

Reli-A-Pak® Bolt, Nut, & Gasket Sets by Reliable Fasteners, Inc.

ASTM A325

The ASTM A325 specification covers the chemical, mechanical, and dimensional requirements for heavy hex structural bolts made of quenched and tempered steel that are intended for use in structural connections. A325 bolting dimensions were formerly covered in ASME/ ANSI B18.2.1, but are now covered under ASME/ ANSI B18.2.6. These bolts are available in diameters ranging from 1/2" through 1-1/2". Because these bolts are intended for use in structural connections, the thread length is shorter than that of a standard hex bolt. A325 bolts are designated by type, denoting chemical composition.

Types	
1	Medium Carbon, Carbon Boron, or Medium Carbon Alloy Steel
2	Withdrawn November 1991.
3	Weathering Steel

Mechanical Properties							
Size	Tensile, psi, min	Yield, psi, min	Elong %, min	RA, %, min	Proof Load, psi	Rockwell Brinell	
						Min	Max
1/2" – 1"	120,000	92,000	14	35	85,000	C24 248	C35 331
1-1/8" - 1-1/2"	105,000	81,000	14	35	74,000	C19 223	C31 293

Tensile Strength: The maximum load in tension (pulling apart) that a material can withstand before breaking or fracturing.

Yield Strength: The maximum load at which a material exhibits a specific permanent deformation

Proof Load: An axial tensile load that the product must withstand without evidence of any permanent set.

Elong, %, min stands for Elongation in 2", min, % **RA, %, min** stands for reduction of area, min, %

Recommended Nuts & Flat Washers					
Nuts			Washers		
Type 1		Galvanized	Type 3		
Plain	A563 C, C3, D, DH, DH3		Plain	Type 1	Type 3
			A563 DH	A563 C3, DH3	F436-1

Note: Nuts conforming to A194 Gr. 2H are a suitable substitute

This is only a partial description of this specification, and should not be used as the only source of data. For complete and up to date information, consult the current version of this specification.