CAST IRON FLANGES



Class 125 (Standard)

FIGURE 1011 Companion Flange	Pi Si	pe ze	Diam of Fla	ange	Min. F	ness	of H	eter lub	Min. Lo Thro Hu	ugh	Black	Unit V	Veight Galva	nized
	NDO	D1/	. (C	•	X		·					
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
9	3/4*	20	3 ⁷ /8	98	⁷ / ₁₆	11	1 ³ / ₄	44	5/8	16	1.50	0.68	1.50	0.68
	1	25	4 ¹ / ₄	108	⁷ / ₁₆	11	1 ¹⁵ / ₁₆	49	¹¹ / ₁₆	17	1.75	0.79	1.75	0.79
THE WAY	1 ¹ / ₄	32	4 ⁵ / ₈	117	1/2	13	2 ⁵ / ₁₆	59	¹³ / ₁₆	22	2.00	0.91	2.00	0.91
	1 ¹ / ₂	40	5	127	⁹ / ₁₆	14	2 ⁹ / ₁₆	65	7/8	22	2.25	1.02	2.25	1.02
	2	50	6	152	5/8	16	3 ¹ / ₁₆	78	1	25	4.00	1.81	4.00	1.81
	21/2	65	7	178	11/16	17	39/16	90	11/8	29	6.00	2.72	6.00	2.72
	3	80	71/2	191	3/4	19	41/4	108	1 ³ / ₁₆	30	7.63	3.46	7.63	3.46
l v l	31/2	90	81/2	216	¹³ / ₁₆	21	4 ¹³ / ₁₆	122	1 ¹ / ₄	32	9.00	4.08	_	_
X	4	100	9	229	¹⁵ / ₁₆	24	5 ⁵ / ₁₆	135	1 ⁵ / ₁₆	33	11.75	5.33	11.75	5.33
\$	5	125	10	254	¹⁵ / ₁₆	24	6 ⁷ / ₁₆	164	1 ⁷ / ₁₆	37	14.00	6.35	14.00	6.35
← 0 →	6	150	11	279	1	25	7 ⁹ / ₁₆	192	1 ⁹ / ₁₆	40	16.50	7.48	16.50	7.48
When ordering companion flanges, always give outside diameter	8	200	13 ¹ / ₂	343	11/8	29	9 ¹¹ / ₁₆	246	13/4	44	26.00	11.79	26.00	11.79
	10	250	16	406	1 ³ / ₁₆	30	11 ¹⁵ / ₁₆	303	1 ¹⁵ / ₁₆	49	37.75	17.12	37.75	17.12
as well as nominal pipe size.	12	300	19	483	1 ¹ / ₄	32	14 ¹ / ₁₆	357	2 ³ / ₁₆	56	50.50	22.91	50.50	22.91

^{*} Anvil size; not covered by ASME B16.1.

FIGURE 1018 Blind Flange		Pipe Size I		Diameter of Flange O		Min. Flange Thickness Q		Wall Thickness V		Unit Weight			
										Black Paint		Galvanized	
10 x 16 (NPS) and smaller	NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg	
	1	25	4 ¹ / ₄	108	⁷ / ₁₆	11	3/8	10	2.00	0.91	2.00	0.91	
	1 ¹ /4	32	4 ⁵ / ₈	117	1/2	13	⁷ / ₁₆	11	2.25	1.02	2.25	1.02	
0 0	1 ¹ / ₂	40	5	127	⁹ / ₁₆	14	1/2	13	3.75	1.70	_	_	
	2	50	6	152	5/8	16	⁹ / ₁₆	14	4.00	1.81	4.00	1.81	
<u>‡v ‡</u> 0	2 ¹ / ₂	65	7	178	¹¹ / ₁₆	17	5/8	16	6.75	3.06	_	_	
	3	80	7 ¹ / ₂	191	3/4	19	¹¹ / ₁₆	17	8.00	3.63	8.00	3.63	
10 v 10 (NIDC) and larger	31/2	90	8 ¹ / ₂	216	¹³ / ₁₆	21	3/4	19	11.00	4.99	_	_	
12 x 19 (NPS) and larger V	4	100	9	229	¹⁵ / ₁₆	24	7/8	22	14.00	6.35	14.00	6.35	
•	5	125	10	254	¹⁵ / ₁₆	24	7/8	22	18.00	8.16	18.00	8.16	
‡a	6	150	11	279	1	25	¹⁵ / ₁₆	24	23.00	10.43	23.00	10.43	
	8	200	13 ¹ / ₂	343	1 ¹ /8	29	1 ¹ / ₁₆	27	40.00	18.14	40.00	18.14	
	10	250	16	406	1 ³ / ₁₆	30	1 ¹ /8	29	59.00	26.76	_		
	12	300	19	483	1 ¹ / ₄	32	¹³ / ₁₆	21	88.00	39.92	_	_	

All Class 125 cast iron standard flanges have a flat face. Blind Flange 12 \times 19 NPS supplied dished with inside radius to the pipe diameter. When ordering blind flanges, always give the outside diameters.

 $\textbf{Note:} \ \ \textbf{See following page for pressure-temperature ratings}.$

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

CAST IRON FLANGED FITTINGS AND FLANGES



Class 125 (Standard) and Class 250 (Extra Heavy)





For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil Sales Representative.

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 Anvil 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 $13^{1/2}$ inch O.D. flange, order: $5 \times 13^{1/2}$ inch standard reducing flange.

Dimensions

Bolt holes for bolts smaller than $1^{3}/_{4}$ inches (44mm) in diameter are drilled $^{1}/_{8}$ inch larger than the bolt diameter; $1^{3}/_{4}$ inch (44mm) and larger bolts have holes drilled $^{1}/_{4}$ 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 $^{1}/_{32}$ 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 $^{1}/_{16}$ inch (1.5mm) on sizes larger than 10 NPS $(250 \, DN)$. Inspection limit of plus or minus $^{1}/_{16}$ 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 $^{1}/_{8}$ 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.



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

^{*} Applies to fittings and flanges manufactured with ASTM A-126 Class B material only.

Standards and Specifications										
Dimensions Material Galvanizing** Thread Pressure Rating										
CAST IRON FLANGES AND FLANGED FITTINGS										
Class 125 (1"-12")	ASME B16.1	ASTM A- 126 (A) or (B)	ASTM A-153	ASME B1.20.1	ASME B16.1					
Class 250 (1"-12")	ASME B16.1	ASTM A- 126 (A) or (B)	ASTM A-153	ASME B1.20.1	ASME B16.1					

^{**} ASTM B 633. Type I, SC 4, may be supplied as alternate zinc coating per applicable ASME B16 product standard.