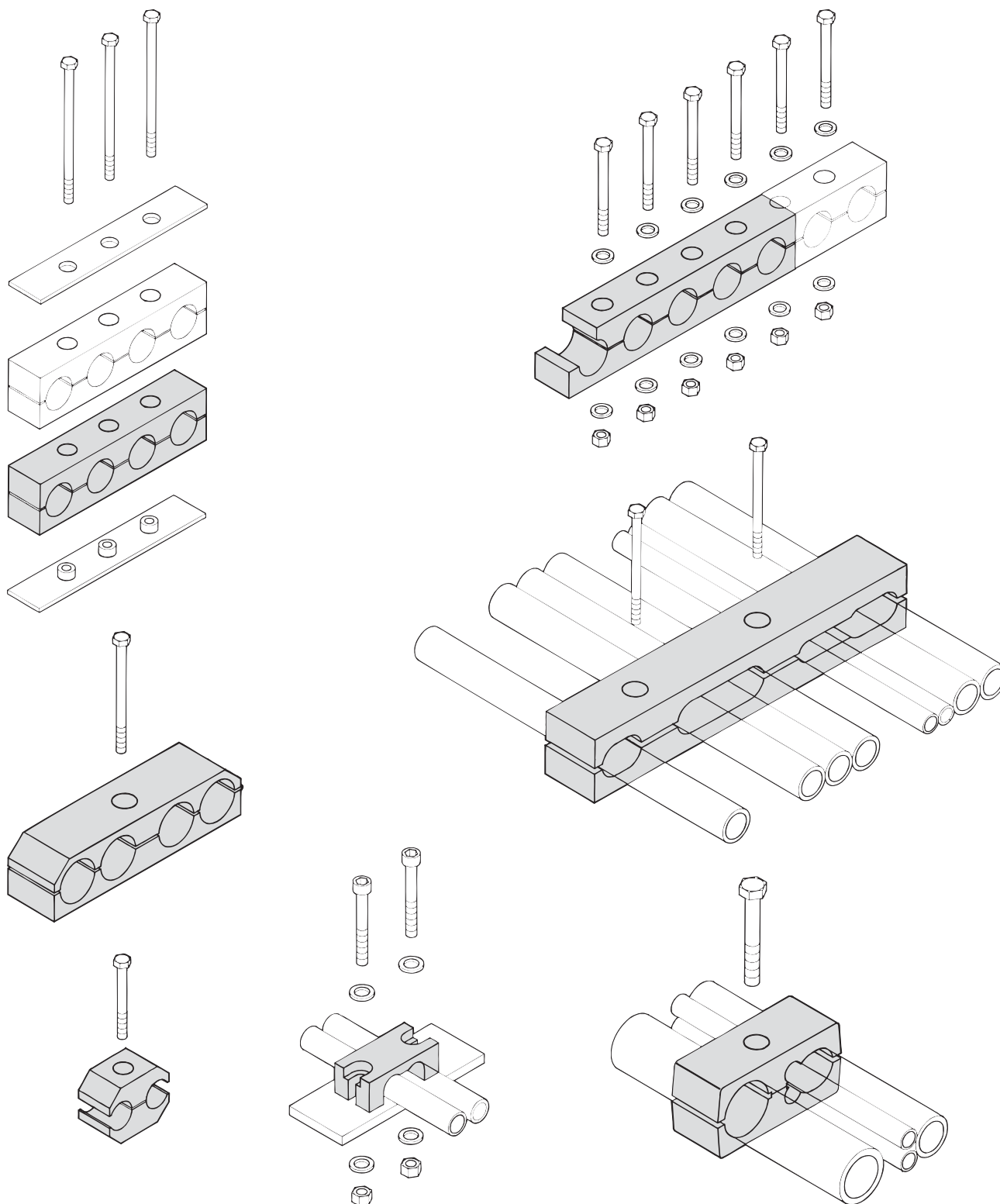
Custom-designed saddle clamps according to customer's specifications or based on STAUFF developments are available on request.

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

MACHINED VERSION

Dimensions and designs acc. to customer's specifications.

Materials: plastics, metals, non-ferrous metals



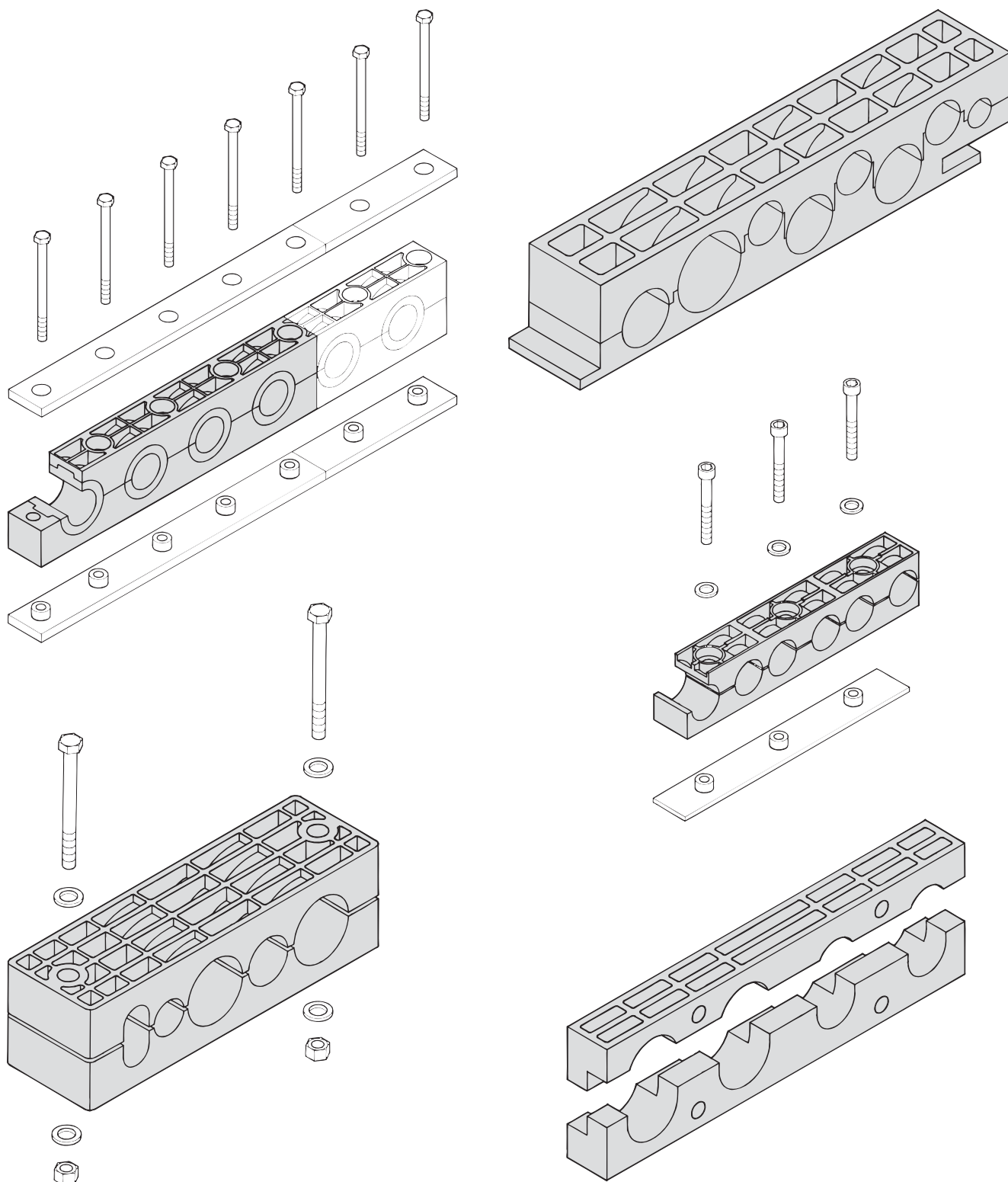
Accessories such as weld plates, cover plates, bolts as well as rubber inserts are available on request.

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

INJECTION MOULDING VERSIONS

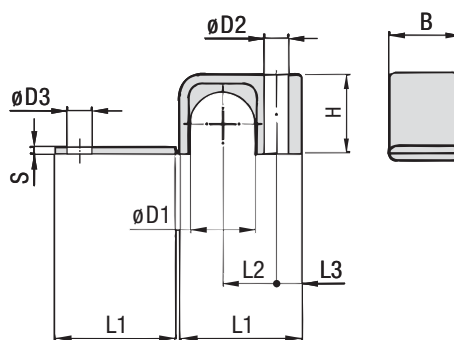
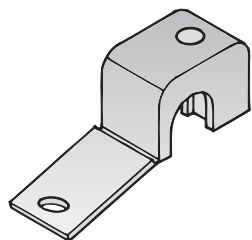
Max. dimensions: Length 650 mm · Height 80 mm · Width 70 mm

Materials: Polypropylene, Polyamide
Other thermoplastics on request.

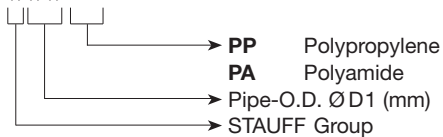


Accessories such as weld plates, cover plates, bolts as well as rubber inserts are available on request.

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

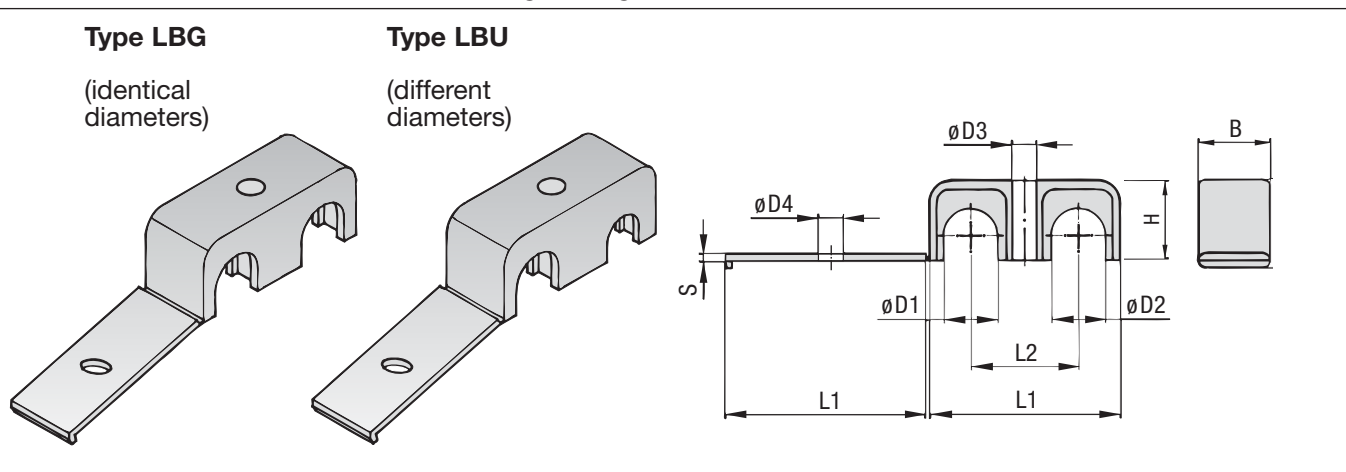
Type LB


STAUFF Group	Outside diameter Tube or Hose Ø D1 mm	inch	Nominal bore Pipe inch	L1	L2	L3	B	H	S	ØD2	ØD3	Clamp Material XX	Colour
1	03,2	1/8		22	9	6,5	12	10,5	2	6,8	7	PP PA	black yellow
	06												
	06,4	1/4											
	08												
2	09,5	3/8		27	11	7	16	15	2	6,8	7	PP PA	black yellow
	10		1/8										
	11,1												
	12												
3	12,7	1/2		34	15	7	20	22,5	2	6,8	7	PP PA	black yellow
	13,5		1/4										
	14												
	15												
	16	5/8											
	17,2		3/8										
4	18			42	19	7	20	30	2	6,8	7	PP PA	black yellow
	19	3/4											
	20												
	21,3		1/2										
	22												
	25												
	25,4	1											

ORDER CODE
LB * xx**


Other thermoplastics and diameters on request.

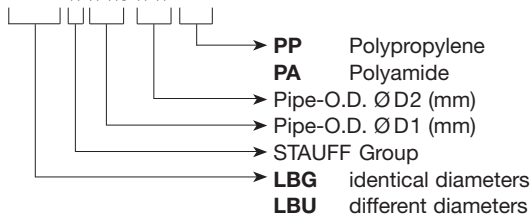
Applications: Pneumatics, Instrumentation and Automotive Technology, Machine Tool Industry, Lubrication, Mechanical Engineering



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

ORDER CODE

LBx */** xx**

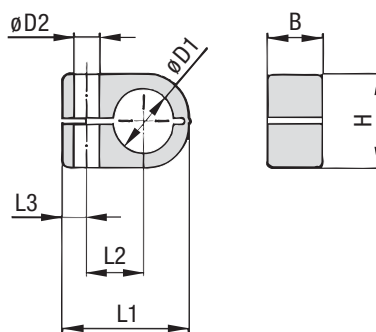
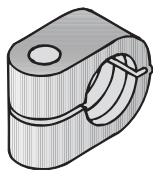


Type

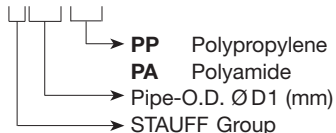
LBG Double pipe clamp for two identical diameters
LBU Double pipe clamp for two different diameters

Other thermoplastics and diameters on request.

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

Type LN


STAUFF Group	Outside diameter Tube or Hose Ø D1 mm	Nominal bore Pipe inch	L1	L2	L3	B	H	ø D2	Clamp Material XX	Colour
1	06									
	06,4	1/4	22	9	7	14,5	13,5	6,8	PP PA	green black
	08									
2	08									
	09,5	3/8								
	10	1/8	27	11	7	14,5	18,5	6,8	PP PA	green black
	12									
	12,7	1/2								
3	10	1/8								
	12									
	12,7	1/2								
	13,5	1/4	33	15	7	14,5	23,5	6,8	PP PA	green black
	14									
	15									
	16	5/8								
4	14									
	15									
	16	5/8								
	17,2	3/8								
	18		40	19	7	14,5	30,5	6,8	PP PA	green black
	19	3/4								
	20									
	21,3	1/2								
	22									

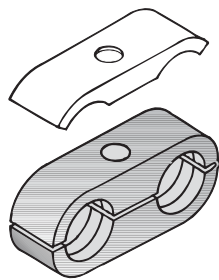
ORDER CODE
LN * xx**


Other thermoplastics and diameters on request.

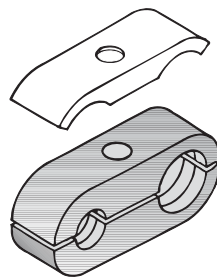
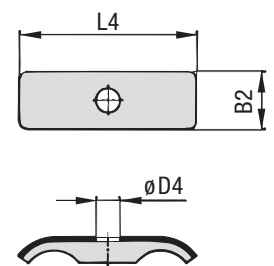
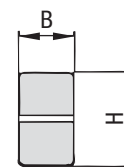
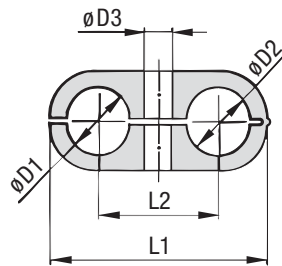
Applications: Pneumatics, Instrumentation and Automotive Technology, Machine Tool Industry, Lubrication, Mechanical Engineering. Also suitable for cables and hoses.

Type LNGF

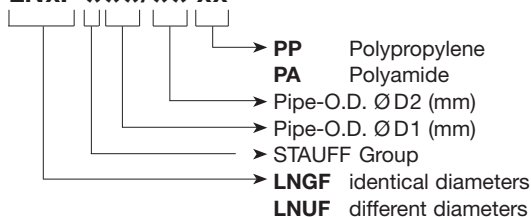
(identical diameters)


Type LNUF

(different diameters)


DPL


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												
	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												
	12/12												
	12,7/12,7	1/2 / 1/2											
	13,5/13,5												
	14/14												
4	15/15		70	38	14,5	30,5	6,8	63,5	16	6,8	PP PA	green black	DPL 4
	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

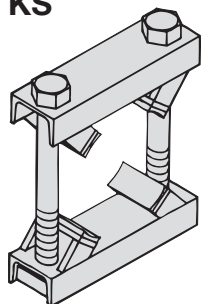
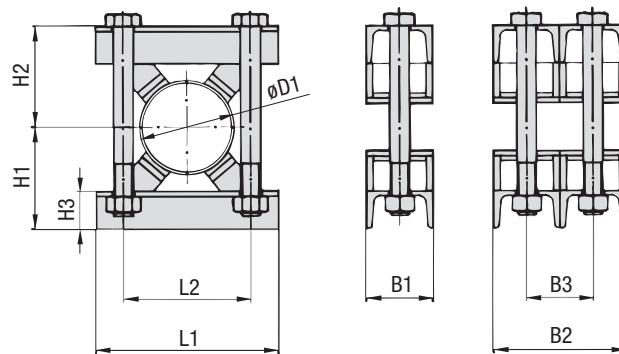
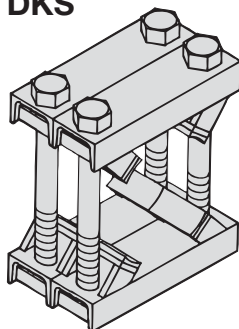
Cover Plate DPL
Steel, zinc/nickel coated

Information

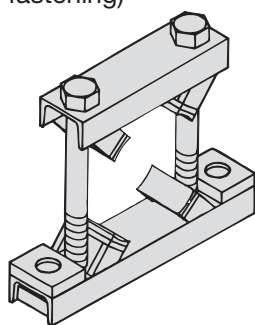
Max. tightening torque: 2,5 Nm

Other thermoplastics and diameters on request.

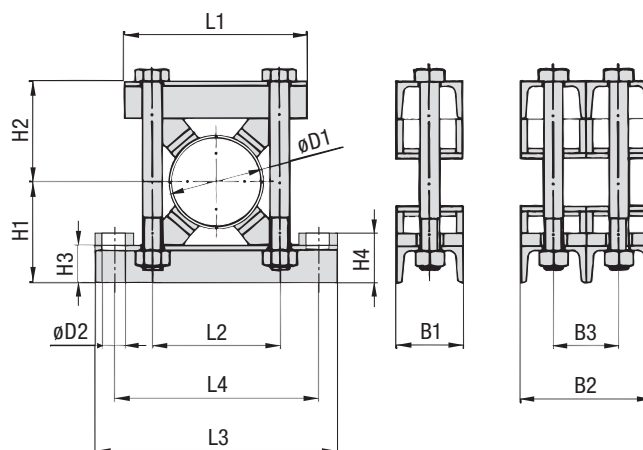
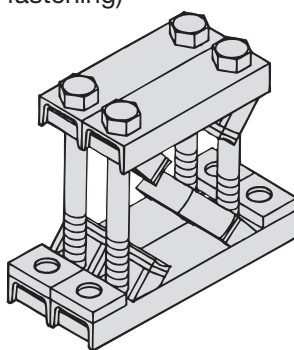
Two-part-weld-construction with plastic pads

KS

DKS

KSV

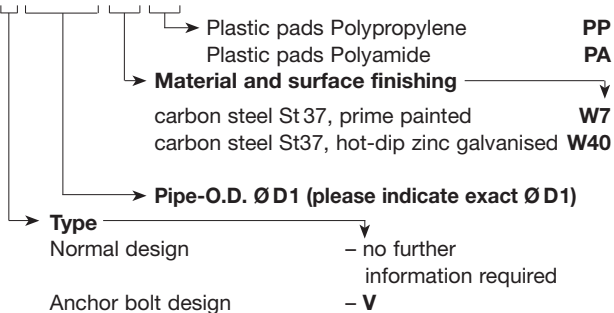
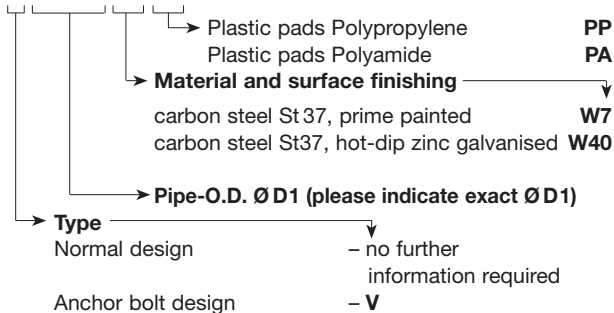
(for anchor bolt fastening)


DKSV

(for anchor bolt fastening)

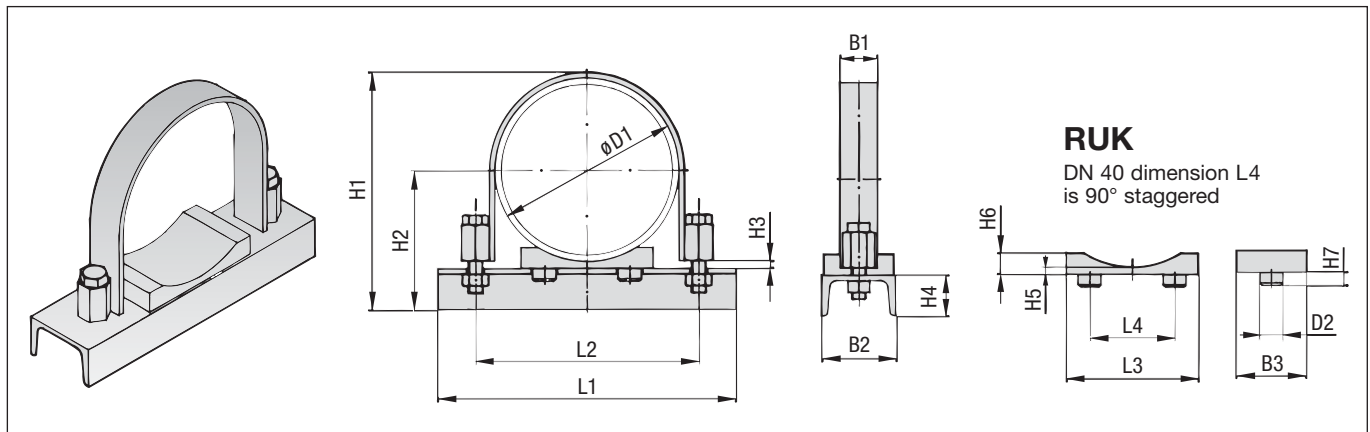


Pipe-O.D. Ø D1 in mm	L1	L2	L3	L4	H1	H2	H3	H4	B1	B2	B3	D2	Hexagon Head Bolt	Number of plastic pads
220 to 275	420	330	580	490	220	220	60	90	140	290	150	35	M30 x 420	4
276 to 325	460	370	620	530	240	240	60	90	140	290	150	35	M30 x 460	4
326 to 370	510	420	670	580	260	260	60	90	140	290	150	35	M30 x 500	4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

ORDER CODES
KSx ** xx xx**

DKSx ** xx xx**


Other materials, surface finishings and diameters on request.

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



DN	Pipe-O.D. ØD1		Flat Steel U-Bolt Clamp FB						U-profile	Plastic Pipe Saddle RUK							Accessories								
	mm	Nominal Bore inch	L1	L2	H1	H2	H3	B1 Flat Steel	B2 x H4	L3	L4	B3	D2	H5	H6	H7	Hexagon Head Bolts								
40	48,3	1 1/2	100	76	95	67	5	20 x 3	DIN 1026 50 x 38	24	25	35	8	5	8	5	M10 x 40								
50	57		115	85	103	71,5				38	25	50	10		10	6									
	60,3	2		88	106	73,2																			
65	76,1	2 1/2	132	104	122	81	8	40 x 4	DIN 1026 80 x 45	75	40	70	15	8	17	10	M12 x 55								
80	88,9	3	160	122	146	97,5																			
100	108		170	140	165	107																			
	114,3	4	180	147	171	110																			
125	133		210	165	190	119,5																			
	139,7	5		172	197	123																			
150	159		265	201	220	132,5		40 x 6		140	90	75	25	8	26	10	M16 x 75								
	168,3	6	275	211	230	137																			
175	193,7		305	236	255	150		40 x 8										220	150	75	30	8	32	10	M20 x 80
200	216		320	260	277	161																			
	219,1	8		261	280	162,5																			
250	267		380	325	328	186,5																			
	273	10	385	330	334	189,5																			
300	318		440	375	384	212		12		60 x 8	DIN 1026 100 x 50	220	150	75	30	8	32								
	323,9	12	450	382	390	215																			
350	355,6	14	480	420	421	236																			
	368		490	430	434	242																			
400	406,4	16	550	470	472	261																			
	419			482	485	267,5																			
	457	18		585	520	523	286,5																		
500	508	20	630	570	574	312																			
	521		640	585	587	319																			

ORDER CODES

FB + RUK complete

FB + RUK/xx *,* W1**

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

Plastic Pipe Saddle

RUK *,* xx**

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

Clamp consisting of: (for FB + RUK only)

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

Material

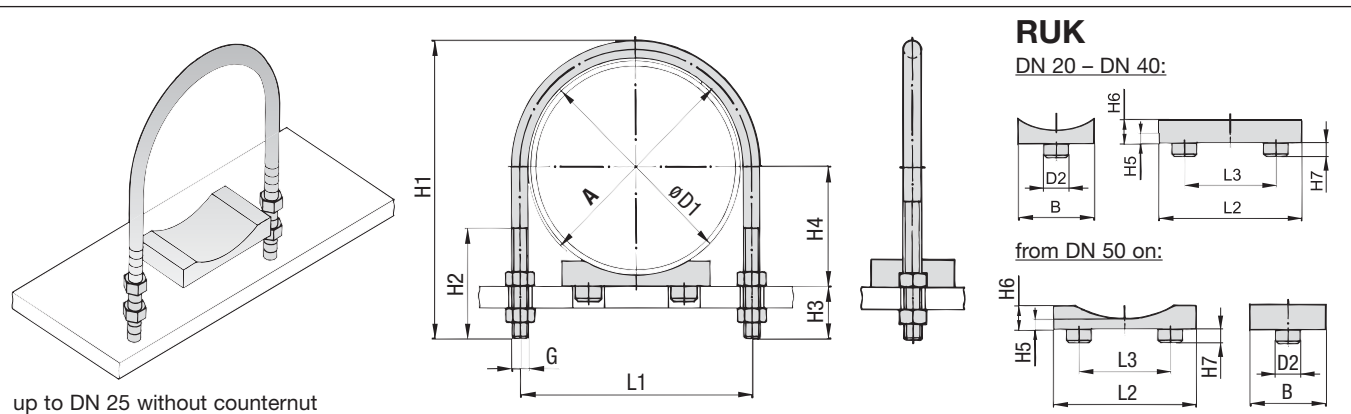
Metal parts: **W1:** carbon steel St 37, untreated

Other materials and surface finishings on request.

Information

Items are supplied non-assembled.

with plastic pipe saddle - short - RUK



up to DN 25 without counternut

DN	Pipe-O.D. ØD1		Round Steel U-Bolt RB							Plastic Pipe Saddle RUK						
	mm	Nominal Bore inch	A	L1	H1	H2	H3	H4	G	L2	L3	B	H5	H6	H7	D2
20	25		30	40	73,5	46	30	17,5	M10	35	25	24	5	8	5	8
	26,9	3/4														
25	30		38	48	81	50	30	20	M10	35	25	24	5	8	5	8
	33,7	1														
32	38		46	56	89	50	30	22	M10	35	25	24	5	8	5	8
	42,4	1 1/4														
40	44,5		52	62	100	55	35	27,2	M10	35	25	24	5	8	5	8
	48,3	1 1/2														
50	57		64	76	118	63	39	33,5	M12	38	25	24	5	8	5	8
	60,3	2														
65	76,1	2 1/2	82	94	135	77	41	52,5	M12	38	25	24	5	8	5	8
80	88,9	3	94	106	152	82	41	52,5	M12	38	25	24	5	8	5	8
100	108		120	136	190	105	49	62	M16	75	40	70	8	17	10	15
	114,3	4														
125	133		148	164	217	105	49	65	M16	75	40	70	8	17	10	15
	139,7	5														
150	159		176	192	247	105	51	87,5	M16	75	40	70	8	17	10	15
	168,3	6														
175	193,7		202	218	273	105	51	105	M16	75	40	70	8	17	10	15
200	216		228	248	311	125	59	116	M20	140	90	75	8	26	10	25
	219,1	8														
250	267		282	302	364	125	59	117,5	M20	140	90	75	8	26	10	25
	273	10														
300	318		332	352	418	125	62	141,5	M20	140	90	75	8	26	10	25
	323,9	12														
350	355,6	14	378	402	475	145	70	167	M24	220	150	75	8	32	30	30
	368															
400	406,4	16	428	452	526	145	70	186	M24	220	150	75	8	32	30	30
	419															
500	508	20	530	554	627	145	70	211	M24	220	150	75	8	32	30	30
	521															

ORDER CODES

RB + RUK complete

RBxx RUK/xx ***,*

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

Material and surface finishing

carbon steel St 37, untreated **W1**
carbon steel St 37, zinc plated (Fe/Zn 8 C) **W3**
stainless steel A4 - 1.4401/1.4571 (AISI 316/316Ti) **W5**
carbon steel St 37, plastic coated **W6**

Round Steel U-Bolt

RBxx A ***,* kompl

→ Dimension A

Material and surface finishing

carbon steel St 37, untreated **W1**
carbon steel St 37, zinc plated (Fe/Zn 8 C) **W3**
stainless steel A4 - 1.4401/1.4571 (AISI 316/316Ti) **W5**
carbon steel St 37, plastic coated **W6**

Plastic Pipe Saddle

RUK ***,* xx

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

Clamp consisting of:

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

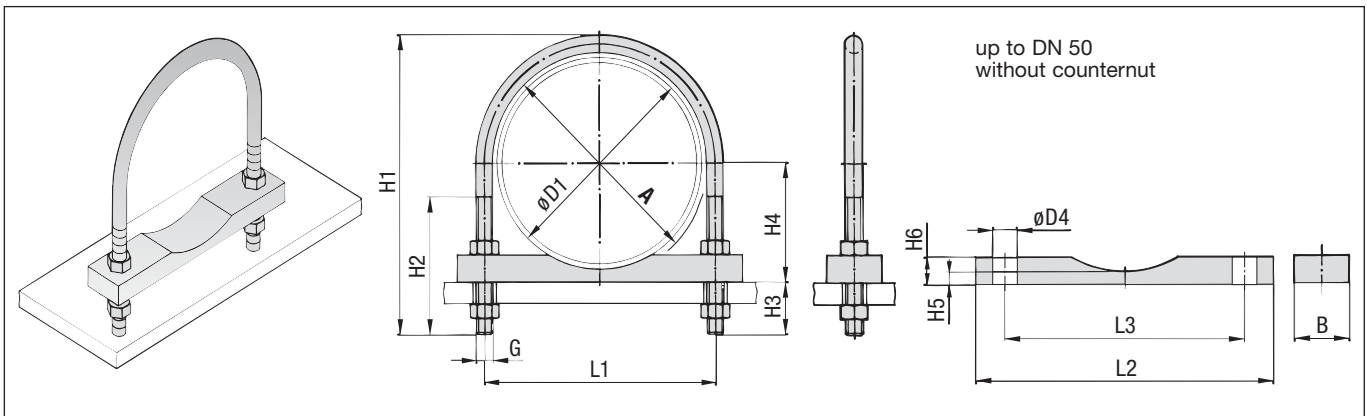
Clamp consisting of:

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

Information

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

with plastic pipe saddle - long - RUL



DN	Pipe-O.D. ØD1		Round Steel U-Bolt RB							Plastic Pipe Saddle RUL					
	mm	Nominal Bore inch	A	L1	H1	H2	H3	H4	G	L2	L3	B	H5	H6	øD4
20	25		30	40	73,5	46	30	17,5	M10	75	40	30	5	12	11
	26,9	¾						18,5							
25	30		38	48	81	50	30	20	M10	80	48	30	5	12	11
	33,7	1						22							
32	38		46	56	89	50	30	24	M10	90	56	30	5	12	11
	42,4	1 ¼						26,2							
40	44,5		52	62	100	55	35	27,2	M12	95	62	35	5	15	14
	48,3	1 ½						29							
50	57		64	76	118	63	39	33,5	M12	110	76	35	5	15	14
	60,3	2						35,2							
65	76,1	2 ½	82	94	135	77	39	43	M12	135	94	40	10	20	18
	88,9	3						54,5							
100	108		120	136	190	105	47	64	M16	190	136	40	10	20	18
	114,3	4						67							
125	133		148	164	217	105	47	76,5	M16	220	164	40	10	20	18
	139,7	5						80							
150	159		176	192	247	105	47	91,5	M16	250	192	40	10	20	18
	168,3	6						96							
175	193,7		202	218	273	105	47	109	M16	270	218	40	10	20	18
	216							120							
200	219,1	8	228	248	311	125	55	121,5	M20	315	248	50	12	25	22
	267							145,5							
250	273	10	282	302	364	125	55	148,5	M20	370	302	50	12	25	22
	318							174							
300	323,9	12	332	352	418	125	55	177	M20	420	352	50	12	25	22
	355,6	14						193							
350	368		378	402	475	125	55	199	M24	480	402	60	15	30	26
	406,4	16						218							
400	419		428	452	526	145	63	224,5	M24	540	452	60	15	30	26
	508							269							
500	521		530	554	627	145	63	276		640	554	60	15	30	26

ORDER CODES

RB + RUL complete

RBxx RUL/xx ***,*

Pipe-O.D. ØD1 (mm)
 PP – Polypropylene
 PA – Polyamide
 Material and surface finishing
 carbon steel St 37, untreated **W1**
 carbon steel St 37, zinc plated (Fe/Zn 8 C) **W3**
 stainless steel A4 - 1.4401/1.4571 **W5**
 (AISI 316/316Ti)
 carbon steel St 37, plastic coated **W6**

Clamp consisting of:

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

Round Steel U-Bolt

RBxx A *** kompl

Dimension A
 Material and surface finishing
 carbon steel St 37, untreated **W1**
 carbon steel St 37, zinc plated (Fe/Zn 8 C) **W3**
 stainless steel A4 - 1.4401/1.4571 **W5**
 (AISI 316/316Ti)
 carbon steel St 37, plastic coated **W6**

Clamp consisting of:

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

Plastic Pipe Saddle

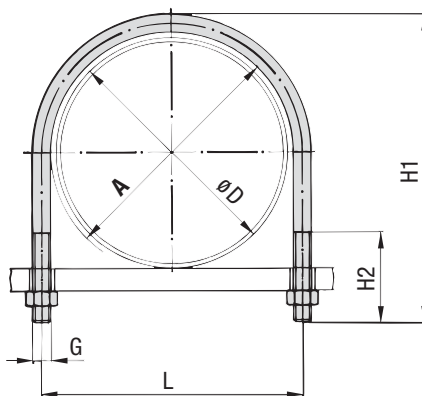
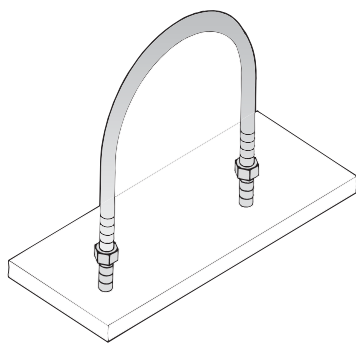
RUL ***,* xx

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

Information

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

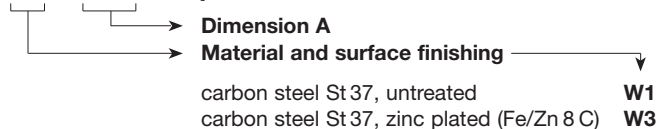
according to **DIN 3570, Type A**



DN	Pipe-O.D. Ø D		Round Steel U-Bolt RBD					
	mm	Nominal Bore inch	A	L	H1	H2	G	
20	25		30	40	70	40	M10	
	26,9	³ / ₄						
25	30		38	48	76			50
	33,7	1						
32	38		46	56	86	M12		
	42,4	1 ¹ / ₄						
40	44,5		52	62	92		60	
	48,3	1 ¹ / ₂						
50	57		64	76	109			70
	60,3	2						
65	76,1	2 ¹ / ₂	82	94	125	M16		
80	88,9	3	94	106	138			
100	108		120	136	171		M20	
	114,3	4						
125	133		148	164	191			M24
	139,7	5						
150	159		176	192	217	70		
	168,3	6						
175	193,7		202	218	249		M20	
200	216		228	248	283			
	219,1	8						
250	267		282	302	334			70
	273	10						
300	318		332	352	385	M20		
	323,9	12						
350	355,6	14	378	402	435		M24	
	368							
400	406,4	16	428	452	487			M24
	419							
500	508		530	554	589	M24		
	521							

ORDER CODE

RBDxx A * kompl**



Clamp consisting of:

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

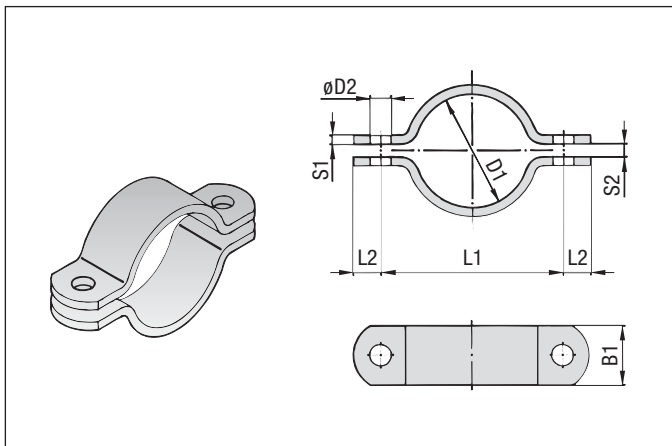
Information

Items are supplied non-assembled.

Other materials and surface finishings on request.

METAL PIPE CLAMPS

according to **DIN 3567, Type A**



STAUFF Group D1	Nominal Size		L1	L2	S1	S2	D2	B1	Accessories Hexagon Head Bolts Hexagon Nuts
	mm	Pipe inch							
20	15		57	15	5	7	11,5	30	M10 x 30 M10
22			59						
25	20	3/4	62						
27			66						
30	25	1	68						
34			72						
38	32	1 1/4	76						
43			82						
45	40	1 1/2	84						
49			88						
57	50	2	104	18	6	9	14	40	M12 x 35 M12
61			108						
77	65	2 1/2	122						
89	80	3	136						
108	100	4	172	24	8	11	18	50	M16 x 45 M16
115			178						
133	125		196						
140			204						
159	150		222						
169			232						
194	175		258						
216	200		280						
220			284						
267	250		342	30	8	14	23	60	M20 x 50 M20
273			348						
318	300		392						
324			398						
368	350		444						
407	400		498	36	10	18	27	70	M24 x 60 M24
419			510						
521	500		614						

ORDER CODE

DIN 3567 A-***

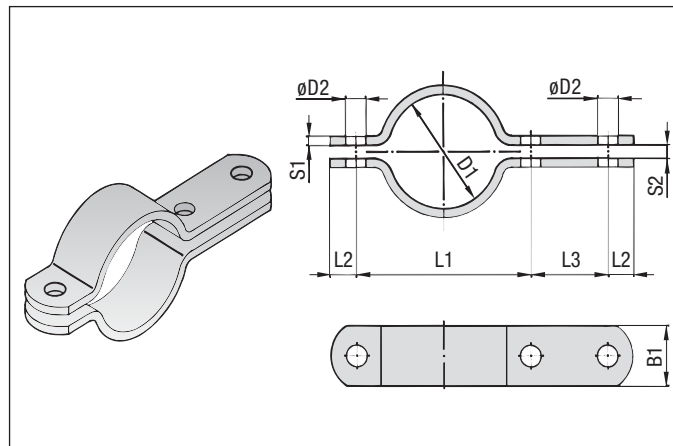
→ STAUFF Group D1

MATERIAL AND SURFACE FINISHING

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

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

according to **DIN 3567, Type B**



STAUFF Group D1	Nominal Size		L1	L2	L3	S1	S2	D2	B1	Accessories Hexagon Head Bolts Hexagon Nuts
	mm	Pipe inch								
20	15		57	15	46	5	7	11,5	30	M10 x 30 M10
22			59							
25	20	3/4	62							
27			66							
30	25	1	68							
34			72							
38	32	1 1/4	76							
43			82							
45	40	1 1/2	84							
49			88							
57	50	2	104	18	54	6	9	14	40	M12 x 35 M12
61			108							
77	65	2 1/2	122							
89	80	3	136							
108	100	4	172	24	70	8	11	18	50	M16 x 45 M16
115			178							
133	125		196							
140			204							
159	150		222							
169			232							
194	175		258							
216	200		280							
220			284							
267	250		342	30	86	8	14	23	60	M20 x 50 M20
273			348							
318	300		392							
324			398							
368	350		444							
407	400		498	36	104	10	18	27	70	M24 x 60 M24
419			510							
521	500		614							

ORDER CODE

DIN 3567 B-***

→ STAUFF Group D1

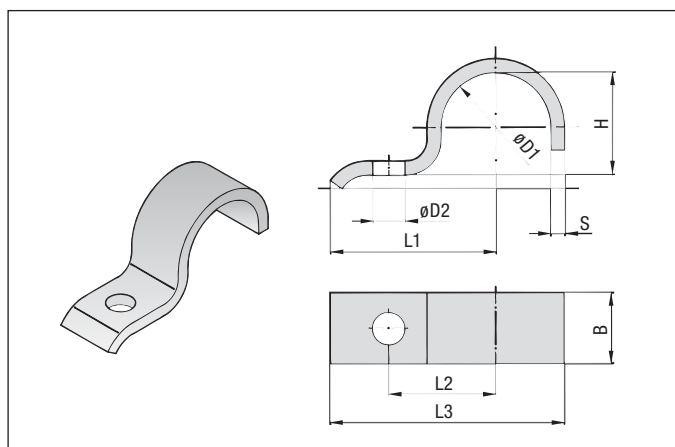
MATERIAL AND SURFACE FINISHING

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

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

HEAVY SADDLES

according to **DIN 1592**



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

* similar to DIN 1592

ORDER CODE

DIN 1592-***

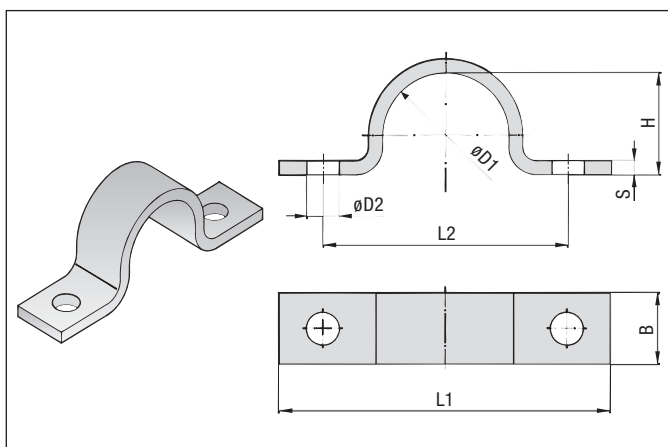


MATERIAL AND SURFACE FINISHING

STAUFF Group 7 – 49 **W66** carbon steel St 37, zinc plated, thick film passivated
 STAUFF Group 52 – 61 **W1** carbon steel St37, untreated (Surface finishing on request only)

Other materials, surface finishings and diameters on request.

according to **DIN 1593**



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

ORDER CODE

DIN 1593-***



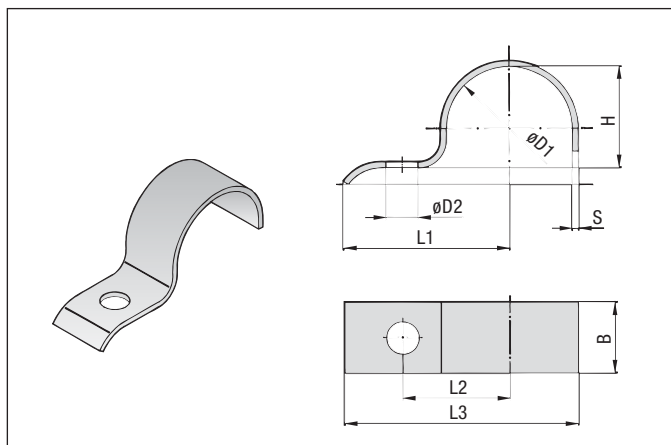
MATERIAL AND SURFACE FINISHING

STAUFF Group 7 – 77 **W66** carbon steel St 37, zinc plated, thick film passivated
 STAUFF Group 81 – 115 **W1** carbon steel St37, untreated (Surface finishing on request only)

Other materials, surface finishings and diameters on request.

LIGHT SADDLES

according to **DIN 1596**



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

* similar to DIN 1596

ORDER CODE

DIN 1596 - ***

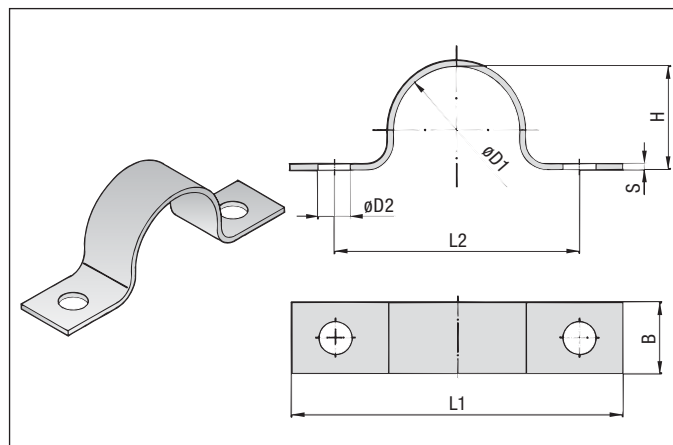
→ STAUFF
Group ØD1

MATERIAL AND SURFACE FINISHING

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

Other materials, surface finishings and diameters on request.

according to **DIN 1597**



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

* similar to DIN 1597

ORDER CODE

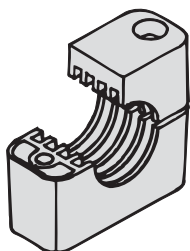
DIN 1597 - ***

→ STAUFF
Group ØD1

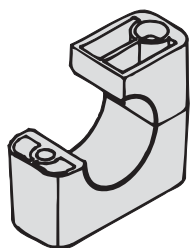
MATERIAL AND SURFACE FINISHING

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

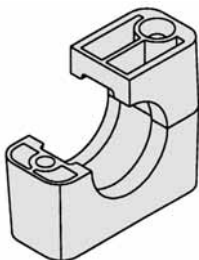
Other materials, surface finishings and diameters on request.

Design of Clamp Bodies
STANDARD SERIES


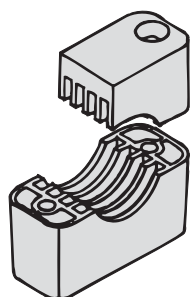
Standard design
– profiled inside –



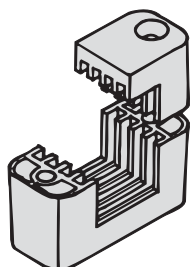
H-design
– smooth inside –
(recommended for hoses)



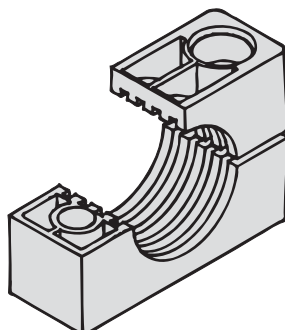
RI-design
for rubber inserts



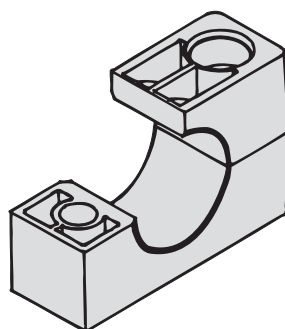
Oval design



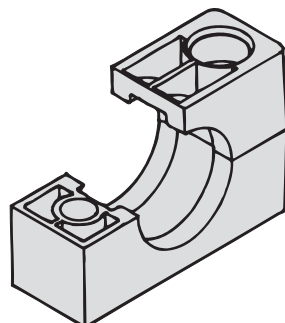
Rectangular design

HEAVY SERIES


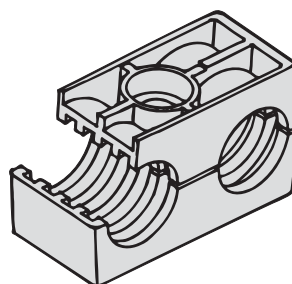
Standard design
– profiled inside –



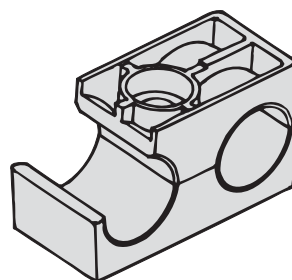
H-design
– smooth inside –
(recommended for hoses)



RI-design
for rubber inserts

TWIN SERIES


Standard design
– profiled inside –



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

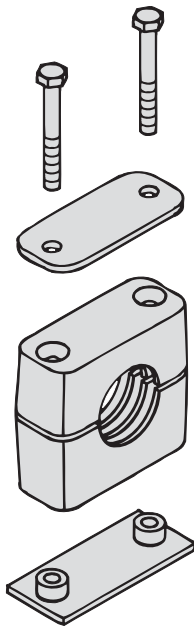
Installation Information
**INSTALLATION ON
WELD PLATES**

STAUFF weld plates are available for the following Series:

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

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

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


**INSTALLATION ON
MOUNTING RAILS**

STAUFF mounting rails can be used with the following Series:

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

STAUFF mounting rails are available in four different height sizes.

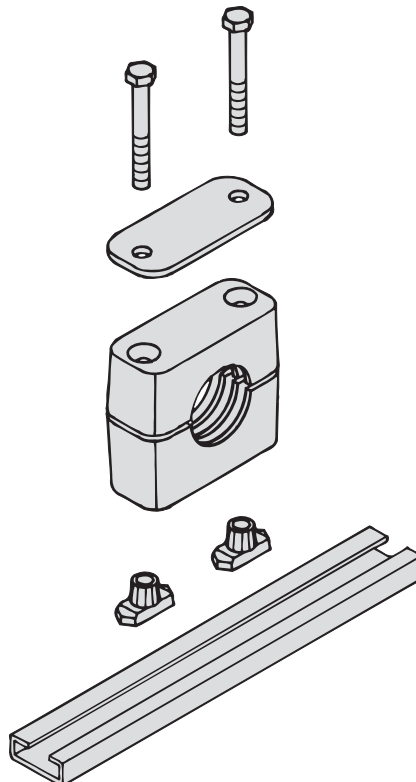
The rails are either welded or bolted to the supporting construction.

For Standard and Twin Series insert hexagon rail nut and turn to lock.

For Heavy Series slide in rail nut.

Push on bottom half of clamp, install pipe, mount top half of clamp and cover plate and bolt unit together.

Clamp units can be adjusted before being firmly bolted.


MULTI-LEVEL ASSEMBLY

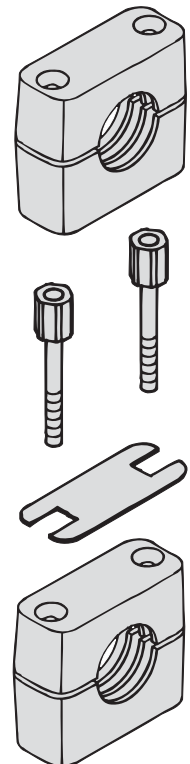
STAUFF multi-level pipe clamps permit easy stacking of several tubes or pipes of the same group.

(Twin Clamps group 2 – 5 allow stacking of different group sizes.)

The clamps are connected by stacking bolts (AF).

Safety plates (SIG/SIP/SI) inserted between the clamps prevent stacking bolts from turning.

STAUFF stacking assembly can be fitted to weld plates or to rails.



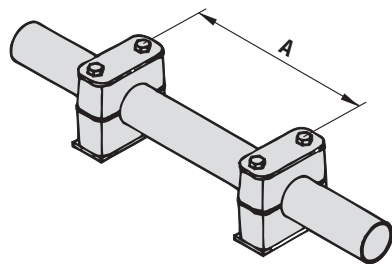
Standard Materials: Properties and Technical Information

CLAMP BODIES				
MATERIAL	PP	PA	AL	SA
	POLYPROPYLENE Copolymeric	POLYAMIDE * ¹	ALUMINIUM AlSi12	THERMOPLASTIC ELASTOMER
COLOUR	 GREEN	 BLACK	 NATURAL	 BLACK
MECHANICAL PROPERTIES				
Tensile E-Module	1073 N/mm ² (ISO 527)	> 1400 N/mm ² (ISO 527)	> 65000 N/mm ²	113 N/mm ² at 23°C (ASTM D 412)
Notch Impact Strength	7,5 kJ/m ² at 23°C (acc. to Charpy / ISO 179/1eA)	> 15 kJ/m ² at 23°C (acc. to Charpy / ISO 179/1eA)	---	---
Low Temperature Notch Impact Strength	3,1 kJ/m ² at -30°C (acc. to Charpy / ISO 179/1eA)	> 3 kJ/m ² at -30°C (acc. to Charpy / ISO 179/1eA)	---	---
Tensile Strength at Yield (Tensile Strength)	25 N/mm ² (ISO 527)	> 55 N/mm ² (ISO 527)	> 150 N/mm ² (DIN EN 10002)	15,9 N/mm ² (ASTM D 412)
Ball Indentation Hardness (Brinell Hardness)	45,4 N/mm ² (ISO 2039-1)	> 65 N/mm ² (ISO 2039-1)	> 55 HBS	---
Shore Hardness	---	---	---	87A (ISO 868)
THERMAL PROPERTIES				
Recommended Temperature Range (Minimum / Maximum)	-30°C ... +90°C	-40°C ... +120°C	up to 300°C * ²	-40°C ... +125°C
CHEMICAL PROPERTIES				
Weak Acids, Solvents	conditionally consistent	conditionally consistent	conditionally consistent	consistent
Benzine, Mineral Oils	conditionally consistent	consistent	consistent	conditionally consistent
Alcohol, Other Oils, Seawater	consistent	consistent	consistent	consistent
NOTES				
*¹ The stated information has been defined for conditions according to ISO 1110. *² Tensile strengths, fatigue strength (under reversed bending stress) and impact bending toughness rise constantly at decreasing temperature level, the breaking elongation normally decreases at a decreasing temperature level. The above stated information is shown without any obligation and does not release you from own test arrangements. Tightening Torques and Maximum Loads need to be considered (see page 55).				
METAL PARTS				
Unless otherwise stated, all metal parts are made of carbon steel St37, surface finishing according to order code. Surface Finishings In addition to the standard surface finishings stated (if zinc/nickel coated usually Fe/Zn Ni (12...16) 4/A/T2 according to DIN 50962, if phosphated usually Fe/Znph r 10 according to DIN EN 12476) several alternative finishings are also available on request. Stainless Steel Metal Parts All metal parts are also available ex stock in two different stainless steel qualities: Stainless Steel A2 - 1.4301/1.4305 (AISI 304) Stainless Steel A4 - 1.4401/1.4571 (AISI 316/316Ti) Threads All threaded parts are available with UNC-threads on request (see thread-chart on page 54).				

Special Materials: Properties and Technical Information

CLAMP BODIES				
PAVO	PA-FF	PPDA	PP6853	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				
PREVENTIVE FIRE PROTECTION Tested and approved according to UL94 ("Vertical Burning Test") - classification: 94V-0 (thickness: 0,4mm) Tested and approved according to DIN 5510, Part 2 - combustibility classification: S3 - smoke development classification: SR2 - dripping classification: ST2 Tested and approved according to NF F 16-101 - classification: I3 / F2	PREVENTIVE FIRE PROTECTION Tested and approved according to DIN 5510, Part 2 - combustibility classification: S4 - smoke development classification: SR2 - dripping classification: ST2	PREVENTIVE FIRE PROTECTION Tested and approved according to Def Stan 07-247 - assessment: category B Approved by the UK MoD	PREVENTIVE FIRE PROTECTION Tested and approved according to BS 6853 - assessment: category 1a Compliant with the requirements of London Underground / Metronet (standard 2-01001-002: "Fire Safety Performance of Materials") Tested and approved according to DIN 5510, Part 2 - combustibility classification: S3 - smoke development classification: SR2 - dripping classification: ST2 Tested and approved according to Def Stan 07-247 - assessment: category B	CORROSION PREVENTION Salt spray cabinet trials according to ISO 9227 / ASTM B117 and also internal 5 cycles S02 studies - 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
NOTES *1 The stated information has been defined for conditions according to ISO 1110.				

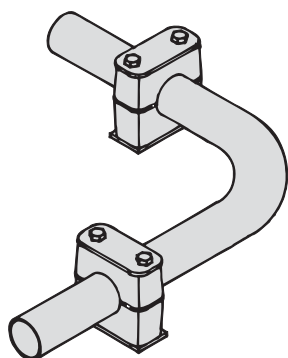
RECOMMENDED DISTANCE BETWEEN CLAMPS



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	$\frac{1}{4}$ – 20 UNC
1A		
2		
3		
4		
5		
6		
7		
8		

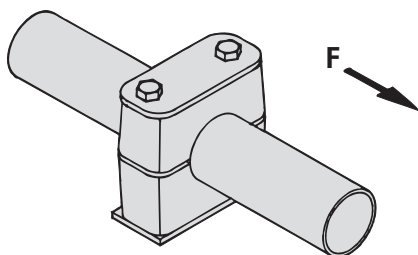
HEAVY SERIES

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

TWIN SERIES

STAUFF Group	Metric Thread	UNC Thread
1D	M 6	$\frac{1}{4}$ – 20 UNC
2D	M 8	$\frac{5}{16}$ – 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

General Information / Terms of Liability

The outlined particulars are approximate values and are only valid as references, which are not binding, also with regard to possible protection of third parties, and they do not exempt you from your own examination of suitability of the products delivered by us. Therefore, these values can only be used in a limited sense for construction purposes. The application of the products is carried out outside our control possibilities and, therefore, is exclusively subject to your own area of responsibility. If, however, liability should be possible, it would be limited for all damages to the value of the goods supplied by us and in use by you. It goes without saying, that we guarantee the perfect quality of our products according to our general sales and delivery conditions.

**Because of technical advances, dimensions subject to change without notification.
This catalog supersedes all previous catalogues.**



STAUFF CLAMPS

Clamping systems for pipes, hoses, cables and components; custom-made special clamps



STAUFF TEST

Measuring systems for pressure monitoring of fluid and gaseous media; venting and sampling of fluid and gaseous pressure systems



STAUFF FILTRATION TECHNOLOGY

Filter systems for the basic equipment of mobile and industrial hydraulic applications; wide range of replacement filter elements



STAUFF DIAGTRONICS

Components and services for the monitoring and analysis of hydraulic fluids for the mobile and industrial hydraulic sectors



STAUFF HYDRAULIC ACCESSORIES

Components for the construction of hydraulic reservoirs and power units for the mobile and industrial hydraulic sectors



STAUFF FLANGES

Split flange clamps, one-piece flange clamps and flange adaptors acc. to ISO 6162-1/2 and SAE J518; square flanges and flange adaptors acc. to ISO 6164 and CETOP RP 63 H; pump flanges



STAUFF MACHINED PARTS

Precision parts machined from stainless steel, carbon steel, non-ferrous metals and thermoplastics for all fields of industry

Walter Stauffenberg GmbH & Co. KG

P.O.Box 1745 • D-58777 Werdohl
Im Ehrenfeld 4 • D-58791 Werdohl
Tel. +49 2392 916-0
Fax +49 2392 2505
E-Mail: sales@stauff.com
Internet: www.stauff.com

STAUFF