



Underground Republic Water Works Flange/Bolt Chart

1175 Campbell Ave.
San Jose, CA. 95126

P: 408.714.0047

SIZE	QTY OF BOLTS	125#/150#					SIZE	QTY OF BOLTS	205#/300#		
		HEX BOLT SIZE	THICKNESS						HEX BOLT SIZE	THICKNESS	
			CLASS D RING	CLASS E RING	AWWA C110	AWWA C153				CLASS F RING	350# GATE VALVE
3"	4	5/8 x 2-1/2	0.625		0.75 ± .12	0.60 ± .12	3"	8	3/4 x 3-1/2		
4"	8	5/8 x 3	0.625	1.125	0.94 ± .12	0.63 ± .12	4"	8	3/4 x 3-3/4	1.13	1.25
6"	8	3/4 x 3-1/4	0.688	1.313	1.00 ± .12	0.63 ± .12	6"	12	3/4 x 4	1.31	1.44
8"	8	3/4 x 3-1/2	0.688	1.500	1.12 ± .12	0.70 ± .12	8"	12	7/8 x 4-1/2	1.31	1.62
10"	12	7/8 x 3-3/4	0.688	1.563	1.19 ± .12	0.75 ± .12	10"	16	1 x 5-1/4	1.50	1.88
12"	12	7/8 x 4	0.812	1.750	1.25 ± .12	0.81 ± .12	12"	16	1-1/8 x 5-1/2	1.63	2.00
14"	12	1 x 4-1/4	0.938	1.875	1.38 ± .19	0.87 ± .19	14"	20	1-1/8 x 6	1.94	
16"	16	1 x 4-1/2	1.000	2.000	1.44 ± .19	0.90 ± .19	16"	20	1-1/4 x 6-1/4	2.14	
18"	16	1-1/8 x 4-3/4	1.062	2.125	1.56 ± .19	0.93 ± .19	18"	24	1-1/4 x 6-1/2	2.25	
20"	20	1-1/8 x 5	1.125	2.375	1.69 ± .19	0.96 ± .19	20"	24	1-1/4 x 6-3/4	2.33	
24"	20	1-1/4 x 5-1/2	1.250	2.625	1.88 ± .19	1.00 ± .19	24"	24	1-1/2 x 7-3/4	2.69	
30"	28	1-1/4 x 6-1/4	1.375	2.875	2.12 ± .19	2.12 ± .25	30"	28	1-3/4 x 8-1/2	3.15	
36"	32	1-1/2 x 7	1.625	3.125	2.38 ± .19	2.38 ± .25	36"	32	2 x 9-1/2	3.46	
42"	36	1-1/2 x 7-1/2	1.750	3.375	2.62 ± .19	2.62 ± .25	42"	36	2 x 10-1/4	3.81	
48"	44	1-1/2 x 7-3/4	1.875	3.500	2.75 ± .19	2.75 ± .25	48"	40	2 x 10-3/4	4.50	

Mechanical Joints		
Size	Qty of Bolts	T-Bolt Size
3"	4	5/8 x 3
4"	4	3/4 x 3-1/2
6"	6	3/4 x 4
8"	6	3/4 x 4
10"	8	3/4 x 4
12"	8	3/4 x 4
14"	10	3/4 x 4-1/2
16"	12	3/4 x 4-1/2
18"	12	3/4 x 4-1/2
20"	14	3/4 x 4-1/2
24"	16	3/4 x 5
30"	20	1 x 6
36"	24	1 x 6
42"	28	1-1/4 x 8-1/2
48"	32	1-1/4 x 8-1/2