


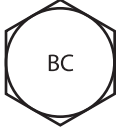



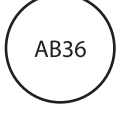
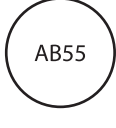




Identification	Specification	Fastener Description	Nominal Size Range	Hardness Rockwell C or B	Proof load (psi)	Yield Strength min (psi)	Tensile Strength min (psi)
	ASTM A307A	Bolts Screws Studs	1/4" thru 4"	R B 69-100	-	-	60,000 min
	SAE J429 Grade 5	Bolts Screws Studs	1/4" thru 1" 1-1/8" thru 1-1/2"	R C 25-34 R C 19-30	85,000 74,000	92,000 81,000	120,000 105,000
	ASTM A449		1/4" thru 1" 1" thru 1-1/2" 1-1/2" thru 3"	R C 25-34 R C 19-30	85,000 74,000	92,000 81,000	120,000 105,000
	ASTM A325	High Strength Structural Bolts	1/2" thru 1"	R C 25-34	85,000	92,000	120,000
			1-1/8" thru 1-1/2"	R C 19-30	74,000	81,000	105,000
	ASTM A354 Grade BC	Bolts Studs	1/4" thru 2-1/2"	R C 26-36	105,000	109,000	125,000
			2-3/4" thru 4"	R C 22-33	95,000	99,000	115,000
	SAE J429 Grade 8	Bolts Screws Studs	1/4" thru 1-1/2"	R C 33-39	120,000	130,000	150,000
	ASTM A354 Grade BD						
	ASTM A490	High Strength Structural Bolts	1/2" thru 1-1/2"	R C 33-39	120,000	130,000	150,000 min 173,000 max
	ASTM A193 Grade B7	Bolts, Screws, Studs for High Temperature	1/4" thru 2-1/2" 2-1/2" thru 4" 4" thru 7"	R C - 35 max R C - 33 max R C - 29 max	- - -	105,000 95,000 75,000	125,000 115,000 100,000
	ASTM F1554 Grade 36	Anchor Bolts Threaded Rod Studs Anchor Rods	1/4" thru 4"	-	-	36,000	58,000 min 80,000 max
	ASTM F1554 Grade 55	Anchor Bolts Threaded Rod Studs	1/4" thru 4"	-	-	55,000	75,000 min 95,000 max
	ASTM F1554 Grade 105	Anchor Bolts Threaded Rod Studs Anchor Rods	1/4" thru 4"	-	-	105,000	125,000 min 150,000 max
	Stainless Steel Type 304 and 316	Anchor Bolts Threaded Rod Studs Anchor Rods	1/4" thru 4"	Call For Your Stainless Steel Specifications			

"Some information in this chart has been extracted from the Annual Book of ASTM Standards, Copyright ASTM International"
"Reprinted with permission from SAE J429 • 1999 SAE International"