Sheet Metal Fasteners

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specialised fastener products

Introduction

Specialised Fastener Products

TFC Europe Ltd is one of the leading suppliers of technical fastener components to industry, with an unrivalled reputation for delivering innovative products, supply solutions, and exemplary service, to help our customers achieve breakthroughs in product development and productivity. With a customer centric approach, experienced Product Managers and Logistics Specialists, TFC can support a wide range of projects from product design to vendor reduction. TFC Brings it Together

TFC Specialised Fastener Products has been at the forefront of fastener supply since 1988, specifically set-up to provide a complete design and application service to the Sheet Metal, Plastics and Electronics industries from our Colchester base. This comprehensive catalogue shows our extensive stocked range of standard Sheet Metal products to include; Self-clinching Fasteners, Self-broaching Fasteners, Rivet Bushes, Blind Threaded Insert Nuts, Weld Studs & Insertion Tools.

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Self-Broaching Fasteners For PCB Applications

Rivet Bushes For Sheet Metal

Blind Threaded Insert Nuts for Sheet And Box Materials, Weld Studs And Insertion Tools

Metric Self-clinching Nuts

Type SC & SCS

Type SC & SCS nuts provide strong load-bearing threads in sheet metal and other thin section assemblies.

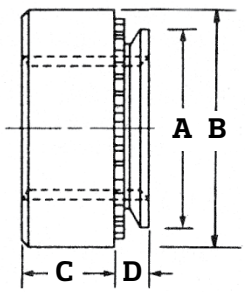
Material: SC - Carbon steel, Heat-treated,
SCS - 300 Series Stainless steel

Finish: SC - Zinc, spec. ASTMB 633-85
SCS - Passivated (QQ-P-35)

Thread: 6H ISO Metric

Use in: SC - Materials of Rockwell Hardness B-80 maximum

SCS - Materials of Rockwell Hardness B-70 maximum



Metric (mm)

Thread size	Pitch	Part No.		D max.	Min. sheet thickness	Hole size in sheet +0.08 -0.00	A max.	B +0.2	C +0.1	Min. distance edge to centre line of hole
		Carbon steel	Stainless steel							
M2	0.4	SCM2-0 SCM2-1 SCM2-2 SCM2-3	SCSM2-0 SCSM2-1 SCSM2-2 SCSM2-3	0.76 0.97 1.37 2.21	0.8 1.0 1.4 2.3	4.25	4.22	6.3	1.5	4.8
M2.5	0.45	SCM2.5-0 SCM2.5-1 SCM2.5-2 SCM2.5-3	SCSM2.5-0 SCSM2.5-1 SCSM2.5-2 SCSM2.5-3	0.76 0.97 1.37 2.21	0.8 1.0 1.4 2.3	4.25	4.22	6.3	1.5	4.8
M3	0.5	SCM3-0 SCM3-1 SCM3-2 SCM3-3	SCSM3-0 SCSM3-1 SCSM3-2 SCSM3-3	0.76 0.97 1.37 2.21	0.8 1.0 1.4 2.3	4.25	4.22	6.3	1.5	4.8
3.5M3	0.5	SC3.5M3-1 SC3.5M3-2	SCS3.5M3-1 SCS3.5M3-2	0.97 1.37	1.0 1.4	4.75	4.73	7.1	1.5	5.6
M3.5	0.6	SCM3.5-0 SCM3.5-1 SCM3.5-2 SCM3.5-3	SCSM3.5-0 SCSM3.5-1 SCSM3.5-2 SCSM3.5-3	0.76 0.97 1.37 2.21	0.8 1.0 1.4 2.3	4.75	4.73	7.1	1.5	5.6
M4	0.7	SCM4-0 SCM4-1 SCM4-2 SCM4-3	SCSM4-0 SCSM4-1 SCSM4-2 SCS-M4-3	0.76 0.97 1.37 2.21	0.8 1.0 1.4 2.3	5.4	5.38	7.9	2.0	6.9
M5	0.8	SCM5-0 SCM5-1 SCM5-2 SCM5-3	SCSM5-0 SCSM5-1 SCSM5-2 SCSM5-3	0.76 0.97 1.37 2.21	0.8 1.0 1.4 2.3	6.4	6.38	8.7	2.0	7.1
M6	1.0	SCM6-1 SCM6-2 SCM6-3	SCSM6-1 SCSM6-2 SCSM6-3	1.37 2.21 3.05	1.4 2.3 3.2	8.75	8.72	11.05	4.08	8.6
M8	1.25	SCM8-1 SCM8-2 SCM8-3	SCSM8-1 SCSM8-2 SCSM8-3	1.37 2.21 3.05	1.4 2.3 3.2	10.5	10.44	12.65	5.47	9.7
M10	1.5	SCM10-1 SCM10-2 SCM10-3	SCSM10-1 SCSM10-2 SCSM10-3	2.21 3.05 6.00	2.3 3.2 6.4	14.0	13.94	17.35	7.48	13.5

Imperial Self-clinching Nuts

Type SC & SCS

Type SC & SCS nuts provide strong load-bearing threads in sheet metal and other thin section assemblies.

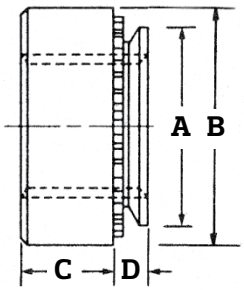
Material: SC - Carbon steel, heat-treated,
SCS - 300 Series Stainless steel

Finish: T - Zinc, spec. ASTMB 633-85
HCHS - Passivated (QQ-P-35)

Thread: Imperial Class 2B-MIL-S-7742

Use in: SC - Materials of Rockwell Hardness B-80 maximum

SCS - Materials of Rockwell Hardness B-70 maximum

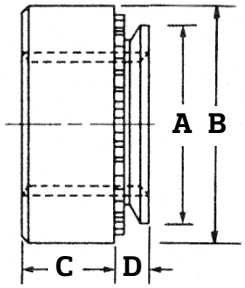


Imperial (in.)

Thread size	Part No.		D max.	Min. sheet thickness	Hole dia. .003in -0.000	A max.	B ±0.1 in.	C ±0.1in. max.	Min. dim. edge to centre line of hole
	Carbon steel	Stainless steel							
2-56	SC256-0 SC256-1 SC256-2 SC256-3	SCS256-0 SC256-1 SC256-2 SC256-3	.030 .038 .054 .087	.030 .040 .056 .091	.166	.165	.250	.070	.19
4-40	SC440-0 SC440-1 SC440-2 SC440-3	SCS440-0 SCS440-1 SCS440-2 SCS440-3	.030 .038 .054 .087	.030 .040 .056 .091	.166	.165	.250	.070	.19
6-32	SC632-0 SC632-1 SC632-2 SC632-3	SCS632-0 SCS632-1 SCS632-2 SCS632-3	.030 .038 .054 .087	.030 .040 .056 .091	.1875	.187	.281	.070	.22
8-32	SC832-0 SC832-1 SC832-2 SC832-3	SCS832-0 SCS832-1 SCS832-2 SCS832-3	.030 .038 .054 .087	.030 .040 .056 .091	.213	.212	.312	.090	.27
10-24	SC1024-0 SC1024-1 SC1024-2 SC1024-3	SCS1024-0 SCS1024-1 SCS1024-2 SCS1024-3	.030 .038 .054 .087	.030 .040 .056 .091	.250	.249	.344	.090	.28
10-32	SC1032-0 SC1032-1 SC1032-2 SC1032-3	SCS1032-0 SCS1032-1 SCS1032-2 SCS1032-3	.030 .038 .054 .087	.030 .040 .056 .091	.250	.249	.344	.090	.28
1/4-20	SC420-1 SC420-2 SC420-3	SCS420-1 SCS420-2 SCS420-3	.054 .087 .120	.056 .091 .123	.344	.343	.437	.170	.34

Self-clinching Nuts
Type SC & SCS

Installation and performance data:



Metric (mm)

Thread size	Shank code	Cold-rolled steel			5052-H34 aluminium		
		Installation force (kN)	Pushout (N)	Torque-out (N.m)	Installation force (kN)	Pushout (N)	Torque-out (N.m)
M2 M2.5 M3	-0 -1 -2 -3	11.2-15.6	465 545 1010 1100	2.1	6.7-8.9	275 390 745 850	0.9 1.1 1.4 1.4
3.5M3	-1 -2	13.4-26.7	565 1200	1.8 2.3	11.2-13.4	465 965	1.9 2.5
M3.5	-0 -1 -2 -3	13.4-26.7	475 565 1200 1300	1.8 1.8 2.3 2.5	11.2-13.4	290 465 965 1050	1.8 1.9 2.5 2.8
M4	-0 -1 -2 -3	18-27	485 640 1245 1300	2.9 2.95 4.2 4.2	11.2-13.4	290 465 965 1100	2.3 2.6 4.0 4.0
M5	-0 -1 -2 -3	18-38	525 790 1400 1500	3.6 3.6 6.0 6.0	11.2-15.6	290 475 1180 1225	3.0 3.6 4.7 5.7
M6	-1 -2 -3	27-36	1755	11.8	18-32	1570	11.8
M8	-1 -2 -3	27-36	1860	26.0	18-32	1560	23.7
M10	-1 -2 -3	32-50	2000	36.2	22-36	1750	32.7

Aluminium Self-clinching Nuts

Type SCA

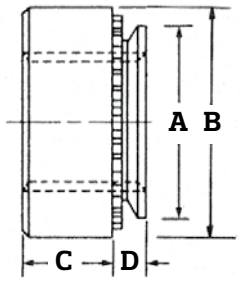
Type SCA nuts provide strong load-bearing threads in sheet metal and other thin section assemblies.

Material: 2024 - T4 Aluminium

Finish: None

Thread: 6H ISO metric
Imperial Class 2B-MIL-S-7742

Use in: Materials of Rockwell Hardness B-50 or less



	Thread size	Part No.	D max.	Min. sheet thickness	Hole dia. +0.08 (+.003in.) -0.000	A max.	B ±0.25 (±.01 in.)	C ±0.25 (±.01 in.)	Min. dim. edge to centre line of hole
Metric (mm)	M2 x 0.4	SCAM2-1 SCAM2-2	0.97 1.37	1.0 1.4	4.25	4.22	6.3	1.5	4.8
	M3 x 0.5	SCAM3-1 SCAM3-2	0.97 1.37	1.0 1.4	4.75	4.75	6.3	2.0	5.6
	M3.5 x 0.6	SCAM3.5-1 SCAM3.5-2	0.97 1.37	1.0 1.4	5.4	5.38	7.1	2.0	6.9
	M4 x 0.7	SCAM4-1 SCAM4-2	0.97 1.37	1.0 1.4	6.0	5.97	7.9	3.0	7.1
	M5 x 0.8	SCAM5-1 SCAM5-2	0.97 1.37	1.0 1.4	7.5	7.47	9.5	3.8	7.9
	M6 x 1.0	SCAM6-1 SCAM6-2	1.37 2.21	1.4 2.3	8.75	8.72	11.1	4.1	8.6
Imperial (in.)	2-56	SCA256-1 SCA256-2	.038 .054	.040 .056	.166	.165	.25	.07	.19
	4-40	SCA440-1 SCA440-2	.038 .054	.040 .056	.1875	.187	.25	.09	.22
	6-32	SCA632-1 SCA632-2	.038 .054	.040 .056	.213	.212	.28	.09	.27
	8-32	SCA832-1 SCA832-2	.038 .054	.040 .056	.234	.233	.31	.13	.28
	10-24	SCA1024-1 SCA1024-2	.038 .054	.040 .056	.296	.295	.38	.16	.31
	10-32	SCA1032-1 SCA1032-2	.038 .054	.040 .056					
	1/4-20	SCA420-1 SCA420-2 SCA420-3	.54 .087 .120	.056 .091 .125	.344	.343	.44	.17	.34

Hardened Stainless Steel Self-clinching Nuts

Type SCFSP

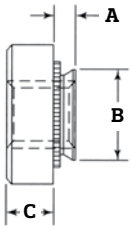
SCFSP Self-clinching Nuts specifically designed for use in stainless steel sheets as thin as 0.8mm (.030 in.).

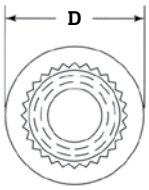
Material: Precipitation-hardened Stainless steel

Finish: Passivated ASTM A380

Thread: 6H ISO metric
Imperial Class 2B, MIL-S-7742

Use in: Materials with Rockwell Hardness B-88 or less





	Thread size	Part No.	A max.	Min. sheet thickness	Hole dia. +0.08mm (.003in) -0.000	B max.	C ±0.25mm (±.01in)	D ±0.25mm (±.01in)	Min. dim. edge to centre line of hole
Metric (mm)	M3 x 0.5	SCFSPM3-0 SCFSPM3-1 SCFSPM3-2	0.76 0.97 1.37	0.81 1.0 1.4	4.25	4.22	1.5	6.3	4.8
	M4 x 0.7	SCFSPM4-0 SCFSPM4-1 SCFSPM4-2	0.76 0.97 1.37	0.8-1 1.0 1.4	5.4	5.38	2	7.9	6.9
	M5 x 0.8	SCFSPM5-0 SCFSPM5-1 SCFSPM5-2	0.76 0.97 1.37	0.8-1 1.0 1.4	6.4	6.38	2	8.7	7.1
	M6 x 1.0	SCFSPM6-1	1.37	1.4	8.75	8.72	4.1	11.1	8.6
Imperial (in.)	4-40	SCFSP440-0 SCFSP440-1 SCFSP440-2	.030 .038 .054	.030-.039 .040 .056	.166	.165	.07	.25	.19
	6-32	SCFSP632-0 SCFSP632-1 SCFSP632-2	.030 .038 .054	.030-.039 .040 .056	.1875	.187	.07	.28	.22
	8-32	SCFSP832-0 SCFSP832-1 SCFSP832-2	.030 .038 .054	.030-.039 .040 .056	.213	.212	.09	.31	.27
	10-32	SCFSP1032-0 SCFSP1032-1 SCFSP1032-2	.030 .038 .054	.030-.039 .040 .056	.250	.249	.09	.34	.28
	1/4-20	SCFSP420-1 SCFSP420-2	.054 .087	.056 .091	.344	.343	.17	.44	.34

Self-locking and Free Running Clinch Nuts

Type SCFE & SCFEO Self-Locking Threads, SCFEX & SCFEOX Non-Locking Threads

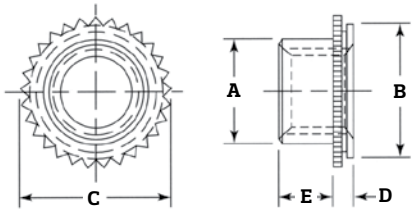
SCFE range provides strong threads in areas where space is restricted.

Material: 303 Series Stainless steel

Finish:
- SCFE, SCFEO - Black dry-film lubricant per MIL-L-8937
- SCFEX, SCFEOX - Passivated

Thread:
- SCFE, SCFEO - Self-locking threads 6H ISO Metric
- SCFEX, SCFEOX - Non-locking threads 6H ISO Metric

Use in: Materials with Rockwell Hardness B-70 or less.



	Thread size	Part No.		D max.	Min. sheet thickness	Hole dia. +0.08mm (.003in) -0.000	A max.	E +0.4mm (+.015in) -0.000	B max	C ±0.25mm (±.01in)	Min. dim. edge to centre line of hole
		Self-locking	Non-locking								
Metric (mm)	M3 x 0.5	SCFEOM3 SCFEM3	SCFEOXM3 SCFEXM3	1.02 1.53	1.02 1.53	4.4	3.96	1.90	4.34	4.88	3.6
	M4 x 0.7	SCFEOM4 SCFEM4	SCFEOXM4 SCFEXM4	1.02 1.53	1.02 1.53	7.4	5.23	2.55	7.34	8.17	5.2
	M5 x 0.8	SCFEOM5 SCFEM5	SCFEOXM5 SCFEXM5	1.02 1.53	1.02 1.53	7.4	6.48	3.05	7.34	8.17	5.2
	M6 x 1.0	SCFEM6	SCFEXM6	1.53	1.53	8.75	7.72	3.30	8.71	9.74	7.1
Imperial (in.)	4-40	SCFE440 SCFEO440	SCFEX440 SCFEOX440	.060 .040	.060 .040	.172	.145	.065	.171	.192	.14
	6-32	SCFE632 SCFEO632	SCFEX632 SCFEOX632	.060 .040	.060 .040	.213	.180	.075	.212	.244	.17
	8-32	SCFE832 SCFEO832	SCFEX832 SCFEOX832	.060 .040	.060 .040	.290	.215	.090	.289	.322	.20
	10-32	SCFE1032 SCFEO1032	SCFEX1032 SCFEOX1032	.060 .040	.060 .040	.290	.245	.110	.289	.322	.20
	1/4-20 1/4-28	SCFE420 SCFEO428	SCFEX420 SCFEOX428	.060 .060	.060 .060	.344	.318	.120	.343	.384	.28

Self-clinching Blind Nuts

Type SCFB & SCFBS

SCFB & SCFBS blind, sealed-thread, press nuts are designed to provide extended thread lengths in thin sheet metal. Blind nuts also provide a seal against the intrusion of dirts, oils, moisture and corrosive environments.

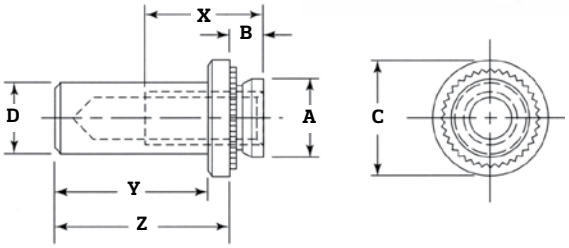
Materials: SCFB - Heat-treated Carbon steel
SCFBS - 300 Series Stainless steel

Finish: SCFB - Zinc ASTM B633-85 Clear
SCFBS - Passivated ASTM A380

Thread: 6H ISO metric
Imperial Class 2B, MIL-S-7742

Use in: SCFB - Materials with Rockwell Hardness of B-80 or less

SCFBS - Materials with Rockwell Hardness of B-70 or less



Thread size	Part No.		Barrel dia. D max.	Min. sheet thick.	Hole dia. +0.08mm (.003in) -0.000	Shank dia. A max.	Y max.	B max.	C ±0.25mm (±.01in)	Z ±0.25mm (±.01in)	Min. dim. edge to centre line of hole	X min. depth full thread
	Carbon steel	Stainless steel										
M3 x 0.5	SCFBM3-1 SCFBM3-2	SCFBSM3-1 SCFBSM3-2	3.8	1.0 1.4	4.25	4.22	8.5	0.97 1.37	6.35	9.6	4.8	5.3
M4 x 0.7	SCFBM4-1 SCFBM4-2	SCFBSM4-1 SCFBSM4-2	5.2	1.0 1.4	5.4	5.38	9.8	0.97 1.37	7.95	11.2	6.9	7.1
M5 x 0.8	SCFBM5-1 SCFBM5-2	SCFBSM5-1 SCFBSM5-2	6.0	1.0 1.4	6.4	6.38	9.8	0.97 1.37	8.75	11.2	7.1	7.1
M6 x 1.0	SCFBM6-1 SCFBM6-2	SCFBSM6-1 SCFBSM6-2	7.8	1.4 2.3	8.75	8.72	12.7	1.37 2.21	11.10	14.3	8.6	7.8
4-40	SCFB440-0 SCFB440-1	SCFBS440-0 SCFBS440-1	.149	.040 .056	.166	.165	.335	.038 .054	.25	.38	.19	.21
6-32	SCFB632-1 SCFB632-2	SCFBS632-1 SCFBS632-2	.169	.040 .056	.187	.186	.335	.038 .054	.28	.38	.22	.23
8-32	SCFB832-1 SCFB832-2	SCFBS832-1 SCFBS832-2	.204	.040 .056	.213	.212	.385	.038 .054	.31	.44	.27	.28
10-32	SCFB1032-1 SCFB1032-2	SCFBS1032-1 SCFBS1032-2	.235	.040 .056	.250	.249	.385	.038 .054	.34	.44	.28	.28
1/4-20	SCFB420-1 SCFB420-2	SCFBS420-1 SCFBS420-2	.305	.056 .090	.344	.343	.500	.054 .087	.43	.56	.34	.31

Self-clinching Flush Nuts

Type SCFL

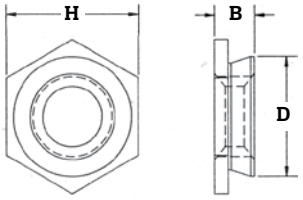
SCFL Self-clinching Nuts provide strong load-bearing threads whilst fitting flush into the material.

Material: 300 Series Stainless steel

Finish: Passivated (ASTM A380)

Thread: 6H ISO Metric
Imperial Class 2B, MIL-S-7742

Use in: Materials with Rockwell Hardness B-70 or less.



	Thread size	Pitch	Part No.	B max.	Min. sheet thickness	Hole dia. +0.08mm (.003in) -0.000	D max.	H	Min. dim. edge to centre line of hole
Metric (mm)	M2	0.5	SCFL-M2-1 SCFL-M2-2	1.5 2.3	1.5 2.3	4.4	4.34	4.8	6.0
	M2.5	0.5	SCFL-M2.5-1 SCFL-M2.5-2	1.5 2.3	1.5 2.3	4.4	4.34	4.8	6.0
	M3	0.5	SCFL-M3-1 SCFL-M3-2	1.5 2.3	1.5 2.3	4.4	4.34	4.8	6.0
	M3.5	0.6	SCFL-M3.5-1 SCFL-M3.5-2	1.5 2.3	15 2.3	5.4	5.35	6.40	6.5
	M4	0.7	SCFL-M4-1 SCFL-M4-2	1.5 2.3	1-5 2.3	7.4	7.34	7.94	7.2
	M5	0.8	SCFL-M5-1 SCFL-M5-2	1.5 2.3	1.5 2.3	7.9	7.87	8.73	8.0
	M6	1.0	SCFL-M6-3 SCFL-M6-4 SCFL-M6-5	3.1 3.9 4.7	3.2 4.0 4.75	8.75	8.71	9.53	8.8
Imperial (in.)	2-56		SCFL-256-1 SCFL-256-2	.060 .090	.061 .091	.172	.171	.1875	.23
	4-40		SCFL-440-1 SCFL-440-2	.060 .090	.061 .091	.172	.171	.1875	.23
	6-32		SCFL-632-1 SCFL-632-2	.060 .090	.061 .091	.213	.212	.25	.27
	8-32		SCFL-832-1 SCFL-832-2	.060 .090	.061 .091	.290	.289	.3125	.28
	10-24		SCFL-1024-1 SCFL-1024-2	.060 .090	.061 .091	.312	.311	.3438	.31
	10-32		SCFL-1032-1 SCFL-1032-2	.060 .090	.061 .091	.312	.311	.3438	.31
	1/4 - 20		SCFL-420-3 SCFL-420-4 SCFL-420-5	.120 .151 .182	.126 .156 .187	.344	.343	.375	.34
	1/4 - 28		SCFL-428-3 SCFL-428-4 SCFL-428-5	.120 .151 .182	.126 .156 .187	.344	.343	.375	.34

Floating Clinch Nuts
Type SCFAS & SCFAC

SCFAS & SCFAC floating clinch nuts provide a Self-clinching fastener with a floating nut that compensates for mating misalignments up to 0.8mm (.030 in.)

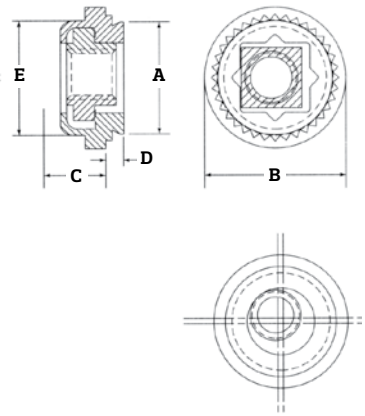
Material: SCFAS - Carbon steel, Heat treated
SCFAC - 300 Series Stainless steel

Finish: SCFAS - Zinc (ASTM B633-85) Clear
SCFAC - Passivated (ASTM A380)

Thread: Non-locking: 6H ISO Metric (Class 2B, MIL-S-7742)
Self-locking: 6H ISO Metric (Class 3B, ANSI B1-1)

Float: 0.4mm (.015 in.) minimum in all directions from centre, 0.8mm (.030 in.) total

Use in: Materials with Rockwell Hardness of B-70 or less



	Thread size	Part No.		D max.	Min. sheet thick.	Hole dia. +0.08mm (.003in) -0.000	A max.	E max.	B ±0.381mm (±.015in.)	C max.	Min. dim. edge to centre line of hole
		Carbon steel	Stainless steel								
Metric (mm)	M3 x 0.5	SCFASM3-1 SCFASM3-2	SCFACM3-1 SCFACM3-2	0.97 1.37	1.0 1.4	7.4	7.34	7.4	9.1	3.3	7.6
	M4 x 0.7	SCFASM4-1 SCFASM4-2	SCFACM4-1 SCFACM4-2	0.97 1.37	1.0 1.4	9.4	9.32	9.3	11.2	3.3	8.6
	M5 x 0.8	SCFASM5-1 SCFASM5-2	SCFACM5-1 SCFACM5-2	0.97 1.37	1.0 1.4	10.3	10.29	10.3	11.9	4.3	9.0
	M6 x 1.0	SCFASM6-2*	SCFACM6-2*	1.37	1.4	13.1	13.06	13.0	15.3	5.3	11.0
Imperial (in.)	4-40	SCFAS440-1 SCFAS440-2	SCFAC420-1 SCFAC420-2	.038 .054	.040 .056	.290	.289	.290	.36	.13	.30
	6-32	SCFAS632-1 SCFAS632-2	SCFAC632-1 SCFAC632-2	.038 .054	.040 .056	.328	.327	.330	.39	.13	.32
	8-32	SCFAS832-1 SCFAS832-2	SCFAC832-1 SCFAC832-1	.038 .054	.040 .056	.368	.367	.365	.44	.13	.34
	10-24	SCFAS1024-1 SCFAS1024-2	SCFAC1024-1 SCFAC1024-2	.038 .054	.040 .056	.406	.405	.405	.47	.16	.36
	10-32	SCFAS1032-1 SCFAS1032-2	SCFAC1032-1 SCFAC1032-2	.038 .054	.040 .056	.406	.405	.405	.47	.16	.36
	1/4-20	SCFAS420-2*	SCFAC420-2*	.054	.056	.515	.514	.510	.60	.20	.42
	1/4-28	SCFAS428-2*	SCFAC428-2*	.054	.056						

*Non-standard, available on request

Self-clinching Flush Head Studs

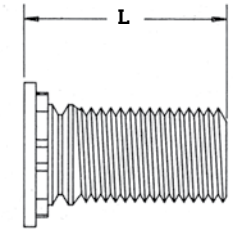
Type SCH, SCHS & SCHA

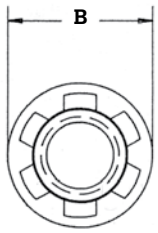
The SCH range of studs provide a flush head finish in materials as thin as 1.0mm whilst giving a high level of torque-out and push-out performance.

Material:
SCH - Carbon steel, Heat treated
SCHS - 300 Series Stainless steel
SCHA - 2024 - T4 Aluminium

Finish:
SCH - Zinc, spec. ASTMB 633-85
SCHS - Passivated (QQ-P-35)
SCHA - No Finish

Thread: 6H ISO Metric





	Thread size	Thread code	L Lengths ±0.4 mm													Min. sheet thick.	Hole dia. +0.08 -0.00	B ±0.4	Min. dim. edge to centre line of hole
			6	8	10	12	15	18	20	22	25	28	30	35	38				
Metric (mm)	M2.5X0.45	M2.5	-6	-8	-10	-12	-15	-18								1.0	2.5	4.1	5.4
	M3x0.5	M3	-6	-8	-10	-12	-15	-18	-20	-22	-25					1.0	3.0	4.6	5.6
	M3.5x0.6	M3.5	-6	-8	-10	-12	-15	-18	-20	-22	-25	-28	-30			1.0	3.5	5.3	6.4
	M4x0.7	M4	-6	-8	-10	-12	-15	-18	-20	-22	-25	-28	-30	-35	-38	1.0	4.0	5.9	7.2
	M5x0.8	M5		-8	-10	-12	-15	-18	-20	-22	-25	-28	-30	-35	-38	1.0	5.0	6.5	7.2
	M6x1.0	M6			-10	-12	-15	-18	-20	-22	-25	-28	-30	-35	-38	1.6	6.0	8.2	7.9
	M8x1.25	M8				-12	-15	-18	-20	-22	-25	-28	-30	-35	-38	2.4	8.0	9.6	9.6

	Thread size	Thread code	L Lengths ±.015 in.										Min. sheet thick.	Hole dia. +.005 -.000	B ±.015	Min. dim. edge to centre line of hole
			.250	.3125	.375	.500	.625	.750	.875	1.00	1.25	1.50				
Imperial (in.)	2-56	256	-4	-5	-6	-8	-10						0.40	.085	.144	.187
	4-40	440	-4	-5	-6	-8	-10	-12	-14				0.40	.111	.176	.219
	6-32	632	-4	-5	-6	-8	-10	-12	-14	-16	-20	-24	0.40	.137	.206	.250
	8-32	832	-4	-5	-6	-8	-10	-12	-14	-16	-20	-24	0.40	.163	.237	.281
	10-24	1024		-5*	-6	-8	-10	-12	-14	-16	-20	-24*	0.40	.189	.256	.281
	10-32	1032		-5	-6	-8	-10	-12	-14	-16	-20	-24	0.40	.189	.256	.281
	1/4-20	420			-6	-8	-10	-12	-14	-16	-20	-24	0.62	.249	.337	.312
	5/16-18	518				-8	-10	-12	-14	-16	-20	-24	0.93	.311	.376	.375

Installation and Performanace Data

	Thread code	Sheet material & thickness	Installation force (kN)	Push-out (N)	Torque-out (N.m)
Metric (mm)	M2.5	1.6 Aluminium	11.6	625	0.9
		1.5 Steel	13.0	1025	0.9
	M3	1.6 Aluminium	12.9	890	1.2
		1.5 Steel	14.7	1240	1.2
	M3.5	1.6 Aluminium	15.6	980	2.0
		1.5 Steel	22.3	1550	2.0

*Non-standard, available on request

	Thread code	Sheet material & thickness	Installation force (kN)	Push-out (N)	Torque-out (N.m)
Metric (mm)	M4	1.6 Aluminium	22.3	1290	3.4
		1.5 Steel	26.7	1780	3.9
	M5	1.6 Aluminium	24.5	1470	4.5
		1.5 Steel	32.5	2440	7.3
	M6	2.4 Aluminium	28.9	2000	8.4
		2.2 Steel	44.54	3110	12.4
	M8	2.4 Aluminium	29	2440	15.8
		2.2 Steel	49.8	3780	21.5

Self-clinching Flush Head Pins

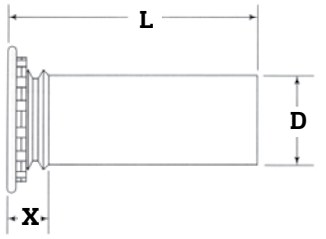
Type SCH, SCHN, SCHS & SCHA

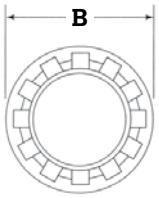
Type SCH pins provide a strong flush head assembly in material as thin as 1.0mm (.040 in.) with high torque-out and push-out performance.

Material:
- SCH - Carbon steel, Heat-treated
- SCHN - Carbon steel, Non heat-treated
- SCHS - 300 Series Stainless steel
- SCHA - 2024-T4 Aluminium

Finish:
- SCH - Zinc (ASTM B633-85) Clear
- SCHN - Zinc (ASTM B633-85) Clear
- SCHS - Passivated (ASTM A380)
- SCHA - None

Use in:
- SCH - Materials HRB-80 or less
- SCHN - Materials HRB-50 or less
- SCHS - Materials HRB-70 or less
- SCHA - Materials HRB-50 or less





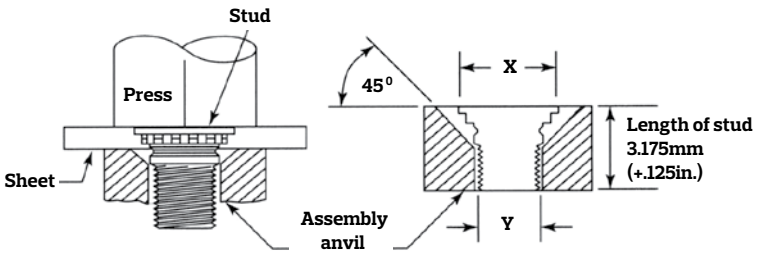
	Pin dia. D ±0.05	L Lengths ±0.04										B ±.04	X max.	Min. sheet thick.	Hole dia. +0.08 -0.00	Min. dim. edge to centre line of hole
		6	8	10	12	15	18	20	25	30	35					
Metric (mm)	3.0	-6	-8	-10	-12	-15	-18	-20	-25	-30	N/A	5.3	2.3	1.0	3.5	6.4
	4.0	N/A	-8	-10	-12	-15	-18	-20	-25	-30	-35	6.0	2.3	1.0	4.1	7.1
	5.0	N/A	-8	-10	-12	-15	-18	-20	-25	-30	-35	7.5	2.55	1.0	5.5	7.6

	Pin dia. D ±.002	L Lengths ±.015 in.										B ±.015	X max.	Min. sheet thick.	Hole dia. +.003in -.000	Min. dim. edge to centre line of hole
		.250	.3125	.375	.500	.625	.750	.875	1.00	1.25	1.50					
Imperial (mm)	.073	-4	-5	-6	-8	-10						.15	.075	.040	.085	.19
	.084	-4	-5	-6	-8	-10	-12					.16	.085	.040	.099	.22
	.094	-4	-5	-6	-8	-10	-12					.18	.085	.040	.111	.22
	.103	-4	-5	-6	-8	-10	-12					.18	.085	.040	.118	.22
	.106	-4	-5	-6	-8	-10	-12					.19	.090	.040	.125	.22
	.116	-4	-5	-6	-8	-10	-12	-14	-16	-20		.21	.090	.040	.137	.25
	.120	-4	-5	-6	-8	-10	-12	-14	-16	-20		.21	.090	.040	.137	.25
	.137	-4	-5	-6	-8	-10	-12	-14	-16	-20	-24	.23	.090	.040	.157	.28
	.141	-4	-5	-6	-8	-10	-12	-14	-16	-20	-24	.24	.090	.040	.163	.28
	.160		-5	-6	-8	-10	-12	-14	-16	-20	-24	.26	.100	.040	.189	.28
	.167		-5	-6	-8	-10	-12	-14	-16	-20	-24	.26	.100	.040	.189	.28
	.173		-5	-6	-8	-10	-12	-14	-16	-20	-24	.26	.100	.040	.197	.28
	.207			-6	-8	-10	-12	-14	-16	-20	-24	.32	.135	.062	.236	.31
	.215				-8	-10	-12	-14	-16	-20	-24	.34	.135	0.62	.250	.31
	.223				-8	-10	-12	-14	-16			.34	.135	0.62	.250	.31
	.273				-8	-10	-12	-14	-16	-20	-24	.38	.160	.093	.312	.38
	.281				-8	-10	-12	-14	-16			.38	.160	.093	.312	.38

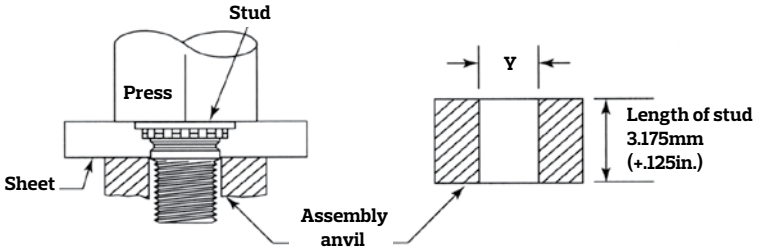
Self-clinching Studs

Type SCH, SCHS & SCHA

Tooling data:



Tooling for sheet thickness 1.5mm (.059 in.) and less with M2.5 (no.2) up to M5 (no.10) thread sizes and less than 2.3mm (.093 in.) for M6 (1/4 in.) threads.



Tooling for sheet thickness 1.5mm (.060 in.) minimum and greater with M2.5 (no.2) up to M5 (no.10) thread sizes and 2.3mm (.093 in.) minimum and greater for M6 (1/4 in.) and M8 (5/16 in.)threads.

Metric (mm)

Thread code	Anvil dimensions	
	X +0.1	Y +0.08
M2.5	3.1	2.50
M3	3.6	3.00
M3.5	4.1	3.50
M4	4.6	4.00
M5	5.6	5.00
M6	6.6	6.00
M8	-	8.00

Imperial (in.)

Thread code	Anvil dimensions	
	X	Y
256	.110	.087
	.114	.090
440	.136	.113
	.140	.116
632	.162	.139
	.166	.142
832	.188	.165
	.192	.168
1024	.216	.191
	.220	.194
1032	.216	.191
	.220	.194
420	.295	.250
	.300	.253
518	-	.3125
	-	.3155

High Torque Self-clinching Studs

Type SHCH, SHCHS & SHCHB

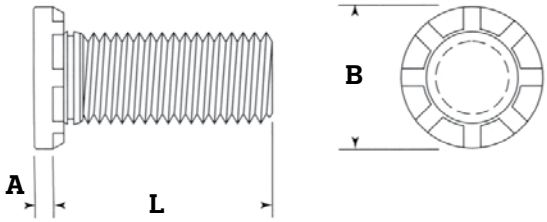
SHCHH high torque studs have a heavy head configuration that provides greater torque-out and improved pull-through resistance.

Material:
SHCHH - Medium Carbon steel, Heat treated
SHCHHS - 300 Series Stainless steel
SHCHHB - Phosphor Bronze CDA-510

Finish:
SHCHH - Zinc (ASTM B633-85) Clear
SHCHHS - Passivated (ASTM A380)
SHCHHB - None

Thread:
6G ISO Metric
Imperial Class 2A, MIL-S-7742

Use in:
Cold-rolled steel or 5052-H34 Aluminium with Rockwell Hardness as follows:
SHCHH - Materials with HRB-85 or less
SHCHHS - Materials HRB-70 or less
SHCHHB - Materials HRB-55 or less



	Thread size	Thread code	L Lengths ±0.4mm						Min. sheet thick.	Hole dia. +0.13 -0.00	Max hole in attach parts	A max	B ±2.5	Min. dim. edge to centre line of hole
			20	25	30	35	40	50						
Metric (mm)	M5 x 0.8	M5	-20	-25	-30				1.3	5.0	6.5	1.14	7.8	10.7
	M6 x 1.0	M6	-20	-25	-30	-35			1.5	6.0	7.5	1.27	9.4	11.5
	M8 x 1.25	M8	-20	-25	-30	-35	-40	-50	2.0	8.0	9.5	1.78	12.5	12.7
	M10 x 1.25	M10	-20	-25	-30	-35	-40	-50	2.3	10.0	11.5	2.29	15.7	13.7

	Thread size	Thread code	L Lengths ±0.15mm						Min. sheet thick.	Hole dia. +.005 -.000	Max hole in attach parts	A max	B ±0.1	Min. dim. edge to centre line of hole
			.500	.750	1.00	1.25	1.50	1.75						
Imperial (in.)	10-24	1024	-8	-12	-16	-20	-24	-28	0.5	.190	.250	.040	.300	.415
	10-32	1032	-8	-12	-16	-20	-24	-28*	0.5	.190	.250	.040	.300	.415
	1/4-20	0420	-8	-12	-16	-20	-24	-28*	.06	.250	.312	0.50	.380	.460
	5/16-18	0518	-8*	-12	-16	-20	-24	-28*	.075	.312	.375	.070	.480	.500
	3/8-16	616		-12	-16	-20	-24	-28*	.090	.375	.437	.085	.580	.530

Note: Studs are available in lengths up to 75mm (3.0in) by special order for M6 (1/4-20) and larger.

High Torque Self-clinching Studs

Type SHCH, SHCHS & SHCHB

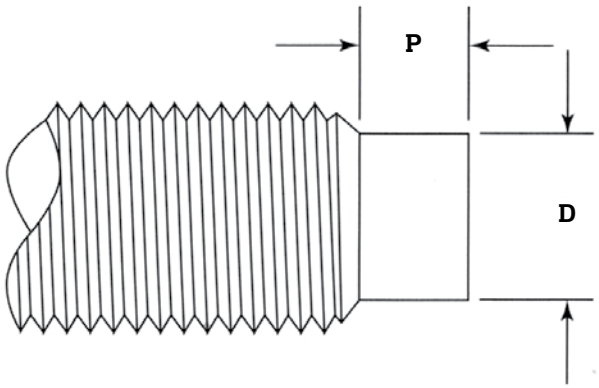
Installation and Performance data:

	Thread code	Sheet material & thickness	Sheet hardness HRB	Installation force (kN)	Push-out (N)	Torque-out (N.m)	Torque-thru (N.m)
Metric (mm)	M5	1.5 Aluminium	15	13	778	5.4	6.8
		1.5 Steel	65	26	1556	8.1	6.8
	M6	1.5 Aluminium	43	29	1620	16.3	17.9
		1.5 Steel	59	33	2020	16.4	23.7
	M8	2.3 Aluminium	39	35.6	1780	31.2	43.4
		2.3 Steel	58	44.5	2890	36.6	43.4

	Thread code	Sheet material & thickness	Sheet hardness HRB	Installation force (lbs)	Push-out (lbs)	Torque-out (ft.-lbs)	Torque-thru (ft.-lbs)
Imperial (in.)	1024 1032	.060 Aluminium	15	3000	175	4	5
		060 Steel	65	6000	350	6	5
	420	.065 Aluminium	43	5500	340	12	11
		059 Steel	59	7000	600	12	13
	518	.091 Aluminium	39	8000	400	23	32
		090 Steel	58	10000	650	27	32

Dog-point data:

SHCHH & SHCHHS studs are available with a dog-point end to assist the attachment of mating nuts, which is especially useful in high speed production assembly using motorised nut drivers. Dog-points may be specified on all SCH, STCH and SHCH style studs as a special order, using the following part number structure:



	Thread code	D ±0.13	P ±0.25
Metric (mm)	M3.5 x 0.6	2.4	1.27
	M4 x 0.7	2.79	1.4
	M5 x 0.8	3.66	1.78
	M6 x 1.0	4.37	2.03
	M8 x 1.25	6.05	2.67

	Thread code	D ±.005	P ±.010
Imperial (in.)	6-32	0.86	.050
	8-32	.111	.055
	10-24	.124	.065
	10-32	.138	.065
	1/4 x 20	.173	.085
	1/4 x 28	.192	.085
	5/16 x 18	.228	.105

Note: Maximum dog-point diameter is 0.08mm (.003 in.) less than the minimum minor diameter of 2B or 6G mating nut threads.

Non Flush Self-clinching Studs

Type STCH & STCHS

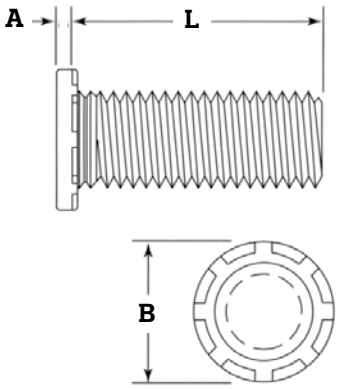
STCH non flush studs are manufactured for use in sheets as thin as 0.5mm (.020 in.) thick. The push-out and torque-out values are excellent for most applications. The head of the stud will project above the panel surface when installed correctly.

Material: STCH - Carbon steel, Heat treated
STCHS - 300 Series Stainless steel

Finish: STCH - Zinc (ASTM B633-85) Clear
STCHS - Passivated (ASTM A380)

Thread: 6G ISO Metric
Imperial Class 2A, MIL-S-7742

Use in: Cold-rolled steel or 5052-H34 Aluminium with Rockwell Hardness of B-70 or less



	Thread size	Thread code	L Lengths ±0.4 mm													Min. sheet thick.	Hole dia. +0.08 -0.00	B ±0.4	A max.	Min. dim. edge to centre line of hole
			6	8	10	12	15	18	20	22	25	28	30	35	38					
Metric (mm)	M3x0.5	M3	-6	-8	-10	-12	-15	-18								0.51	3.0	4.5	0.64	5.6
	M4x0.7	M4			-10	-12	-15	-18	-20	-22	-25	-28	-30	-35	-38	0.51	4.0	5.8	0.64	7.2
	M5x0.8	M5			-10	-12	-15	-18	-20	-22	-25	-28	-30	-35	-38	0.51	5.0	6.4	0.64	7.2

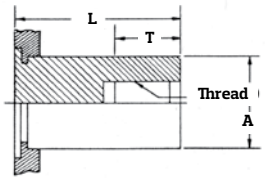
	Thread size	Thread code	L Lengths ±0.15 mm										Min. sheet thick.	Hole dia. +.005 -.000	A max.	B ±0.1	Min. dim. edge to centre line of hole
			.250	.3125	.375	.500	.625	.750	.875	1.00	1.25	1.50					
Imperial (in.)	4-40	440	-4	-5	-6	-8	-10	-12					.020	.111	.025	.176	.219
	6-32	632	-4	-5	-6	-8	-10	-12	-14	-16	-20	-24*	.020	.137	.025	.203	.250
	8-32	832	-4	-5	-6	-8	-10	-12	-14	-16	-20	-24*	.020	.163	.025	.234	.281
	10-24	1024		-5*	-6	-8	-10	-12	-14	-16	-20	-24*	.020	.189	.025	.250	.281
	10-32	1032		-5*	-6	-8	-10	-12	-14	-16	-20	-24*	.020	.189	.025	.250	.281

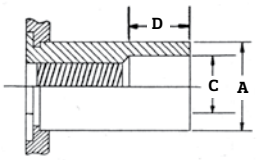
*Non-standard, available on request

Metric Self-clinching Standoffs

Type SCFSO, SCFSOS, SCFSOA, SCFBSO, SCFBSOS & SCFBSOA

Self-clinching Standoffs can be used in materials as thin as 1.0mm and act as a spacer or pillar whilst providing a strong thread.





	Through thread	Blind thread		
Material:	SCFSO	SCFBSO	-	Carbon steel, Heat treated
	SCFSOS	SCFBSOS	-	300 Series Stainless steel
	SCFSOA	SCFBSOA	-	7075-T6 Aluminium
Finish:	SCFSO	SCFBSO	-	Zinc, spec. ASTM B633-85
	SCFSOS	SCFBSOS	-	Passivated (QQ-P-35)
	SCFSOA	SCFBSOA	-	No finish

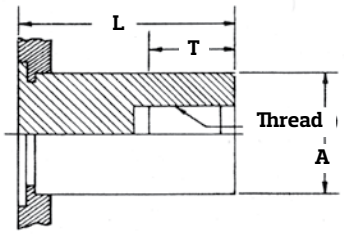
Thread size	Part No.		Length code 'L' +0.05 - 0.13 (Length code in millimetres)												Hole size in sheet +0.08 -.000	A diameter +0.00 -0.13	Hex dim. (A/F)	C Counter - bore dia	Min dist. edge to centre line of hole	Min sheet thick.
			3	4	6	8	10	12	14	16	18	20	22	25						
M3	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	-M3	-3	-4	-6	-8	-10	-12	-14						4.2	4.19	4.8	3.2	6.0	1
						-8	-10	-12	-14	-16	-18									
M3	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	-3.5M3	-3	-4	-6	-8	-10	-12	-14	-16	-18				5.4	5.38	6.4	3.2	7.0	1
					-6	-8	-10	-12	-14	-16	-18	-20	-22	-25						
M3.5	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	-M3.5	-3	-4	-6	-8	-10	-12	-14	-16	-18				5.4	5.38	6.4	4.0	7.0	1
					-6	-8	-10	-12	-14	-16	-18	-20	-22	-25						
M4	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	-M4	-3	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22		7.2	7.11	7.9	4.8	8.0	1.3
						-8	-10	-12	-14	-16	-18	-20	-22	-25						
M5	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	-M5	-3	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22		7.2	7.11	7.9	5.2	8.0	1.3
						-8	-10	-12	-14	-16	-18	-20	-22	-25						

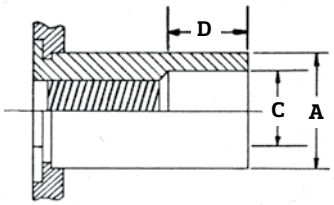
Note: 'D' length on through-threads is 0.00mm on part lengths -3 to -8; 4.0mm on -10 to-14; 8.0mm on -16 to -20; 11.0mm on -22.

Note: 'T' length on blind-threads is 4.00mm on part lengths -8, -10; 5.0mm on -12; 6.5mm on -14, -16; 9.5mm on -18, to -25.

Imperial Self-clinching Standoffs

Type SCFSO, SCFSOS, SCFSOA, SCFBSO, SCFBSOS & SCFBSOA





Thread size	Part No.		L Lengths +.002 -.005																Hole dia. +.003 -.000	A dim. +.000 -.005	Hex dim. (nom.)	C Counter -bore dia.	Min. dim. edge to centre line of hole	Min. sheet thick.
			.125	.1875	.250	.3125	.375	.4375	.500	.5625	.625	.6875	.750	.8125	.875	.9375	1.00	1.0625						
4-40	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	440	-4	-6	-8	-10	-12	-14	-16	-18	-20								.166	.165	.1875	.125	.23	.040
						-10	-12	-14	-16	-18	-20	-22	-24											
4-40	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	6440	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24						.213	.212	.25	.125	.27	.040
						-10	-12	-14	-16	-18	-20	-22	-24											
6-32	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	632	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24	-26	-28	-30			.213	.212	.25	.156	.27	.04
						-10	-12	-14	-16	-18	-20	-22	-24	-26	-28	-30	-32	-34						
6-32	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	8632	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24	-26	-28				.281	.280	.3125	.156	.31	.05
						-10	-12	-14	-16	-18	-20	-22	-24	-26	-28	-30	-32	-34						
8-32	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	832	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24	-26	-28	-30			.281	.280	.3125	.188	.31	.05
						-10	-12	-14	-16	-18	-20	-22	-24	-26	-28	-30	-32	-34						
10-32	SCFSO SCFSOS SCFSOA SCFBSO SCFBSOS SCFBSOA	1032	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24	-26	-28	-30			.281	.280	.3125	.203	.31	.05
						-10	-12	-14	-16	-18	-20	-22	-24	-26	-28	-30	-32	-34						
T±.0156						.1563		.1875		.25				.375										
D±.0156			None				.1875				.3125				.4375									

Self-clinching Standoffs

Type SCFSO, SCFSOS, SCFSOA, SCFBSO, SCFBSOS & SCFBSOA

Installation and Performance data:

		Sheet material: 1.5mm 5052-H34 Aluminium				1.5mm Cold-rolled steel				
	Thread size	Standoff material	Installation (kN)	Push-out (N)	Torque-out (N.m)	Pull through (N)	Installation (kN)	Push-out (N)	Torque-out (N.m)	Pull through (N)	Rec. tighten torque max. (N.m)
Metric (mm)	M3	Steel	4.7	700	1.2	1230	9.6	990	2.1	1450	0.5
		Stainless steel	4.7	700	1.2	985	9.6	990	2.1	1150	0.4
		Aluminium	4.7	700	1.2	740	nr	nr	nr	nr	0.3
	M3.5	Steel	7.4	1310	2.79	1350	14.5	1850	3.9	1670	0.5
		Stainless steel	7.4	1310	2.79	1100	14.5	1850	3.9	1350	0.4
		Aluminium	7.4	1310	2.79	810	nr	nr	nr	nr	0.3
	M4 M5	Steel	10.5	1750	5.01	2550	17.6	2460	8.45	3100	1.9, 3.4
		Stainless steel	10.5	1750	5.01	2020	17.6	2460	8.45	2450	0.9, 2.7
		Aluminium	10.5	1750	5.01	1525	nr	nr	nr	nr	1.1, 2.1

		Sheet material: .060" 5052-H34 Aluminium				.060" Cold-rolled steel				
	Thread size	Standoff material	Installation (lbs.)	Push-out (lbs.)	Torque-out (in.lbs.)	Pull through	Installation (lbs.)	Push-out (lbs.)	Torque-out (in.lbs.)	Pull through	Rec. tighten torque max. (in. lbs.)
Imperial (in)	440	Steel	1075	155	10	270	2100	220	18	225	4.7
		Stainless steel	1075	155	10	220	2100	220	18	260	3.6
		Aluminium	1075	155	10	160	nr	nr	nr	nr	2.7
	6440 632	Steel	1680	290	24	300	3200	410	32	375	4.6, 8.6
		Stainless steel	1680	290	24	235	3200	410	32	300	3.6, 6.8
		Aluminium	1680	290	24	180	nr	nr	nr	nr	2.7, 5.1
	8632 832 032	Steel	2350	380	44	560	3900	550	72	690	8.6,17,30
		Stainless steel	2350	380	44	450	3900	550	72	550	6.8,13,24
		Aluminium	2350	380	44	340	nr	nr	nr	nr	5.2,10,17

'nr' - refers to not recommended

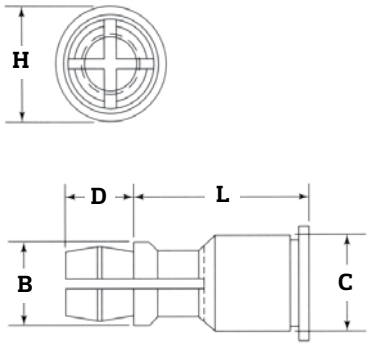
Spring-top Standoffs
Type SCFSSA, SCFSSS & SCFSSC

SCFSSA, SCFSSS & SCFSSC Spring-top standoffs are designed for permanent installation into sheet metal by pressing into a prepared hole. The spring-action post provides quick attachment and removal with a simple snap eliminating the problems associated with loose hardware.

Material:
SCFSSA - Aluminium 7075-T6
SCFSSS - Carbon steel
SCFSSC - 400 Series Stainless steel

Finish:
SCFSSA - Plain
SCFSSS - Zinc (ASTM B633-85) Clear
SCFSSC - Passivated (ASTM A380)

Use in:
SCFSSA - Cold-rolled steel HRB-50
SCFSSS - Cold-rolled steel HRB-60
SCFSSC - Cold-rolled steel HRB-70



Metric (mm)	Type	Top board mounting hole dia.	L Length ±0.13 mm (length code in mm)								B ±0.13	C max.	D ±0.13	H ±0.13
			8	10	12	14	16	18	20	22	25				
	SCFSSA SCFSSC SCFSSS	4mm	-8	-10	-12	-14	-16	-18	-20	-22	-25	4.77	5.38	3.58	6.35

Installation and performance data:

Metric (mm)	Type	Bottom panel						Top panel			
		Bottom mounting hole +0.08 -0.00	Material	Hardness max.	Min. sheet thickness	Min. dim. edge to centre line of hole	Location tolerance max.	Top mounting hole +0.08 -0.00	Material	Thickness range	Min. dim. edge to centre line of hole
	SCFSSA	5.4	Metal	HRB50	1	6.6	±0.13	4.0	PCB or metal	1- 1.8	2.5
	SCFSSS	5.4		HRB60	1	6.6	±0.13	4.0			2.5
	SCFSSC	5.4		HRB70	1	6.6	±0.13	4.0			2.5

Metric (mm)	Type	Fixed panel			Removable panel		
		Sheet material & thickness	Installation force (kN)	Push-out (N)	Max. first on force (N)	Min. first off force (N)	Min. 15th off force (N)
	SCFSSA	1.0 Aluminium HRB 25	6.7	880	44	13	4.0
	SCFSSS	1.0 Aluminium HRB 25	6.7	880	89	27	9.0
	SCFSSC	1.52 Cold-rolled steel HRB 64	16	2670	89	27	9.0

Slide-top Standoffs

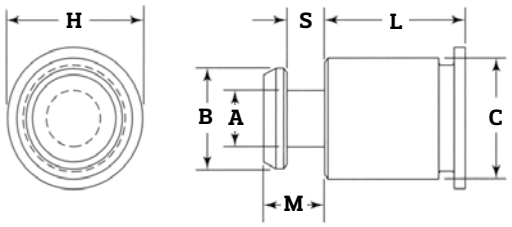
Type SCFSKC Series

SCFSKC slide-top standoffs are designed for a PCB or panel to be quickly attached and removed with a simple sliding motion. The slide-top standoffs provide advantages for reducing service time and eliminate the problems associated with loose hardware. Several slide-top standoffs can be used in conjunction with a self- clinching threaded standoff to lock the board in place.

Material: 300 Series Stainless steel

Finish: Zinc Passivated (ASTM A380)

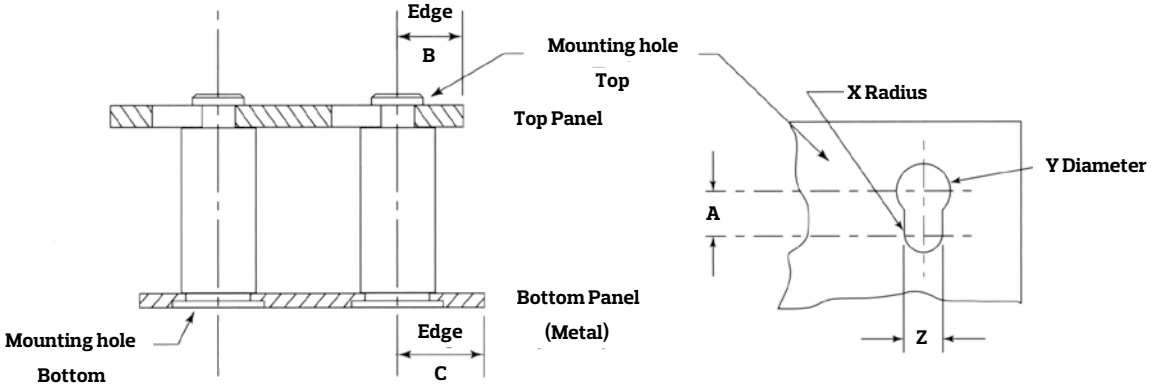
Use in: Materials with Rockwell Hardness of B-70 or less.



Metric (mm)	Type	Body/ hole Code	L Length ±0.13 mm (length code in mm)										A ±0.08	B ±0.08	C max.	S ±0.08	M max.	H nom.	Hole size +0.08 -0.00
			6	8	10	12	14	16	18	20	22	25							
	SCFSKC	61.5	-6	-8	-10	-12	-147	-16	-18	-20*	-22*	-25*	2.5	4.5	5.38	1.72	2.75	6.35	5.5

*Non-standard, available on request.

Tooling data:



Metric (mm)	Type	Bottom panel				Top panel						
		Bottom mounting hole +0.08 -0.00	Min. sheet thickness	C min.	Location tolerance max.	Top mounting hole				Material	Thickness range	B Min. dim. edge to centre line of hole
						X nom.	Y ±0.08	Z ±0.08	A min.			
	SCFSKC	5.4	1.0	6.6	±0.13	1.5	5.0	3.0	3.75	PCB or metal	1.45-1.62	4.1

Pre-assembled Panel Fasteners

Type SCPFC2 Series

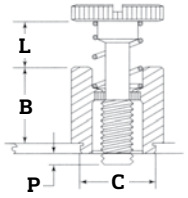
SCPFC2 panel fasteners provide permanent attachment of screw assemblies to removable sheet metal panels. Pre-assembled screw assemblies remain captive for easy mounting and removal of panel.

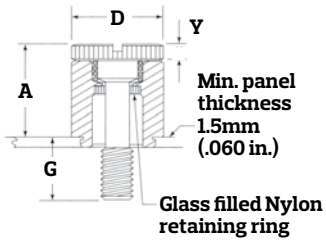
Material: 300 Series Stainless steel

Finish: Passivated (ASTM A380)

Thread: 6H ISO Metric
Imperial Class 2A, MIL-S-7742

Use in: Materials with Rockwell Hardness of B-70 or less.





Thread size	Min. dim edge to centre line of hole	Part No.	G ± 0.4 (±.016 in)	P ± 0.4 (±.016 in)	L ± 0.4 (±.016 in)	D + 0.4 -0.1 (+.016 -.010 in)	A Max	Y Max. ± 0.13 (± .005)	B ± 0.25 (±.010 in)	C Max.	Hole size in sheet + 0.08 - 0.00 (+.003 -.000 in)
M3	6.4	SCPFC2-M3-40 SCPFC2-M3-62 SCPFC2-M3-84	6.4 9.5 12.7	0.0 3.2 6.4	4.8	7.9	9.1	1.83	7.2	6.7	6.75
M4	7.9	SCPFC2-M4-50 SCPFC2-M4-72 SCPFC2-M4-94	7.9 11.1 14.3	0.0 3.2 6.4	6.4	9.5	11.4	2.08	9.3	7.9	7.95
M5	8.7	SCPFC2-M5-50 SCPFC2-M5-72 SCPFC2-M5-94	7.9 11.1 14.3	0.0 3.2 6.4	6.4	10.3	11.4	2.08	9.3	8.7	8.75
M6	9.5	SCPFC2-M6-60 SCPFC2-M6-82 SCPFC2-M6-04	9.5 12.7 15.9	0.0 3.2 6.4	7.9	11.9	14.6	2.49	12.0	10.5	10.5
4-40	.25	SCPFC2440-40 SCPFC2440-62 SCPFC2440-84	.250 .375 .500	.000 .125 .250	.19	.31	.36	.070	.28	.264	.265
6-32	.28	SCPFC2632-40 SCPFC2632-62 SCPFC2632-84	250 .375 .500	.000 .125 .250	.19	.34	.36	.070	.28	.280	.281
8-32	.31	SCPFC2832-50 SCPFC2832-72 SCPFC2832-94	.312 .437 .562	.000 .125 .250	.25	.38	.45	.080	.36	.311	312
10-32	.34	SCPFC21032-50 SCPFC21032-72 SCPFC21032-94	.312 .437 .562	.000 .125 .250	.25	.41	.45	.080	.36	.343	.344
¼-20	.38	SCPFC2420-60 SCPFC2420-82 SCPFC2420-04	.375 .500 .625	.000 .125 .250	.31	.47	.58	.095	.47	.412	.413

Low Profile Panel Fasteners

Type SLP

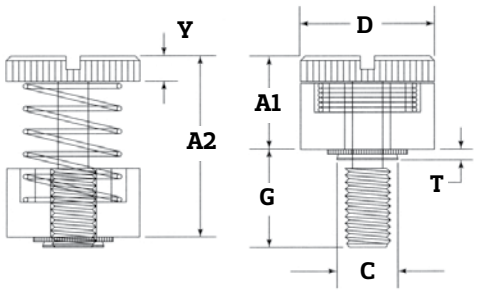
SLP panel fasteners are pre-assembled for attachment to removable sheet metal panels. Screw assemblies remain captive for servicing ease and remain low profile when secure.

Material: Carbon steel

Finish: Bright Nickel over Copper Flash
*Black Nitride (BN) finish available

Thread: Class 2A (6G metric)

Use in: Materials with Rockwell Hardness of B-60 or less.



	Thread size	Type	Thread code	Screw length code	Min sheet thickness	T max.	G ±0.4 mm	C max.	D ±0.04 -0.13 mm	Y ±0.04 mm	A1 max.	A2 ±0.04 mm	Hole dia. +0.08mm -0.00	Min. dim. edge to centre line of hole
Metric (mm)	M3 x 0.5	SLP-1	M3	30	1	0.97	7.6	5.47	10.3	2.1	8.3	15.3	5.5	6.6
		SLP-2			1.5	1.47								
	M4 x 0.7	SLP-1	M4	30	1	0.97	7.6	6.37	11.9	2.2	8.4	15.4	6.4	7.4
		SLP-2			1.5	1.47								
	M5 x 0.8	SLP-1	M5	30	1	0.97	7.6	7.97	13.5	2.6	8.5	15.4	8.0	8.4
		SLP-2			1.5	1.47								
	M6 x 1.0	SLP-2	M6	35	1.5	1.47	8.9	9.47	15.9	3.1	9.7	17	9.5	9.7

Self-broaching Fasteners
Type SCKF2, SCKFS2, SCKFE, SCKFSE, SCKFH

Self-broaching fasteners provide strong threads into printed circuit boards.

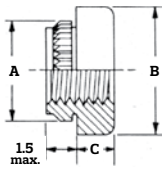
For PCBs Type SCKF2 & SCKFS2

Material: SCKF2 - Carbon steel
SCKFS2 - 300 Series Stainless steel

Finish: SCKF2 - Electroplated Tin; Zinc optional
SCKFS2 - Passivated (ASTM A380)

Thread: 6H ISO Metric

Use in: Circuit boards or sheet materials softer than HRB-65



Thread size	Pitch	Part No.		A ± 0.08	B ± 0.13	C ± 0.13	Hole size in board + 0.08 - 0.00	Min. distance C/L to board edge
		Carbon steel	Stainless steel					
M2.5	0.45	SCKF2-M2.5	SCKFS2-M.2.5	4.68	5.56	1.5	4.2	4.5
M3	0.5	SCKF2-M3	SCKFS2-M3	4.68	5.56	1.5	4.2	4.5
M4	0.7	SCKF2-M4	SCKFS2-M4	6.81	8.74	2.0	6.4	6.4
M5	0.8	SCKF2-MS	SCKFS2-M5	7.37	9.53	3.0	6.9	7.1

For PCBs Type SCKFE & SCKFSE

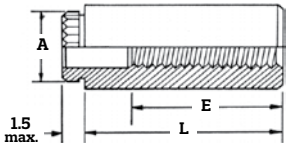
Threaded and non-threaded standoffs allow screws to be inserted through multiple layered boards for stacked assemblies.

Material: SCKFE - Carbon steel
SCKFSE - 300 Series Stainless steel

Finish: SCKFE - Electroplated Tin, MIL-T-1 0727
SCKFSE - Passivated (ASTM A380)

Thread: 6H ISO Metric

Use in: Circuit boards or sheet metal softer than HRB-65



Thread size	Min. dim edge to cntr. line of hole	thru hole + 0.10 -0.08	Part No.		L Length ± 0.13								A ± 0.08	B ± 0.13	Hole in board + 0.08 -0.00
			Carbon steel	Stainless steel											
M3	4.4	-	SCKFE-M3	SCKFSE-M3	-3	-4	-6	-8	-10	-12	-14	-16	4.68	5.56	4.2
-	5.5	3.6	SCKFE-3.6	SCKFSE-3.6									5.87	7.14	5.4
-	7.1	4.2	SCKFE-4.2	SCKFSE-4.2									6.81	8.74	6.4
"E" minimum thread length (where applicable)					FULL					9.5 ±0.4					

For PCBs Type SCKFH

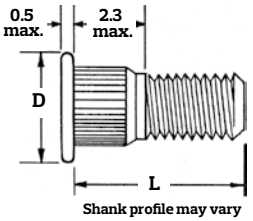
Phosphor bronze studs are electroplated with tin so they are readily solderable.
Thus, they can be used both as solderable connectors and as permanently mounted mechanical fasteners.

Material: Phosphor Bronze CDA-510

Finish: Electroplated Tin, MIL-T-10727

Thread: 6H ISO Metric

Use in: Circuit boards or sheet materials softer than HRB-65



Imperial threads available on request.

Thread size	Pitch	Part No.	L Length ± 0.25						D ±0.25	Hole size in board + 0.08 0.00	Max.size clear. hole in attach. parts	Max. nut torque (N•m)	Min. dist. C/L to board edge	Anvil hole +0.08 - 0.00
M3	0.5	SCKFH-M3	-6	-8	-10	-12	-15	-18	4.58	3.0	3.7	0.45	3.8	3.1
M4	0.7	SCKFH-M4	-	-8	-10	-12	-15	-18	5.74	4.2	4.8	1.60	5.1	4.1
M5	0.8	SCKFH-M5	-	-	-10	-12	-15	-18	6.60	5.0	5.8	2.10	5.3	5.1

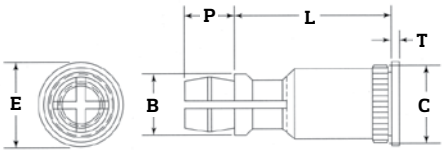
Spring–top Standoffs
Type SCFKSSB

SCFKSSB spring–top standoffs are designed for permanent installation into PCBs by pressing into a drilled or punched hole. The spring–action post provides quick attachment and removal of printed circuit boards, with a simple snap eliminating the problems associated with loose hardware.

Material: CDA - 360 Brass

Finish: None

Use in: Circuit boards with HRB-65 Max.



Metric (mm)	Series	Top board mounting hole dia. Code	L Length ±0.13 mm (length code in mm)									B ±0.13	C max.	E ±0.13	P ±0.13	T ±0.13
			8	10	12	14	16	18	20	22	25					
	SCFKSSB	4	-8	-10	-12	-14	-16	-18	-20	-22	-25	4.77	5.74	6.35	3.58	0.51

Installation and performance data:

Metric (mm)	Series	Bottom panel					Top panel				
		Bottom mounting hole +.08 -.00	Material	Hardness max.	Min. sheet thickness	Min. dim. edge to centre line of hole	Location tolerance max.	Top mounting hole +.08 -.00	Material	Thickness range	Min. dim. edge to centre line of hole
	SCFKSSB	5.4	PCB	HRB65	1.25	5.6	±.013	4.0	PCB or metal	1-1.8	2.5

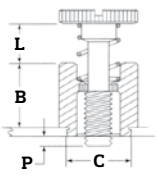
Metric (mm)	Series	Fixed panel			Removable panel		
		Sheet material & thickness	Installation force (kN)	Pushout (N)	Max. first on force (N)	Min. first off force (N)	Min. 15th off force (N)
	SCFKSSB	1.52 FR-4 Fibreglass	2.2	484	58	13	4.0

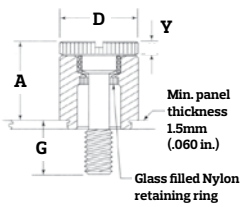
Panel Fasteners
Type SCPFK

SCPFK printed circuit board panel fasteners provide permanent attachment of screw assemblies into printed circuit boards. Screw assemblies remain captive for easy mounting and removal of board.

Material: SCPFK - 300 series Stainless steel

Finish: Passivated ASTM A380





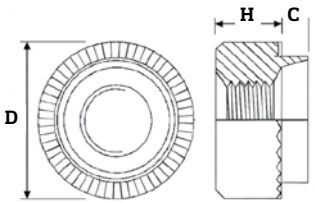
Metric (mm)	Thread size	Part No.	G ±0.4 mm	P ±0.4 mm	L ±0.4 mm	D +0.4 -0.25 mm	A max.	Y ±0.13 mm	B ±0.25 mm	C ±0.08 mm	Hole dia. +0.08m m-0.00	Min. dim. edge to centre line of hole
	M3 x 0.5	SCPFKM3-40	6.4	0.0	4.8	8.2	9.1	1.9	7.2	7.28	6.75	5.1
		SCPFKM3-62	9.5	3.2								
		SCPFKM3-84	12.7	6.4								

Rivet Bushes
Type SHFR, SHFRS

Rivet bushes provide high torque fastenings into thin sheet metals by peening the bush shank over the sheet metal which also gives a very high pull-out performance.

Material: SHFR - Mild steel
SHFRS - Stainless steel

*Rivet bush standoffs available on request



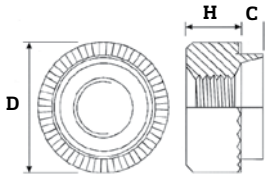
Thread size	D Body diameter	H Body thickness	C Dim.	Hole size
M2.5	7.9	3.2	To suit sheet thickness	5.54
M3	7.9	3.2		5.54
M3.5	9.5	3.2		6.73
M4	9.5	3.2		6.73
M5	11.1	3.8		7.92
M6	12.7	5.0		9.52
M8	15.9	6.3		12.75
M10	19.0	7.6		15.95
M12	25.4	10.1		19.05

Mini Rivet Bushes
Type SHFM, SHFMS

Mini rivet bushes are designed to be used in areas where space is limited.

Material: SHFM - Mild steel
SHFMS - Stainless steel

*Rivet bush standoffs available on request



Thread size	D Body diameter	H Body thickness	C Dim.	Hole size
M2.5	5.55	2.79	To suit sheet thickness	4.19
M3	5.55	2.79		4.19
M3.5	7.00	3.19		5.41
M4	7.00	3.19		5.41
M5	8.50	3.79		6.40
M6	10.00	5.11		7.70
M8	12.00	6.49		9.70

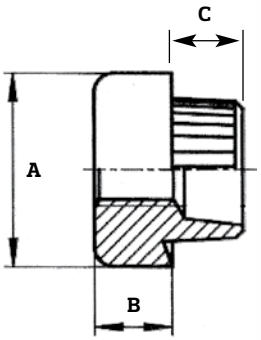
Anchor Rivet Bushes – Serrated Shank

Type SANCRB, SANCRBS

Material: SANCRB - Mild steel
SANCRBS - Stainless steel

To specify: M3 x 16swg - S

Thread size	A Body dia	B Body thickness	C Dim.	Hole size +0.0/-0.1
M2.0	8.0	3.2	To suit sheet thickness	6.0
M2.5	8.0	3.2		6.0
M3.0	8.0	3.2		6.0
M3.5	9.5	3.8		7.0
M4	9.5	3.8		7.0
M5	11.0	4.4		8.4
M6	12.5	5.7		9.7
M8	16.0	6.4		13.2
M10	19.0	7.6		15.5
M12	25.4	10.2		19.6
M14	25.4	10.2		19.6
M16	25.4	10.2		19.6



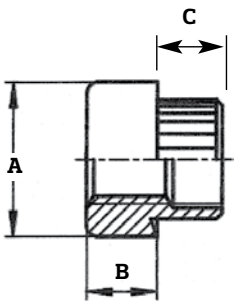
Mini Anchor Rivet Bushes

Type SMANCRB, SMANCRBS

Material: SMANCRB - Mild steel
SMANCRB - Stainless steel

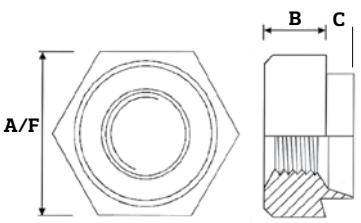
To specify: M3 x 16swg - S

Thread size	A Body dia	B Body thickness	C Dim.	Hole size +0.0/-0.1
M2.0	5.0	2.3	To suit sheet thickness	3.5
M2.5	5.5	2.8		4.2
M3.0	5.5	2.8		4.2
M3.5	7.0	3.2		5.5
M4	7.0	3.2		5.5
M5	8.5	3.8		6.5
M6	10.0	5.1		7.7
M8	12.0	6.5		9.7



Hexagon Rivet Bushes
Type SHFRH

Rivet bushes provide high torque fastenings into thin sheet metals by peening the bush shank over the sheet metal which also gives a very high pull-out performance.



Material: Mild steel

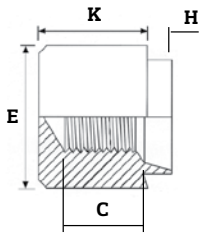
To specify: SHFRH - M3 x 16swg - S

Thread size	A/F ±0.13	B Body thickness ±0.13	C Dim.	Hole size
M3	7.9	3.17	To suit sheet thickness	5.54
M3.5	7.9	3.17		6.73
M4	7.9	3.17		6.73
M5	9.5	3.81		7.92
M6	11.0	5.08		9.52
M8	14.2	6.35		12.70
M10	19.0	7.66		15.87
M12	22.2	10.16		19.05

Tank-type Rivet Bushes
Type SHFT, SHFTS

Material: SHFT - Mild steel
SHFTS - Stainless steel

To specify: SHFT - M3 x 16swg - S
SHFTS - M3 x 16swg - S

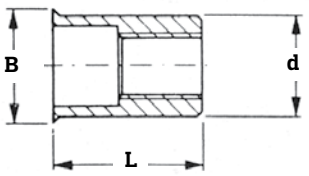


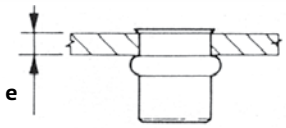
Thread size	E Body dia.	K Body thickness	H Dim.	C Min. thread depth	Hole size
M3.0	8.0	8.5	To suit sheet thickness	3.0	6.0
M4	9.5	9.0		4.0	7.0
M5	11.0	10.0		5.0	8.4
M6	12.5	10.5		5.5	9.7
M8	16.0	12.0		5.5	13.2
M10	19.0	13.5		6.0	15.5
M12	25.4	19.0		7.0	19.6

Thin Sheet Blind Inserts

Type SSPR, SSPRS

Thin sheet inserts are ideal for light applications, providing deep reusable tapped holes.





Material: SSPR - Mild steel
SSPRS - 300 Series Stainless steel

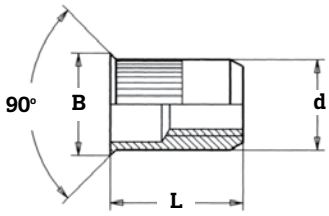
Finish: Zinc & yellow passivated
Clear passivated

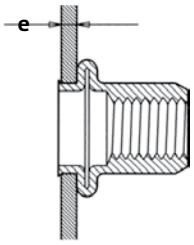
Part No.	Thread size	e Grip range	Ø hole	d +0.05 - 0.1	B ±0.3	L ±0.5
SSPRM3	M3	0.5 - 1.5	4.80	4.70	5.30	9.0
SSPRM4	M4	0.5 - 1.5	6.40	6.30	7.20	10.50
SSPRM5	M5	0.5 - 2	7.20	7.10	8.10	12.10
SSPRM6	M6	0.7 - 2.5	9.60	9.50	10.50	15.0
SSPRM8	M8	1 - 3	10.60	10.50	11.50	16.0

Serrated Blind Inserts

Type SSPRK

Steel threaded inserts with reduced head and knurled body providing added resistance to turning.





Material: Mild steel

Finish: Zinc & yellow passivated

Part No.	Thread size	e Grip range	Ø hole	d +0.05 - 0.1	B ±0.3	L ±0.5
SSPRKM4	M4	0.5 - 2.0	6.40	6.30	7.10	10.50
SSPRKM5	M5	0.5 - 2.5	7.20	7.10	7.90	12.10
SSPRKM6	M6	0.7 - 3.0	9.60	9.50	10.50	15.10
SSPRKM8	M8	0.8 - 3.0	10.60	10.50	11.40	16.10

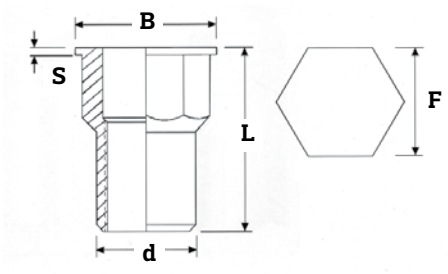
Half-hex Blind Threaded Inserts

Type SHAS, SHASS

Steel threaded inserts with reduced head and hexagonal shank giving a high degree of performance and resistance to turning.

Material: Mild steel

Finish: Zinc & yellow passivated



Part No.	Thread size	Grip range	F Hex. hole A/F -0.0 +0.0	d	S	B	L
SHAS M4	M4	0.5 - 1.65	6.45	6.30	0.5	7.2	10.5
SHAS M5	M5	0.5 - 2.10	7.30	7.15	0.5	8.2	12.1
SHAS M6	M6	0.75 - 2.95	9.70	9.50	0.5	10.4	15.0
SHAS M8	M8	0.9 - 3.30	10.60	10.50	0.7	11.2	16.2

Material: 300 Series Stainless steel

Finish: Passivated (QQ-P-35)

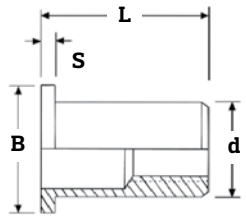
Thread: 6H ISO Metric

Part No.	Thread size	Grip range	F Hex. hole A/F	B	S	d	L
SHASS M3	M3	1.0 - 2.3	5.1	5.8	0.3	5.0	7.9
SHASS M4	M4	1.0 - 3.0	6.1	6.8	0.3	6.0	10.0
SHASS M5	M5	1.0 - 3.5	7.1	8.0	0.4	7.0	11.6
SHASS M6	M6	1.0 - 3.5	9.1	10.0	0.4	9.0	13.9
SHASS M8	M8	1.5 - 5.0	11.1	12.0	0.4	11.0	17.4

Headed Blind Inserts
Type SSFTT

Headed inserts provide high levels of performance whilst offering a strong load-bearing surface.

Material: Steel **Finish:** Zinc & yellow passivated, Aluminium (self-colour)

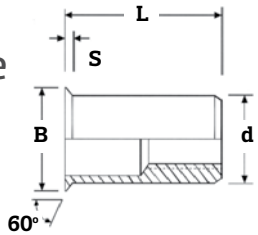


Part No.	Thread size	Grip range	Ø hole	d +0.05 - 0.1	B ±0.3	S ±0.2	L ±0.5
M 3 SSFTT/C M 3 SSFTT/L	M3	0.3 - 1.8 1.8 - 3	5	4.90	8	0.8	9 10.50
M 4 SSFTT/C M 4 SSFTT/L	M4	0.3 - 2.5 2.5 - 4	6	5.90	9	1	11 12.5
M 5 SSFTT/C M 5 SSFTT/L	M5	0.5 - 3 3 - 5	7	6.90	10	1.2	13 16
M 6 SSFTT/C M 6 SSFTT/M M 6 SSFTT/L	M6	0.5 - 2.3 2.5 - 4 4.5 - 6	9	8.90	12	1.5	14 16 17.5
M 8 SSFTT/C M 8 SSFTT/L	M8	0.8 - 3.5 3.5 - 6	11	10.90	15	1.5	17.5 20
M 10 SSFTT/C M 10 SSFTT/L	M10	0.8 - 3.5 3.5 - 6	12	11.90	16	1.7	19 22
M 12 SSFTT/C M 12 SSFTT/L	M12	0.8 - 3.5 3.5 - 6	15	14.90	18	2	22 25

Countersunk Blind Inserts
Type SSFTS

The countersunk head of the SSFTS gives all the load bearing characteristics and performance of the headed insert whilst maintaining surface finish.

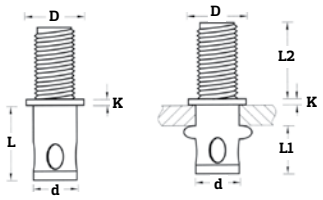
Material: Steel **Finish:** Zinc & yellow passivated, Aluminium (self-colour)



Part No.	Thread size	Grip range	Ø hole	d +0.05 - 0.1	B ±0.3	S ±0.2	L ±0.5
M 3 SSFTS/C M 3 SSFTS/L	M3	1.7 - 3 3 - 4	5	4.90	8	1.5	9.5 11
M 4 SSFTS/C M 4 SSFTS/L	M4	1.7 - 3.5 3.5 - 5	6	5.90	9	1.7	11 13
M 5 SSFTS/C M 5 SSFTS/L	M5	2 - 4 4 - 6	7	6.90	10	1.7	14 15.5
M 6 SSFTS/C M 6 SSFTS/L	M6	2 - 4 4 - 6	9	8.90	12	1.7	14 17
M 8 SSFTS/C M 8 SSFTS/L	M8	2 - 4 4 - 6	11	10.90	14	2	16.5 19
M 10 SSFTS/C M 10 SSFTS/L	M10	2 - 4 4 - 6	12	11.90	15	2	17.5 20

Blind Rivet Bolts
Type SSPRB

SSPRB rivet bolts provide a blind fastening into tubes etc, giving a strong male thread.



Material: Steel

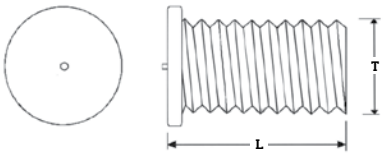
Finish: Zinc plated

Thread size	Part No.	L	L1	L2	Grip range	d	K	D	Hole size
M4	SSPRB-42010 SSPRB-42015 SSPRB-43010 SSPRB-43015	8.5 9.5	4.0	10.0 15.0 10.0 15.0	0.5 - 2.0 2.0 - 3.0	5.4	0.5	8.0	5.5
M5	SSPRB-52010 SSPRB-52015 SSPRB-53510 SSPRB-53515	10.0 11.0	5.0	10.0 15.0 10.0 15.0	0.5 - 2.0 2.0 - 3.5	6.5	0.8	9.0	6.6
M6	SSPRB-62510 SSPRB-62515 SSPRB-64010 SSPRB-64015	11.0 12.5	6.0	10.0 15.0 10.0 15.0	0.5 - 2.5 2.5 - 4.0	7.7	1.0	10.0	7.8
M8	SSPRB-83015 SSPRB-83020 SSPRB-85015 SSPRB-85020	14.0 16.0	8.0	15.0 20.0 15.0 20.0	1.0 - 3.0 3.0 - 5.0	9.8	1.5	12.0	9.9

CD Flanged Weld Studs
Type SWS, SWSS

Material: SWS - Mild steel (Coppered)
SWSS - Stainless steel

To specify: Code - Thread - Length eg. Mild steel weld stud, M3 thread, 10mm long - SWS M3-10



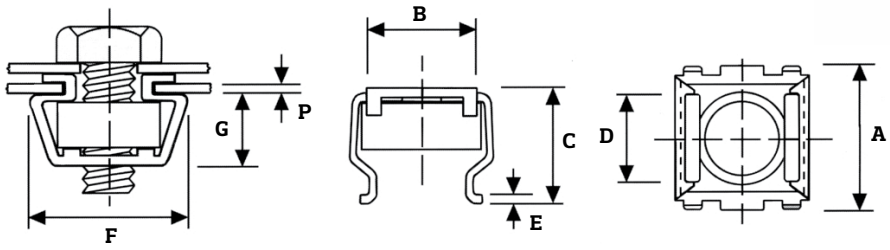
T Thread size	L Lengths available									
M3	6	8	10	12	15	20	25	30		
M4	8	10	12	15	20	25	30			
M5	10	12	15	20	25	30	35	40		
M6	10	12	15	20	25	30	35	40	45	50
M8	15	20	25	30	35	40	45	50		

Cage Nuts
Type SCN

TFC present a wide range of Cage Nuts available. A traditional yet versatile self-retaining fastener that can eliminate welding, clinching or staking. They are fast and easy to assemble by hand, and provide a 'float' to allow for the misalignment of panels.

Material: C70 Spring steel

Finish: Zinc & yellow plated



Thread size	Material thickness	Part No.	A +0.6 -0	B ±0.5	C ±0.3	D	E	F ±0.3	G ±0.1	Hole size
M4	0.7 - 1.6 1.7 - 2.5 2.6 - 3.5 3.6 - 4.5	834 - A 834 - B 834 - C 834 - D	12	11.5	8 9 10 11	7.2	0.45	12.2	6	8.3 x 8.3
M5	0.7 - 1.6 1.7 - 2.6 2.7 - 3.5	955 - A 955 - B 955 - C	13.5	12.7	8.7 9.7 10.2	8.2	0.50	13.5	7.2	9.5 x 9.5
M6	0.7 - 1.6 1.7 - 2.6 2.7 - 3.5	956 - A 956 - B 956 - C	13.5	12.7	8.7 9.7 10.2	8.2	0.50	13.5	7.2	9.5 x 9.5
M8	0.7 - 1.6 1.7 - 3.0 3.1 - 4.0	1238 - A 1238 - B 1238 - C	16.5	16	10.4 11.5 13	10.6	0.55	16.6	7.8	12.5 x 12.5
M10	0.7 - 1.6 1.7 - 3.0 3.1 - 4.0	1231 - A 1231 - B 1231 - C	16.5	16	10.4 11.5 13	10.6	0.55	16.6	7.8	12.5 x 12.5

*Also available in Stainless steel

Blind Rivet Nut and Bolt Insertion Tools

The NO8QI is most suitable for those users who have to install blind rivet nuts and bolts in volume.

Capacity:	All materials M3 - M8 blind rivet nuts and bolts
Weight:	2.3 kg
Dim. LxH:	313 x 276 mm
Stroke:	9mm max.
Pressure req'd:	5 - 7 Bar
Traction power:	(6 Bar) 21000 N
Equipment:	Conversion kit for blind rivet nuts M4 - M8 Conversion kit for blind rivet bolts M4 - M8 Oil refill kit

511QI tool for blind rivet nuts and blind rivet bolts with stroke indicator. Equipped with quick interchange system, the conversion kits can be changed without any tools.

Capacity:	Blind rivet nuts M5 - M10 steel Blind rivet bolts M5 - M8 steel
Body:	ABS (plastic) with steel parts
Lever:	Steel
Weight:	2.4kg
Length:	555 mm
Total weight:	4.7kg
Equipment:	Conversion kit for blind rivet nuts M5, M6, M8, M10 Conversion kit for blind rivet bolts M5, M6, M8

612S high capacity tool for blind rivet nuts and blind rivet bolts up to M12, with stroke indicator. Equipped with quick interchange system, the conversion kits can be changed without any tools.

Capacity:	Blind rivet nuts M6 - M12 Stainless steel Blind rivet bolts M5 - M8 Stainless steel
Body:	Steel
Lever:	Steel
Weight:	1.1kg
Length:	210 mm
Total weight:	3.3kg
Equipment:	Conversion kit for blind rivet nuts M6, M8, M10, M12 Conversion kit for blind rivet bolts M5, M6, M8

Blind Rivet Nut and Bolt Insertion Tools

306S practical riveter for blind rivet nuts with quick interchange system. The conversion kits can be changed without any tools.

Capacity:	Blind rivet nuts M3 - M6 steel
Body:	Steel
Lever:	Steel
Weight:	0.53kg
Length:	190 mm
Total weight:	2.5kg
Equipment:	Conversion kit for blind rivet nuts M3, M4, M5, M6 Conversion kit for blind rivet bolts M5, M6, M8

Blind Rivets

TFC offer an extensive range of blind rivets in various materials including Aluminium, Steel and Stainless steel.

Hand tools are also available to order.

Blind Riveting Tools

The R50S & R64S blind riveting tool comes complete with extraction (vacuum system) for automatic and rapid extraction of the mandrel into the collection bowl.

Capacity:	R50S	Diameter 2.4 - 5.0 mm in all alloys including Stainless steel
	R64S	Diameter 4.0 - 6.4 mm in all alloys including Stainless steel
Weight:	R50S	2.05 kg
	R64S	2.45 kg
Dim. LxH:	R50S	271 x 267 mm
	R64S	299 x 285 mm
Clamping Jaw:	R50S/R64S	3 parts
Stroke:	R50S	17.0 mm
	R64S	22.0 mm
Pressure req'd:	R50S/R64S	5 - 7 Bar

Traction power:	R50S	(6 Bar) 10000 N
	R64S	(6 Bar) 14000 N
Equipment:	R50S	Nose pieces diameter 2.4 - 5.0 mm, 1 key, Oil refill kit
	R64S	Nose pieces diameter 4.0 - 6.4 mm, 1 key, Oil refill kit

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Smalley Wave springs & Spirolox rings

With over 35 years of experience, TFC is the largest European supplier of Smalley's space-saving wave springs and Spirolox Retaining Rings, an alternative to the conventional circlip. TFC's Product Engineers are available to discuss your application no matter how unusual.

Threaded Fasteners

A vast range of commodity fasteners are available from TFC; socket products, HT bolts and screws, nuts, washers, studding, machine, self-tapping and thread forming screws. All can be delivered to your short or long-term scheduled requirements, direct to production line or stock room.

Seals & Bearings

TFC work closely with reputable manufacturers to bring together quality sealing solutions and bearings. 'O'rings, shaft seals, roller bearings, whether it's standard or bespoke for the most demanding environments, TFC's expert team can help.

Spring Steel & Moulded Panel Fasteners

Nylon rivets, drive fasteners, plastic clips, cage nuts, 'U'Nuts, Edge clips, pipe staples, all form part of TFC's extensive product portfolio, enabling us to satisfy the component demands of most engineering and industrial companies.

Circlips & Springs

With 1,000's of circlip sizes in stock, both imperial and metric, carbon and stainless, TFC can offer immediate shipment for next day delivery. Our access to the largest selection of round wire coil springs, disc springs, wave springs and wireforms, means TFC can provide a preload solution in a variety of materials including exotic alloys.

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