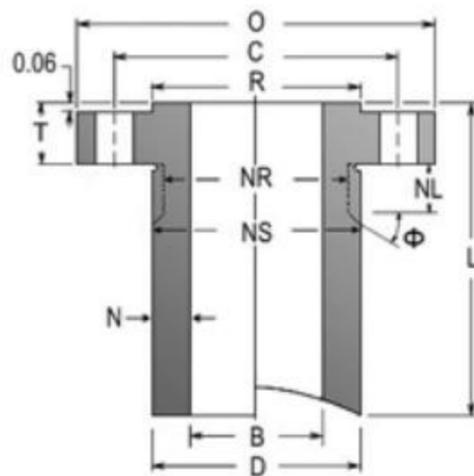
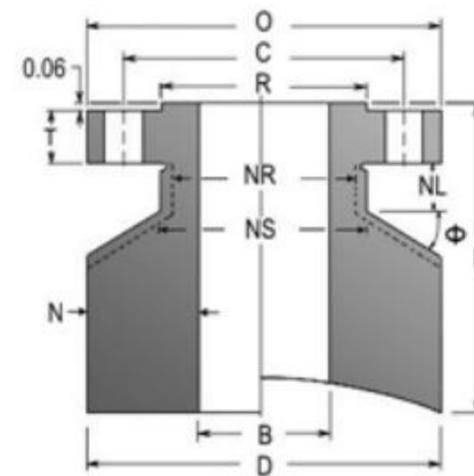


LONG WELD NECK "LWN"



HEAVY BARREL "HB"



EQUAL BARREL "E"

(enlarge)

(enlarge)

(enlarge)

Nom Size NPS	Flange O.D. O	Flange Thick. T	RF O.D. R	Barrel O.D.			Bore			Neck Thickness			Bolting			Nut			Stud Bolt			Weights				Length Base L	
				LWN	HB	F	LWN/F	HB	LWN	HB	F	No. of Holes	Hole Size	Bolt Circle C	Stop Dia. NS	Relief Dia. NR	Relief Length NL	Size	RF Length	RTJ Length	LWN		HB		E		
				D	D	D	B	B	N	N	N										Base	Per 1"	Base	Per 1"	Base		Per 1"
1/2	3.50	0.44	1.38	1.25	1.50	3.50	0.50	0.55	0.38	0.48	1.50	4	0.62	2.38	1.50	1.25	0.75	.50	2.25	2.75	3	0.3	5	0.4	21	2.7	9
3/4	3.88	0.50	1.69	1.62	1.88	3.88	0.75	0.74	0.44	0.57	1.56	4	0.62	2.75	1.88	1.62	0.75	.50	2.50	3	5	0.5	7	0.7	27	3.2	9
1	4.25	0.56	2.00	2.00	2.25	4.25	1.00	0.96	0.50	0.65	1.62	4	0.62	3.12	2.25	2.00	0.75	.50	2.50	3	7	0.7	10	0.9	30	3.8	9
1 1/4	4.62	0.62	2.50	2.38	2.62	4.62	1.25	1.28	0.56	0.67	1.69	4	0.62	3.50	2.62	2.38	0.75	.50	2.75	3.25	10	0.9	12	1.2	36	4.4	9
1 1/2	5.00	0.69	2.88	2.62	3.00	5.00	1.50	1.50	0.56	0.75	1.75	4	0.62	3.88	3.00	2.62	0.75	.50	2.75	3.25	12	1.0	16	1.5	41	5.1	9
2	6.00	0.75	3.62	3.06	3.69	6.00	2.00	1.94	0.53	0.88	2.00	4	0.75	4.75	3.69	3.06	0.88	.625	3.25	3.75	15	1.2	23	2.2	57	7.1	9
2 1/2	7.00	0.88	4.12	3.75	4.44	7.00	2.50	2.32	0.62	1.06	2.25	4	0.75	5.50	4.44	3.75	0.88	.625	3.50	4	22	1.7	34	3.2	79	10	9
3	7.50	0.94	5.00	4.25	4.94	7.50	3.00	2.90	0.62	1.06	2.25	4	0.75	6.00	4.94	4.25	0.88	.625	3.50	4.25	25	2.0	38	3.6	86	11	9
3 1/2	8.50	0.94	5.50	4.88	5.94	8.50	3.50	3.36	0.69	1.29	2.50	8	0.75	7.00	5.94	4.88	0.88	.625	3.50	4.25	32	2.6	55	5.3	110	13	9
4	9.00	0.94	6.19	5.50	6.44	9.00	4.00	3.83	0.75	1.31	2.50	8	0.75	7.50	6.44	5.50	0.88	.625	3.50	4.25	47	3.2	78	6.0	164	14	12
5	10.00	0.94	7.31	6.50	7.25	10.00	5.00	4.81	0.75	1.22	2.50	8	0.88	8.50	7.25	6.50	1.00	.75	3.75	4.50	57	3.8	87	6.5	189	17	12
6	11.00	1.00	8.50	7.75	8.25	11.00	6.00	5.76	0.88	1.25	2.50	8	0.88	9.50	8.25	7.75	1.00	.750	4	4.50	75	5.4	103	7.8	216	19	12
8	13.50	1.12	10.62	9.75	10.50	13.50	8.00	7.62	0.88	1.44	2.75	8	0.88	11.75	10.50	9.75	1.00	.75	4.25	4.75	1.02	6.9	157	11	292	26	12
10	16.00	1.19	12.75	12.00	12.81	16.00	10.00	9.56	1.00	1.63	3.00	12	1.00	14.25	12.81	12.00	1.12	.875	4.75	5.25	143	9.8	214	16	382	35	12
12	19.00	1.25	15.00	14.38	15.56	19.00	12.00	11.38	1.19	2.09	3.50	12	1.00	17.00	15.56	14.38	1.12	.875	4.75	5.50	205	14	329	25	535	48	12
14	21.00	1.38	16.25	16.00	17.12	21.00	14.00	14.00	1.00	1.56	3.50	12	1.12	18.75	17.12	16.00	1.25	1	5.25	6	211	13	296	22	585	55	12
16	23.50	1.44	18.50	18.00	19.62	23.50	16.00	16.00	1.00	1.81	3.75	16	1.12	21.25	19.62	18.00	1.25	1	5.50	6	246	15	388	29	714	66	12
18	25.00	1.56	21.00	20.00	20.94	25.00	18.00	18.00	1.00	1.47	3.50	16	1.25	22.75	20.94	20.00	1.38	1.13	6	6.50	270	17	362	25	711	67	12
20	27.50	1.69	23.00	22.00	23.19	27.50	20.00	20.00	1.00	1.60	3.75	20	1.25	25.00	23.19	22.00	1.38	1.13	6.25	7	311	19	434	31	840	79	12
24	32.00	1.88	27.25	26.25	27.50	32.00	24.00	24.00	1.12	1.75	4.00	20	1.38	29.50	27.50	26.25	1.50	1.25	7	7.75	423	25	574	40	1046	100	12

**Codes:** All connections are manufactured in compliance with ASME Section II, Section VIII, Div. 1, and ASME B16.5. Products may be ordered to special requirements or other standard codes such as ASME Section I, III and Section VIII, Div. 2, ASME B31.1 and B16.47 Series A&B, API and ASTM.

**Materials:** SA 105 in accordance with ASME Section II. Other material grades and compositions available upon request. See technical section.

**Bores:** Bore sizes listed are standard, smaller or larger bores are available upon request.

**Facing:** The flange thickness "T" includes 0.06 inch raised face per ASME B16.5. This differs on Class 400 and above. Special facing can be supplied as needed upon request.

**Nut Relief:** All connections except standard LWN's will be supplied with a "nut stop O.D." unless a "nut relief O.D." is specified.

**Lengths:** Listed lengths are standards used for base weight calculations. Other lengths are available upon request.

Φ 30° Sect VIII DIV 1 • 45° Sect VIII DIV 2

[Complete general notes on standard and variable body connections.](#)