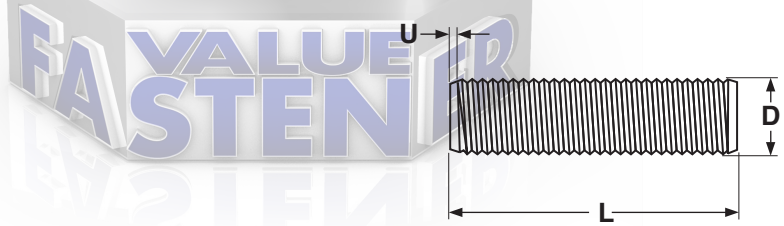

B-7 Continuous Thread Studs

ASME B18.31.2

Nominal Size	Diameter D	Threads Per Inch		U_{max} = 2 Thread Pitches	
		UNC	UNF	UNC Threads	UNF Threads
1/2	0.5000	13	20	0.154	0.100
5/8	0.6250	11	18	0.182	0.111
3/4	0.7500	10	16	0.200	0.125
7/8	0.8750	9	14	0.222	0.143
1	1.0000	8	12	0.250	0.167

Tolerance on Length	Nominal Length			
	Over 1/2 thru 2.5": ±0.04	Over 2.5 thru 4": ±0.08	Over 4 thru 8": ±0.10	Over 8 thru 16": ±0.12

Description	An externally threaded fastener without a head that is threaded over its entire length.
Applications/ Advantages	B7 studs are best suited for use in temperatures between 300° - 400° C.
Material	Bolts shall be made from a grade B7 alloy which conforms to the following chemical composition requirements-- ***Carbon***: 0.37-0.49%; ***Manganese***: 0.65-1.10%; ***Phosphorus***: 0.035% maximum; ***Sulfur***: 0.040% maximum; ***Silicon***: 0.15-0.35% ; ***Chromium***: 0.75-1.20% ; ***Molybdenum***: 0.15-0.25%
Heat Treatment	Immediately after rolling or forging, the studs are cooled to a temperature below the cooling transformation stage. Parts are then reheated to a minimum tempering temperature of 1100° F and quenched in a liquid medium.
Hardness	***Studs 2.5" in diameter and smaller:*** Rockwell C35 maximum
Yield Strength	105,000 psi. minimum
Tensile Strength	125,000 psi. minimum
Elongation in 4D	16% minimum
Plating	Studs are typically provided plain without a secondary finish.