## **MALLEABLE IRON FITTINGS**



#### Class 150 (Standard)

FIGURE 1104		Sizo		C		V		Unit Weight			
45° Street Elbow		Size		C		K		Black		Galv.	
		NPS	DN	in	тт	in	тт	lbs	kg	lbs	kg
		<sup>1</sup> /8	6	<sup>11</sup> /16	17	7/8	22	0.06	0.03	0.06	0.03
Ma	1	1/4	8	<sup>3</sup> /4	19	<sup>15</sup> /16	24	0.10	0.05	0.10	0.05
1 and the second		<sup>3</sup> /8	10	<sup>13</sup> / <sub>16</sub>	22	1	25	0.14	0.06	0.14	0.06
		1/2	15	<sup>7</sup> /8	22	1 <sup>1</sup> /8	29	0.20	0.09	0.20	0.09
		3/4	20	1	25	<b>1</b> <sup>5</sup> /16	33	0.33	0.15	0.33	0.15
and the second s		1	25	<b>1</b> <sup>1</sup> /8	29	<b>1</b> <sup>7</sup> / <sub>16</sub>	37	0.52	0.24	0.52	0.24
		1 <sup>1</sup> /4	32	<b>1</b> <sup>5</sup> /16	33	<b>1</b> <sup>11</sup> /16	43	0.85	0.39	0.85	0.39
		1 <sup>1</sup> /2	40	<b>1</b> <sup>7</sup> /16	37	1 <sup>7</sup> /8	48	1.22	0.55	1.22	0.55
		2	50	<b>1</b> <sup>11</sup> /16	43	2 <sup>1</sup> /4	57	1.92	0.87	1.92	0.87

FIGURE 1105	Size		Α		Unit Weight			
Straight Tee			<b>^</b>	<b>^</b>		Black		lv.
	NPS	DN	in	тт	lbs	kg	lbs	kg
	1/8	6	<sup>11</sup> /16	17	0.09	0.04	0.09	0.04
	1/4	8	<sup>13</sup> /16	22	0.15	0.07	0.15	0.07
im	<sup>3</sup> /8	10	<sup>15</sup> /16	24	0.23	0.10	0.23	0.10
	1/2	15	1 <sup>1</sup> /8	29	0.41	0.19	0.41	0.19
	3/4	20	<b>1</b> <sup>5</sup> /16	33	0.60	0.27	0.60	0.27
	1	25	<b>1</b> <sup>1</sup> / <sub>2</sub>	38	0.90	0.41	0.90	0.41
	<b>1</b> <sup>1</sup> /4	32	1 <sup>3</sup> /4	44	1.31	0.59	1.31	0.59
	<b>1</b> <sup>1</sup> /2	40	<b>1</b> <sup>15</sup> /16	49	1.73	0.78	1.73	0.78
← A →i	2	50	2 <sup>1</sup> /4	57	2.52	1.14	2.52	1.14
	2 <sup>1</sup> /2	65	2 <sup>11</sup> /16	68	4.90	2.22	4.90	2.22
	3	80	3 <sup>1</sup> /16	78	7.13	3.23	7.13	3.23
│	3 <sup>1</sup> /2	90	37/16	87	9.00	4.08	9.00	4.08
	4	100	<b>3</b> <sup>13</sup> / <sub>16</sub>	98	11.32	5.13	11.32	5.13
	5	125	<b>4</b> <sup>1</sup> / <sub>2</sub>	114	19.42	8.81	19.42	8.81
	6	150	5 <sup>1</sup> /8	130	25.50	11.56	25.50	11.56

Note: See following page for pressure-temperature ratings. Galvanized weights may vary. Please contact your Anvil Representative if you need verification. All Elbows & Tees <sup>3</sup>/<sub>8</sub>" (*10 DN*) and Larger are 100% Gas Tested at a Minimum of 100 PSI. (*6.9 bar*)

PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	
PF-6.13	

### **MALLEABLE IRON FITTINGS**





Malleable Iron Threaded Pipe Unions Pressure - Temperature Ratings										
Tomp	oroturo	Pressure								
Tempe	erature	Class	s 150	Class 250 Class			s 300			
(°F)	(°C)	psi	bar	psi	bar	psi	bar			
-20° to 150°	-28.9° to 65.6°	300	20.7	500	34.5	600	41.4			
200°	93.3°	265	18.3	455	31.4	550	37.9			
250°	121.1°	225	15.5	405	27.9	505	34.8			
300°	148.9°	185	12.8	360	24.8	460	31.7			
350°	176.7°	150	10.3	315	21.7	415	28.6			
400°	204.4°	110	7.6	270	18.6	370	25.5			
450°	232.2°	75	5.2	225	15.5	325	22.4			
500°	260.0°	_	_	180	12.4	280	19.3			
550°	287.8°	-	-	130	9.0	230	15.9			

Note: Unions with Copper or Copper Alloy seats are not intended for use where temperature exceeds  $450\,^{\circ}\text{F}$ 



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

	Malleable Iron Threaded Fittings												
	Pressure - Temperature Ratings												
				Pressure									
Temperature		Class	Class 150		Sizes ¼"–1" (6–25 mm)		Class 300 Sizes 1 <sup>1</sup> / <sub>4</sub> "-2" (32-51 mm)		Sizes 2½"–3" (64–76 mm)				
(°F)	(°C)	psi	bar	psi	bar	psi	bar	psi	bar				
-20° to 150°	-28.9° to 65.6°	300	20.7	2,000	137.9	1,500	103.4	1,000	68.9				
200°	93.3	265	18.3	1,785	123.1	1,350	93.1	910	62.7				
250°	121.1	225	15.5	1,575	108.6	1,200	82.7	825	56.9				
300°	148.9	185	12.8	1,360	93.8	1,050	72.4	735	50.7				
350°	176.7	150	10.3	1,150	79.3	900	62.1	650	44.8				
400°	204.4	-	_	935	64.5	750	51.7	560	38.6				
450°	232.2	-	_	725	50.0	600	41.4	475	32.8				
500°	260.0	_	-	510	35.2	450	31.0	385	26.5				
550°	287.8	_	_	300	20.7	300	20.7	300	20.7				

Anvil Class 150/300 Malleable Iron Fittings conform to ASME B16.3 and Unions conform to ASME B16.39.

ALL ELBOWS & TEES %" (10 DN) and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. (6.9 bar)

Standards and Specifications										
	Dimensions	Material	Galvanizing****	Thread	Pressure Rating	Federal/Other				
MALLEABLE IRON FITTINGS										
Class 150/PN 20	ASME B16.3•	ASTM A-197	ASTM A-153	ASME B1 20.1+	ASME B16.3•	ASME B16.3**				
Class 300/PN 50	ASME B16.3•	ASTM A-197	ASTM A-153	ASME B1 20.1+	ASME B16.3•					
	MALLEABLE IRON UNIONS									
Class 150/PN 20	ASME B16.39•	ASTM A-197	ASTM A-153	ASME B1 20.1+	ASME B16.39•	ASME B16.39***				
Class 250	ASME B16.39•	ASTM A-197	ASTM A-153	ASME B1 20.1+	ASME B16.39•					
Class 300/PN 50	ASME B16.39•	ASTM A-197	ASTM A-153	ASME B1 20.1+	ASME B16.39•					

• an American National standard (ANSI), + ASME B1.20.1 was ANSI B2.1, \*\* Formerly WW-P-521, \*\*\* Formerly WW-U-531

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

# **MALLEABLE IRON FITTINGS**



## **General Assembly of Threaded Fittings**

1) Inspect both male and female components prior to assembly.

- Threads should be free from mechanical damage, dirt, chips and excess cutting oil.
- Clean or replace components as necessary.
- 2) Application of thread sealant
  - Use a thread sealant that is fast drying, sets-up to a semi hard condition and is vibration resistant. Alternately, an anaerobic sealant may be utilized.
  - Thoroughly mix the thread sealant prior to application.
  - Apply a thick even coat to the male threads only. Best application is achieved with a brush stiff enough to force sealant down to the root of the threads.
- 3) Joint Makeup
  - For sizes up to and including 2" pipe, wrench tight makeup is considered three full turns past handtight. Handtight engagement for 1/2" through 2" thread varies from 41/2 turns to 5 turns.
  - For  $2^{1/2}$ " through 4" sizes, wrench tight makeup is considered two full turns past handtight. Handtight engagement for  $2^{1/2}$ " through 4" thread varies from  $5^{1/2}$  turns to  $6^{3/4}$  turns.