



ASTM A307

Scope - This specification covers carbon steel bolts and studs ranging from 1/4" through 4" diameter. This is your everyday, run of the mill bolt specification often manufactured using A36 round bars.

Grades	A	Headed bolts, threaded rods and bent bolts intended for general applications
	B	Heavy hex bolts and studs intended for flanged joints in piping systems with cast iron flanges

Mechanical Properties	Grade	Markings	Tensile, ksi	Yield, min, ksi	Elong %, min	Hardness
	A	307A	60 min	--	18	B69-B100
	B	307B	60 – 100	--	18	B69-B95

Chemical Properties	Element	Grade A	Grade B
	Carbon, max	0.29	0.29
	Manganese, max	1.2	1.2
	Phosphorus, max	0.04	0.04
	Sulfur, max	0.15	0.05

Recommended Mating Materials	Nuts Spec/Grade			Washers Spec/Grade
	A307 Grades A		A307 Grade B	
	1/4 - 1-1/2	1-5/8 - 4	1/4 - 4	
	A563A Hex	A563A Heavy Hex	A563A Heavy Hex	
			F844	