

American National Standard Flange SPECIFICATIONS				Torque Chart for ASTM A193 Grade B7 Studs In Ft./Lbs At <b>60% Of Yield</b> Add .04 to the u to = K factor					
600 lb				Moly Lube u=0.085 K=.0125	Nickel Lube u=0.110 K=.150	Copper Lube u=0.100 K=.140	Machine Oil u=0.160 K=.200	Dry Torque u=0.400 K=.440	Tool Model
PIPE SIZE	BOLT DIA.	# OF BOLTS	HEAVY HEX A/F						
1/2"	1/2"	4	7/8"						
3/4"	5/8"	4	1-1/16"						
1"	5/8"	4	1-1/16"						
1-1/4"	5/8"	4	1-1/16"						
1-1/2"	3/4"	4	1-1/4"	165	197	184	263	579	Versa-1
2"	5/8"	8	1-1/16"						
2-1/2"	3/4"	8	1-1/4"	165	197	184	263	579	Versa-1
3"	3/4"	8	1-1/4"	165	197	184	263	579	Versa-1
3-1/2"	N/A	N/A	N/A						
4"	7/8"	8	1-7/16"	265	318	297	424	933	Versa-1
5"	1"	8	1-5/8"	397	477	445	636	1399	Versa-1
6"	1"	12	1-5/8"	397	477	445	636	1399	Versa-1
8"	1-1/8"	12	1-13/16"	583	700	853	933	2053	Stealth-2
10"	1-1/4"	16	2"	820	984	918	1311	2885	Stealth-2
12"	1-1/4"	20	2"	820	984	918	1311	2885	Stealth-2
14"	1-3/8"	20	2-3/16"	1112	1335	1246	1780	3916	Stealth-4
16"	1-1/2"	20	2-3/8"	1468	1761	1644	2348	5167	Stealth-4
18"	1-5/8"	20	2-9/16"	1892	2270	2119	3027	6658	Stealth-4
20"	1-5/8"	24	2-9/16"	1892	2270	2119	3027	6658	Stealth-4
24"	1-5/8"	24	2-9/16"	1892	2270	2119	3027	6658	Stealth-4
26"	1-7/8"	28	2-15/16"	2939	3563	3325	4750	10451	Stealth-8
28"	1-7/8"	28	2-15/16"	2939	3563	3325	4750	10451	Stealth-8
30"	2"	28	3-1/8"	3625	4362	4071	5815	12794	Stealth-14
32"	2"	28	3-1/8"	3625	4362	4071	5815	12794	Stealth-14
34"	2-1/4"	28	3-1/2"	5250	6300	5880	8400	18480	Stealth-14
36"	2-1/4"	28	3-1/2"	5250	6300	5880	8400	18480	Stealth-14
38"	2-1/4"	28	3-1/2"	5250	6300	5880	8400	18480	Stealth-14

<b>40"</b>	<b>2-1/4"</b>	<b>32</b>	<b>3-1/2"</b>	<b>5250</b>	<b>6300</b>	<b>5880</b>	<b>8400</b>	<b>18480</b>	<b>Stealth-14</b>
42"	2-1/2"	28	3-7/8"	6590	7909	7381	10545	23198	Stealth-14
<b>44"</b>	<b>2-1/2"</b>	<b>32</b>	<b>3-7/8"</b>	<b>6590</b>	<b>7909</b>	<b>7381</b>	<b>10545</b>	<b>23198</b>	<b>Stealth-14</b>
46"	2-1/2"	32	3-7/8"	6590	7909	7381	10545	23198	Stealth-14
<b>48"</b>	<b>2-3/4"</b>	<b>32</b>	<b>4-1/4"</b>	<b>8854</b>	<b>10624</b>	<b>9916</b>	<b>1466</b>	<b>31165</b>	<b>Stealth-22</b>
50"	3"	28	4-5/8"	11584	13900	12974	18534	40774	Stealth-36
<b>52"</b>	<b>3"</b>	<b>32</b>	<b>4-5/8"</b>	<b>11584</b>	<b>13900</b>	<b>12974</b>	<b>18534</b>	<b>40774</b>	<b>Stealth-36</b>
54"	3"	32	4-5/8"	11584	13900	12974	18534	40774	Stealth-36
<b>56"</b>	<b>3-1/4"</b>	<b>32</b>	<b>5"</b>	<b>14823</b>	<b>17788</b>	<b>16602</b>	<b>23718</b>	<b>52179</b>	<b>Stealth-36</b>
58"	3-1/4"	32	5"	14823	17788	16602	23718	52179	Stealth-36
<b>60"</b>	<b>3-1/2"</b>	<b>28</b>	<b>5-3/8"</b>	<b>18617</b>	<b>22341</b>	<b>20851</b>	<b>29788</b>	<b>65533</b>	<b>Stealth-36</b>

This spread sheet is to be used as a guide. all results should be analyzed against actual field results to establish their validity.