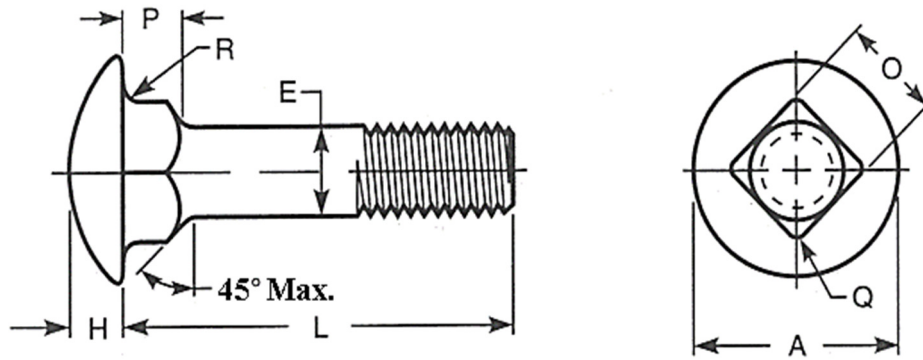


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Carriage Bolt, Grade A, Hot Dip Galvanized

This product standard contains the required dimensional, mechanical, performance, and chemical characteristics of the products shown in this purchase order (as applicable to the product). Unless specified below, current revisions of national or international standards shall be applicable as of the date of Fastenal's purchase order and must be adhered to in their entirety. If the order received does not meet these requirements, corrective action may be issued which could jeopardize your status as an approved supplier to Fastenal.



Nominal Size or Basic Bolt Diameter		E		A		H		O	
		Body Diameter		Head Diameter		Head Height		Square Width	
		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1/4	0.2500	0.260	0.213	0.594	0.563	0.145	0.125	0.260	0.245
5/16	0.3125	0.324	0.272	0.719	0.688	0.176	0.156	0.324	0.307
3/8	0.3750	0.388	0.329	0.844	0.782	0.208	0.188	0.388	0.368
7/16	0.4375	0.452	0.385	0.969	0.907	0.239	0.219	0.452	0.431
1/2	0.5000	0.515	0.444	1.094	1.032	0.270	0.250	0.515	0.492
5/8	0.6250	0.642	0.559	1.344	1.219	0.344	0.313	0.642	0.616
3/4	0.7500	0.768	0.678	1.594	1.469	0.406	0.375	0.768	0.741

Dimensions above are prior to coating

Nominal Size or Basic Bolt Diameter		P		Q	R
		Square Depth		Corner Radius on Square	Fillet Radius
		Max.	Min.	Max.	Max.
1/4	0.2500	0.156	0.125	0.031	0.031
5/16	0.3125	0.187	0.156	0.031	0.031
3/8	0.3750	0.219	0.188	0.047	0.031
7/16	0.4375	0.250	0.219	0.047	0.031
1/2	0.5000	0.281	0.250	0.047	0.031
5/8	0.6250	0.344	0.313	0.078	0.062
3/4	0.7500	0.406	0.375	0.078	0.062

Dimensions above are prior to coating

**RECORD OF REVISION CHANGES TO THIS DOCUMENT ARE LOCATED ON THE
LAST PAGE**

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Specification Requirements:

- Dimensions: ASME B18.5
Full Diameter Body on product over 12" in length.
Full or Reduced Diameter Body 6" < thru 12" lengths (Reduced body diameter having a limit equal to the minimum pitch diameter)
**Exceptions: bolts less than or equal to 6 inches in length shall be fully threaded. Bolts longer than 6" shall have 6" of full form threads.
- Material & Mechanical Properties: Grade A per ASTM A307
- Thread Requirements: ASME B1.1, UNC Class 2A prior to coating (per A307 after Galvanizing)
- Head Marking: Manufacturer ID and "307A"
- Finish: Galvanize per ASTM A153/A153M or ASTM F2329/F2329M

Note: Fastenal recognizes that the ASTM A307 requirement for these fasteners to be stress relief annealed has been frequently ignored by the industry. This practice is unacceptable and Fastenal requires these products to be produced with full compliance to this standard including stress relief annealing.

Revision Level Changes to this Document

Document Name	Revision Level	Revision Date	Rationale for Revision
CB.GRA.HDG	03	6/4/2018	Revised galvanizing specification callout.
CB.GRA.HDG	04	4/16/2019	Revised galvanizing specification callout.

The rationale above may not include all of the changes within each revision. A complete review of the Fastenal Product Standard is required.