TUBING, FLANGES & PIPE FITTINGS

ASME B16.5 flanges

Specify the flange standard, size, drilling, facing and material for the mating installation.

Application: Application-led selection for the specified operating conditions.

ASME B16.5 flange dimensions / column group 1 of 2

Nominal bore (mm)	Class / table designation	Flange outside diameter D (mm)	Flange thickness b (mm)	Raised-face diameter d2 (mm)	Raised-face height f (mm)	Bolt holes	Hole diameter d1 (mm)
15	CL 150	88.9	11.1	34.9	1.6	4	15.9
15	CL 300	95.2	14.3	34.9	1.6	4	15.9
20	CL 150	98.4	12.7	42.9	1.6	4	16
20	CL 300	117.5	15.9	42.9	1.6	4	19
25	CL 150	107.9	14.3	50.8	1.6	4	16
25	CL 300	123.8	17.5	50.8	1.6	4	19
32	CL 150	117.5	15.9	73.9	1.6	4	15.9
32	CL 300	133.3	19	63.5	1.6	4	19
40	CL 150	127	17.5	73	1.6	4	16
40	CL 300	155.6	20.6	73	1.6	4	18
50	150lb	152.4	19	92	1.6	4	19
50	300lb	165.1	22.2	92.1	1.6	8	19
65	150lb	177.8	22.2	104.8	1.6	4	19
65	300lb	190.5	25.4	104.8	1.6	8	22
80	150lb	190.5	23.8	127	1.6	4	19
80	300lb	209.5	28.6	127	1.6	8	22

ASME B16.5 flange dimensions / column group 1 of 2

Nominal bore (mm)	Class / table designation	Flange outside diameter D (mm)	Flange thickness b (mm)	Raised-face diameter d2 (mm)	Raised-face height f (mm)	Bolt holes	Hole diameter d1 (mm)
100	150lb	228.6	23.8	157.2	1.6	8	19
100	300lb	254	31.7	157.2	1.6	8	22
125	150lb	254	23.8	185.7	1.6	8	22
125	300lb	279.4	34.9	185.7	1.6	8	22
150	150lb	279.4	25.4	215.9	1.6	8	22.2
150	300lb	317.5	36.5	215.9	1.6	12	22.2
200	150lb	342.9	28.6	269.9	1.6	8	22.2
200	300lb	381	41.3	269.9	1.6	12	22.2
250	150lb	406.4	30.2	323.8	1.6	12	25.4
250	300lb	444.5	47.6	323.8	1.6	16	31.7
300	150lb	482.6	31.7	381	1.6	12	25.4
300	300lb	520.7	50.8	381	1.6	16	31.7
350	150lb	533.4	34.9	412.8	1.6	12	28.6
350	300lb	584.2	54	412.8	1.6	20	31.7
400	150lb	596.9	36.5	470	1.6	16	28.6
400	300lb	647.7	57.1	470	1.6	20	34.9
450	150lb	635	39.7	533.4	1.6	16	31.7
450	300lb	711.2	60.3	533.4	1.6	24	34.9
500	150lb	698.5	42.9	584.2	1.6	20	31.7
500	300lb	774.7	63.5	584.2	1.6	24	34.9
600	150lb	812.8	47.6	692.1	1.6	20	34.9

ASME B16.5 flange dimensions / column group 1 of 2

Nominal bore (mm)	Class / table designation	Flange outside diameter D (mm)	Flange thickness b (mm)	Raised-face diameter d2 (mm)	Raised-face height f (mm)	Bolt holes	Hole diameter d1 (mm)
600	300lb	914.4	69.8	692.1	1.6	24	38.1

Identifying columns are repeated. Read all column groups together for the complete row specification.

ASME B16.5 flange dimensions / column group 2 of 2

Nominal bore (mm)	Class / table designation	Bolt size	Bolt circle PCD (mm)	Reference mass (kg)	Standard reference
15	CL 150	M12	60.3	0.45	ASME B16.5
15	CL 300	M12	66.7	0.91	ASME B16.5
20	CL 150	M12	69.8	0.68	ASME B16.5
20	CL 300	M16	82.5	1.25	ASME B16.5
25	CL 150	M12	79.4	0.95	ASME B16.5
25	CL 300	M16	66.7	1.36	ASME B16.5
32	CL 150	M12	88.9	1.11	ASME B16.5
32	CL 300	M16	98.4	2.04	ASME B16.5
40	CL 150	M12	98.4	1.4	ASME B16.5
40	CL 300	M16	114.3	2.81	ASME B16.5
50	150lb	M16	120.6	2.3	ASME B16.5
50	300lb	M16	127	3.13	ASME B16.5
65	150lb	M16	139.7	3.82	ASME B16.5
65	300lb	M20	149.2	4.54	ASME B16.5
80	150lb	M16	152.4	4.08	ASME B16.5
80	300lb	M20	168.3	6.12	ASME B16.5
100	150lb	M16	190.5	5.94	ASME B16.5

ASME B16.5 flange dimensions / column group 2 of 2

Nominal bore (mm)	Class / table designation	Bolt size	Bolt circle PCD (mm)	Reference mass (kg)	Standard reference
100	300lb	M20	200	9.53	ASME B16.5
125	150lb	M20	215.9	6.25	ASME B16.5
125	300lb	M20	234.9	12.7	ASME B16.5
150	150lb	M20	241.3	8.16	ASME B16.5
150	300lb	M20	269.9	16.33	ASME B16.5
200	150lb	M20	298.4	12.7	ASME B16.5
200	300lb	M20	330.2	25.4	ASME B16.5
250	150lb	M24	361.9	17.24	ASME B16.5
250	300lb	M30	387.3	35.38	ASME B16.5
300	150lb	M20	431.8	27.22	ASME B16.5
300	300lb	M30	450.8	50.8	ASME B16.5
350	150lb	M24	476.2	35.71	ASME B16.5
350	300lb	M30	514	75	ASME B16.5
400	150lb	M24	539.7	45.09	ASME B16.5
400	300lb	M30	571.5	101.6	ASME B16.5
450	150lb	M30	577.8	52.62	ASME B16.5
450	300lb	M30	628.65	126.1	ASME B16.5
500	150lb	M30	635	65.32	ASME B16.5
500	300lb	M30	685.8	150	ASME B16.5
600	150lb	M30	749.3	91.63	ASME B16.5
600	300lb	M36	812.8	222.26	ASME B16.5

Identifying columns are repeated. Read all column groups together for the complete row specification.

Flange drilling and dimensional references for the selected standard, nominal bore and class. Specify the flange construction, face, material grade and design temperature. A PN, class or table designation alone does not establish an allowable working pressure for every material and temperature. Blank dimensions are not confirmed available configurations.

Application & quotation checklist

Standard, nominal size and pressure class; Material grade and wall thickness; Facing, drilling and connection type; Drawing or dimensions of the mating connection

Request a quotation

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Provide the part code, size, quantity, required configuration and application. Include a drawing or photograph where available.

Ratings apply only to the specified product and configuration. Confirm fluid compatibility, temperature, pressure transients, installation and complete assembly suitability. Ordering references do not establish interchangeability.