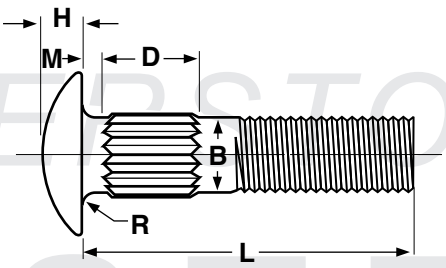

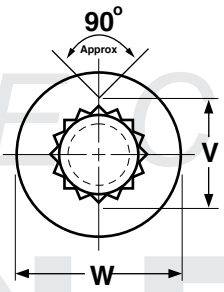

Carriage Bolts, Ribbed Neck

ASME B18.5-2008

Nominal Size or Basic Bolt Diameter		B		W		H		M		Number of Ribs Approx	V	D			R
		Body Diameter		Head Diameter		Head Height		Head to Ribs For Lengths of			Diameter Over Ribs	Depth Over Ribs For Lengths of			Fillet Radius
								7/8 and Shorter	1 in. and Longer			7/8 and Shorter	1 in. and 1-1/8	1-1/4 and Longer	
		Max	Min	Max	Min	Max	Min	Max			Min	+0.031			Max
No. 10	0.1900	0.199	0.182	0.469	0.438	0.114	0.094	0.062	0.094	9	0.210	0.250	0.407	0.594	0.031
1/4	0.2500	0.260	0.237	0.594	0.563	0.145	0.125	0.062	0.094	10	0.274	0.250	0.407	0.594	0.031
5/16	0.3125	0.324	0.298	0.719	0.688	0.176	0.156	0.062	0.094	12	0.340	0.250	0.407	0.594	0.031
3/8	0.3750	0.388	0.360	0.844	0.782	0.208	0.188	0.062	0.094	12	0.405	0.250	0.407	0.594	0.031
7/16	0.4375	0.452	0.421	0.969	0.907	0.239	0.219	0.062	0.094	14	0.470	0.250	0.407	0.594	0.031
1/2	0.5000	0.515	0.483	1.094	1.032	0.270	0.250	0.062	0.094	16	0.534	0.250	0.407	0.594	0.031
5/8	0.6250	0.642	0.605	1.344	1.219	0.344	0.313	0.125	0.125	19	0.660	0.313	0.438	0.625	0.062
3/4	0.7500	0.768	0.729	1.594	1.469	0.406	0.375	0.125	0.125	22	0.785	0.313	0.438	0.625	0.062

Tolerance on Length	Nominal Screw Size	Nominal Screw Length									
		Up to 1 in., incl.		Over 1 in. to 2 1/2 in., incl.		Over 2 1/2 in. to 4 in., incl.		Over 4 in. to 6 in., incl.		Over 6 in.	
	No. 10 thru 3/8	+0.02	-0.03	+0.02	-0.04	+0.04	-0.06	+0.06	-0.10	+0.10	-0.18
	7/16 and 1/2	+0.02	-0.03	+0.04	-0.05	+0.06	-0.08	+0.08	-0.10	+0.12	-0.18
	9/16 thru 3/4	+0.02	-0.03	+0.06	-0.08	+0.08	-0.10	+0.10	-0.10	+0.14	-0.18
	7/8 and 1	....	....	+0.08	-0.10	+0.10	-0.14	+0.12	-0.16	+0.16	-0.20
	1-1/8 thru 1-1/2	....	....	+0.12	-0.12	+0.16	-0.16	+0.18	-0.18	+0.22	-0.22

†Length of a cap screw is measured from the underhead bearing surface to the extreme end of the screw.
*Tolerance on #10 through 1/2" sizes for nominal lengths of 7/8" and shorter shall be +0.031 and -0.000.

Description	A round head bolt with a flat bearing surface which intersects with the shank at a 90° angle. Where the bearing surface and shank meet are two fins, 180° opposite each other. The bolt can be made from low or medium carbon steel.	
Applications/ Advantages	Primarily used in thin plywood to keep the bolt from turning when nut is being tightened.	Widely used in the truck and trailer industries
Material	***Low Carbon***	***Grade-5***
	Bolts shall be made from a carbon steel which conforms to the following chemical composition requirements-- *Carbon*: 0.55% maximum; *Phosphorus*: 0.060% max; *Sulfur*: 0.150% max.	AISI 1030 - 1050 or equivalent steel
Hardness	Rockwell B69 - 100	**Core**: (1/4 thru 1" diams): Rockwell C25 - C34 **Surface**: (1/4 thru 1" diams): Rockwell 30N54 max
Tensile Strength	60,000 psi. minimum	(1/4 thru 1" diams): 120,000 psi.
Yield Strength	36,000 psi. minimum	(1/4 thru 1" diams): 92,000 psi.
Elongation	18% minimum	14% minimum
Reduction of Area	35% minimum	35% minimum
Plating	See Appendix-A for plating information.	