

American National Standard Flange SPECIFICATIONS				Torque Chart for ASTM A193 Grade B7 Studs In Ft./Lbs At 70% Of Yield Add .04 to the u to = K factor					
150 lb				Moly Lube u=0.085 K=0.125	Nickel Lube u=0.110 K=0.150	Copper Lube u=0.100 K=0.140	Machine Oil u=0.160 K=.200	Dry Torque u=0.400 K=0.440	Tool Model
PIPE SIZE	BOLT DIA.	# OF BOLTS	HEAVY HEX A/F						
1/2"	1/2"	4	7/8"						
3/4"	1/2"	4	7/8"						
1"	1/2"	4	7/8"						
1-1/4"	1/2"	4	7/8"						
1-1/2"	1/2"	4	7/8"						
2"	5/8"	4	1-1/16"						
2-1/2"	5/8"	4	1-1/16"						
3"	5/8"	4	1-1/16"						
3-1/2"	5/8"	8	1-1/16"						
4"	5/8"	8	1-1/16"						
5"	3/4"	8	1-1/4"	192	230	215	307	676	Versa-1
6"	3/4"	8	1-1/4"	192	230	215	307	676	Versa-1
8"	3/4"	8	1-1/4"	192	230	215	307	676	Versa-1
10"	7/8"	12	1-7/16"	309	371	346	495	1088	Versa-1
12"	7/8"	12	1-7/16"	309	371	346	495	1088	Versa-1
14"	1"	12	1-5/8"	464	556	519	742	1632	Versa-1
16"	1"	16	1-5/8"	464	556	519	742	1632	Versa-1
18"	1-1/8"	16	1-13/16"	680	817	762	1089	2395	Stealth-2
20"	1-1/8"	20	1-13/16"	680	817	762	1089	2395	Stealth-2
24"	1-1/4"	20	2"	956	1148	1071	1530	3366	Stealth-2
26"	1-1/4"	24	2"	956	1148	1071	1530	3366	Stealth-2
28"	1-1/4"	28	2"	956	1148	1071	1530	3366	Stealth-2
30"	1-1/4"	28	2"	956	1148	1071	1530	3366	Stealth-2
32"	1-1/2"	28	2-3/8"	1712	2055	1918	2740	6028	Stealth-4
34"	1-1/2"	32	2-3/8"	1712	2055	1918	2740	6028	Stealth-4
36"	1-1/2"	32	2-3/8"	1712	2055	1918	2740	6028	Stealth-4
38"	1-1/2"	32	2-3/8"	1712	2055	1918	2740	6028	Stealth-4

40"	1-1/2"	36	2-3/8"	1712	2055	1918	2740	6028	Stealth-4
42"	1-1/2"	36	2-3/8"	1712	2055	1918	2740	6028	Stealth-4
44"	1-1/2"	40	2-3/8"	1712	2055	1918	2740	6028	Stealth-4
46"	1-1/2"	40	2-3/8"	1712	2055	1918	2740	6028	Stealth-4
48"	1-1/2"	44	2-3/8"	1712	2055	1918	2740	6028	Stealth-4
50"	1-3/4"	44	2-3/4"	2788	3346	3123	4461	9815	Stealth-4
52"	1-3/4"	44	2-3/4"	2788	3346	3123	4461	9815	Stealth-4
54"	1-3/4"	44	2-3/4"	2788	3346	3123	4461	9815	Stealth-4
56"	1-3/4"	48	2-3/4"	2788	3346	3123	4461	9815	Stealth-4
58"	1-3/4"	48	2-3/4"	2788	3346	3123	4461	9815	Stealth-4
60"	1-3/4"	52	2-3/4"	2788	3346	3123	4461	9815	Stealth-4

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