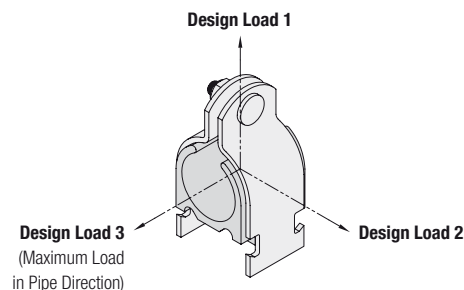
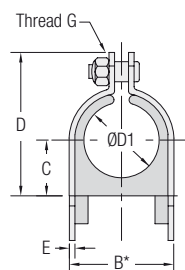


Clamp Assembly ▪ Types STC / SPC

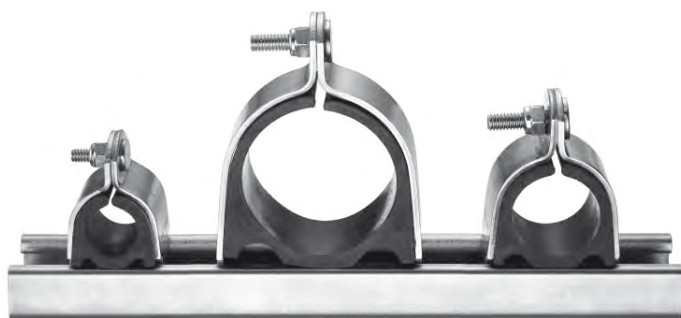
(for Use with Channel Rail SCS)



Outside Diameter Pipe / Tube / Hose Ø D1 (mm) (in)		Nominal Bore Pipe (in)	Order Codes (1 Clamp Assembly) (** = Material Code)	(1 Packaging Unit) (** = Material Code)	Standard Packaging Units pcs.	Dimensions (mm/in)					Thread G	Design Loads (^{kN} /lbf)		
						B*	C	D	E			1	2	3
6,4	1/4		STC 025 **	STC 025 ** - 024	24 / box	15,7 .62	5,6 0.22	28,2 1.11	2 .08		1/4-20 UNC	1,78 400	0,22 50	0,22 50
8	3/8		STC 037 **	STC 037 ** - 024	24 / box	19,1 .75	7,1 0.28	31,5 1.24	2 .08		1/4-20 UNC	1,78 400	0,22 50	0,22 50
12,7	1/2		STC 050 **	STC 050 ** - 024	24 / box	22,1 .87	8,6 0.34	34,5 1.36	2 .08		1/4-20 UNC	1,78 400	0,22 50	0,22 50
13,5		1/4	SPC 025 **	SPC 025 ** - 024	24 / box	23,1 .91	9,1 0.36	35,8 1.41	2 .08		1/4-20 UNC	1,78 400	0,22 50	0,22 50
16	5/8		STC 062 **	STC 062 ** - 024	24 / box	25,4 1.00	10,4 0.41	38,1 1.50	2 .08		1/4-20 UNC	1,78 400	0,22 50	0,22 50
17,2		3/8	SPC 037 **	SPC 037 ** - 024	24 / box	27,2 1.07	11,4 0.45	40,4 1.59	2 .08		1/4-20 UNC	2,67 600	0,33 75	0,33 75
19	3/4		STC 075 **	STC 075 ** - 024	24 / box	33,8 1.33	13,5 0.53	45,2 1.78	2 .08		1/4-20 UNC	2,67 600	0,33 75	0,33 75
21,3		1/2	SPC 050 **	SPC 050 ** - 024	24 / box	36,8 1.45	15,0 0.59	48,5 1.91	2 .08		1/4-20 UNC	2,67 600	0,33 75	0,33 75
22,2	7/8		STC 087 **	STC 087 ** - 024	24 / box	36,8 1.45	14,7 0.58	48,5 1.91	2 .08		1/4-20 UNC	2,67 600	0,33 75	0,33 75
25,4	1		STC 100 **	STC 100 ** - 012	12 / box	42,2 1.66	16,8 0.66	51,6 2.03	2,8 .11		1/4-20 UNC	2,67 600	0,33 75	0,33 75
26,9		3/4	SPC 075 **	SPC 075 ** - 012	12 / box	45,5 1.79	18,3 0.72	54,9 2.16	2,8 .11		1/4-20 UNC	2,67 600	0,33 75	0,33 75
32	1-1/4		STC 125 **	STC 125 ** - 012	12 / box	48,8 1.92	19,8 0.78	58,4 2.30	2,8 .11		1/4-20 UNC	2,67 600	0,33 75	0,33 75
33,7		1	SPC 100 **	SPC 100 ** - 012	12 / box	56,4 2.22	23,1 0.91	69,9 2.75	3 .12		5/16-18 UNC	2,67 600	0,33 75	0,33 75
38	1-1/2		STC 150 **	STC 150 ** - 012	12 / box	56,4 2.22	23,1 0.91	69,9 2.75	3 .12		5/16-18 UNC	2,67 600	0,33 75	0,33 75
42		1-1/4	SPC 125 **	SPC 125 ** - 012	12 / box	62,7 2.47	26,2 1.03	77,0 3.03	3 .12		5/16-18 UNC	3,56 800	0,56 125	0,56 125
48,3		1-1/2	SPC 150 **	SPC 150 ** - 012	12 / box	62,7 2.47	29,5 1.16	83,3 3.28	3 .12		5/16-18 UNC	3,56 800	0,56 125	0,56 125
50,8	2		STC 200 **	STC 200 ** - 012	12 / box	69,1 2.72	29,5 1.16	83,3 3.28	3 .12		5/16-18 UNC	3,56 800	0,56 125	0,56 125
60,3		2	SPC 200 **	SPC 200 **	1 / bag	69,1 3.22	35,8 1.41	96,0 3.78	3 .12		5/16-18 UNC	3,56 800	0,56 125	0,56 125
63,5	2-1/2		STC 250 **	STC 250 **	1 / bag	88,1 3.47	38,9 1.53	102,4 4.03	3 .12		5/16-18 UNC	3,56 800	0,56 125	0,56 125
66,7	2-5/8		STC 262 **	STC 262 **	1 / bag	88,1 3.47	38,9 1.53	102,4 4.03	3 .12		5/16-18 UNC	3,56 800	0,56 125	0,56 125
73		2-1/2	SPC 250 **	SPC 250 **	1 / bag	94,5 3.72	42,2 1.66	108,5 4.27	3 .12		5/16-18 UNC	3,56 800	0,56 125	0,56 125
76,2	3		STC 300 **	STC 300 **	1 / bag	100,8 3.97	45,2 1.78	114,8 4.52	3 .12		5/16-18 UNC	4,45 1 000	0,89 200	0,67 150
88,9		3	SPC 300 **	SPC 300 **	1 / bag	110,7 4.36	50,0 1.97	124,7 4.91	3 .12		3/8-16 UNC	4,45 1 000	0,89 200	0,67 150
102		3-1/2	SPC 350 **	SPC 350 **	1 / bag	126,2 4.97	57,9 2.28	140,5 5.53	3 .12		3/8-16 UNC	4,45 1 000	0,89 200	0,67 150
114		4	SPC 400 **	SPC 400 **	1 / bag	138,9 5.47	64,3 2.53	153,2 6.03	3 .12		3/8-16 UNC	4,45 1 000	0,89 200	0,67 150
140		5	SPC 500 **	SPC 500 **	1 / bag	164,3 6.47	77,0 3.03	178,6 7.03	3,6 .14		3/8-16 UNC	4,45 1 000	0,89 200	0,67 150
168		6	SPC 600 **	SPC 600 **	1 / bag	189,7 7.47	89,7 3.53	204,0 8.03	3,6 .14		3/8-16 UNC	4,45 1 000	0,89 200	0,67 150

* Minimum required for installation.

One clamp assembly is consisting of two carbon steel clamp halves (one with threaded stud), one thermoplastic cushion insert and one lock nut with Nylon insert. Channel rail not included. All threaded parts are only available with unified coarse (UNC) thread. Alternative materials and surface finishings are available upon request. Consult STAUFF for further information.



Clamp Assembly ■ Types STC / SPC

(for Use with Channel Rail SCS)



Standard Materials



Cushion Insert
Thermoplastic Elastomer (40 Shore-A)
 Colour: Black

The cushion material is compatible with most oils, chemicals and cleaning solvents and suitable for applications within a temperature range of -50 °C ... +125 °C (-58 °F ... +257 °F).

Alternative materials are available upon request.
 Please consult STAUFF for further information.

Product Features

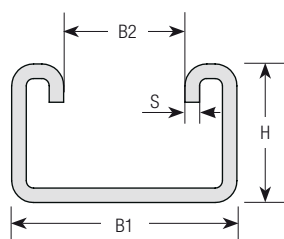
- Clamp assemblies designed to mount directly to 41,3 mm / 1-5/8 in wide strut channels, such as the STAUFF Channel Rail, type SCS
- Suitable for most Fluid Power applications ranging from mobile equipment to industrial machinery
- Reduced horizontal mounting space
- Easy installation and retro fit capability
- Reduces shock and vibration while preventing galvanic corrosion

Order Codes

Clamp Assembly *STC*-125*-W4*-12*-#K

* Type of clamp	STC (Tube diameters) SPC (Pipe diameters)	STC SPC
* Pipe / Tube O.D. (according to dimension table)		-125
* Material code	Carbon Steel, zinc-plated, trivalent blue chromated Stainless Steel V2A 1.4301 (AISI 304) Stainless Steel V4A 1.4401 (AISI 316)	W3 W4 W5
* Box Quantity	Components for one assembly Components for 12 assemblies Components for 24 assemblies	- 12 24
Please see dimension table for standard packaging units.		
Assembling	Components supplied separately Components packed in kits	- #K

Channel Rail ■ Type SCS



Dimensions (mm / in)			
B1	B2	H	S
41,3	22,2	25,4	2,7
1.63 (1-5/8)	.88 (7/8)	1.00	.11

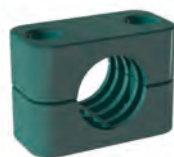
Alternative rail profiles, materials and surface finishings are available upon request. Consult STAUFF for further information.

Order Codes

Strut Channel *SCS*048*1*PL

* Strut Channel		SCS
* Length of Rail	1,22 m / 4.00 ft / 48 in 3,05 m / 10.00 ft / 120 in	048 120
* Height of Rail	25,4 mm / 1.00 in	1
* Material code	Carbon Steel, untreated Carbon Steel, green painted	PL GR

Standard Clamp Body Materials



Material Code	PP	PA	AL	SA
Basic Material	Copolymeric Polypropylene	Polyamide	Aluminium AISi12	Thermoplastic Elastomer
Standard 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 / +73.4 °F (ASTM D412)
Notch Impact Strength	7,5 kJ/m ² at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)	> 15 kJ/m ² at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)		
Low Temperature Notch Impact Strength	3,1 kJ/m ² at -30 °C / -22.0 °F (acc. to Charpy / ISO 179/1eA)	> 3 kJ/m ² at -30 °C / -22.0 °F (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 (ISO EN 10002)	15,9 N/mm ² (ASTM D412)
Ball Indentation Hardness (Brinell Hardness)	45,4 N/mm ² (ISO 2039-1)	> 65 N/mm ² (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 / Corrosion Prevention



PAVO	PA-FF	PPDA	PP6853	PP-AC
Polyamide	Polyamide	Polypropylene	Polypropylene	Polypropylene
Grey	Black	White	White	Natural / Uncoloured

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 / +73.4 °F: 50 mm/min	1440 N/mm ² (ICE 60811-1-1)	1073 N/mm ² (ISO 527)
35 kJ/m ² at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)	20 kJ/m ² at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)	11,8 kJ/m ² at +23 °C / +73.4 °F (acc. to IZOD / ISO 179/1eA)	16 kJ/m ² at +23 °C / +73.4 °F (acc. to IZOD / ISO 179/1eA)	7,5 kJ/m ² at +23 °C / +73.4 °F (acc. to Charpy / ISO 179/1eA)
		4,9 kJ/m ² at -25 °C / -13.0 °F (acc. to IZOD / ISO 179/1eA)		3,1 kJ/m ² at -30 °C / -22.0 °F (acc. to Charpy / ISO 179/1eA)
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 / +73.4 °F: 50 mm/min	20,4 N/mm ² (ICE 60811-1-1)	25 N/mm ² (ISO 527)
100 N/mm ² (ISO 2039-1)	100 N/mm ² (ISO 2039-1)			45,4 N/mm ² (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	-30 °C ... +90 °C / -22 °F ... +194 °F
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Approvals / Special Properties				
<p>Tested and approved according to UL94 (Vertical Burning Test)</p> <ul style="list-style-type: none"> Classification: 94V-0 (thickness: 0,4mm) <p>Tested and approved according to DIN 5510, Part 2</p> <ul style="list-style-type: none"> Combustibility classification: S3 Smoke development classification: SR2 Dripping classification: ST2 <p>Tested and approved according to NF F 16-101</p> <ul style="list-style-type: none"> Classification: I2 / F2 <p>Halogen- and phosphor-free flame retardant system</p> <p>Oxygen index: 34,0% (according to ISO 4589-2)</p> <p>Flammability temperature: 299 °C / 570 °F (according to ISO 4589-3, Annex A)</p> <p>High durability, good UV, weathering and chemical resistance</p>	<p>Tested and approved according to DIN 5510, Part 2</p> <ul style="list-style-type: none"> Combustibility classification: S4 Smoke development classification: SR2 Dripping classification: ST2 <p>Oxygen index: 28,0% (according to ISO 4589-2)</p> <p>Flammability temperature: 327 °C / 621 °F (according to ISO 4589-3, Annex A)</p> <p>High durability (even at low temperatures), mechanical strength and rigidity, good attrition resistance and fatigue strength, good UV resistance</p>	<p>Tested and approved according to Def Stan 07-247</p> <ul style="list-style-type: none"> Assessment: category B <p>Approved by the UK Ministry of Defence (MoD)</p> <p>Smoke index: 11,1% (according to Def Stan 02-711, thickness: 3,0 mm)</p> <p>Halogen-free flame retardant system</p> <p>Toxicity index: 0,9 / 100 g (according to Def Stan 02-713)</p> <p>Oxygen index: 30,9% (according to ISO 4589-2)</p> <p>Flammability temperature: 231 °C / 448 °F (according to ISO 4589-3, Annex A)</p>	<p>Tested and approved according to BS 6853 (Code of practice for fire precautions in the design/construction of passenger carrying trains)</p> <ul style="list-style-type: none"> Assessment: category 1a <p>Compliant to the requirements of London Underground / Metronet (standard 2-01001-002: Fire Safety Performance of Materials)</p> <p>Tested and approved according to DIN 5510, Part 2</p> <ul style="list-style-type: none"> Combustibility classification: S3 Smoke development classification: SR2 Dripping classification: ST2 <p>Tested and approved according to Def Stan 07-247</p> <ul style="list-style-type: none"> Assessment: category B <p>Smoke index: 6,1% (according to Def Stan 02-711, thickness: 3,0 mm)</p> <p>Halogen-free flame retardant system</p> <p>Toxicity index: 0,9 / 100 g (according to Def Stan 02-713)</p> <p>Oxygen index: 42,0% (according to ISO 4589-2)</p> <p>Flammability temperature: 325 °C / 617 °F (according to ISO 4589-3, Annex A)</p>	<p>Successfully tested in salt spray cabinet trials according to ISO 9227 / ASTM B117</p> <ul style="list-style-type: none"> Delays the formation of crevice corrosion by depositing a special corrosion protection inhibitor (which is added to the basic PP material during production) in the gap between clamp body and stainless steel pipe Lengthens maintenance intervals Minimises servicing requirements and costs Delivers tremendous potential savings

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 St37** (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 St37 are available with the following standard surface finishings:

Carbon Steel St37, untreated

- Material code: W1

Carbon Steel St37, phosphated

- Fe/Znph r 10 according to DIN EN 12476
- Material code: W2

Carbon Steel St37, 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 STAUFF	DIN	Thread Metric ISO	Unified Coarse
1 to 8	0 to 8	M6	1/4-20 UNC

Heavy Series (DIN 3015, Part 2)

Group STAUFF	DIN	Thread 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 STAUFF	DIN	Thread 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.