

# Self-Clinching Concealed-Head Standoffs

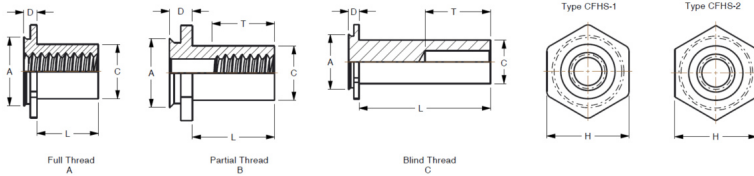
## Series CFHS



CFHS concealed head standoffs allow permanent mounting in thin metal sheets, using a hollow punch and solid anvil. The standoff is pressed permanently into a blind milled hole, with no marring of the exterior surface.

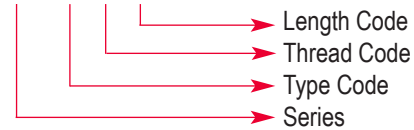
Series	Material	Finish
CFHS	300 Series Stainless Steel	Passivated ASTM A967

Thread: Internal 2B, ANSI B1.1 (6H ANSI/ASME B1.13M)  
Use in: Materials with HRB-70 or less.



Part Number Structure:

CFHS-1-440-4



### Dimensions & Specifications

	Thread Size	Type Code	Thread Code	L Length +.002 -.005 (in.)							Min. Sheet Thickness	Blind Mounting Hole Dia. +.003 -.000	Min. Depth Of Blind Hole	T Min. Depth Full Thread	D Max.	C Max.	A Max.	H Nom.	Min. Dist. Hole C/L To Edge	
				.187	.250	.312	.375	.500	.625	.750										1.00
INCH (in.)	.112-40 (#4-40)	CFHS-1	440	3 <sup>A</sup>	4 <sup>B</sup>	5 <sup>B</sup>	6 <sup>B</sup>	8 <sup>C</sup>	10 <sup>C</sup>	12 <sup>C</sup>	16 <sup>C</sup>	.062	.213	.043	.188	.041	.165	.212	.250	.188
		CFHS-2		.093	.075	.072														
	.138-32 (#6-32)	CFHS-1	632	3 <sup>A</sup>	4 <sup>A</sup>	5 <sup>B</sup>	6 <sup>B</sup>	8 <sup>C</sup>	10 <sup>C</sup>	12 <sup>C</sup>	16 <sup>C</sup>	.062	.290	.043	.250	.041	.213	.289	.312	.219
		CFHS-2		.093	.075	.072														
	.164-32 (#8-32)	CFHS-1	832 <sup>†</sup>	3 <sup>A</sup>	4 <sup>A</sup>	5 <sup>B</sup>	6 <sup>B</sup>	8 <sup>C</sup>	10 <sup>C</sup>	12 <sup>C</sup>	16 <sup>C</sup>	.062	.312	.043	.250	.041	.245	.311	.344	.250
		CFHS-2		.093	.075	.072														
.190-32 (#10-32)	CFHS-1	1032 <sup>†</sup>	3 <sup>A</sup>	4 <sup>A</sup>	5 <sup>A</sup>	6 <sup>A</sup>	8 <sup>B</sup>	10 <sup>C</sup>	12 <sup>C</sup>	16 <sup>C</sup>	.062	.344	.043	.375	.041	.290	.343	.375	.281	
	CFHS-2		.093	.075	.072															
.250-20 (1/4-20)	CFHS-2	420 <sup>†</sup>	3 <sup>A</sup>	4 <sup>A</sup>	5 <sup>A</sup>	6 <sup>A</sup>	8 <sup>B</sup>	10 <sup>B</sup>	12 <sup>C</sup>	16 <sup>C</sup>	.093	.390	.075	.375	.072	.354	.389	.438	.375	
	Thread Size	Type Code	Thread Code	L Length +.05 -.13 (mm)							Min. Sheet Thickness	Blind Mounting Hole Dia. +.08 -.00	Min. Depth Of Blind Hole	T Min. Depth Full Thread	D Max.	C Max.	A Max.	H Nom.	Min. Dist. Hole C/L To Edge	
				4	6	8	10	12	16	20										25
METRIC (mm)	M3x0.5	CFHS-1	M3	4 <sup>A</sup>	6 <sup>A</sup>	8 <sup>B</sup>	10 <sup>C</sup>	12 <sup>C</sup>	16 <sup>C</sup>	20 <sup>C</sup>	25 <sup>C</sup>	1.6	5.41	1.1	5	1.04	4.2	5.39	6.35	4.8
		CFHS-2		2.4	1.91	1.83														
	M4x0.7	CFHS-1	M4	4 <sup>A</sup>	6 <sup>A</sup>	8 <sup>B</sup>	10 <sup>B</sup>	12 <sup>C</sup>	16 <sup>C</sup>	20 <sup>C</sup>	25 <sup>C</sup>	1.6	7.92	1.1	6.5	1.04	6.23	7.9	8.74	6.4
		CFHS-2		2.4	1.91	1.83														
M5x0.8	CFHS-1	M5 <sup>†</sup>	4 <sup>A</sup>	6 <sup>A</sup>	8 <sup>B</sup>	10 <sup>B</sup>	12 <sup>B</sup>	16 <sup>C</sup>	20 <sup>C</sup>	25 <sup>C</sup>	1.6	8.74	1.1	9.6	1.04	7.37	8.72	9.53	7.2	
	CFHS-2		2.4	1.91	1.83															
M6x1	CFHS-2	M6 <sup>†</sup>	4 <sup>A</sup>	6 <sup>A</sup>	8 <sup>A</sup>	10 <sup>B</sup>	12 <sup>B</sup>	16 <sup>C</sup>	20 <sup>C</sup>	25 <sup>C</sup>	2.4	9.9	1.91	9.6	1.83	9	9.89	11.11	9.5	

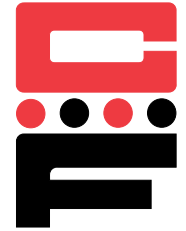
<sup>†</sup>Not stocked, available on special order.

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# Self-Clinching Concealed-Head Standoffs

## Series CFHS



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### Installation & Performance Data

	Type Code	Thread Code	Tightening Torque Max (in.-lbs.)	Test Sheet Material			
				Cold-rolled Steel		5052-H34 Aluminum	
				Installation Force (lbs.)	Pullout (lbs.)	Installation Force (lbs.)	Pullout (lbs.)
INCH (in.)	CFHS-1	440	4.75	4000	300	2800	200
		632	8.75	4500	350	3000	240
		832	18	4800	400	4000	270
		1032	32	5500	450	5000	290
	CFHS-2	440	4.75	4300	330	2900	220
		632	8.75	5000	360	3200	240
		832	18	5300	440	4000	300
		1032	32	6000	600	5000	400
		420	64	6500	650	5500	430

### Installation & Performance Data

	Type Code	Thread Code	Tightening Torque Max (N•m)	Test Sheet Material			
				Cold-rolled Steel		5052-H34 Aluminum	
				Installation Force (kN)	Pullout (N)	Installation Force (kN)	Pullout (N)
METRIC (mm)	CFHS-1	M3	.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	.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



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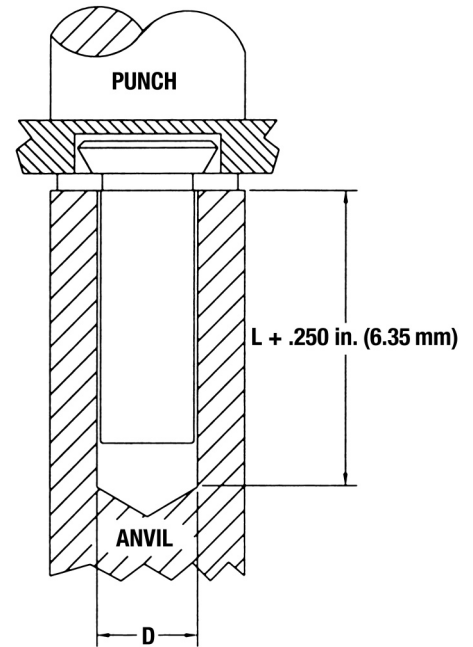
### Typical Installation Method



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#### Installation Procedure

1. Mill a blind hole in material to specified depth.
2. Place fastener into hole in anvil.
3. Place sheet material over head of fastener.
4. Apply a downward squeezing force with punch, pressing on sheet material until serrated collar of fastener is flush with surface.



\*Depth of blind holes may be greater than minimum, if sheet thickness allows.

#### Anvil 'D' Diameter Dimensions for Concealed Head Studs

	Series	Thread Code	D Dia. (in.)
INCH (in.)	CFHS	440	.170
		632	.218
		832	.250
		1032	.295
		420	.358

	Series	Thread Code	D Dia. (mm)
METRIC (mm)	CFHS	M3	4.33
		M4	6.36
		M5	7.5
		M6	9.13