

Flanges (Class 250 Extra Heavy)

Fig. 1021 Blind Flange

Fig. 1030 Reducing Flange

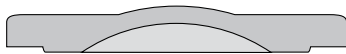


Fig. 1021



Fig. 1030

Class 250 (extra heavy) iron flanges are manufactured to American National Standard ASME B16.1 and are marked 250.

Class 250 iron flanges are available in both black painted and galvanized.

For Listings/Approval Details and Limitations, visit our website at www.asc-es.com or contact an ASC Engineered Solutions™ Representative.

See following page for standards and specifications.

Cast Iron Flanged Fittings and Cast Iron Flanges

Temperature	Pressure*		Temperature	Pressure*	
	Class 125	Class 250		Class 125	Class 250
	1"–12"	1"–12"		1"–12"	1"–12"
°F/°C	PSI/bar	PSI/bar	°F/°C	PSI/bar	PSI/bar
-20°–150° -28.9°–65.6°	200 13.8	500 34.5	325° 162.8°	155 10.7	355 24.5
200° 93.3°	190 13.1	460 31.7	350° 178.3°	150 10.3	335 23.1
225° 107.2°	180 12.4	440 30.3	375° 190.6°	145 10.0	315 21.7
250° 121.1°	175 12.1	415 28.6	400° 207.8°	140 9.7	290 20.0
275° 135.0°	170 11.7	395 27.2	425° 218.3°	130 9.0	270 18.6
300° 148.9°	165 11.4	375 25.9	450° 232.2°	125 8.6	250 17.2

Note:

*Applies to fittings and flanges manufactured with ASTM A126 Class B material only.



PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Flanges (Class 250 Extra Heavy) Fig. 1021, 1030



Standards and Specifications

Cast Iron Flanges and Flanged Fittings (Class 125 Standard and Class 250 Extra Heavy)

	Dimensions	Material	Galvanizing**	Thread	Pressure Rating
Class 125 (1"–12")	ASME B16.1	ASTM A126 (A) or (B)	ASTM A153	ASME B1.20.1	ASME B16.1
Class 250 (1"–12")	ASME B16.1	ASTM A126 (A) or (B)	ASTM A153	ASME B1.20.1	ASME B16.1

Note:

** ASTM B633. Type I, SC 4, may be supplied as alternate zinc coating per applicable ASME B16 product standard.

Specifications

All Cast Iron Flanged Fittings and Flanges in sizes listed are made to ASME and are marked 125 or 250 for pipe sizes 12 NPS (300 DN) and smaller. Unless otherwise specified, cast iron flanges and fittings are drilled and faced in accordance with ASME B 16.1.

Coatings

Flanged fittings and flanges are available in both black painted and galvanized. Consult an ASC Engineered Solutions Representative™ for available sizes.

Sizes

Size of all flanged fittings and flanges scheduled indicates nominal pipe diameter of ports. Standard reducing elbows carry the same dimensions center-to-face as regular elbows of largest straight size.

Ordering

To order reducing companion flanges, specify threaded or reduced size first, then the outside diameter of flange wanted. For instance, if a reducing flange is required to connect a 5-inch pipe to an 8-inch flanged valve or fitting having a 13½ inch O.D. flange, order: 5 x 13½ inch standard reducing flange.

Dimensions

Bolt holes for bolts smaller than 1¼ inches (44mm) in diameter are drilled ⅛ inch larger than the bolt diameter; 1¼ inch (44mm) and larger bolts have holes drilled ¼ inch (6mm) larger than bolt diameter. Bolt holes straddle the center line. Bolt holes are spot faced on order only.

Tolerances

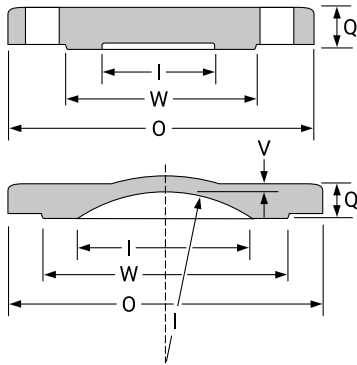
An inspection limit of plus or minus ⅓₂ inch (1mm) shall be allowed on all center to contact surface dimensions for sizes up to and including 10 NPS (250 DN); plus or minus ⅙ inch (1.5mm) on sizes larger than 10 NPS (250 DN). Inspection limit of plus or minus ⅙ inch (1.5mm) shall be allowed on all contact surface to contact surface dimensions for sizes up to and including 10 NPS (250 DN); plus or minus ⅙ inch (3mm) on sizes larger than 10 NPS (250 DN). The largest opening in the fitting governs the tolerance to be applied to all openings.



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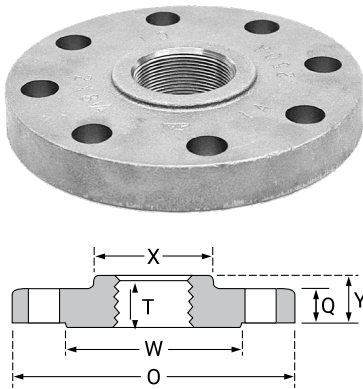
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Fig. 1021
Blind Flange



Pipe Size	Diameter of Flange O	Diameter of Port I	Min. Flange Thickness Q	Min. Metal Thickness V	Diameter of Raised Face W	Unit Weight Black
NPS/DN	In./mm	In./mm	In./mm	In./mm	In./mm	Lbs./kg
1½ 40	6⅞ 156	1½ 38	⅜ 21	— —	3⅞ 90	5.30 2.40
2½ 65	7½ 191	2½ 64	1 25	— —	4⅝ 125	11.00 4.99
3 80	8¼ 210	3 76	1⅞ 29	— —	5⅞ 144	14.00 6.35
4 100	10 254	4 102	1¼ 32	— —	6⅝ 176	23.00 10.43
5 125	11 279	5 127	1⅜ 35	— —	8⅝ 227	31.00 14.06
6 150	12½ 318	6 152	1⅞ 37	— —	9⅞ 246	42.00 19.05
8 200	15 381	8 203	1⅝ 41	— —	11⅝ 303	70.00 31.75

Fig. 1030
Reducing Flange



Pipe Size	Diameter of Flange O	Min. Flange Thickness Q	Min. Length Thru Hub Y	Min. Length of Threads T	Diameter of Raised Face W	Diameter of Hub X	Unit Weight Black
NPS/DN	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	Lbs./kg
2 50	8¼ 210	1⅞ 29	1¼ 32	1.00 25	5⅞ 144	3⅝ 84	14.25 6.46
2½ 65	8¼ 210	1⅞ 29	1⅞ 37	1.14 29	5⅞ 144	3⅝ 100	13.50 6.12
3 80	10 254	1¼ 32	1⅞ 40	1.20 30	6⅝ 176	4⅞ 117	22.75 10.32
4 100	11 279	1⅜ 35	1¾ 44	1.30 33	8⅝ 211	5¾ 146	30.00 13.61

Note:

Solid plugs and face bushings are recommended for use with Class 250 (Extra Heavy) and Class 300 flanges. See first page for pressure-temperature ratings.



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