

# MALLEABLE IRON FITTINGS



## Class 150 (Standard)

<input type="checkbox"/> <b>FIGURE 1106 (Straight)</b> <input type="checkbox"/> <b>FIGURE 1106R (Reducing)</b> <b>Street or Service Tee</b>	Size		A		J		Unit Weight			
			Black		Galv.					
	NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
1/4	8	1 <sup>3</sup> / <sub>16</sub>	30	1 <sup>3</sup> / <sub>16</sub>	30	0.15	0.07	0.15	0.07	
3/8	10	1 <sup>5</sup> / <sub>16</sub>	33	1 <sup>7</sup> / <sub>16</sub>	37	0.24	0.11	0.24	0.11	
1/2	15	1 <sup>1</sup> / <sub>8</sub>	29	1 <sup>5</sup> / <sub>8</sub>	41	0.34	0.15	0.34	0.15	
3/4	20	1 <sup>5</sup> / <sub>16</sub>	33	1 <sup>7</sup> / <sub>8</sub>	48	0.61	0.28	0.61	0.28	
1	25	1 <sup>1</sup> / <sub>2</sub>	38	2 <sup>1</sup> / <sub>8</sub>	54	0.96	0.44	0.96	0.44	
1 <sup>1</sup> / <sub>4</sub>	32	1 <sup>3</sup> / <sub>4</sub>	44	2 <sup>7</sup> / <sub>16</sub>	62	1.39	0.63	1.39	0.63	
1 <sup>1</sup> / <sub>2</sub>	40	1 <sup>15</sup> / <sub>16</sub>	49	2 <sup>11</sup> / <sub>16</sub>	68	1.93	0.88	1.93	0.88	
2	50	2 <sup>1</sup> / <sub>4</sub>	57	3 <sup>1</sup> / <sub>4</sub>	83	3.16	1.43	3.16	1.43	
Size		Run				Outlet		Unit Weight		
female run x male run x outlet		A		J		A		Black	Galv.	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	
1 <sup>1</sup> / <sub>4</sub> x 1 x 1 <sup>1</sup> / <sub>4</sub>	32 x 25 x 32	1 <sup>3</sup> / <sub>4</sub>	44	2 <sup>5</sup> / <sub>16</sub>	59	1 <sup>3</sup> / <sub>4</sub>	44	1.34	0.61	

<input type="checkbox"/> <b>FIGURE 1107</b> <b>Cross</b>	Size		A		Unit Weight			
			Black		Galv.			
	NPS	DN	in	mm	lbs	kg	lbs	kg
1/8	6	1 <sup>1</sup> / <sub>16</sub>	17	0.12	0.05	0.12	0.05	
1/4	8	1 <sup>3</sup> / <sub>16</sub>	22	0.18	0.08	0.18	0.08	
3/8	10	1 <sup>5</sup> / <sub>16</sub>	24	0.28	0.13	0.28	0.13	
1/2	15	1 <sup>1</sup> / <sub>8</sub>	29	0.42	0.19	0.42	0.19	
3/4	20	1 <sup>5</sup> / <sub>16</sub>	33	0.69	0.31	0.69	0.31	
1	25	1 <sup>1</sup> / <sub>2</sub>	38	1.12	0.51	1.12	0.51	
1 <sup>1</sup> / <sub>4</sub>	32	1 <sup>3</sup> / <sub>4</sub>	44	1.44	0.65	1.44	0.65	
1 <sup>1</sup> / <sub>2</sub>	40	1 <sup>15</sup> / <sub>16</sub>	49	1.98	0.90	1.98	0.90	
2	50	2 <sup>1</sup> / <sub>4</sub>	57	3.30	1.50	3.30	1.50	
2 <sup>1</sup> / <sub>2</sub>	65	2 <sup>11</sup> / <sub>16</sub>	68	5.90	2.68	5.90	2.68	
3	80	3 <sup>1</sup> / <sub>16</sub>	78	7.94	3.60	7.94	3.60	
4	100	3 <sup>13</sup> / <sub>16</sub>	98	13.50	6.12	13.50	6.12	

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

PROJECT INFORMATION		APPROVAL STAMP	
Project:		<input type="checkbox"/> Approved	
Address:		<input type="checkbox"/> Approved as noted	
Contractor:		<input type="checkbox"/> Not approved	
Engineer:		Remarks:	
Submittal Date:			
Notes 1:			
Notes 2:			



**Malleable Iron Threaded Pipe Unions  
Pressure - Temperature Ratings**

Temperature		Pressure					
		Class 150		Class 250		Class 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°F



For Listings/Approval Details and Limitations, visit our website at [www.anvilintl.com](http://www.anvilintl.com) or contact an Anvil Sales Representative.

**Malleable Iron Threaded Fittings  
Pressure - Temperature Ratings**

Temperature		Pressure							
		Class 150		Class 300					
(°F)	(°C)	psi	bar	Sizes 1/4"-1" (6-25 mm)		Sizes 1 1/4"-2" (32-51 mm)		Sizes 2 1/2"-3" (64-76 mm)	
				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 3/8" (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
<b>MALLEABLE IRON FITTINGS</b>						
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•	
<b>MALLEABLE IRON UNIONS</b>						
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.

## 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 4 1/2 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.