



# Petrochemical

## Studbolt Minimum Yield Stress

### PETROCHEMICAL STUDS - MINIMUM YIELD STRESS (lbf/in<sup>2</sup>)

Nominal Size	TPI	Stress Area in <sup>2</sup>	Grade B7	Grade B16	Grade L7*	Grade B8/B8M	Grade B8 Cl2	Grade B8M Cl2
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 in <sup>2</sup>	Grade B7	Grade B16	Grade L7*	Grade B8/B8M Cl 1	Grade B8 Cl2	Grade B8M Cl2
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 in <sup>2</sup>	Grade B7	Grade B16	Grade L7*	Grade B8/B8M	Grade B8 Cl2	Grade B8M Cl2
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	-	-



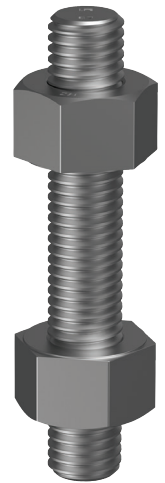
\* Figures for >2-1/2"UN8 are for reference only, as conforming heat numbers may be difficult to obtain



# Petrochemical

Studbolt Minimum Ultimate Tensile Load

PETROCHEMICAL STUDS - MINIMUM ULTIMATE TENSILE LOAD (lbf)								
Nominal Size	TPI	Stress Area in <sup>2</sup>	Grade B7	Grade B16	Grade L7*	Grade B8/B8M	Grade B8 Cl2	Grade B8M Cl2
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	-	-



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