

Buttweld Fittings - General

Buttweld Fitting Weights

As mentioned previously, the ANSI/ASME and MSS buttweld fitting specifications do not specify wall thicknesses and weights for fittings. Weights quoted in the dimension and weight tables on the following pages are therefore based on manufacturers' information and should be considered as approximate and provided as a guide only (fitting weights can vary considerably between manufacturers due to differences in construction).

The example weights quoted on the following pages are for 40S or Standard (STD) wall thicknesses only. It is possible to calculate the approximate weight at any other wall thicknesses using the factors provided in the table below. These factors are calculated from the ANSI/ASME B36.19M and B36.10M pipe weights and are based on the proportional relationship of the pipe weights (kg/m) to the weights of 40S and STD wall thickness pipe at each NPS.

ASME/ANSI pipe sizes and weight multiplication factors for use in obtaining approximate fitting weights. For use with the example (40S/STD) weights provided in the ANSI/ASME tables of this section

Multiplication Factors = Proportional relationship of pipe weights to 40S or STD pipe at each NPS1. Multiply the example 40S/STD fitting weights (at the required NPS) by the factors below (at the same NPS) to give approximate weights at different wall thicknesses.																	
NPS	5S	10S	40S	80S	10	20	30	40	STD	60	XS	80	100	120	140	160	XXS
1/8	-	0.76	1	1.27	-	-	0.86	1	1	-	1.27	1.27	-	-	-	-	-
1/4	-	0.78	1	1.27	-	-	0.86	1	1	-	1.27	1.27	-	-	-	-	-
3/8	-	0.75	1	1.31	-	-	0.83	1	1	-	1.31	1.31	-	-	-	-	-
1/2	0.64	0.79	1	1.28	-	-	0.88	1	1	-	1.28	1.28	-	-	-	1.54	2.01
3/4	0.61	0.76	1	1.3	-	-	0.85	1	1	-	1.3	1.3	-	-	-	1.72	2.15
1	0.52	0.84	1	1.3	-	-	0.87	1	1	-	1.3	1.3	-	-	-	1.7	2.18
1 1/4	0.49	0.80	1	1.32	-	-	0.85	1	1	-	1.32	1.32	-	-	-	1.65	2.29
1 1/2	0.47	0.77	1	1.34	-	-	0.87	1	1	-	1.34	1.34	-	-	-	1.79	2.36
2	0.44	0.72	1	1.38	-	-	0.82	1	1	-	1.38	1.38	-	-	-	2.04	2.47
2 1/2	0.43	0.61	1	1.32	-	-	0.93	1	1	-	1.32	1.32	-	-	-	1.73	2.36
3	0.40	0.57	1	1.35	-	-	0.88	1	1	-	1.35	1.35	-	-	-	1.89	2.45
3 1/2	0.38	0.55	1	1.37	-	-	0.84	1	1	-	1.37	1.37	-	-	-	-	-
4	0.36	0.52	1	1.39	-	-	0.80	1	1	-	1.39	1.39	-	1.76	-	2.09	2.55
5	0.44	0.53	1	1.42	-	-	-	1	1	-	1.42	1.42	-	1.85	-	2.26	2.64
6	0.40	0.49	1	1.51	-	-	-	1	1	-	1.51	1.51	-	1.92	-	2.39	2.8
8	0.35	0.47	1	1.52	-	0.78	0.87	1	1	1.25	1.52	1.52	1.78	2.13	2.37	2.62	2.54
10	0.38	0.46	1	1.59	-	0.69	0.85	1	1	1.35	1.35	1.59	1.9	2.21	2.57	2.86	2.57
12	0.42	0.49	1	1.79	-	0.67	0.88	1.08	1	1.47	1.32	1.79	2.16	2.53	2.82	3.23	2.53
14	0.42	0.51	-	-	0.67	0.83	1	1.16	1	1.56	1.32	1.94	2.4	2.76	3.12	3.46	-
16	0.45	0.51	-	-	0.67	0.83	1	1.32	1	1.72	1.32	2.18	2.73	3.07	3.57	3.92	-
18	0.45	0.51	-	-	0.67	0.83	1.16	1.48	1	1.96	1.32	2.42	2.94	3.46	3.88	4.37	-
20	0.51	0.59	-	-	0.67	1	1.32	1.57	1	2.12	1.32	2.66	3.26	0.38	4.34	4.82	-
22	0.51	0.58	-	-	0.67	1	1.32	-	1	2.28	1.32	2.89	3.5	4.08	4.65	5.21	-
24	0.58	0.67	-	-	0.67	1	1.49	1.81	1	2.52	1.33	3.13	3.88	4.54	5.1	5.73	-
26	-	-	-	-	0.83	1.33	-	-	1	-	1.33	-	-	-	-	-	-
28	-	-	-	-	0.83	1.33	1.65	-	1	-	1.33	-	-	-	-	-	-
30	0.67	0.83	-	-	0.83	1.33	1.65	-	1	-	1.33	-	-	-	-	-	-
32	-	-	-	-	0.83	1.33	1.65	1.82	1	-	1.33	-	-	-	-	-	-
34	-	-	-	-	0.83	1.33	1.66	1.82	1	-	1.33	-	-	-	-	-	-
36	-	-	-	-	0.83	1.33	1.65	1.98	1	-	1.33	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	1	-	1.33	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	1	-	1.33	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	1	-	1.33	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	1	-	1.33	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	1	-	1.29	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	1	-	1.33	-	-	-	-	-	-

Note 1

The relationship between pipe weights at each NPS can strictly only be applied to fittings where the same proportional relationship is maintained in the fitting. Less accurate results will therefore be obtained for reducing tees, for example, than for elbows, equal tees, etc. The type of fitting construction may also make the factors inaccurate.

FITTINGS THROUGH 100" PIPE SIZE ARE AVAILABLE

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