



# Petrochemical

### Studbolt Minimum Yield Stress

<b>PETROCHEMICAL STUDS</b>									
<b>MINIMUM YIELD STRESS (lbf/in<sup>2</sup>)</b>									
Nominal Size	TPI	Stress Area	Grade	Grade	Grade	Grade	Grade	Grade	Grade
		in <sup>2</sup>	B7	B16	L7*	B8/B8M	B8 C12	B8M C12	
1/4" UNC	20	0.032	105,000	105,000	105,000	30,000	100,000	96,000	
5/16" UNC	18	0.052	105,000	105,000	105,000	30,000	100,000	96,000	
3/8" UNC	16	0.078	105,000	105,000	105,000	30,000	100,000	96,000	
7/16" UNC	14	0.106	105,000	105,000	105,000	30,000	100,000	96,000	
1/2" UNC	13	0.142	105,000	105,000	105,000	30,000	100,000	96,000	
9/16" UNC	12	0.182	105,000	105,000	105,000	30,000	100,000	96,000	
5/8" UNC	11	0.226	105,000	105,000	105,000	30,000	100,000	96,000	
3/4" UNC	10	0.334	105,000	105,000	105,000	30,000	100,000	96,000	
7/8" UNC	9	0.462	105,000	105,000	105,000	30,000	80,000	80,000	
1" UNC	8	0.606	105,000	105,000	105,000	30,000	80,000	80,000	
1-1/8" UN8	8	0.790	105,000	105,000	105,000	30,000	65,000	65,000	
1-1/4" UN8	8	1.000	105,000	105,000	105,000	30,000	65,000	65,000	
1-3/8" UN8	8	1.233	105,000	105,000	105,000	30,000	50,000	50,000	
1-1/2" UN8	8	1.492	105,000	105,000	105,000	30,000	50,000	50,000	
1-5/8" UN8	8	1.780	105,000	105,000	105,000	30,000	-	-	
1-3/4" UN8	8	2.080	105,000	105,000	105,000	30,000	-	-	
1-7/8" UN8	8	2.410	105,000	105,000	105,000	30,000	-	-	
2" UN8	8	2.770	105,000	105,000	105,000	30,000	-	-	
2-1/4" UN8	8	3.560	105,000	105,000	105,000	30,000	-	-	
2-1/2" UN8	8	4.440	105,000	105,000	105,000	30,000	-	-	
2-3/4" UN8	8	5.430	95,000	95,000	105,000	30,000	-	-	
3" UN8	8	6.510	95,000	95,000	105,000	30,000	-	-	
3-1/4" UN8	8	7.690	95,000	95,000	105,000	30,000	-	-	
3-1/2" UN8	8	8.960	95,000	95,000	105,000	30,000	-	-	
3-3/4" UN8	8	10.340	95,000	95,000	105,000	30,000	-	-	
4" UN8	8	11.810	95,000	95,000	105,000	30,000	-	-	

\* Figures for >2-1/2"UN8 are for reference only, as conforming heat numbers may be difficult to obtain.

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### Studbolt Minimum Tensile Stress

PETROCHEMICAL STUDS									
MINIMUM TENSILE STRESS (lbf/in <sup>2</sup> )									
Nominal Size	TPI	Stress Area	Grade	Grade	Grade	Grade	Grade	Grade	Grade
		in <sup>2</sup>	B7	B16	L7*	B8/B8M C11	B8 C12	B8M C12	
1/4" UNC	20	0.032	125,000	125,000	125,000	75,000	125,000	110,000	
5/16" UNC	18	0.052	125,000	125,000	125,000	75,000	125,000	110,000	
3/8" UNC	16	0.078	125,000	125,000	125,000	75,000	125,000	110,000	
7/16" UNC	14	0.106	125,000	125,000	125,000	75,000	125,000	110,000	
1/2" UNC	13	0.142	125,000	125,000	125,000	75,000	125,000	110,000	
9/16" UNC	12	0.182	125,000	125,000	125,000	75,000	125,000	110,000	
5/8" UNC	11	0.226	125,000	125,000	125,000	75,000	125,000	110,000	
3/4" UNC	10	0.334	125,000	125,000	125,000	75,000	125,000	110,000	
7/8" UNC	9	0.462	125,000	125,000	125,000	75,000	115,000	100,000	
1" UNC	8	0.606	125,000	125,000	125,000	75,000	115,000	100,000	
1-1/8" UN8	8	0.790	125,000	125,000	125,000	75,000	105,000	95,000	
1-1/4" UN8	8	1.000	125,000	125,000	125,000	75,000	105,000	95,000	
1-3/8" UN8	8	1.233	125,000	125,000	125,000	75,000	100,000	90,000	
1-1/2" UN8	8	1.492	125,000	125,000	125,000	75,000	100,000	90,000	
1-5/8" UN8	8	1.780	125,000	125,000	125,000	75,000	-	-	
1-3/4" UN8	8	2.080	125,000	125,000	125,000	75,000	-	-	
1-7/8" UN8	8	2.410	125,000	125,000	125,000	75,000	-	-	
2" UN8	8	2.770	125,000	125,000	125,000	75,000	-	-	
2-1/4" UN8	8	3.560	125,000	125,000	125,000	75,000	-	-	
2-1/2" UN8	8	4.440	125,000	125,000	125,000	75,000	-	-	
2-3/4" UN8	8	5.430	115,000	110,000	125,000	75,000	-	-	
3" UN8	8	6.510	115,000	110,000	125,000	75,000	-	-	
3-1/4" UN8	8	7.690	115,000	110,000	125,000	75,000	-	-	
3-1/2" UN8	8	8.960	115,000	110,000	125,000	75,000	-	-	
3-3/4" UN8	8	10.340	115,000	110,000	125,000	75,000	-	-	
4" UN8	8	11.810	115,000	110,000	125,000	75,000	-	-	

\* Figures for >2-1/2"UN8 are for reference only, as conforming heat numbers may be difficult to obtain.

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### Studbolt Minimum Proof Load

PETROCHEMICAL STUDS MINIMUM PROOF LOAD (lbf)									
Nominal Size	TPI	Stress Area	Grade	Grade	Grade	Grade	Grade	Grade	Grade
		in <sup>2</sup>	B7	B16	L7*	B8/B8M	B8 CI2	B8M CI2	
1/4" UNC	20	0.032	3,339	3,339	3,339	954	3,180	3,053	
5/16" UNC	18	0.052	5,502	5,502	5,502	1,572	5,240	5,030	
3/8" UNC	16	0.078	8,138	8,138	8,138	2,325	7,750	7,440	
7/16" UNC	14	0.106	11,162	11,162	11,162	3,189	10,630	10,205	
1/2" UNC	13	0.142	14,900	14,900	14,900	4,257	14,190	13,622	
9/16" UNC	12	0.182	19,110	19,110	19,110	5,460	18,200	17,472	
5/8" UNC	11	0.226	23,730	23,730	23,730	6,780	22,600	21,696	
3/4" UNC	10	0.334	35,070	35,070	35,070	10,020	33,400	32,064	
7/8" UNC	9	0.462	48,510	48,510	48,510	13,860	36,960	36,960	
1" UNC	8	0.606	63,630	63,630	63,630	18,180	48,480	48,480	
1-1/8" UN8	8	0.790	82,950	82,950	82,950	23,700	51,350	51,350	
1-1/4" UN8	8	1.000	105,000	105,000	105,000	30,000	65,000	65,000	
1-3/8" UN8	8	1.233	129,465	129,465	129,465	36,990	61,650	61,650	
1-1/2" UN8	8	1.492	156,660	156,660	156,660	44,760	74,600	74,600	
1-5/8" UN8	8	1.780	186,900	186,900	186,900	53,400	-	-	
1-3/4" UN8	8	2.080	218,400	218,400	218,400	62,400	-	-	
1-7/8" UN8	8	2.410	253,050	253,050	253,050	72,300	-	-	
2" UN8	8	2.770	290,850	290,850	290,850	83,100	-	-	
2-1/4" UN8	8	3.560	373,800	373,800	373,800	106,800	-	-	
2-1/2" UN8	8	4.440	466,200	466,200	466,200	133,200	-	-	
2-3/4" UN8	8	5.430	515,850	515,850	570,150	162,900	-	-	
3" UN8	8	6.510	618,450	618,450	683,550	195,300	-	-	
3-1/4" UN8	8	7.690	730,550	730,550	807,450	230,700	-	-	
3-1/2" UN8	8	8.960	851,200	851,200	940,800	268,800	-	-	
3-3/4" UN8	8	10.340	982,300	982,300	1,085,700	310,200	-	-	
4" UN8	8	11.810	1,121,950	1,121,950	1,240,050	354,300	-	-	

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# Petrochemical

Studbolt Minimum Ultimate Tensile Load

<b>PETROCHEMICAL STUDS</b>									
<b>MINIMUM ULTIMATE TENSILE LOAD (lbf)</b>									
Nominal Size	TPI	Stress Area	Grade	Grade	Grade	Grade	Grade	Grade	Grade
		in <sup>2</sup>	B7	B16	L7*	B8/B8M	B8 CI2	B8M CI2	
1/4" UNC	20	0.032	3,975	3,975	3,975	2,385	3,975	3,498	
5/16" UNC	18	0.052	6,550	6,550	6,550	3,930	6,550	5,764	
3/8" UNC	16	0.078	9,688	9,688	9,688	5,813	9,688	8,525	
7/16" UNC	14	0.106	13,288	13,288	13,288	7,973	13,288	11,693	
1/2" UNC	13	0.142	17,738	17,738	17,738	10,643	17,738	15,609	
9/16" UNC	12	0.182	22,750	22,750	22,750	13,650	22,750	20,020	
5/8" UNC	11	0.226	28,250	28,250	28,250	16,950	28,250	24,860	
3/4" UNC	10	0.334	41,750	41,750	41,750	25,050	41,750	36,740	
7/8" UNC	9	0.462	57,750	57,750	57,750	34,650	53,130	46,200	
1" UNC	8	0.606	75,750	75,750	75,750	45,450	69,690	60,600	
1-1/8" UN8	8	0.790	98,750	98,750	98,750	59,250	82,950	75,050	
1-1/4" UN8	8	1.000	125,000	125,000	125,000	75,000	105,000	95,000	
1-3/8" UN8	8	1.233	154,125	154,125	154,125	92,475	123,300	110,970	
1-1/2" UN8	8	1.492	186,500	186,500	186,500	111,900	149,200	134,280	
1-5/8" UN8	8	1.780	222,500	222,500	222,500	133,500	-	-	
1-3/4" UN8	8	2.080	260,000	260,000	260,000	156,000	-	-	
1-7/8" UN8	8	2.410	301,250	301,250	301,250	180,750	-	-	
2" UN8	8	2.770	346,250	346,250	346,250	207,750	-	-	
2-1/4" UN8	8	3.560	445,000	445,000	445,000	267,000	-	-	
2-1/2" UN8	8	4.440	555,000	555,000	555,000	333,000	-	-	
2-3/4" UN8	8	5.430	624,450	597,300	678,750	407,250	-	-	
3" UN8	8	6.510	748,650	716,100	813,750	488,250	-	-	
3-1/4" UN8	8	7.690	884,350	845,900	961,250	576,750	-	-	
3-1/2" UN8	8	8.960	1,030,400	985,600	1,120,000	672,000	-	-	
3-3/4" UN8	8	10.340	1,189,100	1,137,400	1,292,500	775,500	-	-	
4" UN8	8	11.810	1,358,150	1,299,100	1,476,250	885,750	-	-	

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