

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					
400 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"	192	230	215	307	676	Versa-1
2"	5/8"	8	1-1/16"						
2-1/2"	3/4"	8	1-1/4"	192	230	215	307	676	Versa-1
3"	3/4"	8	1-1/4"	192	230	215	307	676	Versa-1
3-1/2"	7/8"	8	1-7/16"	309	371	346	495	1088	Versa-1
4"	7/8"	8	1-7/16"	309	371	346	495	1088	Versa-1
5"	7/8"	8	1-7/16"	309	371	346	495	1088	Versa-1
6"	7/8"	12	1-7/16"	309	371	346	495	1088	Versa-1
8"	1"	12	1-5/8"	464	556	519	742	1632	Versa-1
10"	1-1/8"	16	1-13/16"	680	817	762	1089	2395	Stealth-2
12"	1-1/4"	16	2"	956	1148	1071	1530	3366	Stealth-2
14"	1-1/4"	20	2"	956	1148	1071	1530	3366	Stealth-2
16"	1-3/8"	20	2-3/16"	1298	1557	1454	2077	4569	Stealth-4
18"	1-3/8"	24	2-3/16"	1298	1557	1454	2077	4569	Stealth-4
20"	1-1/2"	24	2-3/8"	1712	2055	1918	2740	6028	Stealth-4
24"	1-3/4"	24	2-3/4"	2788	3346	3123	4461	9815	Stealth-4
26"	1-3/4"	28	2-3/4"	2788	3346	3123	4461	9815	Stealth-4
28"	1-7/8"	28	2-15/16"	3464	4157	3879	5542	12193	Stealth-8
30"	2"	28	3-1/8"	4240	5088	4749	6785	14926	Stealth-8
32"	2"	28	3-1/8"	4240	5088	4749	6785	14926	Stealth-8
34"	2"	28	3-1/8"	4240	5088	4749	6785	14926	Stealth-8
36"	2"	32	3-1/8"	4240	5088	4749	6785	14926	Stealth-8
38"	1-3/4"	32	2-3/4"	2788	3346	3123	4461	9815	Stealth-4

40"	1-7/8"	32	2-15/16"	3464	4157	3879	5542	12193	Stealth-8
42"	1-7/8"	32	2-15/16"	3464	4157	3879	5542	12193	Stealth-8
44"	2"	32	3-1/8"	4240	5088	4749	6785	14926	Stealth-8
46"	2"	36	3-1/8"	4240	5088	4749	6785	14926	Stealth-8
48"	2-1/4"	28	3-1/2"	6125	7350	6860	9800	21560	Stealth-14
50"	2-1/4"	32	3-1/2"	6125	7350	6860	9800	21560	Stealth-14
52"	2-1/4"	32	3-1/2"	6125	7350	6860	9800	21560	Stealth-14
54"	2-1/2"	28	3-7/8"	7689	9227	8612	12302	27065	Stealth-14
56"	2-1/2"	32	3-7/8"	7689	9227	8612	12302	27065	Stealth-14
58"	2-1/2"	32	3-7/8"	7689	9227	8612	12302	27065	Stealth-14

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