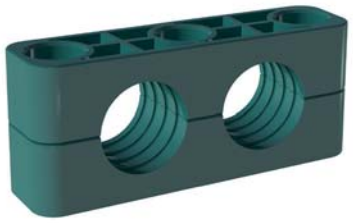
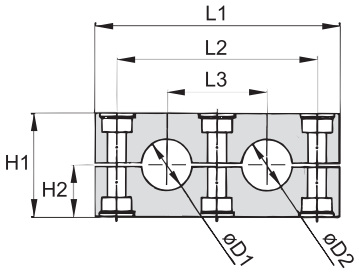
Clamp Body ▪ Profiled Design

Profiled Inside Surface with Tension Clearance





Order Codes

Clamp Body ***4*012,7/12,7*PP**

One clamp body is consisting of two clamp halves.

* 1st part of STAUFF Group	**4**
* Exact outside diameters Ø D1 / Ø D2 (mm)	**012,7/12,7**
* Material code (see below)	**PP**

Standard Materials

Polypropylene
Colour: Green
Material code: **PP**

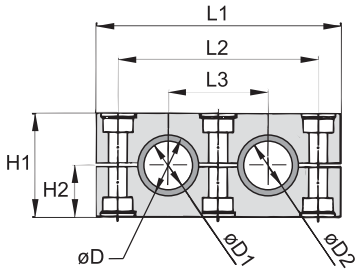
Polyamide
Colour: Black
Material code: **PA**

See page A88 for material properties and technical information.

Group	Outside Diameter Pipe / Tube Ø D1 / Ø D2		Nominal Bore		Order Codes (2 Clamp Halves)	Dimensions (mm/in)					
			Pipe	Copper Tube							
STAUFF	(mm)	(in)	(in)	(in)	(✱✱ = Material)	L1	L2	L3	H1	H2	Width
4S-D	12,7	1/2		3/8	**4012,7/12,7 ✱✱**	115 4.53	90 3.54	45 1.77	48 1.89	24 0.94	30 1.18
	19	3/4			**4019/19 ✱✱**						
	20				**4020/20 ✱✱**						
	21,3		1/2		**4021,3/21,3 ✱✱**						
	22			3/4	**4022/22 ✱✱**						
	25,4	1			**4025,4/25,4 ✱✱**						
	26,9		3/4		**4026,9/26,9 ✱✱**						
5S-D	32	1-1/4			**5032/32 ✱✱**	145 5.71	120 4.72	60 2.36	60 2.36	30 1.18	30 1.18
	33,7		1		**5033,7/33,7 ✱✱**						
	38	1-1/2			**5038/38 ✱✱**						
	42		1-1/4		**5042/42 ✱✱**						

Additional outside diameters and Clamp Bodies, type H (smooth inside surface without tension clearance) are available upon request. Please consult STAUFF for further information.

Clamp Body with Rubber Inserts Type RI



For use with Rubber Inserts of the Heavy Series, STAUFF Group 4S and 5S (see page A29 for details)

Order Codes

Clamp Assembly ***4*006/06*PPR**

One assembly is consisting of one clamp body and two inserts.

* 1st part of STAUFF Group	**4**
* Exact outside diameters Ø D1 / Ø D2 (mm)	**006/06**
* Material code (see below)	**PPR**

Standard Materials

Polypropylene
Colour: Black
Material code: **PPR**

Polyamide
Colour: Black
Material code: **PAR**

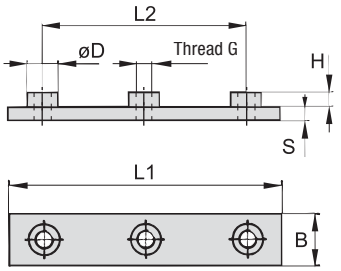
Rubber Inserts
Thermoplastic Elastomer
(73 Shore-A)
Colour: Black

See page A88 for properties and technical information.

Group	Outside Diameter Pipe / Tube / Hose Ø D1 / Ø D2		Order Codes (Clamp Assembly)	Dimensions (mm/in)						
STAUFF	(mm)	(in)	(✱✱R = Material)	Ø D	L1	L2	L3	H1	H2	Width
4S-D	6		**4006/06 ✱✱R**	25 .98	115 4.53	90 3.54	45 1.77	48 1.89	24 0.94	30 1.18
	8	5/16	**4008/08 ✱✱R**							
	10		**4010/10 ✱✱R**							
	12		**4012/12 ✱✱R**							
	12,7	1/2	**4012,7/12,7 ✱✱R**							
	14		**4014/14 ✱✱R**							
	15		**4015/15 ✱✱R**							
	16	5/8	**4016/16 ✱✱R**							
	17,2		**4017,2/17,2 ✱✱R**							
	18		**4018/18 ✱✱R**							
	19	3/4	**4019/19 ✱✱R**							
5S-D	20		**5020/20 ✱✱R**	38 1.50	145 5.71	120 4.72	60 2.36	60 2.36	30 1.18	30 1.18
	21,3		**5021,3/21,3 ✱✱R**							
	22	7/8	**5022/22 ✱✱R**							
	25		**5025/25 ✱✱R**							
	26,9		**5026,9/26,9 ✱✱R**							
	28		**5028/28 ✱✱R**							
	30		**5030/30 ✱✱R**							
	32	1-1/4	**5032/32 ✱✱R**							

Additional outside diameters are available upon request. Please consult STAUFF for further information.

Weld Plate Type SPAD



Group STAUFF	Dimensions (mm/in) L1	L2	B	S	H	Thread G	ØD	Order Codes (Standard Options)
4S-D	130	90	30	8	8,5	M10	18	SPAD 4S M W2*
	5.12	3.54	1.18	.31	.33	3/8–16 UNC	.71	SPAD 4S U W2
5S-D	160	120	30	8	8,5	M10	18	SPAD 5S M W2*
	6.30	4.72	1.18	.31	.33	3/8–16 UNC	.71	SPAD 5S U W2

All threaded parts are available with Metric ISO thread or unified Coarse (UNC) thread according to dimension table. Alternative materials and surface finishings are available upon request. Consult STAUFF for further information.

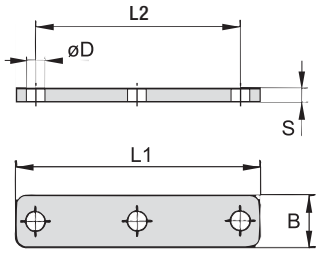
* Standard finishing option for markets outside North America is W1 (Carbon Steel, untreated).

Order Codes

Weld Plate ***SPAD*4S*U*W2**

* Weld Plate		SPAD
* STAUFF Group	4S-D	4S
	5S-D	5S
* Thread code	Unified coarse (UNC) thread	U
	Metric ISO thread	M
* Material code	Carbon Steel, untreated	W1
	Carbon Steel, phosphated	W2
	Carbon Steel, zinc/nickel-plated	W3
	Stainless Steel V2A 1.4301 / 1.4305 (AISI 304 / 303)	W4
	Stainless Steel V4A 1.4401 / 1.4571 (AISI 316 / 316 Ti)	W5

Cover Plate Type DPAD



Group STAUFF	Dimensions (mm/in) L1	L2	B	S	ØD	Order Codes (Standard Options)
4S	115	90	30	8	11	DPAD 4S W3*
	4.53	3.54	1.18	.31	.43	
5S	145	120	30	8	11	DPAD 5S W3*
	5.71	4.72	1.18	.31	.43	

All threaded parts are available with Metric ISO thread or unified Coarse (UNC) thread according to dimension table. Alternative materials and surface finishings are available upon request. Consult STAUFF for further information.

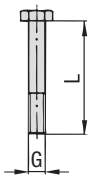
* Standard finishing option for markets outside North America is W1 (Carbon Steel, untreated).

Order Codes

Cover Plate ***DPAD*4S*W3**

* Cover Plate		DPAD
* STAUFF Group	4S-D	4S
	5S-D	5S
* Material code	Carbon Steel, untreated	W1
	Carbon Steel, phosphated	W2
	Carbon Steel, zinc/nickel-plated	W3
	Stainless Steel V2A 1.4301 / 1.4305 (AISI 304 / 303)	W4
	Stainless Steel V4A 1.4401 / 1.4571 (AISI 316 / 316 Ti)	W5

Hexagon Head Bolt
Type AS



Hexagon Head Bolt AS
(according to DIN 931 / 933 or ANSI / ASME B18.2.1.)
Dimensions applicable only when used with Cover Plate DPAD

Order Codes

Hexagon Head Bolt ***AS*4S*U*W3**

* Type of bolt	Hexagon Head Bolt (according to DIN 931 / 933 or ANSI / ASME B18.2.1.)	**AS**
* STAUFF Group	4S-D	**4S**
	5S-D	**5S**
* Thread code	Unified coarse (UNC) thread	**U**
	Metric ISO thread	**M**
* Material code	Carbon Steel, untreated	**W1**
	Carbon Steel, zinc/nickel-plated	**W3**
	Stainless Steel V2A 1.4301 / 1.4305 (AISI 304 / 303)	**W4**
	Stainless Steel V4A 1.4401 / 1.4571 (AISI 316 / 316 Ti)	**W5**

Group STAUFF	DIN	Dimensions (mm/in) Thread G x L	Order Codes (Standard Options)
4S	2	M10 x 60	AS 4S M W3*
		3/8–16 UNC x 2-1/4	AS 4S U W3
5S	3	M10 x 70	AS 5S M W3*
		3/8–16 UNC x 2-3/4	AS 5S U W3

All threaded parts are available with Metric ISO thread or unified coarse (UNC) thread according to dimension table. Alternative materials and surface finishings are available upon request. Consult STAUFF for further information.

If required, use Safety Washers, type SI as locking devices to prevent Hexagon Head Bolts, type AS from loosening. See page A36 for details.

* Standard finishing option for markets outside North America is W1 (Carbon Steel, untreated).

Further Metal Hardware

For Use with the Heavy Twin Series

Mounting Rail Nut Type GMV

Heavy Series, STAUFF Group 4S and 5S
(See page A32 for details)

Mounting Rail Type STSV

Heavy Series
(See page A32 for details)

Channel Rail Adaptor Type CRA

Heavy Series, STAUFF Group 4S and 5S
(See page A33 for details)

Socket Cap Screw Type IS

Heavy Series, STAUFF Group 4S and 5S
(See page A35 for details)

Safety Locking Plate Type SIPD

Heavy Twin Series, STAUFF Group 4S-D and 5S-D
(Consult STAUFF for details)

Stacking Bolt Type AF

Heavy Series, STAUFF Group 4S and 5S
(See page A36 for details)

SPAD	4012,7/12,7	PP	DPAD-AS	U	W10	#K
①	②	③	④	⑤	⑥	⑦

① Type of Installation

Please select the type of installation (e.g. Weld Plates, Rail Nuts, etc.) and add the corresponding Code to position ① of the order code for your clamp assembly.

Without Installation Equipment
Code: **none**

Installation on Weld Plate

Single Weld Plate
Code: **SPAD**

Installation on Mounting / Channel Rail

Mounting Rail Nut
Code: **GMV**

Channel Rail Adaptor
Code: **CRA**

② Group Size & Diameters

Please select the required group size and diameter and add the corresponding Code to position ② of the crder code for your clamp assembly.

Group STAUFF	Outside Diameter P / T / H (mm)	Availability of Clamp Body Materials & Designs Profiled Design	Type RI	Code
4S-D	6	○	●	4006/06
	8	○	●	4008/08
	10	○	●	4010/10
	12	○	●	4012/12
	12,7	●	●	4012,7/12,7
	14	○	●	4014/14
	15	○	●	4015/15
	16	○	●	4016/16
	17,2	○	●	4017,2/17,2
	18	○	●	4018/18
	19	●	●	4019/19
	20	●	○	4020/20
	21,3	●	○	4021,3/21,3
	22	●	○	4022/22
	25,4	●	○	4025,4/25,4
	26,9	●	○	4026,9/26,9
5S-D	20	○	●	5020/20
	21,3	○	●	5021,3/21,3
	22	○	●	5022/22
	25	○	●	5025/25
	26,9	○	●	5026,9/26,9
	28	○	●	5028/28
	30	○	●	5030/30
	32	●	●	5032/32
	33,7	●	○	5033,7/33,7
	38	●	○	5038/38
	42	●	○	5042/42

● Standard Option

Additional outside diameters and combinations of different outside diameters are available upon request. Please consult STAUFF for further information.

③ Clamp Body Design & Material

Please select the design and material of your clamp body and add the corresponding Code to position ③ of the order code for your clamp assembly.

Please check the availability of the selected clamp body design and material according to the matrix table in ②.

Profiled Design

Polypropylene
Code: **PP**

Polyamide
Code: **PA**

Type RI (with Rubber Insert)

Polypropylene
Code: **PPR**

Polyamide
Code: **PAR**

Clamp Bodies, Type H (smooth Inside surface without tension clearance) are available upon request.
Please consult STAUFF for further information.

④ Mounting & Fitting Combination

Please select the mounting and fitting combination (e.g. Bolts, Cover Plates, etc.) and add the corresponding Code to position ④ of the order code for your clamp assembly.

Installation with Cover Plate and Bolts

Cover Plate DPAD with
Hexagon Head Bolt AS
Code: **DPAD-AS**

Installation with Locking Plate and Bolts

Safety Locking Plate SIPD with
Stacking Bolt AF
Code: **SIPD-AF**

⑤ Thread Type

Please select the required thread type and add the corresponding Code to position ⑤ of the order code for your clamp assembly.

Unified coarse (UNC) thread
Code: **U**

Metric ISO thread
Code: **M**

All threaded parts are available with Metric ISO thread or unified coarse (UNC) thread according to dimension table.

⑥ Material & Surface Finishing

Please select the required material & surface finishing of the metal parts and add the corresponding Code to position ⑥ of the order code for your clamp assembly.

Metal parts made of Carbon Steel, untreated	**W1**
Metal parts made of Carbon Steel, phosphated	**W2**
Metal parts made of Carbon Steel, zinc/nickel-plated	**W3**
Metal parts made of Stainless Steel V2A 1.4301 / 1.4305 (AISI 304 / 303)	**W4**
Metal parts made of Stainless Steel V4A 1.4401 / 1.4571 (AISI 316 / 316 Ti)	**W5**
Weld Plate made of Carbon Steel, phosphated; Other metal parts made of Carbon Steel, zinc/nickel-plated	**W10**
Weld Plate and Cover Plate made of Carbon Steel, phosphated; Bolts made of Carbon Steel, untreated	**W12**
Mounting Rail Nuts made of Carbon Steel, zinc/nickel-plated; Cover Plate made of Carbon Steel, phosphated; Bolts made of Carbon Steel, untreated	**W13**
Weld Plate / Cover Plate made of Carbon Steel, phosphated; Bolts made of Carbon Steel, zinc/nickel-plated	**W15**
Mounting Rail Nuts made of Carbon Steel, zinc/nickel-plated; Cover Plate made of Carbon Steel, phosphated; Bolts made of Carbon Steel, zinc/nickel-plated	**W16**
Safety Locking Plate made of Carbon Steel, phosphated; Bolts made of Carbon Steel, zinc/nickel-plated	**W17**
Safety Locking Plate made of Carbon Steel, untreated; Bolts made of Carbon Steel, phosphated	**W18**
Cover Plate made of Carbon Steel, phosphated; Bolts made of Carbon Steel, untreated	**W19**

Individual combinations of alternative materials and surface finishings are available upon request. Consult STAUFF for further information.

⑦ Assembling & Kitting

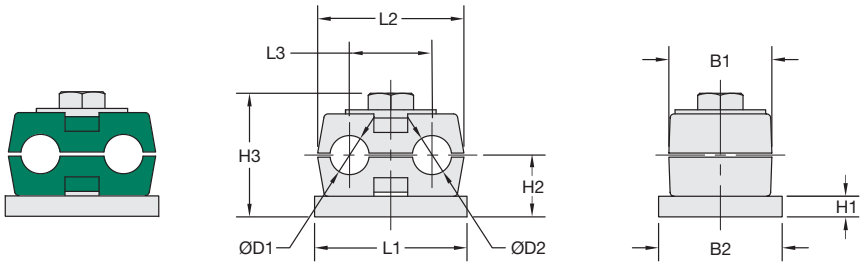
If required, please select an additional assembling and kitting option and add the corresponding Code to the last position of the order code for your clamp assembly.

Components Supplied Separately
Code: **none** (Standard Option)

Components Assembled
Code: **#A** (Special Option)

Components Packed in Kits
Code: **#K** (Special Option)

Compact Twin Series: Clamp Body Type DS



Order Codes

Clamp Body ***DS1*06/06*PP**

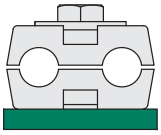
One clamp body is consisting of two clamp halves.

* Compact Twin Series, STAUFF Group 1	**DS 1**
* Exact outside diameters Ø D1 / Ø D2 (mm)	**06/06**
* Clamp Body Material (Polypropylene)	**PP**

Group	Outside Diameter Pipe / Tube Ø D1 / Ø D2		Nominal Bore Pipe	Copper Tube	Order Codes (2 Clamp Halves)	Dimensions (mm/in)							
STAUFF	(mm)	(in)	(in)	(in)		L1	L2	L3	H1	H2	H3	B1	B2
DS 1	6				DS106/06 PP	37 1.46	35,5 1.40	20 .79	5 .20	15 .59	30 1.18	25 .98	30 1.18
	6,4	1/4			DS106,4/06,4 PP								
	8	5/16			DS108/08 PP								
	9,5	3/8		1/4	DS109,5/09,5 PP								
	10		1/8		DS110/10 PP								

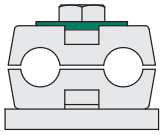
Additional outside diameters are available upon request. Please consult STAUFF for further information.

Compact Twin Series: Metal Hardware



Weld Plate, Type SP DS1

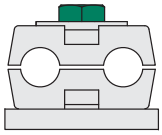
SP DS1 U W2 (unified coarse thread)
Thread size: 1/4–20 UNC
Made of Carbon Steel, phosphated



Cover Plate, Type US DS1

US DS1 W3

Made of Carbon Steel, zn/ni-plated

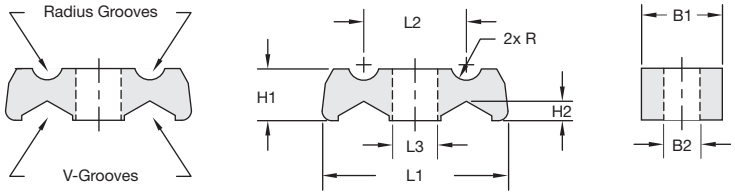


Hexagon Bolt, Type AS DS1

AS DS1 U W3 (unified coarse thread)
Bolt size: 1/4–20 UNC x 1
Made of Carbon Steel, zn/ni-plated

All threaded parts are only available with unified coarse (UNC) thread. Rail mount and stacking assemblies as well as alternative materials and surface finishings are available upon request. Consult STAUFF for further information.

Agriculture Twin Series: Clamp Body Type AG



Order Codes

Clamp Body ***AG*2**

* Agriculture Twin Series	**AG**
* STAUFF Group	**2**

Group	Min/Max Outside Diameters Pipe / Tube using Radius Grooves		using V-Grooves		Order Codes (1 Clamp Body)	Dimensions (mm/in)							
STAUFF	(mm)	(in)	(mm)	(in)		L1	L2	L3	H1	H2	B1	B2	R
2	3 ... 10	.12 ... .39	4 ... 15	.26 ... .59	AG 2	57,5 2.26	31,7 1.25	14,0 .55	16,0 .63	7,1 .24	25,0 .98	11,0 .43	4,8 .19
3	4 ... 25	.16 ... .98	7 ... 20	.28 ... .79	AG 3	62,0 2.48	34,5 1.36	14,0 .55	19,0 .75	7,1 .28	32,0 1.26	11,0 .43	12,4 .49

Additional outside diameters are available upon request. Please consult STAUFF for further information.

Standard Material

Polypropylene
Colour: Black

See page A88 for properties and technical information.

Product Features

- Flip the clamp body to choose between the radius grooved or the v-grooved design (suitable for a range of diameters)
- Use M10 or 3/8–16 UNC bolts or screws (preferably with washers) to fasten clamp bodies directly to the machine
- Clamp bodies can be stacked for multi-level assembly

Standard Clamp Body Materials




Material Code	PP	PA	AL	SA
Basic Material	Copolymeric Polypropylene	Polyamide	Aluminium AlSi12	Thermoplastic Elastomer
Standard Colour	Green	Black	Natural	Black

Mechanical Properties				
Tensile E-Module	1073 N/mm² (ISO 527)	> 1400 N/mm² (ISO 527)	> 65000 N/mm²	113 N/mm² at +23 °C / +73.4 °F (ASTM D412)
Notch Impact Strength	7,5 kJ/m² at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)	> 15 kJ/m² at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)		
Low Temperature Notch Impact Strength	3,1 kJ/m² at -30 °C / -22.0 °F (acc. to Charpy / ISO 179/1eA)	> 3 kJ/m² at -30 °C / -22.0 °F (acc. to Charpy / ISO 179/1eA)		
Tensile Strength at Yield (Tensile Strength)	25 N/mm² (ISO 527)	> 55 N/mm² (ISO 527)	> 150 N/mm² (ISO EN 10002)	15,9 N/mm² (ASTM D412)
Ball Indentation Hardness (Brinell Hardness)	45,4 N/mm² (ISO 2039-1)	> 65 N/mm² (ISO 2039-1)	> 55 HBS	
Shore Hardness				87 A (ISO 868)

Thermal Properties				
Temperature Resistance (Continuous Exposure, Min ... Max)	-30 °C ... +90 °C / -22 °F ... +194 °F	-40 °C ... +120 °C / -40 °F ... +248 °F (Brief exposure up to +140 °C / +284 °F)	up to +300 °C / up to +572 °F	-40 °C ... +125 °C/ -40 °F ... +257 °F

Chemical Properties				
Weak Acids	conditionally consistent	conditionally consistent	conditionally consistent	consistent
Solvents	conditionally consistent	conditionally consistent	conditionally consistent	conditionally consistent
Benzine	conditionally consistent	consistent	consistent	conditionally consistent
Mineral Oils	conditionally consistent	consistent	consistent	conditionally consistent
Other Oils	consistent	consistent	consistent	consistent
Alcohols	consistent	consistent	consistent	consistent
Seawater	consistent	consistent	consistent	consistent

The information for the Polyamide material PA and the Polyamide based materials PAV0 and PA-FF have been determined in a conditioned state according to ISO 1110.
For Aluminium, the tensile strength (under reversed bending stress) and impact bending strength both rise constantly at decreasing temperatures whilst the value for breaking elongation decreases.

Standard Rubber Insert Materials

Thermoplastic Elastomer (73 Shore-A)

Standard Material for STAUFF Group 4 and 6 (Standard Series)
Standard Material for STAUFF Group 4S to 6S (Heavy Series)

Mechanical Properties

Shore Hardness:	73 A (ISO 868)
Modulus of Elasticity:	16 N/mm² at +23 °C / +73.4 °F (ASTM D 412)
Tensile Stress:	8,3 N/mm² (ASTM D 412)

Thermal Properties

Temperature Resistance:	-40 °C ... +125 °C / -40 °F ... +257 °F

Chemical Properties
Consistent against weak acids and solvents;
conditionally consistent against benzine and mineral oils;
consistent against other oils, alcohols and sea water.

Elastomer (70 Shore-A)

Standard Material for STAUFF Group 7S to 10S (Heavy Series)

Mechanical Properties

Shore Hardness:	70 A (DIN 53505)
Tensile Strength at Yield:	9 N/mm² (DIN 53504)
Tensile Strain at Break:	400 % (DIN 53504)
Tear-Growth Resistance:	9 N/mm (DIN 53507-A)
Compression Set:	20 % (DIN 53517) (22 h at +70 °C / +158 °F)

Consult STAUFF for further information.

Special Clamp Body Materials (Selection)

Preventive Fire Protection





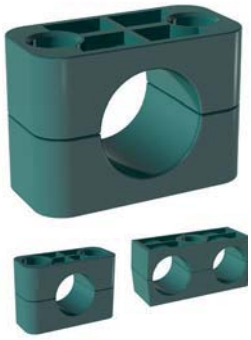
PAV0	PA-FF	PPDA	PP6853	PPV0
Polyamide	Polyamide	Polypropylene	Polypropylene	Polypropylene
Grey	Black	White	White	Black
1500 N/mm² (ISO 527-1/2)	1100 N/mm² (ISO 527-1/2)	2200 N/mm² (ISO 527) at +23 °C / +73.4 °F: 50 mm/min	1440 N/mm² (ICE 60811-1-1)	
35 kJ/m² at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)	20 kJ/m² at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)	11,8 kJ/m² at +23 °C / +73.4 °F (acc. to IZOD / ISO 179/1eA)	16 kJ/m² at +23 °C / +73.4 °F (acc. to IZOD / ISO 179/1eA)	5 kJ/m² at +23 °C / +73.4 °F (acc. to ISO 180/A)
		4,9 kJ/m² at -25 °C / -13.0 °F (acc. to IZOD / ISO 179/1eA)		
45 N/mm² (ISO 527-1/2)	50 N/mm² (ISO 527-1/2)	15,1 N/mm² (ISO 527) at +23 °C / +73.4 °F: 50 mm/min	20,4 N/mm² (ICE 60811-1-1)	25 N/mm² (ISO 527)
100 N/mm² (ISO 2039-1)	100 N/mm² (ISO 2039-1)			
-30 °C ... +120 °C / -22 °F ... +248 °F	-30 °C ... +120 °C / -22 °F ... +248 °F	-25 °C ... +90 °C / -13 °F ... +194 °F	-25 °C ... +90 °C / -13 °F ... +194 °F	-25 °C ... +90 °C / -13 °F ... +194 °F
				Approvals / Special Properties
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: I2 / F2 **Halogen- and phosphor-free flame retardant system** **Oxygen index: 34,0%** (according to ISO 4589-2) **Flammability temperature: 299 °C / 570 °F** (according to ISO 4589-3, Annex A) **High durability, good UV, weathering and chemical resistance**	**Tested and approved according to DIN 5510, Part 2** ▪ Combustibility classification: S4 ▪ Smoke development classification: SR2 ▪ Dripping classification: ST2 **Oxygen index: 28,0%** (according to ISO 4589-2) **Flammability temperature: 327 °C / 621 °F** (according to ISO 4589-3, Annex A) **High durability (even at low temperatures), mechanical strength and rigidity, good attrition resistance and fatigue strength, good UV resistance**	**Tested and approved according to Def Stan 07-247** ▪ Assessment: category B **Approved by the UK Ministry of Defence (MoD)** **Smoke index: 11,1%** (according to Def Stan 02-711, thickness: 3,0 mm) **Halogen-free flame retardant system** **Toxicity index: 0,9 / 100 g** (according to Def Stan 02-713) **Oxygen index: 30,9%** (according to ISO 4589-2) **Flammability temperature: 231 °C / 448 °F** (according to ISO 4589-3, Annex A)	**Tested and approved according to BS 6853** (Code of practice for fire precautions in the design /construction of passenger carrying trains) ▪ Assessment: category 1a **Compliant to 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 **Smoke index: 6,1%** (according to Def Stan 02-711, thickness: 3,0 mm) **Halogen-free flame retardant system** **Toxicity index: 0,9 / 100 g** (according to Def Stan 02-713) **Oxygen index: 42,0%** (according to ISO 4589-2) **Flammability temperature: 325 °C / 617 °F** (according to ISO 4589-3, Annex A)	**Tested and approved according to UL94 (Vertical Burning Test)** ▪ Classification: 94V-0 (thickness: 3mm / 13mm)

Standard Clamp Body Designs

Profiled Design

Profiled Inside Surface with Tension Clearance

- Available in the Standard, Heavy, Twin and Heavy Twin Series
- Recommended for the safe installation of rigid pipes or tubes
- Available for all commonly used outside diameters and nominal sizes
- Vibration/noise reducing and impact absorbing effect towards the direction of the line provided by the grooves on the inside of the clamp bodies
- To be used as fixed point clamp preventing the line from sliding (see page A93 for Maximum Loads in Pipe Direction)
- Clearance between the clamp halves provides tension of the tube or pipe



Type H (Smooth)

Smooth Inside Surface w/o Tension Clearance

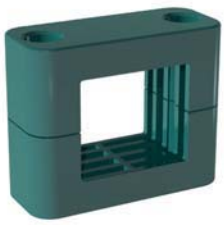
- Available in the Standard, Heavy and Twin Series
- Recommended for the safe installation of hoses or cables
- Available for all commonly used outside diameters and nominal sizes
- Smooth inside surface and chamfered edges avoid damaging of the hose or cable
- To be used as guide allowing the line to slide
- Choose internal diameter of the clamp body slightly smaller than the outside diameter of the hose or cable to use it as fixed point clamp preventing the line from sliding

Type RI (with Rubber Insert)

- Available in the Standard, Heavy and Heavy Twin Series
- Recommended for the extra-gentle installation of pipes, tubes, hoses or cables
- Available for all commonly used outside diameters and nominal sizes
- Rubber insert made of Thermoplastic Elastomer with a hardness of 73 Shore-A provides most effective reduction of vibration and noise caused by vibration

Oval Design

- Available in the Standard and Heavy Series
- Recommended for the safe installation of electric cables with diameters between 20 mm (.79 in) and 72 mm (2.83 in)



Rectangular Design ▪ Type VK

- Available in the Standard Series (STAUFF Group 5)
- Recommended for the safe installation of proximity switches according to DIN EN 60947-5-2 or similar, rectangular construction, with a square of 40 mm x 40 mm (1.57 in x 1.57 in) or 40 mm x 36 mm (1.57 in x 1.42 in)

Materials and Surface Finishings of Metal Parts

Materials

Unless otherwise stated, all metal parts (e.g. weld plates, cover plates, bolts, rail nuts, etc.) are made of **Carbon Steel** (surface finishing according to material code).

Besides that, all metal parts are also available **ex stock** in two different stainless steel qualities:

Stainless Steel V2A
- 1.4301 / 1.4305 (AISI 304 / 303)
- Material code: W4

Stainless Steel V4A
- 1.4401 / 1.4571 (AISI 316 / 316 Ti)
- Material code: W5

Alternative materials are available upon request. Consult STAUFF for further information.

Surface Finishings

Unless otherwise stated, all metal parts made of Carbon Steel are available with the following standard surface finishings:

Carbon Steel, untreated
- Material code: W1

Carbon Steel, phosphated
- Fe/Znph r 10 according to DIN EN 12476
- Material code: W2

Carbon Steel, zinc/nickel-plated
- Fe/ZnNi (12...16) 6+6//A//T2 according to DIN 50962
- More than 720 hours resistance against red rust / base metal corrosion in the salt spray test to DIN EN ISO 9227
- Free of hexavalent chromium Cr(VI)
- RoHS compliant according to 2002/95/EC (Restrictions of the Use of Hazardous Substances)
- ELV compliant according to 2000/53/EC (End of Life Vehicles Directive)
- Material code: W3

Alternative surface finishings are available upon request. Consult STAUFF for further information.

Original STAUFF Cover Plate with Zinc/Nickel-Coating:
No signs of corrosion after 528 hours in the salt spray chamber!

Original STAUFF Cover Plates with alternative surface finishings widely-used by competitors in the market (from left to right):

- Galvanisation and blue-chromating after 96 hours
- Galvanisation and yellow-chromating after 192 hours
- Zinc-coating, thick-film passivation and sealing after 192 hours

In all three cases, signs of corrosion are quite clearly visible!

Consult STAUFF and ask for a detailed report.

Thread Conversion Chart

Metric ISO vs. Unified Coarse (UNC) Thread

Unless otherwise stated, all threaded parts available with Metric ISO thread or unified coarse (UNC) thread.

Standard Series (DIN 3015, Part 1)

Group		Thread	
STAUFF	DIN	Metric ISO	Unified Coarse
1 to 8	0 to 8	M6	1/4–20 UNC

Heavy Series (DIN 3015, Part 2)

Group		Thread	
STAUFF	DIN	Metric ISO	Unified Coarse
3S to 5S	1 to 3	M10	3/8–16 UNC
6S	4	M12	7/16–14 UNC
7S	5	M16	5/8–11 UNC
8S	6	M20	3/4–10 UNC
9S	7	M24	7/8–9 UNC
10S	8	M30	1-1/8–7 UNC
11S to 12S	9 to 10	M30	1-1/4–7 UNC

Twin Series (DIN 3015, Part 3)

Group		Thread	
STAUFF	DIN	Metric ISO	Unified Coarse
1D	1	M6	1/4–20 UNC
2D to 5D	2 to 5	M8	5/16–18 UNC

Property Classes / Grades of Bolts and Screws

Hexagon Head Bolt

Socket Cap Screw

Slotted Head Screw

Bolt / Screw Type	Material Code	Property Class / Grade	
		Metric ISO Threaded Bolts / Screws	Unified Coarse Threaded Bolts / Screws
Hexagon Head Bolt Type AS	W1, W2, W3	8.8 (according to DIN EN ISO 898)	5 (according to SAE J429)
	W4	A2-70 (according to DIN EN ISO 3506)	AISI 304 / B8 (according to ASTM A193)
	W5	A4-70 (according to DIN EN ISO 3506)	AISI 316 / B8M (according to ASTM A193)
Socket Cap Screw Type IS	W1, W2, W3	8.8 (according to DIN EN ISO 898)	5 (according to SAE J429)
	W4	A2-70 (according to DIN EN ISO 3506)	AISI 304 / B8 (according to ASTM A193)
	W5	A4-70 (according to DIN EN ISO 3506)	AISI 316 / B8M (according to ASTM A193)
Slotted Head Screw Type LI	W1, W2, W3	4.8 (according to DIN EN ISO 898)	2 (according to SAE J429)
	W4	A2-70 (according to DIN EN ISO 3506)	AISI 304 / B8 (according to ASTM A193)
	W5	A4-70 (according to DIN EN ISO 3506)	AISI 316 / B8M (according to ASTM A193)

Unless otherwise stated, the above mentioned property classes / grades apply as standards for bolts and screws supplied by STAUFF. The information indicate the minimum requirements; higher property classes are available upon request. Consult STAUFF for details.

Basic Installation Instructions

Installation on Weld Plate

Different types of weld plates are available for all STAUFF Clamps according to DIN 3015 as well as for most of the other series and many custom-designed special clamps.

- Place weld plates in their designated positions. Please make sure these positions are suitable for the expected loads.
- Mark the locations of the weld plates to ensure best alignment.
- Weld the weld plates into position. Elongated weld plates can also be mounted to their positions by using screws or bolts.
- Push bottom clamp half onto weld plate.
- Insert pipe, tube, hose, cable or any other line type.
- Place second clamp half and cover plate (optional) on top and mount clamp assembly by using screws or bolts.

Installation on Mounting Rail

STAUFF Mounting Rails are available in different heights. STAUFF Rail Nuts are available for all STAUFF Clamps according to DIN 3015 (Heavy Series up to STAUFF Group 6S only) as well as for many custom-designed special clamps.

- Place mounting rails in their designated positions. Please make sure these bases are suitable for the expected loads.
- Mark the locations of the mounting rails to ensure best alignment.
- Weld the mounting rails into position. Mounting rails can also be mounted to their positions by using side-mounting brackets with screws or bolts.
- Insert rail nuts into mounting rail and turn until stop to lock (Standard and Twin Series) or slide in rail nut (Heavy Series).
- Push bottom clamp half onto rail nuts.
- Insert pipe, tube, hose, cable or any other line type.
- Place second clamp half and cover plate (optional) on top and mount clamp assembly by using screws or bolts.

The exact positions of the clamp assemblies can still be adjusted before being firmly bolted.

Multi-Level (Stacking) Installation

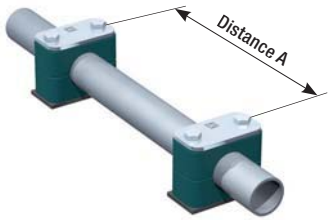
The multi-level installation of STAUFF Clamps permits easy stacking of several pipes, tubes, hoses, cables or any other line types, even with different outside diameters. The Twin Series also allows stacking of different group sizes (STAUFF Groups 2D to 5D).

The clamps are connected by stacking bolts. Safety locking plates inserted between the clamps prevent stacking bolts from turning.

- Push bottom clamp half onto weld plate or rail nuts.
- Insert pipe, tube, hose, cable or any other line type.
- Place second clamp half mount clamp assembly by using stacking bolts.
- Place safety locking plate on top of clamp assembly to prevent stacking bolts from turning.
- Proceed with next level as explained before.

STAUFF multi-level clamp assemblies can be mounted both to weld plates or to mounting rails.

Recommended Distance between Clamps



Installation next to Pipe Bends, Connectors / Couplings and Valves

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

Outside Diameter (mm)	(in)	Distance A (m)	(ft)
6,0 ... 12,7	.23 ... .50	1,00	3,28
12,7 ... 22,0	.50 ... .86	1,20	3,94
22,0 ... 32,0	.86 ... 1.25	1,50	4,92
32,0 ... 38,0	1.25 ... 1.50	2,00	6,56
38,0 ... 57,0	1.5 ... 2.25	2,70	8,86
57,0 ... 75,0	2.25 ... 2.95	3,00	9,84
75,0 ... 76,1	2.95 ... 3.00	3,50	11,48
76,1 ... 88,9	3.00 ... 3.50	3,70	12,14
88,9 ... 102,0	3.50 ... 4.00	4,00	13,12
102,0 ... 114,0	4.00 ... 4.50	4,50	14,76

Outside Diameter (mm)	(in)	Distance A (m)	(ft)
114,0 ... 168,0	4.50 ... 6.60	5,00	16,40
168,0 ... 219,0	6.60 ... 8.60	6,00	19,68
219,0 ... 324,0	8.60 ... 12.70	6,70	21,98
324,0 ... 356,0	12.70 ... 14.00	7,00	22,96
356,0 ... 406,0	14.00 ... 16.00	7,50	24,60
406,0 ... 419,0	16.00 ... 16.50	8,20	26,90
419,0 ... 508,0	16.50 ... 20.00	8,50	27,88
508,0 ... 521,0	20.00 ... 20.50	9,00	29,52
521,0 ... 558,0	20.50 ... 22.00	10,00	32,80
558,0 ... 800,0	22.00 ... 31.50	12,50	41,00

Please note the following information on the installation of STAUFF Clamps next to pipe bends, connectors / couplings and valves:

Pipe Bends

Pipe bends should be supported by STAUFF Clamps as close to the bends as possible. Furthermore, it is recommended to design these clamps as fixed point clamps.

Connections / Couplings

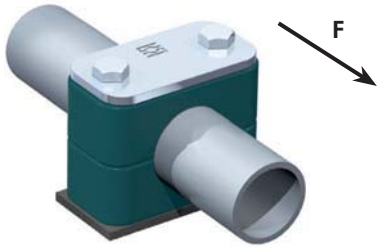
The first clamp should be placed directly next to the connector / coupling. This protects the connector / coupling from vibrations.

Valves

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

Consult STAUFF for further information.

Tightening Torques and Maximum Loads In Pipe Direction



All tightening torques and maximum loads in pipe direction refer to STAUFF Clamp Bodies (profiled inside surface with tension clearance) with Cover Plates and Hexagon Head Bolts according to DIN EN ISO 4014/4017 (DIN 931/933).

The max. load in pipe direction (according to DIN 3015, Part 10) is an average value, determined by three tests at +23 °C / +73.4 °F with a steel pipe according to DIN EN 10220, St37 – rolled surface – taking static friction into consideration.

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

Standard Series (DIN 3015, Part 1)

Group		Hexagon Head Bolt DIN EN ISO 4014/4017 (DIN 931/933)		Polypropylene				Polyamide				Aluminium			
		Metric	Unified Coarse	Tightening Torque		Maximum Load in Pipe Direction F		Tightening Torque		Maximum Load in Pipe Direction F		Tightening Torque		Maximum Load in Pipe Direction F	
STAUFF	DIN	ISO Thread	(UNC) Thread	(N·m)	(ft·lb)	(kN)	(lbf)	(N·m)	(ft·lb)	(kN)	(lbf)	(N·m)	(ft·lb)	(kN)	(lbf)
1	0	M6	1/4–20 UNC	8	6	0,6	135	10	7	0,6	135	12	9	3,5	787
1A	1	M6	1/4–20 UNC	8	6	1,1	247	10	7	0,7	157	12	9	4,2	944
2	2	M6	1/4–20 UNC	8	6	1,3	292	10	7	0,8	180	12	9	4,3	967
3	3	M6	1/4–20 UNC	8	6	1,4	315	10	7	1,6	360	12	9	4,9	1101
4	4	M6	1/4–20 UNC	8	6	1,5	337	10	7	1,7	382	12	9	5,0	1124
5	5	M6	1/4–20 UNC	8	6	1,9	427	10	7	2,0	450	12	9	7,3	1641
6	6	M6	1/4–20 UNC	8	6	2,0	450	10	7	2,5	562	12	9	8,9	2000
7	7	M6	1/4–20 UNC	8	6	2,3	517	10	7	3,2	719	NOT AVAILABLE!			
8	8	M6	1/4–20 UNC	8	6	2,6	585	10	7	3,5	787				

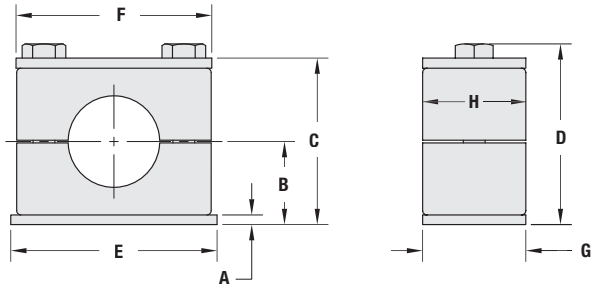
Heavy Series (DIN 3015, Part 2)

Group		Hexagon Head Bolt DIN EN ISO 4014/4017 (DIN 931/933)		Polypropylene				Polyamide				Aluminium			
		Metric	Unified Coarse	Tightening Torque		Maximum Load in Pipe Direction F		Tightening Torque		Maximum Load in Pipe Direction F		Tightening Torque		Maximum Load in Pipe Direction F	
STAUFF	DIN	ISO Thread	(UNC) Thread	(N·m)	(ft·lb)	(kN)	(lbf)	(N·m)	(ft·lb)	(kN)	(lbf)	(N·m)	(ft·lb)	(kN)	(lbf)
3S	1	M10	3/8–16 UNC	12	9	1,6	360	20	15	4,2	944	30	22	12,1	2720
4S	2	M10	3/8–16 UNC	12	9	2,9	652	20	15	4,5	1044	30	22	15,1	3395
5S	3	M10	3/8–16 UNC	15	11	3,3	742	25	18	5,1	1146	35	26	15,5	3485
6S	4	M12	7/16–14 UNC	30	22	8,2	1843	40	30	9,3	2090	55	41	29,5	6609
7S	5	M16	5/8–11 UNC	45	33	11,0	2472	55	41	15,8	3551	120	86	34,9	7845
8S	6	M20	3/4–10 UNC	80	59	14,0	3147	150	111	21,0	4720	220	162	50,0	11240
9S	7	M24	7/8–9 UNC	110	81	28,0	6300	200	148	32,0	7193	250	184	70,6	15871
10S	8	M30	1-1/8–7 UNC	180	133	40,0	8992	350	258	48,0	10790	500	369	84,5	18996
11S	9	M30	1-1/4–7 UNC	200	148	119,0	26752	370	273	125,0	27650	500	369	181,5	40802
12S	10	M30	1-1/4–7 UNC	270	199	168,0	37767	450	332	180,0	40465	600	443	244,5	54965

Twin Series (DIN 3015, Part 3)

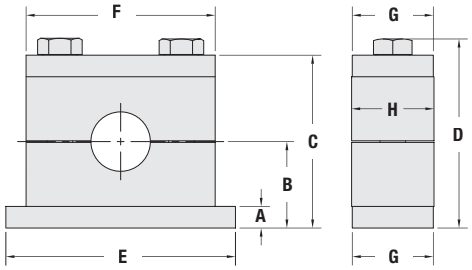
Group		Hexagon Head Bolt DIN EN ISO 4014/4017 (DIN 931/933)		Polypropylene				Polyamide			
		Metric	Unified Coarse	Tightening Torque		Maximum Load in Pipe Direction F		Tightening Torque		Maximum Load in Pipe Direction F	
STAUFF	DIN	ISO Thread	(UNC) Thread	(N·m)	(ft·lb)	(kN)	(lbf)	(N·m)	(ft·lb)	(kN)	(lbf)
1D	1	M6	1/4–20 UNC	5	4	0,9	202	5	4	0,9	202
2D	2	M8	5/16–18 UNC	12	9	2,1	472	12	9	2,2	495
3D	3	M10	5/16–18 UNC	12	9	1,9	427	12	9	2,0	450
4D	4	M12	5/16–18 UNC	12	9	2,7	607	12	9	2,9	652
5D	5	M16	5/16–18 UNC	8	6	1,7	382	8	6	2,5	562

Dimensions and Weights of Clamp Assemblies



Standard Series (DIN 3015, Part 1)

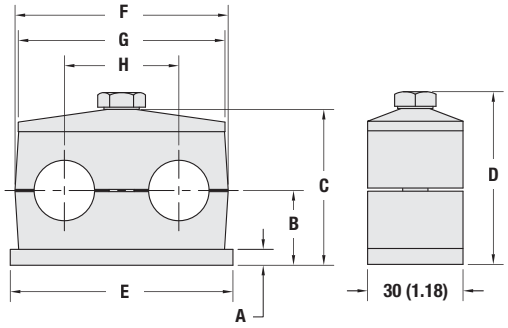
Group		Dimensions (mm/in)											Weight per 100 Pcs. SP ✱✱ PP-DP-AS ✱✱✱ (kg/lbs)
			B		C		D						
STAUFF	DIN	A	Profiled Design	Type H (Smooth)	Profiled Design	Type H (Smooth)	Profiled Design	Type H (Smooth)	E	F	G	H	
1	0	3	16,5	16	33	32	37	36	31,5	28	30	30	6,20
		.12	.65	.63	1.30	1.26	1.46	1.42	1.24	1.10	1.18	1.18	13,64
1A	1	3	16,5	16	33	32	37	36	36	34	30	30	8,10
		.12	.65	.63	1.30	1.26	1.46	1.42	1.41	1.33	1.18	1.18	17.82
2	2	3	19,5	19	39	38	43	42	42	40,5	30	30	9,40
		.12	.77	0.75	1.54	1.50	1.69	1.65	1.65	1.59	1.18	1.18	20.68
3	3	3	21	20,75	42	41,5	46	45,5	50	48	30	30	11,20
		.12	.83	.82	1.65	1.64	1.81	1.80	1.96	1.88	1.18	1.18	24.64
4	4	3	24	23,75	48	47,5	52	51,5	60	57	30	30	13,70
		.12	.94	.94	1.89	1.87	2.05	2.03	2.36	2.24	1.18	1.18	30.14
5	5	3	32	31,25	64	62,5	68	66,5	71	70	30	30	17,10
		.12	1.26	1.23	2.52	2.46	2.68	2.62	2.79	2.75	1.18	1.18	37.62
6	6	3	36	35,25	72	70,5	76	74,5	88	86	30	30	21,30
		.12	1.42	1.39	2.83	2.78	2.99	2.94	3.46	3.38	1.18	1.18	46.86
7	7	5	51,5	51	103	102	107	106	122	118	30	30	42,10
		.20	2.03	2.01	4.06	4.02	4.21	4.17	4.81	4.,65	1.18	1.18	92.62
8	8	5	64	63	128	126	132	130	148	144	30	30	44,00
		.20	2.52	2.48	5.04	4.96	5.20	5.12	5.83	5.67	1.18	1.18	96.80



Heavy Series (DIN 3015, Part 2)

Group		Dimensions (mm/in)												Weight per 1 Pc. SPAL✱✱PP-DPAL-AS✱✱✱ (kg/lbs)
			B		C		D			F				
STAUFF	DIN	A	Profiled Design	Type H (Smooth)	Profiled Design	Type H (Smooth)	Profiled Design	Type H (Smooth)	E	PP/ PA/SA	AL	G	H	
3S	1	8	24	23,25	48	46,5	54,4	52,9	74	55	56	30	30,5	0,32
		.31	.94	.92	1.89	1.83	2.14	2.09	2.91	2.16	2.20	1.18	1.20	.70
4S	2	8	32	31,25	64	62,5	70,4	68,9	86	70	70	30	30,5	0,40
		.31	1.26	1.23	2.52	2.46	2.77	2.72	3.39	2.76	2.76	1.18	1.20	.88
5S	3	8	38	37	76	74	82,4	80,4	100	85	85	30	30,5	0,49
		.31	1.50	1.46	2.99	2.91	3.24	3.17	3.94	3.35	3.35	1.18	1.20	1.08
6S	4	10	54,5	53,5	109	107	116,5	114,5	140	115	120	45	45	1,21
		.39	2.15	2.11	4.29	4.21	4.59	4.51	5.51	4.53	4.72	1.77	1,77	2.66
7S	5	10	70	NOT AVAILABLE!	140	NOT AVAILABLE!	150	NOT AVAILABLE!	180	154	152	60	60	2,30
		.39	2.76		5.51		5.91		7.09	6.06	5.98	2.36	2,36	5.06
8S	6	15	99		198		210,5		226	206	208	80	80	6,00
		.59	3.90		7.80		8.29		8.90	8.11	8.19	3.15	3.15	13.20
9S	7	15	115		230		245		270	251	255	90	91	8,70
		.59	4.53		9.06		9.65		10.63	9.88	10.04	3.54	3.58	19.14
10S	8	25	160		320		338,7		340	336	326	120	120	22,16
		.98	6.30		12.60		13.33		13.39	13.22	12.83	4.72	4.72	48.75
11S	9	30	235		470		488,7		520	470	470	160	162	54,11
		1.18	9.25		18.50		19.24		20.47	18.50	18.50	6.30	6.38	119.04
12S	10	30	295		590		608,7		680	630	630	180	182	77,40
		1.18	11.61		23.23		23.96		26.77	24.80	24.80	7.09	7.16	170.28

Dimensions & Weights of Clamp Assemblies



Twin Series (DIN 3015, Part 3)

Group STAUFF	Group DIN	Dimensions (mm/in) A	B Profiled Design	B Type H (Smooth)	C Profiled Design	C Type H (Smooth)	D Profiled Design	D Type H (Smooth)	E	F	G	H	Weight per 100 Pcs. SP✱✱/✱✱PP-GD-AS✱✱✱ (kg/lbs)
1D	1	3	16,5	16,25	37	36,5	41	40,5	37	36	34	20	7,60
		.12	.65	.64	1.46	1.44	1.61	1.59	1.46	1.42	1.34	.79	16.72
2D	2	5	18,5	18,25	39	38,5	44	43,5	55	53	52	29	13,50
		.20	.73	.72	1.54	1.52	1.73	1.71	2.17	2.09	2.05	1.14	29.70
3D	3	5	23,5	23,25	49	48,5	54	53,5	70	67	65	36	17,70
		.20	.93	.92	1.93	1.91	2.13	2.11	2.76	2.64	2.56	1.42	38.94
4D	4	5	25	24	52	50	57	55	85	80	79	45	20,40
		.20	.98	.94	2.05	1.97	2.24	2.17	3.35	3.15	3.11	1.77	44.88
5D	5	5	31,5	31	65	64	70	69	110	106	102	56	27,70
		.20	1.24	1.22	2.56	2.52	2.76	2.72	4.33	4.17	4.02	2.20	60.94

Packaging Units (Selection)

Standard Series (DIN 3015, Part 1)

Clamp Bodies (Polypropylene / Polyamide)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
1 - 6	0 - 6	25
7 + 8	7 + 8	10

Clamp Bodies (Aluminium)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
1 - 5	0 - 5	25
6	6	10

Weld Plates (Type SP)
Cover Plates (Type DP)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
1 - 6	0 - 6	25
7 + 8	7 + 8	10

Hexagon Rail Nut (Type SM)
Channel Rail Adaptor (Type CRA)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
1 - 8	0 - 8	50

Heavy Series (DIN 3015, Part 2)

Clamp Bodies (Polypropylene / Polyamide)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
3S - 6S	1 - 4	20
7S	5	10
8S - 12S	6 - 10	1

Clamp Bodies (Aluminium)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
3S - 7S	1 - 5	10
8S - 12S	6 - 10	1

Weld Plates (Type SPAL)
Cover Plates (Type DPAL)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
3S - 6S	1 - 4	20
7S	5	10
8S - 12S	6 - 10	1

Mounting Rail Nut (Type GMV)
Channel Rail Adaptor (Type CRA)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
3S - 6S	1 - 4	40

Twin Series (DIN 3015, Part 3)

Clamp Bodies (Polypropylene / Polyamide)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
1D - 4D	1 - 4	25
5D	5	10

Weld Plates (Type SPAL)
Cover Plates (Type DPAL)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
1D - 4D	1 - 4	25
5D	5	10

Hexagon Rail Nut (Type SM)
Channel Rail Adaptor (Type CRA)

Group STAUFF	Group DIN	Quantity per Bag (in Pcs.)
1D	1	50
2D - 5D	2 - 5	25

Consult STAUFF and ask for standard packaging units for further components or special packaging options.