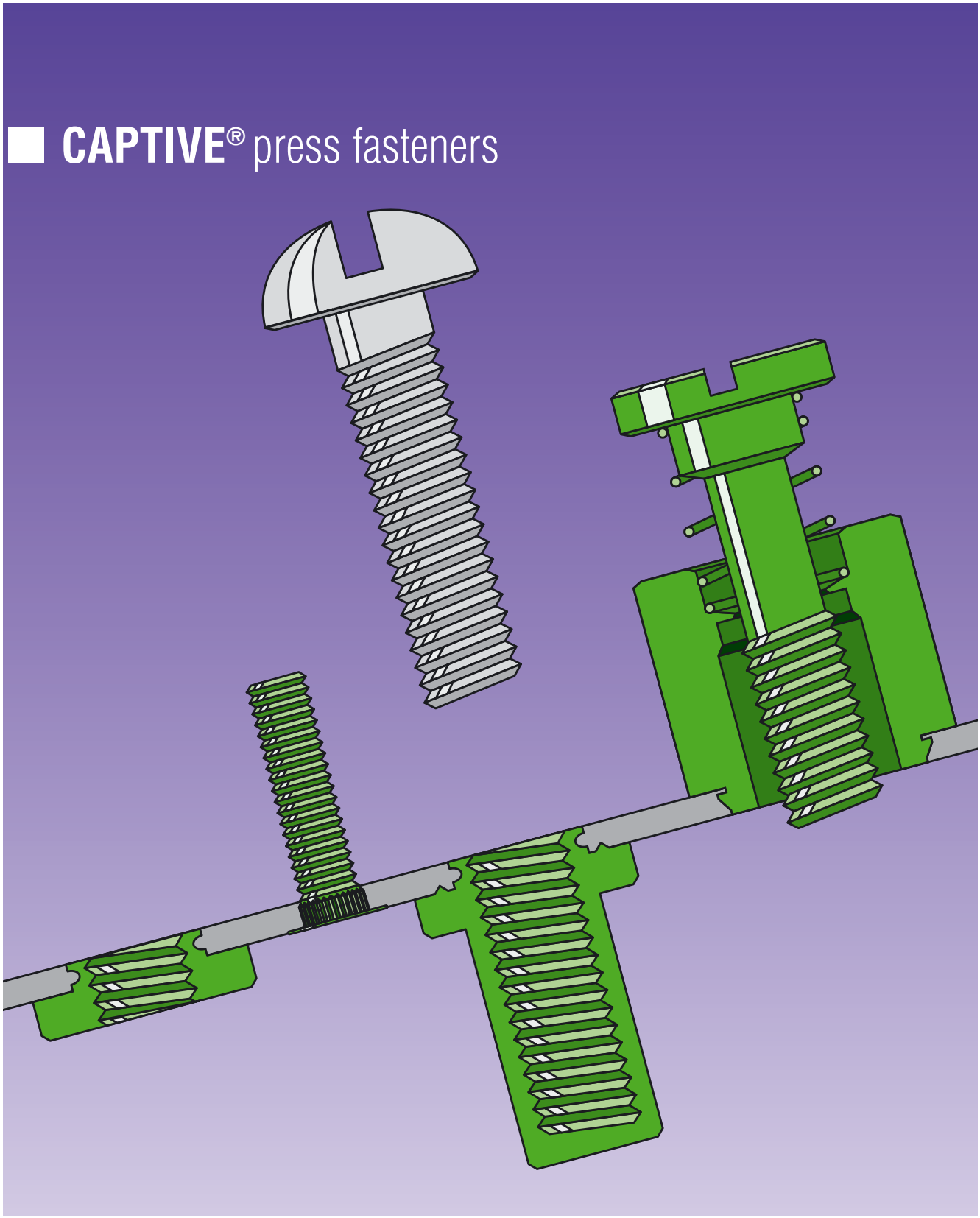
CAPTIVE® press fasteners

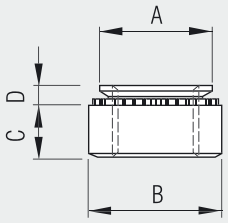


Press-in nuts for metals

Material

Steel zinc (C series)
Suitable for metal hardnesses up to HRB 80

Stainless steel (CS series)
Suitable for metal hardnesses up to HRB 70



Thread	Hole-ø +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	Part No.	Description	Part No.
M 2	4.25	0.8	4.22	6.3	1.5	0.76	4.8	C M 2–0	–	CS M 2–0	–
		1.0	4.22	6.3	1.5	0.97	4.8	C M 2–1	**358 003**	CS M 2–1	–
		1.4	4.22	6.3	1.5	1.37	4.8	C M 2–2	**358 004**	CS M 2–2	–
		2.3	4.22	6.3	1.5	2.21	4.8	C M 2–3	–	CS M 2–3	–
M 2.5	4.25	0.8	4.22	6.3	1.5	0.76	4.8	C M 2.5–0	**358 006**	CS M 2.5–0	–
		1.0	4.22	6.3	1.5	0.97	4.8	C M 2.5–1	**358 007**	CS M 2.5–1	**358 051**
		1.4	4.22	6.3	1.5	1.37	4.8	C M 2.5–2	**358 008**	CS M 2.5–2	–
		2.3	4.22	6.3	1.5	2.21	4.8	C M 2.5–3	–	CS M 2.5–3	–
M 3	4.25	0.8	4.22	6.3	1.5	0.76	4.8	C M 3–0	**358 010**	CS M 3–0	**358 060**
		1.0	4.22	6.3	1.5	0.97	4.8	C M 3–1	**358 011**	CS M 3–1	**358 061**
		1.4	4.22	6.3	1.5	1.37	4.8	C M 3–2	**358 012**	CS M 3–2	**358 062**
		2.3	4.22	6.3	1.5	2.21	4.8	C M 3–3	–	CS M 3–3	–
M 3.5	4.75	0.8	4.73	7.1	1.5	0.76	5.6	C M 3.5–0	**358 015**	CS M 3.5–0	**358 065**
		1.0	4.73	7.1	1.5	0.97	5.6	C M 3.5–1	**358 016**	CS M 3.5–1	–
		1.4	4.73	7.1	1.5	1.37	5.6	C M 3.5–2	**358 017**	CS M 3.5–2	–
		2.3	4.73	7.1	1.5	2.21	5.6	C M 3.5–3	–	CS M 3.5–3	–
M 4	5.4	0.8	5.38	7.9	2.0	0.76	6.9	C M 4–0	**358 020**	CS M 4–0	**358 070**
		1.0	5.38	7.9	2.0	0.97	6.9	C M 4–1	**358 021**	CS M 4–1	**358 071**
		1.4	5.38	7.9	2.0	1.37	6.9	C M 4–2	**358 022**	CS M 4–2	**358 072**
		2.3	5.38	7.9	2.0	2.21	6.9	C M 4–3	**358 023**	CS M 4–3	**358 073**
M 5	6.4	0.8	6.38	8.7	2.0	0.76	7.1	C M 5–0	**358 025**	CS M 5–0	**358 074**
		1.0	6.38	8.7	2.0	0.97	7.1	C M 5–1	**358 026**	CS M 5–1	**358 076**
		1.4	6.38	8.7	2.0	1.37	7.1	C M 5–2	**358 027**	CS M 5–2	**358 077**
		2.3	6.38	8.7	2.0	2.21	7.1	C M 5–3	**358 028**	CS M 5–3	–
M 6	8.75	1.4	8.72	11.05	4.08	1.37	8.6	C M 6–1	**358 030**	CS M 6–1	**358 080**
		2.3	8.72	11.05	4.08	2.21	8.6	C M 6–2	**358 031**	CS M 6–2	**358 081**
		3.2	8.72	11.05	4.08	3.05	8.6	C M 6–3	**358 032**	CS M 6–3	**358 082**
M 8	10.5	1.4	10.44	12.65	5.47	1.37	9.7	C M 8–1	**358 035**	CS M 8–1	**358 090**
		2.3	10.44	12.65	5.47	2.21	9.7	C M 8–2	**358 036**	CS M 8–2	**358 083**
		3.2	10.44	12.65	5.47	3.05	9.7	C M 8–3	–	CS M 8–3	–
M 10	14.0	2.3	13.94	17.35	7.48	2.21	13.5	C M 10–1	**358 040**	CS M 10–1	–
		3.2	13.94	17.35	7.48	3.05	13.5	C M 10–2	–	CS M 10–2	**358 093**
		6.4	13.94	17.35	7.48	6.00	13.5	C M 10–3	–	CS M 10–3	–

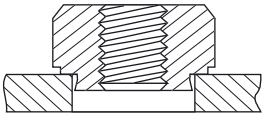
We reserve the right to amend specifications at any time.

Technical data

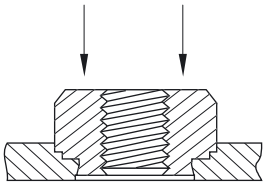
Thread	Shaft code[1]	Application material					
		■ Steel			■ Aluminium (H34)		
		Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 2	-0	11.2 – 15.6	465	2.1	6.7 – 8.9	275	0.9
M 2.5	-1	11.2 – 15.6	545	2.1	6.7 – 8.9	390	1.1
M 3	-2	11.2 – 15.6	1010	2.1	6.7 – 8.9	745	1.4
	-3	11.2 – 15.6	1100	2.1	6.7 – 8.9	850	1.4
M 3.5	-0	13.4 – 26.7	475	1.8	11.2 – 13.4	290	1.8
	-1	13.4 – 26.7	565	1.8	11.2 – 13.4	465	1.9
	-2	13.4 – 26.7	1200	2.3	11.2 – 13.4	965	2.5
	-3	13.4 – 26.7	1300	2.5	11.2 – 13.4	1050	2.8
M 4	-0	18.0 – 27.0	485	2.9	11.2 – 13.4	290	2.3
	-1	18.0 – 27.0	640	2.95	11.2 – 13.4	465	2.6
	-2	18.0 – 27.0	1245	4.2	11.2 – 13.4	965	4.0
	-3	18.0 – 27.0	1300	4.2	11.2 – 13.4	1100	4.0
M 5	-0	18.0 – 31.0	525	3.6	11.2 – 15.6	290	3.0
	-1	18.0 – 31.0	790	3.6	11.2 – 15.6	475	3.6
	-2	18.0 – 31.0	1400	6.0	11.2 – 15.6	1180	4.7
	-3	18.0 – 31.0	1500	6.0	11.2 – 15.6	1225	5.7
M 6	-1	27.0 – 36.0	1755	16.4	18.0 – 32.0	1570	9.6
	-2	27.0 – 36.0	1755	16.4	18.0 – 32.0	1570	9.6
	-3	27.0 – 36.0	1755	16.4	18.0 – 32.0	1570	9.6
M 8	-1	27.0 – 36.0	1860	18.1	18.0 – 32.0	1560	13.0
	-2	27.0 – 36.0	1860	18.1	18.0 – 32.0	1560	13.0
	-3	27.0 – 36.0	1860	18.1	18.0 – 32.0	1560	13.0
M 10	-1	32.0 – 50.0	2000	36.2	22.0 – 36.0	1750	32.7
	-2	32.0 – 50.0	2000	36.2	22.0 – 36.0	1750	32.7
	-3	32.0 – 50.0	2000	36.2	22.0 – 36.0	1750	32.7

[1] *denotes the minimum material thickness of the application material*

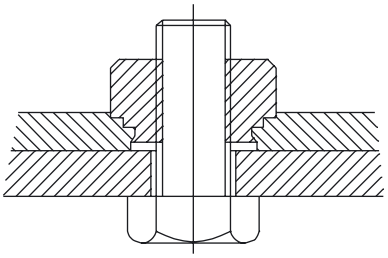
Guidelines - the precise values must be determined using the original component



Nut must be affixed at right angles



Press-in force is exerted on the head of the nut



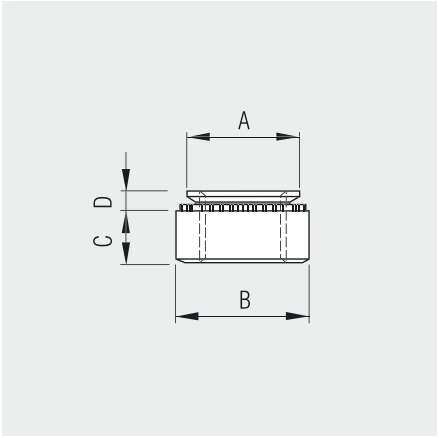
Fastening (fitting) occurs on the opposite side to the nut head

We reserve the right to amend specifications at any time.

Press-in nuts for metals

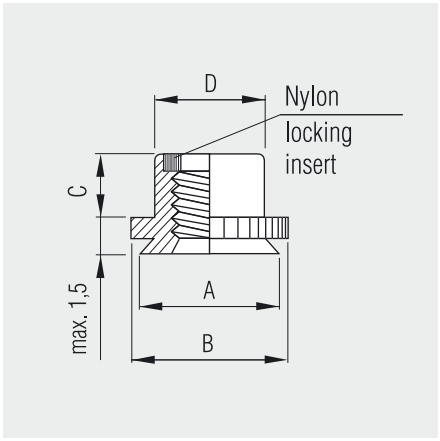
Material

Aluminium (CA series)
Suitable for metal hardnesses up to HRB 50



Thread	Hole-ø +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]	Aluminium Description	Aluminium Part No.
M 2	4.25	1.0	4.22	6.3	1.5	0.97	4.8	CA M 2–1	–
		1.4	4.22	6.3	1.5	1.37	4.8	CA M 2–2	–
M 3	4.75	1.0	4.73	6.3	2.0	0.97	5.6	CA M 3–1	–
		1.4	4.73	6.3	2.0	1.37	5.6	CA M 3–2	–
M 3.5	5.4	1.0	5.38	7.1	2.0	0.97	6.9	CA M 3.5–1	–
		1.4	5.38	7.1	2.0	1.37	6.9	CA M 3.5–2	–
M 4	6.0	1.0	5.97	7.9	3.0	0.97	7.1	CA M 4–1	–
		1.4	5.97	7.9	3.0	1.37	7.1	CA M 4–2	**358 727**
M 5	7.5	1.0	7.47	9.5	3.8	0.97	7.9	CA M 5–1	–
		1.4	7.47	9.5	3.8	1.37	7.9	CA M 5–2	**358 729**
M 6	8.75	1.4	8.72	11.1	4.1	1.37	8.6	CA M 6–1	**358 730**
		2.3	8.72	11.1	4.1	2.21	8.6	CA M 6–2	**358 731**

We reserve the right to amend specifications at any time.



Press-in nuts for metals
self-locking

Material

Steel zinc (CPL series)
Suitable for metal hardnesses up to HRB 70

Stainless steel (CPLC series)
Suitable for metal hardnesses up to HRB 70

Thread	Hole-ø +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 zinc Description	Steel zinc Part No.	Stainless steel Description	Stainless steel Part No.
M 3	6.0	1.5 – 1.78	5.97	7.1	3.6	5.5	4.3	CPL M 3	**358 770**	CPLC M 3	**358 773**
M 4	7.5	1.5 – 1.78	7.47	8.6	4.2	7.0	5.6	CPL M 4	**358 778**	CPLC M 4	–
M 5	8.0	1.5 – 1.78	7.97	8.9	4.5	7.5	6.4	CPL M 5	**358 772**	CPLC M 5	–

Technical data

Thread	Steel[2] 1.5 mm Tightening torque max. [kN]	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]	Steel[2] 1.2 mm Tightening torque max. [kN]	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 3	1.1	13.34	1156	2.2	1.1	13.34	1000	2.2
M 4	2.2	13.34	1290	6.7	2.2	13.34	1200	6.7
M 5	3.1	13.34	1557	7.9	3.1	13.34	1380	7.9

Thread	Aluminium[2] (H 34) 1.5 mm Tightening torque max. [kN]	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]	Aluminium[2] (H 34) 1.0 mm Tightening torque max. [kN]	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 3	1.1	8.9	1000	2.2	1.1	6.67	710	2.2
M 4	2.2	8.9	1290	6.7	2.2	6.67	800	3.1
M 5	3.1	8.9	1330	7.9	3.1	6.67	800	4.5

[2] *Application material*

Guidelines - the precise values must be determined using the original component

We reserve the right to amend specifications at any time.

Installation tips

Thin sheet metal – If the fastener is fitted to sheet metal thinner than 1–1.5 mm, the fastener is only partially attached to the material. The knurled collar must be pressed into the sheet metal to make up the difference in the sheet thickness to a minimum material thickness of 1.5 mm

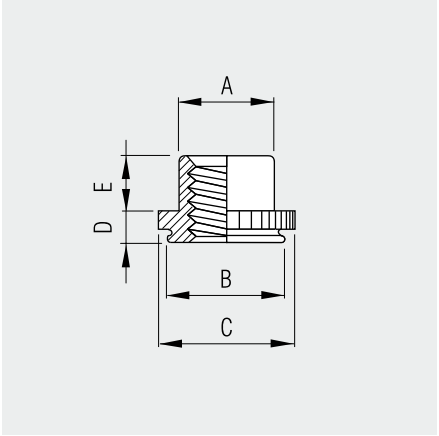
Thick sheet metal – If the fastener is fitted into sheet metal thicker than 1.78 mm, the knurled collar may snap if the permissible tightening torque is exceeded.

Press-in nuts for metals

Material
Suitable for metal hardnesses up to HRB 70

Stainless steel
(CFE, CFEO series)
self-locking

Stainless steel
(CFEX, CFEOX series)
not locking



Thread	Hole-ø +0.08 -0.00 [mm]	Material thickness min [mm]	A max [mm]	B ±0.25 [mm]	C ±0.25 [mm]	D max [mm]	E ±0.4 - 0.0 [mm]	min [mm]	Stainless steel self-locking Description	Part No.	Stainless steel not locking Description	Part No.
M 3	4.4	1.02	3.96	4.34	4.88	1.02	1.90	3.6	CFEO M 3	–	CFEOX M 3	**358 633**
		1.53	3.96	4.34	4.88	1.53	1.90	3.6	CFE M 3	–	CFEX M 3	**358 623**
M 4	7.4	1.02	5.23	7.34	8.17	1.02	2.55	5.2	CFEO M 4	–	CFEOX M 4	–
		1.53	5.23	7.34	8.17	1.53	2.55	5.2	CFE M 4	–	CFEX M 4	–
M 5	7.4	1.02	6.48	7.34	8.17	1.02	3.05	5.2	CFEO M 5	–	CFEOX M 5	–
		1.53	6.48	7.34	8.17	1.53	3.05	5.2	CFE M 5	**358 606**	CFEX M 5	**358 637**
M 6	8.75	1.53	7.72	8.71	9.74	1.53	3.30	7.1	CFE M 6	–	CFEX M 6	–

Technical data

Thread	Material thickness [mm]	Application material: Steel Press-in force [kN]	Steel Push-out force [N]	Steel Torsional strength [Nm]	Aluminium (H 34) Press-in force [kN]	Aluminium (H 34) Push-out force [N]	Aluminium (H 34) Torsional strength [Nm]	Series
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 - the precise values must be determined using the original component

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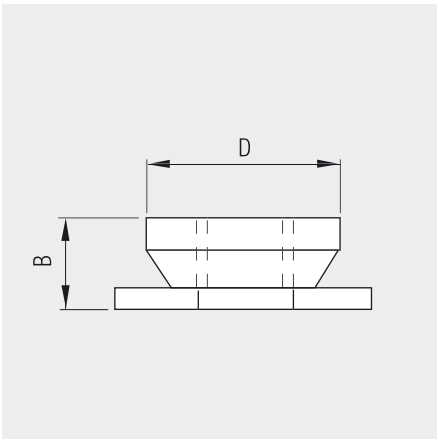


Press-in nuts for metals
for flush-surface installation

Material

Stainless steel (CFL series)
Suitable for metal hardnesses up to HRB 70

Thread	Hole-ø *+0.08 -0.00* [mm]	Material thickness *min* [mm]	SW *nom* [mm]	B *max* [mm]	D *max* [mm]	 *min* [mm]	**Stainless steel** Description	**Part No.**
M 2	4.4	1.5	4.8	1.5	4.34	6.0	CFL M 2–1	**358 501**
M 2.5		1.5	4.8	1.5	4.34	6.0	CFL M 2.5–1	**358 502**
M 3	4.4	1.5	4.8	1.5	4.34	6.0	CFL M 3–1	**358 506**
		2.3	4.8	2.3	4.34	6.0	CFL M 3–2	**358 507**
M 3.5	5.4	1.5	6.4	1.5	5.35	6.5	CFL M 3.5–1	**–**
		2.3	6.4	2.3	5.35	6.5	CFL M 3.5–2	**–**
M 4	7.4	1.5	7.94	1.5	7.34	7.2	CFL M 4–1	**358 511**
		2.3	7.94	2.3	7.34	7.2	CFL M 4–2	**358 512**
M 5	7.9	1.5	8.73	1.5	7.87	8.0	CFL M 5–1	**358 516**
		2.3	8.73	2.3	7.87	8.0	CFL M 5–2	**358 517**
M 6	8.75	3.2	9.53	3.1	8.71	8.8	CFL M 6–3	**358 518**
		4.0	9.53	3.9	8.71	8.8	CFL M 6–4	**–**
		4.75	9.53	4.7	8.71	8.8	CFL M 6–5	**–**

Technical data

Thread	Installation torque max [Nm]	**Application material**				Description
		Steel		**Aluminium**		
		Press-in force [kN]	Push-out force [N]	Press-in force [kN]	Push-out force [N]	
M 2	0.16	13.3	0.9	8.9	0.9	CLF M 2-1
M 2.5	0.23	13.3	0.9	8.9	0.9	CLF M 2.5-1
M 3	0.3	13.3	0.9	8.9	0.9	CLF M 3-1 /-2
M 3.5	0.4	15.0	1.0	8.9	0.9	CLF M 3.5-1 /-2
M 4	0.5	17.0	1.1	8.9	1.0	CLF M 4-1 /-2
M 5	0.8	17.0	1.1	11	1.1	CLF M 5-1 /-2
M 6	3.7	20.0	3.7	15	2.8	CLF M 6-3 /-4 /-5

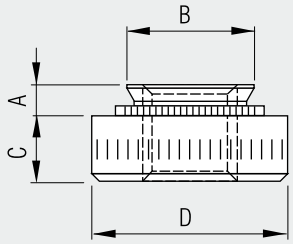
Guidelines - the precise values must be determined using the original component

We reserve the right to amend specifications at any time.

Press-in nuts for metals
self-locking

Material

Stainless steel (CFSP series)
Suitable for metal hardnesses up to HRB 88



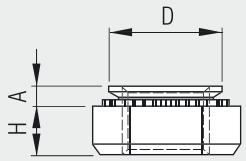
Thread	Hole-ø	Material thickness	A	B	C	D		Stainless steel	
	+0.08 - 0.0 [mm]	*min* [mm]	*max* [mm]	*max* [mm]	*±0.25* [mm]	*±0.25* [mm]	*min* [mm]	Description	**Part No.**
M 3	4.25	0.8 –1.0	0.76	4.22	1.5	6.3	4.8	CFSP M 3–0	**358 789**
		1.0	0.97	4.22	1.5	6.3	4.8	CFSP M 3–1	**358 790**
		1.4	1.37	4.22	1.5	6.3	4.8	CFSP M 3–2	**358 791**
M 4	5.4	0.8 – 1.0	0.76	5.38	2.0	7.9	6.9	CFSP M 4–0	**–**
		1.0	0.97	5.38	2.0	7.9	6.9	CFSP M 4–1	**358 794**
		1.4	1.37	5.38	2.0	7.9	6.9	CFSP M 4–2	**358 795**
M 5	6.4	0.8 – 1.0	0.76	6.38	2.0	8.7	7.1	CFSP M 5–0	**–**
		1.0	0.97	6.38	2.0	8.7	7.1	CFSP M 5–1	**–**
		1.4	1.37	6.38	2.0	8.7	7.1	CFSP M 5–2	**358 796**
M 6	8.75	1.4	1.37	8.72	4.1	11.1	8.6	CFSP M 6–1	**358 799**

Technical data

Thread	Shaft code	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 3	-0	13 – 22	570	1.55
	-1	13 – 22	720	1.90
	-2	13 – 22	1285	2.00
M 4	-0	22 – 31	640	3.35
	-1	22 – 31	790	4.15
	-2	22 – 31	1595	5.05
M 5	-0	26 – 40	790	3.90
	-1	26 – 40	1020	5.05
	-2	26 – 40	1770	6.75
M 6	-1	40 – 48	1990	16.5

Guidelines - the precise values must be determined using the original component

We reserve the right to amend specifications at any time.



Press-in nuts KAL for metals

Material

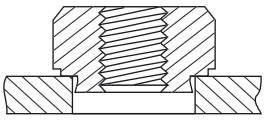
Steel zinc (CKN series)
Suitable for metal hardnesses up to HRB 80

Thread	Hole-ø +0.08 - 0.0 [mm]	Material thickness min [mm]	SW - 0.2 [mm]	A max [mm]	C Corner size ±0.25 [mm]	D max [mm]	H ±0.25 [mm]	min [mm]	Steel Description	Part No.
M 3	4.5	1.0	5.5	1.0	6.4	4.45	2.0	4.5	CKN M 3–1	**358 760**
		1.4	5.5	1.4	6.4	4.45	2.0	4.5	CKN M 3–2	**358 761**
M 4	5.5	1.0	7.0	1.0	8.1	5.45	2.2	5.5	CKN M 4–1	**358 762**
		1.4	7.0	1.4	8.1	5.45	2.2	5.5	CKN M 4–2	**358 763**
M 5	6.5	1.0	8.0	1.0	9.2	6.45	3.0	6.5	CKN M 5–1	**358 764**
		1.4	8.0	1.4	9.2	6.45	3.0	6.5	CKN M 5–2	**358 765**
M 6	8.0	1.0	10.0	1.0	11.5	7.95	4.0	8.0	CKN M 6–1	**358 766**
		1.4	10.0	1.4	11.5	7.95	4.0	8.0	CKN M 6–2	**358 767**
M 8	10.0	1.4	13.0	1.4	15.0	9.95	4.5	10.0	CKN M 8–2	**358 768**
		2.0	13.0	2.0	15.0	9.95	4.5	10.0	CKN M 8–3	**358 769**

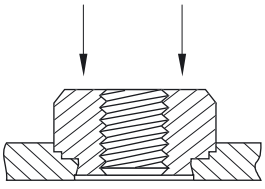
Technical data

Thread	Shaft code	Material thickness min [mm]	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 3	-1	1.0	13	800	2.5
M 4	-1	1.0	14	800	3.0
M 5	-1	1.0	14	800	6.0
M 6	-1	1.0	17	850	15.0
M 8	-2	1.6	22	2000	25.0

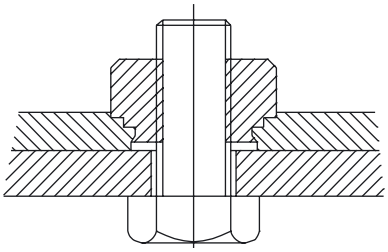
Guidelines - the precise values must be determined using the original component



Nut must be affixed at right angles



Press-in force is exerted on the head of the nut

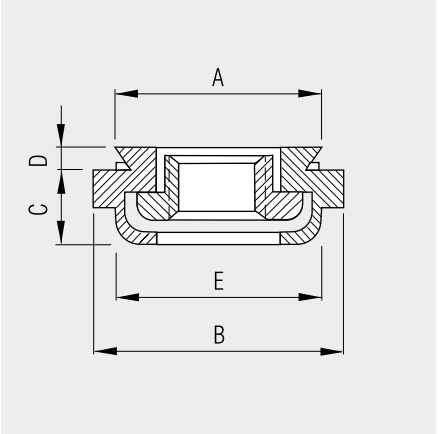


Fastening (fitting) occurs on the opposite side to the nut head

We reserve the right to amend specifications at any time.

Press-in nuts for metals

- Floating thread
- To compensate for an axis offset by approx. 0.8 mm



Material

Steel zinc (CFAS series)
Suitable for metal hardnesses up to HRB 80

Stainless steel (CFAC series)
Suitable for metal hardnesses up to HRB 70

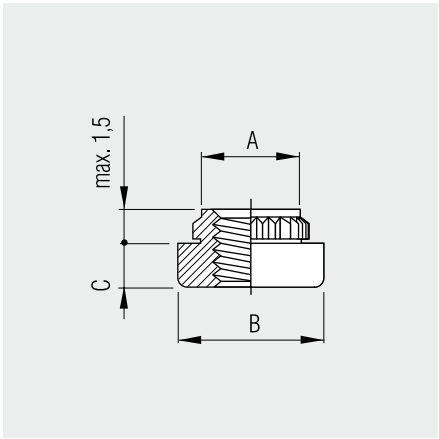
Thread	Hole-ø	Material thickness	A	B	C	D	E		Steel		Stainless steel	
	+0.08 - 0.0 [mm]	*min* [mm]	*max* [mm]	*±0.361* [mm]	*max* [mm]	*max* [mm]	*max* [mm]	*min* [mm]	Description	**Part No.**	Description	**Part No.**
M 3	7.4	1.0	7.34	9.1	3.3	0.97	7.4	7.6	CFAS M 3–1	**358 701**	CFAC M 3–1	**358 708**
		1.4	7.34	9.1	3.3	1.37	7.4	7.6	CFAS M 3–2	–	CFAC M 3–2	**358 709**
M 4	9.4	1.0	9.32	11.2	3.3	0.97	9.3	8.6	CFAS M 4–1	**358 703**	CFAC M 4–1	–
		1.4	9.32	11.2	3.3	1.37	9.3	8.6	CFAS M 4–2	**358 704**	CFAC M 4–2	–
M 5	10.3	1.0	10.29	11.9	4.3	0.97	10.3	9.0	CFAS M 5–1	**358 706**	CFAC M 5–1	–
		1.4	10.29	11.9	4.3	1.37	10.3	9.0	CFAS M 5–2	–	CFAC M 5–2	–
M 6	13.1	1.4	13.06	15.3	5.3	1.37	13.0	11.0	CFAS M 6–2	–	CFAC M 6–2	–

Technical data

Thread	Shaft code	Application material								
		Steel			Aluminium (T 3)			Aluminium (H 34)		
		Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 3	1	13	1330	9	13	970	7	7	950	9
	2	13	1330	17	14	1000	17	9	1000	17
M 4	1	13	1330	17	14	1050	12	9	1100	17
	2	13	1780	22	15	1330	17	10	1178	22
M 5	1	15	1780	17	15	1330	17	10	1330	17
	2	15	2000	22	16	1550	22	11	1550	22
M 6	2	22	2200	36	23	1550	36	14	1780	36

Guidelines - the precise values must be determined using the original component

We reserve the right to amend specifications at any time.



Press-in nuts for plastics

printed circuit boards, fibre-glass, acrylic

Material

Steel electrolytically zinc plated (CKF2 series)
Suitable for metal hardnesses up to HRB 60

Stainless steel (CKFS2 series)
Suitable for metal hardnesses up to HRB 60

Thread	Hole-ø *+0.08 - 0.0* [mm]	Material thickness *min* [mm]	A *±0.08* [mm]	B *±0.13* [mm]	C *±0.13* [mm]	 *min* [mm]	Steel Description	Steel **Part No.**	Stainless steel Description	Stainless steel **Part No.**
M 2.5	4.2	1.5	4.68	5.56	1.5	4.5	CKF2 M 2.5	**358 551**	CKFS2 M 2.5	**–**
M 3	4.2	1.5	4.68	5.56	1.5	4.5	CKF2 M 3	**358 561**	CKFS2 M 3	**358 593**
M 4	6.4	1.5	6.81	8.74	2.0	6.4	CKF2 M 4	**358 571**	CKFS2 M 4	**358 594**
M 5	6.9	1.5	7.37	9.53	3.0	7.1	CKF2 M 5	**358 572**	CKFS2 M 5	**–**

Technical data

Thread	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 2.5	2.22	200	1.35
M 3	2.22	200	1.35
M 4	2.90	330	3.73
M 5	2.90	350	4.52

Guidelines - the precise values must be determined using the original component

We reserve the right to amend specifications at any time.

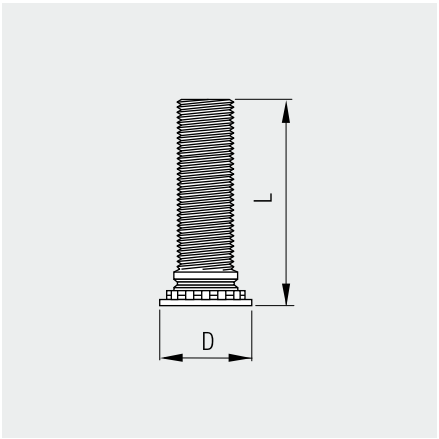
Press-in studs for metals

Material

Steel zinc (CH series)
Suitable for metal hardnesses up to HRB 80

Stainless steel (CHS series)
Suitable for metal hardnesses up to HRB 70

Aluminium (CHA series)
Suitable for metal hardnesses up to HRB 50



Thread	Hole-ø	Material thickness	L	D		Steel		Stainless steel		Aluminium	
	+0.08 - 0.0	min	±0.4	±0.4	min						
	[mm]	[mm]	[mm]	[mm]	[mm]	Description	Part No.	Description	Part No.	Description	Part No.
M 2	–	–	8	–	–	CH M 2–8	**358 111**	–	**–**	–	**–**
			10	–	–	CH M 2–10	**358 112**	–	**–**	–	**–**
M 2.5	2.5	1.0	6	4.1	5.4	CH M 2.5–6	**358 120**	CHS M 2.5–6	**358 220**	CHA M 2.5–6	**–**
			8	4.1	5.4	CH M 2.5–8	**358 121**	CHS M 2.5–8	**–**	CHA M 2.5–8	**–**
			10	4.1	5.4	CH M 2.5–10	**358 122**	CHS M 2.5–10	**–**	CHA M 2.5–10	**–**
			12	4.1	5.4	CH M 2.5–12	**358 123**	CHS M 2.5–12	**–**	CHA M 2.5–12	**–**
			15	4.1	5.4	CH M 2.5–15	**358 124**	CHS M 2.5–15	**358 224**	CHA M 2.5–15	**–**
			18	4.1	5.4	CH M 2.5–18	**358 125**	CHS M 2.5–18	**358 225**	CHA M 2.5–18	**–**
M 3	3.0	1.0	5	4.6	5.6	CH M 3–5	**358 129**	CHS M 3–5	**–**	–	**–**
			6	4.6	5.6	CH M 3–6	**358 130**	CHS M 3–6	**358 230**	CHA M 3–6	**–**
			8	4.6	5.6	CH M 3–8	**358 131**	CHS M 3–8	**358 231**	CHA M 3–8	**358 911**
			10	4.6	5.6	CH M 3–10	**358 132**	CHS M 3–10	**358 232**	CHA M 3–10	**–**
			12	4.6	5.6	CH M 3–12	**358 133**	CHS M 3–12	**358 233**	CHA M 3–12	**–**
			15	4.6	5.6	CH M 3–15	**358 134**	CHS M 3–15	**358 234**	CHA M 3–15	**358 914**
			18	4.6	5.6	CH M 3–18	**358 135**	CHS M 3–18	**358 235**	CHA M 3–18	**-**
			20	4.6	5.6	CH M 3–20	**358 136**	CHS M 3–20	**358 236**	CHA M 3–20	**358 916**
			22	4.6	5.6	CH M 3–22	**358 137**	CHS M 3–22	**358 237**	CHA M 3–22	**–**
			25	4.6	5.6	CH M 3–25	**358 138**	CHS M 3–25	**358 238**	CHA M 3–25	**–**
			30	4.6	5.6	CH M 3–30	**358 176**	CHS M 3–30	**–**	CHA M 3–30	**–**
M 4	4.0	1.0	6	5.9	7.2	CH M 4–6	**358 140**	CHS M 4–6	**358 240**	CHA M 4–6	**–**
			8	5.9	7.2	CH M 4–8	**358 141**	CHS M 4–8	**358 241**	CHA M 4–8	**–**
			10	5.9	7.2	CH M 4–10	**358 142**	CHS M 4–10	**358 242**	CHA M 4–10	**358 942**
			12	5.9	7.2	CH M 4–12	**358 143**	CHS M 4–12	**358 243**	CHA M 4–12	**–**
			13.5	5.9	7.2	CH M 4–13.5	**358 980**	CHS M 4–13.5	**–**	CHA M 4–13.5	**–**
			15	5.9	7.2	CH M 4–15	**358 144**	CHS M 4–15	**358 244**	CHA M 4–15	**358 944**
			16	5.9	7.2	CH M 4–16	**358 844**	CHS M 4–16	**–**	CHA M 4–16	**–**
			18	5.9	7.2	CH M 4–18	**358 145**	CHS M 4–18	**358 245**	CHA M 4–18	**358 945**
			20	5.9	7.2	CH M 4–20	**358 146**	CHS M 4–20	**358 246**	CHA M 4–20	**–**
			22	5.9	7.2	CH M 4–22	**358 147**	CHS M 4–22	**358 247**	CHA M 4–22	**–**
			25	5.9	7.2	CH M 4–25	**358 148**	CHS M 4–25	**358 248**	CHA M 4–25	**358 948**
			28	5.9	7.2	CH M 4–28	**358 199**	CHS M 4–28	**–**	CHA M 4–28	**–**
			30	5.9	7.2	CH M 4–30	**358 150**	CHS M 4–30	**358 250**	CHA M 4–30	**358 950**
			35	5.9	7.2	CH M 4–35	**358 139**	CHS M 4–35	**–**	CHA M 4–35	**–**
			38	5.9	7.2	CH M 4–38	**358 149**	CHS M 4–38	**358 258**	CHA M 4–38	**–**

Continue next page

Continued

Thread	Hole-ø +0.08 - 0.0 [mm]	Material thickness min [mm]	L ±0.4 [mm]	D ±0.4 [mm]	 min [mm]	Steel		Stainless steel		Aluminium	
						Description	Part No.	Description	Part No.	Description	Part No.
M 5	5.0	1.0	6	6.5	7.2	CH M 5–6	**358 169**	CHS M 5–6	–	CHA M 5–6	–
			8	6.5	7.2	CH M 5–8	**358 151**	CHS M 5–8	**358 251**	CHA M 5–8	–
			10	6.5	7.2	CH M 5–10	**358 152**	CHS M 5–10	**358 252**	CHA M 5–10	–
			12	6.5	7.2	CH M 5–12	**358 153**	CHS M 5–12	**358 253**	CHA M 5–12	–
			15	6.5	7.2	CH M 5–15	**358 154**	CHS M 5–15	**358 254**	CHA M 5–15	–
			18	6.5	7.2	CH M 5–18	**358 155**	CHS M 5–18	**358 255**	CHA M 5–18	–
			20	6.5	7.2	CH M 5–20	**358 156**	CHS M 5–20	**358 256**	CHA M 5–20	–
			22	6.5	7.2	CH M 5–22	**358 115**	CHS M 5–22	**358 257**	CHA M 5–22	–
			25	6.5	7.2	CH M 5–25	**358 158**	CHS M 5–25	–	CHA M 5–25	–
			28	6.5	7.2	CH M 5–28	**358 173**	CHS M 5–28	**358 259**	CHA M 5–28	–
			30	6.5	7.2	CH M 5–30	**358 160**	CHS M 5–30	**358 260**	CHA M 5–30	–
			35	6.5	7.2	CH M 5–35	**358 159**	CHS M 5–35	**358 249**	CHA M 5–35	–
			38	6.5	7.2	CH M 5–38	**358 157**	CHS M 5–38	**358 262**	CHA M 5–38	–
M 6	6.0	1.6	8	8.2	7.9	CH M 6–8	**358 161**	CHS M 6–8	–	CHA M 6–8	–
			10	8.2	7.9	CH M 6–10	**358 162**	CHS M 6–10	**358 261**	CHA M 6–10	–
			12	8.2	7.9	CH M 6–12	**358 163**	CHS M 6–12	**358 263**	CHA M 6–12	**358 308**
			15	8.2	7.9	CH M 6–15	**358 164**	CHS M 6–15	**358 264**	CHA M 6–15	–
			18	8.2	7.9	CH M 6–18	**358 165**	CHS M 6–18	**358 265**	CHA M 6–18	–
			20	8.2	7.9	CH M 6–20	**358 166**	CHS M 6–20	**358 266**	CHA M 6–20	**358 311**
			22	8.2	7.9	CH M 6–22	**358 167**	CHS M 6–22	–	CHA M 6–22	–
			25	8.2	7.9	CH M 6–25	**358 168**	CHS M 6–25	**358 268**	CHA M 6–25	**358 313**
			28	8.2	7.9	CH M 6–28	–	CHS M 6–28	–	CHA M 6–28	–
			30	8.2	7.9	CH M 6–30	**358 170**	CHS M 6–30	**358 270**	CHA M 6–30	–
			35	8.2	7.9	CH M 6–35	**358 171**	CHS M 6–35	**358 271**	CHA M 6–35	–
			38	8.2	7.9	CH M 6–38	**358 172**	CHS M 6–38	–	CHA M 6–38	–
			50	8.2	7.9	CH M 6–50	**358 179**	CHS M 6–50	–	CHA M 6–50	–
M 8	8.0	2.4	8	9.6	9.6	CH M 8–8	–	CHS M 8–8	–	CHA M 8–8	–
			10	9.6	9.6	CH M 8–10	–	CHS M 8–10	–	CHA M 8–10	–
			12	9.6	9.6	CH M 8–12	**358 183**	CHS M 8–12	–	CHA M 8–12	–
			15	9.6	9.6	CH M 8–15	**358 184**	CHS M 8–15	**358 284**	CHA M 8–15	–
			18	9.6	9.6	CH M 8–18	**358 185**	CHS M 8–18	**358 285**	CHA M 8–18	–
			20	9.6	9.6	CH M 8–20	**358 186**	CHS M 8–20	**358 286**	CHA M 8–20	–
			22	9.6	9.6	CH M 8–22	**358 187**	CHS M 8–22	–	CHA M 8–22	–
			25	9.6	9.6	CH M 8–25	**358 188**	CHS M 8–25	**358 288**	CHA M 8–25	–
			28	9.6	9.6	CH M 8–28	–	CHS M 8–28	–	CHA M 8–28	–
			30	9.6	9.6	CH M 8–30	**358 190**	CHS M 8–30	**358 291**	CHA M 8–30	–
			35	9.6	9.6	CH M 8–35	**358 191**	CHS M 8–35	**385 292**	CHA M 8–35	–

We reserve the right to amend specifications at any time.

Technical data

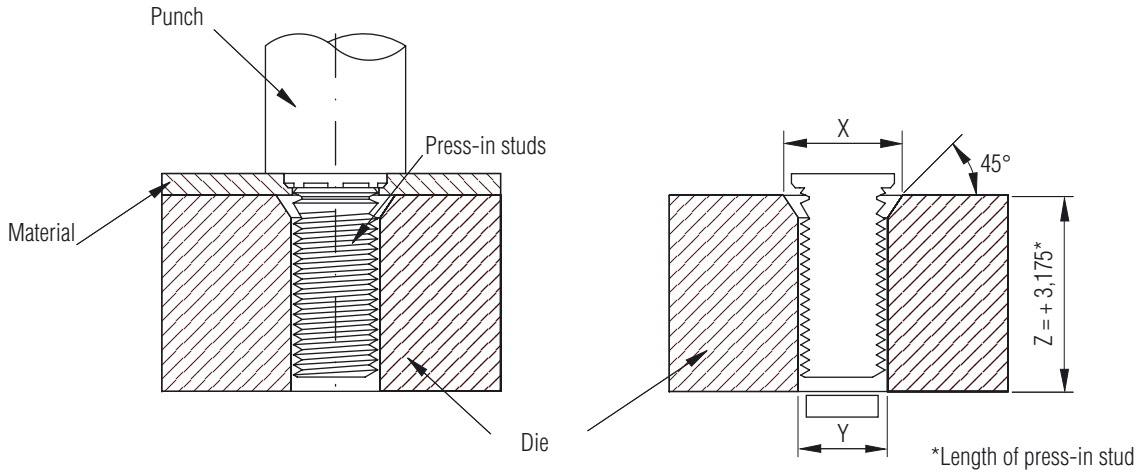
Thread	Test material	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]	Over tightening torque [Nm]
M 2.5	Aluminium 1.6 mm	8.9	625	0.9	0.40
	Steel 1.5 mm	11.1	1025	0.9	0.40
M 3	Aluminium 1.6 mm	12.9	890	1.6	1.72
	Steel 1.5 mm	14.7	1240	1.6	1.72
M 3.5	Aluminium 1.6 mm	15.6	980	1.6	1.10
	Steel 1.5 mm	22.3	1550	2.7	1.10
M 4	Aluminium 1.6 mm	22.3	1290	2.8	1.60
	Steel 1.5 mm	28.9	1780	4.1	1.60
M 5	Aluminium 1.6 mm	24.5	1470	3.4	3.40
	Steel 1.5 mm	33.4	2440	6.4	3.40
M 6	Aluminium 1.6 mm	28.9	2000	7.2	5.70
	Steel 1.5 mm	29.8	3110	11.2	5.70
M 8	Aluminium 1.6 mm	29.0	2440	11.2	14.0
	Steel 1.5 mm	44.5	3780	19.1	14.0

Guidelines - the precise values must be determined using the original component

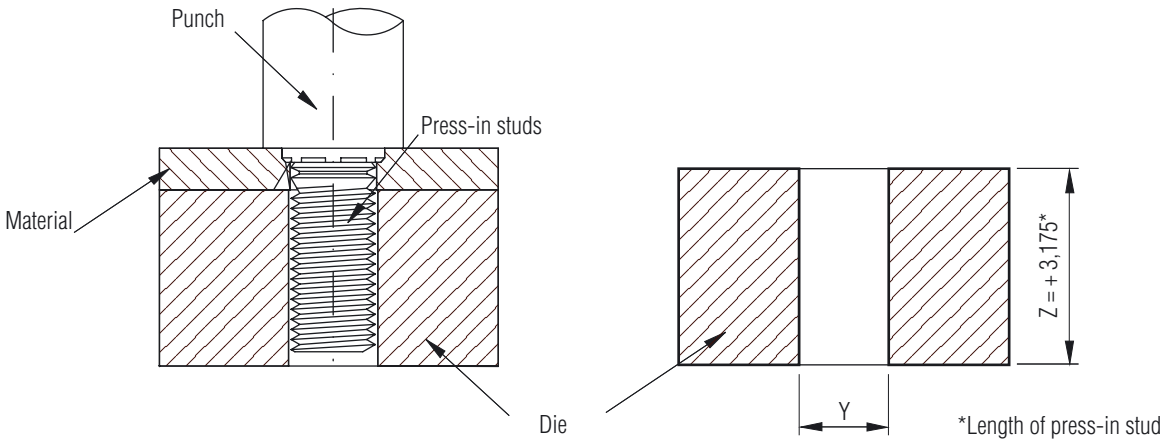
We reserve the right to amend specifications at any time.

Technical data

Thread	Die dimensions [mm]	
	X + 0.1	Y + 0.08
M 2.5	3.1	2.5
M 3	3.6	3.0
M 3.5	4.1	3.5
M 4	4.6	4.0
M 5	5.6	5.0
M 6	6.6	6.0
M 8	–	8.0



Die for material thickness ≤ 1.5 mm for thread sizes M 2,5 – M 5.
Die for material thickness ≤ 2.3 mm for thread sizes M 6 – M 8.

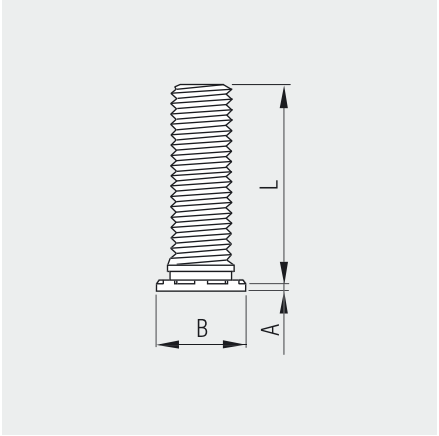


Die for material thickness ≥ 1.5 mm for thread sizes M 2,5 – M 5.
Die for material thickness ≥ 2.3 mm for thread sizes M 6 – M 8.

We reserve the right to amend specifications at any time.

Press-in stud for metals

for thin sheet metal > 0.51 mm,
not flush-fitting



Material

Steel zinc (TCH series)
Suitable for metal hardnesses up to HRB 80

Stainless steel (TCHS series)
Suitable for metal hardnesses up to HRB 70

Thread	Hole-ø +0.08 - 0.0 [mm]	Material thickness min [mm]	L ±0.4 [mm]	A max [mm]	B ±0.4 [mm]	min [mm]	Steel Description	Steel Part No.	Stainless steel Description	Stainless steel Part No.
M 3	3.0	0.51	6.0	0.64	4.5	5.6	TCH M 3–6	**358 850**	TCHS M 3–6	–
			8.0	0.64	4.5	5.6	TCH M 3–8	**358 851**	TCHS M 3–8	–
			10.0	0.64	4.5	5.6	TCH M 3–10	–	TCHS M 3–10	–
			12.0	0.64	4.5	5.6	TCH M 3–12	–	TCHS M 3–12	–
			15.0	0.64	4.5	5.6	TCH M 3–15	**358 854**	TCHS M 3–15	–
			18.0	0.64	4.5	5.6	TCH M 3–18	–	TCHS M 3–18	**358 885**
M 4	4.0	0.51	10.0	0.64	5.8	7.2	TCH M 4–10	–	TCHS M 4–10	–
			12.0	0.64	5.8	7.2	TCH M 4–12	–	TCHS M 4–12	–
			15.0	0.64	5.8	7.2	TCH M 4–15	–	TCHS M 4–15	–
			18.0	0.64	5.8	7.2	TCH M 4–18	–	TCHS M 4–18	–
			20.0	0.64	5.8	7.2	TCH M 4–20	–	TCHS M 4–20	–
			22.0	0.64	5.8	7.2	TCH M 4–22	–	TCHS M 4–22	–
			25.0	0.64	5.8	7.2	TCH M 4–25	–	TCHS M 4–25	–
			28.0	0.64	5.8	7.2	TCH M 4–28	–	TCHS M 4–28	–
			30.0	0.64	5.8	7.2	TCH M 4–30	–	TCHS M 4–30	–
			35.0	0.64	5.8	7.2	TCH M 4–35	–	TCHS M 4–35	–
			38.0	0.64	5.8	7.2	TCH M 4–38	–	TCHS M 4–38	–
M 5	5.0	0.51	10.0	0.64	6.4	7.2	TCH M 5–10	–	TCHS M 5–10	–
			12.0	0.64	6.4	7.2	TCH M 5–12	–	TCHS M 5–12	–
			15.0	0.64	6.4	7.2	TCH M 5–15	–	TCHS M 5–15	–
			18.0	0.64	6.4	7.2	TCH M 5–18	–	TCHS M 5–18	–
			20.0	0.64	6.4	7.2	TCH M 5–20	–	TCHS M 5–20	–
			22.0	0.64	6.4	7.2	TCH M 5–22	–	TCHS M 5–22	–
			25.0	0.64	6.4	7.2	TCH M 5–25	–	TCHS M 5–25	–
			28.0	0.64	6.4	7.2	TCH M 5–28	–	TCHS M 5–28	–
			30.0	0.64	6.4	7.2	TCH M 5–30	–	TCHS M 5–30	–
			35.0	0.46	6.4	7.2	TCH M 5–35	–	TCHS M 5–35	–
			38.0	0.46	6.4	7.2	TCH M 5–38	–	TCHS M 5–38	–

We reserve the right to amend specifications at any time.

Technical data

Thread	Installation torque max [Nm]	Test material	Material hardness HRB	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 3	0.74	Aluminium 0.5	28	5.3	190	0.8
		Steel 0.6	52	6.7	290	1.0
M 4	1.70	Aluminium 0.5	28	9.8	245	0.7
		Steel 0.6	52	13.4	495	2.5
M 5	3.50	Aluminium 0.5	28	13.4	265	1.2
		Steel 0.6	52	17.8	665	2.9

Guidelines - the precise values must be determined using the original component

We reserve the right to amend specifications at any time.

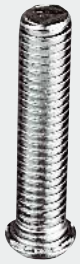
Press-in stud for metals

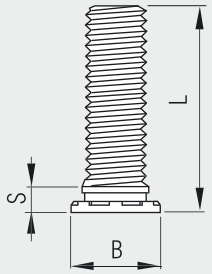
for fitting close to an edge

Material

Steel zinc (CHE series)
Suitable for metal hardnesses up to HRB 80

Stainless steel (CHES series)
Suitable for metal hardnesses up to HRB 70





Thread	Hole-ø	Material thickness	L	B	S		Steel		Stainless steel	
	+0.08 - 0.0 [mm]	min [mm]	±0.4 [mm]	±0.4 [mm]	max [mm]	min [mm]	Description	Part No.	Description	Part No.
M 2.5	2.5	1.0	6.0	3.15	2.1	2.8	CHE M 2.5–6	**358 863**	CHES M 2.5–6	–
			8.0	3.15	2.1	2.8	CHE M 2.5–8	**358 881**	CHES M 2.5–8	–
			10.0	3.15	2.1	2.8	CHE M 2.5–10	**358 864**	CHES M 2.5–10	–
			12.0	3.15	2.1	2.8	CHE M 2.5–12	**358 858**	CHES M 2.5–12	–
			15.0	3.15	2.1	2.8	CHE M 2.5–15	**358 865**	CHES M 2.5–15	–
			18.0	3.15	2.1	2.8	CHE M 2.5–18	**358 877**	CHES M 2.5–18	–
M 3	3.0	1.0	6.0	3.65	2.1	3.3	CHE M 3–6	**358 888**	CHES M 3–6	–
			7.0	3.65	2.1	3.3	CHE M 3–7	**358 852**	CHES M 3–7	–
			8.0	3.65	2.1	3.3	CHE M 3–8	**358 889**	CHES M 3–8	–
			10.0	3.65	2.1	3.3	CHE M 3–10	**358 890**	CHES M 3–10	–
			12.0	3.65	2.1	3.3	CHE M 3–12	**358 891**	CHES M 3–12	–
			15.0	3.65	2.1	3.3	CHE M 3–15	**358 892**	CHES M 3–15	–
			18.0	3.65	2.1	3.3	CHE M 3–18	**358 893**	CHES M 3–18	–
			20.0	3.65	2.1	3.3	CHE M 3–20	**358 861**	CHES M 3–20	–
			22.0	3.65	2.1	3.3	CHE M 3–22	**358 862**	CHES M 3–22	–
			25.0	3.65	2.1	3.3	CHE M 3–25	**358 886**	CHES M 3–25	–
M 4	4.0	1.0	6.0	4.65	2.4	4.3	CHE M 4–6	**358 876**	CHES M 4–6	–
			8.0	4.65	2.4	4.3	CHE M 4–8	**358 866**	CHES M 4–8	–
			10.0	4.65	2.4	4.3	CHE M 4–10	**358 894**	CHES M 4–10	–
			12.0	4.65	2.4	4.3	CHE M 4–12	**358 895**	CHES M 4–12	–
			15.0	4.65	2.4	4.3	CHE M 4–15	**358 896**	CHES M 4–15	–
			18.0	4.65	2.4	4.3	CHE M 4–18	**358 897**	CHES M 4–18	**358 900**
			20.0	4.65	2.4	4.3	CHE M 4–20	**358 898**	CHES M 4–20	–
			22.0	4.65	2.4	4.3	CHE M 4–22	**358 867**	CHES M 4–22	–
			25.0	4.65	2.4	4.3	CHE M 4–25	**358 899**	CHES M 4–25	–
			28.0	4.65	2.4	4.3	CHE M 4–28	**358 853**	CHES M 4–28	–
			30.0	4.65	2.4	4.3	CHE M 4–30	**358 855**	CHES M 4–30	–
			35.0	4.65	2.4	4.3	CHE M 4–35	**358 856**	CHES M 4–35	–
			38.0	4.65	2.4	4.3	CHE M 4–38	**358 849**	CHES M 4–38	–

We reserve the right to amend specifications at any time.

Continued next page

Continued

Thread	Hole-ø +0.08 - 0.0 [mm]	Material thickness min [mm]	L ±0.4 [mm]	B ±0.4 [mm]	S max [mm]	min [mm]	Steel Description	Steel Part No.	Stainless steel Description	Stainless steel Part No.
M 5	5.0	1.0	8.0	5.9	2.7	5.6	CHE M 5–8	–	CHES M 5–8	–
			10.0	5.9	2.7	5.6	CHE M 5–10	**358 868**	CHES M 5–10	–
			12.0	5.9	2.7	5.6	CHE M 5–12	**358 869**	CHES M 5–12	–
			15.0	5.9	2.7	5.6	CHE M 5–15	**358 878**	CHES M 5–15	–
			18.0	5.9	2.7	5.6	CHE M 5–18	**358 873**	CHES M 5–18	–
			20.0	5.9	2.7	5.6	CHE M 5–20	**358 857**	CHES M 5–20	–
			25.0	5.9	2.7	5.6	CHE M 5–25	**358 879**	CHES M 5–25	–
			30.0	5.9	2.7	5.6	CHE M 5–30	**358 871**	CHES M 5–30	–
			35.0	5.9	2.7	5.6	CHE M 5–35	–	CHES M 5–35	–

Technical data

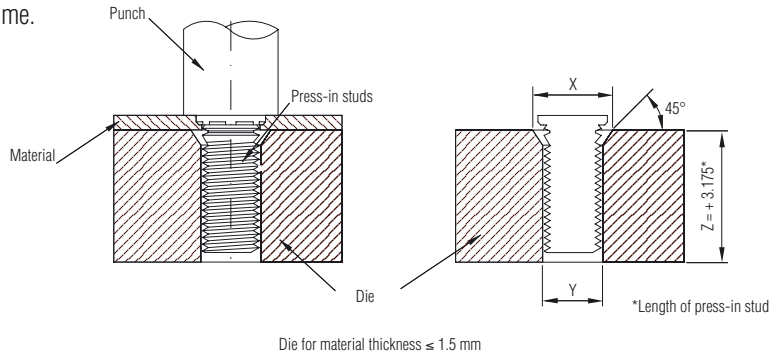
Thread	Installation torque max [Nm]	Test material	Material hardness HRB	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 2.5	0.41	Aluminium 1.2 mm	33	3.1	285	0.55
	0.41	Steel 1.1 mm	54	5.3	450	1.10
M 3	0.46	Aluminium 1.2 mm	33	4.4	285	0.65
	0.74	Steel 1.1 mm	54	5.3	475	1.25
M 4	0.75	Aluminium 1.2 mm	33	5.3	365	1.10
	1.70	Steel 1.1 mm	54	6.6	550	2.10
M 5	1.11	Aluminium 1.2 mm	33	11.1	530	2.20
	2.25	Steel 1.1 mm	54	20.0	1000	4.40

Guidelines - the precise values must be determined using the original component

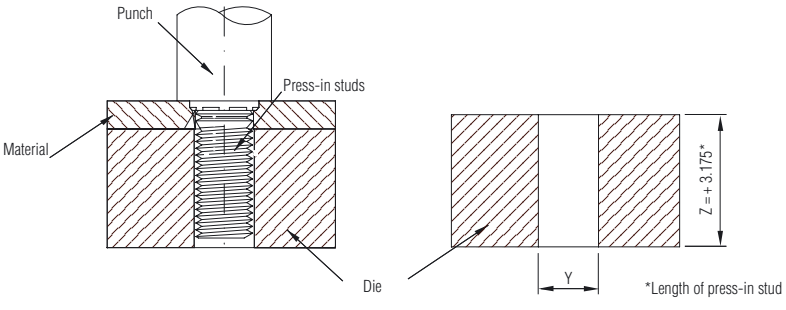
We reserve the right to amend specifications at any time.

Die dimensions

Thread	Dimensions [mm] Dimension X +0.1	Dimension X +0.1
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



Die for material thickness ≤ 1.5 mm



Die for material thickness ≥ 1.5 mm

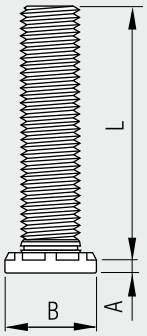
Press-in stud for metals

for high torques

Material

Steel zinc (HCH series)
Suitable for metal hardnesses up to HRB 85

Stainless steel (HCHS series)
Suitable for metal hardnesses up to HRB 70



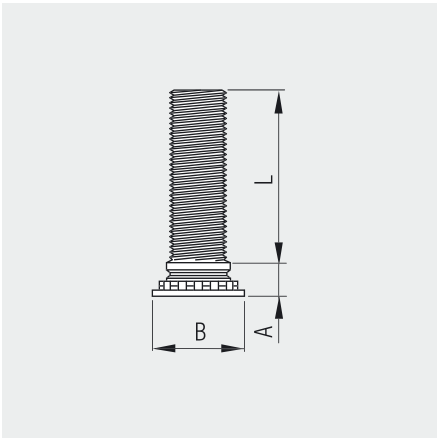
Thread	Hole-ø +0.13 - 0.0 [mm]	Material thickness min [mm]	L ±0.4 [mm]	A max [mm]	B ±2.5 [mm]	min [mm]	Hole for fastener max [mm]	Steel Description	Steel Part No.	Stainless steel Description	Stainless steel Part No.
M 5	5.0	1.3	15.0	1.14	7.8	10.7	6.5	HCH M 5–15	**358 808**	HCHS M 5–15	–
			20.0	1.14	7.8	10.7	6.5	HCH M 5–20	–	HCHS M 5–20	–
			25.0	1.14	7.8	10.7	6.5	HCH M 5–25	–	HCHS M 5–25	–
			30.0	1.14	7.8	10.7	6.5	HCH M 5–30	–	HCHS M 5–30	–
M 6	6.0	1.5	20.0	1.27	9.4	11.5	7.5	HCH M 6–20	**358 812**	HCHS M 6–20	–
			25.0	1.27	9.4	11.5	7.5	HCH M 6–25	–	HCHS M 6–25	–
			30.0	1.27	9.4	11.5	7.5	HCH M 6–30	–	HCHS M 6–30	–
			35.0	1.27	9.4	11.5	7.5	HCH M 6–35	**358 815**	HCHS M 6–35	–
M 8	8.0	2.0	16.0	1.78	12.5	12.7	9.5	HCH M 8–16	**358 816**	HCHS M 8–16	–
			20.0	1.78	12.5	12.7	9.5	HCH M 8–20	**358 817**	HCHS M 8–20	–
			25.0	1.78	12.5	12.7	9.5	HCH M 8–25	**358 818**	HCHS M 8–25	**358 824**
			30.0	1.78	12.5	12.7	9.5	HCH M 8–30	**358 819**	HCHS M 8–30	–
			35.0	1.78	12.5	12.7	9.5	HCH M 8–35	**358 820**	HCHS M 8–35	–
			40.0	1.78	12.5	12.7	9.5	HCH M 8–40	–	HCHS M 8–40	–
			50.0	1.78	12.5	12.7	9.5	HCH M 8–50	–	HCHS M 8–50	–

Technical data

Thread	Test material	Material hardness HRB	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]	Over tightening torque [Nm]
M 5	Aluminium 1.5 mm	15	13.0	778	5.4	6.8
	Steel 1.5 mm	65	26.0	1556	7.5	6.8
M 6	Aluminium 1.5 mm	43	29.0	1620	13.9	17.9
	Steel 1.5 mm	59	33.0	2020	13.9	23.7
M 8	Aluminium 2.3 mm	39	35.6	1780	30.0	43.4
	Steel 2.3 mm	58	44.5	2890	30.0	43.4

Guidelines - the precise values must be determined using the original component

We reserve the right to amend specifications at any time.



Press-in studs for metals

Material

Stainless steel (CHTS series)
Suitable for metal hardnesses up to HRB 92

Thread	Hole-ø *+0.08 - 0.0* [mm]	Material thickness [mm]	L *±0.4* [mm]	A *max* [mm]	B *±0.4* [mm]	**Stainless steel** Description	**Part No.**
M 3	3.0	1–2.4	6	2.1	4.6	CHTS M 3–6	–
			8	2.1	4.6	CHTS M 3–8	–
			10	2.1	4.6	CHTS M 3–10	–
			12	2.1	4.6	CHTS M 3–12	**358 970**
			15	2.1	4.6	CHTS M 3–16	**358 975**
			18	2.1	4.6	CHTS M 3–18	–
			20	2.1	4.6	CHTS M 3–20	**358 971**
			25	2.1	4.6	CHTS M 3–25	–
M 4	4.0	1–2.4	6	2.4	5.9	CHTS M 4–6	–
			8	2.4	5.9	CHTS M 4–8	–
			10	2.4	5.9	CHTS M 4–10	**358 972**
			12	2.4	5.9	CHTS M 4–12	–
			15	2.4	5.9	CHTS M 4–15	–
			18	2.4	5.9	CHTS M 4–18	–
			20	2.4	5.9	CHTS M 4–20	–
			25	2.4	5.9	CHTS M 4–25	–
			30	2.4	5.9	CHTS M 4–30	–
			35	2.4	5.9	CHTS M 4–35	–
M 5	5.0	1–2.4	8	2.7	6.5	CHTS M 5–8	–
			10	2.7	6.5	CHTS M 5–10	**358 974**
			12	2.7	6.5	CHTS M 5–12	–
			15	2.7	6.5	CHTS M 5–15	–
			18	2.7	6.5	CHTS M 5–18	–
			20	2.7	6.5	CHTS M 5–20	–
			25	2.7	6.5	CHTS M 5–25	**358 973**
			30	2.7	6.5	CHTS M 5–30	–
			35	2.7	6.5	CHTS M 5–35	–

We reserve the right to amend specifications at any time.

Technical data

Thread	Test material	Material thickness [mm]	Material hardness HRB	Press-in force *max* [kN]	Push-out force *min* [N]	Torsional strength *max* [Nm]	Tensile force *max* [N]
M 5	Stainless steel	1.5	92	40.0	3290	1.7	3510
M 6	Stainless steel	1.5	92	50.0	4400	6.4	7960
M 8	Stainless steel	1.5	92	53.0	4850	10.50	8980

Guidelines - the precise values must be determined using the original component

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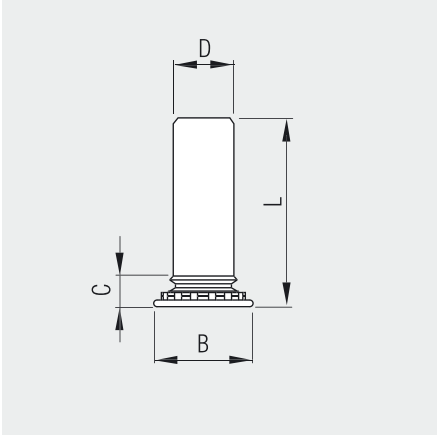


Press-in pins for metals
for thin sheet metal > 1.0 mm

Material

Steel heat treated, zinc (CH series)[1]

Steel not heat treated, zinc (CHN series)[2]

Stainless steel (CHS series)[3]

Aluminium (CHA series)[2]

Pin ø D	Hole-ø	Material thickness	L	B	C		**Steel** heat treated		**Steel** not heat treated		**Stainless steel**		**Aluminium**	
±0.05 **[mm]**	*+0.08 - 0.0* [mm]	*min* [mm]	*±0.4* [mm]	*±0.4* [mm]	*max* [mm]	*min* [mm]	Description	**Part No.**	Description	**Part No.**	Description	**Part No.**	Description	**Part No.**
3	3.5	1.0	6.0	5.3	2.3	6.4	CH 3–6	–	CHN 3–6	–	CHS 3–6	**358 839**	CHA 3–6	–
			8.0	5.3	2.3	6.4	CH 3–8	–	CHN 3–8	**358 801**	CHS 3–8	–	CHA 3–8	–
			10.0	5.3	2.3	6.4	CH 3–10	–	CHN 3–10	–	CHS 3–10	–	CHA 3–10	–
			12.0	5.3	2.3	6.4	CH 3–12	–	CHN 3–12	–	CHS 3–12	–	CHA 3–12	–
			15.0	5.3	2.3	6.4	CH 3–15	–	CHN 3–15	–	CHS 3–15	–	CHA 3–15	–
			18.0	5.3	2.3	6.4	CH 3–18	–	CHN 3–18	–	CHS 3–18	–	CHA 3–18	–
			20.0	5.3	2.3	6.4	CH 3–20	–	CHN 3–20	–	CHS 3–20	–	CHA 3–20	–
			25.0	5.3	2.3	6.4	CH 3–25	–	CHN 3–25	–	CHS 3–25	–	CHA 3–25	–
			30.0	5.3	2.3	6.4	CH 3–30	–	CHN 3–30	–	CHS 3–30	–	CHA 3–30	–
			35.0	5.3	2.3	6.4	CH 3–35	–	CHN 3–35	–	CHS 3–35	–	CHA 3–35	–
4	4.1	1.0	8.0	6.0	2.3	7.1	CH 4–8	**358 828**	CHN 4–8	**358 841**	CHS 4–8	–	CHA 4–8	–
			10.0	6.0	2.3	7.1	CH 4–10	**358 827**	CHN 4–10	–	CHS 4–10	–	CHA 4–10	–
			12.0	6.0	2.3	7.1	CH 4–12	**358 831**	CHN 4–12	–	CHS 4–12	–	CHA 4–12	–
			15.0	6.0	2.3	7.1	CH 4–15	–	CHN 4–15	–	CHS 4–15	–	CHA 4–15	–
			18.0	6.0	2.3	7.1	CH 4–18	–	CHN 4–18	–	CHS 4–18	–	CHA 4–18	–
			20.0	6.0	2.3	7.1	CH 4–20	**358 834**	CHN 4–20	–	CHS 4–20	–	CHA 4–20	–
			25.0	6.0	2.3	7.1	CH 4–25	**358 835**	CHN 4–25	**358 847**	CHS 4–25	–	CHA 4–25	–
			30.0	6.0	2.3	7.1	CH 4–30	–	CHN 4–30	–	CHS 4–30	–	CHA 4–30	–
			35.0	6.0	2.3	7.1	CH 4–35	–	CHN 4–35	–	CHS 4–35	–	CHA 4–35	–
5	5.5	1.0	6.0	7.5	2.55	7.6	CH 5–6	**358 829**	CHN 5–6	–	CHS 5–6	–	CHA 5–6	–
			8.0	7.5	2.55	7.6	CH 5–8	**358 830**	CHN 5–8	–	CHS 5–8	–	CHA 5–8	–
			10.0	7.5	2.55	7.6	CH 5–10	**358 832**	CHN 5–10	–	CHS 5–10	–	CHA 5–10	–
			12.0	7.5	2.55	7.6	CH 5–12	–	CHN 5–12	–	CHS 5–12	–	CHA 5–12	–
			15.0	7.5	2.55	7.6	CH 5–15	**358 833**	CHN 5–15	–	CHS 5–15	–	CHA 5–15	–
			18.0	7.5	2.55	7.6	CH 5–18	–	CHN 5–18	–	CHS 5–18	–	CHA 5–18	–
			20.0	7.5	2.55	7.6	CH 5–20	–	CHN 5–20	–	CHS 5–20	–	CHA 5–20	–
			25.0	7.5	2.55	7.6	CH 5–25	**358 836**	CHN 5–25	–	CHS 5–25	–	CHA 5–25	–
			28.0	7.5	2.55	7.6	CH 5–28	**358 837**	CHN 5–28	–	CHS 5–28	–	CHA 5–28	–
			30.0	7.5	2.55	7.6	CH 5–30	–	CHN 5–30	–	CHS 5–30	–	CHA 5–30	–
			35.0	7.5	2.55	7.6	CH 5–35	–	CHN 5–35	–	CHS 5–35	–	CHA 5–35	–

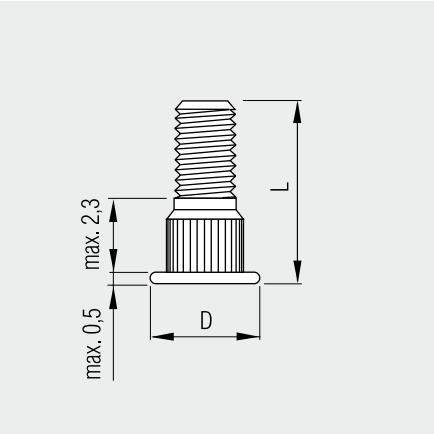
[1] suitable for metal hardnesses up to HRB 80
[2] suitable for metal hardnesses up to HRB 50
[3] suitable for metal hardnesses up to HRB 70

We reserve the right to amend specifications at any time.

Press-in stud for plastics
solderable

Material

Phosphorous bronze
electrolytically tin plated
(CKFH series)



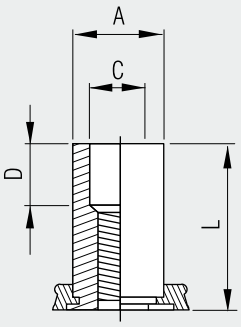
Thread	Hole-ø *+0.003 - 0.000* [mm]	Material thickness *min* [mm]	L [mm]	Hole for fastener [mm]	max. torque for nut [Nm]	Hole for die *+0.08 - 0.00* [mm]	D *±0.25* [mm]	*min* [mm]	Description	Part No.
M 3	3.0	1.5	6.0	3.7	0.45	3.1	4.58	3.8	CKFH M 3–6	**358 581**
			8.0	3.7	0.45	3.1	4.58	3.8	CKFH M 3–8	**358 582**
			10.0	3.7	0.45	3.1	4.58	3.8	CKFH M 3–10	**358 583**
			12.0	3.7	0.45	3.1	4.58	3.8	CKFH M 3–12	**358 584**
			15.0	3.7	0.45	3.1	4.58	3.8	CKFH M 3–15	**358 585**
			18.0	3.7	0.45	3.1	4.58	3.8	CKFH M 3–18	**358 586**
M 4	4.2	1.5	8.0	4.8	1.60	4.1	5.74	5.1	CKFH M 4–8	**358 587**
			10.0	4.8	1.60	4.1	5.74	5.1	CKFH M 4–10	**358 588**
			12.0	4.8	1.60	4.1	5.74	5.1	CKFH M 4–12	**358 589**
			15.0	4.8	1.60	4.1	5.74	5.1	CKFH M 4–15	**358 590**
			18.0	4.8	1.60	4.1	5.74	5.1	CKFH M 4–18	–
M 5	5.0	1.5	10.0	5.8	2.10	5.1	6.60	5.3	CKFH M 4–10	–
			12.0	5.8	2.10	5.1	6.60	5.3	CKFH M 4–12	–
			15.0	5.8	2.10	5.1	6.60	5.3	CKFH M 4–15	–
			18.0	5.8	2.10	5.1	6.60	5.3	CKFH M 4–18	–

Technical Data

Thread	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 3	1.8	285	0.79
M 4	1.8	355	1.80
M 5	1.8	400	1.92

Guidelines - the precise values must be determined using the original component

We reserve the right to amend specifications at any time.



Press-in bushes with thread for metals

open style

Material

Steel zinc (CFSO series)[1]

Stainless steel (CFSOS series)[2]

Aluminium (CFSOA series)[3]

Thread	Hole-ø +0.08 -0.00 [mm]	Material thick-ness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	SW (nom) [mm]	C [mm]	D ±0.4 [mm]	min [mm]	Steel		Stainless steel		Aluminium	
									Description	Part No.	Description	Part No.	Description	Part No.
M 3	4.2	1.0	3.0	4.19	4.8	3.2	0	6.0	CFSO M 3–3	–	CFSOS M 3–3	–	CFSOA M 3–3	–
			4.0	4.19	4.8	3.2	0	6.0	CFSO M 3–4	**358 331**	CFSOS M 3–4	**358 381**	CFSOA M 3–4	–
			5.0	4.19	4.8	3.2	0	6.0	CFSO M 3–5	**358 337**	CFSOS M 3–5	–	CFSOA M 3–5	–
			6.0	4.19	4.8	3.2	0	6.0	CFSO M 3–6	**358 332**	CFSOS M 3–6	**358 382**	CFSOA M 3–6	–
			8.0	4.19	4.8	3.2	0	6.0	CFSO M 3–8	**358 333**	CFSOS M 3–8	**358 383**	CFSOA M 3–8	–
			10.0	4.19	4.8	3.2	4.0	6.0	CFSO M 3–10	**358 334**	CFSOS M 3–10	**358 385**	CFSOA M 3–10	–
			12.0	4.19	4.8	3.2	4.0	6.0	CFSO M 3–12	**358 335**	CFSOS M 3–12	–	CFSOA M 3–12	–
M 3	5.4	1.0	14.0	4.19	4.8	3.2	4.0	6.0	CFSO M 3–14	**358 336**	CFSOS M 3–14	–	CFSOA M 3–14	–
			3.0	5.38	6.4	3.2	0	7.0	CFSO3.5 M 3–3	**358 340**	CFSOS3.5 M 3–3	–	CFSOA3.5 M 3–3	–
			4.0	5.38	6.4	3.2	0	7.0	CFSO3.5 M 3–4	**358 341**	CFSOS3.5 M 3–4	–	CFSOA3.5 M 3–4	–
			5.0	5.38	6.4	3.2	0	7.0	CFSO3.5 M 3–5	**358 342**	CFSOS3.5 M 3–5	–	CFSOA3.5 M 3–5	–
			6.0	5.38	6.4	3.2	0	7.0	CFSO3.5 M 3–6	**358 343**	CFSOS3.5 M 3–6	**358 391**	CFSOA3.5 M 3–6	–
			8.0	5.38	6.4	3.2	0	7.0	CFSO3.5 M 3–8	**358 344**	CFSOS3.5 M 3–8	**358 390**	CFSOA3.5 M 3–8	–
			9.0	5.38	6.4	3.2	0	7.0	CFSO3.5 M 3–9	**358 350**	CFSOS3.5 M 3–9	–	CFSOA3.5 M 3–9	–
			10.0	5.38	6.4	3.2	4.0	7.0	CFSO3.5 M 3–10	**358 345**	CFSOS3.5 M 3–10	**358 393**	CFSOA3.5 M 3–10	–
			12.0	5.38	6.4	3.2	4.0	7.0	CFSO3.5 M 3–12	**358 346**	CFSOS3.5 M 3–12	**358 394**	CFSOA3.5 M 3–12	–
			14.0	5.38	6.4	3.2	4.0	7.0	CFSO3.5 M 3–14	**358 347**	CFSOS3.5 M 3–14	–	CFSOA3.5 M 3–14	–
			16.0	5.38	6.4	3.2	8.0	7.0	CFSO3.5 M 3–16	–	CFSOS3.5 M 3–16	–	CFSOA3.5 M 3–16	–
			18.0	5.38	6.4	3.2	8.0	7.0	CFSO3.5 M 3–18	**358 348**	CFSOS3.5 M 3–18	–	CFSOA3.5 M 3–18	–
M 3.5	5.4	1.0	22.0	5.38	6.4	3.2	11.0	7.0	CFSO3.5 M 3–22	**358 349**	CFSOS3.5 M 3–22	–	CFSOA3.5 M 3–22	–
			3.0	5.38	6.4	4.0	0	7.0	CFSO M 3.5–3	–	CFSOS M 3.5–3	–	CFSOA M 3.5–3	–
			4.0	5.38	6.4	4.0	0	7.0	CFSO M 3.5–4	–	CFSOS M 3.5–4	–	CFSOA M 3.5–4	–
			6.0	5.38	6.4	4.0	4.0	7.0	CFSO M 3.5–6	–	CFSOS M 3.5–6	–	CFSOA M 3.5–6	–
			8.0	5.38	6.4	4.0	4.0	7.0	CFSO M 3.5–8	**358 338**	CFSOS M 3.5–8	–	CFSOA M 3.5–8	–
			10.0	5.38	6.4	4.0	4.0	7.0	CFSO M 3.5–10	–	CFSOS M 3.5–10	–	CFSOA M 3.5–10	–
			12.0	5.38	6.4	4.0	8.0	7.0	CFSO M 3.5–12	–	CFSOS M 3.5–12	–	CFSOA M 3.5–12	–
			14.0	5.38	6.4	4.0	8.0	7.0	CFSO M 3.5–14	–	CFSOS M 3.5–14	–	CFSOA M 3.5–14	–
			16.0	5.38	6.4	4.0	8.0	7.0	CFSO M 3.5–16	–	CFSOS M 3.5–16	–	CFSOA M 3.5–16	–
			18.0	5.38	6.4	4.0	8.0	7.0	CFSO M 3.5–18	–	CFSOS M 3.5–18	–	CFSOA M 3.5–18	–

[1] *suitable for metal hardnesses up to HRB 80*

[2] *suitable for metal hardnesses up to HRB 70*

[3] *suitable for metal hardnesses up to HRB 50*

Continued next page

We reserve the right to amend specifications at any time.

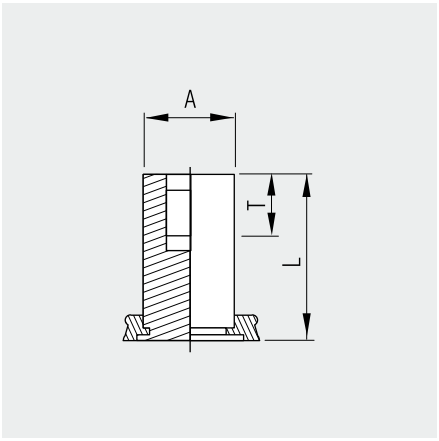
Technical data see page 210

Continued

Thread	Hole-ø +0.08 -0.00 [mm]	Material thick-ness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	SW (nom) [mm]	C [mm]	D ±0.4 [mm]	 min [mm]	Steel		Stainless steel		Aluminium	
									Description	**Part No.**	Description	**Part No.**	Description	**Part No.**
M 4	7.2	1.3	3.0	7.11	7.9	4.8	0	8.0	CFSO M 4–3	**358 359**	CFSOS M 4–3	–	CFSOA M 4–3	–
			4.0	7.11	7.9	4.8	0	8.0	CFSO M 4–4	**358 351**	CFSOS M 4–4	**358 373**	CFSOA M 4–4	–
			6.0	7.11	7.9	4.8	0	8.0	CFSO M 4–6	**358 352**	CFSOS M 4–6	**358 384**	CFSOA M 4–6	**358 395**
			7.0	7.11	7.9	4.8	0	8.0	CFSO M 4–7	**358 356**	CFSOS M 4–7	–	CFSOA M 4–7	–
			8.0	7.11	7.9	4.8	0	8.0	CFSO M 4–8	**358 353**	CFSOS M 4–8	**358 389**	CFSOA M 4–8	–
			10.0	7.11	7.9	4.8	4.0	8.0	CFSO M 4–10	**358 354**	CFSOS M 4–10	–	CFSOA M 4–10	–
			12.0	7.11	7.9	4.8	4.0	8.0	CFSO M 4–12	**358 355**	CFSOS M 4–12	–	CFSOA M 4–12	–
			14.0	7.11	7.9	4.8	4.0	8.0	CFSO M 4–14	–	CFSOS M 4–14	–	CFSOA M 4–14	–
			16.0	7.11	7.9	4.8	8.0	8.0	CFSO M 4–16	**358 361**	CFSOS M 4–16	–	CFSOA M 4–16	–
			18.0	7.11	7.9	4.8	8.0	8.0	CFSO M 4–18	**358 358**	CFSOS M 4–18	–	CFSOA M 4–18	–
			20.0	7.11	7.9	4.8	8.0	8.0	CFSO M 4–20	**358 357**	CFSOS M 4–20	–	CFSOA M 4–20	–
			22.0	7.11	7.9	4.8	11.0	8.0	CFSO M 4–22	**358 360**	CFSOS M 4–22	–	CFSOA M 4–22	–
M 5	7.2	1.3	3.0	7.11	7.9	5.2	0	8.0	CFSO M 5–3	–	CFSOS M 5–3	–	CFSOA M 5–3	–
			4.0	7.11	7.9	5.2	0	8.0	CFSO M 5–4	**358 362**	CFSOS M 5–4	–	CFSOA M 5–4	–
			6.0	7.11	7.9	5.2	0	8.0	CFSO M 5–6	**358 363**	CFSOS M 5–6	**358 388**	CFSOA M 5–6	–
			8.0	7.11	7.9	5.2	0	8.0	CFSO M 5–8	**358 364**	CFSOS M 5–8	**358 387**	CFSOA M 5–8	–
			10.0	7.11	7.9	5.2	4.0	8.0	CFSO M 5–10	**358 365**	CFSOS M 5–10	–	CFSOA M 5–10	–
			12.0	7.11	7.9	5.2	4.0	8.0	CFSO M 5–12	–	CFSOS M 5–12	–	CFSOA M 5–12	–
			14.0	7.11	7.9	5.2	4.0	8.0	CFSO M 5–14	**358 367**	CFSOS M 5–14	–	CFSOA M 5–14	–
			16.0	7.11	7.9	5.2	8.0	8.0	CFSO M 5–16	–	CFSOS M 5–16	–	CFSOA M 5–16	–
			18.0	7.11	7.9	5.2	8.0	8.0	CFSO M 5–18	–	CFSOS M 5–18	–	CFSOA M 5–18	–
			20.0	7.11	7.9	5.2	8.0	8.0	CFSO M 5–20	–	CFSOS M 5–20	**358 386**	CFSOA M 5–20	–
			22.0	7.11	7.9	5.2	11.0	8.0	CFSO M 5–22	–	CFSOS M 5–22	–	CFSOA M 5–22	–

We reserve the right to amend specifications at any time.

Technical data see page 196



Press-in bushes with thread for metals
closed

Material

Steel zinc (CFBSO series)[2]

Stainless steel (CFBSOS series)[3]

Aluminium (CFBSOA series)[4]

Thread	Hole-ø +0.08 -0.00 [mm]	Material thick-ness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	SW (nom) [mm]	T[1] ±0.4 [mm]	min [mm]	Steel		Stainless steel		Aluminium	
								Description	Part No.	Description	Part No.	Description	Part No.
M 3	4.2	1.0	6.0	4.19	4.8	3.2	6.0	CFBSO M 3–6	**358 402**	CFBSOS M 3–6	–	CFBSOA M 3–6	–
			8.0	4.19	4.8	4.0	6.0	CFBSO M 3–8	**358 403**	CFBSOS M 3–8	**358 433**	CFBSOA M 3–8	–
			10.0	4.19	4.8	4.0	6.0	CFBSO M 3–10	**358 404**	CFBSOS M 3–10	**358 434**	CFBSOA M 3–10	–
			12.0	4.19	4.8	5.0	6.0	CFBSO M 3–12	**358 405**	CFBSOS M 3–12	**358 435**	CFBSOA M 3–12	–
			14.0	4.19	4.8	6.5	6.0	CFBSO M 3–14	**358 406**	CFBSOS M 3–14	**358 436**	CFBSOA M 3–14	–
			16.0	4.19	4.8	6.5	6.0	CFBSO M 3–16	**358 407**	CFBSOS M 3–16	–	CFBSOA M 3–16	–
			18.0	4.19	4.8	9.5	6.0	CFBSO M 3–18	**358 408**	CFBSOS M 3–18	**358 438**	CFBSOA M 3–18	–
			20.0	4.19	4.8	9.5	6.0	CFBSO M 3–20	**358 409**	CFBSOS M 3–20	–	CFBSOA M 3–20	–
			22.0	4.19	4.8	9.5	6.0	CFBSO M 3–22	**358 410**	CFBSOS M 3–22	–	CFBSOA M 3–22	–
M 3	5.4	1.0	25.0	4.19	4.8	9.5	6.0	CFBSO M 3–25	**358 421**	CFBSOS M 3–25	**358 437**	CFBSOA M 3–25	–
			6.0	5.38	6.4	3.2	7.0	CFBSO3.5 M 3–6	**358 412**	CFBSOS3.5 M 3–6	–	CFBSOA3.5 M 3–6	–
			8.0	5.38	6.4	4.0	7.0	CFBSO3.5 M 3–8	**358 413**	CFBSOS3.5 M 3–8	**358 439**	CFBSOA3.5 M 3–8	–
			9.0	5.38	6.4	4.0	7.0	CFBSO3.5 M 3–9	**358 401**	CFBSOS3.5 M 3–9	–	CFBSOA3.5 M 3–9	–
			10.0	5.38	6.4	4.0	7.0	CFBSO3.5 M 3–10	**358 414**	CFBSOS3.5 M 3–10	**358 440**	CFBSOA3.5 M 3–10	–
			10.0	5.38	6.4	4.0	7.0	CFBSO3.5 M 3–11	**358 411**	CFBSOS3.5 M 3–11	–	CFBSOA3.5 M 3–11	–
			12.0	5.38	6.4	5.0	7.0	CFBSO3.5 M 3–12	**358 415**	CFBSOS3.5 M 3–12	**358 441**	CFBSOA3.5 M 3–12	–
			14.0	5.38	6.4	6.5	7.0	CFBSO3.5 M 3–14	**358 416**	CFBSOS3.5 M 3–14	**358 442**	CFBSOA3.5 M 3–14	–
			16.0	5.38	6.4	6.5	7.0	CFBSO3.5 M 3–16	**358 417**	CFBSOS3.5 M 3–16	–	CFBSOA3.5 M 3–16	–
			18.0	5.38	6.4	9.5	7.0	CFBSO3.5 M 3–18	**358 418**	CFBSOS3.5 M 3–18	–	CFBSOA3.5 M 3–18	–
			20.0	5.38	6.4	9.5	7.0	CFBSO3.5 M 3–20	**358 419**	CFBSOS3.5 M 3–20	–	CFBSOA3.5 M 3–20	–
			22.0	5.38	6.4	9.5	7.0	CFBSO3.5 M 3–22	**358 420**	CFBSOS3.5 M 3–22	–	CFBSOA3.5 M 3–22	–
			25.0	5.38	6.4	9.5	7.0	CFBSO3.5 M 3–25	**358 448**	CFBSOS3.5 M 3–25	–	CFBSOA3.5 M 3–25	–
			25.0	5.38	6.4	9.5	7.0	CFBSO3.5 M 3–30	**358 449**	CFBSOS3.5 M 3–30	–	CFBSOA3.5 M 3–30	–

[1] *T = Thread length*

[2] *suitable for metal hardnesses up to HRB 80*

[3] *suitable for metal hardnesses up to HRB 70*

[4] *suitable for metal hardnesses up to HRB 50*

Continued next page

We reserve the right to amend specifications at any time.

Technical data see page 210

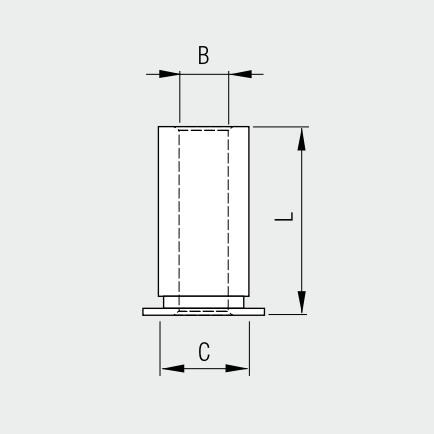
Continued

Thread	Hole-ø +0.08 -0.00 [mm]	Material thick-ness min [mm]	L +0.05 -0.13 [mm]	A +0.00 -0.13 [mm]	SW (nom) [mm]	T[1] ±0.4 [mm]	min [mm]	Steel		Stainless steel		Aluminium	
								Description	Part No.	Description	Part No.	Description	Part No.
M 3.5	5.4	1.0	8.0	5.38	6.4	4.0	7.0	CFBSO M 3.5–8	–	CFBSOS M 3.5–8	–	CFBSOA M 3.5–8	–
			10.0	5.38	6.4	4.0	7.0	CFBSO M 3.5–10	–	CFBSOS M 3.5–10	–	CFBSOA M 3.5–10	–
			12.0	5.38	6.4	5.0	7.0	CFBSO M 3.5–12	–	CFBSOS M 3.5–12	–	CFBSOA M 3.5–12	–
			14.0	5.38	6.4	6.5	7.0	CFBSO M 3.5–14	–	CFBSOS M 3.5–14	–	CFBSOA M 3.5–14	–
			16.0	5.38	6.4	6.5	7.0	CFBSO M 3.5–16	–	CFBSOS M 3.5–16	–	CFBSOA M 3.5–16	–
			18.0	5.38	6.4	9.5	7.0	CFBSO M 3.5–18	–	CFBSOS M 3.5–18	–	CFBSOA M 3.5–18	–
			20.0	5.38	6.4	9.5	7.0	CFBSO M 3.5–20	–	CFBSOS M 3.5–20	–	CFBSOA M 3.5–20	–
			22.0	5.38	6.4	9.5	7.0	CFBSO M 3.5–22	–	CFBSOS M 3.5–22	–	CFBSOA M 3.5–22	–
			25.0	5.38	6.4	9.5	7.0	CFBSO M 3.5–25	–	CFBSOS M 3.5–25	–	CFBSOA M 3.5–25	–
M 4	7.2	1.3	8.0	7.11	7.9	4.0	8.0	CFBSO M 4–8	**358 423**	CFBSOS M 4–8	**358 473**	CFBSOA M 4–8	–
			10.0	7.11	7.9	4.0	8.0	CFBSO M 4–10	**358 424**	CFBSOS M 4–10	**358 474**	CFBSOA M 4–10	–
			11.5	7.11	7.9	4.0	8.0	CFSO M 4–11.5	**358 422**	CFSOS M 4–11.5	–	CFSOA M 4–11.5	–
			12.0	7.11	7.9	5.0	8.0	CFBSO M 4–12	**358 425**	CFBSOS M 4–12	**358 475**	CFBSOA M 4–12	–
			14.0	7.11	7.9	6.5	8.0	CFBSO M 4–14	**358 426**	CFBSOS M 4–14	**358 476**	CFBSOA M 4–14	–
			16.0	7.11	7.9	6.5	8.0	CFBSO M 4–16	**358 427**	CFBSOS M 4–16	**358 477**	CFBSOA M 4–16	–
			18.0	7.11	7.9	9.5	8.0	CFBSO M 4–18	**358 428**	CFBSOS M 4–18	–	CFBSOA M 4–18	–
			20.0	7.11	7.9	9.5	8.0	CFBSO M 4–20	**358 429**	CFBSOS M 4–20	–	CFBSOA M 4–20	–
			22.0	7.11	7.9	9.5	8.0	CFBSO M 4–22	**358 430**	CFBSOS M 4–22	**358 454**	CFBSOA M 4–22	–
M 5	7.2	1.3	25.0	7.11	7.9	9.5	8.0	CFBSO M 4–25	**358 431**	CFBSOS M 4–25	**358 481**	CFBSOA M 4–25	–
			8.0	7.11	7.9	4.0	8.0	CFBSO M 5–8	–	CFBSOS M 5–8	–	CFBSOA M 5–8	–
			10.0	7.11	7.9	4.0	8.0	CFBSO M 5–10	**358 444**	CFBSOS M 5–10	–	CFBSOA M 5–10	–
			12.0	7.11	7.9	5.0	8.0	CFBSO M 5–12	**358 445**	CFBSOS M 5–12	**358 484**	CFBSOA M 5–12	–
			14.0	7.11	7.9	6.5	8.0	CFBSO M 5–14	–	CFBSOS M 5–14	–	CFBSOA M 5–14	–
			16.0	7.11	7.9	6.5	8.0	CFBSO M 5–16	**358 447**	CFBSOS M 5–16	**358 486**	CFBSOA M 5–16	–
			18.0	7.11	7.9	9.5	8.0	CFBSO M 5–18	–	CFBSOS M 5–18	**358 487**	CFBSOA M 5–18	–
			20.0	7.11	7.9	9.5	8.0	CFBSO M 5–20	–	CFBSOS M 5–20	–	CFBSOA M 5–20	–
			22.0	7.11	7.9	9.5	8.0	CFBSO M 5–22	**358 450**	CFBSOS M 5–22	–	CFBSOA M 5–22	–
			25.0	7.11	7.9	9.5	8.0	CFBSO M 5–25	**358 452**	CFBSOS M 5–25	–	CFBSOA M 5–25	–

[1] *Thread length*

We reserve the right to amend specifications at any time.

Technical data see page 210



Press-in bushes for metals

Material

Steel zinc (CFSO series)
Suitable for metal hardnesses up to HRB 80

Stainless steel (CFSOS series)
Suitable for metal hardnesses up to HRB 70

Aluminium (CFSOA series)
Suitable for metal hardnesses up to HRB 50

Bore-ø B [mm]	Hole-ø +0.08 -0.00 [mm]	Material thick-ness min [mm]	L +0.05 -0.13 [mm]	C +0.00 -0.13 [mm]	SW [mm]	min [mm]	**Steel** Description	**Steel** **Part No.**	**Stainless steel** Description	**Stainless steel** **Part No.**	**Aluminium** Description	**Aluminium** **Part No.**
3.1	4.2	1.0	3.0	4.19	4.8	6.0	CFSO 43.1–3	–	CFSOS 43.1–3	–	CFSOA 43.1–3	–
			4.0	4.19	4.8	6.0	CFSO 43.1–4	–	CFSOS 43.1–4	–	CFSOA 43.1–4	–
			6.0	4.19	4.8	6.0	CFSO 43.1–6	–	CFSOS 43.1–6	–	CFSOA 43.1–6	–
			8.0	4.19	4.8	6.0	CFSO 43.1–8	–	CFSOS 43.1–8	–	CFSOA 43.1–8	–
			10.0	4.19	4.8	6.0	CFSO 43.1–10	–	CFSOS 43.1–10	–	CFSOA 43.1–10	–
			12.0	4.19	4.8	6.0	CFSO 43.1–12	–	CFSOS 43.1–12	–	CFSOA 43.1–12	–
			14.0	4.19	4.8	6.0	CFSO 43.1–14	–	CFSOS 43.1–14	–	CFSOA 43.1–14	–
			16.0	4.19	4.8	6.0	CFSO 43.1–16	–	CFSOS 43.1–16	–	CFSOA 43.1–16	–
			18.0	4.19	4.8	6.0	CFSO 43.1–18	–	CFSOS 43.1–18	–	CFSOA 43.1–18	–
			20.0	4.19	4.8	6.0	CFSO 43.1–20	–	CFSOS 43.1–20	–	CFSOA 43.1–20	–
3.1	5.4	1.0	3.0	5.38	6.4	6.8	CFSO 63.1–3	–	CFSOS 63.1–3	–	CFSOA 63.1–3	–
			4.0	5.38	6.4	6.8	CFSO 63.1–4	–	CFSOS 63.1–4	–	CFSOA 63.1–4	–
			6.0	5.38	6.4	6.8	CFSO 63.1–6	**358 963**	CFSOS 63.1–6	–	CFSOA 63.1–6	–
			8.0	5.38	6.4	6.8	CFSO 63.1–8	–	CFSOS 63.1–8	–	CFSOA 63.1–8	–
			10.0	5.38	6.4	6.8	CFSO 63.1–10	–	CFSOS 63.1–10	–	CFSOA 63.1–10	–
			12.0	5.38	6.4	6.8	CFSO 63.1–12	–	CFSOS 63.1–12	–	CFSOA 63.1–12	–
			14.0	5.38	6.4	6.8	CFSO 63.1–14	–	CFSOS 63.1–14	–	CFSOA 63.1–14	–
			16.0	5.38	6.4	6.8	CFSO 63.1–16	–	CFSOS 63.1–16	–	CFSOA 63.1–16	–
			18.0	5.38	6.4	6.8	CFSO 63.1–18	–	CFSOS 63.1–18	–	CFSOA 63.1–18	–
			20.0	5.38	6.4	6.8	CFSO 63.1–20	–	CFSOS 63.1–20	–	CFSOA 63.1–20	–
3.6	5.4	1.0	3.0	5.38	6.4	6.8	CFSO 63.6–3	–	CFSOS 63.6–3	–	CFSOA 63.6–3	–
			4.0	5.38	6.4	6.8	CFSO 63.6–4	–	CFSOS 63.6–4	–	CFSOA 63.6–4	–
			6.0	5.38	6.4	6.8	CFSO 63.6–6	–	CFSOS 63.6–6	–	CFSOA 63.6–6	–
			8.0	5.38	6.4	6.8	CFSO 63.6–8	–	CFSOS 63.6–8	–	CFSOA 63.6–8	–
			10.0	5.38	6.4	6.8	CFSO 63.6–10	**358 967**	CFSOS 63.6–10	–	CFSOA 63.6–10	–
			12.0	5.38	6.4	6.8	CFSO 63.6–12	**358 966**	CFSOS 63.6–12	–	CFSOA 63.6–12	–
			14.0	5.38	6.4	6.8	CFSO 63.6–14	–	CFSOS 63.6–14	–	CFSOA 63.6–14	–
			16.0	5.38	6.4	6.8	CFSO 63.6–16	–	CFSOS 63.6–16	–	CFSOA 63.6–16	–
			18.0	5.38	6.4	6.8	CFSO 63.6–18	–	CFSOS 63.6–18	–	CFSOA 63.6–18	–
			20.0	5.38	6.4	6.8	CFSO 63.6–20	–	CFSOS 63.6–20	–	CFSOA 63.6–20	–

We reserve the right to amend specifications at any time.

Continued next page

Continued

Bore-ø B [mm]	Hole-ø +0.08 -0.00 [mm]	Material thick-ness min [mm]	L +0.05 -0.13 [mm]	C +0.00 -0.13 [mm]	SW [mm]	 min [mm]	Steel Description	Steel Part No.	Stainless steel Description	Stainless steel Part No.	Aluminium Description	Aluminium Part No.
3.6	7.2	1.3	3.0	7.11	7.9	8.0	CFSO 83.6–3	–	CFSOS 83.6–3	–	CFSOA 83.6–3	–
			4.0	7.11	7.9	8.0	CFSO 83.6–4	–	CFSOS 83.6–4	–	CFSOA 83.6–4	–
			6.0	7.11	7.9	8.0	CFSO 83.6–6	–	CFSOS 83.6–6	–	CFSOA 83.6–6	–
			8.0	7.11	7.9	8.0	CFSO 83.6–8	–	CFSOS 83.6–8	–	CFSOA 83.6–8	–
			10.0	7.11	7.9	8.0	CFSO 83.6–10	–	CFSOS 83.6–10	–	CFSOA 83.6–10	–
			12.0	7.11	7.9	8.0	CFSO 83.6–12	–	CFSOS 83.6–12	–	CFSOA 83.6–12	–
			14.0	7.11	7.9	8.0	CFSO 83.6–14	–	CFSOS 83.6–14	–	CFSOA 83.6–14	–
			16.0	7.11	7.9	8.0	CFSO 83.6–16	–	CFSOS 83.6–16	–	CFSOA 83.6–16	–
			18.0	7.11	7.9	8.0	CFSO 83.6–18	–	CFSOS 83.6–18	–	CFSOA 83.6–18	–
			20.0	7.11	7.9	8.0	CFSO 83.6–20	–	CFSOS 83.6–20	–	CFSOA 83.6–20	–
4.1	7.2	1.3	3.0	7.11	7.9	8.0	CFSO 84.1–3	–	CFSOS 84.1–3	–	CFSOA 84.1–3	–
			4.0	7.11	7.9	8.0	CFSO 84.1–4	–	CFSOS 84.1–4	–	CFSOA 84.1–4	–
			6.0	7.11	7.9	8.0	CFSO 84.1–6	–	CFSOS 84.1–6	–	CFSOA 84.1–6	–
			8.0	7.11	7.9	8.0	CFSO 84.1–8	–	CFSOS 84.1–8	–	CFSOA 84.1–8	–
			10.0	7.11	7.9	8.0	CFSO 84.1–10	–	CFSOS 84.1–10	–	CFSOA 84.1–10	–
			12.0	7.11	7.9	8.0	CFSO 84.1–12	–	CFSOS 84.1–12	–	CFSOA 84.1–12	–
			14.0	7.11	7.9	8.0	CFSO 84.1–14	–	CFSOS 84.1–14	–	CFSOA 84.1–14	–
			16.0	7.11	7.9	8.0	CFSO 84.1–16	–	CFSOS 84.1–16	–	CFSOA 84.1–16	–
			18.0	7.11	7.9	8.0	CFSO 84.1–18	**358 679**	CFSOS 84.1–18	–	CFSOA 84.1–18	–
			20.0	7.11	7.9	8.0	CFSO 84.1–20	–	CFSOS 84.1–20	–	CFSOA 84.1–20	–
5.1	7.2	1.3	3.0	7.11	7.9	8.0	CFSO 85.1–3	–	CFSOS 85.1–3	–	CFSOA 85.1–3	–
			4.0	7.11	7.9	8.0	CFSO 85.1–4	**358 671**	CFSOS 85.1–4	–	CFSOA 85.1–4	–
			6.0	7.11	7.9	8.0	CFSO 85.1–6	–	CFSOS 85.1–6	–	CFSOA 85.1–6	–
			8.0	7.11	7.9	8.0	CFSO 85.1–8	–	CFSOS 85.1–8	–	CFSOA 85.1–8	–
			10.0	7.11	7.9	8.0	CFSO 85.1–10	–	CFSOS 85.1–10	–	CFSOA 85.1–10	–
			12.0	7.11	7.9	8.0	CFSO 85.1–12	–	CFSOS 85.1–12	–	CFSOA 85.1–12	–
			14.0	7.11	7.9	8.0	CFSO 85.1–14	–	CFSOS 85.1–14	–	CFSOA 85.1–14	–
			16.0	7.11	7.9	8.0	CFSO 85.1–16	–	CFSOS 85.1–16	–	CFSOA 85.1–16	–
			18.0	7.11	7.9	8.0	CFSO 85.1–18	**358 678**	CFSOS 85.1–18	–	CFSOA 85.1–18	–
			20.0	7.11	7.9	8.0	CFSO 85.1–20	–	CFSOS 85.1–20	–	CFSOA 85.1–20	–

Technical data

Thread	Fastener material	Sheet material aluminium (H 34) 1.5 mm: Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]	Push-through strength [N]	Sheet material stahl 1.5 mm: Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]	Push-through strength [N]
M 3	Steel	4.7	700	1.20	1230	9.6	990	2.10	1450
	Stainless steel	4.7	700	1.20	985	9.6	990	2.10	1150
	Aluminium	4.7	700	1.20	740	–	–	–	–
M 3 / M 3.5	Steel	7.4	1310	2.79	1350	14.5	1850	3.90	1670
	Stainless steel	7.4	1310	2.79	1100	14.5	1850	3.90	1350
	Aluminium	7.4	1310	2.79	810	–	–	–	–
M 4 / M 5	Steel	10.5	1750	5.01	2550	17.6	2460	8.45	3100
	Stainless steel	10.5	1750	5.01	2020	17.6	2460	8.45	2450
	Aluminium	10.5	1750	5.01	1525	–	–	–	–

Guidelines - the precise values must be determined using the original component

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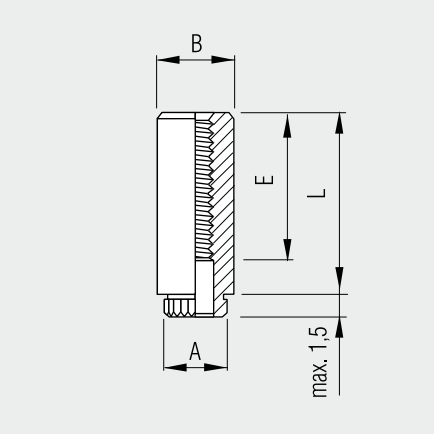


Press-in bushes for plastics
with thread

Material

Steel (CKFE series)
- Electrolytically tin plated
- Suitable for metal hardnesses up to HRB 60

Stainless steel (CKFSE series)
Suitable for metal hardnesses up to HRB 70

Thread	Hole-ø	L	A	B	E		Steel		Stainless steel	
	+0.08 -0.00 [mm]	*±0.13* [mm]	*±0.08* [mm]	*±0.13* [mm]	[1] *±0.4* [mm]	*min* [mm]	Description	**Part No.**	Description	**Part No.**
M 3	4.2	3.0	4.68	5.56	3.0	4.4	CKFE M 3–3	**358 655**	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**	CKFSE M 3–6	–
		8.0	4.68	5.56	8.0	4.4	CKFE M 3–8	**358 658**	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	–	CKFSE M 3–16	–

Technical data

Thread	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 3	2.22	200	1.35

Guidelines - the precise values must be determined using the original component

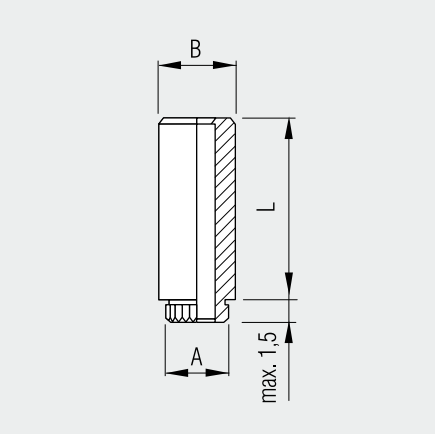
We reserve the right to amend specifications at any time.

Press-in bushes for plastics
without thread

Material

Steel electrolytically tin plated (CKFE series)
Suitable for metal hardnesses up to HRB 60

Stainless steel (CKFSE series)
Suitable for metal hardnesses up to HRB 70



Bushes ø	Hole-ø	L	A	B		**Steel**		**Stainless steel**	
+0.10 -0.08 **[mm]**	*+0.08 -0.00* [mm]	*±0.13* [mm]	*±0.08* [mm]	*±0.13* [mm]	*min* [mm]	Description	**Part No.**	Description	**Part No.**
3.6	5.4	3.0	5.87	7.14	5.5	CKFE 3.6–3	–	CKFSE 3.6–3	–
		4.0	5.87	7.14	5.5	CKFE 3.6–4	**358 964**	CKFSE 3.6–4	–
		6.0	5.87	7.14	5.5	CKFE 3.6–6	**358 969**	CKFSE 3.6–6	–
		8.0	5.87	7.14	5.5	CKFE 3.6–8	**358 968**	CKFSE 3.6–8	–
		10.0	5.87	7.14	5.5	CKFE 3.6–10	–	CKFSE 3.6–10	–
		12.0	5.87	7.14	5.5	CKFE 3.6–12	–	CKFSE 3.6–12	–
		14.0	5.87	7.14	5.5	CKFE 3.6–14	**358 987**	CKFSE 3.6–14	–
		16.0	5.87	7.14	5.5	CKFE 3.6–16	–	CKFSE 3.6–16	–
4.2	6.4	3.0	6.81	8.74	7.1	CKFE 4.2–3	–	CKFSE 4.2–3	–
		4.0	6.81	8.74	7.1	CKFE 4.2–4	–	CKFSE 4.2–4	–
		6.0	6.81	8.74	7.1	CKFE 4.2–6	–	CKFSE 4.2–6	–
		8.0	6.81	8.74	7.1	CKFE 4.2–8	–	CKFSE 4.2–8	–
		10.0	6.81	8.74	7.1	CKFE 4.2–10	–	CKFSE 4.2–10	–
		12.0	6.81	8.74	7.1	CKFE 4.2–12	–	CKFSE 4.2–12	–
		14.0	6.81	8.74	7.1	CKFE 4.2–14	–	CKFSE 4.2–14	–
		16.0	6.81	8.74	7.1	CKFE 4.2–16	–	CKFSE 4.2–16	–

Technical data (for CKFSE and CKFSE series)

	Fibre glass 1.5 mm		
Internal-ø [mm]	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
3.6	2.22	200	1.35
4.2	2.22	200	1.35

Guidelines - the precise values must be determined using the original component

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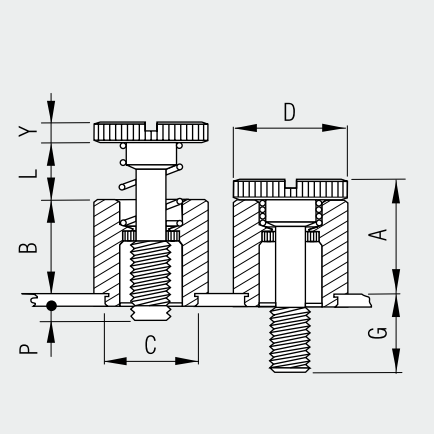


Quick-release screws for metals

Material

Stainless steel (CPFC2 series)
- Suitable for metal hardnesses up to HRB 70
- Min. material thickness 1.5 mm

Thread	Hole-ø +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]	 min [mm]	Description	Part No.
M 3	6.75	9.1	7.2	6.7	7.9	6.4	4.8	0.0	1.83	6.4	CPFC2 M 3–40	**358 744**
						9.5	4.8	3.2	1.83	6.4	CPFC2 M 3–62	**358 746**
						12.7	4.8	6.4	1.83	6.4	CPFC2 M 3–84	–
M 4	7.95	11.4	9.3	7.9	9.5	7.9	6.4	0.0	2.08	7.9	CPFC2 M 4–50	**358 745**
						11.1	6.4	3.2	2.08	7.9	CPFC2 M 4–72	**358 754**
						14.3	6.4	6.4	2.08	7.9	CPFC2 M 4–94	–
M 5	8.75	11.4	9.3	8.7	10.3	7.9	6.4	0.0	2.08	8.7	CPFC2 M 5–50	–
						11.1	6.4	3.2	2.08	8.7	CPFC2 M 5–72	–
						14.3	6.4	6.4	2.08	8.7	CPFC2 M 5–94	**358 757**
M 6	10.50	14.6	12.0	10.5	11.9	9.5	7.9	0.0	2.49	9.5	CPFC2 M 6–60	–
						12.7	7.9	3.2	2.49	9.5	CPFC2 M 6–82	–
						15.9	7.9	6.4	2.49	9.5	CPFC2 M 6–04	–

Technical data

Thread	Application material			
	Steel		**Aluminium (H 34)**	
	Press-in force [kN]	Push-out force [N]	Press-in force [kN]	Push-out force [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

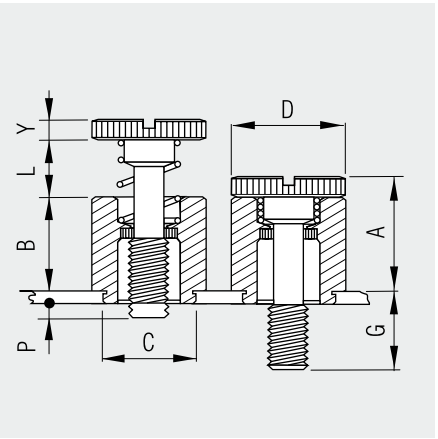
Guidelines - the precise values must be determined using the original component

We reserve the right to amend specifications at any time.

Quick-release screws for plastics

Material

Stainless steel (CPFK series)
min. material thickness 1.5 mm



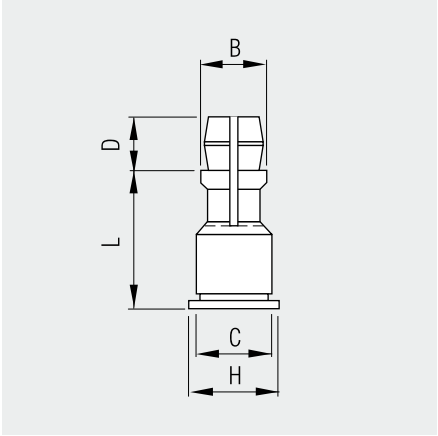
Thread	Hole-ø *+0.08 -0.00* [mm]	A *max* [mm]	B *±0.25* [mm]	C *±0.08* [mm]	D *+0.40 -0.25* [mm]	G *+0.4* [mm]	L *+0.4* [mm]	P *+0.4* [mm]	Y *±0.13* [mm]	 *min* [mm]	Description	**Part No.**
M 3	6.75	9.1	7.2	7.28	8.2	6.4	4.8	0.0	1.9	5.1	CPFK M 3–40	**358 734**
						9.5	4.8	3.2	1.9	5.1	CPFK M 3–62	–
						12.7	4.8	6.4	1.9	5.1	CPFK M 3–84	–

Technical data

Thread	Press-in force [kN]	Push-out force [N]	Torsional strength [Nm]
M 3	1.1	245	3

Guidelines - the precise values must be determined using the original component

We reserve the right to amend specifications at any time.



Spacer for metals

Material

Aluminium (CFSSA series)
Suitable for metal hardnesses up to HRB 50

Steel zinc (CFSSS series)
Suitable for metal hardnesses up to HRB 60

Stainless steel (CFSSA series)
Suitable for metal hardnesses up to HRB 70

Fastening hole for top plate [mm]	L ±0.13 [mm]	B ±0.13 [mm]	C max [mm]	D ±0.13 [mm]	H ±0.13 [mm]	Aluminium Description	Aluminium Part No.	Stainless steel Description	Stainless steel Part No.	Steel Description	Steel Part No.
4	8.0	4.77	5.38	3.58	6.35	CFSSA 4-8	**358 880**	CFSSC 4–8	**358 860**	CFSSS 4–8	**358 870**
	10.0	4.77	5.38	3.58	6.35	CFSSA 4-10	–	CFSSC 4–10	–	CFSSS 4–10	**358 875**
	12.0	4.77	5.38	3.58	6.35	CFSSA 4-12	–	CFSSC 4–12	–	CFSSS 4–12	**358 872**
	14.0	4.77	5.38	3.58	6.35	CFSSA 4-14	–	CFSSC 4–14	–	CFSSS 4–14	–
	16.0	4.77	5.38	3.58	6.35	CFSSA 4-16	–	CFSSC 4–16	–	CFSSS 4–16	**358 874**
	18.0	4.77	5.38	3.58	6.35	CFSSA 4-18	–	CFSSC 4–18	–	CFSSS 4–18	–
	20.0	4.77	5.38	3.58	6.35	CFSSA 4-20	–	CFSSC 4–20	–	CFSSS 4–20	–
	22.0	4.77	5.38	3.58	6.35	CFSSA 4-22	–	CFSSC 4–22	–	CFSSS 4–22	–
	25.0	4.77	5.38	3.58	6.35	CFSSA 4-25	–	CFSSC 4–25	–	CFSSS 4–25	–

Technical data

Type	Bottom plate						Sheet material steel 1.5 mm			
	Fastening hole for bottom plate +0.08 -0.00 [mm]	Material	Hardness max HRB	Material thickness min [mm]	min [mm]	Positional tolerance min [mm]	Fastening hole for top plate +0.08 -0.00 [mm]	Material	Material thickness [mm]	min [mm]
CFSSA	5.4	metal	HRB 50	1	6.6	± 0.013	4.0	Circuit board or metal	1 – 1.8	2.5
CFSSS	5.4	metal	HRB 60	1	6.6	± 0.013	4.0	Circuit board or metal	1 – 1.8	2.5
CFSSC	5.4	metal	HRB 70	1	6.6	± 0.013	4.0	Circuit board or metal	1 – 1.8	2.5

Technical data

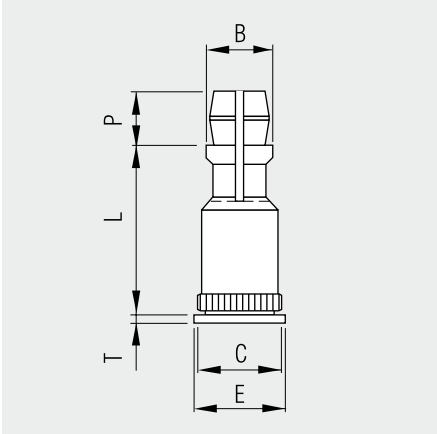
Type	Fixed plate			Movable plate		
	Material	Press-in force [kN]	Push-out force [N]	Press-in force 1 time max [N]	Push-out force 1 time min [N]	Push-out force after 15 times max [N]
CFSSA	1.0 Aluminium HRB 25	6.7	880	44	13	4
CFSSS	1.0 Aluminium HRB 25	6.7	880	89	27	9
CFSSC	1.5 Steel HRB 64	16.0	2670	89	27	9

Guidelines - the precise values must be determined using the original component We reserve the right to amend specifications at any time.

Spacer for printed circuit boards

Material

Brass (CFKSSB series)
- No surface treatment
- Suitable for metal hardnesses up to HRB 60



Fastening hole for top plate [mm]	L ±0.13 [mm]	B ±0.13 [mm]	C max [mm]	E ±0.13 [mm]	P ±0.13 [mm]	T ±0.13 [mm]	Description	Part 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	–

Technical data

Type	Bottom plate						Sheet material steel 1.5 mm			
	Fastening hole for bottom plate +0.08 -0.00 [mm]	Material	Hardness max HRB	Material thickness max [mm]	 min [mm]	Positional tolerance min [mm]	Fastening hole for top plate +0.08 -0.00 [mm]	Material	Material thickness [mm]	 min [mm]
CFKSSB	5.4	Circuit boards	HRB 65	1.25	5.6	± 0.013	4.0	Circuit board or metal	1 – 1.8	2.5

Technical data

Type	Fixed plate			Movable plate		
	Material	Press-in force [kN]	Push-out force [N]	Press-in force 1 time max [N]	Push-out force 1 time min [N]	Push-out force after 15 times max [N]
CFKSSB	1.52 FR-4 fibre glass	2.2	484	58	13	4.0

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