



# SIP Industries

Quality Manufacturers Since 1960

### Wrench / Socket Size

Bolt Size	Standard Hex Head	Heavy Hex Head
5/8"	15/16"	1-1/16"
3/4"	1-1/8"	1-1/4"
7/8"	1-5/16"	1-7/16"
1"	1-1/2"	1-5/8"
1-1/8"	1-11/16"	1-13/16"
1-1/4"	1-7/8"	2"
1-3/8"	2-1/16"	2-3/16"
1-1/2"	2-1/4"	2-3/8"
1-5/8"	2-7/16"	2-9/16"
1-3/4"	2-5/8"	2-3/4"
1-7/8"	2-13/16"	2-15/16"
2"	3"	3-1/8"
2-1/4"	3-3/8"	3-1/2"

### Mechanical Joint T-Bolt

MJ Size	Qty of Bolts	SIP Gland Packs
2	2	5/8 X 3"
3	4	5/8 X 3"
4	4	3/4 X 3.5"
6	6	3/4 X 3.5"
8	6	3/4 X 4"
10	8	3/4 X 4"
12	8	3/4 X 4"
14	10	3/4 X 4.5"
16	12	3/4 X 4.5"
18	12	3/4 X 4.5"
20	14	3/4 X 4.5"
24	16	3/4 X 5"
30	20	1 X 6"
36	24	1 X 6"
42	28	1.25 X 6.5"
48	32	1.25 X 6.5"
54	36	1.25 X 6.5"
60	36	1.25 X 6.5"
64	38	1.25 X 6.5"

### Cast Ductile Iron Flange Dimensions - Class 125 / 150

Nominal Size	Diameter of Flange	Thickness of Flange	Diameter of Bolt Circle	Number of Bolt Holes	Diameter of Bolt Hole	Diameter of Bolt	Length of Bolt	Length of Bolt-Stud w/ Two Nuts
1	4.25 ± .06	0.44 ± .12	3.13 ± .06	4	0.63 <sup>+06</sup> <sub>-00</sub>	½	1-¾	-
1-¼	4.63 ± .06	0.50 ± .12	3.50 ± .06	4	0.63 <sup>+06</sup> <sub>-00</sub>	½	2	-
1-½	5.00 ± .06	0.56 ± .12	3.88 ± .06	4	0.63 <sup>+06</sup> <sub>-00</sub>	½	2	-
2	6.00 ± .06	0.63 ± .12	4.75 ± .06	4	0.75 <sup>+06</sup> <sub>-00</sub>	¾	2-½	-
2-½	7.00 ± .06	0.69 ± .12	5.50 ± .06	4	0.75 <sup>+06</sup> <sub>-00</sub>	¾	2-½	-
3	7.50 ± .06	0.75 ± .12	6.00 ± .06	4	0.75 <sup>+06</sup> <sub>-00</sub>	¾	3	-
3-½	8.50 ± .06	0.81 ± .12	7.00 ± .06	8	0.75 <sup>+06</sup> <sub>-00</sub>	¾	2-¾	-
4	9.00 ± .06	0.94 ± .12	7.50 ± .06	8	0.75 <sup>+06</sup> <sub>-00</sub>	¾	3	-
5	10.00 ± .06	0.94 ± .12	8.50 ± .06	8	0.88 <sup>+06</sup> <sub>-00</sub>	¾	3	-
6	11.00 ± .06	1.00 ± .12	9.50 ± .06	8	0.88 <sup>+06</sup> <sub>-00</sub>	¾	3-¼	-
8	13.50 ± .06	1.12 ± .12	11.75 ± .06	8	0.88 <sup>+06</sup> <sub>-00</sub>	¾	3-¾	-
10	16.00 ± .06	1.19 ± .12	14.25 ± .06	12	1.00 <sup>+06</sup> <sub>-00</sub>	¾	3-¾	-
12	19.00 ± .06	1.25 ± .12	17.00 ± .06	12	1.00 <sup>+06</sup> <sub>-00</sub>	¾	4	-
14	21.00 ± .12	1.38 ± .19	18.75 ± .06	12	1.13 <sup>+06</sup> <sub>-00</sub>	1	4-½	-
16	23.50 ± .12	1.44 ± .19	21.25 ± .06	16	1.13 <sup>+06</sup> <sub>-00</sub>	1	4-½	-
18	25.00 ± .12	1.56 ± .19	22.75 ± .06	16	1.25 <sup>+06</sup> <sub>-00</sub>	1-¼	5	-
20	27.50 ± .12	1.69 ± .19	25.00 ± .06	20	1.25 <sup>+06</sup> <sub>-00</sub>	1-¼	5	-
24	32.00 ± .12	1.88 ± .19	29.50 ± .06	20	1.38 <sup>+06</sup> <sub>-00</sub>	1-¼	5-½	-
30	38.75 ± .12	2.12 ± .25	36.00 ± .06	28	1.38 <sup>+06</sup> <sub>-00</sub>	1-¼	6-½	-
36	46.00 ± .12	2.38 ± .25	42.75 ± .06	32	1.63 <sup>+06</sup> <sub>-00</sub>	1-½	7	-
42	53.00 ± .12	2.62 ± .25	49.50 ± .06	36	1.63 <sup>+06</sup> <sub>-00</sub>	1-½	7-½	-
48	59.50 ± .12	2.75 ± .25	56.00 ± .06	44	1.63 <sup>+06</sup> <sub>-00</sub>	1-½	8	-
54	66.25 ± .12	3.00 ± .25	62.75 ± .06	44	2.00 <sup>+06</sup> <sub>-00</sub>	1-¾	8-½	10-½
60	73.00 ± .12	3.13 ± .25	69.25 ± .06	52	2.00 <sup>+06</sup> <sub>-00</sub>	1-¾	9	10-¾
72	86.50 ± .12	3.50 ± .25	82.50 ± .06	60	2.00 <sup>+06</sup> <sub>-00</sub>	1-¾	9-½	11-½
84	99.75 ± .12	3.88 ± .25	95.50 ± .06	64	2.25 <sup>+06</sup> <sub>-00</sub>	2	10-½	12-¾
96	113.25 ± .12	4.25 ± .25	108.50 ± .06	68	2.50 <sup>+06</sup> <sub>-00</sub>	2-¼	11-½	14

### Cast Ductile Iron Flange Dimensions - Class 250 / 300

Nominal Size	Diameter of Flange	Thickness of Flange	Diameter of Bolt Circle	Number of Bolt Holes	Diameter of Bolt Hole	Diameter of Bolt	Length of Bolt	Length of Bolt-Stud w/ Two Nuts
1	4.88 ± .06	0.69 <sup>+12</sup> <sub>-00</sub>	3.50 ± .06	4	0.75 <sup>+06</sup> <sub>-00</sub>	¾	2-½	-
1-¼	5.25 ± .06	0.75 <sup>+12</sup> <sub>-00</sub>	3.88 ± .06	4	0.75 <sup>+06</sup> <sub>-00</sub>	¾	2-½	-
1-½	6.13 ± .06	0.81 <sup>+12</sup> <sub>-00</sub>	4.50 ± .06	4	0.88 <sup>+06</sup> <sub>-00</sub>	¾	2-¾	-
2	6.50 ± .06	0.88 <sup>+12</sup> <sub>-00</sub>	5.00 ± .06	8	0.75 <sup>+06</sup> <sub>-00</sub>	¾	2-¾	-
2-½	7.50 ± .06	1.00 <sup>+12</sup> <sub>-00</sub>	5.88 ± .06	8	0.88 <sup>+06</sup> <sub>-00</sub>	¾	3-¼	-
3	8.25 ± .06	1.13 <sup>+12</sup> <sub>-00</sub>	6.63 ± .06	8	0.88 <sup>+06</sup> <sub>-00</sub>	¾	3-½	-
3-½	9.00 ± .06	1.19 <sup>+12</sup> <sub>-00</sub>	7.25 ± .06	8	0.88 <sup>+06</sup> <sub>-00</sub>	¾	3-½	-
4	10.00 ± .06	1.25 <sup>+12</sup> <sub>-00</sub>	7.88 ± .06	8	0.88 <sup>+06</sup> <sub>-00</sub>	¾	3-¾	-
5	11.00 ± .06	1.38 <sup>+12</sup> <sub>-00</sub>	9.25 ± .06	8	0.88 <sup>+06</sup> <sub>-00</sub>	¾	4	-
6	12.50 ± .06	1.44 <sup>+12</sup> <sub>-00</sub>	10.63 ± .06	12	0.88 <sup>+06</sup> <sub>-00</sub>	¾	4	-
8	15.00 ± .06	1.63 <sup>+12</sup> <sub>-00</sub>	13.00 ± .06	12	1.00 <sup>+06</sup> <sub>-00</sub>	¾	4-½	-
10	17.50 ± .06	1.88 <sup>+12</sup> <sub>-00</sub>	15.25 ± .06	16	1.13 <sup>+06</sup> <sub>-00</sub>	1	5-¼	-
12	20.50 ± .06	2.00 <sup>+12</sup> <sub>-00</sub>	17.75 ± .06	16	1.25 <sup>+06</sup> <sub>-00</sub>	1-¼	5-½	-
14	23.00 ± .12	2.13 <sup>+19</sup> <sub>-00</sub>	20.25 ± .06	20	1.25 <sup>+06</sup> <sub>-00</sub>	1-¼	6	-
16	25.50 ± .12	2.25 <sup>+19</sup> <sub>-00</sub>	22.50 ± .06	20	1.38 <sup>+06</sup> <sub>-00</sub>	1-¼	6-¾	-
18	28.00 ± .12	2.38 <sup>+19</sup> <sub>-00</sub>	24.75 ± .06	24	1.38 <sup>+06</sup> <sub>-00</sub>	1-¼	6-¾	-
20	30.50 ± .12	2.50 <sup>+19</sup> <sub>-00</sub>	27.00 ± .06	24	1.38 <sup>+06</sup> <sub>-00</sub>	1-¼	6-¾	-
24	36.00 ± .12	2.75 <sup>+19</sup> <sub>-00</sub>	32.00 ± .06	24	1.63 <sup>+06</sup> <sub>-00</sub>	1-½	7-¾	9-½
30	43.00 ± .12	3.00 <sup>+25</sup> <sub>-00</sub>	39.25 ± .06	28	2.00 <sup>+06</sup> <sub>-00</sub>	1-¾	8-½	10-½
36	50.00 ± .12	3.38 <sup>+25</sup> <sub>-00</sub>	46.00 ± .06	32	2.25 <sup>+06</sup> <sub>-00</sub>	2	9-½	11-¾
42	57.00 ± .12	3.69 <sup>+25</sup> <sub>-00</sub>	52.75 ± .06	36	2.25 <sup>+06</sup> <sub>-00</sub>	2	10-¾	12-½
48	65.00 ± .12	4.00 <sup>+25</sup> <sub>-00</sub>	60.75 ± .06	40	2.25 <sup>+06</sup> <sub>-00</sub>	2	10-¾	13