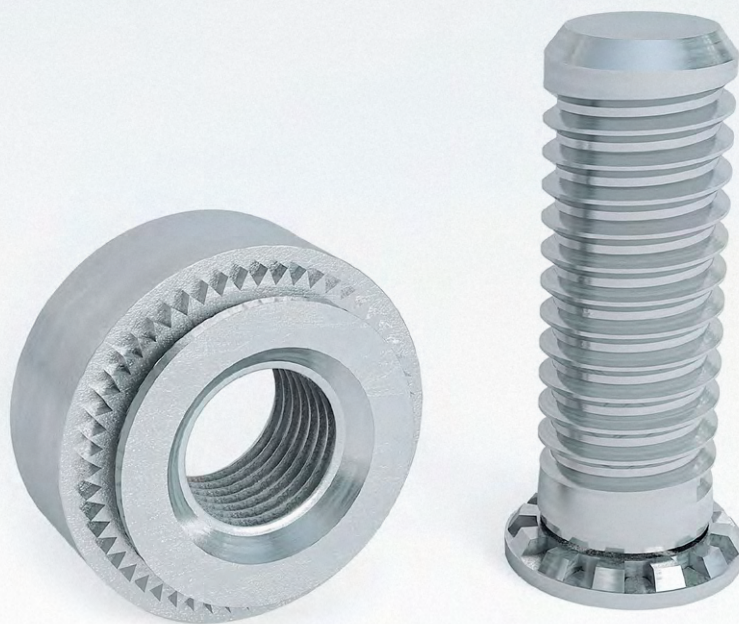


Captive[®] Self-Clinching Fasteners



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Captive® self-clinching fasteners



Captive Fastener Corporation is one of the world's leading manufacturers of self-clinching fasteners. Since 1974, they have been producing the finest quality self-clinching fasteners at their facility in Oakland, New Jersey.

Secure fasteners for thin material

Captive self-clinching fasteners are both an ideal and efficient fastening system that allows load-bearing male and female threads to be attached to components with a panel thickness of as little as 0.5 mm. Through cold-forming, Captive fasteners ensure flush and permanent installation even

on a wide range of different materials. High pull-out and pull-through strengths are guaranteed. For non-metallic or brittle materials, such as circuit boards, self-clinching fasteners offer a specially designed serration.

Comparison with other joining methods

Compared to other joining processes, such as welding, Captive offers numerous benefits: No warping or discoloration of sheet panels, no restrictions as far as weldable or unvarnished materials are concerned, low acquisition costs and running costs for energy, maintenance and distribution. Non-detrimental to health or the environment, no extensive secondary operations.



Our Captive® range



Self-clinching nuts

The most common way to attach highly durable female threads to sheet panels or thin metal parts. The various shaft lengths deliver the ideal snug fit on a variety of material thicknesses.



Self-clinching nuts with bolt retainer

These self-locking nuts are used for material that is exposed to vibrations. Even after the screw has been removed multiple times, the fastener retains its locking effect.



Self-clinching flush fasteners

Self-clinching flush nuts offer the advantage of being completely flush within the sheet. They provide load-bearing threads in materials that are too ductile or thin to tap.



Self-clinching nuts for tolerance compensation

A self-clinching fastener with a floating nut that ideally compensates for mating misalignments of up to approx. 0.8 mm.



Self-clinching blind fasteners

provide more extended thread lengths than their through-hole counterparts. They seal the thread to prevent the ingress of dirt, oils, moisture, and corrosive atmospheres. They are usually more economical to use than nuts and fasteners that require elaborate seals and special assembly procedures.



Self-clinching studs & threaded studs

With these studs, the components can be laid in place prior to being fastened. Available in numerous standard lengths, the studs sit securely anchored in the component. Nuts or other fastener types can be screwed on and pressed in. Depending on the line, the studs fit flush on the component.



Threaded self-clinching studs for blind hole applications

Threaded self-clinching studs are pressed into cylindrical, milled blind holes. The underside of the sheet panel remains undamaged and the fastener is "invisible" when installed on the sheet panel. Also available as threaded self-clinching standoffs.



Self-clinching standoffs & threaded standoffs

Self-clinching standoffs & threaded standoffs are spacers that also act as an effective fastener. They are an easy and time-saving way to fasten components that need to be arranged parallel to each other or at a certain distance from each other.



Self-clinching panel fasteners

Pre-assembled self-clinching panel fasteners to quickly open and close panels, covers, etc. The flexibly fitted screw is permanently captivated.



Spring-top standoffs

Spring-top standoffs provide quick attachment and removal of covers, PC boards, etc.

Installation and use

Captive self-clinching fasteners are pressed into round mounting holes and can be automatically fitted using standard assembly presses.

Captive fasteners are significantly more cost-effective than other fastening methods during initial installation in particular. They are used in numerous key technologies, such as the automotive, sub-supplier, electronics and computer industries. But also in many other sectors of industry where durable and permanent fasteners are required for thin sheet metal or plastic parts.



Technical specifications

- Standard self-clinching fasteners
Thread tolerance for self-clinching nuts: 6H
Self-clinching threaded standoffs: 6H
Self-clinching threaded studs: 6g
- Standard surface coating for steel self-clinching fasteners: zinc plate and clear passivate
Layer thickness: 5µm
Corrosion resistance:
min. 12h WR / 72h RR
- Stainless steel self-clinching fasteners
Passivation performed in compliance with ASTM A967
(Please consult page in catalogue)
300 series: A2 stainless steel
400 series: limited rust and acid resistance
A4 stainless steel on request
- Numerous other finishes available on request
- All dimensions in millimetres

All self-clinching fasteners are also available in imperial measurements, see table opposite for information:

Benefits at a glance

- Highly durable threads in thin sheeting
 - Can be used in stamped, lasered or drilled round holes
 - High pull-out and pull-through strength
 - Significant cost savings due to automatic feed during installation
 - Can be installed on coated metal sheeting without difficulty
 - No special pre-working required
 - No secondary operations required
 - Very accurate positioning, perfectly square to the sheet or panel
 - RoHS & REACH compliant
- Exception:
Series: CFFS, CFFC, CFE, CFEO
Finish: CC, CB, CI, EF, DM, TL (not standard)

Other important notes

- Wherever the symbol (-) is displayed under the Article No. in the catalogue, please order based on the description, e.g. (CH M3-25)

Thread comparison			
Metric		Inch	
Pitch (mm)	M	Size	Order number
0.4	M2	# 2-56	256
0.45	M2.5	# 3-48	348
0.5	M3	# 4-40	440
0.6	M3.5	# 6-32	632
0.7	M4	# 8-32	832
0.8	M5	# 10-32	1032
1.0	M6	1/4-20	420
1.25	M8	5/16-18	516
1.5	M10	3/8-16	616

Trademarks

Our Captive® self-clinching fasteners are marked with the following trademarks



Self-clinching threaded studs
Self-clinching studs



Self-clinching fasteners with floating nut



CFSP series self-clinching nuts

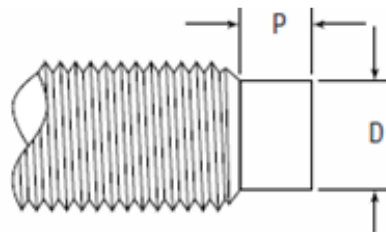
CF

CF= Cold formed steel and stainless steel self-clinching nuts

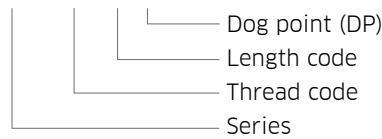
Captive® threaded studs with dog-point stud (DP)

Captive® threaded studs from the CH, TCH, HCH, CHTS and HCW series are available with a dog-point stud for automated installation. This converts into enormous time savings during installation.

For all inquiries, please use the following article description:



Example: HCW 1032-8 DP



Inch (in.)	D	P	Metric (mm)	D	P
6-32	.086	.050	M3.5 x 0.6	2.4	1.27
8-32	.111	.055	M4 x 0.7	2.79	1.4
10-24	.124	.065	M5 x 0.8	3.66	1.78
10-32	.138	.065	M6 x 1	4.37	2.03
1/4 x 20	.173	.085	M8 x 1.25	6.05	2.67
1/4 x 28	.192	.085			
5/16 x 18	.228	.105			



Sample panels

We have compiled a sample panel showing all commonly used self-clinching fasteners.

Article No.: 35800000

Notes



Recommended installation procedure

To achieve the correct installation results for Captive® self-clinching fasteners, please follow the 13 simple rules listed below:

ALWAYS

1. Ensure that the mounting hole is properly sized for each fastener.
2. Make sure that the fastener shank is square within the hole before applying any pressure.
3. Observe that the hole sizes and edge distances are complied with. See information in catalogue.
4. Apply the squeezing action horizontally (not at an angle).
5. Use sufficient installation force to fully embed the clinching ring.
6. The self-clinching fastener must always be harder than the material that it is being installed on. Please also consult the information provided in this catalogue!
7. Use hydraulic presses. The equal pressure applied allows the material to "flow". To achieve this, allow for a reasonable "dwell time" for the press and anvil on the component and adjust the installation force to the ideal setting. If the installation force is too high, the panel and self-clinching fastener will be damaged.

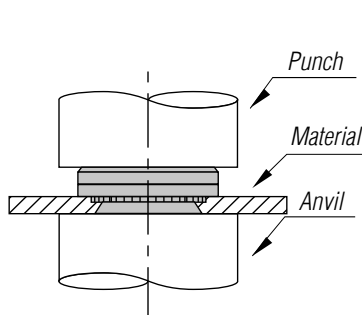
NEVER

8. Install steel and niro steel fasteners in aluminium before the panels have been anodised.
9. Do not deburr mounting holes, as the burr helps to clinch the fastener into the sheet
10. Install the fastener closer to the edge of the sheet than specified in the dimension table for the fastener in use.
11. Apply too much installation force as this will result in the fastener head deforming and/or the panel buckling.
12. Use a hammer to install the fastener as the sheet metal will not have enough time to flow into the clinching profile.
13. Install the screw from the head side of the fastener. Install from the opposite side as this will direct the load towards the panel.

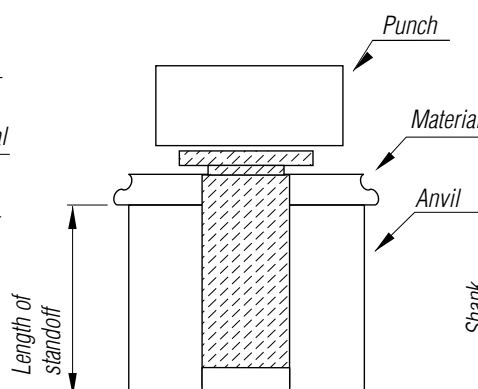
Note

All installation, pushout and torque-out force references are based on recommended installation specifications and procedures. Differences in mounting hole dimensions, sheet material and installation methods may alter this data. It is recommended that you test the performance of this product in its specific application. Samples are available for this purpose on request.

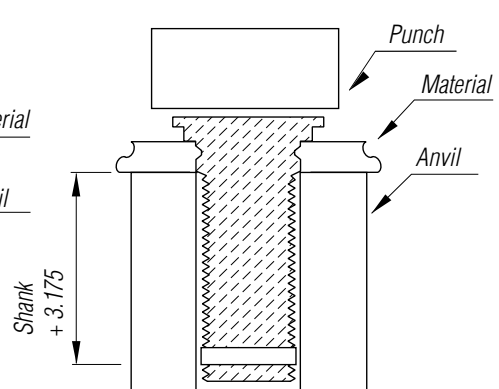
Self-clinching nut



Self-clinching standoff




Self-clinching - threaded stud




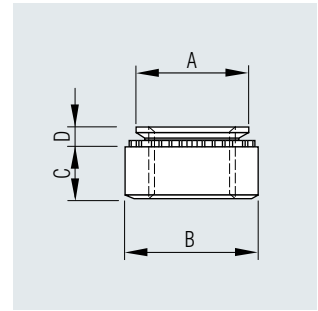
Captive® self-clinching fasteners


Self-clinching nuts for metal

Material

 Zinc-plated steel
(C series)
Suitable for
sheet hardness
HRB 80 or less

 A2 stainless steel, 300 series,
passivated (CS series)
Suitable for sheet hardness
of HRB 70 or less



Thread size	Bore ϕ	Material thickness	A	B	C	D		Steel	Stainless steel		
								Description	Article No.	Description	Article No.
M 2	4.22	0.8	4.20	6.35	1.5	0.77	4.8	C M 2-0	-	CS M 2-0	-
		1.0	4.20	6.35	1.5	0.97	4.8	C M 2-1	358 003 000	CS M 2-1	-
		1.4	4.20	6.35	1.5	1.38	4.8	C M 2-2	358 004 000	CS M 2-2	358 059 000
		2.29	4.20	6.35	1.5	2.21	4.8	C M 2-3	-	CS M 2-3	-
M 2.5	4.22	0.8	4.20	6.35	1.5	0.77	4.8	C M 2.5-0	358 006 000	CS M 2.5-0	358 050 000
		1.0	4.20	6.35	1.5	0.97	4.8	C M 2.5-1	358 007 000	CS M 2.5-1	358 051 000
		1.4	4.20	6.35	1.5	1.38	4.8	C M 2.5-2	358 008 000	CS M 2.5-2	358 052 000
		2.29	4.20	6.35	1.5	2.21	4.8	C M 2.5-3	-	CS M 2.5-3	-
M 3	4.22	0.8	4.20	6.35	1.5	0.77	4.8	C M 3-0	358 010 000	CS M 3-0	358 060 000
		1.0	4.20	6.35	1.5	0.97	4.8	C M 3-1	358 011 000	CS M 3-1	358 061 000
		1.4	4.20	6.35	1.5	1.38	4.8	C M 3-2	358 012 000	CS M 3-2	358 062 000
		2.29	4.20	6.35	1.5	2.21	4.8	C M 3-3	358 013 000	CS M 3-3	358 063 000
M 4	5.41	0.8	5.38	7.87	2.0	0.77	6.9	C M 4-0	358 020 000	CS M 4-0	358 070 000
		1.0	5.38	7.87	2.0	0.97	6.9	C M 4-1	358 021 000	CS M 4-1	358 071 000
		1.4	5.38	7.87	2.0	1.38	6.9	C M 4-2	358 022 000	CS M 4-2	358 072 000
		2.29	5.38	7.87	2.0	2.21	6.9	C M 4-3	358 023 000	CS M 4-3	358 073 000
M 5	6.35	0.8	6.33	8.64	2.0	0.77	7.1	C M 5-0	358 025 000	CS M 5-0	358 074 000
		1.0	6.33	8.64	2.0	0.97	7.1	C M 5-1	358 026 000	CS M 5-1	358 076 000
		1.4	6.3	8.64	2.0	1.38	7.1	C M 5-2	358 027 000	CS M 5-2	358 077 000
		2.29	6.33	8.64	2.0	2.21	7.1	C M 5-3	358 028 000	CS M 5-3	-
M 6	8.75	1.2	8.73	11.18	4.08	1.15	8.6	C M 6-0	358 029 000	CS M 6-0	358 079 000
		1.4	8.73	11.18	4.08	1.38	8.6	C M 6-1	358 030 000	CS M 6-1	358 080 000
		2.29	8.73	11.18	4.08	2.21	8.6	C M 6-2	358 031 000	CS M 6-2	358 081 000
		3.18	8.73	11.18	4.08	3.05	8.6	C M 6-3	358 032 000	CS M 6-3	358 082 000
M 8	10.5	1.4	10.47	12.7	5.47	1.38	9.7	C M 8-1	358 035 000	CS M 8-1	358 090 000
		2.29	10.47	12.7	5.47	2.21	9.7	C M 8-2	358 036 000	CS M 8-2	358 083 000
		3.2	10.47	12.7	5.47	3.05	9.7	C M 8-3	358 037 000	CS M 8-3	-
M 10	14.0	2.29	13.97	17.35	7.48	2.21	13.5	C M 10-1	358 040 000	CS M 10-1	-
		3.18	13.97	17.35	7.48	3.05	13.5	C M 10-2	358 041 000	CS M 10-2	358 093 000
		6.4	13.97	17.35	7.48	6.00	13.5	C M 10-3	-	CS M 10-3	-
M 12	17.0	3.18	16.95	20.57	8.5	3.05	16.0	C M 12-1	358 038 000	CS M 12-1	-
		6.4	16.95	20.57	8.5	6.00	16.0	C M 12-2	-	CS M 12-2	-

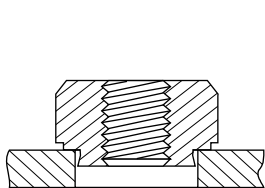
Captive® self-clinching fasteners

Technical specifications

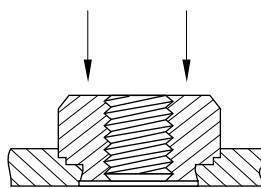
Thread size	Shank code ¹	Sheet material			Aluminium (H34)		
		Steel			Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 2;M 2.5;M 3	0	11.2 - 15.6	470	1.5	6.7 - 8.9	280	0.9
	-1	11.2 - 15.6	550	1.7	6.7 - 8.9	400	1.1
	-2	11.2 - 15.6	1010	2.0	6.7 - 8.9	750	1.4
	-3	11.2 - 15.6	1100	2.0	6.7 - 8.9	850	1.4
M 4	0	18.0 - 27.0	490	2.9	11.2 - 13.4	300	2.3
	-1	18.0 - 27.0	645	4.0	11.2 - 13.4	470	2.6
	-2	18.0 - 27.0	1250	5.1	11.2 - 13.4	970	4.0
	-3	18.0 - 27.0	1300	4.2	11.2 - 13.4	1100	4.0
M 5	0	18.0 - 38.0	530	3.6	11.2 - 15.6	300	3.0
	-1	18.0 - 38.0	800	4.5	11.2 - 15.6	480	3.6
	-2	18.0 - 38.0	1110	6.8	11.2 - 15.6	845	5.7
	-3	18.0 - 38.0	1500	6.0	11.2 - 15.6	1225	5.7
M 6	0	27.0 - 36.0	1380	13.0	18.0 - 32.0	970	7.9
	-1	27.0 - 36.0	1760	17.0	18.0 - 32.0	1580	10.2
	-2	27.0 - 36.0	1760	17.0	18.0 - 32.0	1580	10.2
	-3	27.0 - 36.0	1760	17.0	18.0 - 32.0	1580	10.2
M 8	-1	27.0 - 36.0	1870	18.7	18.0 - 32.0	1570	13.6
	-2	27.0 - 36.0	1870	18.7	18.0 - 32.0	1570	13.6
	-3	27.0 - 36.0	1870	18.7	18.0 - 32.0	1570	13.6
M 10	-1	32.0 - 50.0	2020	36.2	22.0 - 36.0	1760	32.7
	-2	32.0 - 50.0	2020	36.2	22.0 - 36.0	1760	32.7
	-3	32.0 - 50.0	2020	36.2	22.0 - 36.0	1760	32.7
M 12	-1	33.0 - 49.0	3065	73.9	23.0 - 30.0	1390	35.2
	-2	33.0 - 49.0	3065	73.9	23.0 - 30.0	1390	35.2

¹ Denotes the minimum material thickness of the mating material

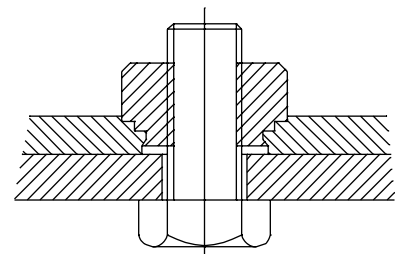
Guidelines only - the exact values will need to be calculated on the original component.



Nut must be square to panel.



The installation force acts on the head of the nut.



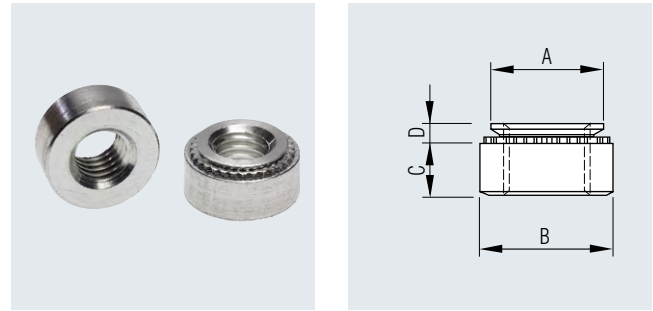
The nut is installed from the opposite side of the head.


Captive® self-clinching fasteners

Self-clinching nuts for metal

Material

Aluminium (CA series)
Suitable for sheet hardness HRB 50 or less



Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness		A max [mm]	B ± 0.25 [mm]	C ± 0.25 [mm]	D max [mm]	D min [mm]		Aluminium	Article No.
		min [mm]	max [mm]							Description	
M 2	4.22	1.0	4.20	6.35	1.5	0.98	4.8	4.8		CA M 2-1	-
		1.4	4.20	6.35	1.5	1.38	4.8	4.8		CA M 2-2	-
M 3	4.75	1.0	4.73	6.35	2.0	0.98	5.6	5.6		CA M 3-1	-
		1.4	4.73	6.35	2.0	1.38	5.6	5.6		CA M 3-2	-
M 4	5.94	1.0	5.92	7.8	3.0	0.98	7.1	7.1		CA M 4-1	358 726 000
		1.4	5.92	7.8	3.0	1.38	7.1	7.1		CA M 4-2	358 727 000
M 5	7.52	1.0	7.49	9.4	3.8	0.98	7.9	7.9		CA M 5-1	358 728 000
		1.4	7.49	9.4	3.8	1.38	7.9	7.9		CA M 5-2	358 729 000
M 6	8.75	1.4	8.73	11.18	4.08	1.38	8.6	8.6		CA M 6-1	358 730 000
		2.3	8.73	11.18	4.08	2.21	8.6	8.6		CA M 6-2	358 731 000

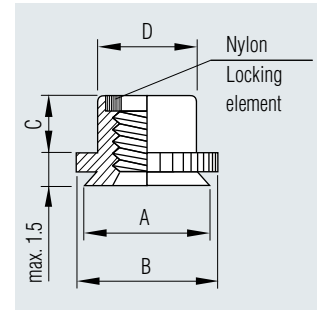
Captive® self-clinching fasteners

Self-clinching nuts for metal, self-locking

Material

Zinc-plated steel
(CPL series)
Suitable for sheet
hardness
HRB 70 or less

A2 stainless steel, 300 series,
passivated (CPLC series)
Suitable for sheet hardness
HRB 70 or less



Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	A max [mm]	B ± 0.25 [mm]	C ± 0.25 [mm]	D max [mm]	min [mm]		Steel	Stainless steel		
									Description	Article No.	Description	Article No.
M 3	6.0	1.0 - 1.78	5.98	7.01	3.56	5.52	4.32		CPL M 3	358 770 000	CPLC M 3	358 773 000
M 4	7.5	1.0 - 1.78	7.48	8.54	4.20	7.01	5.59		CPL M 4	358 771 000	CPLC M 4	-
M 5	8.0	1.0 - 1.78	7.98	9.0	4.45	9.52	6.35		CPL M 5	358 772 000	CPLC M 5	-

Technical specifications

Thread size	Max. screw torque [kN]	Sheet material 1.5 mm steel			1.2 mm steel		
		Installation force [kN]	Push-out [N]	Torque-out [Nm]	Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 3	1.1	13.34	1156	2.2	13.34	1000	2.2
M 4	2.2	13.34	1290	6.7	13.34	1200	6.7
M 5	3.1	13.34	1557	7.9	13.34	1380	7.9

Thread size	Max. screw torque [kN]	Sheet material 1.5 mm (H 34) aluminium			1.0 mm (H 34) aluminium		
		Installation force [kN]	Push-out [N]	Torque-out [Nm]	Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 3	1.1	8.9	1000	2.2	6.67	710	2.2
M 4	2.2	8.9	1290	6.7	6.67	800	3.1
M 5	3.1	8.9	1330	7.9	6.67	800	4.5

Guidelines only - the exact values will need to be calculated on the original component.

Installation tips

Thin sheeting - If the fastener is fitted to sheeting that is thinner than 1 - 1.5 mm, the fastener will only be partially installed on the material. The knurled collar must be pressed into the sheet material by the difference between the sheet material and a minimum material thickness of 1.5 mm to avoid any protrusion

Thick sheeting - If the fastener is fitted to sheeting that is thicker than 1.78 mm, the knurled collar may break off if the maximum permissible torque-out is exceeded

Captive® self-clinching fasteners

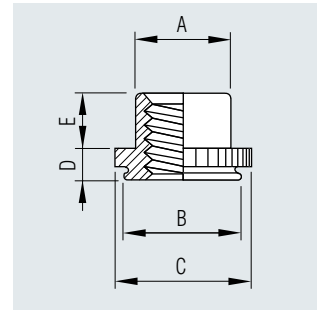
Self-clinching nuts for metal, self-locking

Material

Suitable for sheet hardness HRB 70 or less

A2 stainless steel
300 series,
(CFE, CFEO series)
Self-locking

A2 stainless steel
300 series, passivated
(CFEX, CFEOX series)
Non-locking



Thread size	Bore \varnothing	Material thickness	A	B	C	D	E		Stainless steel Self-locking		Stainless steel Self-locking	
									Description	Article No.	Description	Article No.
M 3	4.39	0.99	3.96	4.37	4.88	1.02	1.90	3.6	CFEO M 3	358 607 000	CFEOX M 3	358 633 000
		1.50	3.96	4.37	4.88	1.53	1.90	3.6	CFE M 3	-	CFEX M 3	-
M 4	7.39	0.99	5.23	7.37	8.17	1.02	2.55	5.2	CFEO M 4	-	CFEOX M 4	-
		1.50	5.23	7.37	8.17	1.53	2.55	5.2	CFE M 4	358 604 000	CFEX M 4	-
M 5	7.39	0.90	6.48	7.37	8.17	1.02	3.05	5.2	CFEO M 5	358 605 000	CFEOX M 5	-
		1.50	6.48	7.37	8.17	1.53	3.05	5.2	CFE M 5	358 606 000	CFEX M 5	358 637 000
M 6	8.74	1.53	7.72	8.72	9.74	1.53	3.30	7.1	CFE M 6	358 608 000	CFEX M 6	358 638 000

Technical specifications

Thread size	Max. screw torque	Sheet material Steel			Aluminium (H 34)			Series
		Installation force	Push-out	Torque-out	Installation force	Push-out	Torque-out	
M 3	1.0	6.7	600	1.3	4.0	380	1.3	CFEO, CFEOX
	1.5	6.7	900	1.3	4.0	590	1.3	CFE, CFEX
M 4	1.0	11.1	1100	5.3	7.0	675	5.3	CFEO, CFEOX
	1.5	11.1	1600	5.3	7.0	1100	5.3	CFE, CFEX
M 5	1.0	12.0	1200	5.3	7.0	675	5.3	CFEO, CFEOX
	1.5	12.0	1600	5.3	7.0	1100	5.3	CFE, CFEX
M 6	1.5	15.6	1800	11.3	9.0	1400	11.3	CFE, CFEX

Guidelines only - the exact values will need to be calculated on the original component.

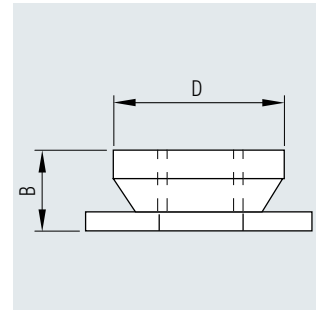
Captive® self-clinching fasteners


Press-in nuts for metals

For flush installation

Material

A2 stainless steel, 300 series, passivated
(CFL series)
Suitable for sheet hardness HRB 70 or less



Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	SW nom [mm]	B max [mm]	D max [mm]	 min [mm]	Stainless steel Description	Article No.
M 2	4.37	1.53	4.8	1.53	4.35	6.0	CFL M 2-1	358 501 000
		2.3	4.8	2.3	4.35	6.0	CFL M 2-2	-
M 2.5	4.37	1.53	4.8	1.53	4.35	6.0	CFL M 2.5-1	358 502 000
		2.3	4.8	2.3	4.35	6.0	CFL M 2.5-2	358 503 000
M 3	4.37	1.53	4.8	1.53	4.35	6.0	CFL M 3-1	358 506 000
		2.3	4.8	2.3	4.35	6.0	CFL M 3-2	358 507 000
M 4	7.37	1.53	7.9	1.53	7.35	7.2	CFL M 4-1	358 511 000
		2.3	7.9	2.3	7.35	7.2	CFL M 4-2	358 512 000
M 5	7.92	1.53	8.7	1.53	7.9	8.0	CFL M 5-1	358 516 000
		2.3	8.7	2.3	7.9	8.0	CFL M 5-2	358 517 000
M 6	8.74	3.18	9.5	3.05	8.72	8.8	CFL M 6-3	358 518 000
		3.96	9.5	3.84	8.72	8.8	CFL M 6-4	358 519 000
		4.75	9.5	4.75	8.72	8.8	CFL M 6-5	-

Technical specifications

Thread size	Shank code	Max. screw torque [kN]	Sheet material		Aluminium (H 34)	
			Steel Installation force [kN]	Push-out [N]	Installation force [kN]	Push-out [N]
M 2	-1	0.16	13.3	0.9	8.9	0.9
	-2	0.16	13.3	0.9	8.9	0.9
M 2.5	-1	0.23	13.3	0.9	8.9	0.9
	-2	0.23	13.3	0.9	8.9	0.9
M 3	-1,2	0.36	13.3	0.9	8.9	0.9
M 4	-1,2	1.0	17.8	1.1	17.8	1.1
M 5	-1,2	1.3	17.8	1.1	17.8	1.1
M 6	-3,4,5	4.5	20.0	3.7	20.0	3.8

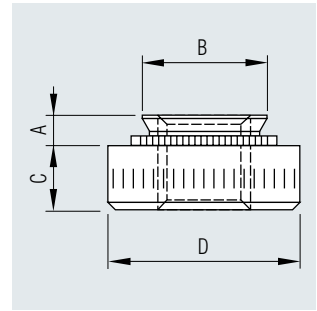
Guidelines only - the exact values will need to be calculated on the original component.

Captive® self-clinching fasteners

Self-clinching nuts for stainless steel

Material

17-4 PH® stainless steel
 hardened and degreased, passivated
 (CFSP series), suitable for sheet hardness
 HRB 88 or less



Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	A		B	C	D	Stainless steel Description	Article No.
			max [mm]	max [mm]	± 0.25 [mm]	± 0.25 [mm]	min [mm]		
M 3	4.22	0.8 -1.0	0.77	4.20	1.5	6.35	4.8	CFSP M 3-0	358 789 000
		1.0	0.97	4.20	1.5	6.35	4.8	CFSP M 3-1	358 790 000
		1.4	1.38	4.20	1.5	6.35	4.8	CFSP M 3-2	358 791 000
M 4	5.41	0.8 - 1.0	0.77	5.38	2.0	7.87	6.9	CFSP M 4-0	358 720 000
		1.0	0.97	5.38	2.0	7.87	6.9	CFSP M 4-1	358 794 000
		1.4	1.38	5.38	2.0	7.87	6.9	CFSP M 4-2	358 795 000
M 5	6.35	0.8 - 1.0	0.77	6.33	2.0	8.75	7.1	CFSP M 5-0	-
		1.0	0.97	6.33	2.0	8.75	7.1	CFSP M 5-1	358 797 000
		1.4	1.38	6.33	2.0	8.75	7.1	CFSP M 5-2	358 796 000
M 6	8.75	1.4	1.38	8.73	4.08	11.1	8.6	CFSP M 6-1	358 799 000
		2.29	2.21	8.73	4.08	11.1	8.6	CFSP M 6-2	358 749 000
M 8	10.5	1.4	1.38	10.47	5.47	12.7	9.7	CFSP M 8-1	358 806 000
		2.29	2.21	10.47	5.47	12.7	9.7	CFSP M 8-2	358 798 000
M10	14.0	2.29	2.21	13.97	7.48	17.35	13.5	CFSP M 10-1	-

Technical specifications

Thread size	Shank code	Installation [kN]	Push-out [N]	Torque-out [Nm]
M 3	0	35.6	575	1.6
	-1	40	725	1.9
	-2	44.5	1290	2.0
M 4	0	40	645	3.4
	-1	44.5	800	4.2
	-2	49	1600	5.0
M 5	0	42.3	800	4.0
	-1	46.7	1025	5.0
	-2	51.2	1775	6.8
M 6	-1	60	2000	17.0
M 8	-1	66	2100	18.0
	-2	72	2400	21.0

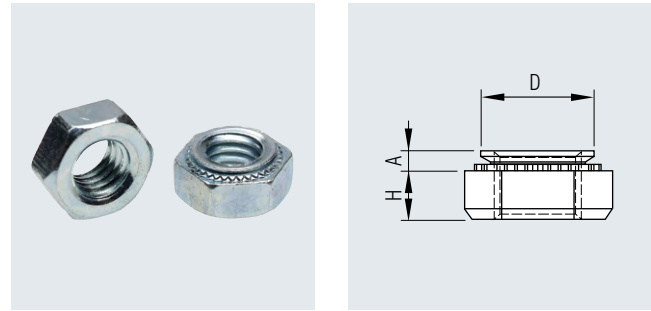
Guidelines only - the exact values will need to be calculated on the original component.


Captive® self-clinching fasteners

KAL self-clinching nuts for metal

Material

Zinc-plated steel (CKN series)
Suitable for sheet hardness HRB 80 or less

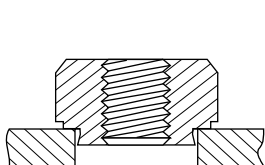


Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	SW -0.2 [mm]	A max [mm]	D max [mm]	H +0.10 [mm]	 min [mm]	Steel Description	Article No.
M 3	4.5	1.0	5.5	1.0	4.45	2.0	4.5	CKN M 3-1	358 760 000
		1.4	5.5	1.4	4.45	2.0	4.5	CKN M 3-2	358 761 000
M 4	5.5	1.0	7.0	1.0	5.45	2.2	5.5	CKN M 4-1	358 762 000
		1.4	7.0	1.4	5.45	2.2	5.5	CKN M 4-2	358 763 000
M 5	6.5	1.0	8.0	1.0	6.45	3.0	6.5	CKN M 5-1	358 764 000
		1.4	8.0	1.4	6.45	3.0	6.5	CKN M 5-2	358 765 000
M 6	8.0	1.0	10.0	1.0	7.95	4.0	8.0	CKN M 6-1	358 766 000
		1.4	10.0	1.4	7.95	4.0	8.0	CKN M 6-2	358 767 000
M 8	10.0	1.4	13.0	1.4	9.95	4.5	10.0	CKN M 8-2	358 768 000
		2.0	13.0	2.0	9.95	4.5	10.0	CKN M 8-3	358 769 000

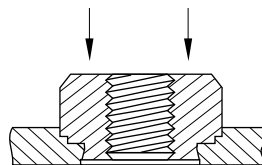
Technical specifications

Thread size	Shank code	Material thickness [mm]	Sheet material					
			Steel			Aluminium (H 34)		
			Installation force [kN]	Push-out [N]	Torque-out [Nm]	Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 3	-1	1.0	11.7	490	1.96	5.8	290	1.17
	-2	1.4	12.7	780	2.45	6.8	580	1.47
M 4	-1	1.0	12.7	580	2.94	7.8	390	1.96
	-2	1.4	13.7	880	3.92	9.8	680	2.94
M 5	-1	1.0	13.7	680	3.92	8.8	440	2.94
	-2	1.4	14.7	980	4.9	10.7	730	3.92
M 6	-1	1.0	16.6	880	7.84	11.7	580	5.88
	-2	1.4	19.6	1270	11.76	13.7	880	7.84
M 8	-2	1.0	24.5	1370	15.69	15.6	1070	9.8
	-3	1.4	29.4	1760	19.61	17.6	1370	11.76

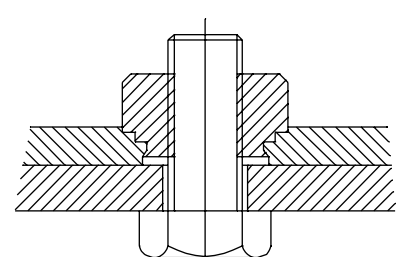
Guidelines only - the exact values will need to be calculated on the original component.



Nut must be square to panel.



The installation force acts on the head of the nut.



The nut is installed from the opposite side of the head.

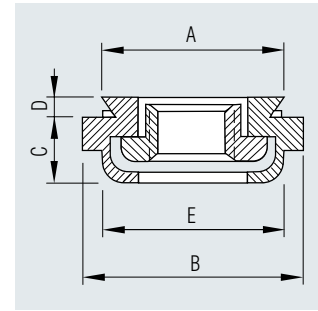
Captive® self-clinching fasteners


Press-in nuts for metals

- Floating nut
- To compensate for mating misalignments of approx. 0.8 mm or less

Material

	Zinc-plated steel (CFAS series) Suitable for sheet hardness HRB 70 or less		A2 stainless steel, 300 series, passivated (CFAC series) Suitable for sheet hardness HRB 70 or less
--	----------------------------------------------------------------------------------------	--	-----------------------------------------------------------------------------------------------------------------



Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	A max [mm]	B max [mm]	C ± 0.13 [mm]	D max [mm]	E +0.4 -0.0 [mm]	 min [mm]	Steel		Stainless steel	
									Description	Article No.	Description	Article No.
M 3	4.39	0.97	7.35	9.14	3.31	0.97	7.37	7.62	CFAS M 3-1	358 701 000	CFAC M 3-1	358 708 000
		1.38	7.35	9.14	3.31	1.38	7.37	7.62	CFAS M 3-2	358 702 000	CFAC M 3-2	358 709 000
M 4	7.39	0.97	9.33	11.18	3.31	0.97	9.28	8.64	CFAS M 4-1	358 703 000	CFAC M 4-1	-
		1.38	9.33	11.18	3.31	1.38	9.28	8.64	CFAS M 4-2	358 704 000	CFAC M 4-2	-
M 5	7.39	0.97	10.29	11.94	4.32	0.97	10.29	9.14	CFAS M 5-1	358 706 000	CFAC M 5-1	-
		1.38	10.29	11.94	4.32	1.38	10.29	9.14	CFAS M 5-2	-	CFAC M 5-2	-
M 6	8.74	1.38	13.06	15.24	5.34	1.38	12.96	10.67	CFAS M 6-2	358 707 000	CFAC M 6-2	-

Technical specifications

Thread size	Shank code	Sheet material			Aluminium (T 3)			Aluminium (H 34)		
		Steel	Aluminium (T 3)	Aluminium (H 34)	Steel	Aluminium (T 3)	Aluminium (H 34)	Steel	Aluminium (T 3)	Aluminium (H 34)
		Installation force [kN]	Push-out [N]	Torque-out [Nm]	Installation force [kN]	Push-out [N]	Torque-out [Nm]	Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 3	1	13	1330	9	13	970	7	7	950	7
	2	13	1330	17	13	1000	17	9	1000	9
M 4	1	13	1330	17	13	1050	12	9	1100	16
	2	13	1780	22	15	1330	17	9	1178	17
M 5	1	15	1780	17	15	1330	17	9	1330	17
	2	15	2000	22	16	1330	22	9	1550	20
M 6	2	22	2200	36	23	1330	36	14	1780	36


Guidelines only - the exact values will need to be calculated on the original component.


Captive® self-clinching fasteners

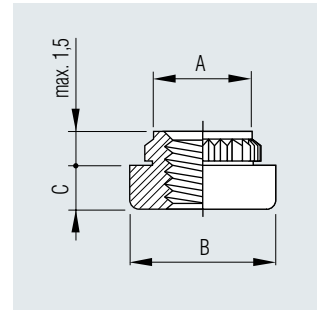
Self-clinching nuts for plastics


Printed circuit boards, fibreglass, acrylic

Material

 Steel, electroplated with tin (CKF2 series) Suitable for sheet hardness HRB 60 or less

 A2 stainless steel, 300 series, passivated (CKFS2 series) Suitable for sheet hardness HRB 60 or less



Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	A +0.08 [mm]	B ± 0.13 [mm]	C ± 0.13 [mm]	 min [mm]	Steel	Stainless steel		
							Description	Article No.	Description	Article No.
M 2	3.73	1.53	4.19	5.56	1.5	4.2	CKF2 M2	-	CKFS2 M2	-
M 2.5	4.22	1.53	4.68	5.56	1.5	4.4	CKF2 M 2.5	358 551 000	CKFS2 M 2.5	-
M 3	4.22	1.53	4.68	5.56	1.5	4.4	CKF2 M 3	358 561 000	CKFS2 M 3	358 593 000
M 4	6.4	1.53	6.81	8.74	2.0	6.4	CKF2 M 4	358 571 000	CKFS2 M 4	358 594 000
M 5	6.9	1.53	7.37	9.53	3.0	7.1	CKF2 M 5	358 572 000	CKFS2 M 5	-

Technical specifications

Thread size	Sheet material		
	1.5 mm fibreglass		
	Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 2	2.22	265	0.65
M 2.5	2.22	285	1.35
M 3	2.22	285	1.7
M 4	2.90	415	3.95
M 5	2.90	435	4.52

Guidelines only - the exact values will need to be calculated on the original component.

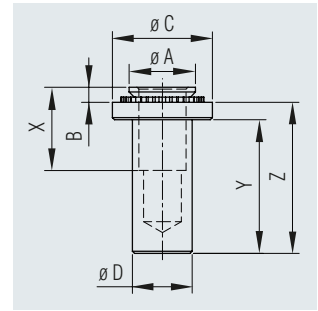
Captive® self-clinching fasteners

Self-clinching nuts for metal, sealed thread

Material

Zinc-plated steel
(CFB series)
Suitable for sheet
hardness HRB 80
or less

A2 stainless steel, 300 series,
passivated (CFBS series)
Suitable for sheet hardness
HRB 70 or less



Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	A max [mm]	B max [mm]	C ± 0.13 [mm]	D max [mm]	Y max [mm]	Z ± 0.25 [mm]	X max [mm]	min [mm]	Steel	Stainless steel		
											Description	Article No.	Description	Article No.
M 3	4.25	1.0	4.20	0.97	6.35	3.84	8.5	9.6	5.3	4.8	CFB M3-1	358 710 000	CFBS M3-1	358 930 000
		1.4	4.20	1.38	6.35	3.84	8.5	9.6	5.3	4.8	CFB M3-2	358 712 000	CFBS M3-2	358 933 000
M 4	5.41	1.0	5.38	0.97	7.95	5.20	9.8	11.2	7.1	6.9	CFB M4-1	358 713 000	CFBS M4-1	358 931 000
		1.4	5.38	1.38	7.95	5.20	9.8	11.2	7.1	6.9	CFB M4-2	358 711 000	CFBS M4-2	358 934 000
M 5	6.35	1.0	6.33	0.97	8.75	6.02	9.8	11.2	7.1	7.1	CFB M5-1	358 718 000	CFBS M5-1	-
		1.4	6.33	1.38	8.75	6.02	9.8	11.2	7.1	7.1	CFB M5-2	-	CFBS M5-2	358 932 000
M 6	8.73	1.4	8.72	1.38	11.10	7.80	12.7	14.3	7.8	8.6	CFB M6-1	358 714 000	CFBS M6-1	358 941 000
		2.3	8.72	2.21	11.10	7.80	12.7	14.3	7.8	8.6	CFB M6-2	358 715 000	CFBS M6-2	-

Technical specifications

Thread size	Shank code	Material thickness	Sheet material					
			Steel	Aluminium (H 34)				
			Installation force	Push-out	Torque-out [Nm]	Installation force	Push-out	Torque-out [Nm]
			[kN]	[N]		[kN]	[N]	
M 3	-1	1.0	11.1	550	1.50	7.1	400	1.15
	-2	1.4	14.0	1010	2.05	9.0	750	1.47
M 4	-1	1.0	15.6	600	3.40	8.9	470	2.60
	-2	1.4	20.0	1250	5.10	12.5	970	4.00
M 5	-1	1.0	17.8	620	4.00	9.3	480	3.60
	-2	1.4	25.0	1112	6.80	14.0	845	5.70
M 6	-1	1.4	25.7	1760	11.90	17.8	1400	10.20
	-2	2.3	25.7	1760	11.90	17.8	1400	10.20

Guidelines only - the exact values will need to be calculated on the original component.

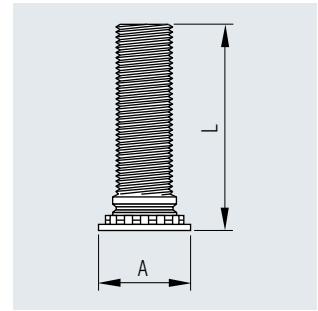
Captive® self-clinching fasteners


Self-clinching threaded studs for metal

Material

Zinc-plated steel
(CH series)
Suitable for sheet
hardness HRB 80
or less

A2 stainless steel, 300 series,
passivated (CHS series)
Suitable for sheet hardness
HRB 70 or less




Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	L ± 0.4 [mm]	A ± 0.4 [mm]	 min [mm]	Steel		Stainless steel	
						Description	Article No.	Description	Article No.
M 2	2.0	1.0	8	3.5	5.2	CH M 2-8	358 111 000	-	-
			10	3.5	5.2	CH M 2-10	358 112 000	-	-
M 2.5	2.5	1.0	6	4.1	5.4	CH M 2.5-6	358 120 000	CHS M 2.5-6	358 220 000
			8	4.1	5.4	CH M 2.5-8	358 121 000	CHS M 2.5-8	358 221 000
			10	4.1	5.4	CH M 2.5-10	358 122 000	CHS M 2.5-10	358 222 000
			12	4.1	5.4	CH M 2.5-12	358 123 000	CHS M 2.5-12	358 223 000
			15	4.1	5.4	CH M 2.5-15	358 124 000	CHS M 2.5-15	358 224 000
			18	4.1	5.4	CH M 2.5-18	358 125 000	CHS M 2.5-18	358 225 000
M 3	3.0	1.0	5	4.6	5.6	CH M 3-5	358 129 000	CHS M 3-5	358 229 000
			6	4.6	5.6	CH M 3-6	358 130 000	CHS M 3-6	358 230 000
			8	4.6	5.6	CH M 3-8	358 131 000	CHS M 3-8	358 231 000
			10	4.6	5.6	CH M 3-10	358 132 000	CHS M 3-10	358 232 000
			12	4.6	5.6	CH M 3-12	358 133 000	CHS M 3-12	358 233 000
			15	4.6	5.6	CH M 3-15	358 134 000	CHS M 3-15	358 234 000
			16	4.6	5.6	CH M 3-16	358 126 000	CHS M 3-16	358 275 000
			18	4.6	5.6	CH M 3-18	358 135 000	CHS M 3-18	358 235 000
			20	4.6	5.6	CH M 3-20	358 136 000	CHS M 3-20	358 236 000
			22	4.6	5.6	CH M 3-22	358 137 000	CHS M 3-22	358 237 000
			25	4.6	5.6	CH M 3-25	358 138 000	CHS M 3-25	358 238 000
			30	4.6	5.6	CH M 3-30	358 176 000	CHS M 3-30	358 239 000

For punch and anvil dimensions, see page 31.

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Captive® self-clinching fasteners

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
Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	L ± 0.4 [mm]	A ± 0.4 [mm]	 min [mm]	Steel		Stainless steel	
						Description	Article No.	Description	Article No.
M 4	4.0	1.0	6	5.9	7.2	CH M 4-6	358 140 000	CHS M 4-6	358 240 000
			8	5.9	7.2	CH M 4-8	358 141 000	CHS M 4-8	358 241 000
			10	5.9	7.2	CH M 4-10	358 142 000	CHS M 4-10	358 242 000
			12	5.9	7.2	CH M 4-12	358 143 000	CHS M 4-12	358 243 000
			13.5	5.9	7.2	CH M 4 -13.5	358 980 000	CHS M 4-13.5	-
			15	5.9	7.2	CH M 4-15	358 144 000	CHS M 4-15	358 244 000
			16	5.9	7.2	CH M 4-16	358 844 000	CHS M 4-16	-
			18	5.9	7.2	CH M 4-18	358 145 000	CHS M 4-18	358 245 000
			20	5.9	7.2	CH M 4-20	358 146 000	CHS M 4-20	358 246 000
			22	5.9	7.2	CH M 4-22	358 147 000	CHS M 4-22	358 247 000
			25	5.9	7.2	CH M 4-25	358 148 000	CHS M 4-25	358 248 000
			28	5.9	7.2	CH M 4-28	358 199 000	CHS M 4-28	-
			30	5.9	7.2	CH M 4-30	358 150 000	CHS M 4-30	358 250 000
			35	5.9	7.2	CH M 4-35	358 139 000	CHS M 4-35	-
			38	5.9	7.2	CH M 4-38	358 149 000	CHS M 4-38	358 258 000
			45	5.9	7.2	CH M 4-45	358 198 000	CHS M 4-45	358 228 000
			50	5.9	7.2	CH M 4-50	358 117 000	CHS M 4-50	-
			M 5	5.0	1.0	6	6.5	7.2	CH M 5-6
8	6.5	7.2				CH M 5-8	358 151 000	CHS M 5-8	358 251 000
10	6.5	7.2				CH M 5-10	358 152 000	CHS M 5-10	358 252 000
12	6.5	7.2				CH M 5-12	358 153 000	CHS M 5-12	358 253 000
15	6.5	7.2				CH M 5-15	358 154 000	CHS M 5-15	358 254 000
16	6.5	7.2				CH M 5-16	358 116 000	CHS M 5-16	-
18	6.5	7.2				CH M 5-18	358 155 000	CHS M 5-18	358 255 000
20	6.5	7.2				CH M 5-20	358 156 000	CHS M 5-20	358 256 000
22	6.5	7.2				CH M 5-22	358 115 000	CHS M 5-22	358 257 000
25	6.5	7.2				CH M 5-25	358 158 000	CHS M 5-25	358 274 000
28	6.5	7.2				CH M 5-28	358 173 000	CHS M 5-28	358 259 000
30	6.5	7.2				CH M 5-30	358 160 000	CHS M 5-30	358 260 000
35	6.5	7.2				CH M 5-35	358 159 000	CHS M 5-35	358 249 000
38	6.5	7.2				CH M 5-38	358 157 000	CHS M 5-38	358 262 000
42	6.5	7.2	CH M 5-42	358 177 000	CHS M 5-42	-			
50	6.5	7.2	CH M 5-50	358 194 000	CHS M 5-50	358 267 000			
54	6.5	7.2	CH M 5-54	358 174 000	CHS M 5-54	-			
M 6	6.0	1.6	8	8.2	7.9	CH M 6-8	358 161 000	CHS M 6-8	358 269 000
			10	8.2	7.9	CH M 6-10	358 162 000	CHS M 6-10	358 261 000
			12	8.2	7.9	CH M 6-12	358 163 000	CHS M 6-12	358 263 000
			14	8.2	7.9	CH M 6-14	-	CHS M 6-14	358 277 000
			15	8.2	7.9	CH M 6-15	358 164 000	CHS M 6-15	358 264 000
			16	8.2	7.9	CH M 6-16	358 178 000	CHS M 6-16	-
			18	8.2	7.9	CH M 6-18	358 165 000	CHS M 6-18	358 265 000
			20	8.2	7.9	CH M 6-20	358 166 000	CHS M 6-20	358 266 000
			22	8.2	7.9	CH M 6-22	358 167 000	CHS M 6-22	358 272 000
			25	8.2	7.9	CH M 6-25	358 168 000	CHS M 6-25	358 268 000
28	8.2	7.9	CH M 6-28	358 180 000	CHS M 6-28	-			

For punch and anvil dimensions, see page 31.

Continued on next page

Captive® self-clinching fasteners

Cont'd

Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	L ± 0.4 [mm]	A ± 0.4 [mm]	 min [mm]	Steel		Stainless steel	
						Description	Article No.	Description	Article No.
			30	8.2	7.9	CH M 6-30	358 170 000	CHS M 6-30	358 270 000
			35	8.2	7.9	CH M 6-35	358 171 000	CHS M 6-35	358 271 000
			38	8.2	7.9	CH M 6-38	358 172 000	CHS M 6-38	358 273 000
			50	8.2	7.9	CH M 6-50	358 179 000	CHS M 6-50	358 276 000
			M 8	8.0	2.4	12	9.6	9.6	CH M 8-12
			15	9.6	9.6	CH M 8-15	358 184 000	CHS M 8-15	358 284 000
			18	9.6	9.6	CH M 8-18	358 185 000	CHS M 8-18	358 285 000
			20	9.6	9.6	CH M 8-20	358 186 000	CHS M 8-20	358 286 000
			22	9.6	9.6	CH M 8-22	358 187 000	CHS M 8-22	358 287 000
			25	9.6	9.6	CH M 8-25	358 188 000	CHS M 8-25	358 288 000
			28	9.6	9.6	CH M 8-28	-	CHS M 8-28	-
			30	9.6	9.6	CH M 8-30	358 190 000	CHS M 8-30	358 291 000
			35	9.6	9.6	CH M 8-35	358 191 000	CHS M 8-35	358 292 000
			38	9.6	9.6	CH M 8-38	358 195 000	CHS M 8-38	358 732 000
			42	9.6	9.6	CH M 8-42	358 113 000	CHS M 8-42	358 294 000
			45	9.6	9.6	CH M 8-45	358 192 000	CHS M 8-45	-
			58	9.6	9.6	CH M 8-58	358 193 000	CHS M 8-58	-
M 10	10.0	2.4	15	12.3	11.4	CH M 10-15	-	CHS M 10-15	-
			18	12.3	11.4	CH M 10-18	-	CHS M 10-18	-
			20	12.3	11.4	CH M 10-20	-	CHS M 10-20	-
			22	12.3	11.4	CH M 10-22	-	CHS M 10-22	-
			25	12.3	11.4	CH M 10-25	-	CHS M 10-25	-
			28	12.3	11.4	CH M 10-28	-	CHS M 10-28	-
			30	12.3	11.4	CH M 10-30	-	CHS M 10-30	-
			35	12.3	11.4	CH M 10-35	-	CHS M 10-35	-
			38	12.3	11.4	CH M 10-38	-	CHS M 10-38	-

Technical specifications

Thread size	Test material	Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 2.5	1.6 mm aluminium	8.9	465	1.0
	1.5 mm steel	11.1	740	1.0
M 3	1.6 mm aluminium	12.9	600	1.7
	1.5 mm steel	14.7	820	1.7
M 4	1.6 mm aluminium	20.0	975	2.9
	1.5 mm steel	28.9	1780	4.2
M 5	1.6 mm aluminium	24.5	1070	3.5
	1.5 mm steel	33.4	2000	6.5
M 6	2.4 mm aluminium	28.9	1660	7.3
	2.2 mm steel	44.5	2560	11.3
M 8	2.4 mm aluminium	29.8	1910	11.3
	2.2 mm steel	44.5	2890	19.2

Guidelines only - the exact values will need to be calculated on the original component.

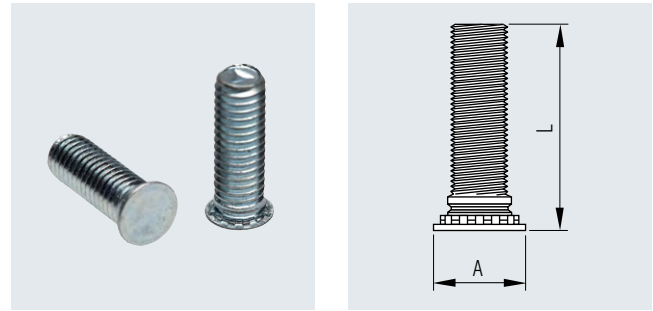
For punch and anvil dimensions, see page 31.


Captive® self-clinching fasteners

Self-clinching threaded studs for metal

Material

Aluminium (CHA series)
Suitable for sheet hardness HRB 50 or less




Thread size	Bore ϕ	Material thickness	L	A		Aluminium Description	Article No.
	+0.08 -0.00 [mm]	min [mm]	± 0.4 [mm]	± 0.4 [mm]	min [mm]		
M 2	2.0	1.0	8	3.5	5.2	-	-
			10	3.5	5.2	-	-
M 2.5	2.5	1.0	6	4.1	5.4	CHA M 2.5-6	-
			8	4.1	5.4	CHA M 2.5-8	-
			10	4.1	5.4	CHA M 2.5-10	-
			12	4.1	5.4	CHA M 2.5-12	-
			15	4.1	5.4	CHA M 2.5-15	-
			18	4.1	5.4	CHA M 2.5-18	-
M 3	3.0	1.0	5	4.6	5.6	-	-
			6	4.6	5.6	CHA M 3-6	-
			8	4.6	5.6	CHA M 3-8	358 911 000
			10	4.6	5.6	CHA M 3-10	-
			12	4.6	5.6	CHA M 3-12	358 774 000
			15	4.6	5.6	CHA M 3-15	358 914 000
			16	4.6	5.6	CHA M 3-16	-
			18	4.6	5.6	CHA M 3-18	-
			20	4.6	5.6	CHA M 3-20	358 916 000
			22	4.6	5.6	CHA M 3-22	-
			25	4.6	5.6	CHA M 3-25	-
30	4.6	5.6	CHA M 3-30	-			

For punch and anvil dimensions, see page 31.

Continued on next page

Captive® self-clinching fasteners

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
Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	L ± 0.4 [mm]	A ± 0.4 [mm]	 min [mm]	Aluminium	Article No.
						Description	
M 4	4.0	1.0	6	5.9	7.2	CHA M 4-6	358 310 000
			8	5.9	7.2	CHA M 4-8	-
			10	5.9	7.2	CHA M 4-10	358 942 000
			12	5.9	7.2	CHA M 4-12	-
			13.5	5.9	7.2	CHA M 4-13.5	-
			15	5.9	7.2	CHA M 4-15	358 944 000
			16	5.9	7.2	CHA M 4-16	-
			18	5.9	7.2	CHA M 4-18	358 945 000
			20	5.9	7.2	CHA M 4-20	-
			22	5.9	7.2	CHA M 4-22	-
			25	5.9	7.2	CHA M 4-25	358 948 000
			28	5.9	7.2	CHA M 4-28	-
			30	5.9	7.2	CHA M 4-30	358 950 000
			35	5.9	7.2	CHA M 4-35	-
			38	5.9	7.2	CHA M 4-38	-
45	5.9	7.2	CHA M 4-45	-			
50	5.9	7.2	CHA M 4-50	-			
M 5	5.0	1.0	6	6.5	7.2	CHA M 5-6	-
			8	6.5	7.2	CHA M 5-8	-
			10	6.5	7.2	CHA M 5-10	-
			12	6.5	7.2	CHA M 5-12	358 943 000
			15	6.5	7.2	CHA M 5-15	-
			16	6.5	7.2	CHA M 5-16	-
			18	6.5	7.2	CHA M 5-18	-
			20	6.5	7.2	CHA M 5-20	-
			22	6.5	7.2	CHA M 5-22	-
			25	6.5	7.2	CHA M 5-25	-
			28	6.5	7.2	CHA M 5-28	-
			30	6.5	7.2	CHA M 5-30	-
			35	6.5	7.2	CHA M 5-35	-
			38	6.5	7.2	CHA M 5-38	-
			42	6.5	7.2	CHA M 5-42	-
50	6.5	7.2	CHA M 5-50	-			
54	6.5	7.2	CHA M 5-54	-			
M 6	6.0	1.6	8	8.2	7.9	CHA M 6-8	-
			10	8.2	7.9	CHA M 6-10	-
			12	8.2	7.9	CHA M 6-12	358 308 000
			14	8.2	7.9	CHA M 6-14	-
			15	8.2	7.9	CHA M 6-15	-
			16	8.2	7.9	CHA M 6-16	-
			18	8.2	7.9	CHA M 6-18	-
			20	8.2	7.9	CHA M 6-20	358 311 000
			22	8.2	7.9	CHA M 6-22	-
			25	8.2	7.9	CHA M 6-25	358 313 000

For punch and anvil dimensions, see page 31.

Continued on next page

Captive® self-clinching fasteners

Cont'd

Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	L ± 0.4 [mm]	A ± 0.4 [mm]	 min [mm]	Aluminium	Article No.
						Description	
			28	8.2	7.9	CHA M 6-28	-
			30	8.2	7.9	CHA M 6-30	-
			35	8.2	7.9	CHA M 6-35	-
			38	8.2	7.9	CHA M 6-38	-
			50	8.2	7.9	CHA M 6-50	-
M 8	8.0	2.4	12	9.6	9.6	CHA M 8-12	-
			15	9.6	9.6	CHA M 8-15	-
			18	9.6	9.6	CHA M 8-18	-
			20	9.6	9.6	CHA M 8-20	-
			22	9.6	9.6	CHA M 8-22	-
			25	9.6	9.6	CHA M 8-25	-
			28	9.6	9.6	CHA M 8-28	-
			30	9.6	9.6	CHA M 8-30	-
			35	9.6	9.6	CHA M 8-35	-
			38	9.6	9.6	CHA M 8-38	-
			42	9.6	9.6	CHA M 8-42	-
45	9.6	9.6	CHA M 8-45	-			
58	9.6	9.6	CHA M 8-58	-			
M 10	10.0	2.4	15	12.3	11.4	CHA M 10-15	-
			18	12.3	11.4	CHA M 10-18	-
			20	12.3	11.4	CHA M 10-20	-
			22	12.3	11.4	CHA M 10-22	-
			25	12.3	11.4	CHA M 10-25	-
			28	12.3	11.4	CHA M 10-28	-
			30	12.3	11.4	CHA M 10-30	-
			35	12.3	11.4	CHA M 10-35	-
			38	12.3	11.4	CHA M 10-38	-

Technical specifications

Thread size	Test material	Installation force	Push-out	Torque-out
		[kN]	[N]	[Nm]
M 2.5	1.6 mm aluminium	8.9	465	1.0
	1.5 mm steel	11.1	740	1.0
M 3	1.6 mm aluminium	12.9	600	1.7
	1.5 mm steel	14.7	820	1.7
M 4	1.6 mm aluminium	20.0	975	2.9
	1.5 mm steel	28.9	1780	4.2
M 5	1.6 mm aluminium	24.5	1070	3.5
	1.5 mm steel	33.4	2000	6.5
M 6	2.4 mm aluminium	28.9	1660	7.3
	2.2 mm steel	44.5	2560	11.3
M 8	2.4 mm aluminium	29.8	1910	11.3
	2.2 mm steel	44.5	2890	19.2

Guidelines only - the exact values will need to be calculated on the original component.

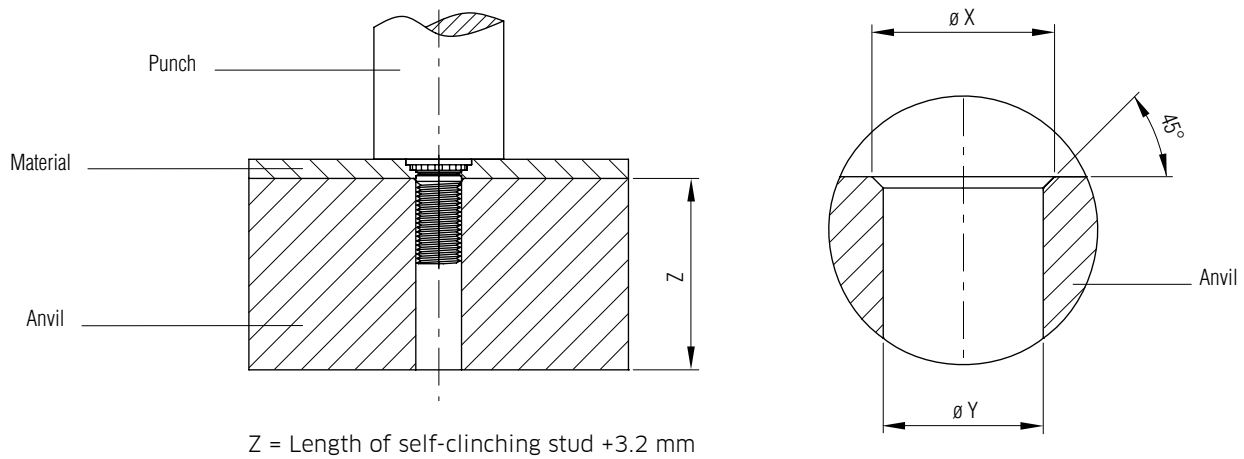
For punch and anvil dimensions, see page 31.

Captive® self-clinching fasteners

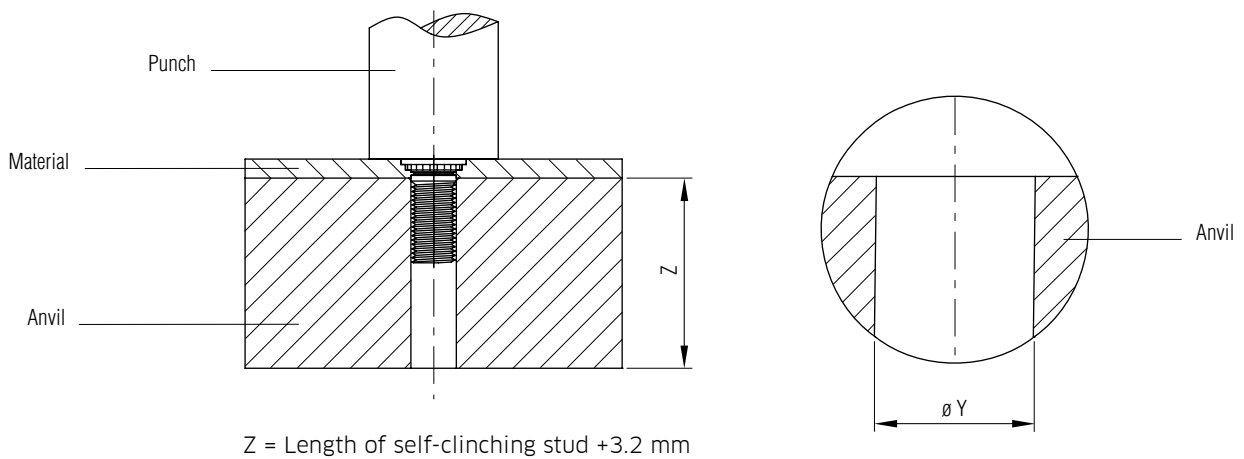
Punch and anvil dimensions for self-clinching fasteners
from series: CH - CHS - CHA - CHN

Thread size	Anvil dimensions	
	X +0.1 [mm]	Y +0.08 [mm]
M 2.5	3.1	2.5
M 3	3.6	3.0
M 4	4.6	4.0
M 5	5.6	5.0
M 6	6.6	6.0
M 8	-	8.0

Anvil for material thickness < 1.5 mm for thread sizes M 2.5-M 5
Anvil for material thickness < 2.3 mm for thread sizes M 6-M 8



Anvil for material thickness > 1.5 mm for thread sizes M 2.5-M 5
Anvil for material thickness > 2.3 mm for thread sizes M 6-M 8



Captive® self-clinching fasteners

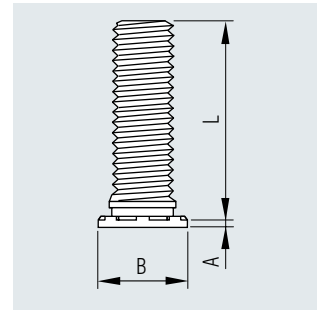
Self-clinching threaded studs for metal

For sheeting as thin as 0.51 mm, non-flush installation

Material

Zinc-plated steel
(TCH series)
Suitable for sheet
hardness HRB 80
or less

A2 stainless steel, 300 series
(TCHS series)
Suitable for sheet
hardness HRB 70
or less



Thread size	Bore ϕ	Material thickness	L	A	B		Steel		Stainless steel	
							Description	Article No.	Description	Article No.
	+0.08 -0.00 [mm]	min [mm]	± 0.4 [mm]	max [mm]	± 0.4 [mm]	min [mm]				
M 3	3.0	0.51	6	0.64	4.5	5.6	TCH M 3-6	358 850 000	TCHS M 3-6	-
			8	0.64	4.5	5.6	TCH M 3-8	358 851 000	TCHS M 3-8	-
			10	0.64	4.5	5.6	TCH M 3-10	-	TCHS M 3-10	-
			12	0.64	4.5	5.6	TCH M 3-12	-	TCHS M 3-12	-
			15	0.64	4.5	5.6	TCH M 3-15	358 854 000	TCHS M 3-15	-
			18	0.64	4.5	5.6	TCH M 3-18	-	TCHS M 3-18	358 885 000
			20	0.64	4.5	5.6	TCH M 3-20	-	TCHS M 3-20	-
M 4	4.0	0.51	10	0.64	5.8	7.2	TCH M 4-10	358 884 000	TCHS M 4-10	-
			12	0.64	5.8	7.2	TCH M 4-12	358 716 000	TCHS M 4-12	-
			15	0.64	5.8	7.2	TCH M 4-15	-	TCHS M 4-15	-
			18	0.64	5.8	7.2	TCH M 4-18	-	TCHS M 4-18	-
			20	0.64	5.8	7.2	TCH M 4-20	-	TCHS M 4-20	-
			22	0.64	5.8	7.2	TCH M 4-22	-	TCHS M 4-22	-
			25	0.64	5.8	7.2	TCH M 4-25	-	TCHS M 4-25	-
			28	0.64	5.8	7.2	TCH M 4-28	-	TCHS M 4-28	-
			30	0.64	5.8	7.2	TCH M 4-30	-	TCHS M 4-30	-
			35	0.64	5.8	7.2	TCH M 4-35	-	TCHS M 4-35	-
M 5	5.0	0.51	10	0.64	6.4	7.2	TCH M 5-10	358 697 000	TCHS M 5-10	-
			12	0.64	6.4	7.2	TCH M 5-12	-	TCHS M 5-12	-
			15	0.64	6.4	7.2	TCH M 5-15	-	TCHS M 5-15	-
			18	0.64	6.4	7.2	TCH M 5-18	-	TCHS M 5-18	-
			20	0.64	6.4	7.2	TCH M 5-20	-	TCHS M 5-20	-
			22	0.64	6.4	7.2	TCH M 5-22	-	TCHS M 5-22	-
			25	0.64	6.4	7.2	TCH M 5-25	-	TCHS M 5-25	-
			28	0.64	6.4	7.2	TCH M 5-28	-	TCHS M 5-28	-
30	0.64	6.4	7.2	TCH M 5-30	-	TCHS M 5-30	-			
			35	0.64	6.4	7.2	TCH M 5-35	-	TCHS M 5-35	-
			38	0.64	6.4	7.2	TCH M 5-38	-	TCHS M 5-38	-

For punch and anvil dimensions, see page 38.

Captive® self-clinching fasteners

Technical specifications

Thread size	Max. screw torque	Material	Sheet material	Installation force	Push-out	Torque-out
			Material hardness			
	[Nm]	[mm]	[HRB]	[kN]	[N]	[Nm]
M 3	0.74	0.5 aluminium	28	5.3	190	0.6
		0.6 steel	52	6.7	290	1.0
M 4	1.7	0.5 aluminium	28	9.8	245	0.7
		0.6 steel	52	13.4	495	2.5
M 5	3.5	0.5 aluminium	28	13.4	265	1.2
		0.6 steel	52	17.8	665	2.9

Guidelines only - the exact values will need to be calculated on the original component.

For punch and anvil dimensions, see page 38.

Captive® self-clinching fasteners

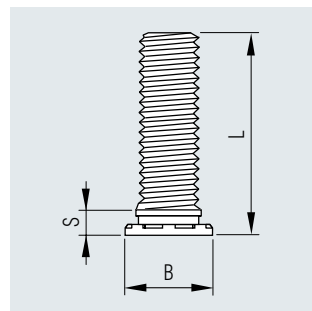
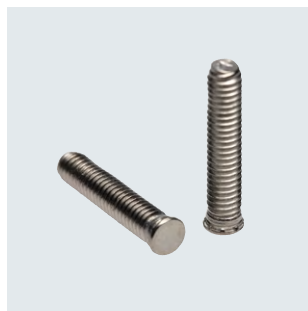
Self-clinching threaded studs for metal


For close-edge installation

Material

Zinc-plated steel
(CHE series)
Suitable for sheet
hardness HRB 80
or less

A2 stainless steel, 300 series,
passivated (CHES series)
Suitable for sheet
hardness HRB 70
or less




Thread size	Bore ϕ	Material thickness	L	B	S		Steel	Stainless steel		
							Description	Article No.	Description	Article No.
M 2.5	2.5	1.0	± 0.4	± 0.4	max	min				
			[mm]	[mm]	[mm]	[mm]				
			6	3.15	2.1	2.8	CHE M 2.5-6	358 863 000	CHES M 2.5-6	-
			8	3.15	2.1	2.8	CHE M 2.5-8	358 881 000	CHES M 2.5-8	358 937 000
			10	3.15	2.1	2.8	CHE M 2.5-10	358 864 000	CHES M 2.5-10	-
			12	3.15	2.1	2.8	CHE M 2.5-12	358 858 000	CHES M 2.5-12	-
			15	3.15	2.1	2.8	CHE M 2.5-15	358 865 000	CHES M 2.5-15	358 938 000
M 3	3.0	1.0	6	3.65	2.1	3.3	CHE M 2.5-18	358 877 000	CHES M 2.5-18	358 939 000
			25	3.15	2.1	2.8	CHE M 2.5-25	358 882 000	CHES M 2.5-25	-
			6	3.65	2.1	3.3	CHE M 3-6	358 888 000	CHES M 3-6	358 756 000
			7	3.65	2.1	3.3	CHE M 3-7	358 852 000	CHES M 3-7	-
			8	3.65	2.1	3.3	CHE M 3-8	358 889 000	CHES M 3-8	358 758 000
			10	3.65	2.1	3.3	CHE M 3-10	358 890 000	CHES M 3-10	358 645 000
			12	3.65	2.1	3.3	CHE M 3-12	358 891 000	CHES M 3-12	358 737 000
			15	3.65	2.1	3.3	CHE M 3-15	358 892 000	CHES M 3-15	358 759 000
			18	3.65	2.1	3.3	CHE M 3-18	358 893 000	CHES M 3-18	358 902 000
			20	3.65	2.1	3.3	CHE M 3-20	358 861 000	CHES M 3-20	358 738 000
22	3.65	2.1	3.3	CHE M 3-22	358 862 000	CHES M 3-22	-			
25	3.65	2.1	3.3	CHE M 3-25	358 886 000	CHES M 3-25	-			

For punch and anvil dimensions, see page 38.

Continued on next page

Captive® self-clinching fasteners

Cont'd

Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	L ± 0.4 [mm]	B ± 0.4 [mm]	S max [mm]	 min [mm]	Steel		Stainless steel	
							Description	Article No.	Description	Article No.
M 4	4.0	1.0	6	4.65	2.4	4.3	CHE M 4-6	358 876 000	CHES M 4-6	-
			8	4.65	2.4	4.3	CHE M 4-8	358 866 000	CHES M 4-8	-
			10	4.65	2.4	4.3	CHE M 4-10	358 894 000	CHES M 4-10	358 913 000
			12	4.65	2.4	4.3	CHE M 4-12	358 895 000	CHES M 4-12	-
			15	4.65	2.4	4.3	CHE M 4-15	358 896 000	CHES M 4-15	358 752 000
			18	4.65	2.4	4.3	CHE M 4-18	358 897 000	CHES M 4-18	358 900 000
			20	4.65	2.4	4.3	CHE M 4-20	358 898 000	CHES M 4-20	-
			22	4.65	2.4	4.3	CHE M 4-22	358 867 000	CHES M 4-22	-
			25	4.65	2.4	4.3	CHE M 4-25	358 899 000	CHES M 4-25	-
			28	4.65	2.4	4.3	CHE M 4-28	358 853 000	CHES M 4-28	-
			30	4.65	2.4	4.3	CHE M 4-30	358 855 000	CHES M 4-30	-
			35	4.65	2.4	4.3	CHE M 4-35	358 856 000	CHES M 4-35	-
			38	4.65	2.4	4.3	CHE M 4-38	358 849 000	CHES M 4-38	-
			42	4.65	2.4	4.3	CHE M 4-42	-	CHES M 4-42	358 793 000
			50	4.65	2.4	4.3	CHE M4-50	-	CHES M 4-50	358 792 000
M 5	5.0	1.0	8	5.9	2.7	5.6	CHE M 5-8	358 755 000	CHES M 5-8	-
			10	5.9	2.7	5.6	CHE M 5-10	358 868 000	CHES M 5-10	-
			12	5.9	2.7	5.6	CHE M 5-12	358 869 000	CHES M 5-12	-
			15	5.9	2.7	5.6	CHE M 5-15	358 878 000	CHES M 5-15	-
			18	5.9	2.7	5.6	CHE M 5-18	358 873 000	CHES M 5-18	358 753 000
			20	5.9	2.7	5.6	CHE M 5-20	358 857 000	CHES M 5-20	-
			25	5.9	2.7	5.6	CHE M 5-25	358 879 000	CHES M 5-25	-
			30	5.9	2.7	5.6	CHE M 5-30	358 871 000	CHES M 5-30	-
			35	5.9	2.7	5.6	CHE M 5-35	-	CHES M 5-35	-

Technical specifications

Thread size	Max. screw torque [Nm]	Material [mm]	Sheet material		Installation force [kN]	Push-out [N]	Pull-through [N]	Torque-out [Nm]
			Material hardness [HRB]					
M 2.5	0.41	1.2 aluminium	33		3.1	285	1200	0.55
		1.1 steel	54		5.3	450	2250	1.10
M 3	0.46 0.74	1.2 aluminium	33		4.4	285	1300	0.65
		1.1 steel	54		5.3	475	2500	1.25
M 4	0.75 1.70	1.2 aluminium	33		5.3	365	1550	1.10
		1.1 steel	54		6.6	550	3300	2.10
M 5	1.11 2.25	1.2 aluminium	33		11.1	530	1850	2.20
		1.1 steel	54		20.0	1000	3750	4.40

Guidelines only - the exact values will need to be calculated on the original component.


For punch and anvil dimensions, see page 38.


Captive® self-clinching fasteners

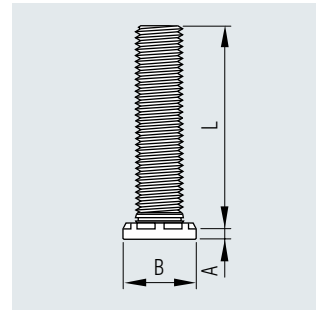
Self-clinching threaded studs for metal


For high torque


Material

 Zinc-plated steel (HCH series)
Suitable for sheet hardness HRB 85 or less

 A2 stainless steel, 300 series, passivated (HCHS series)
Suitable for sheet hardness HRB 70 or less



 Phosphor bronze (HCHB series)
Suitable for sheet hardness HRB 55 or less - available on request

Thread size	Bore \varnothing	Material thickness	L	A	B		Hole for fastener	Steel		Stainless steel	
								Description	Article No.	Description	Article No.
	+0.13 -0.00 [mm]	± 0.4 [mm]	± 0.4 [mm]	max [mm]	± 0.25 [mm]	min [mm]	max [mm]				
M 5	5.0	1.3	15	1.14	7.8	10.7	6.4	HCH M 5-15	358 808 000	HCHS M 5-15	-
			20	1.14	7.8	10.7	6.4	HCH M 5-20	-	HCHS M 5-20	-
			25	1.14	7.8	10.7	6.4	HCH M 5-25	-	HCHS M 5-25	-
			30	1.14	7.8	10.7	6.4	HCH M 5-30	-	HCHS M 5-30	-
			35	1.14	7.8	10.7	6.4	HCH M 5-35	-	HCHS M 5-35	-
			40	1.14	7.8	10.7	6.4	HCH M 5-40	-	HCHS M 5-40	-
M 6	6.0	1.5	10	1.27	9.4	11.5	7.5	HCH M 6-10	358 810 000	HCHS M 6-10	-
			15	1.27	9.4	11.5	7.5	HCH M 6-15	-	HCHS M 6-15	358 823 000
			20	1.27	9.4	11.5	7.5	HCH M 6-20	358 812 000	HCHS M 6-20	358 733 000
			25	1.27	9.4	11.5	7.5	HCH M 6-25	358 813 000	HCHS M 6-25	358 822 000
			30	1.27	9.4	11.5	7.5	HCH M 6-30	-	HCHS M 6-30	-
			35	1.27	9.4	11.5	7.5	HCH M 6-35	358 815 000	HCHS M 6-35	-
			40	1.27	9.4	11.5	7.5	HCH M 6-40	-	HCHS M 6-40	-
			50	1.27	9.4	11.5	7.5	HCH M 6-50	-	HCHS M 6-50	-
M 8	8.0	2.0	14	1.78	12.5	12.7	9.5	HCH M 8-14	358 821 000	HCHS M 8-14	-
			16	1.78	12.5	12.7	9.5	HCH M 8-16	358 816 000	HCHS M 8-16	-
			20	1.78	12.5	12.7	9.5	HCH M 8-20	358 817 000	HCHS M 8-20	-
			25	1.78	12.5	12.7	9.5	HCH M 8-25	358 818 000	HCHS M 8-25	358 824 000
			30	1.78	12.5	12.7	9.5	HCH M 8-30	358 819 000	HCHS M 8-30	-
			35	1.78	12.5	12.7	9.5	HCH M 8-35	358 820 000	HCHS M 8-35	-
			40	1.78	12.5	12.7	9.5	HCH M 8-40	-	HCHS M 8-40	-
			50	1.78	12.5	12.7	9.5	HCH M 8-50	358 743 000	HCHS M 8-50	-
M 10	10.0	2.3	12	2.29	15.7	13.7	11.5	HCH M 10-12	358 646 000	HCHS M 10-12	-
			15	2.29	15.7	13.7	11.5	HCH M 10-15	358 840 000	HCHS M 10-15	-
			20	2.29	15.7	13.7	11.5	HCH M 10-20	-	HCHS M 10-20	-
			25	2.29	15.7	13.7	11.5	HCH M 10-25	358 784 000	HCHS M 10-25	358 809 000
			30	2.29	15.7	13.7	11.5	HCH M 10-30	358 779 000	HCHS M 10-30	-
			35	2.29	15.7	13.7	11.5	HCH M 10-35	-	HCHS M 10-35	-
			40	2.29	15.7	13.7	11.5	HCH M 10-40	-	HCHS M 10-40	-
			50	2.29	15.7	13.7	11.5	HCH M 10-50	-	HCHS M 10-50	-

For punch and anvil dimensions, see page 38.

Captive® self-clinching fasteners

Technical specifications

Thread size	Description	Test material	Material hardness	Installation force	Push-out	Torque-out	Max. tightening torque
		[mm]	[HRB]	[kN]	[N]	[Nm]	[Nm]
M 5	HCH	1.5 aluminium	15	13.0	800	5.4	4.4
	HCH	1.5 steel	65	26.0	1500	7.6	4.4
	HCHS	1.62 aluminium	35	12.4	800	5.4	4.4
	HCHS	1.47 aluminium	54	21.7	1500	6.4	4.4
	HCHB	1.5 copper CDA-110	28	15.6	1115	3.4	3.5
M 6	HCH	1.5 aluminium	43	29.0	1270	14.0	10.0
	HCH	1.5 steel	59	33.0	1750	14.0	10.0
	HCHS	1.62 aluminium	35	15.4	1270	11.0	10.0
	HCHS	1.6 aluminium	45	24.6	1750	11.0	10.0
	HCHB	1.5 copper CDA-110	28	25.3	1600	6.7	5.9
M 8	HCH	2.3 aluminium	39	35.6	1700	30.0	21.7
	HCH	2.3 steel	58	44.5	2200	30.0	21.7
	HCHS	2.23 aluminium	44	24.4	1700	20.0	21.7
	HCHS	2.48 steel	43	37.8	2100	20.0	21.7
	HCHB	3.2 copper CDA-110	32	33.0	2250	15.3	14.3
M 10	HCH	2.3 aluminium	39	53.3	2445	36.0	36.6
	HCH	2.3 steel	58	80.0	3470	49.0	36.6
	HCHS	2.3 aluminium	44	44.4	2445	36.0	36.6
	HCHS	2.3 steel	44	57.7	3470	36.0	36.6
	HCHB	3.2 copper CDA-110	32	53.3	2500	25.0	28.5

Guidelines only - the exact values will need to be calculated on the original component.

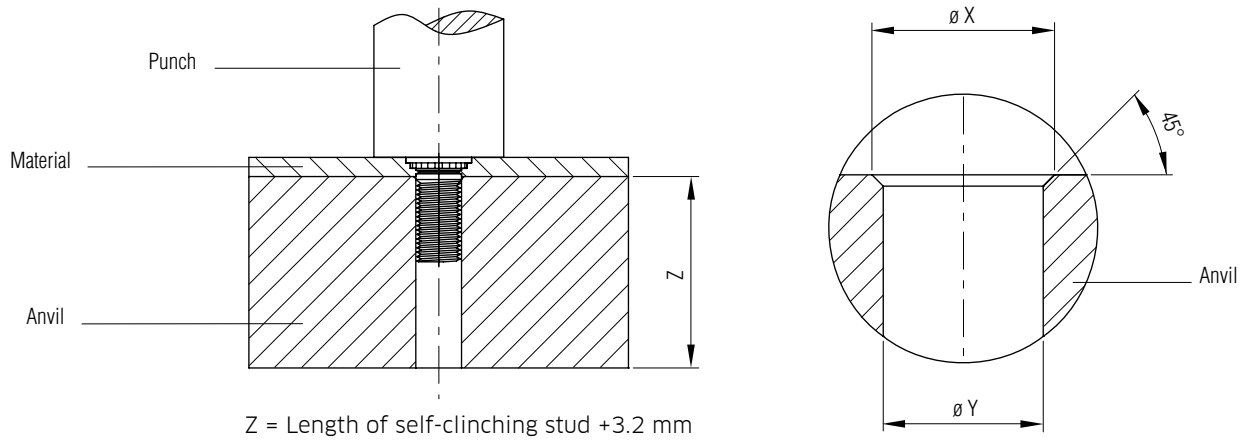
For punch and anvil dimensions, see page 38.

Captive® self-clinching fasteners

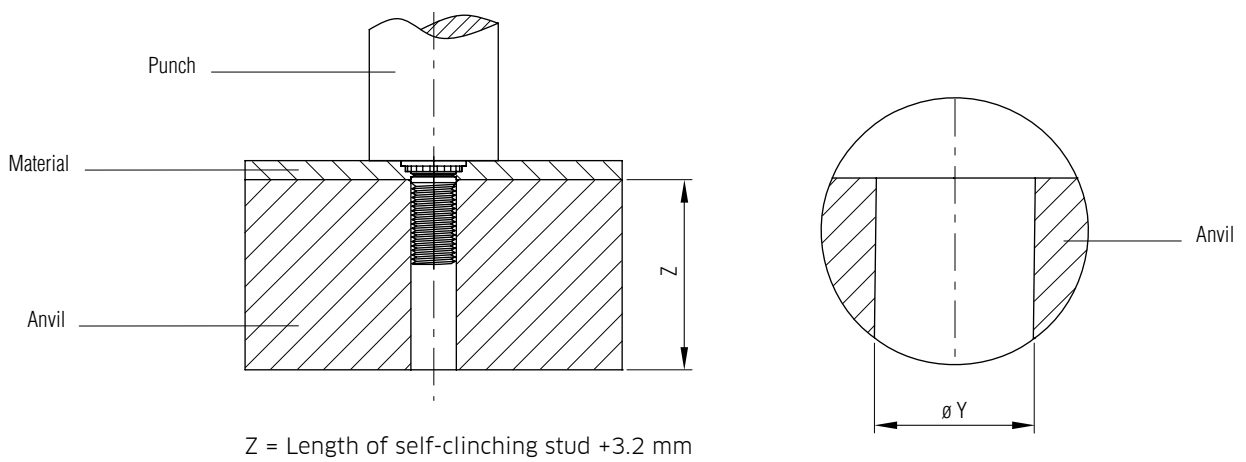
Punch and anvil dimensions for self-clinching studs
 from series: TCH - TCHS - CHE - CHES - HCH - HCHS - HCHB

Thread size	Anvil dimensions	
	X +0.1 [mm]	Y +0.1 [mm]
M 2.5	3.1	2.6
M 3	3.6	3.1
M 4	4.6	4.1
M 5	5.6	5.1

Anvil for material thickness < 1.5 mm



Anvil for material thickness > 1.5 mm

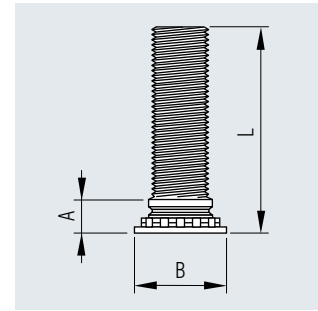
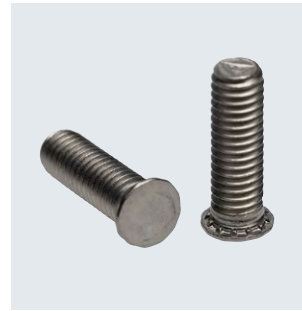



Captive® self-clinching fasteners

Self-clinching threaded studs for metal

Material

Stainless steel, 400 series,
passivated (CHTS series)
Suitable for sheet hardness
HRB 92 or less




Thread size	Bore \varnothing	Material thickness	L	A	B		Stainless steel Description	Article No.
	+0.08 -0.00 [mm]	[mm]	± 0.4 [mm]	max [mm]	± 0.4 [mm]	min [mm]		
M 3	3.0	1-2.4	6	2.1	4.6	5.6	CHTS M 3-6	358 956 000
			8	2.1	4.6	5.6	CHTS M 3-8	358 940 000
			10	2.1	4.6	5.6	CHTS M 3-10	358 825 000
			12	2.1	4.6	5.6	CHTS M 3-12	358 970 000
			15	2.1	4.6	5.6	CHTS M 3-15	358 975 000
			18	2.1	4.6	5.6	CHTS M 3-18	-
			20	2.1	4.6	5.6	CHTS M 3-20	358 971 000
			25	2.1	4.6	5.6	CHTS M 3-25	-
M 4	4.0	1-2.4	6	2.4	5.9	7.2	CHTS M 4-6	-
			8	2.4	5.9	7.2	CHTS M 4-8	358 935 000
			10	2.4	5.9	7.2	CHTS M 4-10	358 972 000
			12	2.4	5.9	7.2	CHTS M 4-12	358 845 000
			15	2.4	5.9	7.2	CHTS M 4-15	358 976 000
			18	2.4	5.9	7.2	CHTS M 4-18	-
			20	2.4	5.9	7.2	CHTS M 4-20	-
			25	2.4	5.9	7.2	CHTS M 4-25	-
			30	2.4	5.9	7.2	CHTS M 4-30	358 811 000
			35	2.4	5.9	7.2	CHTS M 4-35	-
M 5	5.0	1-2.4	8	2.7	6.5	7.2	CHTS M 5-8	-
			10	2.7	6.5	7.2	CHTS M 5-10	358 974 000
			12	2.7	6.5	7.2	CHTS M 5-12	-
			15	2.7	6.5	7.2	CHTS M 5-15	-
			18	2.7	6.5	7.2	CHTS M 5-18	-
			20	2.7	6.5	7.2	CHTS M 5-20	358 973 000
			25	2.7	6.5	7.2	CHTS M 5-25	-
			30	2.7	6.5	7.2	CHTS M 5-30	-
			35	2.7	6.5	7.2	CHTS M 5-35	-
			M 6	6.0	1.6-3	8	3.0	8.2
10	3.0	8.2				7.9	CHTS M 6-10	-
12	3.0	8.2				7.9	CHTS M 6-12	358 736 000
15	3.0	8.2				7.9	CHTS M 6-15	358 936 000
18	3.0	8.2				7.9	CHTS M 6-18	-
20	3.0	8.2				7.9	CHTS M 6-20	358 593 000
22	3.0	8.2				7.9	CHTS M 6-22	358 918 000
25	3.0	8.2				7.9	CHTS M 6-25	358 805 000
30	3.0	8.2				7.9	CHTS M 6-30	-
35	3.0	8.2				7.9	CHTS M 6-35	-

For punch and anvil dimensions, see page 40.

Continued on next page

Captive® self-clinching fasteners

Cont'd

Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness [mm]	L ± 0.4 [mm]	A max [mm]	B ± 0.4 [mm]	 min [mm]	Stainless steel	
							Description	Article No.
M 8	8.0	2.4 -3.8	12	3.7	9.6	9.6	CHTS M 8-12	-
			15	3.7	9.6	9.6	CHTS M 8-15	-
			18	3.7	9.6	9.6	CHTS M 8-18	-
			20	3.7	9.6	9.6	CHTS M 8-20	-
			25	3.7	9.6	9.6	CHTS M 8-25	-
			30	3.7	9.6	9.6	CHTS M 8-30	-
			35	3.7	9.6	9.6	CHTS M 8-35	-

Technical specifications

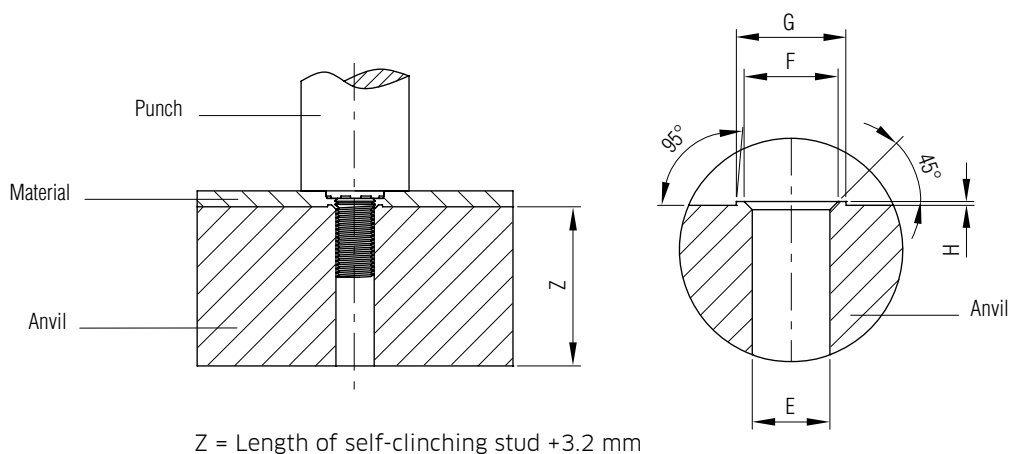
Thread size	Test material	Material thickness [mm]	Material hardness [HRB]	Installation force [kN]	Push-out [N]	Torque-out [Nm]	Pull-through max [N]
M 4	Stainless steel	1.5	92	50	3200	6.4	7960
M 5	Stainless steel	1.5	92	53	3570	10.5	9980
M 6	Stainless steel	1.5	92	58	4195	15.7	14880
M 8	Stainless steel	2.3	92	71	7895	33.3	32804

Guidelines only - the exact values will need to be calculated on the original component.

Punch and anvil dimensions for self-clinching studs from the series: CHTS

Thread size	Anvil dimensions			
	E [mm]	F [mm]	G [mm]	H [mm]
M 3	3.05	3.81	4.57	0.25
M 4	4.04	4.95	5.82	0.25
M 5	5.08	6.15	7.16	0.25

Anvil for material thickness < 1.5 mm



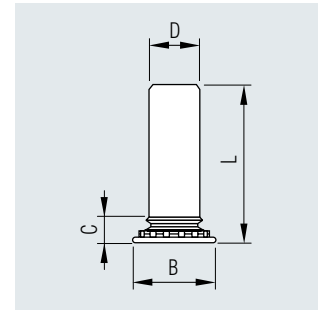
Captive® self-clinching fasteners

Self-clinching studs for metal


For sheeting as thin as 1.0 mm

Material

Steel, hardened, zinc-plated (CH series)¹ Steel, unhardened, zinc-plated (CHN series)²



Stainless steel A2, 300 series, passivated (CHS series)³

Stud ø D ±0.05 [mm]	Bore ø +0.08 -0.00 [mm]	Material thickness min [mm]	L ±0.4 [mm]	B ±0.4 [mm]	C max [mm]	 min [mm]	Steel hardened		Steel unhardened		Stainless steel	
							Description	Article No.	Description	Article No.	Description	Article No.
3	3.5	1.0	6	5.3	2.3	6.4	CH 3MM-6	358 723 000	CHN 3MM-6	-	CHS 3MM-6	358 839 000
			8	5.3	2.3	6.4	CH 3MM-8	-	CHN 3MM-8	358 801 000	CHS 3MM-8	-
			10	5.3	2.3	6.4	CH 3MM-10	-	CHN 3MM-10	-	CHS 3MM-10	-
			12	5.3	2.3	6.4	CH 3MM-12	358 826 000	CHN 3MM-12	-	CHS 3MM-12	-
			15	5.3	2.3	6.4	CH 3MM-15	-	CHN 3MM-15	-	CHS 3MM-15	-
			18	5.3	2.3	6.4	CH 3MM-18	-	CHN 3MM-18	-	CHS 3MM-18	-
			20	5.3	2.3	6.4	CH 3MM-20	-	CHN 3MM-20	-	CHS 3MM-20	-
			25	5.3	2.3	6.4	CH 3MM-25	-	CHN 3MM-25	-	CHS 3MM-25	-
4	4.1	1.0	8	6.0	2.3	7.1	CH 4MM-8	358 828 000	CHN 4MM-8	358 841 000	CHS 4MM-8	358 848 000
			10	6.0	2.3	7.1	CH 4MM-10	358 827 000	CHN 4MM-10	-	CHS 4MM-10	-
			12	6.0	2.3	7.1	CH 4MM-12	358 831 000	CHN 4MM-12	-	CHS 4MM-12	-
			15	6.0	2.3	7.1	CH 4MM-15	358 721 000	CHN 4MM-15	-	CHS 4MM-15	-
			18	6.0	2.3	7.1	CH 4MM-18	-	CHN 4MM-18	-	CHS 4MM-18	-
			20	6.0	2.3	7.1	CH 4MM-20	358 834 000	CHN 4MM-20	-	CHS 4MM-20	-
			25	6.0	2.3	7.1	CH 4MM-25	358 835 000	CHN 4MM-25	358 847 000	CHS 4MM-25	-
			30	6.0	2.3	7.1	CH 4MM-30	-	CHN 4MM-30	-	CHS 4MM-30	-
5	5.5	1.0	6	7.5	2.55	7.6	CH 5MM-6	358 829 000	CHN 5MM-6	-	CHS 5MM-6	-
			8	7.5	2.55	7.6	CH 5MM-8	358 830 000	CHN 5MM-8	-	CHS 5MM-8	-
			10	7.5	2.55	7.6	CH 5MM-10	358 832 000	CHN 5MM-10	-	CHS 5MM-10	-
			12	7.5	2.55	7.6	CH 5MM-12	358 838 000	CHN 5MM-12	-	CHS 5MM-12	-
			15	7.5	2.55	7.6	CH 5MM-15	358 833 000	CHN 5MM-15	-	CHS 5MM-15	-
			18	7.5	2.55	7.6	CH 5MM-18	-	CHN 5MM-18	-	CHS 5MM-18	-
			20	7.5	2.55	7.6	CH 5MM-20	-	CHN 5MM-20	-	CHS 5MM-20	-
			25	7.5	2.55	7.6	CH 5MM-25	358 836 000	CHN 5MM-25	-	CHS 5MM-25	-
			28	7.5	2.55	7.6	CH 5MM-28	358 837 000	CHN 5MM-28	-	CHS 5MM-28	-
			30	7.5	2.55	7.6	CH 5MM-30	-	CHN 5MM-30	-	CHS 5MM-30	-
			35	7.5	2.55	7.6	CH 5MM-35	358 846 000	CHN 5MM-35	-	CHS 5MM-35	-

¹ Suitable for sheet hardness HRB 80 or less

² Suitable for sheet hardness HRB 50 or less

³ Suitable for sheet hardness HRB 70 or less

For punch and anvil dimensions, see page 31.

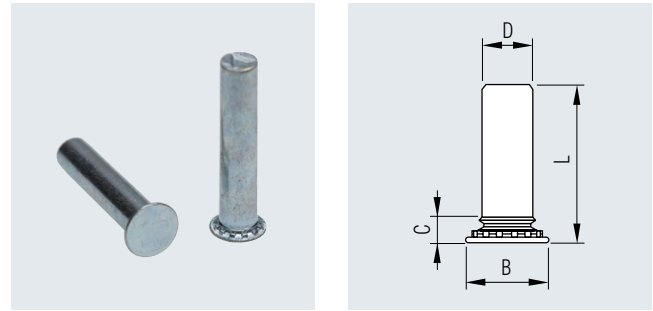
Captive® self-clinching fasteners


Self-clinching studs for metal

For sheeting as thin as 1.0 mm

Material

Aluminium (CHA series)²



Stud ø D	Bore ø	Material thickness	L	B	C		Aluminium Description	Article No.
±0.05 [mm]	+0.08 -0.00 [mm]	min [mm]	±0.4 [mm]	±0.4 [mm]	max [mm]	min [mm]		
3	3.5	1.0	6	5.3	2.3	6.4	CHA 3MM-6	-
			8	5.3	2.3	6.4	CHA 3MM-8	-
			10	5.3	2.3	6.4	CHA 3MM-10	-
			12	5.3	2.3	6.4	CHA 3MM-12	-
			15	5.3	2.3	6.4	CHA 3MM-15	-
			18	5.3	2.3	6.4	CHA 3MM-18	-
			20	5.3	2.3	6.4	CHA 3MM-20	-
			25	5.3	2.3	6.4	CHA 3MM-25	-
4	4.1	1.0	8	6.0	2.3	7.1	CHA 4MM-8	-
			10	6.0	2.3	7.1	CHA 4MM-10	-
			12	6.0	2.3	7.1	CHA 4MM-12	-
			15	6.0	2.3	7.1	CHA 4MM-15	-
			18	6.0	2.3	7.1	CHA 4MM-18	-
			20	6.0	2.3	7.1	CHA 4MM-20	-
			25	6.0	2.3	7.1	CHA 4MM-25	-
			30	6.0	2.3	7.1	CHA 4MM-30	-
5	5.5	1.0	6	7.5	2.55	7.6	CHA 5MM-6	-
			8	7.5	2.55	7.6	CHA 5MM-8	-
			10	7.5	2.55	7.6	CHA 5MM-10	-
			12	7.5	2.55	7.6	CHA 5MM-12	-
			15	7.5	2.55	7.6	CHA 5MM-15	-
			18	7.5	2.55	7.6	CHA 5MM-18	-
			20	7.5	2.55	7.6	CHA 5MM-20	-
			25	7.5	2.55	7.6	CHA 5MM-25	-
			28	7.5	2.55	7.6	CHA 5MM-28	-
			30	7.5	2.55	7.6	CHA 5MM-30	-
35	7.5	2.55	7.6	CHA 5MM-35	-			

² Suitable for sheet hardness HRB 50 or less

For punch and anvil dimensions, see page 31.

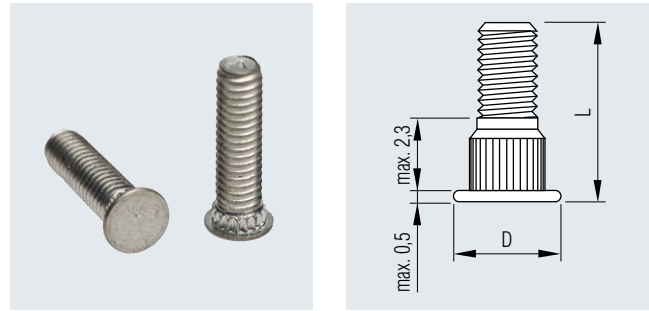
Captive® self-clinching fasteners

Broaching-type studs for plastics

For high torque

Material

Phosphor bronze
Electroplated with tin (CKFH series)



Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	L [mm]	Clear hole attachment part [mm]	Nut tightening torque		Anvil hole +0.08 -0.00 [mm]	D ± 0.25 [mm]	min [mm]	Description	Article No.
					max [Nm]	[mm]					
M 2.5	2.6	1.53	6	-	-	2.6	4.10	3.3	CKFH M 2.5-6	358 595 000	
			8	-	-	2.6	4.10	3.3	CKFH M 2.5-8	358 579 000	
			10	-	-	2.6	4.10	3.3	CKFH M 2.5-10	358 591 000	
			12	-	-	2.6	4.10	3.3	CKFH M 2.5-12	358 580 000	
			15	-	-	2.6	4.10	3.3	CKFH M 2.5-15	358 110 000	
M 3	3.0	1.53	6	3.7	0.45	3.1	4.58	3.8	CKFH M 3-6	358 581 000	
			8	3.7	0.45	3.1	4.58	3.8	CKFH M 3-8	358 582 000	
			10	3.7	0.45	3.1	4.58	3.8	CKFH M 3-10	358 583 000	
			12	3.7	0.45	3.1	4.58	3.8	CKFH M 3-12	358 584 000	
			15	3.7	0.45	3.1	4.58	3.8	CKFH M 3-15	358 585 000	
			18	3.7	0.45	3.1	4.58	3.8	CKFH M 3-18	358 586 000	
			20	3.7	0.45	3.1	4.58	3.8	CKFH M 3-20	358 592 000	
M 4	4.2	1.53	6	4.8	1.60	4.1	5.74	5.1	CKFH M 4-6	-	
			8	4.8	1.60	4.1	5.74	5.1	CKFH M 4-8	358 587 000	
			10	4.8	1.60	4.1	5.74	5.1	CKFH M 4-10	358 588 000	
			12	4.8	1.60	4.1	5.74	5.1	CKFH M 4-12	358 589 000	
			15	4.8	1.60	4.1	5.74	5.1	CKFH M 4-15	358 590 000	
			18	4.8	1.60	4.1	5.74	5.1	CKFH M 4-18	-	
M 5	5.0	1.53	6	5.8	2.10	5.1	6.60	5.3	CKFH M 5-6	-	
			8	5.8	2.10	5.1	6.60	5.3	CKFH M 5-8	-	
			10	5.8	2.10	5.1	6.60	5.3	CKFH M 5-10	-	
			12	5.8	2.10	5.1	6.60	5.3	CKFH M 5-12	-	
			15	5.8	2.10	5.1	6.60	5.3	CKFH M 5-15	-	
			18	5.8	2.10	5.1	6.60	5.3	CKFH M 5-18	-	

Technical specifications

Thread size	Installation force	Push-out	Torque-out
	[kN]		
M 3	1.8	285	0.79
M 4	1.8	355	1.80
M 5	1.8	400	1.92

Guidelines only - the exact values will need to be calculated on the original component.

Hole ϕ anvil = Dimension "A" +0.10/+0.18 mm.

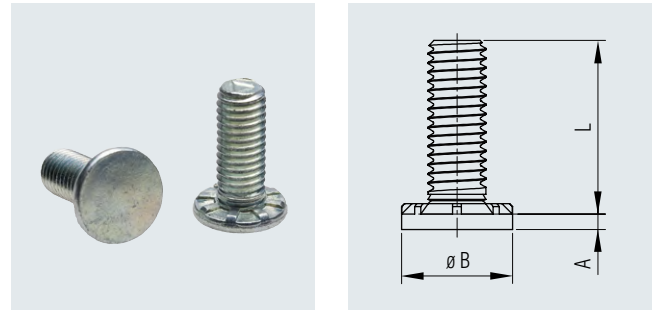
Captive® self-clinching fasteners


Self-clinching threaded studs for metal

For higher pull-through

Material

Zinc-plated steel (HCW series)
Suitable for sheet hardness HRB 85 or less



Thread size	Bore ø +0.13 -0.00 [mm]	Material thickness min [mm]	L ±0.4 [mm]	A max [mm]	B ±0.25 [mm]	 min [mm]	Hole for fastener max [mm]	Steel	
								Description	Article No.
M 5	5.0	1.0	15	1.35	9.6	10.0	7.3	HCW M5 -15	-
			20	1.35	9.6	10.0	7.3	HCW M5 -20	-
			25	1.35	9.6	10.0	7.3	HCW M5 -25	-
			30	1.35	9.6	10.0	7.3	HCW M5 -30	-
			35	1.35	9.6	10.0	7.3	HCW M5 -35	-
			40	1.35	9.6	10.0	7.3	HCW M5 -40	-
M 6	6.0	1.0	15	1.52	11.35	11.5	8.3	HCW M6 -15	-
			20	1.52	11.35	11.5	8.3	HCW M6 -20	-
			25	1.52	11.35	11.5	8.3	HCW M6 -25	-
			30	1.52	11.35	11.5	8.3	HCW M6 -30	-
			35	1.52	11.35	11.5	8.3	HCW M6 -35	-
			40	1.52	11.35	11.5	8.3	HCW M6 -40	-
M 8	8.0	1.5	15	2.13	15.3	14.5	10.3	HCW M8 -15	-
			20	2.13	15.3	14.5	10.3	HCW M8 -20	-
			25	2.13	15.3	14.5	10.3	HCW M8 -25	-
			30	2.13	15.3	14.5	10.3	HCW M8 -30	-
			35	2.13	15.3	14.5	10.3	HCW M8 -35	-
			40	2.13	15.3	14.5	10.3	HCW M8 -40	-
			50	2.13	15.3	14.5	10.3	HCW M8 -50	-

Technical specifications

Thread size	Test material	Material hardness [HRB]	Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 5	1.0 aluminium	27	37,7	685	8,0
	1.0 steel	67	51,1	1345	8,0
M 6	1.0 aluminium	27	39	745	11,7
	1.0 steel	67	60	1395	14,3
M 8	1.5 aluminium	22	42,0	1225	23,4
	1.5 steel	65	71,1	2395	33,8

Guidelines only - the exact values will need to be calculated on the original component.

Captive® self-clinching fasteners

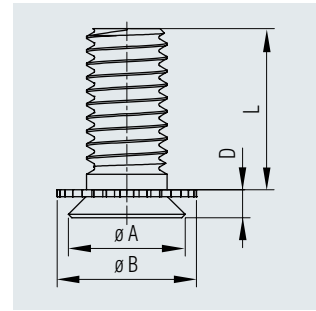
Self-clinching threaded studs for metal

For blind hole applications

Material

Aluminium
(CFA series)
Suitable for sheet
hardness HRB 50
or less

A2 stainless steel, 300 series,
passivated (Serie CFC)
Suitable for sheet
hardness HRB 70
or less



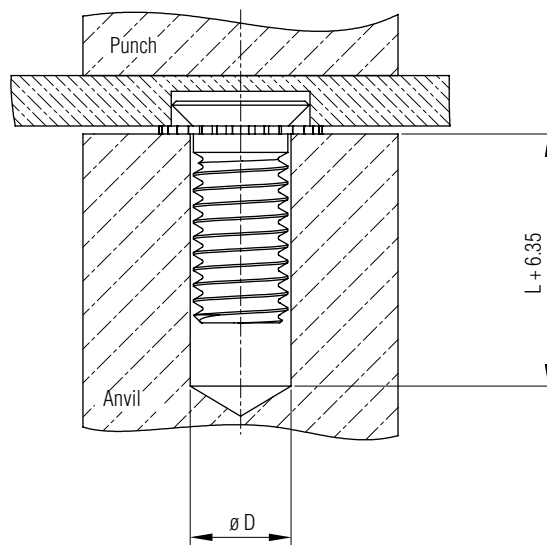
Thread size	Blind hole ø +0.08 -0.00 [mm]	Material thickness min [mm]	L [mm]	Hole		D max [mm]	B ±0.25 [mm]	A			Aluminium		Stainless steel			
				min	max			max	min		Description	Article No.	Description	Article No.		
M 3	4.37	1.6	6	1.1	3.6	1.04	5.21	4.35	4.0		CFA-1 M3-6	-	CFC-1 M3-6	-		
				1.1	3.6	1.04	5.21	4.35	4.0		CFA-1 M3-8	-	CFC-1 M3-8	-		
				1.1	3.6	1.04	5.21	4.35	4.0		CFA-1 M3-10	-	CFC-1 M3-10	-		
				1.1	3.6	1.04	5.21	4.35	4.0		CFA-1 M3-12	-	CFC-1 M3-12	-		
				1.1	3.6	1.04	5.21	4.35	4.0		CFA-1 M3-16	-	CFC-1 M3-16	-		
				1.1	3.6	1.04	5.21	4.35	4.0		CFA-1 M3-20	-	CFC-1 M3-20	-		
				1.1	3.6	1.04	5.21	4.35	4.0		CFA-1 M3-20	-	CFC-1 M3-20	-		
		2.4	4.37	2.4	6	1.91	3.6	1.80	5.21	4.35	4.0		CFA-2 M3-6	-	CFC-2 M3-6	-
						1.91	3.6	1.80	5.21	4.35	4.0		CFA-2 M3-8	-	CFC-2 M3-8	-
						1.91	3.6	1.80	5.21	4.35	4.0		CFA-2 M3-10	-	CFC-2 M3-10	-
						1.91	3.6	1.80	5.21	4.35	4.0		CFA-2 M3-12	358 024 000	CFC-2 M3-12	-
						1.91	3.6	1.80	5.21	4.35	4.0		CFA-2 M3-16	358 014 000	CFC-2 M3-16	-
						1.91	3.6	1.80	5.21	4.35	4.0		CFA-2 M3-20	-	CFC-2 M3-20	-
						1.91	3.6	1.80	5.21	4.35	4.0		CFA-2 M3-20	-	CFC-2 M3-20	-
M 4	7.37	1.6	6	1.1	4.6	1.04	8.33	7.35	5.6		CFA-1 M4-6	-	CFC-1 M4-6	-		
				1.1	4.6	1.04	8.33	7.35	5.6		CFA-1 M4-8	-	CFC-1 M4-8	-		
				1.1	4.6	1.04	8.33	7.35	5.6		CFA-1 M4-10	358 775 000	CFC-1 M4-10	-		
				1.1	4.6	1.04	8.33	7.35	5.6		CFA-1 M4-12	358 776 000	CFC-1 M4-12	-		
				1.1	4.6	1.04	8.33	7.35	5.6		CFA-1 M4-16	-	CFC-1 M4-16	-		
				1.1	4.6	1.04	8.33	7.35	5.6		CFA-1 M4-20	-	CFC-1 M4-20	-		
				1.1	4.6	1.04	8.33	7.35	5.6		CFA-1 M4-25	-	CFC-1 M4-25	-		
		2.4	7.37	2.4	6	1.91	4.6	1.80	8.33	7.35	5.6		CFA-2 M4-6	-	CFC-2 M4-6	-
						1.91	4.6	1.80	8.33	7.35	5.6		CFA-2 M4-8	-	CFC-2 M4-8	-
						1.91	4.6	1.80	8.33	7.35	5.6		CFA-2 M4-10	-	CFC-2 M4-10	-
						1.91	4.6	1.80	8.33	7.35	5.6		CFA-2 M4-12	-	CFC-2 M4-12	-
						1.91	4.6	1.80	8.33	7.35	5.6		CFA-2 M4-16	-	CFC-2 M4-16	-
						1.91	4.6	1.80	8.33	7.35	5.6		CFA-2 M4-20	-	CFC-2 M4-20	-
						1.91	4.6	1.80	8.33	7.35	5.6		CFA-2 M4-25	-	CFC-2 M4-25	-
M 5	7.93	1.6	10	1.1	5.6	1.04	8.89	7.90	6.4		CFA-1 M5-10	-	CFC-1 M5-10	-		
				1.1	5.6	1.04	8.89	7.90	6.4		CFA-1 M5-12	-	CFC-1 M5-12	-		
				1.1	5.6	1.04	8.89	7.90	6.4		CFA-1 M5-16	-	CFC-1 M5-16	-		
				1.1	5.6	1.04	8.89	7.90	6.4		CFA-1 M5-20	-	CFC-1 M5-20	-		
				1.1	5.6	1.04	8.89	7.90	6.4		CFA-1 M5-25	-	CFC-1 M5-25	-		
		2.4	7.93	2.4	10	1.91	5.6	1.80	8.89	7.90	6.4		CFA-2 M5-10	-	CFC-2 M5-10	-
						1.91	5.6	1.80	8.89	7.90	6.4		CFA-2 M5-12	-	CFC-2 M5-12	-
						1.91	5.6	1.80	8.89	7.90	6.4		CFA-2 M5-16	-	CFC-2 M5-16	-
						1.91	5.6	1.80	8.89	7.90	6.4		CFA-2 M5-20	-	CFC-2 M5-20	-
						1.91	5.6	1.80	8.89	7.90	6.4		CFA-2 M5-25	-	CFC-2 M5-25	-

Captive® self-clinching fasteners

Technical specifications

Series	Thread size	Max. screw torque	Steel		Aluminium (H 34)	
			Installation force	Push-out	Installation force	Push-out
		[Nm]	[kN]	[N]	[kN]	[N]
CFC-1	M 3	0.5	8	1065	6.2	575
	M 4	2.0	17.8	1200	12.5	800
	M 5	3.6	22.2	1290	17.8	930
CFC-2	M 3	0.5	8.9	1065	6.7	890
	M 4	2.0	14.7	1955	13.3	1375
	M 5	3.6	17.8	3020	15.6	1600
CFA-1	M 3	0.3	-	-	6.2	555
	M 4	1.2	-	-	12.5	645
	M 5	2.16	-	-	17.8	755
CFA-2	M 3	0.3	-	-	6.7	845
	M 4	1.2	-	-	13.3	1065
	M 5	2.16	-	-	15.6	1330

1. Punch a mounting hole in the material.
2. Place the stud into the mounting hole.
3. Place the sheet material over the head of the fastener.
4. Insert the component, ensuring that the punch and anvil are parallel to each other, until the stud head is flush with the surface.



Anvil dimensions for concealed head studs CFC-1/ CFC-2/ CFA-1/ CFA-2

Series	Thread size	D [mm]
CFA / CFC	M 3	3.4
	M 4	4.4
	M 5	5.4

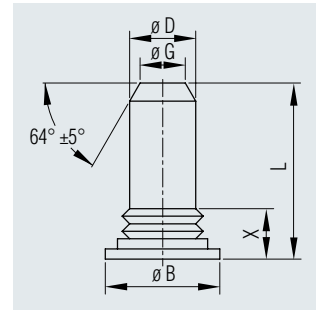
Captive® self-clinching fasteners


Self-clinching studs for metal

For sheeting as thin as 1.0 mm

Material

A2 stainless steel, 300 series, (CGS series)
Suitable for sheet hardness HRB 70 or less



Stud Ø D ±0.05 [mm]	Bore Ø +0.08 -0.00 [mm]	Material thickness min [mm]	L ±0.4 [mm]	B ±0.4 [mm]	X max [mm]	G ±0.15 [mm]		Stainless steel	
								Description	Article No.
3	3.5	1.0	8	5.20	2.29	2.05	6.4	CGS 3MM-8	-
			10	5.20	2.29	2.05	6.4	CGS 3MM-10	-
			12	5.20	2.29	2.05	6.4	CGS 3MM-12	358 496 000
			16	5.20	2.29	2.05	6.4	CGS 3MM-16	-
4	4.5	1.0	8	6.12	2.29	2.82	7.1	CGS 4MM-8	-
			10	6.12	2.29	2.82	7.1	CGS 4MM-10	358 495 000
			12	6.12	2.29	2.82	7.1	CGS 4MM-12	-
			16	6.12	2.29	2.82	7.1	CGS 4MM-16	-
5	5.5	1.0	10	7.19	2.29	3.53	7.6	CGS 5MM-10	358 494 000
			12	7.19	2.29	3.53	7.6	CGS 5MM-12	358 498 000
			16	7.19	2.29	3.53	7.6	CGS 5MM-16	-
			20	7.19	2.29	3.53	7.6	CGS 5MM-20	-
6	6.5	1.0	12	8.13	2.29	4.24	7.9	CGS 6MM-12	358 497 000
			16	8.13	2.29	4.24	7.9	CGS 6MM-16	-
			20	8.13	2.29	4.24	7.9	CGS 6MM-20	-

Technical specifications

Stud Ø D ±0.05 [mm]	Test material	Material hardness [HRB]	Installation force [kN]	Push-out [N]
3 MM	Aluminium	22	12	550
	Steel	65	22	970
4 MM	Aluminium	19	22	880
	Steel	66	26.4	1530
5 MM	Aluminium	18	28.6	1000
	Steel	60	35.2	1750
6 MM	Aluminium	18	30.8	1050
	Steel	62	39.6	2050


Guidelines only – the exact values will need to be calculated on the original component.


Captive® self-clinching fasteners

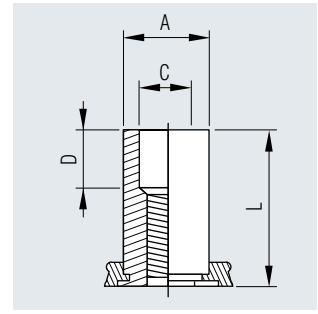
Self-clinching standoffs for metal


Through-hole

Material

 Zinc-plated steel (CFSO series) Suitable for sheet hardness HRB 80 or less

 A2 stainless steel, 300 series, passivated (CFSOS series) Suitable for sheet hardness HRB 70 or less




Thread size	Bore ϕ	Material thickness	L	A	SW	C	D		Steel		Stainless steel			
									Description	Article No.	Description	Article No.		
	+0.08	+0.05	+0.00											
	-0.00	-0.13	-0.13	nom	± 0.13	± 0.25	min							
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]							
M 3	4.22	1.0	3.0	4.2	4.8	3.2	0	6.0	CFSO M 3-3	358 330 000	CFSOS M 3-3	-		
			3.5	4.2	4.8	3.2	0	6.0	CFSO M 3-3.5	358 326 000	CFSOS M 3-3.5	-		
			4.0	4.2	4.8	3.2	0	6.0	CFSO M 3-4	358 331 000	CFSOS M 3-4	358 381 000		
			4.5	4.2	4.8	3.2	0	6.0	CFSO M 3-4.5	358 321 000	CFSOS M 3-4.5	-		
			5.0	4.2	4.8	3.2	0	6.0	CFSO M 3-5	358 337 000	CFSOS M 3-5	358 379 000		
			6.0	4.2	4.8	3.2	0	6.0	CFSO M 3-6	358 332 000	CFSOS M 3-6	358 382 000		
			7.0	4.2	4.8	3.2	0	6.0	CFSO M 3-7	358 322 000	CFSOS M 3-7	-		
			8.0	4.2	4.8	3.2	0	6.0	CFSO M 3-8	358 333 000	CFSOS M 3-8	358 383 000		
			10.0	4.2	4.8	3.2	4.0	6.0	CFSO M 3-10	358 334 000	CFSOS M 3-10	358 385 000		
			12.0	4.2	4.8	3.2	4.0	6.0	CFSO M 3-12	358 335 000	CFSOS M 3-12	358 380 000		
			14.0	4.2	4.8	3.2	4.0	6.0	CFSO M 3-14	358 336 000	CFSOS M 3-14	-		
			16.0	4.2	4.8	3.2	8.0	6.0	CFSO M 3-16	-	CFSOS M 3-16	-		
			18.0	4.2	4.8	3.2	8.0	6.0	CFSO M 3-18	-	CFSOS M 3-18	-		
			5.41	1.0	3.0	5.39	6.4	3.2	0	6.8	CFSO3.5 M 3-3	358 340 000	CFSOS3.5 M 3-3	-
					4.0	5.39	6.4	3.2	0	6.8	CFSO3.5 M 3-4	358 341 000	CFSOS3.5 M 3-4	-
					5.0	5.39	6.4	3.2	0	6.8	CFSO3.5 M 3-5	358 342 000	CFSOS3.5 M 3-5	-
					6.0	5.39	6.4	3.2	0	6.8	CFSO3.5 M 3-6	358 343 000	CFSOS3.5 M 3-6	358 391 000
					8.0	5.39	6.4	3.2	0	6.8	CFSO3.5 M 3-8	358 344 000	CFSOS3.5 M 3-8	358 390 000
9.0	5.39	6.4			3.2	0	6.8	CFSO3.5 M 3-9	358 350 000	CFSOS3.5 M 3-9	-			
10.0	5.39	6.4			3.2	4.0	6.8	CFSO3.5 M 3-10	358 345 000	CFSOS3.5 M 3-10	358 393 000			
12.0	5.39	6.4			3.2	4.0	6.8	CFSO3.5 M 3-12	358 346 000	CFSOS3.5 M 3-12	358 394 000			
14.0	5.39	6.4			3.2	4.0	6.8	CFSO3.5 M 3-14	358 347 000	CFSOS3.5 M 3-14	-			
16.0	5.39	6.4			3.2	8.0	6.8	CFSO3.5 M 3-16	358 339 000	CFSOS3.5 M 3-16	-			
		18.0	5.39	6.4	3.2	8.0	6.8	CFSO3.5 M 3-18	358 348 000	CFSOS3.5 M 3-18	-			
			5.39	6.4	3.2	11.0	6.8	CFSO3.5 M 3-22	358 349 000	CFSOS3.5 M 3-22	-			

Continued on next page

Captive® self-clinching fasteners

Cont'd

Thread size	Bore ϕ	Material thickness	L	A	SW	C	D		Steel		Stainless steel	
									Description	Article No.	Description	Article No.
	+0.08 -0.00 [mm]	ness min [mm]	+0.05 -0.13 [mm]	+0.00 -0.13 [mm]	nom [mm]	± 0.13 [mm]	± 0.25 [mm]	min [mm]				
M 4	7.14	1.27	3.0	7.12	7.9	4.8	0	8.0	CFSO M 4-3	358 359 000	CFSOS M 4-3	-
			4.0	7.12	7.9	4.8	0	8.0	CFSO M 4-4	358 351 000	CFSOS M 4-4	358 373 000
			4.5	7.12	7.9	4.8	0	8.0	CFSO M 4-4.5	358 366 000	CFSOS M 4-4.5	-
			6.0	7.12	7.9	4.8	0	8.0	CFSO M 4-6	358 352 000	CFSOS M 4-6	358 384 000
			6.5	7.12	7.9	4.8	0	8.0	CFSO M 4 - 6.5	358 319 000	CFSOS M 4-6.5	-
			7.0	7.12	7.9	4.8	0	8.0	CFSO M 4-7	358 356 000	CFSOS M 4-7	-
			8.0	7.12	7.9	4.8	0	8.0	CFSO M 4-8	358 353 000	CFSOS M 4-8	358 389 000
			10.0	7.12	7.9	4.8	4.0	8.0	CFSO M 4-10	358 354 000	CFSOS M 4-10	358 374 000
			12.0	7.12	7.9	4.8	4.0	8.0	CFSO M 4-12	358 355 000	CFSOS M 4-12	-
			14.0	7.12	7.9	4.8	4.0	8.0	CFSO M 4-14	-	CFSOS M 4-14	-
			16.0	7.12	7.9	4.8	8.0	8.0	CFSO M 4-16	358 361 000	CFSOS M 4-16	358 392 000
			18.0	7.12	7.9	4.8	8.0	8.0	CFSO M 4-18	358 358 000	CFSOS M 4-18	-
			20.0	7.12	7.9	4.8	8.0	8.0	CFSO M 4-20	358 357 000	CFSOS M 4-20	-
			22.0	7.12	7.9	4.8	11.0	8.0	CFSO M 4-22	358 360 000	CFSOS M 4-22	-
			25.0	7.12	7.9	4.8	11.0	8.0	CFSO M 4-25	358 372 000	CFSOS M 4-25	-
M 5	7.14	1.27	3.0	7.12	7.9	5.35	0	8.0	CFSO M 5-3	-	CFSOS M 5-3	-
			4.0	7.12	7.9	5.35	0	8.0	CFSO M 5-4	358 362 000	CFSOS M 5-4	358 378 000
			6.0	7.12	7.9	5.35	0	8.0	CFSO M 5-6	358 363 000	CFSOS M 5-6	358 388 000
			8.0	7.12	7.9	5.35	0	8.0	CFSO M 5-8	358 364 000	CFSOS M 5-8	358 387 000
			10.0	7.12	7.9	5.35	4.0	8.0	CFSO M 5-10	358 365 000	CFSOS M 5-10	-
			12.0	7.12	7.9	5.35	4.0	8.0	CFSO M 5-12	358 371 000	CFSOS M 5-12	-
			14.0	7.12	7.9	5.35	4.0	8.0	CFSO M 5-14	358 367 000	CFSOS M 5-14	-
			16.0	7.12	7.9	5.35	8.0	8.0	CFSO M 5-16	358 368 000	CFSOS M 5-16	-
			18.0	7.12	7.9	5.35	8.0	8.0	CFSO M 5-18	-	CFSOS M 5-18	-
			20.0	7.12	7.9	5.35	8.0	8.0	CFSO M 5-20	-	CFSOS M 5-20	358 386 000
			22.0	7.12	7.9	5.35	11.0	8.0	CFSO M 5-22	358 301 000	CFSOS M 5-22	-
			25.0	7.12	7.9	5.35	11.0	8.0	CFSO M 5-25	358 370 000	CFSOS M 5-25	-

Hole ϕ anvil = Dimensions "A" +0.10/+0.18 mm.

For technical specifications, see page 59.

Captive® self-clinching fasteners

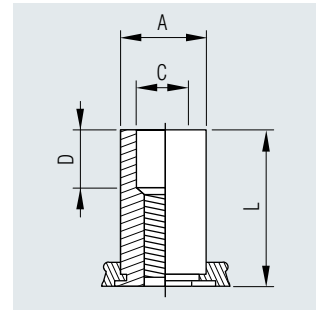
Self-clinching standoffs for metal


Through-hole

Material

Aluminium (CFSOA series)

Suitable for sheet hardness HRB 50 or less




Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	SW nom [mm]	C ± 0.13 [mm]	D ± 0.25 [mm]	 min [mm]	Aluminium	Article No.		
									Description			
M 3	4.22	1.0	3.0	4.2	4.8	3.2	0	6.0	CFSOA M 3-3	-		
			3.5	4.2	4.8	3.2	0	6.0	CFSOA M 3-3.5	-		
			4.0	4.2	4.8	3.2	0	6.0	CFSOA M 3-4	-		
			4.5	4.2	4.8	3.2	0	6.0	CFSOA M 3-4.5	-		
			5.0	4.2	4.8	3.2	0	6.0	CFSOA M 3-5	-		
			6.0	4.2	4.8	3.2	0	6.0	CFSOA M 3-6	-		
			7.0	4.2	4.8	3.2	0	6.0	CFSOA M 3-7	-		
			8.0	4.2	4.8	3.2	0	6.0	CFSOA M 3-8	-		
			10.0	4.2	4.8	3.2	4.0	6.0	CFSOA M 3-10	-		
			12.0	4.2	4.8	3.2	4.0	6.0	CFSOA M 3-12	-		
			14.0	4.2	4.8	3.2	4.0	6.0	CFSOA M 3-14	-		
			16.0	4.2	4.8	3.2	8.0	6.0	CFSOA M 3-16	-		
			18.0	4.2	4.8	3.2	8.0	6.0	CFSOA M 3-18	-		
			5.41	1.0	3.0	5.39	6.4	3.2	0	6.8	CFSOA3.5 M 3-3	-
					4.0	5.39	6.4	3.2	0	6.8	CFSOA3.5 M 3-4	-
					5.0	5.39	6.4	3.2	0	6.8	CFSOA3.5 M 3-5	-
6.0	5.39	6.4			3.2	0	6.8	CFSOA3.5 M 3-6	-			
8.0	5.39	6.4			3.2	0	6.8	CFSOA3.5 M 3-8	-			
9.0	5.39	6.4			3.2	0	6.8	CFSOA3.5 M 3-9	-			
10.0	5.39	6.4			3.2	4.0	6.8	CFSOA3.5 M 3-10	-			
12.0	5.39	6.4			3.2	4.0	6.8	CFSOA3.5 M 3-12	-			
14.0	5.39	6.4			3.2	4.0	6.8	CFSOA3.5 M 3-14	-			
16.0	5.39	6.4			3.2	8.0	6.8	CFSOA3.5 M 3-16	-			
18.0	5.39	6.4	3.2	8.0	6.8	CFSOA3.5 M 3-18	-					
22.0	5.39	6.4	3.2	11.0	6.8	CFSOA3.5 M 3-22	-					

Continued on next page

Captive® self-clinching fasteners

Cont'd

Thread size	Bore ϕ	Material thickness	L	A	SW	C	D		Steel	
									Description	Article No.
	+0.08 -0.00 [mm]	min [mm]	+0.05 -0.13 [mm]	+0.00 -0.13 [mm]	nom [mm]	± 0.13 [mm]	± 0.25 [mm]	min [mm]		
M 4	7.14	1.27	3.0	7.12	7.9	4.8	0	8.0	CFSOA M 4-3	-
			4.0	7.12	7.9	4.8	0	8.0	CFSOA M 4-4	-
			4.5	7.12	7.9	4.8	0	8.0	CFSOA M 4-4.5	-
			6.0	7.12	7.9	4.8	0	8.0	CFSOA M 4-6	358 395 000
			6.5	7.12	7.9	4.8	0	8.0	CFSOA M 4-6.5	-
			7.0	7.12	7.9	4.8	0	8.0	CFSOA M 4-7	-
			8.0	7.12	7.9	4.8	0	8.0	CFSOA M 4-8	-
			10.0	7.12	7.9	4.8	4.0	8.0	CFSOA M 4-10	-
			12.0	7.12	7.9	4.8	4.0	8.0	CFSOA M 4-12	-
			14.0	7.12	7.9	4.8	4.0	8.0	CFSOA M 4-14	-
			16.0	7.12	7.9	4.8	8.0	8.0	CFSOA M 4-16	-
			18.0	7.12	7.9	4.8	8.0	8.0	CFSOA M 4-18	-
			20.0	7.12	7.9	4.8	8.0	8.0	CFSOA M 4-20	-
			22.0	7.12	7.9	4.8	11.0	8.0	CFSOA M 4-22	-
25.0	7.12	7.9	4.8	11.0	8.0	CFSOA M 4-25	-			
M 5	7.14	1.27	3.0	7.12	7.9	5.35	0	8.0	CFSOA M 5-3	-
			4.0	7.12	7.9	5.35	0	8.0	CFSOA M 5-4	-
			6.0	7.12	7.9	5.35	0	8.0	CFSOA M 5-6	-
			8.0	7.12	7.9	5.35	0	8.0	CFSOA M 5-8	-
			10.0	7.12	7.9	5.35	4.0	8.0	CFSOA M 5-10	-
			12.0	7.12	7.9	5.35	4.0	8.0	CFSOA M 5-12	-
			14.0	7.12	7.9	5.35	4.0	8.0	CFSOA M 5-14	-
			16.0	7.12	7.9	5.35	8.0	8.0	CFSOA M 5-16	-
			18.0	7.12	7.9	5.35	8.0	8.0	CFSOA M 5-18	-
			20.0	7.12	7.9	5.35	8.0	8.0	CFSOA M 5-20	-
			22.0	7.12	7.9	5.35	11.0	8.0	CFSOA M 5-22	-
			25.0	7.12	7.9	5.35	11.0	8.0	CFSOA M 5-25	-

Hole ϕ anvil = Dimension "A" +0.10/+0.18 mm.


For technical specifications, see page 59.


Captive® self-clinching fasteners

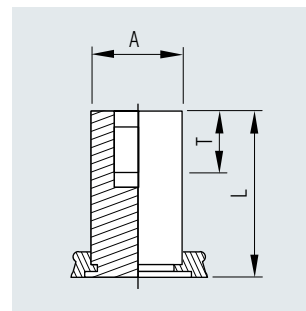
Self-clinching standoffs for metal


Through-threaded

Material

 Zinc-plated steel (CFBSO series)
Suitable for sheet hardness HRB 80 or less

 A2 stainless steel, 300 series, passivated (CFBSOS series)
Suitable for sheet hardness HRB 70 or less




Thread size	Bore ø	Material thickness	L	A	SW	T ¹		Steel		Stainless steel		
								Description	Article No.	Description	Article No.	
M 3	4.22	1.0		+0.05	+0.00							
				-0.13	-0.13	nom	min	min				
			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]				
			6.0	4.2	4.8	3.2	6.0	CFBSO M 3-6	358 402 000	CFBSOS M 3-6	358 396 000	
			8.0	4.2	4.8	4.0	6.0	CFBSO M 3-8	358 403 000	CFBSOS M 3-8	358 433 000	
			10.0	4.2	4.8	4.0	6.0	CFBSO M 3-10	358 404 000	CFBSOS M 3-10	358 434 000	
			12.0	4.2	4.8	5.0	6.0	CFBSO M 3-12	358 405 000	CFBSOS M 3-12	358 435 000	
			14.0	4.2	4.8	6.5	6.0	CFBSO M 3-14	358 406 000	CFBSOS M 3-14	358 436 000	
			16.0	4.2	4.8	6.5	6.0	CFBSO M 3-16	358 407 000	CFBSOS M 3-16	358 432 000	
			18.0	4.2	4.8	9.5	6.0	CFBSO M 3-18	358 408 000	CFBSOS M 3-18	358 438 000	
			20.0	4.2	4.8	9.5	6.0	CFBSO M 3-20	358 409 000	CFBSOS M 3-20	358 460 000	
			22.0	4.2	4.8	9.5	6.0	CFBSO M 3-22	358 410 000	CFBSOS M 3-22	-	
	25.0	4.2	4.8	9.5	6.0	CFBSO M 3-25	358 421 000	CFBSOS M 3-25	358 437 000			
	5.41	1.0	1.0	6.0	5.39	6.4	3.2	6.8	CFBSO3.5 M 3-6	358 412 000	CFBSOS3.5 M 3-6	358 457 000
				8.0	5.39	6.4	4.0	6.8	CFBSO3.5 M 3-8	358 413 000	CFBSOS3.5 M 3-8	358 439 000
				9.0	5.39	6.4	4.0	6.8	CFBSO3.5 M 3-9	358 401 000	CFBSOS3.5 M 3-9	-
				10.0	5.39	6.4	4.0	6.8	CFBSO3.5 M 3-10	358 414 000	CFBSOS3.5 M 3-10	358 440 000
				11.0	5.39	6.4	4.0	6.8	CFBSO3.5 M 3-11	358 411 000	CFBSOS3.5 M 3-11	-
				12.0	5.39	6.4	5.0	6.8	CFBSO3.5 M 3-12	358 415 000	CFBSOS3.5 M 3-12	358 441 000
				14.0	5.39	6.4	6.5	6.8	CFBSO3.5 M 3-14	358 416 000	CFBSOS3.5 M 3-14	358 442 000
				16.0	5.39	6.4	6.5	6.8	CFBSO3.5 M 3-16	358 417 000	CFBSOS3.5 M 3-16	358 443 000
				18.0	5.39	6.4	9.5	6.8	CFBSO3.5 M 3-18	358 418 000	CFBSOS3.5 M 3-18	358 458 000
				20.0	5.39	6.4	9.5	6.8	CFBSO3.5 M 3-20	358 419 000	CFBSOS3.5 M 3-20	-
				22.0	5.39	6.4	9.5	6.8	CFBSO3.5 M 3-22	358 420 000	CFBSOS3.5 M 3-22	-
25.0				5.39	6.4	9.5	6.8	CFBSO3.5 M 3-25	358 448 000	CFBSOS3.5 M 3-25	-	
30.0	5.39	6.4	9.5	6.8	CFBSO3.5 M 3-30	358 449 000	CFBSOS3.5 M 3-30	-				

¹ T = Thread length

Continued on next page

Captive® self-clinching fasteners

Cont'd

Thread size	Bore ø	Material thickness	L	A	SW	T ¹		Steel		Stainless steel			
								Description	Article No.	Description	Article No.		
M 4	7.14	1.27		+0.05	+0.00								
				-0.13	-0.13	nom	min	min					
				[mm]	[mm]	[mm]	[mm]	[mm]	[mm]				
			6.0	7.12	7.9	3.2	8.0	CFBSO M 4-6	358 451 000	CFBSOS M 4-6	-		
			8.0	7.12	7.9	4.0	8.0	CFBSO M 4-8	358 423 000	CFBSOS M 4-8	358 473 000		
			10.0	7.12	7.9	4.0	8.0	CFBSO M 4-10	358 424 000	CFBSOS M 4-10	358 474 000		
			11.5	7.12	7.9	4.0	8.0	CFBSO M 4-11.5	358 422 000	CFBSOS M 4-11.5	-		
			12.0	7.12	7.9	5.0	8.0	CFBSO M 4-12	358 425 000	CFBSOS M 4-12	358 475 000		
			14.0	7.12	7.9	6.5	8.0	CFBSO M 4-14	358 426 000	CFBSOS M 4-14	358 476 000		
			16.0	7.12	7.9	6.5	8.0	CFBSO M 4-16	358 427 000	CFBSOS M 4-16	358 477 000		
			18.0	7.12	7.9	9.5	8.0	CFBSO M 4-18	358 428 000	CFBSOS M 4-18	358 478 000		
			20.0	7.12	7.9	9.5	8.0	CFBSO M 4-20	358 429 000	CFBSOS M 4-20	-		
22.0	7.12	7.9	9.5	8.0	CFBSO M 4-22	358 430 000	CFBSOS M 4-22	358 454 000					
25.0	7.12	7.9	9.5	8.0	CFBSO M 4-25	358 431 000	CFBSOS M 4-25	358 481 000					
M 5	7.14	1.27	6.0	7.12	7.9	3.2	8.0	CFBSO M 5-6	-	CFBSOS M 5-6	-		
			8.0	7.12	7.9	4.0	8.0	CFBSO M 5-8	-	CFBSOS M 5-8	-		
			10.0	7.12	7.9	4.0	8.0	CFBSO M 5-10	358 444 000	CFBSOS M 5-10	-		
			12.0	7.12	7.9	5.0	8.0	CFBSO M 5-12	358 445 000	CFBSOS M 5-12	358 484 000		
			14.0	7.12	7.9	6.5	8.0	CFBSO M 5-14	-	CFBSOS M 5-14	-		
			16.0	7.12	7.9	6.5	8.0	CFBSO M 5-16	358 447 000	CFBSOS M 5-16	358 486 000		
			18.0	7.12	7.9	9.5	8.0	CFBSO M 5-18	358 446 000	CFBSOS M 5-18	358 487 000		
			20.0	7.12	7.9	9.5	8.0	CFBSO M 5-20	-	CFBSOS M 5-20	-		
			22.0	7.12	7.9	9.5	8.0	CFBSO M 5-22	358 450 000	CFBSOS M 5-22	-		
			25.0	7.12	7.9	9.5	8.0	CFBSO M 5-25	358 452 000	CFBSOS M 5-25	-		

¹ Thread length

Hole ø anvil = Dimension "A" +0.10/+0.18 mm.

For technical specifications, see page 621.

Captive® self-clinching fasteners

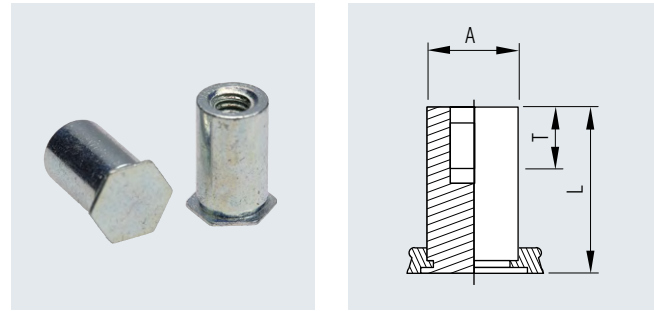
Self-clinching standoffs for metal


Through-threaded

Material

Aluminium (CFBSOA series)

Suitable for sheet hardness HRB 50 or less




Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	SW nom [mm]	T ¹ min [mm]		Aluminium			
								Description	Article No.		
M 3	4.22	1.0	6.0	4.2	4.8	3.2	6.0	CFBSOA M 3-6	-		
			8.0	4.2	4.8	4.0	6.0	CFBSOA M 3-8	-		
			10.0	4.2	4.8	4.0	6.0	CFBSOA M 3-10	-		
			12.0	4.2	4.8	5.0	6.0	CFBSOA M 3-12	-		
			14.0	4.2	4.8	6.5	6.0	CFBSOA M 3-14	-		
			16.0	4.2	4.8	6.5	6.0	CFBSOA M 3-16	-		
			18.0	4.2	4.8	9.5	6.0	CFBSOA M 3-18	358 453 000		
			20.0	4.2	4.8	9.5	6.0	CFBSOA M 3-20	-		
			22.0	4.2	4.8	9.5	6.0	CFBSOA M 3-22	-		
			25.0	4.2	4.8	9.5	6.0	CFBSOA M 3-25	-		
			5.41	1.0	6.0	5.39	6.4	3.2	6.8	CFBSOA3.5 M 3-6	-
					8.0	5.39	6.4	4.0	6.8	CFBSOA3.5 M 3-8	-
					9.0	5.39	6.4	4.0	6.8	CFBSOA3.5 M 3-9	-
					10.0	5.39	6.4	4.0	6.8	CFBSOA3.5 M 3-10	-
11.0	5.39	6.4			4.0	6.8	CFBSOA3.5 M 3-11	-			
12.0	5.39	6.4			5.0	6.8	CFBSOA3.5 M 3-12	358 461 000			
14.0	5.39	6.4			6.5	6.8	CFBSOA3.5 M 3-14	358 462 000			
16.0	5.39	6.4			6.5	6.8	CFBSOA3.5 M 3-16	358 463 000			
18.0	5.39	6.4			9.5	6.8	CFBSOA3.5 M 3-18	358 464 000			
20.0	5.39	6.4			9.5	6.8	CFBSOA3.5 M 3-20	-			
22.0	5.39	6.4	9.5	6.8	CFBSOA3.5 M 3-22	358 455 000					
25.0	5.39	6.4	9.5	6.8	CFBSOA3.5 M 3-25	-					
30.0	5.39	6.4	9.5	6.8	CFBSOA3.5 M 3-30	-					

¹ T = Thread length

Continued on next page

Captive® self-clinching fasteners

Cont'd

Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	SW nom [mm]	T ¹ min [mm]	 min [mm]	Aluminium	
								Description	Article No.
M 4	7.14	1.27	6.0	7.12	7.9	3.2	8.0	CFBSOA M 4-6	-
			8.0	7.12	7.9	4.0	8.0	CFBSOA M 4-8	-
			10.0	7.12	7.9	4.0	8.0	CFBSOA M 4-10	-
			11.5	7.12	7.9	4.0	8.0	CFBSOA M 4-11.5	-
			12.0	7.12	7.9	5.0	8.0	CFBSOA M 4-12	-
			14.0	7.12	7.9	6.5	8.0	CFBSOA M 4-14	358 456 000
			16.0	7.12	7.9	6.5	8.0	CFBSOA M 4-16	-
			18.0	7.12	7.9	9.5	8.0	CFBSOA M 4-18	-
			20.0	7.12	7.9	9.5	8.0	CFBSOA M 4-20	-
			22.0	7.12	7.9	9.5	8.0	CFBSOA M 4-22	-
25.0	7.12	7.9	9.5	8.0	CFBSOA M 4-25	-			
M 5	7.14	1.27	6.0	7.12	7.9	3.2	8.0	CFBSOA M 5-6	-
			8.0	7.12	7.9	4.0	8.0	CFBSOA M 5-8	-
			10.0	7.12	7.9	4.0	8.0	CFBSOA M 5-10	-
			12.0	7.12	7.9	5.0	8.0	CFBSOA M 5-12	-
			14.0	7.12	7.9	6.5	8.0	CFBSOA M 5-14	-
			16.0	7.12	7.9	6.5	8.0	CFBSOA M 5-16	-
			18.0	7.12	7.9	9.5	8.0	CFBSOA M 5-18	-
			20.0	7.12	7.9	9.5	8.0	CFBSOA M 5-20	-
			22.0	7.12	7.9	9.5	8.0	CFBSOA M 5-22	-
			25.0	7.12	7.9	9.5	8.0	CFBSOA M 5-25	-


¹ T = Thread lengthHole ϕ anvil = Dimension "A" +0.10/+0.18 mm.


For technical specifications, see page 59.

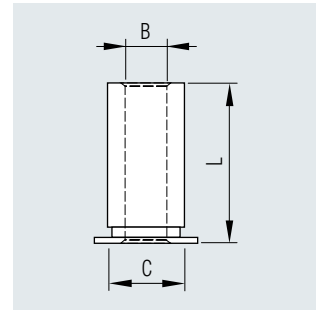
Captive® self-clinching fasteners


Self-clinching standoffs for metal

Material

 Zinc-plated steel (CFSO series)
Suitable for sheet hardness HRB 80 or less

 A2 stainless steel, 300 series, passivated (CFSOS series)
Suitable for sheet hardness HRB 70 or less




Hole ø B	Bore ø +0.08 -0.00	Material thickness min	L +0.05 -0.13	C +0.00 -0.13	SW	 min	Steel		Stainless steel	
							Description	Article No.	Description	Article No.
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]				
3.1	4.22	1.02	3.0	4.19	4.8	6.0	CFSO 43.1-3	-	CFSOS 43.1-3	-
			4.0	4.19	4.8	6.0	CFSO 43.1-4	358 947 000	CFSOS 43.1-4	-
			6.0	4.19	4.8	6.0	CFSO 43.1-6	358 957 000	CFSOS 43.1-6	-
			8.0	4.19	4.8	6.0	CFSO 43.1-8	-	CFSOS 43.1-8	-
			10.0	4.19	4.8	6.0	CFSO 43.1-10	-	CFSOS 43.1-10	-
			12.0	4.19	4.8	6.0	CFSO 43.1-12	-	CFSOS 43.1-12	-
			14.0	4.19	4.8	6.0	CFSO 43.1-14	-	CFSOS 43.1-14	-
			16.0	4.19	4.8	6.0	CFSO 43.1-16	-	CFSOS 43.1-16	-
			18.0	4.19	4.8	6.0	CFSO 43.1-18	-	CFSOS 43.1-18	-
	20.0	4.19	4.8	6.0	CFSO 43.1-20	-	CFSOS 43.1-20	-		
	5.41	1.02	3.0	5.38	6.4	6.8	CFSO 63.1-3	-	CFSOS 63.1-3	-
			4.0	5.38	6.4	6.8	CFSO 63.1-4	-	CFSOS 63.1-4	-
			6.0	5.38	6.4	6.8	CFSO 63.1-6	358 963 000	CFSOS 63.1-6	-
			8.0	5.38	6.4	6.8	CFSO 63.1-8	-	CFSOS 63.1-8	-
			10.0	5.38	6.4	6.8	CFSO 63.1-10	-	CFSOS 63.1-10	-
			12.0	5.38	6.4	6.8	CFSO 63.1-12	-	CFSOS 63.1-12	-
			14.0	5.38	6.4	6.8	CFSO 63.1-14	-	CFSOS 63.1-14	-
			16.0	5.38	6.4	6.8	CFSO 63.1-16	-	CFSOS 63.1-16	-
18.0			5.38	6.4	6.8	CFSO 63.1-18	-	CFSOS 63.1-18	-	
20.0	5.38	6.4	6.8	CFSO 63.1-20	-	CFSOS 63.1-20	-			
3.6	5.41	1.02	3.0	5.38	6.4	6.8	CFSO 63.6-3	-	CFSOS 63.6-3	-
			4.0	5.38	6.4	6.8	CFSO 63.6-4	-	CFSOS 63.6-4	-
			6.0	5.38	6.4	6.8	CFSO 63.6-6	-	CFSOS 63.6-6	-
			8.0	5.38	6.4	6.8	CFSO 63.6-8	-	CFSOS 63.6-8	-
			10.0	5.38	6.4	6.8	CFSO 63.6-10	358 967 000	CFSOS 63.6-10	-
			12.0	5.38	6.4	6.8	CFSO 63.6-12	358 966 000	CFSOS 63.6-12	-
			14.0	5.38	6.4	6.8	CFSO 63.6-14	358 960 000	CFSOS 63.6-14	-
			16.0	5.38	6.4	6.8	CFSO 63.6-16	-	CFSOS 63.6-16	-
			18.0	5.38	6.4	6.8	CFSO 63.6-18	-	CFSOS 63.6-18	-
			20.0	5.38	6.4	6.8	CFSO 63.6-20	-	CFSOS 63.6-20	-

Hole ø anvil = Dimension "A" +0.10/+0.18 mm.

Continued on next page

Captive® self-clinching fasteners

Cont'd

Hole ø B	Bore ø +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	C +0.00 -0.13 [mm]	SW [mm]	 min [mm]	Steel		Stainless steel	
							Description	Article No.	Description	Article No.
4.1	7.14	1.27	3.0	7.11	7.9	8.0	CFSO 84.1-3	-	CFSOS 84.1-3	-
			4.0	7.11	7.9	8.0	CFSO 84.1-4	-	CFSOS 84.1-4	-
			6.0	7.11	7.9	8.0	CFSO 84.1-6	-	CFSOS 84.1-6	-
			8.0	7.11	7.9	8.0	CFSO 84.1-8	358 672 000	CFSOS 84.1-8	-
			10.0	7.11	7.9	8.0	CFSO 84.1-10	-	CFSOS 84.1-10	-
			12.0	7.11	7.9	8.0	CFSO 84.1-12	-	CFSOS 84.1-12	-
			14.0	7.11	7.9	8.0	CFSO 84.1-14	-	CFSOS 84.1-14	-
			16.0	7.11	7.9	8.0	CFSO 84.1-16	-	CFSOS 84.1-16	-
			18.0	7.11	7.9	8.0	CFSO 84.1-18	358 679 000	CFSOS 84.1-18	-
			20.0	7.11	7.9	8.0	CFSO 84.1-20	-	CFSOS 84.1-20	-
5.1	7.14	1.27	3.0	7.11	7.9	8.0	CFSO 85.1-3	-	CFSOS 85.1-3	-
			4.0	7.11	7.9	8.0	CFSO 85.1-4	358 671 000	CFSOS 85.1-4	-
			6.0	7.11	7.9	8.0	CFSO 85.1-6	-	CFSOS 85.1-6	-
			8.0	7.11	7.9	8.0	CFSO 85.1-8	-	CFSOS 85.1-8	-
			10.0	7.11	7.9	8.0	CFSO 85.1-10	-	CFSOS 85.1-10	-
			12.0	7.11	7.9	8.0	CFSO 85.1-12	-	CFSOS 85.1-12	-
			14.0	7.11	7.9	8.0	CFSO 85.1-14	-	CFSOS 85.1-14	-
			16.0	7.11	7.9	8.0	CFSO 85.1-16	-	CFSOS 85.1-16	-
			18.0	7.11	7.9	8.0	CFSO 85.1-18	358 678 000	CFSOS 85.1-18	-
			20.0	7.11	7.9	8.0	CFSO 85.1-20	-	CFSOS 85.1-20	-

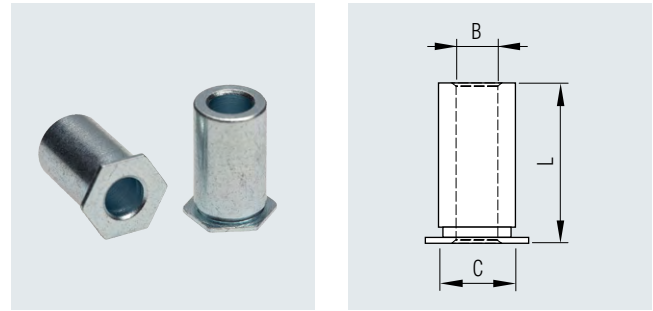
Hole ø anvil = Dimension "A" +0.10/+0.18 mm.


Captive® self-clinching fasteners

Self-clinching standoffs for metal

Material

Aluminium (CFSOA series)
Suitable for sheet hardness HRB 50 or less



Hole ø B [mm]	Bore ø +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	C +0.00 -0.13 [mm]	SW nom [mm]	 min [mm]	Aluminium Description	Article No.
3.1	4.22	1.02	3.0	4.19	4.8	6.0	CFSOA 43.1-3	-
			4.0	4.19	4.8	6.0	CFSOA 43.1-4	-
			6.0	4.19	4.8	6.0	CFSOA 43.1-6	-
			8.0	4.19	4.8	6.0	CFSOA 43.1-8	-
			10.0	4.19	4.8	6.0	CFSOA 43.1-10	-
			12.0	4.19	4.8	6.0	CFSOA 43.1-12	-
			14.0	4.19	4.8	6.0	CFSOA 43.1-14	-
			16.0	4.19	4.8	6.0	CFSOA 43.1-16	-
			18.0	4.19	4.8	6.0	CFSOA 43.1-18	-
			20.0	4.19	4.8	6.0	CFSOA 43.1-20	-
5.41	1.02	1.02	3.0	5.38	6.4	6.8	CFSOA 63.1-3	-
			4.0	5.38	6.4	6.8	CFSOA 63.1-4	-
			6.0	5.38	6.4	6.8	CFSOA 63.1-6	-
			8.0	5.38	6.4	6.8	CFSOA 63.1-8	-
			10.0	5.38	6.4	6.8	CFSOA 63.1-10	-
			12.0	5.38	6.4	6.8	CFSOA 63.1-12	-
			14.0	5.38	6.4	6.8	CFSOA 63.1-14	-
			16.0	5.38	6.4	6.8	CFSOA 63.1-16	-
			18.0	5.38	6.4	6.8	CFSOA 63.1-18	-
			20.0	5.38	6.4	6.8	CFSOA 63.1-20	-
3.6	5.41	1.02	3.0	5.38	6.4	6.8	CFSOA 63.6-3	-
			4.0	5.38	6.4	6.8	CFSOA 63.6-4	-
			6.0	5.38	6.4	6.8	CFSOA 63.6-6	-
			8.0	5.38	6.4	6.8	CFSOA 63.6-8	-
			10.0	5.38	6.4	6.8	CFSOA 63.6-10	-
			12.0	5.38	6.4	6.8	CFSOA 63.6-12	-
			14.0	5.38	6.4	6.8	CFSOA 63.6-14	-
			16.0	5.38	6.4	6.8	CFSOA 63.6-16	-
			18.0	5.38	6.4	6.8	CFSOA 63.6-18	-
			20.0	5.38	6.4	6.8	CFSOA 63.6-20	-

Hole ø anvil = Dimension "A" +0.10/+0.18 mm.

Continued on next page

Captive® self-clinching fasteners

Cont'd

Hole ø B [mm]	Bore ø +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	C +0.00 -0.13 [mm]	SW		Aluminium	
					nom [mm]	min [mm]	Description	Article No.
4.1	7.14	1.27	3.0	7.11	7.9	8.0	CFSOA 84.1-3	-
			4.0	7.11	7.9	8.0	CFSOA 84.1-4	-
			6.0	7.11	7.9	8.0	CFSOA 84.1-6	-
			8.0	7.11	7.9	8.0	CFSOA 84.1-8	-
			10.0	7.11	7.9	8.0	CFSOA 84.1-10	-
			12.0	7.11	7.9	8.0	CFSOA 84.1-12	-
			14.0	7.11	7.9	8.0	CFSOA 84.1-14	-
			16.0	7.11	7.9	8.0	CFSOA 84.1-16	-
			18.0	7.11	7.9	8.0	CFSOA 84.1-18	-
20.0	7.11	7.9	8.0	CFSOA 84.1-20	-			
5.1	7.14	1.27	3.0	7.11	7.9	8.0	CFSOA 85.1-3	-
			4.0	7.11	7.9	8.0	CFSOA 85.1-4	-
			6.0	7.11	7.9	8.0	CFSOA 85.1-6	-
			8.0	7.11	7.9	8.0	CFSOA 85.1-8	-
			10.0	7.11	7.9	8.0	CFSOA 85.1-10	-
			12.0	7.11	7.9	8.0	CFSOA 85.1-12	-
			14.0	7.11	7.9	8.0	CFSOA 85.1-14	-
			16.0	7.11	7.9	8.0	CFSOA 85.1-16	-
			18.0	7.11	7.9	8.0	CFSOA 85.1-18	-
20.0	7.11	7.9	8.0	CFSOA 85.1-20	-			

Hole ø anvil = Dimension "A" +0.10/+0.18 mm.

Technical specifications

Thread/Hole ø B [mm]	Fastener material	Sheet material 1.5 mm aluminium (H 34)				Sheet material 1.5 mm steel			
		Installation force [kN]	Push-out [N]	Torque-out [Nm]	Pull-through [N]	Installation force [kN]	Push-out [kN]	Torque-out [Nm]	Pull-through [N]
M 3	Steel	4.7	700	1.20	1230	9.6	990	2.10	1450
3.1	Stainless steel	4.7	700	1.20	985	9.6	990	2.10	1150
	Aluminium	4.7	700	1.20	740	-	-	-	-
M 3	Steel	7.4	1310	2.79	1230	14.5	1850	3.90	1450
3.1/3.6	Stainless steel	7.4	1310	2.79	1100	14.5	1850	3.90	1150
	Aluminium	7.4	1310	2.79	810	-	-	-	-
M 4 / M 5	Steel	10.5	1750	5.01	2550	17.6	2460	8.45	3100
3.1/4.1/5.1	Stainless steel	10.5	1750	5.01	2020	17.6	2460	8.45	2450
	Aluminium	10.5	1750	5.01	1525	-	-	-	-

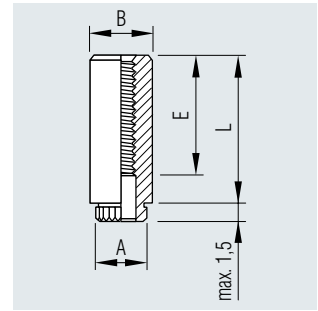
Captive® self-clinching fasteners


Self-clinching standoffs for plastics

Threaded

Material

	Steel, electroplated with tin (CKFE series) Suitable for sheet hardness HRB 60 or less		A2 stainless steel, 300 series, passivated (CKFSE series) Suitable for sheet hardness HRB 70 or less
--	-------------------------------------------------------------------------------------------	--	---------------------------------------------------------------------------------------------------------



Thread size	Bore \varnothing +0.08 -0.00 [mm]	L ± 0.13 [mm]	A ± 0.08 [mm]	B ± 0.13 [mm]	E ± 0.04 [mm]	 min [mm]	Steel		Stainless steel	
							Description	Article No.	Description	Article No.
M 3	4.2	3.0	4.68	5.56	3.0	4.4	CKFE M 3-3	358 655 000	CKFSE M 3-3	-
		4.0	4.68	5.56	4.0	4.4	CKFE M 3-4	-	CKFSE M 3-4	-
		6.0	4.68	5.56	6.0	4.4	CKFE M 3-6	358 657 000	CKFSE M 3-6	-
		8.0	4.68	5.56	8.0	4.4	CKFE M 3-8	358 658 000	CKFSE M 3-8	-
		10.0	4.68	5.56	10.0	4.4	CKFE M 3-10	-	CKFSE M 3-10	-
		12.0	4.68	5.56	9.5 ¹	4.4	CKFE M 3-12	-	CKFSE M 3-12	-
		14.0	4.68	5.56	9.5 ¹	4.4	CKFE M 3-14	-	CKFSE M 3-14	-
		16.0	4.68	5.56	9.5 ¹	4.4	CKFE M 3-16	358 656 000	CKFSE M 3-16	-

Technical specifications

Thread size	1.5 mm fiberglass		
	Installation force [kN]	Push-out [N]	Torque-out [Nm] [Nm]
M 3	2.22	295	1.35

Guidelines only - the exact values will need to be calculated on the original component.

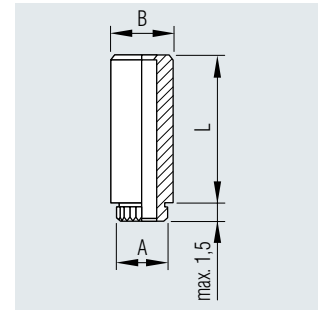
Captive® self-clinching fasteners

Self-clinching standoffs for plastics

Unthreaded

Material

	Steel, electroplated with tin (CKFE series) Suitable for sheet hardness HRB 60 or less		A2 stainless steel, 300 series, passivated (CKFSE series) Suitable for sheet hardness HRB 70 or less
--	-------------------------------------------------------------------------------------------	--	---------------------------------------------------------------------------------------------------------



Standoff \varnothing	Bore \varnothing	L	A	B	min [mm]	Steel		Stainless steel	
						Description	Article No.	Description	Article No.
+0.10 -0.08 [mm]	+0.08 -0.00 [mm]	± 0.13 [mm]	± 0.08 [mm]	± 0.13 [mm]	min [mm]	CKFE 3.6-3	-	CKFSE 3.6-3	-
						CKFE 3.6-4	358 964 000	CKFSE 3.6-4	-
						CKFE 3.6-6	358 969 000	CKFSE 3.6-6	-
						CKFE 3.6-8	358 968 000	CKFSE 3.6-8	-
						CKFE 3.6-10	-	CKFSE 3.6-10	-
						CKFE 3.6-12	-	CKFSE 3.6-12	-
						CKFE 3.6-14	358 987 000	CKFSE 3.6-14	-
						CKFE 3.6-16	-	CKFSE 3.6-16	-
4.2	6.4	± 0.13 [mm]	± 0.08 [mm]	± 0.13 [mm]	min [mm]	CKFE 4.2-3	-	CKFSE 4.2-3	-
						CKFE 4.2-4	-	CKFSE 4.2-4	-
						CKFE 4.2-6	-	CKFSE 4.2-6	-
						CKFE 4.2-8	-	CKFSE 4.2-8	-
						CKFE 4.2-10	-	CKFSE 4.2-10	-
						CKFE 4.2-12	-	CKFSE 4.2-12	358 660 000
						CKFE 4.2-14	-	CKFSE 4.2-14	-
						CKFE 4.2-16	-	CKFSE 4.2-16	-

Technical specifications

Internal \varnothing	1.5 mm fibreglass		
	Installation force	Push-out	Torque-out
[mm]	[kN]	[N]	[Nm]
3.6	2.22	295	1.35
4.2	2.22	295	1.35

Guidelines only - the exact values will need to be calculated on the original component.

Captive® self-clinching fasteners

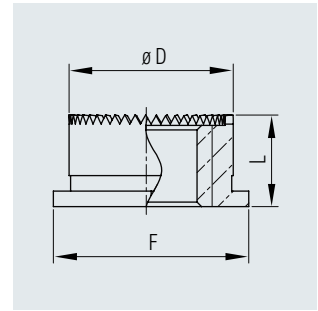
Self-clinching standoffs for plastics


Threaded

Material

A2 stainless steel
 300 series, passivated
 Suitable for sheet
 hardness HRB 70
 or less

Aluminium (CFSOAG series)
 Suitable for sheet
 hardness HRB 50
 or less



Thread size	Bore ø +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.25 -0.00 [mm]	D +0.00 -0.13 [mm]	SW (F)			Stainless steel		Aluminium	
					nom [mm]	min [mm]		Description	Article No.	Description	Article No.
M 3	5.41	1.0	3.0	5.38	6.4	6.86	CFSOSG 3.5 M 3-3	358 680 000	CFSOAG 3.5 M 3-3	-	
			4.0	5.38	6.4	6.86	CFSOSG 3.5 M 3-4	-	CFSOAG 3.5 M 3-4	-	
			6.0	5.38	6.4	6.86	CFSOSG 3.5 M 3-6	358 682 000	CFSOAG 3.5 M 3-6	-	
			8.0	5.38	6.4	6.86	CFSOSG 3.5 M 3-8	358 683 000	CFSOAG 3.5 M 3-8	-	
			10.0	5.38	6.4	6.86	CFSOSG 3.5 M 3-10	358 684 000	CFSOAG 3.5 M 3-10	-	
			12.0	5.38	6.4	6.86	CFSOSG 3.5 M 3-12	-	CFSOAG 3.5 M 3-12	-	
			14.0	5.38	6.4	6.86	CFSOSG 3.5 M 3-14	-	CFSOAG 3.5 M 3-14	-	

Technical specifications

Thread size	Test material	Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 3	1.0 (H34) aluminium	8.0	1290	2.7

Guidelines only - the exact values will need to be calculated on the original component.

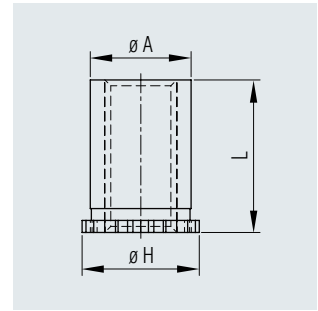
Captive® self-clinching fasteners

Self-clinching standoffs (through-threaded)

Especially for D-Sub connectors

Material

<p>Steel, yellow zinc-plated (CF40 series) Suitable for sheet hardness HRB 80 or less</p>	<p>A2 stainless steel, 300 series, passivated (CF40S series) Suitable for sheet hardness HRB 70 or less</p>
-----------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------



Thread size	Bore ø +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	A max [mm]	H nom [mm]		Steel		Stainless steel	
							Description	Article No.	Description	Article No.
M 3	4.22	0.94 - 6.35	6.35	4.20	4.92	3.2	CF40 M 3-6.35	-	CF40S M 3-6.35	-
			7.0	4.20	4.92		3.2	CF40 M 3-7	-	CF40S M 3-7

Technical specifications

Thread size	Fastener	Test material	Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 3	Steel	1.0 (H34) aluminium	4.5	223	1.1
M 3	Steel	1.0 steel	5.8	334	1.1
M 3	Stainless steel	1.0 (H34) aluminium	4.5	223	1.1
M 3	Stainless steel	1.0 steel	5.8	334	1.1

Guidelines only - the exact values will need to be calculated on the original component.

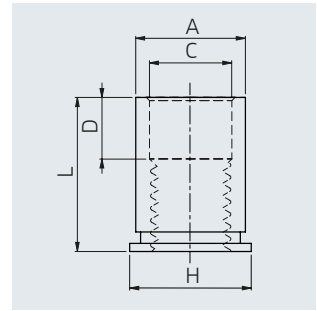
Captive® self-clinching fasteners


Self-clinching standoffs for metal

Through-hole

Material

Stainless steel, 400 series, passivated (CF4-SO series), suitable for sheet hardness HRB 88 or less




Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	H nom [mm]	C ± 0.13 [mm]	D ± 0.25 [mm]	 min [mm]	Stainless steel	
									Description	Article No.
M 3	4.22	1.02	3.0	4.2	4.8	3.2	0	6.0	CF4-SO M 3-3	-
			4.0	4.2	4.8	3.2	0	6.0	CF4-SO M 3-4	358 946 000
			6.0	4.2	4.8	3.2	0	6.0	CF4-SO M 3-6	358 717 000
			8.0	4.2	4.8	3.2	0	6.0	CF4-SO M 3-8	-
			10.0	4.2	4.8	3.2	4.0	6.0	CF4-SO M 3-10	-
			12.0	4.2	4.8	3.2	4.0	6.0	CF4-SO M 3-12	-
			14.0	4.2	4.8	3.2	4.0	6.0	CF4-SO M 3-14	-
			16.0	4.2	4.8	3.2	8.0	6.0	CF4-SO M 3-16	-
			18.0	4.2	4.8	3.2	8.0	6.0	CF4-SO M 3-18	-
	5.41	1.02	3.0	5.39	6.4	3.2	0	6.8	CF4-SO3.5 M 3-3	-
			4.0	5.39	6.4	3.2	0	6.8	CF4-SO3.5 M 3-4	-
			6.0	5.39	6.4	3.2	0	6.8	CF4-SO3.5 M 3-6	358 919 000
			8.0	5.39	6.4	3.2	0	6.8	CF4-SO3.5 M 3-8	358 925 000
			10.0	5.39	6.4	3.2	4.0	6.8	CF4-SO3.5 M 3-10	-
			12.0	5.39	6.4	3.2	4.0	6.8	CF4-SO3.5 M 3-12	-
			14.0	5.39	6.4	3.2	4.0	6.8	CF4-SO3.5 M 3-14	358 926 000
			16.0	5.39	6.4	3.2	8.0	6.8	CF4-SO3.5 M 3-16	-
			18.0	5.39	6.4	3.2	8.0	6.8	CF4-SO3.5 M 3-18	-

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Captive® self-clinching fasteners

Cont'd

Thread size	Bore \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	H nom [mm]	C ± 0.13 [mm]	D ± 0.25 [mm]	 min [mm]	Stainless steel	
									Description	Article No.
M 4	7.14	1.27	3.0	7.12	7.9	4.8	0	8.0	CF4-SO M 4-3	-
			4.0	7.12	7.9	4.8	0	8.0	CF4-SO M 4-4	-
			6.0	7.12	7.9	4.8	0	8.0	CF4-SO M 4-6	-
			8.0	7.12	7.9	4.8	0	8.0	CF4-SO M 4-8	-
			10.0	7.12	7.9	4.8	4.0	8.0	CF4-SO M 4-10	-
			12.0	7.12	7.9	4.8	4.0	8.0	CF4-SO M 4-12	-
			14.0	7.12	7.9	4.8	4.0	8.0	CF4-SO M 4-14	-
			16.0	7.12	7.9	4.8	8.0	8.0	CF4-SO M 4-16	-
			18.0	7.12	7.9	4.8	8.0	8.0	CF4-SO M 4-18	-
			20.0	7.12	7.9	4.8	8.0	8.0	CF4-SO M 4-20	-
			22.0	7.12	7.9	4.8	11.0	8.0	CF4-SO M 4-22	-
25.0	7.12	7.9	4.8	11.0	8.0	CF4-SO M 4-25	-			
M 5	7.14	1.27	3.0	7.12	7.9	5.35	0	8.0	CF4-SO M 5-3	-
			4.0	7.12	7.9	5.35	0	8.0	CF4-SO M 5-4	-
			6.0	7.12	7.9	5.35	0	8.0	CF4-SO M 5-6	-
			8.0	7.12	7.9	5.35	0	8.0	CF4-SO M 5-8	-
			10.0	7.12	7.9	5.35	4.0	8.0	CF4-SO M 5-10	-
			12.0	7.12	7.9	5.35	4.0	8.0	CF4-SO M 5-12	-
			14.0	7.12	7.9	5.35	4.0	8.0	CF4-SO M 5-14	-
			16.0	7.12	7.9	5.35	8.0	8.0	CF4-SO M 5-16	-
			18.0	7.12	7.9	5.35	8.0	8.0	CF4-SO M 5-18	-
			20.0	7.12	7.9	5.35	8.0	8.0	CF4-SO M 5-20	-
			22.0	7.12	7.9	5.35	11.0	8.0	CF4-SO M 5-22	-
25.0	7.12	7.9	5.35	11.0	8.0	CF4-SO M 5-25	-			

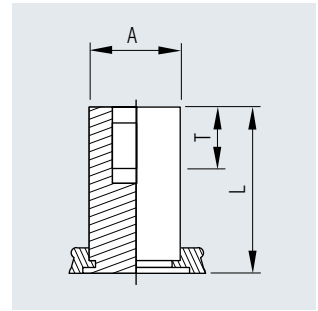
Captive® self-clinching fasteners

Self-clinching standoffs for metal

Blind-hole version

Material

Stainless steel, 400 series, passivated (CF4-BSO series), suitable for sheet hardness HRB 88 or less




Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	SW nom [mm]	T ¹ min [mm]		Stainless steel	
								Description	Article No.
M 3	4.22	1.0	6.0	4.2	4.8	3.2	6.0	CF4-BSO M 3-6	-
			8.0	4.2	4.8	4.0	6.0	CF4-BSO M 3-8	-
			10.0	4.2	4.8	4.0	6.0	CF4-BSO M 3-10	-
			12.0	4.2	4.8	5.0	6.0	CF4-BSO M 3-12	-
			14.0	4.2	4.8	6.5	6.0	CF4-BSO M 3-14	-
			16.0	4.2	4.8	6.5	6.0	CF4-BSO M 3-16	358 615 000
			18.0	4.2	4.8	9.5	6.0	CF4-BSO M 3-18	-
			20.0	4.2	4.8	9.5	6.0	CF4-BSO M 3-20	-
			22.0	4.2	4.8	9.5	6.0	CF4-BSO M 3-22	-
			25.0	4.2	4.8	9.5	6.0	CF4-BSO M 3-25	-
	5.41	1.0	6.0	5.39	6.4	3.2	6.8	CF4-BSO3.5 M 3-6	-
			8.0	5.39	6.4	4.0	6.8	CF4-BSO3.5 M 3-8	-
			10.0	5.39	6.4	4.0	6.8	CF4-BSO3.5 M 3-10	-
			12.0	5.39	6.4	5.0	6.8	CF4-BSO3.5 M 3-12	358 929 000
			14.0	5.39	6.4	6.5	6.8	CF4-BSO3.5 M 3-14	-
			16.0	5.39	6.4	6.5	6.8	CF4-BSO3.5 M 3-16	358 616 000
			18.0	5.39	6.4	9.5	6.8	CF4-BSO3.5 M 3-18	-
			20.0	5.39	6.4	9.5	6.8	CF4-BSO3.5 M 3-20	-
			22.0	5.39	6.4	9.5	6.8	CF4-BSO3.5 M 3-22	-
			25.0	5.39	6.4	9.5	6.8	CF4-BSO3.5 M 3-25	-

¹ T = Thread length

Continued on next page

Captive® self-clinching fasteners

Cont'd

Thread size	Bore ϕ +0.08 -0.00 [mm]	Material thickness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	SW nom [mm]	T ¹ min [mm]		Stainless steel	
								Description	Article No.
M 4	7.14	1.27	6.0	7.12	7.9	3.2	8.0	CF4-BSO M 4-6	358 488 000
			8.0	7.12	7.9	4.0	8.0	CF4-BSO M 4-8	-
			9.0	7.12	7.9	4.0	8.0	CF4-BSO M 4-9	358 802 000
			10.0	7.12	7.9	4.0	8.0	CF4-BSO M 4-10	-
			12.0	7.12	7.9	5.0	8.0	CF4-BSO M 4-12	-
			14.0	7.12	7.9	6.5	8.0	CF4-BSO M 4-14	-
			16.0	7.12	7.9	6.5	8.0	CF4-BSO M 4-16	-
			18.0	7.12	7.9	9.5	8.0	CF4-BSO M 4-18	-
			20.0	7.12	7.9	9.5	8.0	CF4-BSO M 4-20	-
			22.0	7.12	7.9	9.5	8.0	CF4-BSO M 4-22	-
M 5	7.14	1.27	6.0	7.12	7.9	3.2	8.0	CF4-BSO M 5-6	-
			8.0	7.12	7.9	4.0	8.0	CF4-BSO M 5-8	-
			10.0	7.12	7.9	4.0	8.0	CF4-BSO M 5-10	-
			12.0	7.12	7.9	5.0	8.0	CF4-BSO M 5-12	-
			14.0	7.12	7.9	6.5	8.0	CF4-BSO M 5-14	-
			16.0	7.12	7.9	6.5	8.0	CF4-BSO M 5-16	358 602 000
			18.0	7.12	7.9	9.5	8.0	CF4-BSO M 5-18	358 920 000
			20.0	7.12	7.9	9.5	8.0	CF4-BSO M 5-20	-
			22.0	7.12	7.9	9.5	8.0	CF4-BSO M 5-22	-
			25.0	7.12	7.9	9.5	8.0	CF4-BSO M 5-25	-

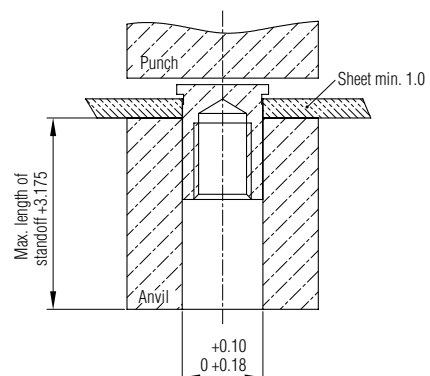
¹ T = Thread length

Technical specifications

Thread size	Sheet material: 1.3 mm stainless steel, 300 series			
	Installation force [kN]	Push-out [N]	Torque-out [Nm]	Pull-through [N]
M 3	24.5	1493	2.36	2650
3.5 M 3	42.3	2877	3.06	3025
M 4	46.7	4003	8.89	6458
M 5	46.7	4003	8.89	6226

Guidelines only - the exact values will need to be calculated on the original component.

1. Place the punch side of the standoff into the mounting hole in the anvil.
2. Insert the part to be fitted. Ensure that the punch and anvil are parallel to each other and that the standoff head is flush to the mounting sheet. Avoid applying too much pressure.



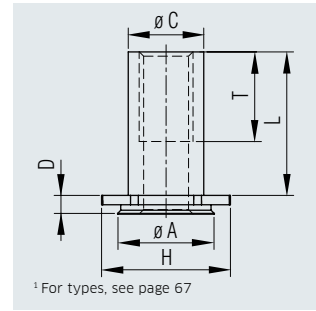
Captive® self-clinching fasteners

Concealed head standoffs

For blind milled holes

Material

A2 stainless steel, 300 series, passivated (CFHS series), suitable for sheet hardness HRB 70 or less




Thread size	Blind hole ø	Material thickness	L ¹	Hole depth T	D	C	A	H		Stainless steel Description	Article No.		
	+0.08-0.00 [mm]	min [mm]	[mm]	min [mm]	max [mm]	max [mm]	max [mm]	nom [mm]	min [mm]				
M 3	5.41	1.6	4 A	1.1	5.0	1.04	4.2	5.39	6.35	4.8	CFHS-1 M 3-4	-	
			6 A	1.1	5.0	1.04	4.2	5.39	6.35	4.8	CFHS-1 M 3-6	-	
			8 B	1.1	5.0	1.04	4.2	5.39	6.35	4.8	CFHS-1 M 3-8	-	
			10 C	1.1	5.0	1.04	4.2	5.39	6.35	4.8	CFHS-1 M 3-10	-	
			12 C	1.1	5.0	1.04	4.2	5.39	6.35	4.8	CFHS-1 M 3-12	-	
			16 C	1.1	5.0	1.04	4.2	5.39	6.35	4.8	CFHS-1 M 3-16	-	
			20 C	1.1	5.0	1.04	4.2	5.39	6.35	4.8	CFHS-1 M 3-20	-	
			25 C	1.1	5.0	1.04	4.2	5.39	6.35	4.8	CFHS-1 M 3-25	-	
	2.4	5.41	1.6	4 A	1.91	5.0	1.83	4.2	5.39	6.35	4.8	CFHS-2 M 3-4	-
				6 A	1.91	5.0	1.83	4.2	5.39	6.35	4.8	CFHS-2 M 3-6	-
				8 C	1.91	5.0	1.83	4.2	5.39	6.35	4.8	CFHS-2 M 3-8	-
				10 C	1.91	5.0	1.83	4.2	5.39	6.35	4.8	CFHS-2 M 3-10	-
				12 C	1.91	5.0	1.83	4.2	5.39	6.35	4.8	CFHS-2 M 3-12	-
				16 C	1.91	5.0	1.83	4.2	5.39	6.35	4.8	CFHS-2 M 3-16	-
				20 C	1.91	5.0	1.83	4.2	5.39	6.35	4.8	CFHS-2 M 3-20	-
				25 C	1.91	5.0	1.83	4.2	5.39	6.35	4.8	CFHS-2 M 3-25	-
M 4	7.92	1.6	4 A	1.1	6.5	1.04	6.23	7.90	8.74	6.4	CFHS-1 M 4-4	-	
			6 A	1.1	6.5	1.04	6.23	7.90	8.74	6.4	CFHS-1 M 4-6	-	
			8 B	1.1	6.5	1.04	6.23	7.90	8.74	6.4	CFHS-1 M 4-8	-	
			10 B	1.1	6.5	1.04	6.23	7.90	8.74	6.4	CFHS-1 M 4-10	-	
			12 C	1.1	6.5	1.04	6.23	7.90	8.74	6.4	CFHS-1 M 4-12	-	
			16 C	1.1	6.5	1.04	6.23	7.90	8.74	6.4	CFHS-1 M 4-16	-	
			20 C	1.1	6.5	1.04	6.23	7.90	8.74	6.4	CFHS-1 M 4-20	-	
			25 C	1.1	6.5	1.04	6.23	7.90	8.74	6.4	CFHS-1 M 4-25	-	
	2.4	7.92	1.6	4 A	1.91	6.5	1.83	6.23	7.90	8.74	6.4	CFHS-2 M 4-4	-
				6 A	1.91	6.5	1.83	6.23	7.90	8.74	6.4	CFHS-2 M 4-6	-
				8 B	1.91	6.5	1.83	6.23	7.90	8.74	6.4	CFHS-2 M 4-8	-
				10 C	1.91	6.5	1.83	6.23	7.90	8.74	6.4	CFHS-2 M 4-10	-
				12 C	1.91	6.5	1.83	6.23	7.90	8.74	6.4	CFHS-2 M 4-12	-
				16 C	1.91	6.5	1.83	6.23	7.90	8.74	6.4	CFHS-2 M 4-16	-
				20 C	1.91	6.5	1.83	6.23	7.90	8.74	6.4	CFHS-2 M 4-20	-
				25 C	1.91	6.5	1.83	6.23	7.90	8.74	6.4	CFHS-2 M 4-25	-

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Captive® self-clinching fasteners

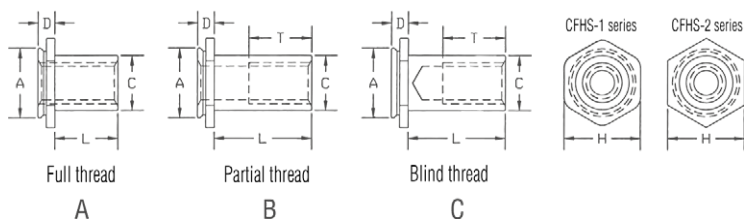
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Thread size	Blind hole \varnothing +0.08 -0.00 [mm]	Material thickness min [mm]	L ¹ [mm]	Hole depth T		D [mm]	C [mm]	A [mm]	H [mm]		Stainless steel	
				min [mm]	min [mm]						Description	Article No.
M 5	8.74	1.6	4 A	1.1	9.6	1.04	7.37	8.72	9.53	7.2	CFHS-1 M 5-4	-
			6 A	1.1	9.6	1.04	7.37	8.72	9.53	7.2	CFHS-1 M 5-6	-
			8 B	1.1	9.6	1.04	7.37	8.72	9.53	7.2	CFHS-1 M 5-8	-
			10 B	1.1	9.6	1.04	7.37	8.72	9.53	7.2	CFHS-1 M 5-10	-
			12 B	1.1	9.6	1.04	7.37	8.72	9.53	7.2	CFHS-1 M 5-12	-
			16 C	1.1	9.6	1.04	7.37	8.72	9.53	7.2	CFHS-1 M 5-16	-
			20 C	1.1	9.6	1.04	7.37	8.72	9.53	7.2	CFHS-1 M 5-20	-
		25 C	1.1	9.6	1.04	7.37	8.72	9.53	7.2	CFHS-1 M 5-25	-	
		2.4	4 A	1.91	9.6	1.83	7.37	8.72	9.53	7.2	CFHS-2 M 5-4	-
			6 A	1.91	9.6	1.83	7.37	8.72	9.53	7.2	CFHS-2 M 5-6	-
			8 B	1.91	9.6	1.83	7.37	8.72	9.53	7.2	CFHS-2 M 5-8	-
			10 B	1.91	9.6	1.83	7.37	8.72	9.53	7.2	CFHS-2 M 5-10	-
			12 B	1.91	9.6	1.83	7.37	8.72	9.53	7.2	CFHS-2 M 5-12	-
			16 C	1.91	9.6	1.83	7.37	8.72	9.53	7.2	CFHS-2 M 5-16	-
20 C	1.91		9.6	1.83	7.37	8.72	9.53	7.2	CFHS-2 M 5-20	-		
25 C	1.91	9.6	1.83	7.37	8.72	9.53	7.2	CFHS-2 M 5-25	-			
M 6	9.9	2.4	4 A	1.91	9.6	1.83	9.0	9.89	11.11	9.5	CFHS-2 M 6-4	-
			6 A	1.91	9.6	1.83	9.0	9.89	11.11	9.5	CFHS-2 M 6-6	-
			8 A	1.91	9.6	1.83	9.0	9.89	11.11	9.5	CFHS-2 M 6-8	-
			10 B	1.91	9.6	1.83	9.0	9.89	11.11	9.5	CFHS-2 M 6-10	-
			12 B	1.91	9.6	1.83	9.0	9.89	11.11	9.5	CFHS-2 M 6-12	-
			16 C	1.91	9.6	1.83	9.0	9.89	11.11	9.5	CFHS-2 M 6-16	-
			20 C	1.91	9.6	1.83	9.0	9.89	11.11	9.5	CFHS-2 M 6-20	-
			25 C	1.91	9.6	1.83	9.0	9.89	11.11	9.5	CFHS-2 M 6-25	-

Technical specifications

Series	Thread size	Tightening torque max [Nm]	Steel		Aluminium (H 34)	
			Installation force [kN]	Push-out [N]	Installation force [kN]	Push-out [N]
CFHS-1	M3	0.55	17.8	1330	12.5	890
	M4	2	21.3	1775	17.8	1200
	M5	3.6	24.5	2000	22.2	1290
CFHS-2	M3	0.55	19.2	1465	12.9	975
	M4	2	23.6	1955	17.8	1335
	M5	3.6	26.7	2665	22.2	1775
	M6	7.2	28.9	2860	24.4	1915

Types



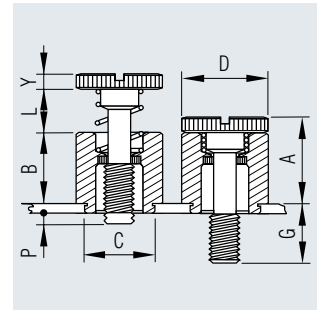
Subject to change

Captive® self-clinching fasteners

Self-clinching panel fasteners for metal

Material

A2 stainless steel, 300 series, passivated (CPFC2 series), suitable for sheet hardness HRB 70 or less, min. material thickness 1.5 mm



Thread size	Bore \varnothing +0.08 -0.00 [mm]	A max [mm]	B ± 0.25 [mm]	C max [mm]	D +0.40 -0.25 [mm]	G +0.4 [mm]	L +0.4 [mm]	P +0.4 [mm]	Y ± 0.13 [mm]		Description	Article No.
M 3	6.73	9.14	7.2	6.71	7.92	6.4	4.8	0.0	1.83	6.4	CPFC2 M 3-40	358 744 000
		9.14	7.2	6.71	7.92	9.5	4.8	3.2	1.83	6.4	CPFC2 M 3-62	358 746 000
		9.14	7.2	6.71	7.92	12.7	4.8	6.4	1.83	6.4	CPFC2 M 3-84	-
M 4	7.92	11.43	9.3	7.90	9.53	7.9	6.4	0.0	2.08	7.9	CPFC2 M 4-50	358 745 000
		11.43	9.3	7.90	9.53	11.1	6.4	3.2	2.08	7.9	CPFC2 M 4-72	358 754 000
		11.43	9.3	7.90	9.53	14.3	6.4	6.4	2.08	7.9	CPFC2 M 4-94	-
M 5	8.74	11.47	9.3	8.72	10.31	7.9	6.4	0.0	2.08	8.7	CPFC2 M 5-50	-
		11.47	9.3	8.72	10.31	11.1	6.4	3.2	2.08	8.7	CPFC2 M 5-72	-
		11.47	9.3	8.72	10.31	14.3	6.4	6.4	2.08	8.7	CPFC2 M 5-94	358 757 000
M 6	10.49	14.73	12.0	10.47	11.89	9.5	7.9	0.0	2.46	9.5	CPFC2 M 6-60	-
		14.73	12.0	10.47	11.89	12.7	7.9	3.2	2.46	9.5	CPFC2 M 6-82	-
		14.73	12.0	10.47	11.89	15.9	7.9	6.4	2.46	9.5	CPFC2 M 6-04	-

Technical specifications

Thread size	Sheet material			
	Steel	Aluminium (H 34)		
	Installation force [kN]	Push-out [N]	Installation force [kN]	Push-out [N]
M 3	13.3	1330	10.7	1070
M 4	16.9	1780	12.9	1330
M 5	17.8	2220	13.3	1780
M 6	22.2	2670	15.6	1780

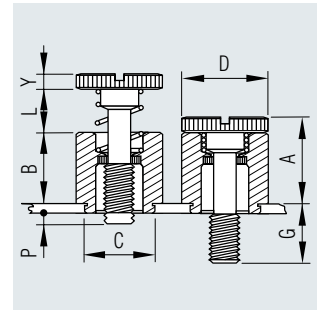
Guidelines only - the exact values will need to be calculated on the original component.


Captive® self-clinching fasteners

Self-clinching panel fasteners for plastics

Material

A2 stainless steel, 300 series, passivated (CPFK series), min. material thickness 1.5 mm



Thread size	Bore \varnothing	A	B	C	D	G	L	P	Y		Description	Article No.
	+0.08				+0.40							
	-0.00	max	± 0.25	± 0.08	-0.25	+0.4	+0.4	+0.4	± 0.13	min		
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
M 3	6.73	9.14	7.2	7.19	7.92	6.4	4.8	0.0	1.83	5.8	CPFK M 3-40	358 734 000
		9.14	7.2	7.19	7.92	9.5	4.8	3.2	1.83	5.8	CPFK M 3-62	-
		9.14	7.2	7.19	7.92	12.7	4.8	6.4	1.83	5.8	CPFK M 3-84	-

Technical specifications


Thread size	Installation force [kN]	Push-out [N]	Torque-out [Nm]
M 3	1.1	245	3


Guidelines only - the exact values will need to be calculated on the original component.

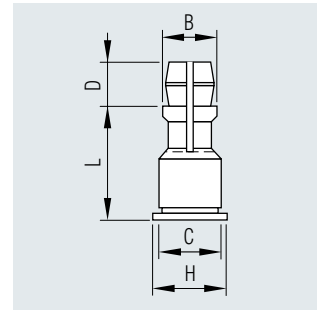
Captive® self-clinching fasteners

Spring-top standoffs for metal

Material

 Zinc-plated steel (CFSSS series)
Suitable for sheet hardness HRB 60 or less

 A2 stainless steel, 300 series, passivated (CFSSC series)
Suitable for sheet hardness HRB 70 or less



Removable panel mounting hole [mm]	L ± 0.13 [mm]	B ± 0.13 [mm]	C max [mm]	D ± 0.13 [mm]	H ± 0.13 [mm]	Stainless steel		Steel	
						Description	Article No.	Description	Article No.
4	8	4.78	5.39	3.58	6.35	CFSSC 4-8	358 860 000	CFSSS 4-8	358 870 000
	10	4.78	5.39	3.58	6.35	CFSSC 4-10	-	CFSSS 4-10	358 875 000
	12	4.78	5.39	3.58	6.35	CFSSC 4-12	-	CFSSS 4-12	358 872 000
	14	4.78	5.39	3.58	6.35	CFSSC 4-14	-	CFSSS 4-14	-
	16	4.78	5.39	3.58	6.35	CFSSC 4-16	-	CFSSS 4-16	358 874 000
	18	4.78	5.39	3.58	6.35	CFSSC 4-18	-	CFSSS 4-18	-
	20	4.78	5.39	3.58	6.35	CFSSC 4-20	-	CFSSS 4-20	-
	22	4.78	5.39	3.58	6.35	CFSSC 4-22	-	CFSSS 4-22	-
	25	4.78	5.39	3.58	6.35	CFSSC 4-25	-	CFSSS 4-25	358 722 000

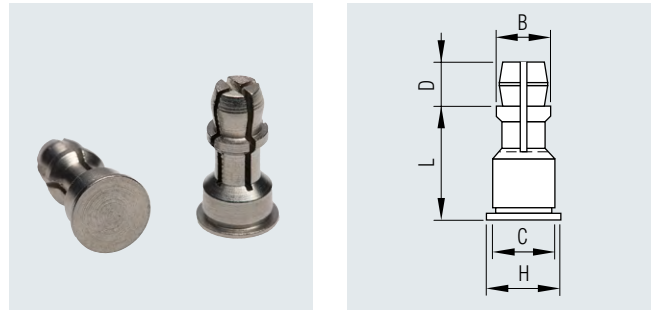
Hole ø anvil = Dimension "A" +0.10/+0.18 mm.

Captive® self-clinching fasteners

Spring-top standoffs for metal

Material

Aluminium
(CFSSA series)
Suitable for sheet hardness
HRB 50 or less



Removable panel mounting hole [mm]	L [mm]	B [mm]	C [mm]	D [mm]	H [mm]	Aluminium Description	Article No.
4	8	4.78	5.39	3.58	6.35	CFSSA 4-8	358 880 000
	10	4.78	5.39	3.58	6.35	CFSSA 4-10	358 883 000
	12	4.78	5.39	3.58	6.35	CFSSA 4-12	-
	14	4.78	5.39	3.58	6.35	CFSSA 4-14	-
	16	4.78	5.39	3.58	6.35	CFSSA 4-16	358 693 000
	18	4.78	5.39	3.58	6.35	CFSSA 4-18	-
	20	4.78	5.39	3.58	6.35	CFSSA 4-20	358 719 000
	22	4.78	5.39	3.58	6.35	CFSSA 4-22	-
	25	4.78	5.39	3.58	6.35	CFSSA 4-25	-

Hole ø anvil = Dimension "A" +0.10/+0.18 mm.

Technical specifications

Series	Fixed panel						Removable panel				
	Fixed panel mounting hole +0.08 -0.00 [mm]	Material	Hardness max HRB	Material thickness min [mm]	Location tolerance min [mm]	Removable panel mounting hole +0.08 -0.00 [mm]	Material 1.5 mm steel	Material thickness min [mm]	Location tolerance min [mm]		
CFSSA	5.4	Metal	HRB 50	1	6.6	± 0.134	4.0	PC board or metal	1 - 1.8	2.5	
CFSSS	5.4	Metal	HRB 60	1	6.6	± 0.134	4.0	PC board or metal	1 - 1.8	2.5	
CFSSC	5.4	Metal	HRB 70	1	6.6	± 0.134	4.0	PC board or metal	1 - 1.8	2.5	

Series	Fixed panel				Removable panel		
	Material	Installation force [kN]	Push-out [N]	Max. first on force [N]	Min. first off force [N]	Max 15th off force [N]	
CFSSA	1.0 aluminium HRB 25	6.7	880	58	13	4	
CFSSS	1.0 aluminium HRB 25	6.7	880	89	27	9	
CFSSC	1.5 steel HRB 64	16.0	1780	89	27	9	

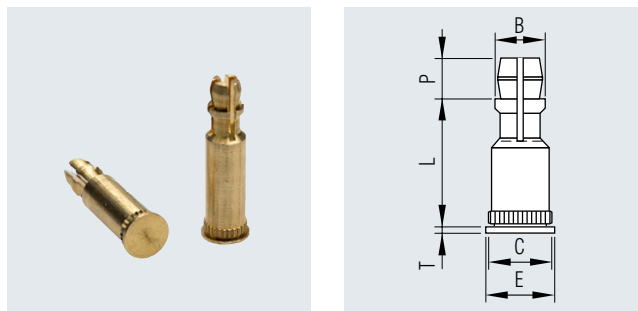
Guidelines only - the exact values will need to be calculated on the original component.

Captive® self-clinching fasteners

Spring-top standoffs for printed circuit boards

Material

Brass (CFKSSB series)
 Suitable for sheet hardness
 HRB 60 or less,
 no surface finish



Removable panel mounting hole [mm]	L [mm]	B [mm]	C [mm]	E [mm]	P [mm]	T [mm]	Description	Article No.
4	8.0	4.77	5.74	6.35	3.58	0.51	CFKSSB 4-8	-
	10.0	4.77	5.74	6.35	3.58	0.51	CFKSSB 4-10	-
	12.0	4.77	5.74	6.35	3.58	0.51	CFKSSB 4-12	-
	14.0	4.77	5.74	6.35	3.58	0.51	CFKSSB 4-14	-
	16.0	4.77	5.74	6.35	3.58	0.51	CFKSSB 4-16	-
	18.0	4.77	5.74	6.35	3.58	0.51	CFKSSB 4-18	-
	20.0	4.77	5.74	6.35	3.58	0.51	CFKSSB 4-20	-
	22.0	4.77	5.74	6.35	3.58	0.51	CFKSSB 4-22	-
	25.0	4.77	5.74	6.35	3.58	0.51	CFKSSB 4-25	-

Hole ø anvil = Dimension "A" +0.10/+0.18 mm.

Technical specifications

Series	Fixed panel						Removable panel			
	Fixed panel mounting hole	Material	Hardness	Material thickness	Location tolerance	Removable panel mounting hole	Material	Material thickness		
	+0.08 -0.00 [mm]		max HRB	min [mm]	min [mm]	+0.08 -0.00 [mm]	1.5 mm steel	min [mm]		min [mm]
CFKSSB	5.4	PC boards	HRB 65	1.25	5.6	± 0.13	4.0	PC board or metal	1 - 1.8	2.5

Series	Fixed panel			Removable panel		
	Material	Installation force [kN]	Push-out [N]	Max. first on force [N]	Min. first off force [N]	Max. 15th off force [N]
CFKSSB	1.52 FR-4 Fiberglas	2.2	484	58	13	4

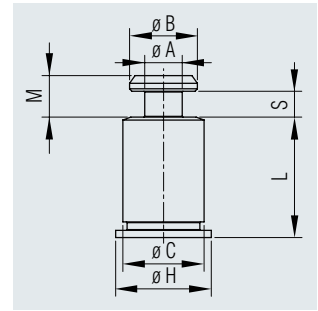
Guidelines only - the exact values will need to be calculated on the original component.

Captive® self-clinching fasteners

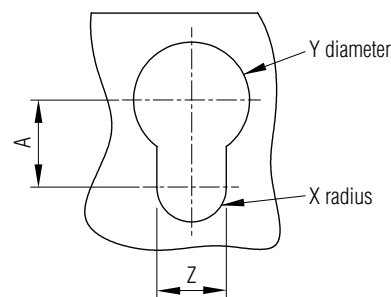
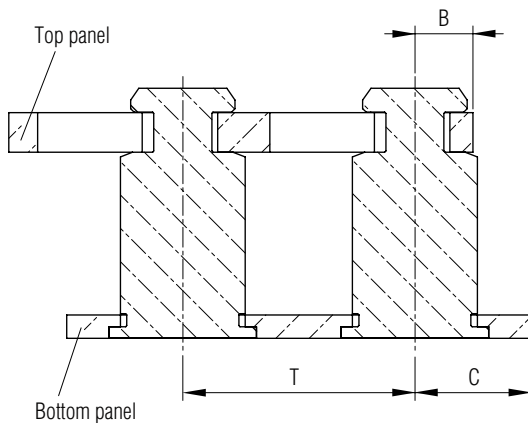
Slide-top standoffs for metal

Material

A2 stainless steel, 300 series, (CFSKC series)
Suitable for sheet hardness HRB 70 or less



Panel code	L	A	B	C	S	M	H	Hole	Stainless steel Description	Article No.
	± 0.13	±0.08	±0.08	max	±0.08	max	nom	+0.08 -0.00		
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
61.5	6	2.51	4.5	5.39	1.73	2.75	6.35	5.5	CFSKC 61.5-6	358 912 000
	8	2.51	4.5	5.39	1.73	2.75	6.35	5.5	CFSKC 61.5-8	358 803 000
	10	2.51	4.5	5.39	1.73	2.75	6.35	5.5	CFSKC 61.5-10	-
	12	2.51	4.5	5.39	1.73	2.75	6.35	5.5	CFSKC 61.5-12	358 904 000
	14	2.51	4.5	5.39	1.73	2.75	6.35	5.5	CFSKC 61.5-14	-
	16	2.51	4.5	5.39	1.73	2.75	6.35	5.5	CFSKC 61.5-16	358 905 000
	18	2.51	4.5	5.39	1.73	2.75	6.35	5.5	CFSKC 61.5-18	-
	20	2.51	4.5	5.39	1.73	2.75	6.35	5.5	CFSKC 61.5-20	-
	22	2.51	4.5	5.39	1.73	2.75	6.35	5.5	CFSKC 61.5-22	-
	25	2.51	4.5	5.39	1.73	2.75	6.35	5.5	CFSKC 61.5-25	-



Technical specifications

Test panel material	1.52 mm cold-rolled steel		1.52 mm 5052-H34 aluminium	
Chassis panel code	Installation [kN]	Push-out [N]	Installation [kN]	Push-out [N]
61.5	14.3	2650	7	1100

Bottom panel	Bottom panel			Top panel				Panel thickness	Minimum spacing
Bottom mounting hole	Panel thickness	Spacing C	Tolerance T	Top mounting hole X nom	Y ±0.08	Z ±0.08	A min		
5.4	1	6.6	± 0.13	1.5	5	3	3.75	1.45 - 1.62	4.1

Subject to change

About us

Titgemeyer Group is a leading fastening technology and transport technology group of companies with 15 sites across Europe. Steeped in tradition, the company develops, manufactures and sells more than 30,000 fastening elements, tools and vehicle components – in series and to customer specification.

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