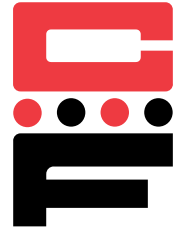


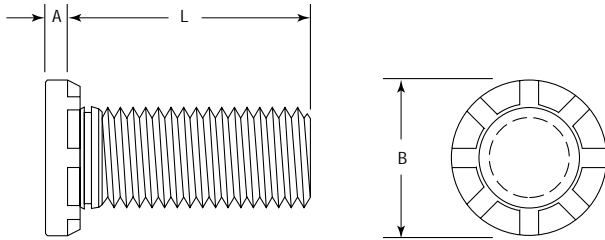


# Self-Clinching Studs

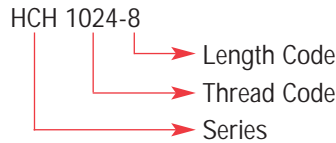
## Series HCH, HCHS & HCHB (High-Torque)



HCH high-torque studs offer advantages over weld studs and other fasteners. The heavy head configuration provides greater torque-out and improved pull-through resistance.



Part Number Structure:



Series	Material	Finish
HCH	Heat-treated Medium Carbon Steel	Zinc* Clear
HCHS	300 Series Stainless Steel	Passivated ASTM A380
HCHB	Phosphor Bronze CDA-510	None

\*Spec. ASTM B633-85

Thread: Class 2A, MIL-S-7742; (6g ISO Metric).

Use in: Cold-rolled Steel or 5052-H34 Aluminum with Rockwell Hardness as follows:

Use in: HCH- Materials with HRB-85 or less.  
HCHS- Materials with HRB-70 or less.  
HCHB- Materials with HRB-55 or less.

### Dimensions & Specifications

INCH (in.)	Thread Size	Thread Code	L Lengths ± .015 in.						Min.	+.005 -.000	Max. Hole in Attach. Parts	A Max.	B ± .01	Min.
			.500	.750	1.00	1.25	1.50	1.75						
#10-24	1024	-8	-12	-16	-20	-24	-28	.05	.190	.250	.040	.300	.415	
#10-32	1032	-8	-12	-16	-20	-24	-28*	.05	.190	.250	.040	.300	.460	
1/4-20	0420	-8	-12	-16	-20	-24	-28*	.06	.250	.312	.050	.380	.500	
5/16-18	0518	-8*	-12	-16	-20	-24	-28*	.075	.312	.375	.070	.480	.530	

\*Not stocked, available on special order.

### Dimensions & Specifications

METRIC (mm)	Thread Size	Thread Code	L Lengths ± 0.4 mm						Min.	+0.13 -0.00	Max. Hole In Attach. Parts	A Max.	B ± 2.5	Min.
			20	25	30	35	40	50						
M5X0.8	M5	-20	-25	-30				1.3	5.0	6.5	1.14	7.8	10.7	
M6X1.0	M6	-20	-25	-30	-35			1.5	6.0	7.5	1.27	9.4	11.5	
M8X1.25	M8	-20	-25	-30	-35	-40	-50	2.0	8.0	9.5	1.78	12.5	12.7	

Note: Studs are available in lengths up to 3 in. (76.2 mm) upon special order for 1/4-20/M6 and larger.

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# Self-Clinching Studs


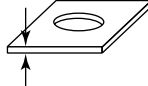




## Series HCH & HCHS

### (High-Torque)



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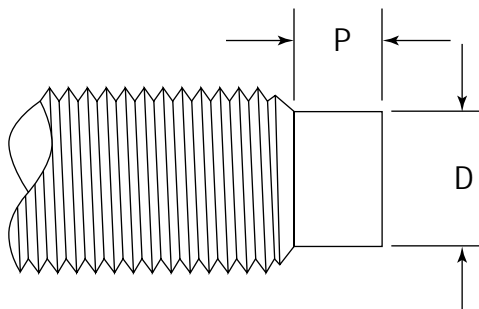
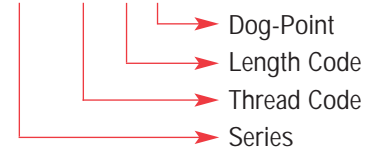
#### Installation & Performance Data

							
	Thread Code	Sheet Material & Thickness	Installation Force (lbs.)	Pushout (lbs.)	Torque-out (ft.-lbs.)	Torque-thru (ft.-lbs.)	
INCH (in.)	1024	.060 Aluminum	3000	175	4	5	
	1032	.060 Steel	6000	350	6	5	
	420	.065 Aluminum	43	5500	340	12	11
		.059 Steel	59	7000	600	12	13
	518	.091 Aluminum	39	8000	400	23	32
		.090 Steel	58	10000	650	27	32
	Thread Code	Sheet Material & Thickness	Installation Force (kN)	Pushout (N)	Torque-out (N•m)	Torque-thru (N•m)	
METRIC (mm)	M5	1.5 Aluminum	13	778	5.4	6.8	
		1.5 Steel	26	1556	8.1	6.8	
	M6	1.5 Aluminum	29	1620	16.3	17.9	
		1.5 Steel	33	2020	16.4	23.7	
	M8	2.3 Aluminum	35.6	1780	31.2	43.4	
		2.3 Steel	44.5	2890	36.6	43.4	

#### CAPTIVE® Dog-Point Studs

CAPTIVE studs are available with a dog-point end to assist the attachment of mating nuts, which is especially useful in high-speed production assembly, using motorized nut drivers. Dog-points may be specified on all CH, TCH and HCH style studs as a special order, using the following Part Number Structure:

Example: HCHS 1032-8 DP



INCH (in.)	D ±.005	P ±.010	METRIC (mm)	D ±0.13	P ±0.25
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			

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