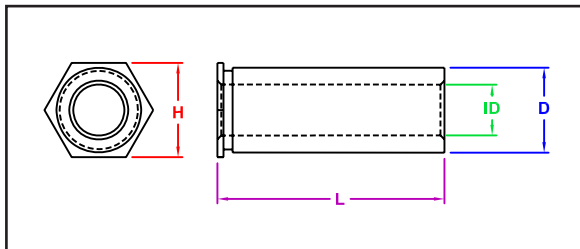


UNTHREADED THRU-HOLE STANDOFFS



Manufactured by Captive Fastener Corp



CFSSO self-clinching standoffs are designed for quick, simple installation with any standard press into a drilled or punched hole, and become permanently attached to the thin sheet metal material. They are primarily used to provide spacing of multi-panel assemblies. The unthreaded hole allows threaded studs to pass directly through the spacer to lower areas.

INCH

All Dimension are in inches

ID Thru-Hole Diameter + 0.004 - 0.003	Part Number	L Length + 0.002 in. - 0.005 in.											Hole Size +0.003 -0.000	D + 0.000 -0.005	H Nom	Min Distance to Edge	Min Mat'l Thick	
		0.125	0.188	0.250	0.313	0.375	0.438	0.500	0.563	0.625	0.688	0.750						
0.116	CFSSO4116													0.166	0.165	0.187	0.23	0.040
	CFSSOS4116	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24						
	CFSSOA4116																	
0.116	CFSSO6116													0.213	0.212	0.250	0.27	0.040
	CFSSOS6116	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24						
	CFSSOA6116																	
0.143	CFSSO6143													0.213	0.212	0.250	0.27	0.040
	CFSSOS6143	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24						
	CFSSOA6143																	
0.143	CFSSO8143													0.281	0.280	0.312	0.31	0.050
	CFSSOS8143	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24						
	CFSSOA8143																	
0.169	CFSSO8169													0.281	0.280	0.312	0.31	0.050
	CFSSOS8169	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24						
	CFSSOA8169																	
0.194	CFSSO8194													0.281	0.280	0.312	0.31	0.050
	CFSSOS8194	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24						
	CFSSOA8194																	

"PEM" is a registered trademark of Penn Engineering®. Captive Fastener Corporation parts are substitutes for the PEM part numbers in form, fit & function.

JHP Fasteners, Inc. 610 Maryland NE - Suite B Grand Rapids, MI 49505	Drawing No TSO - TH-I	P - 800.783.0910 P - 616.913.0060 F - 616.913.0085
Scale NTS	Revision	Drawn by: M McCormick

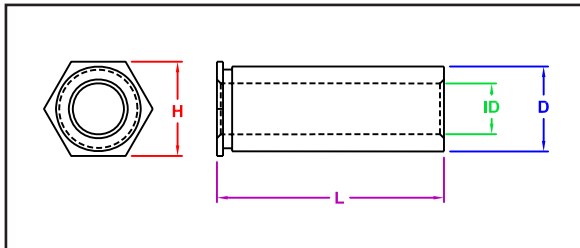
SERIES

Captive - CFSO / CFSOS / CFSOA
 PEM® - SO / SOS / SOA
 JHP Fasteners - TSO

UNTHREADED THRU-HOLE STANDOFFS



Manufactured by Captive Fastener Corp



CFSO self-clinching standoffs are designed for quick, simple installation with any standard press into a drilled or punched hole, and become permanently attached to the thin sheet metal material. They are primarily used to provide spacing of multi-panel assemblies. The unthreaded hole allows threaded studs to pass directly through the spacer to lower areas.

METRIC

All Dimension are in millimeters

ID Thru-Hole Diameter + 0.01 - 0.08	Part Number	L Length +0.05 / -0.13mm										Hole Size +0.08 -0.00	D +0.00 -0.013	H Nom	Min Distance to Edge	Min Mat'l Thick
		3	4	6	8	10	12	14	16	18	20					
3.1	CFSO43.1															
	CFSOS43.1	-3	-4	-6	-8	-10	-12	-14	-16	-18	-20	4.2	4.19	4.8	6.0	1.0
	CFSOA43.1															
3.1	CFSO63.1															
	CFSOS63.1	-3	-4	-6	-8	-10	-12	-14	-16	-18	-20	5.4	5.38	6.4	6.8	1.0
	CFSOA63.1															
3.6	CFSO63.6															
	CFSOS63.6	-3	-4	-6	-8	-10	-12	-14	-16	-18	-20	5.4	5.38	6.4	6.8	1.0
	CFSOA63.6															
3.6	CFSO83.6															
	CFSOS83.6	-3	-4	-6	-8	-10	-12	-14	-16	-18	-20	7.2	7.11	7.9	8.0	1.3
	CFSOA83.6															
4.1	CFSO84.1															
	CFSOS84.1	-3	-4	-6	-8	-10	-12	-14	-16	-18	-20	7.2	7.11	7.9	8.0	1.3
	CFSOA84.1															
5.1	CFSO85.1															
	CFSOS85.1	-3	-4	-6	-8	-10	-12	-14	-16	-18	-20	7.2	7.11	7.9	8.0	1.3
	CFSOA85.1															

"PEM" is a registered trademark of Penn Engineering®. Captive Fastener Corporation parts are substitutes for the PEM part numbers in form, fit & function.

JHP Fasteners, Inc. 610 Maryland NE - Suite B Grand Rapids, MI 49505	Drawing No TSO - TH-M	P - 800.783.0910 P - 616.913.0060 F - 616.913.0085
Scale NTS	Revision	Drawn by: M McCormick