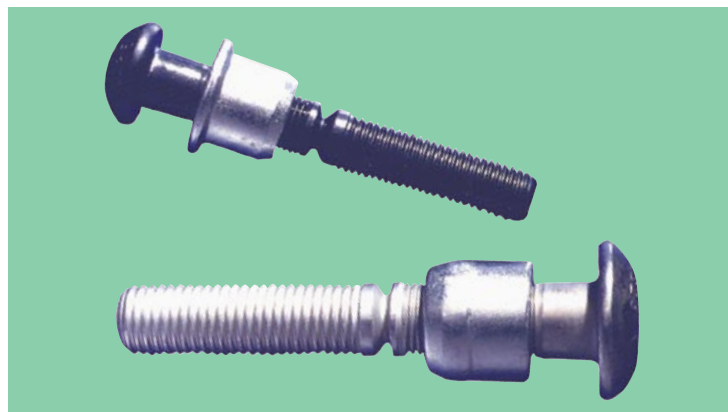
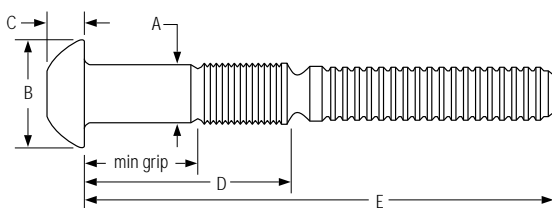


C50L[®] PowerBolt™

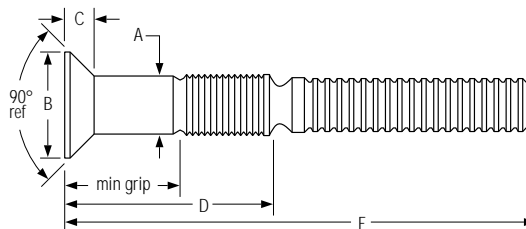
The rugged C50L[®] PowerBolt™ fastener is an alternative to Grade 5 bolts. Available in diameters ranging from 1/2" to 1-3/8", a variety of materials and head styles, the C50L[®] is ideal for applications where consistent, uniform clamp force is required.



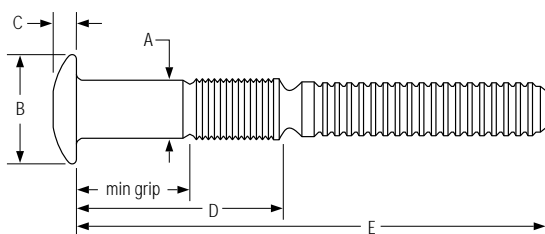
Round Head – C50LR



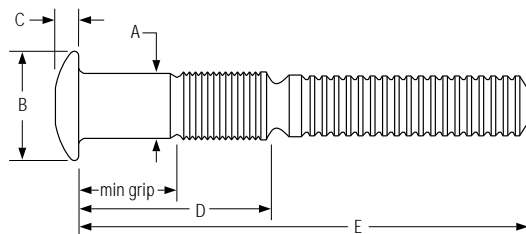
90° Flush Head – C50L90



Truss Head – C50LT



Large Truss Head – C50L30



Fastener Dimensions

Dia.	A	Round Head		Truss Head C50LT		Truss Head C50L30		90° Flush Head	
		B	C	B	C	B	C	B	C
1/2 (16)	.515 - .493	59/64	5/16	59/64	15/64	1 3/32	17/64	29/32	1/4
5/8 (20)	.642 - .617	1 9/64	25/64	1 9/64	19/64	1 3/8	21/64	1 5/32	5/16
3/4 (24)	.768 - .741	1 3/8	15/32	1 3/8	23/64			1 3/8	3/8
7/8 (28)	.895 - .866	1 19/32	35/64	1 19/32	13/32			1 19/32	7/16
1 (32)	1.022 - .990	1 53/64	39/64	1 53/64	15/32			1 27/32	1/2
1 1/8 (36)	1.149 - 1.098	2 1/16	11/16						

1 3/8 -- See RamBolt for specifications.

Installed Fastener Values¹

Dia.	Carbon Steel Pins LC-2R or 3LC-2R Collars			2024 Aluminum Pins LC-F or 3LC-F Collars			6061 Aluminum Pins LC-1 or 3LC-1 Collars			CRES Pins LC-2CU or 3LC-2CU Collars		
	Shear	Clamp	Tensile	Shear	Clamp	Tensile	Shear	Clamp	Tensile	Shear	Clamp	Tensile
1/2	14400	12050	17050	7300	5900	7850	5300	4400	4900	13900	12050	17050
5/8	22500	19200	27100	11400	9200	12300	8300	6900	7670	21000	19200	27100
3/4	32400	28400	40100	16400	13300	17700	11900	9950	11040	30300	28400	40100
7/8	43400	39250	55450									
1	56500	51500	72700									
1 1/8	69500	58450	82950									

1 3/8 -- See RamBolt for specifications.

¹ Minimum values, in pounds, of installed fasteners. Round head, in carbon steel equivalent to ASTM A325 high strength bolts. Meets requirements of MIL-P-23469.

Grip Data and Dimensions

Grip is the actual thickness of material to be fastened. Grip includes 'C' dimension on 90° flush head and 60° watertight fasteners. Grips listed are not necessarily available in every head style. Contact HUCK for grips not shown.

Tolerances: Dimension D ± 1/32, Dimension E + 3/16, -1/16

Grip No.	Grip Range min - max	1/2" Diameter (-16)		5/8" Diameter (-20)		3/4" Diameter (-24)		7/8" Diameter (-28)		1" Diameter (-32)		1 1/8" Diameter (-36)	
		D	E	D	E	D	E	D	E	D	E	D	E
4	1/4 - 1/2	1.213	3 11/64	1.433	3 21/32	1.518	4 5/32						
8	1-2 - 3/4	1.463	3 27/64	1.683	3 29/32	1.768	4 13/32	1.921	4 11/16	2.073	5 3/8		
12	3/4 - 1	1.713	3 43/64	1.933	4 5/32	2.018	4 21/32	2.171	4 15/16	2.323	5 5/8		
16	1 - 1 1/4	1.963	3 59/64	2.183	4 13/32	2.268	4 29/32	2.421	5 3/16	2.573	5 7/8		
20	1 1/4 - 1 1/2	2.213	4 11/64	2.433	4 21/32	2.518	5 5/32	2.671	5 7/16	2.823	6 1/8		
24	1 1/2 - 1 3/4	2.463	4 27/64	2.683	4 29/32	2.768	5 13/32	2.921	5 11/16	3.073	6 3/8		
28	1 3/4 - 2	2.713	4 43/64	2.933	5 5/32	3.018	5 21/32	3.171	5 15/16	3.323	6 5/8		
32	2 - 2 1/4	2.963	4 59/64	3.183	5 13/32	3.268	5 29/32	3.421	6 3/16	3.573	6 7/8		
36	2 1/4 - 2 1/2	3.213	5 11/64	3.433	5 21/32	3.518	6 5/32	3.671	6 7/16	3.823	7 1/8		
40	2 1/2 - 2 3/4	3.463	5 27/64	3.683	5 29/32	3.768	6 13/32	3.921	6 11/16	4.073	7 3/8		
44	2 3/4 - 3	3.713	5 43/64	3.933	6 5/32	4.018	6 21/32	4.171	6 15/16	4.323	7 5/8		
48	3 - 3 1/4	3.963	5 59/64	4.183	6 13/32	4.268	6 29/32	4.421	7 3/16	4.573	7 7/8		
52	3 1/4 - 3 1/2	4.213	6 11/64	4.433	6 21/32	4.518	7 5/32	4.671	7 7/16	4.823	8 1/8		
56	3 1/2 - 3 3/4	4.463	6 27/64	4.683	6 29/32	4.768	7 13/32	4.921	7 11/16	5.073	8 3/8	5.250	8 9/16
60	3 3/4 - 4	4.713	6 43/64	4.933	7 5/32	5.018	7 21/32	5.171	7 15/16	5.323	8 5/8	5.500	8 13/16
64	4 - 4 1/4	4.963	6 59/64	5.183	7 13/32	5.268	7 29/32	5.421	8 3/16	5.573	8 7/8	5.750	9 1/16
68	4 1/4 - 4 1/2	5.213	7 11/64	5.433	7 21/32	5.518	8 5/32	5.671	8 7/16	5.823	9 1/8	6.000	9 5/16
72	4 1/2 - 4 3/4	5.463	7 27/64	5.683	7 29/32	5.768	8 13/32	5.921	8 11/16	6.073	9 3/8	6.250	9 9/16
76	4 3/4 - 5	5.713	7 43/64	5.933	8 5/32	6.018	8 21/32			6.323	9 5/8	6.500	9 13/16
80	5 - 5 1/4	5.963	7 59/64							6.573	9 7/8	6.750	10 1/16
84	5 1/4 - 5 1/2									6.823	10 1/8	7.000	10 5/16
88	5 1/2 - 5 3/4									7.073	10 3/8	7.250	10 9/16
92	5 3/4 - 6									7.323	10 5/8	7.500	10 13/16

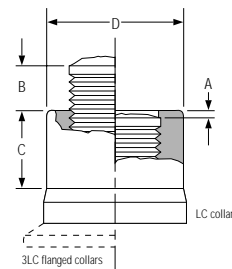
* 1 3/8 -- See RamBolt for specifications.

Inspection Data

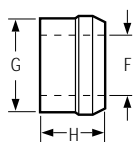
A properly installed C50L fastener will possess the dimensional characteristics tabulated below. Should the dimensions 'A' or 'B' exceed the indicated values, the fastener is being used out-of-grip. A 'C' dimension less than the values specified is an indication of incomplete swage. A 'D' dimension exceeding the tabulated values is an indication of an incorrect or worn anvil on the installation tool. The 'A' dimension can be increased to 1/8 and still meet all published values, provided there is no requirement to meet ASTM specifications pertaining to locking grooves (threads) in the shear plane.

Dia.	Pin Part No.	Collar Type LC*	Collar Type 3LC*	A max	B max	C min	D max
1/2	C50L(-)(-)16	LC-2R16G	3LC-2R16G	1/16	3/8	13/32	.733
5/8	C50L(-)(-)20	LC-2R20G	3LC-2R20G	1/16	3/8	5/8	.916
3/4	C50L(-)(-)24	LC-2R24G	3LC-2R24G	1/16	3/8	21/32	1.110
7/8	C50L(-)(-)28	LC-2R28G	3LC-2R28G	1/16	3/8	3/4	1.282
1	C50L(-)(-)32	LC-2R32G	3LC-2R32G	1/16	3/8	7/8	1.465
1 1/8	C50LR-BR36	LC-2R36G		1/16	3/8	29/32	1.646

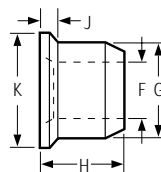
* Manufacturer's Option: 'G' or 'GA', unless specified



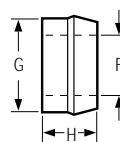
Standard Collar – LC



Flanged Collar – 3LC



Low Profile Collar – 8LC



Collar Dimensions

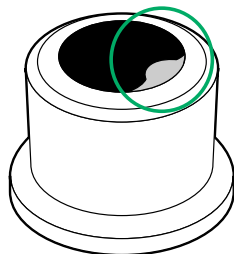
Collar	Diameter	F	G	H	J	K
LC	1/2	.515 - .540	.800 - .765	.645 - .610		
	5/8	.650 - .665	1.010 - .970	.875 - .845 ³		
	3/4	.775 - .790	1.180 - 1.165	.960 - .930		
	7/8	.910 - .935	1.375 - 1.345	1.113 - 1.083		
	1	1.025 - 1.050	1.575 - 1.535	1.275 - 1.230		
	1 1/8	1.150 - 1.180	1.770 - 1.740	1.425 - 1.385		
3LC ¹	1/2	.515 - .535	.807 - .793	.746 - .716	.156 - .094	1.031 - .969
	5/8	.650 - .665	1.010 - .970	.959 - .929	.187 - .125	1.281 - 1.218
	3/4	.775 - .790	1.200 - 1.170	1.147 - 1.117	.218 - .156	1.531 - 1.468
	7/8	.910 - .930	1.375 - 1.360	1.330 - 1.300	.250 - .187	1.625 - 1.562
	1	1.030 - 1.050	1.575 - 1.550	1.515 - 1.485	.281 - .218	1.906 - 1.843
	1 1/8	1.150 - 1.180	1.770 - 1.740	1.700 - 1.670	.312 - .250	2.156 - 2.093
8LC ²	1/2	.515 - .535	.800 - .775	.500 - .470		
	5/8	.650 - .665	1.010 - .970	.700 - .670		
	3/4	.775 - .790	1.180 - 1.165	.745 - .715		
	7/8	.910 - .930	1.375 - 1.360	.863 - .833		
	1	1.030 - 1.050	1.575 - 1.550	.980 - .950		

Installation Tooling

Dia.	Installation Tool	Nose Assembly	Type	Use
1/2	FE5901	99-5000	Hydraulic	Production
	5901	99-5002	Hydraulic	Production
5/8	585	99-5008	Hydraulic	Production
	586	99-5008	Hydraulic	Production
3/4	585	99-5010	Hydraulic	Production
	586	99-5010	Hydraulic	Production
7/8	506	99-5014	Hydraulic	Production
1	507	99-5016	Hydraulic	Production
1 1/8	507	99-5019	Hydraulic	Production
1 3/8	12142	Integral	Hydraulic	Production

Hole Data⁴

Dia.	Maximum Hole
1/2	9/16
5/8	11/16
3/4	13/16
7/8	15/16
1	1 1/16
1 1/8	1 3/16



TAB-LOK™

The Tab-Lok feature makes sure the collar stays on the pin, before installation, in overhead and down slanted pin placements. To order Tab-Lok collars refer to 'Options' in the 'How to Order' section of this brochure.

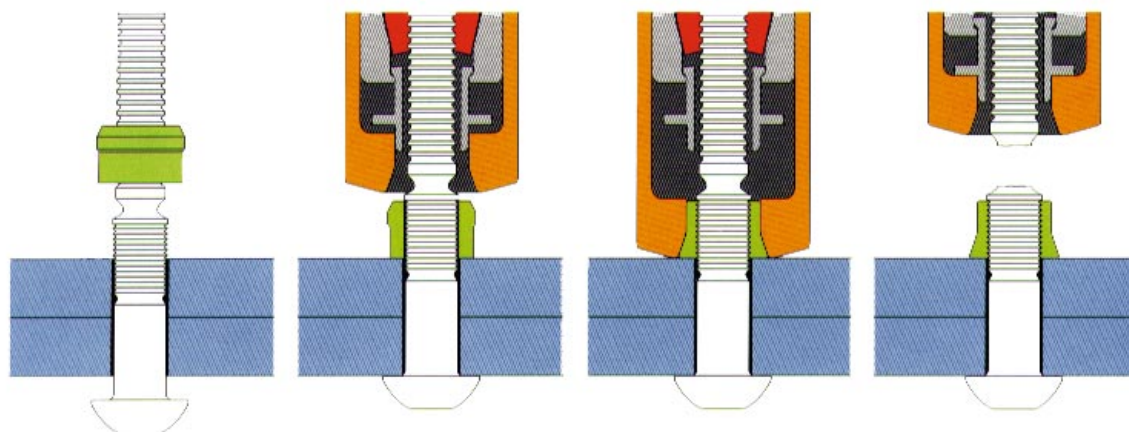
¹ When using 3LC collars, include J dimension in grip dimension to determine grip number.

² Optional collar at reduced clamping force and tensile strength. Contact HUCK for data. When using 8LC collars, subtract J dimension from grip dimension to determine grip number.

³ H length for 20(5/8) diameter in F, I or 2CU material is .805 - .770.

⁴ Except C50L60, refer to Mil-Spec MIL-P-23469.

Installation Sequence



[Click Here to view animation of installation sequence](#)

Part Number Identification

C50L Pins

Follow the form below to construct a part number for ordering C50L pins. Refer to the Grip Data chart for grip numbers.

C50L (HEAD STYLE) - (MATERIAL) (DIAMETER) - (GRIP NUMBER)

Example: **C50LR-BR16-4** is a C50L HUCKBOLT fastener, Round Head, Carbon Steel, 1/2" Diameter, Grip 4

Head Style	Material	Diameter	Grip
Round	R Carbon Steel	BR 1/2	16 Refer to Grip Data Chart
Truss	T 2024 Aluminum	C 5/8	20
90° Flush	90 6061 Aluminum	F 3/4	24
60° Flush	60 CRES ¹	U 7/8	28
		1	32
		1 1/8	36

¹ CRES fasteners are available in 16 through 24 diameters and through 36 grips only.

C50L Collars

Follow the form below to construct a part number for ordering collars for C50L pins.

(COLLAR STYLE) - (MATERIAL) (DIAMETER) (FINISH) (OPTIONS)

Example: **LC-2R16G** is a Standard Collar, Low Carbon Steel, 1/2" Diameter, Zinc Finish

Collar Style	Material	Diameter	Finishes	Options
Standard	LC Low Carbon Steel	1/2	16	Zinc G Tab-Lok L
Flanged	3LC Zinc Plated	2R 5/8	20	
Low Profile	8LC 6061 Aluminum	3/4	24	
	Aged	F 7/8	28	
	6061 Aluminum	I 1	32	
	Stainless Steel	2CU 1 1/8	36	