



Petrochemical

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# Petrochemical 6ft Allthread

ASTM A193 / A193M  
ASTM A320 / A320M

## UNC B<sup>7</sup> & L<sup>7</sup> 6FT ALLTHREAD

B7 ASTM A193/A193M / L7 ASTM A320/A320M (Service Conditions Min: -100°C Max: 400°C)

Part	Size	6ft Wgt (Kg)	B7 Tensile Strength (MPA)	B7 Yield Strength (MPA)	L7 Tensile Strength (MPA)	L7 Yield Strength (MPA)
			minimum	min. 0.2% offset	minimum	min. 0.2% offset
APB7PC0251829	1/4"	0.33	860	720	-	-
APB7PC0311829	5/16"	0.54	860	720	-	-
AP?7PC0371829	3/8"	0.81	860	720	860	725
AP?7PC0431829	7/16"	1.09	860	720	860	725
AP?7PC0501829	1/2"	1.46	860	720	860	725
APB7PC0561829	9/16"	1.78	860	720	-	-
AP?7PC0621829	5/8"	2.31	860	720	860	725
AP?7PC0751829	3/4"	3.39	860	720	860	725
AP?7PC0871829	7/8"	4.64	860	720	860	725
AP?7PC1001829	1"	6.09	860	720	860	725
APB7PC1121829	1 1/8"	7.74	860	720	-	-
APB7PC1251829	1 1/4"	9.65	860	720	-	-
APB7PC1501829	1 1/2"	13.96	860	720	-	-
APB7PC1751829	1 3/4"	19.00	860	720	-	-

## UN<sup>8</sup> B<sup>7</sup> & L<sup>7</sup> 6FT ALLTHREAD

B7 ASTM A193/A193M / L7 ASTM A320/A320M (Service Conditions Min: -100°C Max: 400°C)

Part	Size	6ft Wgt (Kg)	B7 Tensile Strength (MPA)	B7 Yield Strength (MPA)	L7 Tensile Strength (MPA)	L7 Yield Strength (MPA)
			minimum	min. 0.2% offset	minimum	min. 0.2% offset
AP?7PU1121829	1 1/8"	7.85	860	720	860	725
AP?7PU1251829	1 1/4"	9.86	860	720	860	725
APB7PU1371829	1 3/8"	12.09	860	720	-	-
APB7PU1501829	1 1/2"	14.64	860	720	-	-
APB7PU1621829	1 5/8"	17.21	860	720	-	-
APB7PU1751829	1 3/4"	20.14	860	720	-	-
APB7PU1871829	1 7/8"	23.26	860	720	-	-
APB7PU2001829	2"	26.65	860	720	-	-
APB7PU2251829	2 1/4"	34.07	860	720	-	-
APB7PU2501829	2 1/2"	42.47	860	720	-	-
APB7PU2751829	2 3/4"	51.65	795	655	-	-
APB7PU3001829	3"	61.90	795	655	-	-
APB7PU3501829	3 1/2"	84.97	795	655	-	-

? = B: B7 L: L7



Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# Petrochemical 6ft Allthread

ASTM A193 / A193M

ASTM A320 / A320M

## UNF B<sup>7</sup> 6FT ALLTHREAD

B7 ASTM A193/A193M / L7 ASTM A320/A320M (Service Conditions Min: -100°C Max: 400°C)

Part	Size	6ft Wgt (Kg)	B7 Tensile Strength (MPA)	B7 Yield Strength (MPA)
			minimum	min. 0.2% offset
APB7PF0501829	1/2"	1.56	860	720
APB7PF0621829	5/8"	2.39	860	720
APB7PF0751829	3/4"	3.60	860	720
APB7PF0871829	7/8"	4.94	860	720
APB7PF1001829	1"	6.37	860	720
APB7PF1121829	1 1/8"	8.30	860	720
APB7PF1251829	1 1/4"	9.96	860	720
APB7PF1501829	1 1/2"	15.18	860	720

## BSF B<sup>7</sup> 6FT ALLTHREAD

B7 ASTM A193/A193M / L7 ASTM A320/A320M (Service Conditions Min: -100°C Max: 400°C)

Part	Size	6ft Wgt (Kg)	B7 Tensile Strength (MPA)	B7 Yield Strength (MPA)
			minimum	min. 0.2% offset
APB7PS0501829	1/2"	1.56	860	720
APB7PS0621829	5/8"	2.39	860	720
APB7PS0751829	3/4"	3.49	860	720
APB7PS0871829	7/8"	4.82	860	720
APB7PS1001829	1"	6.37	860	720
APB7PS1121829	1 1/8"	8.30	860	720

## BSW B<sup>7</sup> 6FT ALLTHREAD

B7 ASTM A193/A193M / L7 ASTM A320/A320M (Service Conditions Min: -100°C Max: 400°C)

Part	Size	6ft Wgt (Kg)	B7 Tensile Strength (MPA)	B7 Yield Strength (MPA)
			minimum	min. 0.2% offset
APB7PW0501829	1/2"	1.42	860	720



# Petrochemical 6ft Allthread

ASTM A193 / A193M

ASTM A320 / A320M

## METRIC B7 6FT ALLTHREAD

B7 ASTM A193/A193M (Service Conditions Min: -100°C Max: 400°C)

Part	Size	6ft Wgt (Kg)	B7 Tensile Strength (MPA)	B7 Yield Strength (MPA)
			minimum	min. 0.2% offset
APB7PCM <sup>101829</sup>	M10	0.89	860	720
APB7PCM121829	M12	1.29	860	720
APB7PCM161829	M16	2.40	860	720
APB7PCM201829	M20	3.76	860	720
APB7PCM221829	M22	4.62	860	720
APB7PCM241829	M24	5.43	860	720
APB7PCM271829	M27	7.01	860	720
APB7PCM301829	M30	8.60	860	720
APB7PCM331829	M33	10.43	860	720
APB7PCM361829	M36	12.50	860	720
APB7PCM391829	M39	14.85	860	720
APB7PCM421829	M42	17.10	860	720
APB7PCM481829	M48	22.45	860	720

## UNC L7M 6FT ALLTHREAD

L7M ASTM A320/A320M

Part	Size	6ft Wgt (Kg)	L7M Tensile Strength (MPA)	L7M Yield Strength (MPA)	L7M Hardness (HRB)
			minimum	min. 0.2% offset	maximum
AP7MPC0501829	1/2"	1.46	690	550	99
AP7MPC0621829	5/8"	2.31	690	550	99
AP7MPC0751829	3/4"	3.39	690	550	99
AP7MPC0871829	7/8"	4.64	690	550	99
AP7MPC1001829	1"	6.09	690	550	99



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# Petrochemical 6ft Allthread

ASTM A193 / A193M

## UNC B<sup>16</sup> 6FT ALLTHREAD

B16 ASTM A193 / A193M (Service Conditions Min: 0°C Max: 520°C)

Part	Size	Net Wgt (Kg)	B16 Tensile Strength (MPA)	B16 Yield Strength (MPA)
			minimum	min. 0.2% offset
APBBPC <sup>0371829</sup>	3/8"	0.81	860	725
APBBPC0431829	7/16"	1.09	860	725
APBBPC0501829	1/2"	1.46	860	725
APBBPC0621829	5/8"	2.31	860	725
APBBPC0751829	3/4"	3.39	860	725
APBBPC0871829	7/8"	4.64	860	725
APBBPC1001829	1"	6.09	860	725

## UN<sup>8</sup> B<sup>16</sup> 6FT ALLTHREAD

B16 ASTM A193 / A193M (Service Conditions Min: 0°C Max: 520°C)

Part	Size	Net Wgt (Kg)	B16 Tensile Strength (MPA)	B16 Yield Strength (MPA)
			minimum	min. 0.2% offset
APBBPU1121829	1 1/8"	7.85	860	725
APBBPU1251829	1 1/4"	9.86	860	725
APBBPU1371829	1 3/8"	12.09	860	725
APBBPU1501829	1 1/2"	14.64	860	725
APBBPU1621829	1 5/8"	17.21	860	725
APBBPU1751829	1 3/4"	20.14	860	725
APBBPU1871829	1 7/8"	23.26	860	725
APBBPU2001829	2"	26.65	860	725
APBBPU2501829	2 1/2"	42.47	860	725
APBBPU3001829	3"	61.90	860	725
APBBPU3501829	3 1/2"	84.97	860	725

## METRIC B<sup>16</sup> 6FT ALLTHREAD

B16 ASTM A193 / A193M (Service Conditions Min: 0°C Max: 520°C)

Part	Size	Net Wgt (Kg)	B16 Tensile Strength (MPA)	B16 Yield Strength (MPA)
			minimum	min. 0.2% offset
APBBPCM121829	M12	1.57	860	725
APBBPCM161829	M16	2.60	860	725
APBBPCM201829	M20	3.71	860	725
APBBPCM221829	M22	5.09	860	725
APBBPCM241829	M24	6.69	860	725
APBBPCM301829	M30	13.78	860	725



# Petrochemical 6ft Allthread

ASTM A193 / A193M

## UNC / UN<sup>8</sup> B<sup>6</sup> 6FT ALLTHREAD

B6 ASTM A193 / A193M (Service Conditions Min: 0°C Max: 500°C)

Part	Size	Thread	6ft Wgt (Kg)	B6 Tensile Strength (MPA)	B6 Yield Strength (MPA)
				minimum	min. 0.2% offset
APB6PC0371829	3/8"	UNC	0.81	760	585
APB6PC0501829	1/2"	UNC	1.46	760	585
APB6PC0621829	5/8"	UNC	2.31	760	585
APB6PC0751829	3/4"	UNC	3.39	760	585
APB6PC0871829	7/8"	UNC	4.64	760	585
APB6PC1001829	1"	UNC	6.09	760	585
APB6PU1121829	1 1/8"	UN8	7.85	760	585
APB6PU1251829	1 1/4"	UN8	9.86	760	585
APB6PU1501829	1 1/2"	UN8	14.64	760	585

## UNC B<sup>8</sup> 6FT ALLTHREAD

B8 CLASS 1 & CLASS 2 ASTM A193 / A193M (Service Conditions Min: -250°C Max: 575°C)

Part	Size	6ft Wgt (Kg)	B8 Tensile Strength (MPA)	B8 Yield Strength (MPA)	B8(2) Tensile Strength (MPA)	B8(2) Yield Strength (MPA)
			minimum	min. 0.2% offset	minimum	min. 0.2% offset
APB8PC0371829	3/8"	0.81	515	205	-	-
AP??PC0501829	1/2"	1.46	515	205	860	690
AP??PC0621829	5/8"	2.31	515	205	860	690
AP??PC0751829	3/4"	3.39	515	205	860	690
AP??PC0871829	7/8"	4.64	515	205	795	550
AP??PC1001829	1"	6.09	515	205	795	550

## UN<sup>8</sup> B<sup>8</sup> 6FT ALLTHREAD

B8 CLASS 1 & CLASS 2 ASTM A193 / A193M (Service Conditions Min: -250°C Max: 575°C)

Part	Size	6ft Wgt (Kg)	B8 Tensile Strength (MPA)	B8 Yield Strength (MPA)	B8(2) Tensile Strength (MPA)	B8(2) Yield Strength (MPA)
			minimum	min. 0.2% offset	minimum	min. 0.2% offset
AP??PU1121829	1 1/8"	7.85	515	205	725	450
AP??PU1251829	1 1/4"	9.86	515	205	725	450

?? = B8: B8 Class 1      82: B8 Class 2



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# Petrochemical 6ft Allthread

ASTM A193 / A193M

## UNC B<sup>8</sup>M 6FT ALLTHREAD

B8M CLASS 1 & CLASS 2 ASTM A193 / A193M (Service Conditions Min: -250°C Max: 600°C)

Part	Size	6ft Wgt (Kg)	B8M Tensile Strength (MPA)	B8M Yield Strength (MPA)	B8M(2) Tensile Strength (MPA)	Yield Strength (MPA)
			minimum	min. 0.2% offset	minimum	min. 0.2% offset
AP8MPC0371829	3/8"	0.81	515	205	-	-
APM2PC0431829	7/16"	1.09	-	-	760	655
AP??PC0501829	1/2"	1.46	515	205	760	655
APM2PC0561829	9/16"	1.78	-	-	760	655
AP??PC0621829	5/8"	2.31	515	205	760	655
AP??PC0751829	3/4"	3.39	515	205	760	655
AP??PC0871829	7/8"	4.64	515	205	690	550
AP??PC1001829	1"	6.09	515	205	690	550

## UN<sup>8</sup> B<sup>8</sup>M 6FT ALLTHREAD

B8M CLASS 1 & CLASS 2 ASTM A193 / A193M (Service Conditions Min: -250°C Max: 600°C)

Part	Size	6ft Wgt (Kg)	B8M Tensile Strength (MPA)	B8M Yield Strength (MPA)	B8M(2) Tensile Strength (MPA)	B8M(2) Yield Strength (MPA)
			minimum	min. 0.2% offset	minimum	min. 0.2% offset
AP??PU1121829	1 1/8"	7.85	515	205	655	450
AP??PU1251829	1 1/4"	9.86	515	205	655	450
AP8MPU1371829	1 3/8"	12.09	515	205	-	-
AP??PU1501829	1 1/2"	15.38	515	205	620	345
AP8MPU1621829	1 5/8"	17.21	515	205	-	-
AP8MPU1751829	1 3/4"	20.14	515	205	-	-
AP8MPU1871829	1 7/8"	23.26	515	205	-	-

?? = 8M: B8M Class 1    M2: B8M Class 2

## UNC / UN<sup>8</sup> B<sup>8</sup>T 1MTR ALLTHREAD

B8T ASTM A193 / A193M (Service Conditions Min: -250°C Max: 575°C)

Part	Size	Thread	1mtr Wgt (Kg)	B8T Tensile Strength (MPA)	B8T Yield Strength (MPA)
				minimum	min. 0.2% offset
AP8TPC0501000	1/2"	UNC	0.79	515	205
AP8TPC0621000	5/8"	UNC	1.30	515	205
AP8TPC0751000	3/4"	UNC	1.86	515	205
AP8TPC0871000	7/8"	UNC	2.55	515	205
AP8TPC1001000	1"	UNC	3.35	515	205
AP8TPU1121000	1 1/8"	UN8	5.70	515	205
AP8TPU1251000	1 1/4"	UN8	6.90	515	205
AP8TPU1501000	1 1/2"	UN8	8.00	515	205



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 1/2" UNC B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PC0500050	1/2"	50	2"	0.04	0.10
SPB7PC0500060	1/2"	60	2 1/4"	0.05	0.11
SPB7PC0500065	1/2"	65	2 1/2"	0.05	0.11
SPB7PC0500070	1/2"	70	2 3/4"	0.06	0.12
SPB7PC0500075	1/2"	75	3"	0.06	0.12
SPB7PC0500080	1/2"	80	3 1/4"	0.06	0.12
SPB7PC0500090	1/2"	90	3 1/2"	0.07	0.13
SPB7PC0500095	1/2"	95	3 3/4"	0.08	0.14
SPB7PC0500100	1/2"	100	4"	0.08	0.14
SPB7PC0500110	1/2"	110	4 1/4"	0.09	0.15
SPB7PC0500115	1/2"	115	4 1/2"	0.09	0.15
SPB7PC0500120	1/2"	120	4 3/4"	0.10	0.16
SPB7PC0500125	1/2"	125	5"	0.10	0.16
SPB7PC0500130	1/2"	130	5 1/4"	0.10	0.16
SPB7PC0500140	1/2"	140	5 1/2"	0.11	0.17
SPB7PC0500145	1/2"	145	5 3/4"	0.12	0.18
SPB7PC0500150	1/2"	150	6"	0.12	0.18
SPB7PC0500160	1/2"	160	6 1/4"	0.13	0.19
SPB7PC0500165	1/2"	165	6 1/2"	0.13	0.19
SPB7PC0500170	1/2"	170	6 3/4"	0.14	0.20
SPB7PC0500180	1/2"	180	7"	0.14	0.20
SPB7PC0500185	1/2"	185	7 1/4"	0.15	0.21
SPB7PC0500190	1/2"	190	7 1/2"	0.15	0.21
SPB7PC0500195	1/2"	195	7 3/4"	0.16	0.22
SPB7PC0500200	1/2"	200	8"	0.16	0.22
SPB7PC0500210	1/2"	210	8 1/4"	0.17	0.23
SPB7PC0500215	1/2"	215	8 1/2"	0.17	0.23
SPB7PC0500220	1/2"	220	8 3/4"	0.18	0.24
SPB7PC0500230	1/2"	230	9"	0.18	0.24
SPB7PC0500235	1/2"	235	9 1/4"	0.19	0.25
SPB7PC0500240	1/2"	240	9 1/2"	0.19	0.25
SPB7PC0500250	1/2"	250	9 3/4"	0.20	0.26
SPB7PC0500255	1/2"	255	10"	0.20	0.26
SPB7PC0500260	1/2"	260	10 1/4"	0.21	0.27
SPB7PC0500265	1/2"	265	10 1/2"	0.21	0.27
SPB7PC0500275	1/2"	275	10 3/4"	0.22	0.28
SPB7PC0500280	1/2"	280	11"	0.22	0.28
SPB7PC0500285	1/2"	285	11 1/4"	0.23	0.29
SPB7PC0500290	1/2"	290	11 1/2"	0.23	0.29
SPB7PC0500300	1/2"	300	11 3/4"	0.24	0.30





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# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 1/2" UNC B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PC0500305	1/2"	305	12"	0.24	0.30
SPB7PC0500310	1/2"	310	12 1/4"	0.25	0.31
SPB7PC0500320	1/2"	320	12 1/2"	0.25	0.31
SPB7PC0500325	1/2"	325	12 3/4"	0.26	0.32
SPB7PC0500330	1/2"	330	13"	0.26	0.32
SPB7PC0500335	1/2"	335	13 1/4"	0.27	0.33
SPB7PC0500345	1/2"	345	13 1/2"	0.27	0.33
SPB7PC0500350	1/2"	350	13 3/4"	0.28	0.34



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 5/8" UNC B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PC0620050	5/8"	50	2"	0.06	0.16
SPB7PC0620060	5/8"	60	2 1/4"	0.08	0.18
SPB7PC0620065	5/8"	65	2 1/2"	0.08	0.18
SPB7PC0620070	5/8"	70	2 3/4"	0.09	0.19
SPB7PC0620075	5/8"	75	3"	0.09	0.19
SPB7PC0620080	5/8"	80	3 1/4"	0.10	0.20
SPB7PC0620090	5/8"	90	3 1/2"	0.11	0.21
SPB7PC0620095	5/8"	95	3 3/4"	0.12	0.22
SPB7PC0620100	5/8"	100	4"	0.13	0.23
SPB7PC0620110	5/8"	110	4 1/4"	0.14	0.24
SPB7PC0620115	5/8"	115	4 1/2"	0.15	0.25
SPB7PC0620120	5/8"	120	4 3/4"	0.15	0.25
SPB7PC0620125	5/8"	125	5"	0.16	0.26
SPB7PC0620130	5/8"	130	5 1/4"	0.16	0.26
SPB7PC0620140	5/8"	140	5 1/2"	0.18	0.28
SPB7PC0620145	5/8"	145	5 3/4"	0.18	0.28
SPB7PC0620150	5/8"	150	6"	0.19	0.29
SPB7PC0620160	5/8"	160	6 1/4"	0.20	0.30
SPB7PC0620165	5/8"	165	6 1/2"	0.21	0.31
SPB7PC0620170	5/8"	170	6 3/4"	0.21	0.31
SPB7PC0620180	5/8"	180	7"	0.23	0.33
SPB7PC0620185	5/8"	185	7 1/4"	0.23	0.33
SPB7PC0620190	5/8"	190	7 1/2"	0.24	0.34
SPB7PC0620195	5/8"	195	7 3/4"	0.25	0.35
SPB7PC0620200	5/8"	200	8"	0.25	0.35
SPB7PC0620210	5/8"	210	8 1/4"	0.27	0.37
SPB7PC0620215	5/8"	215	8 1/2"	0.27	0.37
SPB7PC0620220	5/8"	220	8 3/4"	0.28	0.38
SPB7PC0620230	5/8"	230	9"	0.29	0.39
SPB7PC0620235	5/8"	235	9 1/4"	0.30	0.40
SPB7PC0620240	5/8"	240	9 1/2"	0.30	0.40
SPB7PC0620250	5/8"	250	9 3/4"	0.32	0.42
SPB7PC0620255	5/8"	255	10"	0.32	0.42
SPB7PC0620260	5/8"	260	10 1/4"	0.33	0.43
SPB7PC0620265	5/8"	265	10 1/2"	0.33	0.43
SPB7PC0620275	5/8"	275	10 3/4"	0.35	0.45
SPB7PC0620280	5/8"	280	11"	0.35	0.45
SPB7PC0620285	5/8"	285	11 1/4"	0.36	0.46
SPB7PC0620290	5/8"	290	11 1/2"	0.37	0.47
SPB7PC0620300	5/8"	300	11 3/4"	0.38	0.48



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# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 5/8" UNC B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PC0620305	5/8"	305	12"	0.39	0.49
SPB7PC0620310	5/8"	310	12 1/4"	0.39	0.49
SPB7PC0620320	5/8"	320	12 1/2"	0.40	0.50
SPB7PC0620325	5/8"	325	12 3/4"	0.41	0.51
SPB7PC0620330	5/8"	330	13"	0.42	0.52
SPB7PC0620335	5/8"	335	13 1/4"	0.42	0.52
SPB7PC0620345	5/8"	345	13 1/2"	0.44	0.54
SPB7PC0620350	5/8"	350	13 3/4"	0.44	0.54



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 3/4" UNC B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PC0750050	3/4"	50	2"	0.09	0.27
SPB7PC0750060	3/4"	60	2 1/4"	0.11	0.29
SPB7PC0750065	3/4"	65	2 1/2"	0.12	0.30
SPB7PC0750070	3/4"	70	2 3/4"	0.13	0.31
SPB7PC0750075	3/4"	75	3"	0.14	0.32
SPB7PC0750080	3/4"	80	3 1/4"	0.15	0.33
SPB7PC0750090	3/4"	90	3 1/2"	0.17	0.35
SPB7PC0750095	3/4"	95	3 3/4"	0.18	0.36
SPB7PC0750100	3/4"	100	4"	0.19	0.37
SPB7PC0750110	3/4"	110	4 1/4"	0.20	0.38
SPB7PC0750115	3/4"	115	4 1/2"	0.21	0.39
SPB7PC0750120	3/4"	120	4 3/4"	0.22	0.40
SPB7PC0750125	3/4"	125	5"	0.23	0.41
SPB7PC0750130	3/4"	130	5 1/4"	0.24	0.42
SPB7PC0750140	3/4"	140	5 1/2"	0.26	0.44
SPB7PC0750145	3/4"	145	5 3/4"	0.27	0.45
SPB7PC0750150	3/4"	150	6"	0.28	0.46
SPB7PC0750160	3/4"	160	6 1/4"	0.30	0.48
SPB7PC0750165	3/4"	165	6 1/2"	0.31	0.49
SPB7PC0750170	3/4"	170	6 3/4"	0.32	0.50
SPB7PC0750180	3/4"	180	7"	0.33	0.51
SPB7PC0750185	3/4"	185	7 1/4"	0.34	0.52
SPB7PC0750190	3/4"	190	7 1/2"	0.35	0.53
SPB7PC0750195	3/4"	195	7 3/4"	0.36	0.54
SPB7PC0750200	3/4"	200	8"	0.37	0.55
SPB7PC0750210	3/4"	210	8 1/4"	0.39	0.57
SPB7PC0750215	3/4"	215	8 1/2"	0.40	0.58
SPB7PC0750220	3/4"	220	8 3/4"	0.41	0.59
SPB7PC0750230	3/4"	230	9"	0.43	0.61
SPB7PC0750235	3/4"	235	9 1/4"	0.44	0.62
SPB7PC0750240	3/4"	240	9 1/2"	0.44	0.62
SPB7PC0750250	3/4"	250	9 3/4"	0.46	0.64
SPB7PC0750255	3/4"	255	10"	0.47	0.65
SPB7PC0750260	3/4"	260	10 1/4"	0.48	0.66
SPB7PC0750265	3/4"	265	10 1/2"	0.49	0.67
SPB7PC0750275	3/4"	275	10 3/4"	0.51	0.69
SPB7PC0750280	3/4"	280	11"	0.52	0.70
SPB7PC0750285	3/4"	285	11 1/4"	0.53	0.71
SPB7PC0750290	3/4"	290	11 1/2"	0.54	0.72
SPB7PC0750300	3/4"	300	11 3/4"	0.56	0.74



Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 3/4" UNC B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PC0750305	3/4"	305	12"	0.57	0.75
SPB7PC0750310	3/4"	310	12 1/4"	0.57	0.75
SPB7PC0750320	3/4"	320	12 1/2"	0.59	0.77
SPB7PC0750325	3/4"	325	12 3/4"	0.60	0.78
SPB7PC0750330	3/4"	330	13"	0.61	0.79
SPB7PC0750335	3/4"	335	13 1/4"	0.62	0.80
SPB7PC0750345	3/4"	345	13 1/2"	0.64	0.82
SPB7PC0750350	3/4"	350	13 3/4"	0.65	0.83
SPB7PC0750355	3/4"	355	14"	0.66	0.84
SPB7PC0750360	3/4"	360	14 1/4"	0.67	0.85
SPB7PC0750370	3/4"	370	14 1/2"	0.69	0.87
SPB7PC0750375	3/4"	375	14 3/4"	0.70	0.88
SPB7PC0750380	3/4"	380	15"	0.70	0.88
SPB7PC0750385	3/4"	385	15 1/4"	0.71	0.89
SPB7PC0750395	3/4"	395	15 1/2"	0.73	0.91
SPB7PC0750400	3/4"	400	15 3/4"	0.74	0.92
SPB7PC0750405	3/4"	405	16"	0.75	0.93
SPB7PC0750415	3/4"	415	16 1/4"	0.77	0.95
SPB7PC0750420	3/4"	420	16 1/2"	0.78	0.96
SPB7PC0750425	3/4"	425	16 3/4"	0.79	0.97
SPB7PC0750430	3/4"	430	17"	0.80	0.98
SPB7PC0750440	3/4"	440	17 1/4"	0.82	1.00
SPB7PC0750445	3/4"	445	17 1/2"	0.83	1.01
SPB7PC0750450	3/4"	450	17 3/4"	0.83	1.01
SPB7PC0750455	3/4"	455	18"	0.84	1.02
SPB7PC0750465	3/4"	465	18 1/4"	0.86	1.04
SPB7PC0750470	3/4"	470	18 1/2"	0.87	1.05
SPB7PC0750475	3/4"	475	18 3/4"	0.88	1.06
SPB7PC0750485	3/4"	485	19"	0.90	1.08
SPB7PC0750490	3/4"	490	19 1/4"	0.91	1.09
SPB7PC0750495	3/4"	495	19 1/2"	0.92	1.10
SPB7PC0750500	3/4"	500	19 3/4"	0.93	1.11
SPB7PC0750510	3/4"	510	20"	0.95	1.13



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 7/8" UNC B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PC0870075	7/8"	75	3"	0.19	0.45
SPB7PC0870080	7/8"	80	3 1/4"	0.20	0.46
SPB7PC0870090	7/8"	90	3 1/2"	0.23	0.49
SPB7PC0870095	7/8"	95	3 3/4"	0.24	0.50
SPB7PC0870100	7/8"	100	4"	0.25	0.51
SPB7PC0870110	7/8"	110	4 1/4"	0.28	0.54
SPB7PC0870115	7/8"	115	4 1/2"	0.29	0.55
SPB7PC0870120	7/8"	120	4 3/4"	0.30	0.56
SPB7PC0870125	7/8"	125	5"	0.32	0.58
SPB7PC0870130	7/8"	130	5 1/4"	0.33	0.59
SPB7PC0870140	7/8"	140	5 1/2"	0.36	0.62
SPB7PC0870145	7/8"	145	5 3/4"	0.37	0.63
SPB7PC0870150	7/8"	150	6"	0.38	0.64
SPB7PC0870160	7/8"	160	6 1/4"	0.41	0.67
SPB7PC0870165	7/8"	165	6 1/2"	0.42	0.68
SPB7PC0870170	7/8"	170	6 3/4"	0.43	0.69
SPB7PC0870180	7/8"	180	7"	0.46	0.72
SPB7PC0870185	7/8"	185	7 1/4"	0.47	0.73
SPB7PC0870190	7/8"	190	7 1/2"	0.48	0.74
SPB7PC0870195	7/8"	195	7 3/4"	0.49	0.75
SPB7PC0870200	7/8"	200	8"	0.51	0.77
SPB7PC0870210	7/8"	210	8 1/4"	0.53	0.79
SPB7PC0870215	7/8"	215	8 1/2"	0.55	0.81
SPB7PC0870220	7/8"	220	8 3/4"	0.56	0.82
SPB7PC0870230	7/8"	230	9"	0.58	0.84
SPB7PC0870235	7/8"	235	9 1/4"	0.60	0.86
SPB7PC0870240	7/8"	240	9 1/2"	0.61	0.87
SPB7PC0870250	7/8"	250	9 3/4"	0.63	0.89
SPB7PC0870255	7/8"	255	10"	0.65	0.91
SPB7PC0870260	7/8"	260	10 1/4"	0.66	0.92
SPB7PC0870265	7/8"	265	10 1/2"	0.67	0.93
SPB7PC0870275	7/8"	275	10 3/4"	0.70	0.96
SPB7PC0870280	7/8"	280	11"	0.71	0.97
SPB7PC0870285	7/8"	285	11 1/4"	0.72	0.98
SPB7PC0870290	7/8"	290	11 1/2"	0.74	1.00
SPB7PC0870300	7/8"	300	11 3/4"	0.76	1.02





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# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 7/8" UNC B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PC0870305	7/8"	305	12"	0.77	1.03
SPB7PC0870310	7/8"	310	12 1/4"	0.79	1.05
SPB7PC0870320	7/8"	320	12 1/2"	0.81	1.07
SPB7PC0870325	7/8"	325	12 3/4"	0.82	1.08
SPB7PC0870330	7/8"	330	13"	0.84	1.10
SPB7PC0870335	7/8"	335	13 1/4"	0.85	1.11
SPB7PC0870345	7/8"	345	13 1/2"	0.88	1.14
SPB7PC0870350	7/8"	350	13 3/4"	0.89	1.15
SPB7PC0870355	7/8"	355	14"	0.90	1.16
SPB7PC0870360	7/8"	360	14 1/4"	0.91	1.17
SPB7PC0870370	7/8"	370	14 1/2"	0.94	1.20
SPB7PC0870375	7/8"	375	14 3/4"	0.95	1.21
SPB7PC0870380	7/8"	380	15"	0.96	1.22
SPB7PC0870385	7/8"	385	15 1/4"	0.98	1.24
SPB7PC0870395	7/8"	395	15 1/2"	1.00	1.26
SPB7PC0870400	7/8"	400	15 3/4"	1.01	1.27
SPB7PC0870405	7/8"	405	16"	1.03	1.29
SPB7PC0870415	7/8"	415	16 1/4"	1.05	1.31
SPB7PC0870420	7/8"	420	16 1/2"	1.07	1.33
SPB7PC0870425	7/8"	425	16 3/4"	1.08	1.34
SPB7PC0870430	7/8"	430	17"	1.09	1.35
SPB7PC0870440	7/8"	440	17 1/4"	1.12	1.38
SPB7PC0870445	7/8"	445	17 1/2"	1.13	1.39
SPB7PC0870450	7/8"	450	17 3/4"	1.14	1.40
SPB7PC0870455	7/8"	455	18"	1.15	1.41
SPB7PC0870465	7/8"	465	18 1/4"	1.18	1.44
SPB7PC0870470	7/8"	470	18 1/2"	1.19	1.45
SPB7PC0870475	7/8"	475	18 3/4"	1.20	1.46
SPB7PC0870485	7/8"	485	19"	1.23	1.49
SPB7PC0870490	7/8"	490	19 1/4"	1.24	1.50
SPB7PC0870495	7/8"	495	19 1/2"	1.26	1.52
SPB7PC0870500	7/8"	500	19 3/4"	1.27	1.53
SPB7PC0870510	7/8"	510	20"	1.29	1.55



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 1" UNC B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PC1000075	1"	75	3"	0.25	0.63
SPB7PC1000080	1"	80	3 1/4"	0.27	0.65
SPB7PC1000090	1"	90	3 1/2"	0.30	0.68
SPB7PC1000095	1"	95	3 3/4"	0.32	0.70
SPB7PC1000100	1"	100	4"	0.33	0.71
SPB7PC1000110	1"	110	4 1/4"	0.37	0.75
SPB7PC1000115	1"	115	4 1/2"	0.38	0.76
SPB7PC1000120	1"	120	4 3/4"	0.40	0.78
SPB7PC1000125	1"	125	5"	0.42	0.80
SPB7PC1000130	1"	130	5 1/4"	0.43	0.81
SPB7PC1000140	1"	140	5 1/2"	0.47	0.85
SPB7PC1000145	1"	145	5 3/4"	0.48	0.86
SPB7PC1000150	1"	150	6"	0.50	0.88
SPB7PC1000160	1"	160	6 1/4"	0.53	0.91
SPB7PC1000165	1"	165	6 1/2"	0.55	0.93
SPB7PC1000170	1"	170	6 3/4"	0.57	0.95
SPB7PC1000180	1"	180	7"	0.60	0.98
SPB7PC1000185	1"	185	7 1/4"	0.62	1.00
SPB7PC1000190	1"	190	7 1/2"	0.63	1.01
SPB7PC1000195	1"	195	7 3/4"	0.65	1.03
SPB7PC1000200	1"	200	8"	0.67	1.05
SPB7PC1000210	1"	210	8 1/4"	0.70	1.08
SPB7PC1000215	1"	215	8 1/2"	0.72	1.10
SPB7PC1000220	1"	220	8 3/4"	0.73	1.11
SPB7PC1000230	1"	230	9"	0.77	1.15
SPB7PC1000235	1"	235	9 1/4"	0.78	1.16
SPB7PC1000240	1"	240	9 1/2"	0.80	1.18
SPB7PC1000250	1"	250	9 3/4"	0.83	1.21
SPB7PC1000255	1"	255	10"	0.85	1.23
SPB7PC1000260	1"	260	10 1/4"	0.87	1.25
SPB7PC1000265	1"	265	10 1/2"	0.88	1.26
SPB7PC1000275	1"	275	10 3/4"	0.92	1.30
SPB7PC1000280	1"	280	11"	0.93	1.31
SPB7PC1000285	1"	285	11 1/4"	0.95	1.33
SPB7PC1000290	1"	290	11 1/2"	0.97	1.35
SPB7PC1000300	1"	300	11 3/4"	1.00	1.38





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# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 1" UNC B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PC1000305	1"	305	12"	1.02	1.40
SPB7PC1000310	1"	310	12 1/4"	1.03	1.41
SPB7PC1000320	1"	320	12 1/2"	1.07	1.45
SPB7PC1000325	1"	325	12 3/4"	1.08	1.46
SPB7PC1000330	1"	330	13"	1.10	1.48
SPB7PC1000335	1"	335	13 1/4"	1.12	1.50
SPB7PC1000345	1"	345	13 1/2"	1.15	1.53
SPB7PC1000350	1"	350	13 3/4"	1.17	1.55
SPB7PC1000355	1"	355	14"	1.18	1.56
SPB7PC1000360	1"	360	14 1/4"	1.20	1.58
SPB7PC1000370	1"	370	14 1/2"	1.23	1.61
SPB7PC1000375	1"	375	14 3/4"	1.25	1.63
SPB7PC1000380	1"	380	15"	1.27	1.65
SPB7PC1000385	1"	385	15 1/4"	1.28	1.66
SPB7PC1000395	1"	395	15 1/2"	1.32	1.70
SPB7PC1000400	1"	400	15 3/4"	1.33	1.71
SPB7PC1000405	1"	405	16"	1.35	1.73
SPB7PC1000415	1"	415	16 1/4"	1.38	1.76
SPB7PC1000420	1"	420	16 1/2"	1.40	1.78
SPB7PC1000425	1"	425	16 3/4"	1.42	1.80
SPB7PC1000430	1"	430	17"	1.43	1.81
SPB7PC1000440	1"	440	17 1/4"	1.47	1.85
SPB7PC1000445	1"	445	17 1/2"	1.48	1.86
SPB7PC1000450	1"	450	17 3/4"	1.50	1.88
SPB7PC1000455	1"	455	18"	1.52	1.90
SPB7PC1000465	1"	465	18 1/4"	1.55	1.93
SPB7PC1000470	1"	470	18 1/2"	1.57	1.95
SPB7PC1000475	1"	475	18 3/4"	1.58	1.96
SPB7PC1000485	1"	485	19"	1.62	2.00
SPB7PC1000490	1"	490	19 1/4"	1.63	2.01
SPB7PC1000495	1"	495	19 1/2"	1.65	2.03
SPB7PC1000500	1"	500	19 3/4"	1.67	2.05
SPB7PC1000510	1"	510	20"	1.70	2.08



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 1 1/8" UN<sup>8</sup> B<sup>7</sup>/2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1120075	1 1/8"	75	3"	0.32	0.84
SPB7PU1120080	1 1/8"	80	3 1/4"	0.34	0.86
SPB7PU1120090	1 1/8"	90	3 1/2"	0.39	0.91
SPB7PU1120095	1 1/8"	95	3 3/4"	0.41	0.93
SPB7PU1120100	1 1/8"	100	4"	0.43	0.95
SPB7PU1120110	1 1/8"	110	4 1/4"	0.47	0.99
SPB7PU1120115	1 1/8"	115	4 1/2"	0.49	1.01
SPB7PU1120120	1 1/8"	120	4 3/4"	0.52	1.04
SPB7PU1120125	1 1/8"	125	5"	0.54	1.06
SPB7PU1120130	1 1/8"	130	5 1/4"	0.56	1.08
SPB7PU1120140	1 1/8"	140	5 1/2"	0.60	1.12
SPB7PU1120145	1 1/8"	145	5 3/4"	0.62	1.14
SPB7PU1120150	1 1/8"	150	6"	0.64	1.16
SPB7PU1120160	1 1/8"	160	6 1/4"	0.69	1.21
SPB7PU1120165	1 1/8"	165	6 1/2"	0.71	1.23
SPB7PU1120170	1 1/8"	170	6 3/4"	0.73	1.25
SPB7PU1120180	1 1/8"	180	7"	0.77	1.29
SPB7PU1120185	1 1/8"	185	7 1/4"	0.79	1.31
SPB7PU1120190	1 1/8"	190	7 1/2"	0.82	1.34
SPB7PU1120195	1 1/8"	195	7 3/4"	0.84	1.36
SPB7PU1120200	1 1/8"	200	8"	0.86	1.38
SPB7PU1120210	1 1/8"	210	8 1/4"	0.90	1.42
SPB7PU1120215	1 1/8"	215	8 1/2"	0.92	1.44
SPB7PU1120220	1 1/8"	220	8 3/4"	0.94	1.46
SPB7PU1120230	1 1/8"	230	9"	0.99	1.51
SPB7PU1120235	1 1/8"	235	9 1/4"	1.01	1.53
SPB7PU1120240	1 1/8"	240	9 1/2"	1.03	1.55
SPB7PU1120250	1 1/8"	250	9 3/4"	1.07	1.59
SPB7PU1120255	1 1/8"	255	10"	1.10	1.62
SPB7PU1120260	1 1/8"	260	10 1/4"	1.12	1.64
SPB7PU1120265	1 1/8"	265	10 1/2"	1.14	1.66
SPB7PU1120275	1 1/8"	275	10 3/4"	1.18	1.70
SPB7PU1120280	1 1/8"	280	11"	1.20	1.72
SPB7PU1120285	1 1/8"	285	11 1/4"	1.22	1.74
SPB7PU1120290	1 1/8"	290	11 1/2"	1.25	1.77
SPB7PU1120300	1 1/8"	300	11 3/4"	1.29	1.81



Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 1 1/8" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1120305	1 1/8"	305	12"	1.31	1.83
SPB7PU1120310	1 1/8"	310	12 1/4"	1.33	1.85
SPB7PU1120320	1 1/8"	320	12 1/2"	1.37	1.89
SPB7PU1120325	1 1/8"	325	12 3/4"	1.40	1.92
SPB7PU1120330	1 1/8"	330	13"	1.42	1.94
SPB7PU1120335	1 1/8"	335	13 1/4"	1.44	1.96
SPB7PU1120345	1 1/8"	345	13 1/2"	1.48	2.00
SPB7PU1120350	1 1/8"	350	13 3/4"	1.50	2.02
SPB7PU1120355	1 1/8"	355	14"	1.52	2.04
SPB7PU1120360	1 1/8"	360	14 1/4"	1.55	2.07
SPB7PU1120370	1 1/8"	370	14 1/2"	1.59	2.11
SPB7PU1120375	1 1/8"	375	14 3/4"	1.61	2.13
SPB7PU1120380	1 1/8"	380	15"	1.63	2.15
SPB7PU1120385	1 1/8"	385	15 1/4"	1.65	2.17
SPB7PU1120395	1 1/8"	395	15 1/2"	1.70	2.22
SPB7PU1120400	1 1/8"	400	15 3/4"	1.72	2.24
SPB7PU1120405	1 1/8"	405	16"	1.74	2.26
SPB7PU1120415	1 1/8"	415	16 1/4"	1.78	2.30
SPB7PU1120420	1 1/8"	420	16 1/2"	1.80	2.32
SPB7PU1120425	1 1/8"	425	16 3/4"	1.83	2.35
SPB7PU1120430	1 1/8"	430	17"	1.85	2.37
SPB7PU1120440	1 1/8"	440	17 1/4"	1.89	2.41
SPB7PU1120445	1 1/8"	445	17 1/2"	1.91	2.43
SPB7PU1120450	1 1/8"	450	17 3/4"	1.93	2.45
SPB7PU1120455	1 1/8"	455	18"	1.95	2.47
SPB7PU1120465	1 1/8"	465	18 1/4"	2.00	2.52
SPB7PU1120470	1 1/8"	470	18 1/2"	2.02	2.54
SPB7PU1120475	1 1/8"	475	18 3/4"	2.04	2.56
SPB7PU1120485	1 1/8"	485	19"	2.08	2.60
SPB7PU1120490	1 1/8"	490	19 1/4"	2.10	2.62
SPB7PU1120495	1 1/8"	495	19 1/2"	2.13	2.65
SPB7PU1120500	1 1/8"	500	19 3/4"	2.15	2.67
SPB7PU1120510	1 1/8"	510	20"	2.19	2.71



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 1 1/4" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1250075	1 1/4"	75	3"	0.40	1.14
SPB7PU1250080	1 1/4"	80	3 1/4"	0.43	1.17
SPB7PU1250090	1 1/4"	90	3 1/2"	0.49	1.23
SPB7PU1250095	1 1/4"	95	3 3/4"	0.51	1.25
SPB7PU1250100	1 1/4"	100	4"	0.54	1.28
SPB7PU1250110	1 1/4"	110	4 1/4"	0.59	1.33
SPB7PU1250115	1 1/4"	115	4 1/2"	0.62	1.36
SPB7PU1250120	1 1/4"	120	4 3/4"	0.65	1.39
SPB7PU1250125	1 1/4"	125	5"	0.67	1.41
SPB7PU1250130	1 1/4"	130	5 1/4"	0.70	1.44
SPB7PU1250140	1 1/4"	140	5 1/2"	0.76	1.50
SPB7PU1250145	1 1/4"	145	5 3/4"	0.78	1.52
SPB7PU1250150	1 1/4"	150	6"	0.81	1.55
SPB7PU1250160	1 1/4"	160	6 1/4"	0.86	1.60
SPB7PU1250165	1 1/4"	165	6 1/2"	0.89	1.63
SPB7PU1250170	1 1/4"	170	6 3/4"	0.92	1.66
SPB7PU1250180	1 1/4"	180	7"	0.97	1.71
SPB7PU1250185	1 1/4"	185	7 1/4"	1.00	1.74
SPB7PU1250190	1 1/4"	190	7 1/2"	1.02	1.76
SPB7PU1250195	1 1/4"	195	7 3/4"	1.05	1.79
SPB7PU1250200	1 1/4"	200	8"	1.08	1.82
SPB7PU1250210	1 1/4"	210	8 1/4"	1.13	1.87
SPB7PU1250215	1 1/4"	215	8 1/2"	1.16	1.90
SPB7PU1250220	1 1/4"	220	8 3/4"	1.19	1.93
SPB7PU1250230	1 1/4"	230	9"	1.24	1.98
SPB7PU1250235	1 1/4"	235	9 1/4"	1.27	2.01
SPB7PU1250240	1 1/4"	240	9 1/2"	1.29	2.03
SPB7PU1250250	1 1/4"	250	9 3/4"	1.35	2.09
SPB7PU1250255	1 1/4"	255	10"	1.38	2.12
SPB7PU1250260	1 1/4"	260	10 1/4"	1.40	2.14
SPB7PU1250265	1 1/4"	265	10 1/2"	1.43	2.17
SPB7PU1250275	1 1/4"	275	10 3/4"	1.48	2.22
SPB7PU1250280	1 1/4"	280	11"	1.51	2.25
SPB7PU1250285	1 1/4"	285	11 1/4"	1.54	2.28
SPB7PU1250290	1 1/4"	290	11 1/2"	1.56	2.30
SPB7PU1250300	1 1/4"	300	11 3/4"	1.62	2.36



Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 1 1/4" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1250305	1 1/4"	305	12"	1.64	2.38
SPB7PU1250310	1 1/4"	310	12 1/4"	1.67	2.41
SPB7PU1250320	1 1/4"	320	12 1/2"	1.73	2.47
SPB7PU1250325	1 1/4"	325	12 3/4"	1.75	2.49
SPB7PU1250330	1 1/4"	330	13"	1.78	2.52
SPB7PU1250335	1 1/4"	335	13 1/4"	1.81	2.55
SPB7PU1250345	1 1/4"	345	13 1/2"	1.86	2.60
SPB7PU1250350	1 1/4"	350	13 3/4"	1.89	2.63
SPB7PU1250355	1 1/4"	355	14"	1.91	2.65
SPB7PU1250360	1 1/4"	360	14 1/4"	1.94	2.68
SPB7PU1250370	1 1/4"	370	14 1/2"	2.00	2.74
SPB7PU1250375	1 1/4"	375	14 3/4"	2.02	2.76
SPB7PU1250380	1 1/4"	380	15"	2.05	2.79
SPB7PU1250385	1 1/4"	385	15 1/4"	2.08	2.82
SPB7PU1250395	1 1/4"	395	15 1/2"	2.13	2.87
SPB7PU1250400	1 1/4"	400	15 3/4"	2.16	2.90
SPB7PU1250405	1 1/4"	405	16"	2.18	2.92
SPB7PU1250415	1 1/4"	415	16 1/4"	2.24	2.98
SPB7PU1250420	1 1/4"	420	16 1/2"	2.27	3.01
SPB7PU1250425	1 1/4"	425	16 3/4"	2.29	3.03
SPB7PU1250430	1 1/4"	430	17"	2.32	3.06
SPB7PU1250440	1 1/4"	440	17 1/4"	2.37	3.11
SPB7PU1250445	1 1/4"	445	17 1/2"	2.40	3.14
SPB7PU1250450	1 1/4"	450	17 3/4"	2.43	3.17
SPB7PU1250455	1 1/4"	455	18"	2.45	3.19
SPB7PU1250465	1 1/4"	465	18 1/4"	2.51	3.25
SPB7PU1250470	1 1/4"	470	18 1/2"	2.53	3.27
SPB7PU1250475	1 1/4"	475	18 3/4"	2.56	3.33
SPB7PU1250485	1 1/4"	485	19"	2.62	3.36
SPB7PU1250490	1 1/4"	490	19 1/4"	2.64	3.38
SPB7PU1250495	1 1/4"	495	19 1/2"	2.67	3.41
SPB7PU1250500	1 1/4"	500	19 3/4"	2.69	3.43
SPB7PU1250510	1 1/4"	510	20"	2.75	3.49



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 1 3/8" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1370075	1 3/8"	75	3"	0.50	1.46
SPB7PU1370080	1 3/8"	80	3 1/4"	0.53	1.49
SPB7PU1370090	1 3/8"	90	3 1/2"	0.60	1.56
SPB7PU1370095	1 3/8"	95	3 3/4"	0.63	1.59
SPB7PU1370100	1 3/8"	100	4"	0.66	1.62
SPB7PU1370110	1 3/8"	110	4 1/4"	0.73	1.69
SPB7PU1370115	1 3/8"	115	4 1/2"	0.76	1.72
SPB7PU1370120	1 3/8"	120	4 3/4"	0.79	1.75
SPB7PU1370125	1 3/8"	125	5"	0.83	1.79
SPB7PU1370130	1 3/8"	130	5 1/4"	0.86	1.82
SPB7PU1370140	1 3/8"	140	5 1/2"	0.93	1.89
SPB7PU1370145	1 3/8"	145	5 3/4"	0.96	1.92
SPB7PU1370150	1 3/8"	150	6"	0.99	1.95
SPB7PU1370160	1 3/8"	160	6 1/4"	1.06	2.02
SPB7PU1370165	1 3/8"	165	6 1/2"	1.09	2.05
SPB7PU1370170	1 3/8"	170	6 3/4"	1.12	2.08
SPB7PU1370180	1 3/8"	180	7"	1.19	2.15
SPB7PU1370185	1 3/8"	185	7 1/4"	1.22	2.18
SPB7PU1370190	1 3/8"	190	7 1/2"	1.26	2.22
SPB7PU1370195	1 3/8"	195	7 3/4"	1.29	2.25
SPB7PU1370200	1 3/8"	200	8"	1.32	2.28
SPB7PU1370210	1 3/8"	210	8 1/4"	1.39	2.35
SPB7PU1370215	1 3/8"	215	8 1/2"	1.42	2.38
SPB7PU1370220	1 3/8"	220	8 3/4"	1.45	2.41
SPB7PU1370230	1 3/8"	230	9"	1.52	2.48
SPB7PU1370235	1 3/8"	235	9 1/4"	1.55	2.51
SPB7PU1370240	1 3/8"	240	9 1/2"	1.59	2.55
SPB7PU1370250	1 3/8"	250	9 3/4"	1.65	2.61
SPB7PU1370255	1 3/8"	255	10"	1.69	2.65
SPB7PU1370260	1 3/8"	260	10 1/4"	1.72	2.68
SPB7PU1370265	1 3/8"	265	10 1/2"	1.75	2.71
SPB7PU1370275	1 3/8"	275	10 3/4"	1.82	2.78
SPB7PU1370280	1 3/8"	280	11"	1.85	2.81
SPB7PU1370285	1 3/8"	285	11 1/4"	1.88	2.84
SPB7PU1370290	1 3/8"	290	11 1/2"	1.92	2.88
SPB7PU1370300	1 3/8"	300	11 3/4"	1.98	2.94



Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 1 3/8" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1370305	1 3/8"	305	12"	2.02	2.98
SPB7PU1370310	1 3/8"	310	12 1/4"	2.05	3.01
SPB7PU1370320	1 3/8"	320	12 1/2"	2.12	3.08
SPB7PU1370325	1 3/8"	325	12 3/4"	2.15	3.11
SPB7PU1370330	1 3/8"	330	13"	2.18	3.14
SPB7PU1370335	1 3/8"	335	13 1/4"	2.22	3.18
SPB7PU1370345	1 3/8"	345	13 1/2"	2.28	3.24
SPB7PU1370350	1 3/8"	350	13 3/4"	2.31	3.27
SPB7PU1370355	1 3/8"	355	14"	2.35	3.31
SPB7PU1370360	1 3/8"	360	14 1/4"	2.38	3.34
SPB7PU1370370	1 3/8"	370	14 1/2"	2.45	3.41
SPB7PU1370375	1 3/8"	375	14 3/4"	2.48	3.44
SPB7PU1370380	1 3/8"	380	15"	2.51	3.47
SPB7PU1370385	1 3/8"	385	15 1/4"	2.55	3.51
SPB7PU1370395	1 3/8"	395	15 1/2"	2.61	3.57
SPB7PU1370400	1 3/8"	400	15 3/4"	2.64	3.60
SPB7PU1370405	1 3/8"	405	16"	2.68	3.64
SPB7PU1370415	1 3/8"	415	16 1/4"	2.74	3.70
SPB7PU1370420	1 3/8"	420	16 1/2"	2.78	3.74
SPB7PU1370425	1 3/8"	425	16 3/4"	2.81	3.77
SPB7PU1370430	1 3/8"	430	17"	2.84	3.80
SPB7PU1370440	1 3/8"	440	17 1/4"	2.91	3.87
SPB7PU1370445	1 3/8"	445	17 1/2"	2.94	3.90
SPB7PU1370450	1 3/8"	450	17 3/4"	2.98	3.94
SPB7PU1370455	1 3/8"	455	18"	3.01	3.97
SPB7PU1370465	1 3/8"	465	18 1/4"	3.07	4.03
SPB7PU1370470	1 3/8"	470	18 1/2"	3.11	4.07
SPB7PU1370475	1 3/8"	475	18 3/4"	3.14	4.10
SPB7PU1370485	1 3/8"	485	19"	3.21	4.17
SPB7PU1370490	1 3/8"	490	19 1/4"	3.24	4.20
SPB7PU1370495	1 3/8"	495	19 1/2"	3.27	4.23
SPB7PU1370500	1 3/8"	500	19 3/4"	3.31	4.27
SPB7PU1370510	1 3/8"	510	20"	3.37	4.33



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 1 1/2" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1500100	1 1/2"	100	4"	0.80	1.96
SPB7PU1500110	1 1/2"	110	4 1/4"	0.88	2.04
SPB7PU1500115	1 1/2"	115	4 1/2"	0.92	2.08
SPB7PU1500120	1 1/2"	120	4 3/4"	0.96	2.12
SPB7PU1500125	1 1/2"	125	5"	1.00	2.16
SPB7PU1500130	1 1/2"	130	5 1/4"	1.03	2.19
SPB7PU1500140	1 1/2"	140	5 1/2"	1.11	2.27
SPB7PU1500145	1 1/2"	145	5 3/4"	1.15	2.31
SPB7PU1500150	1 1/2"	150	6"	1.19	2.35
SPB7PU1500160	1 1/2"	160	6 1/4"	1.27	2.43
SPB7PU1500165	1 1/2"	165	6 1/2"	1.31	2.47
SPB7PU1500170	1 1/2"	170	6 3/4"	1.35	2.51
SPB7PU1500180	1 1/2"	180	7"	1.43	2.59
SPB7PU1500185	1 1/2"	185	7 1/4"	1.47	2.63
SPB7PU1500190	1 1/2"	190	7 1/2"	1.51	2.67
SPB7PU1500195	1 1/2"	195	7 3/4"	1.55	2.71
SPB7PU1500200	1 1/2"	200	8"	1.59	2.75
SPB7PU1500210	1 1/2"	210	8 1/4"	1.67	2.83
SPB7PU1500215	1 1/2"	215	8 1/2"	1.71	2.87
SPB7PU1500220	1 1/2"	220	8 3/4"	1.75	2.91
SPB7PU1500230	1 1/2"	230	9"	1.83	2.99
SPB7PU1500235	1 1/2"	235	9 1/4"	1.87	3.03
SPB7PU1500240	1 1/2"	240	9 1/2"	1.91	3.07
SPB7PU1500250	1 1/2"	250	9 3/4"	1.99	3.15
SPB7PU1500255	1 1/2"	255	10"	2.03	3.19
SPB7PU1500260	1 1/2"	260	10 1/4"	2.07	3.23
SPB7PU1500265	1 1/2"	265	10 1/2"	2.11	3.27
SPB7PU1500275	1 1/2"	275	10 3/4"	2.19	3.35
SPB7PU1500280	1 1/2"	280	11"	2.23	3.39
SPB7PU1500285	1 1/2"	285	11 1/4"	2.27	3.43
SPB7PU1500290	1 1/2"	290	11 1/2"	2.31	3.47
SPB7PU1500300	1 1/2"	300	11 3/4"	2.39	3.55
SPB7PU1500305	1 1/2"	305	12"	2.43	3.59
SPB7PU1500310	1 1/2"	310	12 1/4"	2.47	3.63
SPB7PU1500320	1 1/2"	320	12 1/2"	2.55	3.71
SPB7PU1500325	1 1/2"	325	12 3/4"	2.59	3.75
SPB7PU1500330	1 1/2"	330	13"	2.63	3.79
SPB7PU1500335	1 1/2"	335	13 1/4"	2.67	3.83
SPB7PU1500345	1 1/2"	345	13 1/2"	2.75	3.91
SPB7PU1500350	1 1/2"	350	13 3/4"	2.79	3.95





Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 1 1/2" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1500355	1 1/2"	355	14"	2.83	3.99
SPB7PU1500360	1 1/2"	360	14 1/4"	2.87	4.03
SPB7PU1500370	1 1/2"	370	14 1/2"	2.95	4.11
SPB7PU1500375	1 1/2"	375	14 3/4"	2.99	4.15
SPB7PU1500380	1 1/2"	380	15"	3.03	4.19
SPB7PU1500385	1 1/2"	385	15 1/4"	3.06	4.22
SPB7PU1500395	1 1/2"	395	15 1/2"	3.14	4.30
SPB7PU1500400	1 1/2"	400	15 3/4"	3.18	4.34
SPB7PU1500405	1 1/2"	405	16"	3.22	4.38
SPB7PU1500415	1 1/2"	415	16 1/4"	3.30	4.46
SPB7PU1500420	1 1/2"	420	16 1/2"	3.34	4.50
SPB7PU1500425	1 1/2"	425	16 3/4"	3.38	4.54
SPB7PU1500430	1 1/2"	430	17"	3.42	4.58
SPB7PU1500440	1 1/2"	440	17 1/4"	3.50	4.66
SPB7PU1500445	1 1/2"	445	17 1/2"	3.54	4.70
SPB7PU1500450	1 1/2"	450	17 3/4"	3.58	4.74
SPB7PU1500455	1 1/2"	455	18"	3.62	4.78
SPB7PU1500465	1 1/2"	465	18 1/4"	3.70	4.86
SPB7PU1500470	1 1/2"	470	18 1/2"	3.74	4.90
SPB7PU1500475	1 1/2"	475	18 3/4"	3.78	4.94
SPB7PU1500485	1 1/2"	485	19"	3.86	5.02
SPB7PU1500490	1 1/2"	490	19 1/4"	3.90	5.06
SPB7PU1500495	1 1/2"	495	19 1/2"	3.94	5.10
SPB7PU1500500	1 1/2"	500	19 3/4"	3.98	5.14
SPB7PU1500510	1 1/2"	510	20"	4.06	5.22



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 1 5/8" UN<sup>8</sup> B<sup>7</sup> / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1620150	1 5/8"	150	6"	1.41	2.97
SPB7PU1620160	1 5/8"	160	6 1/4"	1.51	3.07
SPB7PU1620165	1 5/8"	165	6 1/2"	1.55	3.11
SPB7PU1620170	1 5/8"	170	6 3/4"	1.60	3.16
SPB7PU1620180	1 5/8"	180	7"	1.69	3.25
SPB7PU1620185	1 5/8"	185	7 1/4"	1.74	3.30
SPB7PU1620190	1 5/8"	190	7 1/2"	1.79	3.35
SPB7PU1620195	1 5/8"	195	7 3/4"	1.84	3.40
SPB7PU1620200	1 5/8"	200	8"	1.88	3.44
SPB7PU1620210	1 5/8"	210	8 1/4"	1.98	3.54
SPB7PU1620215	1 5/8"	215	8 1/2"	2.02	3.58
SPB7PU1620220	1 5/8"	220	8 3/4"	2.07	3.63
SPB7PU1620230	1 5/8"	230	9"	2.17	3.73
SPB7PU1620235	1 5/8"	235	9 1/4"	2.21	3.77
SPB7PU1620240	1 5/8"	240	9 1/2"	2.26	3.82
SPB7PU1620250	1 5/8"	250	9 3/4"	2.35	3.91
SPB7PU1620255	1 5/8"	255	10"	2.40	3.96
SPB7PU1620260	1 5/8"	260	10 1/4"	2.45	4.01
SPB7PU1620265	1 5/8"	265	10 1/2"	2.49	4.05
SPB7PU1620275	1 5/8"	275	10 3/4"	2.59	4.15
SPB7PU1620280	1 5/8"	280	11"	2.64	4.20
SPB7PU1620285	1 5/8"	285	11 1/4"	2.68	4.24
SPB7PU1620290	1 5/8"	290	11 1/2"	2.73	4.29
SPB7PU1620300	1 5/8"	300	11 3/4"	2.82	4.38
SPB7PU1620305	1 5/8"	305	12"	2.87	4.43
SPB7PU1620310	1 5/8"	310	12 1/4"	2.92	4.48
SPB7PU1620320	1 5/8"	320	12 1/2"	3.01	4.57
SPB7PU1620325	1 5/8"	325	12 3/4"	3.06	4.62
SPB7PU1620330	1 5/8"	330	13"	3.11	4.67
SPB7PU1620335	1 5/8"	335	13 1/4"	3.15	4.71
SPB7PU1620345	1 5/8"	345	13 1/2"	3.25	4.81
SPB7PU1620350	1 5/8"	350	13 3/4"	3.30	4.86



Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 1 5/8" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1620355	1 5/8"	355	14"	3.34	4.90
SPB7PU1620360	1 5/8"	360	14 1/4"	3.39	4.95
SPB7PU1620370	1 5/8"	370	14 1/2"	3.48	5.04
SPB7PU1620375	1 5/8"	375	14 3/4"	3.53	5.09
SPB7PU1620380	1 5/8"	380	15"	3.58	5.14
SPB7PU1620385	1 5/8"	385	15 1/4"	3.62	5.18
SPB7PU1620395	1 5/8"	395	15 1/2"	3.72	5.28
SPB7PU1620400	1 5/8"	400	15 3/4"	3.77	5.33
SPB7PU1620405	1 5/8"	405	16"	3.81	5.37
SPB7PU1620415	1 5/8"	415	16 1/4"	3.91	5.47
SPB7PU1620420	1 5/8"	420	16 1/2"	3.95	5.51
SPB7PU1620425	1 5/8"	425	16 3/4"	4.00	5.56
SPB7PU1620430	1 5/8"	430	17"	4.05	5.61
SPB7PU1620440	1 5/8"	440	17 1/4"	4.14	5.70
SPB7PU1620445	1 5/8"	445	17 1/2"	4.19	5.75
SPB7PU1620450	1 5/8"	450	17 3/4"	4.24	5.80
SPB7PU1620455	1 5/8"	455	18"	4.28	5.84
SPB7PU1620465	1 5/8"	465	18 1/4"	4.38	5.94
SPB7PU1620470	1 5/8"	470	18 1/2"	4.42	5.98
SPB7PU1620475	1 5/8"	475	18 3/4"	4.47	6.03
SPB7PU1620485	1 5/8"	485	19"	4.57	6.13
SPB7PU1620490	1 5/8"	490	19 1/4"	4.61	6.17
SPB7PU1620495	1 5/8"	495	19 1/2"	4.66	6.22
SPB7PU1620500	1 5/8"	500	19 3/4"	4.71	6.27
SPB7PU1620510	1 5/8"	510	20"	4.80	6.36



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 1 3/4" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1750150	1 3/4"	150	6"	1.65	3.57
SPB7PU1750160	1 3/4"	160	6 1/4"	1.76	3.68
SPB7PU1750165	1 3/4"	165	6 1/2"	1.82	3.74
SPB7PU1750170	1 3/4"	170	6 3/4"	1.87	3.79
SPB7PU1750180	1 3/4"	180	7"	1.98	3.90
SPB7PU1750185	1 3/4"	185	7 1/4"	2.04	3.96
SPB7PU1750190	1 3/4"	190	7 1/2"	2.09	4.01
SPB7PU1750195	1 3/4"	195	7 3/4"	2.15	4.07
SPB7PU1750200	1 3/4"	200	8"	2.20	4.12
SPB7PU1750210	1 3/4"	210	8 1/4"	2.31	4.23
SPB7PU1750215	1 3/4"	215	8 1/2"	2.37	4.29
SPB7PU1750220	1 3/4"	220	8 3/4"	2.42	4.34
SPB7PU1750230	1 3/4"	230	9"	2.53	4.45
SPB7PU1750235	1 3/4"	235	9 1/4"	2.59	4.51
SPB7PU1750240	1 3/4"	240	9 1/2"	2.64	4.56
SPB7PU1750250	1 3/4"	250	9 3/4"	2.75	4.67
SPB7PU1750255	1 3/4"	255	10"	2.81	4.73
SPB7PU1750260	1 3/4"	260	10 1/4"	2.86	4.78
SPB7PU1750265	1 3/4"	265	10 1/2"	2.92	4.84
SPB7PU1750275	1 3/4"	275	10 3/4"	3.03	4.95
SPB7PU1750280	1 3/4"	280	11"	3.08	5.00
SPB7PU1750285	1 3/4"	285	11 1/4"	3.14	5.06
SPB7PU1750290	1 3/4"	290	11 1/2"	3.19	5.11
SPB7PU1750300	1 3/4"	300	11 3/4"	3.30	5.22
SPB7PU1750305	1 3/4"	305	12"	3.36	5.28
SPB7PU1750310	1 3/4"	310	12 1/4"	3.41	5.33
SPB7PU1750320	1 3/4"	320	12 1/2"	3.52	5.44
SPB7PU1750325	1 3/4"	325	12 3/4"	3.58	5.50
SPB7PU1750330	1 3/4"	330	13"	3.63	5.55
SPB7PU1750335	1 3/4"	335	13 1/4"	3.69	5.61
SPB7PU1750345	1 3/4"	345	13 1/2"	3.80	5.72
SPB7PU1750350	1 3/4"	350	13 3/4"	3.85	5.77



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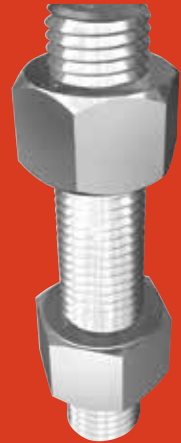
# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 1 3/4" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1750355	1 3/4"	355	14"	3.91	5.83
SPB7PU1750360	1 3/4"	360	14 1/4"	3.96	5.88
SPB7PU1750370	1 3/4"	370	14 1/2"	4.07	5.99
SPB7PU1750375	1 3/4"	375	14 3/4"	4.13	6.05
SPB7PU1750380	1 3/4"	380	15"	4.18	6.10
SPB7PU1750385	1 3/4"	385	15 1/4"	4.24	6.16
SPB7PU1750395	1 3/4"	395	15 1/2"	4.35	6.27
SPB7PU1750400	1 3/4"	400	15 3/4"	4.40	6.32
SPB7PU1750405	1 3/4"	405	16"	4.46	6.38
SPB7PU1750415	1 3/4"	415	16 1/4"	4.57	6.49
SPB7PU1750420	1 3/4"	420	16 1/2"	4.62	6.54
SPB7PU1750425	1 3/4"	425	16 3/4"	4.68	6.60
SPB7PU1750430	1 3/4"	430	17"	4.73	6.65
SPB7PU1750440	1 3/4"	440	17 1/4"	4.84	6.76
SPB7PU1750445	1 3/4"	445	17 1/2"	4.90	6.82
SPB7PU1750450	1 3/4"	450	17 3/4"	4.95	6.87
SPB7PU1750455	1 3/4"	455	18"	5.01	6.93
SPB7PU1750465	1 3/4"	465	18 1/4"	5.12	7.04
SPB7PU1750470	1 3/4"	470	18 1/2"	5.18	7.10
SPB7PU1750475	1 3/4"	475	18 3/4"	5.23	7.15
SPB7PU1750485	1 3/4"	485	19"	5.34	7.26
SPB7PU1750490	1 3/4"	490	19 1/4"	5.40	7.32
SPB7PU1750495	1 3/4"	495	19 1/2"	5.45	7.37
SPB7PU1750500	1 3/4"	500	19 3/4"	5.51	7.43
SPB7PU1750510	1 3/4"	510	20"	5.62	7.54



# B7 / 2H Studbolt Kit

ASTM A193 / A193M  
ASTM A194 / A194M



## 1 7/8" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU1870355	1 7/8"	355	14"	4.51	6.83
SPB7PU1870360	1 7/8"	360	14 1/4"	4.58	6.90
SPB7PU1870370	1 7/8"	370	14 1/2"	4.70	7.02
SPB7PU1870375	1 7/8"	375	14 3/4"	4.77	7.09
SPB7PU1870380	1 7/8"	380	15"	4.83	7.15
SPB7PU1870385	1 7/8"	385	15 1/4"	4.90	7.22
SPB7PU1870395	1 7/8"	395	15 1/2"	5.02	7.34
SPB7PU1870400	1 7/8"	400	15 3/4"	5.09	7.41
SPB7PU1870405	1 7/8"	405	16"	5.15	7.47
SPB7PU1870415	1 7/8"	415	16 1/4"	5.28	7.60
SPB7PU1870420	1 7/8"	420	16 1/2"	5.34	7.66
SPB7PU1870425	1 7/8"	425	16 3/4"	5.40	7.72
SPB7PU1870430	1 7/8"	430	17"	5.47	7.79
SPB7PU1870440	1 7/8"	440	17 1/4"	5.59	7.91
SPB7PU1870445	1 7/8"	445	17 1/2"	5.66	7.98
SPB7PU1870450	1 7/8"	450	17 3/4"	5.72	8.04
SPB7PU1870455	1 7/8"	455	18"	5.79	8.11
SPB7PU1870465	1 7/8"	465	18 1/4"	5.91	8.23
SPB7PU1870470	1 7/8"	470	18 1/2"	5.98	8.30
SPB7PU1870475	1 7/8"	475	18 3/4"	6.04	8.36
SPB7PU1870485	1 7/8"	485	19"	6.17	8.49
SPB7PU1870490	1 7/8"	490	19 1/4"	6.23	8.55
SPB7PU1870495	1 7/8"	495	19 1/2"	6.29	8.61
SPB7PU1870500	1 7/8"	500	19 3/4"	6.36	8.68
SPB7PU1870510	1 7/8"	510	20"	6.48	8.80



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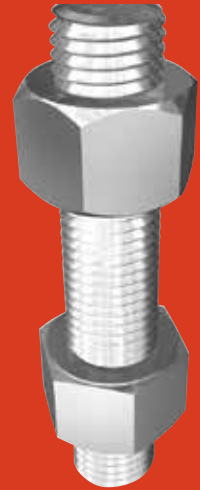
# B7 / 2H Studbolt Kit

ASTM A193 / A193M

ASTM A194 / A194M

## 2" UN<sup>8</sup> B7 / 2H STUDBOLT KIT ASTM B7 A193/A193M 2H A194/A194M

Part (Stud Only)	Size	Length (mm)	Length (inch)	Stud Only Wgt (Kg)	Stud + 2xNut Wgt (Kg)
SPB7PU2000355	2"	355	14"	5.17	7.97
SPB7PU2000360	2"	360	14 1/4"	5.25	8.05
SPB7PU2000370	2"	370	14 1/2"	5.39	8.19
SPB7PU2000375	2"	375	14 3/4"	5.46	8.26
SPB7PU2000380	2"	380	15"	5.54	8.34
SPB7PU2000385	2"	385	15 1/4"	5.61	8.41
SPB7PU2000395	2"	395	15 1/2"	5.76	8.56
SPB7PU2000400	2"	400	15 3/4"	5.83	8.63
SPB7PU2000405	2"	405	16"	5.90	8.70
SPB7PU2000415	2"	415	16 1/4"	6.05	8.85
SPB7PU2000420	2"	420	16 1/2"	6.12	8.92
SPB7PU2000425	2"	425	16 3/4"	6.19	8.99
SPB7PU2000430	2"	430	17"	6.27	9.07
SPB7PU2000440	2"	440	17 1/4"	6.41	9.21
SPB7PU2000445	2"	445	17 1/2"	6.48	9.28
SPB7PU2000450	2"	450	17 3/4"	6.56	9.36
SPB7PU2000455	2"	455	18"	6.63	9.43
SPB7PU2000465	2"	465	18 1/4"	6.78	9.58
SPB7PU2000470	2"	470	18 1/2"	6.85	9.65
SPB7PU2000475	2"	475	18 3/4"	6.92	9.72
SPB7PU2000485	2"	485	19"	7.07	9.87
SPB7PU2000490	2"	490	19 1/4"	7.14	9.94
SPB7PU2000495	2"	495	19 1/2"	7.21	10.01
SPB7PU2000500	2"	500	19 3/4"	7.29	10.09
SPB7PU2000510	2"	510	20"	7.43	10.23



## Other Grades also Available

ASTM A320 / A320M L7 & L7M

ASTM A193 / A193M B16

ASTM A193 / A193M B5

ASTM A193 / A193M B6

ASTM A193 / A193M B8 Class 1 & 2

ASTM A193 / A193M B8M Class 1 & 2

ASTM A193 / A193M B8T

# Heavy Hex Bolts

ASTM A307



## HEAVY HEX BOLT ASTM A307 GRADE B

Part	Size	Length (mm)	Length (inch)	Pack	Pack Wgt (Kg)
BP3BPC0500040	1/2"	40	1 1/2"	1	0.058
BP3BPC0500050	1/2"	50	2"	1	0.073
BP3BPC0500065	1/2"	65	2 1/2"	1	0.086
BP3BPC0500100	1/2"	100	4"	1	0.127
BP3BPC0620045	5/8"	45	1 3/4"	1	0.105
BP3BPC0620050	5/8"	50	2"	1	0.114
BP3BPC0620065	5/8"	65	2 1/2"	1	0.135
BP3BPC0620075	5/8"	75	3"	1	0.157
BP3BPC0620080	5/8"	80	3 1/4"	1	0.166
BP3BPC0620085	5/8"	85	3 1/3"	1	0.169
BP3BPC0620090	5/8"	90	3 1/2"	1	0.178
BP3BPC0620095	5/8"	95	3 3/4"	1	0.189
BP3BPC0620100	5/8"	100	4"	1	0.200
BP3BPC0750060	3/4"	60	2 1/4"	1	0.803
BP3BPC0750075	3/4"	75	3"	1	0.238
BP3BPC0750085	3/4"	85	3 1/4"	1	0.251
BP3BPC0750090	3/4"	90	3 1/2"	1	0.268
BP3BPC0750095	3/4"	95	3 3/4"	1	0.287
BP3BPC0750100	3/4"	100	4"	1	0.299
BP3BPC0750110	3/4"	110	4 1/4"	1	0.320
BP3BPC0870095	7/8"	95	3 3/4"	1	0.402
BP3BPC0870100	7/8"	100	4"	1	0.422
BP3BPC0870110	7/8"	110	4 1/4"	1	0.457
BP3BPC0870120	7/8"	120	4 3/4"	1	0.479





Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# Heavy Hex Bolts

ASTM A307

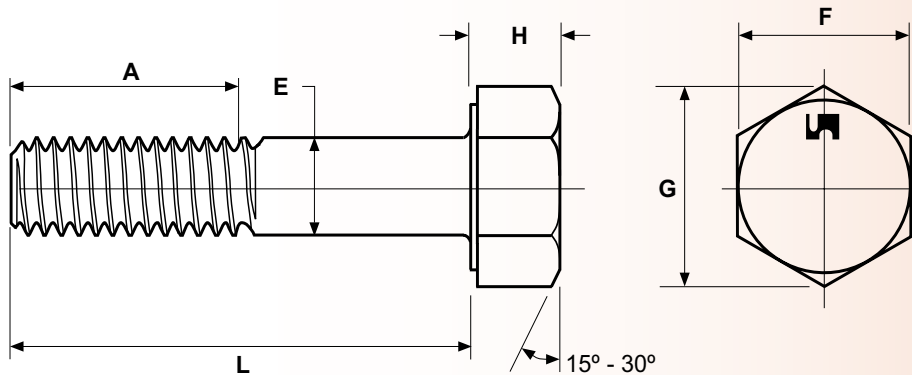
ASTM A193 / A193M

## HEAVY HEX BOLT DIMENSIONS

ASTM A307 GRADE B / ASTM A193 / A193M GRADE B7

Size	E	F	G	H	A
1/2"	0.482	0.850	0.969	0.302	1.25
5/8"	0.605	1.031	1.175	0.378	1.50
3/4"	0.729	1.212	1.383	0.455	1.75
7/8"	0.852	1.394	1.589	0.531	2.00
1"	0.976	1.575	1.796	0.658	2.25
1 1/8"	1.098	1.756	2.002	0.749	2.50
1 1/4"	1.223	1.938	2.209	0.810	2.75

All Dimensions are minimums in inches for bolts of length 6 inch and under.  
For more detailed information refer to ANSI B18.2.1



## ASTM A193 / A193M GRADE B7 BOLTS

Available on short leadtimes!

# Heavy Hex Nuts

ASTM A194 / A194M

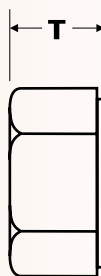
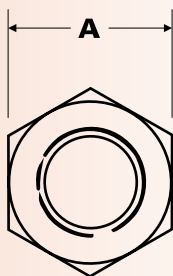


## HEAVY HEX NUT DIMENSIONS

ASTM A<sup>194</sup>/A<sup>194M</sup> (Grade <sup>2</sup>H, <sup>4</sup>, <sup>7</sup>, <sup>8</sup>, <sup>8</sup>M)

Thread Diameter	Dim A		Dim T	
	Min	Max	Min	Max
1/4"	0.488	0.500	0.218	0.250
5/16"	0.546	0.562	0.280	0.314
3/8"	0.669	0.688	0.341	0.377
7/16"	0.728	0.750	0.403	0.441
1/2"	0.850	0.875	0.464	0.504
9/16"	0.909	0.938	0.526	0.568
5/8"	1.031	1.062	0.587	0.631
3/4"	1.212	1.250	0.710	0.758
7/8"	1.394	1.438	0.833	0.885
1"	1.575	1.625	0.956	1.012
1 1/8"	1.756	1.812	1.079	1.139
1 1/4"	1.938	2.000	1.187	1.251
1 3/8"	2.119	2.188	1.310	1.378
1 1/2"	2.300	2.375	1.433	1.505
1 5/8"	2.481	2.562	1.556	1.632
1 3/4"	2.662	2.750	1.679	1.759
1 7/8"	2.844	2.938	1.802	1.866
2"	3.025	3.125	1.925	2.013
2 1/4"	3.388	3.500	2.155	2.251
2 1/2"	3.750	3.875	2.401	2.505
2 3/4"	4.112	4.250	2.647	2.750
3"	4.475	4.625	2.893	3.013

All Dimensions are in inches.  
For more detailed information refer to ANSI B18.2.2





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# Heavy Hex Nuts Gr2H

ASTM A194 / A194M

## UNC GRADE 2H HEAVY HEX NUT CARBON STEEL ASTM A<sup>194</sup>/A<sup>194M</sup>

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRC)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NP2HPC025	1/4"	20	0.01	24 -35	0.0316	5570
NP2HPC031	5/16"	18	0.01	24 -35	0.0524	9170
NP2HPC037	3/8"	16	0.01	24 -35	0.0774	13560
NP2HPC043	7/16"	14	0.02	24 -35	0.1063	18600
NP2HPC050	1/2"	13	0.03	24 -35	0.1419	24830
NP2HPC056	9/16"	12	0.04	24 -35	0.1820	31850
NP2HPC062	5/8"	11	0.05	24 -35	0.2260	39550
NP2HPC075	3/4"	10	0.09	24 -35	0.3340	58450
NP2HPC087	7/8"	9	0.13	24 -35	0.4620	80850
NP2HPC100	1"	8	0.19	24 -35	0.6060	106000
NP2HPC112	1 1/8"	7	0.26	24 -35	0.7900	138200
NP2HPC125	1 1/4"	7	0.37	24 -35	1.0000	175000
NP2HPC150	1 1/2"	6	0.58	24 -35	1.4920	261100
NP2HPC175	1 3/4"	5	0.96	35 max	2.0800	364000
NP2HPC200	2"	4.5	1.40	35 max	2.7700	484800

Based on proof stress of 175,000 psi

## UN<sup>8</sup> GRADE 2H HEAVY HEX NUT CARBON STEEL ASTM A<sup>194</sup>/A<sup>194M</sup>

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRC)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NP2HPU112	1 1/8"	8	0.26	24 -35	0.790	138200
NP2HPU125	1 1/4"	8	0.37	24 -35	1.000	175000
NP2HPU137	1 3/8"	8	0.48	24 -35	1.233	215800
NP2HPU150	1 1/2"	8	0.58	24 -35	1.492	261100
NP2HPU162	1 5/8"	8	0.78	35 max	1.780	311500
NP2HPU175	1 3/4"	8	0.96	35 max	2.080	364000
NP2HPU187	1 7/8"	8	1.16	35 max	2.410	421800
NP2HPU200	2"	8	1.40	35 max	2.770	484800
NP2HPU225	2 1/4"	8	1.90	35 max	3.560	623000
NP2HPU250	2 1/2"	8	2.56	35 max	4.440	777000
NP2HPU275	2 3/4"	8	3.35	35 max	5.430	950250
NP2HPU300	3"	8	4.32	35 max	-	-
NP2HPU350	3 1/2"	8	6.94	35 max	-	-
NP2HPU400	4"	8	9.91	35 max	-	-

Based on proof stress of 175,000 psi



# Heavy Hex Nuts Gr2H

ASTM A194 / A194M



## UNF GRADE 2H HEAVY HEX NUT CARBON STEEL ASTM A<sup>194</sup>/A<sup>194M</sup>

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRC)
NP2HPF050	1/2"	20	0.03	24 -35
NP2HPF062	5/8"	18	0.05	24 -35
NP2HPF075	3/4"	16	0.09	24 -35
NP2HPF087	7/8"	14	0.13	24 -35
NP2HPF100	1"	12	0.19	24 -35
NP2HPF112	1 1/8"	12	0.26	24 -35
NP2HPF125	1 1/4"	12	0.37	24 -35
NP2HPF150	1 1/2"	12	0.58	24 -35

## METRIC GRADE 2H HEAVY HEX NUT CARBON STEEL ASTM A<sup>194</sup>/A<sup>194M</sup> (AF=DIN<sup>934</sup>, Height=Diameter)

Part	Size	Thread (Pitch)	Nut Wgt (Kg)	Hardness (HRC)	Stress Area (mm <sup>2</sup> )	Proof Load (kN)
NP2HPCM06	M6	1.00	0.01	24 -35	20.1	29.2
NP2HPCM08	M8	1.25	0.01	24 -35	36.6	44.1
NP2HPCM10	M10	1.50	0.01	24 -35	58.0	69.9
NP2HPCM12	M12	1.75	0.02	24 -35	84.3	101.6
NP2HPCM14	M14	2.00	0.03	24 -35	115.0	138.6
NP2HPCM16	M16	2.00	0.04	24 -35	157.0	189.2
NP2HPCM18	M18	2.50	0.06	24 -35	-	-
NP2HPCM20	M20	2.50	0.08	24 -35	245.0	295.2
NP2HPCM22	M22	2.50	0.10	24 -35	303.0	365.1
NP2HPCM24	M24	3.00	0.14	24 -35	353.0	425.4
NP2HPCM27	M27	3.00	0.21	24 -35	459.0	553.4
NP2HPCM30	M30	3.50	0.28	24 -35	561.0	676.0
NP2HPCM33	M33	3.50	0.36	24 -35	-	-
NP2HPCM36	M36	4.00	0.49	24 -35	817.0	984.5
NP2HPCM39	M39	4.00	0.63	35 max	-	-
NP2HPCM42	M42	4.50	0.81	35 max	1120.0	1349.6
NP2HPCM48	M48	5.00	1.22	35 max	1470.0	1771.4
NP2HPCM52	M52	5.00	1.52	35 max	-	-
NP2HPCM56	M56	5.50	1.77	35 max	2030.0	2446.2
NP2HPCM64	M64	6.00	2.48	35 max	2680.0	3229.4
NP2HPCM72	M72	6.00	4.32	35 max	3460.0	4169.3

Based on proof stress of 1205 MPa



Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# Heavy Hex Nuts Gr2HM

ASTM A194 / A194M

## BSF GRADE 2H HEAVY HEX NUT CARBON STEEL ASTM A<sup>194</sup>/A<sup>194M</sup>

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRC)
NP2HPS050	1/2"	16	0.03	24 -35
NP2HPS062	5/8"	14	0.05	24 -35
NP2HPS075	3/4"	12	0.09	24 -35
NP2HPS087	7/8"	11	0.13	24 -35
NP2HPS100	1"	10	0.19	24 -35
NP2HPS112	1 1/8"	9	0.26	24 -35
NP2HPS125	1 1/4"	9	0.37	24 -35

## BSW GRADE 2H HEAVY HEX NUT CARBON STEEL ASTM A<sup>194</sup>/A<sup>194M</sup>

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRC)
NP2HPW050	1/2"	12	0.03	35 max

## UNC / UN<sup>8</sup> GRADE 2HM HEAVY HEX NUT CARBON STEEL ASTM A<sup>194</sup>/A<sup>194M</sup>

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRB)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NPHMPC037	3/8"	16	0.01	84-99	0.0774	11620
NPHMPC050	1/2"	13	0.03	84-99	0.1419	21280
NPHMPC062	5/8"	11	0.05	84-99	0.2260	33900
NPHMPC075	3/4"	10	0.09	84-99	0.3340	50100
NPHMPC087	7/8"	9	0.13	84-99	0.4620	69300
NPHMPC100	1"	8	0.19	84-99	0.6060	90900
NPHMPU112	1 1/8"	8	0.26	84-99	0.7900	118500
NPHMPU125	1 1/4"	8	0.37	84-99	1.0000	150000
NPHMPU137	1 3/8"	8	0.48	84-99	1.2330	185000
NPHMPU150	1 1/2"	8	0.58	84-99	1.4920	223800
NPHMPU162	1 5/8"	8	0.78	84-99	1.7800	267000
NPHMPU175	1 3/4"	8	0.96	84-99	2.0800	312000
NPHMPU187	1 7/8"	8	1.16	84-99	2.4100	361500
NPHMPU200	2"	8	1.40	84-99	2.7700	415500

Based on proof stress of 150,000 psi



# Heavy Hex Nuts Gr4

ASTM A194 / A194M



## UNC / UN<sup>s</sup> GRADE 4 HEAVY HEX NUT CARBON-MOLYBDENUM ASTM A<sup>194</sup>/A<sup>194</sup>M

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRC)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NPG4PC037	3/8"	18	0.01	24-35	0.0774	13560
NPG4PC043	7/16"	14	0.02	24-35	0.1063	18600
NPG4PC050	1/2"	13	0.03	24-35	0.1419	24830
NPG4PC056	9/16"	12	0.04	24-35	0.1820	31850
NPG4PC062	5/8"	11	0.05	24-35	0.2260	39550
NPG4PC075	3/4"	10	0.09	24-35	0.3340	58450
NPG4PC087	7/8"	9	0.13	24-35	0.4620	80850
NPG4PC100	1"	8	0.19	24-35	0.6060	106000
NPG4PU112	1 1/8"	8	0.26	24-35	0.7900	138200
NPG4PU125	1 1/4"	8	0.37	24-35	1.0000	175000
NPG4PU137	1 3/8"	8	0.48	24-35	1.2330	215800
NPG4PU150	1 1/2"	8	0.58	24-35	1.4920	261100
NPG4PU162	1 5/8"	8	0.78	24-35	1.7800	311500
NPG4PU175	1 3/4"	8	0.96	24-35	2.0800	364000
NPG4PU187	1 7/8"	8	1.16	24-35	2.4100	421800
NPG4PU200	2"	8	1.40	24-35	2.7700	484800
NPG4PU225	2 1/4"	8	1.90	24-35	3.5600	623000
NPG4PU250	2 1/2"	8	2.56	24-35	4.4400	777000
NPG4PU275	2 3/4"	8	3.35	24-35	5.4300	950250
NPG4PU300	3"	8	4.32	24-35	-	-
NPG4PU350	3 1/2"	8	6.94	24-35	-	-

Based on proof stress of 175,000 psi

## METRIC GRADE 4 HEAVY HEX NUT CARBON-MOLYBDENUM ASTM A<sup>194</sup>/A<sup>194</sup>M (AF=DIN<sup>934</sup>, Height=Diameter)

Part	Size	Thread (Pitch)	Nut Wgt (Kg)	Hardness (HRC)	Stress Area (mm <sup>2</sup> )	Proof Load (kN)
NPG4PCM12	M12	1.75	0.02	24-35	84.3	101.6
NPG4PCM16	M16	2.00	0.04	24-35	157.0	189.2
NPG4PCM20	M20	2.50	0.08	24-35	245.0	295.2
NPG4PCM22	M22	2.50	0.14	24-35	303.0	365.1
NPG4PCM24	M24	3.00	0.14	24-35	353.0	425.4
NPG4PCM27	M27	3.00	0.28	24-35	459.0	553.4
NPG4PCM30	M30	3.50	0.28	24-35	561.0	676.0
NPG4PCM33	M33	3.50	0.36	24-35	-	-
NPG4PCM36	M36	4.00	0.49	24-35	817.0	984.5
NPG4PCM39	M39	4.00	0.63	24-35	-	-
NPG4PCM42	M42	4.00	0.81	24-35	1120.0	1349.6
NPG4PCM48	M48	4.50	1.22	24-35	1470.0	1771.4
NPG4PCM60	M60	5.50	2.56	24-35	-	-

Based on proof stress of 1205 MPa



Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# Heavy Hex Nuts Gr7 & Gr7M

ASTM A194 / A194M

## UNC / UN<sup>8</sup> GRADE 7 HEAVY HEX NUT AISI 4140 ASTM A<sup>194</sup>/A<sup>194M</sup>

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRC)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NPG7PC037	3/8"	16	0.01	24-35	0.0774	13560
NPG7PC043	7/16"	14	0.02	24-35	0.1063	18600
NPG7PC050	1/2"	13	0.03	24-35	0.1419	24830
NPG7PC062	5/8"	11	0.05	24-35	0.2260	39550
NPG7PC075	3/4"	10	0.09	24-35	0.3340	58450
NPG7PC087	7/8"	9	0.13	24-35	0.4620	80850
NPG7PC100	1"	8	0.19	24-35	0.6060	106000
NPG7PU112	1 1/8"	8	0.26	24-35	0.7900	138200
NPG7PU125	1 1/4"	8	0.37	24-35	1.0000	175000
NPG7PU137	1 3/8"	8	0.48	24-35	1.2330	215800
NPG7PU150	1 1/2"	8	0.58	24-35	1.4920	261100
NPG7PU162	1 5/8"	8	0.78	24-35	1.7800	311500
NPG7PU175	1 3/4"	8	0.96	24-35	2.0800	364000
NPG7PU187	1 7/8"	8	1.16	24-35	2.4100	421800
NPG7PU200	2"	8	1.40	24-35	2.7700	484800
NPG7PU225	2 1/4"	8	1.90	24-35	3.5600	623000
NPG7PU250	2 1/2"	8	2.56	24-35	4.4400	777000
NPG7PU275	2 3/4"	8	2.82	24-35	5.4300	950250
NPG7PU300	3"	8	4.32	24-35	-	-
NPG7PU325	3 1/4"	8	6.94	24-35	-	-
NPG7PU350	3 1/2"	8	6.94	24-35	-	-

Based on proof stress of 175,000 psi

## UNC / UN<sup>8</sup> GRADE 7M HEAVY HEX NUT AISI 4140 ASTM A<sup>194</sup>/A<sup>194M</sup>

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRB)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NP7MPC062	5/8"	11	0.05	84-99	0.2260	33900
NP7MPC075	3/4"	10	0.09	84-99	0.3340	50100
NP7MPC087	7/8"	9	0.13	84-99	0.4620	69300
NP7MPC100	1"	8	0.19	84-99	0.6060	90900
NP7MPU112	1 1/8"	8	0.26	84-99	0.7900	118500
NP7MPU125	1 1/4"	8	0.37	84-99	1.0000	150000

Based on proof stress of 150,000 psi



# Heavy Hex Nuts Gr3 & Gr6

ASTM A194 / A194M



## UNC / UN<sup>s</sup> GRADE <sup>3</sup> HEAVY HEX NUT AISI <sup>501</sup> ASTM A <sup>194</sup>/A <sup>194</sup>M

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRC)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NPG3PC050	1/2"	13	0.03	24-35	0.1419	24830
NPG3PC062	5/8"	11	0.05	24-35	0.2260	38550
NPG3PC075	3/4"	10	0.09	24-35	0.3340	58450
NPG3PC087	7/8"	9	0.13	24-35	0.4620	80850
NPG3PC100	1"	8	0.19	24-35	0.6060	106000
NPG3PU112	1 1/8"	8	0.26	24-35	0.7900	138200
NPG3PU125	1 1/4"	8	0.37	24-35	1.0000	175000

Based on proof stress of 175,000 psi

## UNC / UN<sup>s</sup> GRADE <sup>6</sup> HEAVY HEX NUT AISI <sup>410</sup> ASTM A <sup>194</sup>/A <sup>194</sup>M

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRC)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NPG6PC037	3/8"	16	0.01	20-28	0.0774	11620
NPG6PC050	1/2"	13	0.03	20-28	0.1419	21280
NPG6PC062	5/8"	11	0.05	20-28	0.2260	33900
NPG6PC075	3/4"	10	0.09	20-28	0.3340	50100
NPG6PC087	7/8"	9	0.13	20-28	0.4620	69300
NPG6PC100	1"	8	0.19	20-28	0.6060	90900
NPG6PU112	1 1/8"	8	0.26	20-28	0.7900	118500
NPG6PU125	1 1/4"	8	0.37	20-28	1.0000	150000

Based on proof stress of 150,000 psi





Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# Heavy Hex Nuts Gr8 & Gr8C

ASTM A194 / A194M

## UNC / UN<sup>8</sup> GRADE <sup>8</sup> HEAVY HEX NUT AISI <sup>304</sup> ASTM A<sup>194</sup>/A<sup>194M</sup>

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRB)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NPG8PC037	3/8"	16	0.01	60-105	0.0774	6200
NPG8PC050	1/2"	13	0.03	60-105	0.1419	11350
NPG8PC062	5/8"	11	0.05	60-105	0.2260	18080
NPG8PC075	3/4"	10	0.09	60-105	0.3340	26720
NPG8PC087	7/8"	9	0.13	60-105	0.4620	36960
NPG8PC100	1"	8	0.19	60-105	0.6060	48480
NPG8PU112	1 1/8"	8	0.26	60-105	0.7900	63200
NPG8PU125	1 1/4"	8	0.37	60-105	1.0000	80000
NPG8PU137	1 3/8"	8	0.48	60-105	1.2330	98640
NPG8PU150	1 1/2"	8	0.58	60-105	1.4920	119360
NPG8PU162	1 5/8"	8	0.78	60-105	-	-
NPG8PU175	1 3/4"	8	0.96	60-105	-	-
NPG8PU187	1 7/8"	8	1.16	60-105	-	-
NPG8PU200	2"	8	1.40	60-105	-	-

Based on proof stress of 80,000 psi

## METRIC GRADE <sup>8</sup> HEAVY HEX NUT AISI <sup>304</sup> ASTM A<sup>194</sup>/A<sup>194M</sup> (AF=DIN<sup>934</sup>, Height=Diameter)

Part	Size	Thread (Pitch)	Nut Wgt (Kg)	Hardness (HRB)	Stress Area (mm <sup>2</sup> )	Proof Load (kN)
NPG8PCM10	M10	1.50	0.01	60-105	58.0	31.9
NPG8PCM12	M12	1.75	0.02	60-105	84.3	46.4
NPG8PCM16	M16	2.00	0.04	60-105	157.0	86.4
NPG8PCM20	M20	2.50	0.08	60-105	245.0	134.8
NPG8PCM24	M24	3.00	0.14	60-105	353.0	194.2

Based on proof stress of 550 MPa

## UNC / UN<sup>8</sup> GRADE <sup>8</sup>C HEAVY HEX NUT AISI <sup>347</sup> ASTM A<sup>194</sup>/A<sup>194M</sup>

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRB)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NP8CPC050	1/2"	13	0.03	60-105	0.1419	11350
NP8CPC062	5/8"	11	0.05	60-105	0.2260	18080
NP8CPC075	3/4"	10	0.09	60-105	0.3340	26720
NP8CPC087	7/8"	9	0.13	60-105	0.4620	36960
NP8CPC100	1"	8	0.19	60-105	0.6060	48480
NP8CPU112	1 1/8"	8	0.26	60-105	0.7900	63200

Based on proof stress of 80,000 psi



# Heavy Hex Nuts Gr8T & Gr8M

ASTM A194 / A194M



## UNC / UN<sup>s</sup> GRADE <sup>8</sup>T HEAVY HEX NUT AISI <sup>321</sup> ASTM A <sup>194</sup>/A <sup>194</sup>M

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRB)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NP8TPC037	3/8"	16	0.01	60-105	0.0774	6200
NP8TPC050	1/2"	13	0.03	60-105	0.1419	11350
NP8TPC062	5/8"	11	0.05	60-105	0.2260	18080
NP8TPC075	3/4"	10	0.09	60-105	0.3340	26720
NP8TPC087	7/8"	9	0.13	60-105	0.4620	36960
NP8TPC100	1"	8	0.19	60-105	0.6060	48480
NP8TPU112	1 1/8"	8	0.26	60-105	0.7900	63200
NP8TPU125	1 1/4"	8	0.37	60-105	1.0000	80000
NP8TPU150	1 1/2"	8	0.58	60-105	1.4920	119360
NP8TPU175	1 3/4"	8	0.96	60-105	-	-

Based on proof stress of 80,000 psi

## UNC / UN<sup>s</sup> GRADE <sup>8</sup>M HEAVY HEX NUT AISI <sup>316</sup> ASTM A <sup>194</sup>/A <sup>194</sup>M

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRB)	Stress Area (inch <sup>2</sup> )	Proof Load (lbf)
NP8MPC031	5/16"	18	0.01	60-105	0.0524	4190
NP8MPC037	3/8"	16	0.01	60-105	0.0774	6200
NP8MPC043	7/16"	14	0.02	60-105	0.1063	8500
NP8MPC050	1/2"	13	0.03	60-105	0.1419	11350
NP8MPC056	9/16"	12	0.04	60-105	0.1820	14560
NP8MPC062	5/8"	11	0.05	60-105	0.2260	18080
NP8MPC075	3/4"	10	0.09	60-105	0.3340	26720
NP8MPC087	7/8"	9	0.13	60-105	0.4620	36960
NP8MPC100	1"	8	0.19	60-105	0.6060	48480
NP8MPU112	1 1/8"	8	0.26	60-105	0.7900	63200
NP8MPU125	1 1/4"	8	0.37	60-105	1.0000	80000
NP8MPU137	1 3/8"	8	0.48	60-105	1.2330	98640
NP8MPU150	1 1/2"	8	0.58	60-105	1.4920	119360
NP8MPU162	1 5/8"	8	0.78	60-105	-	-
NP8MPU175	1 3/4"	8	0.96	60-105	-	-
NP8MPU187	1 7/8"	8	1.16	60-105	-	-
NP8MPU200	2"	8	1.40	60-105	-	-

Based on proof stress of 80,000 psi



Products supplied have been mechanically tested by an independent NATA laboratory accredited for tensile testing of fasteners.\*

# Heavy Hex Nuts Gr8MA

ASTM A194 / A194M

## METRIC GRADE 8M HEAVY HEX NUT

AISI 316 ASTM A194/A194M (AF=DIN934, Height=Diameter)

Part	Size	Thread (Pitch)	Nut Wgt (Kg)	Hardness (HRB)	Stress Area (mm <sup>2</sup> )	Proof Load (kN)
NP8MPCM10	M10	1.50	0.01	60-105	58.0	31.9
NP8MPCM12	M12	1.75	0.02	60-105	84.3	46.4
NP8MPCM16	M16	2.00	0.04	60-105	157.0	86.4
NP8MPCM20	M20	2.50	0.08	60-105	245.0	134.8
NP8MPCM24	M24	3.00	0.14	60-105	353.0	194.2

Based on proof stress of 550 MPa

## UNC / UN8 GRADE 8MA HEAVY HEX NUT

AISI 316 ASTM A194/A194M

Part	Size	Thread (TPI)	Nut Wgt (Kg)	Hardness (HRB)
NPMAPC050	1/2"	13	0.03	60-90
NPMAPC062	5/8"	11	0.05	60-90
NPMAPC075	3/4"	10	0.09	60-90
NPMAPC087	7/8"	9	0.13	60-90
NPMAPC100	1"	8	0.19	60-90
NPMAPU112	1 1/8"	8	0.26	60-90
NPMAPU125	1 1/4"	8	0.37	60-90
NPMAPU137	1 3/8"	8	0.48	60-90
NPMAPU150	1 1/2"	8	0.58	60-90
NPMAPU162	1 5/8"	8	0.78	60-90
NPMAPU175	1 3/4"	8	0.96	60-90
NPMAPU187	1 7/8"	8	1.16	60-90
NPMAPU200	2"	8	1.40	60-90



# Heavy Hex Nuts UNS

ASTM A194 / A194M Dimensionally



## UNC / METRIC UNS S<sup>31803</sup> HEAVY HEX NUT ASTM A<sup>194</sup>/A<sup>194M</sup> DIMENSIONALLY (EQUIVALENT TO SAF<sup>2205</sup>)

Part	Size	Thread (TPI / Pitch)	Nut Wgt (Kg)
NPS <sup>0</sup> PC <sup>050</sup>	1/2"	13	0.03
NPS0PC062	5/8"	11	0.05
NPS0PC075	3/4"	10	0.09
NPS0PC087	7/8"	9	0.13
NPS0PC100	1"	8	0.19
NPS0PCM16	M16	2.00	0.04
NPS0PCM30	M30	3.50	0.28

## UNC / UN<sup>8</sup> UNS S<sup>32750</sup> HEAVY HEX NUT ASTM A<sup>194</sup>/A<sup>194M</sup> DIMENSIONALLY (EQUIVALENT TO SAF<sup>2507</sup>)

Part	Size	Thread (TPI)	Nut Wgt (Kg)
NPS5PC050	1/2"	13	0.03
NPS5PC062	5/8"	11	0.05
NPS5PC075	3/4"	10	0.09
NPS5PC087	7/8"	9	0.13
NPS5PC100	1"	8	0.19
NPS5PU112	1 1/8"	8	0.26
NPS5PU125	1 1/4"	8	0.37

## UNC / UN<sup>8</sup> UNS S<sup>32760</sup> HEAVY HEX NUT ASTM A<sup>194</sup>/A<sup>194M</sup> DIMENSIONALLY (EQUIVALENT TO ZERON<sup>100</sup>)

Part	Size	Thread (TPI)	Nut Wgt (Kg)
NPS6PC037	3/8"	18	0.01
NPS6PC050	1/2"	13	0.03
NPS6PC062	5/8"	11	0.05
NPS6PC075	3/4"	10	0.09
NPS6PC087	7/8"	9	0.13
NPS6PC100	1"	8	0.19
NPS6PU112	1 1/8"	8	0.26
NPS6PU125	1 1/4"	8	0.37
NPS6PU137	1 3/8"	8	0.48
NPS6PU150	1 1/2"	8	0.58
NPS6PU162	1 5/8"	8	0.78

# Petrochemical Studbolts

Grade of Bolting  
Chemical & Mechanical Properties

GRADE OF BOLTING	B7/L7	B16	B8 Class 1	B8M Class 1
<b>Service Conditions†</b>	Min:-100 °C Max 400 °C	Min: 0 °C Max: 520 °C	Min: -250 °C Max: 575 °C	Min: -250 °C Max: 600 °C
<b>Material Specifications</b>	B7 ASTM-A193/A193M L7 ASTM-A320/A320M AISI 4140	ASTM-A193/193M Chrome-Moly-Vanadium	ASTM-A193/A193M AISI Type 304	ASTM-A193/A193M AISI Type 316
<b>Chemical Composition</b>				
<b>Carbon</b>	0.37-0.49	0.36-0.47	0.08 Max	0.08 Max
<b>Silicon</b>	0.15-0.35	0.15-0.35	1.00 Max	1.00 Max
<b>Manganese</b>	0.65-1.10	0.45-0.70	2.00 Max	2.00 Max
<b>Nickel</b>	-	-	8.00-11.00	10.00-14.00
<b>Chromium</b>	0.75-1.20	0.80-1.15	18.00-20.00	16.00-18.00
<b>Molybdenum</b>	0.15-0.25	0.50-0.65	-	2.00-3.00
<b>Vanadium</b>	-	0.25-0.35	-	-
<b>Sulphur</b>	0.040 Max	0.040 Max	0.030 Max	0.030 Max
<b>Phosphorus</b>	0.035 Max	0.035 Max	0.045 Max	0.045 Max
<b>Mechanical Properties</b>				
<b>Limiting Ruling Selection</b>	2 1/2" and under	2 1/2" and under	-	-
<b>Tensile Strength Minimum</b>	860 MPA	860 MPA	515 MPA	515 MPA
<b>Yield Strength Min 0.2% Offset</b>	720 MPA (725 MPA for L7)	725 MPA	205 MPA	205 MPA
<b>Elongational in 4D% Minimum</b>	16	18	30	30
<b>Reduction of Area% Minimum</b>	50	50	50	50
<b>Brinell Harness</b>	-	-	223HB or 96HRB	223HB or 96HRB

† Service Temperatures refer to actual metal temperatures.

## L<sup>7</sup> STUDBOLTS

An ASTM A320/A320M current issue grade L7 Studbolt is manufactured from AISI 4140 material that has undergone an impact test at -101°C. For the material to be classed as Grade L7 it must have the following values:

Size of Speciment (mm)	Minimum Impact Value Required for Average of Each of 3 Specimens (J)	Minimum Impact Value Permitted for One Specimen only of Set (J)
10 x 10.0	27	20
10 x 7.5	22	16

# Petrochemical Studbolts

Grade of Bolting  
Chemical & Mechanical Properties

GRADE OF BOLTING	B5	B6	B8 CLASS 2				B8M CLASS 2			
Service Conditions†		Min: 0 °C Max: 500 °C	Min: -250 °C Max: 575 °C				Min: -250 °C Max: 600 °C			
Material Specifications	ASTM-A193/A193M AISI 501	ASTM-A193/193M AISI 410	ASTM-A193/A193M AISI Type 304				ASTM-A193/A193M AISI Type 316			
Chemical Composition										
Carbon	0.10 Min	0.15 Max	0.08 Max				0.08 Max			
Silicon	1.00 Max	1.00 Max	1.00 Max				1.00 Max			
Manganese	1.00 Max	1.00 Max	2.00 Max				2.00 Max			
Nickel	-	-	8.00-11.00				10.00-14.00			
Chromium	4.00-6.00	11.50-13.50	18.00-20.00				16.00-18.00			
Molybdenum	0.40-0.65	-	-				2.00-3.00			
Vanadium	-	-	-				-			
Sulphur	0.030 Max	0.030 Max	0.030 Max				0.030 Max			
Phosphorus	0.040 Max	0.040 Max	0.045 Max				0.045 Max			
Mechanical Properties										
Limiting Ruling Selection	-	-	<3/4"	>3/4" 1"	>1" 1 ¼"	>1 ¼" 1 ½"	<3/4"	>3/4" 1"	>1" 1 ¼"	>1 ¼" 1 ½"
Tensile Strength Minimum	690	760	860	795	725	690	760	690	655	620
Yield Strength Min 0.2% Offset	550	585	690	550	450	345	665	550	450	345
Elongational in 4D% Minimum	16	15	12	15	20	28	15	20	25	30
Reduction of Area% Minimum	50	50	35	35	35	45	45	45	45	45
Brinell Harness	-	-	321	321	321	321	321	321	321	321

† Service Temperatures refer to actual metal temperatures.

# Petrochemical Nuts

Grade of Nuts  
Chemical & Mechanical Properties

GRADE OF NUT MARKING SYMBOL	2H	4	8	8M
<b>Service Conditions†</b>	Min: 0 °C Max: 450 °C	Min: -100 °C Max: 520 °C	Min: -250 °C Max: 575 °C	Min: -250 °C Max: 600 °C
<b>Material Specifications</b>	ASTM-A194/A194M Carbon Steel	ASTM-A194/194M Carbon, Moly	ASTM-A194/A194M AISI Type 304	ASTM-A194/A194M AISI Type 316
<b>Chemical Composition</b>				
<b>Carbon</b>	0.40 Min	0.40-0.50	0.08 Max	0.08 Max
<b>Silicon</b>	0.40 Max	0.15-0.35	1.00 Max	1.00 Max
<b>Manganese</b>	1.00 Max	0.70-0.90	2.00 Max	2.00 Max
<b>Nickel</b>	-	-	8.00-10.50	10.00-14.00
<b>Chromium</b>	-	-	18.00-20.00	16.00-18.00
<b>Molybdenum</b>	-	0.20-0.30	-	2.00-3.00
<b>Sulphur</b>	0.050 Max	0.040 Max	0.030 Max	0.030 Max
<b>Phosphorus</b>	0.040 Max	0.035 Max	0.045 Max	0.045 Max
<b>Titanium</b>	-	-	-	-
<b>Mechanical Properties</b>				
<b>Brinell Hardness</b>	248-327	212-327	248-327	126-300
<b>Sample Nut after Treatment</b>	179 HB 89 HRB	147 HB 79 HRB	201HB 94 HRB	-



# Petrochemical Nuts

Grade of Nuts

Chemical & Mechanical Properties

GRADE OF NUT MARKING SYMBOL	3	6	7	8T
Service Conditions†		Min: 0 °C Max: 575 °C	Min: -100 °C Max: 565 °C	Min: -250 °C Max: 575 °C
Material Specifications	ASTM-A194/A194M AISI 501	ASTM-A194/A194M AISI 410	ASTM-A194/A194M AISI Type 4140	ASTM-A194/A194M AISI Type 321
Chemical Composition				
Carbon	0.10 Min	0.15 Max	0.37-0.49	0.08 Max
Silicon	1.00 Max	1.00 Max	0.15-0.35	1.00 Max
Manganese	1.00 Max	1.00 Max	0.65-1.10	2.00 Max
Nickel	-	-	-	9.00-12.00
Chromium	4.00-6.00	11.50-13.50	0.75-1.20	17.00-19.00
Molybdenum	0.40-0.65	-	0.15-0.25	2.00-3.00
Sulphur	0.030 Max	0.030 Max	0.040 Max	0.030 Max
Phosphorus	0.040 Max	0.040 Max	0.040 Max	0.045 Max
Titanium	-	-	-	5x Carbon Content
Mechanical Properties				
Brinell Hardness	248-327	228-271	248-327	126-300
Sample Nut after treatment	201 HB 94 HRB	-	201 HB 94 HRB	-





# Petrochemical

## Tightening Torques

### PETROCHEMICAL STUDBOLTS - GUIDE TO TIGHTENING TORQUES (lbf.ft) \*\* SEE NOTE \*\*

Nominal Size	TPI	Stress Area in <sup>2</sup>	Grade B7	Grade B16	Grade L7	Grade B8/B8M CI1	Grade B8 CI2	Grade B8M CI2
1/4"UNC	20	0.031	9	9	9	3	9	8
5/16"UNC	18	0.052	19	19	19	5	18	17
3/8"UNC	16	0.077	33	33	33	9	31	30
7/16"UNC	14	0.106	53	53	53	15	50	48
1/2"UNC	13	0.141	81	81	81	23	77	74
9/16"UNC	12	0.182	116	116	116	33	111	106
5/8"UNC	11	0.226	161	161	161	46	153	147
3/4"UNC	10	0.334	285	285	285	81	271	261
7/8"UNC	9	0.462	460	460	460	131	350	350
1"UNC	8	0.606	689	689	689	197	525	525
1-1/8"UN8	8	0.790	1011	1011	1011	289	626	626
1-1/4"UN8	8	1.000	1422	1422	1422	406	880	880
1-3/8"UN8	8	1.233	1928	1928	1928	551	918	918
1-1/2"UN8	8	1.492	2546	2546	2546	727	1212	1212
1-5/8"UN8	8	1.780	3290	3290	3290	940	-	-
1-3/4"UN8	8	2.080	4141	4141	4141	1183	-	-
1-7/8"UN8	8	2.410	5140	5140	5140	1469	-	-
2"UN8	8	2.770	6302	6302	6302	1801	-	-
2-1/4"UN8	8	3.560	9111	9111	9111	2603	-	-
2-1/2"UN8	8	4.440	12626	12626	12626	3608	-	-
2-3/4"UN8	8	5.430	15368	15368	16986	4853	-	-
3"UN8	8	6.510	20100	20100	22215	6347	-	-
3-1/4"UN8	8	7.690	25721	25721	28429	8123	-	-
3-1/2"UN8	8	8.960	32275	32275	35672	10192	-	-
3-3/4"UN8	8	10.340	39906	39906	44107	12602	-	-
4"UN8	8	11.810	48618	48618	53736	15353	-	-

k Factor = 0.2

The induced load is calculated at 65% yield stress

#### Note:

Studbolts are most widely used for flange bolting on piping carrying fluids of various kinds over a range of temperatures and pressures. Furthermore, a wide selection of gasket materials of varying properties is available for selection by design engineers. Normally, the pressure on gaskets required to be developed from the tightening of bolts only needs to be sufficient to prevent any risk of leakage under all possible operating conditions. Since there is a range of differing flange types to select from, a mix of variations in gasket types to cover all conditions possible and a spread of operating temperatures to be allowed for, standards for the tightening of pipe flange studbolts can really only be specified by engineers from within the particular industry in which these fasteners are used. The tightening torque values given in the above table therefore, serve only as a guide in cases where studbolts might be selected for use simply as tension fasteners clamping metal-metal joint surfaces directly one to the other, as is the case with most normal high tensile hex head bolting. A k factor of 0.2 has been used which assumes threads are burr free and a light oil coating. Stainless fasteners that are not lubricated or coated often seize and can exhibit k factors in excess of 0.35.

# Petrochemical

## Tightening Torques on Coated Studbolts

### k FACTOR CALCULATION

k Factor	0.20	Plain
k Factor	0.17	Cadmium Plated
k Factor	0.22	Zinc Plated
k Factor	0.25	Hot Dip Galvanised
k Factor	0.18	1PX1 (Moly)
k Factor	0.17	Inorganic Silicate (IOZ)
k Factor	0.10	Xylan

### MULTIPLIER FOR TIGHTENING TORQUES ON COATED STUDBOLTS

Multiply by	0.90	1PX1 (Moly)
Multiply by	0.85	Inorganic Silicate
Multiply by	0.47	Xylan
Multiply by	1.90	HDG Degreased
Multiply by	1.10	HDG Lightly Oiled
Multiply by	0.80	Zinc Plated (acid chloride)
Multiply by	1.10	Zinc Plated (other than acid chloride)
Multiply by	0.90	Zinc Plated (acid chloride) Lightly Oiled
Multiply by	0.85	Cadmium Plated
Multiply by	0.70	Cadmium Plated Lightly Oiled
Multiply by	0.70	Phosphate & Oil
Multiply by	0.70	Plain with Heavy Grease
Multiply by	1.355	To convert lbf.ft to Nm

The table "Petrochemical Studbolts - Guide to Tightening Torques (lbf.ft)" has values for Plain studs and a k Factor of 0.2 was used. Refer to table "k Factor Calculation" for the k factor required on coated studbolts. Table "Multiplier for Tightening Torques on Coated Studbolts" gives the multiplier to use with the value in table "Petrochemical Studbolts - Guide to Tightening Torques (lbf.ft)" for a tightening torque guide on coated studbolts.

# Petrochemical

## Coating Application and Benefits

### Mechanical Plating

#### Application

Mechanical Plating is recommended on High Tensile fasteners such as the petro-chemical and Sampsonrod range.

Maximum diameter — 2"

Maximum length --- 14"

#### Benefits

- (i) No Hydrogen Embrittlement
- (ii) No blocked threads
- (iii) Excellent protection against corrosion
- (iv) Consistent thickness and uniformity
- (v) High Quality finish

### Inorganic Zinc Silicate

#### Application

Inorganic Zinc Silicate is very highly recommended for extreme corrosive environments. Very fine particles of pure zinc are bonded to the items with a bonding agent.

All items are sandblasted to a Class 3 finish to ensure that the best possible surface for bonding is achieved.

#### Benefits

- (i) No Hydrogen Embrittlement
- (ii) Superb corrosion protection up to 2000 hours
- (iii) High quality finish
- (iv) Consistent thickness
- (v) 25-35 micron of Zinc
- (vi) No blocked threads
- (vii) Studbolts available ex-stock

### 1PX1 (Moly)

#### Benefits

- (i) Thread lubricant is part of the fastener
- (ii) Greatly reduced friction co-efficient ensures evenly tensioned fasteners
- (iii) Excellent corrosion resistance up to 130°C
- (iv) Easy removal of nuts in maintenance work
- (v) Provides excellent undercoat for epoxy paints
- (vi) Hydrogen Embrittlement avoided
- (vii) Nuts are coated internally
- (viii) Excellent resistance to both acids and alkalins
- (ix) Lower friction actually increases the effective tension of the fastener as a result of lowering the wasted shear stress
- (x) The coating is well proven in the marketplace

# Petrochemical

Coating Application and Benefits

## Xylan 1424 Series – Blue & Green

### Benefits

- (i) Thread lubricant is part of the fastener
- (ii) Greatly reduced friction co-efficient ensures evenly tensioned fasteners
- (iii) Excellent corrosion resistance. <15% red rust after 1488 hours salt spray
- (iv) Easy removal of nuts in maintenance work
- (v) Reduces make-up torque by as much as 70%
- (vi) Hydrogen Embrittlement avoided
- (vii) Nuts are coated internally
- (viii) Operating Temperature -40°C to 205°C
- (ix) Lower friction actually increases the effective tension of the fastener as a result of lowering the wasted shear stress



## Other Coatings Available

Cadmium  
Phosphate and Oil  
PTFE  
Flourocarbon  
Hot Dip Galvanise  
Zinc Plate  
Xylar 2

# Petrochemical

Details for Bolting BS and ASA Pipe Flanges

Nominal		150lb			300lb		
Flange Size		(1/16"Raised Face)			(1/16"Raised Face)		
mm	inches	Number of Studbolts	Diameter of Studbolts (inches)	Length of Studbolts (inches)	Number of Studbolts	Diameter of Studbolts (inches)	Length of Studbolts (inches)
15	1/2"	4	1/2"	2 1/4"	4	1/2"	2 1/2"
20	3/4"	4	1/2"	2 1/4"	4	5/8"	2 3/4"
25	1"	4	1/2"	2 1/4"	4	5/8"	3"
32	1 1/4"	4	1/2"	2 1/2"	4	5/8"	3"
40	1 1/2"	4	1/2"	2 3/4"	4	3/4"	3 1/2"
50	2"	4	5/8"	3 "	8	5/8"	3 1/4"
65	2 1/2"	4	5/8"	3 1/4"	8	3/4"	3 3/4"
80	3"	4	5/8"	3 1/2"	8	3/4"	4"
90	3 1/2"	8	5/8"	3 1/2"	8	3/4"	4 1/4"
100	4"	8	5/8"	3 1/2"	8	3/4"	4 1/4"
125	5"	8	3/4"	3 3/4"	8	3/4"	4 1/2"
150	6"	8	3/4"	3 3/4"	12	3/4"	4 3/4"
200	8"	8	3/4"	4"	12	7/8"	5 1/4"
250	10"	12	7/8"	4 1/2"	16	1"	6"
300	12"	12	7/8"	4 1/2"	16	1 1/8"	6 1/2"
350	14"	12	1"	5"	20	1 1/8"	6 3/4"
400	16"	16	1"	5 1/4"	20	1 1/4"	7 1/4"
450	18"	16	1 1/8"	5 3/4"	24	1 1/4"	7 1/2"
500	20"	20	1 1/8"	6"	24	1 1/4"	8"
600	24"	20	1 1/4"	6 3/4"	24	1 1/2"	9"
750	30"	28	1 1/4"	7 1/2"	28	1 3/4"	11 1/2"
900	36"	32	1 1/2"	8 1/2"	32	2"	12 3/4"

# Petrochemical

Details for Bolting BS and ASA Pipe Flanges

Nominal		400lb			600lb		
Flange Size		(1/4"Raised Face)			(1/4"Raised Face)		
		Number of Studbolts	Diameter of Studbolts (inches)	Length of Studbolts (inches)	Number of Studbolts	Diameter of Studbolts (inches)	Length of Studbolts (inches)
mm	inches						
15	1/2"	For these sizes 600 lb Flanges are used			4	1/2"	3
20	3/4"				4	5/8"	3 1/4"
25	1"				4	5/8"	3 1/2"
32	1 1/4"				4	5/8"	3 3/4"
40	1 1/2"				4	3/4"	4"
50	2"				8	5/8"	4"
65	2 1/2"				8	3/4"	4 1/2"
80	3"				8	3/4"	4 3/4"
90	3 1/2"				8	7/8"	5 1/4"
100	4"	8	7/8"	5 1/4"	8	7/8"	5 1/2"
125	5"	8	7/8"	5 1/2"	8	1"	6 1/4"
150	6"	12	7/8"	5 3/4"	12	1"	6 1/2"
200	8"	12	1"	6 1/2"	12	1 1/8"	7 1/2"
250	10"	16	1 1/8"	7 1/4"	16	1 1/4"	8 1/4"
300	12"	16	1 1/4"	7 3/4"	20	1 1/4"	8 1/2"
350	14"	20	1 1/4"	8"	20	1 3/8"	9"
400	16"	20	1 3/8"	8 1/2"	20	1 1/2"	9 3/4"
450	18"	24	1 3/8"	8 3/4"	20	1 5/8"	10 1/2"
500	20"	24	1 1/2"	9 1/2"	24	1 5/8"	11 1/4"
600	24"	24	1 3/4"	10 1/2"	24	1 7/8"	12 3/4"
750	30"	-	-	-	28	2"	14"
900	36"	-	-	-	28	2 1/2"	15 3/4"

# Petrochemical

Details for Bolting BS and ASA Pipe Flanges

Nominal		900lb			1500lb			2500lb		
Flange Size		(1/16"Raised Face)			(1/4"Raised Face)			(1/4"Raised Face)		
mm	inches	Number of Studbolts	Diameter of Studbolts inches	Length of Studbolts (inches)	Number of Studbolts	Diameter of Studbolts (inches)	Length of Studbolts (inches)	Number of Studbolts (	Diameter of Studbolts (inches)	Length of Studbolts (inches)
15	1/2"	For these sizes 1500 lb Flanges are used			4	3/4"	4"	4	3/4"	4 3/4"
20	3/4"				4	3/4"	4 1/4"	4	3/4"	4 3/4"
25	1"				4	7/8"	4 3/4"	4	7/8"	5 1/4"
32	1 1/4"				4	7/8"	4 3/4"	4	1"	5 3/4"
40	1 1/2"				4	1"	5 1/4"	4	1 1/8"	6 1/2"
50	2"				8	7/8"	5 1/2"	8	1"	6 3/4"
65	2 1/2"				8	1"	6"	8	1 1/8"	7 1/2"
80	3"	8	7/8"	5 1/2"	8	1 1/8"	6 3/4"	8	1 1/4"	8 1/2"
90	3 1/2"	—	—	—	—	—	—	—	—	—
100	4"	8	1 1/8"	6 1/2"	8	1 1/4"	7 1/2"	8	1 1/2"	9 3/4"
125	5"	8	1 1/4"	7 1/4"	8	1 1/2"	9 1/2"	8	1 3/4"	11 1/2"
150	6"	12	1 1/8"	7 1/2"	12	1 3/8"	10"	8	2"	13 1/2"
200	8"	12	1 3/8"	8 1/2"	12	1 5/8"	11 1/4"	12	2"	15"
250	10"	16	1 3/8"	9"	12	1 7/8"	13 1/4"	12	2 1/2"	19"
300	12"	20	1 3/8"	9 3/4"	16	2"	14 3/4"	12	2 3/4"	21"
350	14"	20	1 1/2"	10 1/2"	20	2 1/4"	16"	-	-	-
400	16"	20	1 5/8"	11"	20	2 1/2"	17 1/2"	-	-	-
450	18"	20	1 7/8"	12 3/4"	20	2 3/4"	19 1/4"	-	-	-
500	20"	20	2"	13 1/2"	20	3"	21"	-	-	-
600	24"	20	2 1/2"	17"	20	3 1/2"	24"	-	-	-

## Flange Tightening

The correct tightening sequence is important in achieving flange integrity. The most reliable results are achieved by tightening diagonally opposite studbolts. Final tightening should be achieved in 3 to 4 complete cycles ensuring all studbolts are evenly tightened.

