# **CAST IRON FLANGES**



# Class 250 (Extra Heavy)

FIGURE 1030		Pipe		Diameter		Min. Flange		Min. Length		Min. Length		Diameter of Raised		eter	Unit Weight Black Paint	
Reducing Flange	Size		of Flange 0		Thickness Q		Thru Hub Y		of Threads T		Face W		of Hub X			
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	2	50	81/4	210	<b>1</b> <sup>1</sup> /8	29	<b>1</b> <sup>1</sup> / <sub>4</sub>	32	1.00	25	5 <sup>11</sup> / <sub>16</sub>	144	3 <sup>5</sup> / <sub>16</sub>	84	14.25	6.46
	<b>2</b> <sup>1</sup> / <sub>2</sub>	65	8 <sup>1</sup> / <sub>4</sub>	210	<b>1</b> <sup>1</sup> /8	29	<b>1</b> <sup>7</sup> / <sub>16</sub>	37	1.14	29	5 <sup>11</sup> / <sub>16</sub>	144	3 <sup>15</sup> / <sub>16</sub>	100	13.50	6.12
T	3	80	10	254	<b>1</b> <sup>1</sup> / <sub>4</sub>	32	<b>1</b> <sup>9</sup> / <sub>16</sub>	40	1.20	30	6 <sup>15</sup> / <sub>16</sub>	176	<b>4</b> <sup>5</sup> / <sub>8</sub>	117	22.75	10.32
	4	100	11	279	<b>1</b> <sup>3</sup> / <sub>8</sub>	35	13/4	44	1.30	33	8 <sup>5</sup> / <sub>16</sub>	211	53/4	146	30.00	13.61

FIGURE 1021	Pipe Size		Diameter of Flange		Diameter of Port		Min. Flange Thickness		Min. Metal Thickness		Diameter of Raised Face				
Blind Flange		1 100 0120		0		I		Q		V		W		Black Paint	
	NPS	DN	in	mm	in	mm	in	mm	in	mm			lbs	kg	
ŢQ	1 <sup>1</sup> / <sub>2</sub>	40	6 <sup>1</sup> /8	156	1 <sup>1</sup> / <sub>2</sub>	38	<sup>13</sup> / <sub>16</sub>	21	_	_	3 <sup>9</sup> / <sub>16</sub>	90	5.30	2.40	
	2	50	6 <sup>1</sup> / <sub>2</sub>	165	2	51	7/8	22	_	_	<b>4</b> <sup>3</sup> / <sub>16</sub>	106	7.00	3.17	
0	2 <sup>1</sup> / <sub>2</sub>	65	71/2	191	2 <sup>1</sup> / <sub>2</sub>	64	1	25	_	_	<b>4</b> <sup>15</sup> / <sub>16</sub>	125	11.00	4.99	
V	3	80	8 <sup>1</sup> / <sub>4</sub>	210	3	76	1 <sup>1</sup> /8	29	-	_	5 <sup>11</sup> / <sub>16</sub>	144	14.00	6.35	
‡Q	4	100	10	254	4	102	1 <sup>1</sup> / <sub>4</sub>	32	-	_	615/16	176	23.00	10.43	
<del>                                  </del>	5	125	11	279	5	127	1 <sup>3</sup> /8	35	-	_	8 <sup>15</sup> / <sub>16</sub>	227	31.00	14.06	
0 1	6	150	12 <sup>1</sup> / <sub>2</sub>	318	6	152	<b>1</b> <sup>7</sup> / <sub>16</sub>	37	ı	_	9 <sup>11</sup> / <sub>16</sub>	246	42.00	19.05	
Ų į	8	200	15	381	8	203	1 <sup>5</sup> /8	41	_	_	<b>11</b> <sup>15</sup> / <sub>16</sub>	303	70.00	31.75	

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

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				

<sup>\*</sup> Applies to fittings and flanges manufactured with ASTM A-126 Class B material only.

Standards and Specifications										
Dimensions Material Galvanizing**** Thread Pressure Rating Federal/Other										
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	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	ASME B16.1●				

<sup>•</sup> an American National standard (ANSI), + ASME B1.20.1 was ANSI B2.1

<sup>\*\*\*\*</sup> ASTM B 633. Type I, SC 4, may be supplied as alternate zinc coating per applicable ASME B16 product standard.