# **MALLEABLE IRON FITTINGS**



#### Class 300 (XS/XH)

FIGURE 1170		Size		Α		J		Unit Weight			
90° Street Elbow								Black		Galv.	
		NPS	DN	in	mm	in	тт	lbs	kg	lbs	kg
	I A	1⁄4	8	<sup>15</sup> ⁄16	24	<b>1</b> <sup>7</sup> ⁄16	37	0.17	0.08	0.17	0.08
	← A → i	3⁄8	10	<b>1</b> <sup>1</sup> ⁄16	27	15⁄/8	41	0.26	0.12	0.26	0.12
		1/2	15	1 <sup>1</sup> ⁄4	32	2	51	0.40	0.18	0.40	0.18
		3⁄4	20	<b>1</b> <sup>7</sup> ⁄16	37	<b>2</b> <sup>3</sup> ⁄16	56	0.68	0.31	0.68	0.31
		1	25	15⁄/8	41	<b>2</b> <sup>9</sup> ⁄16	65	1.04	0.47	1.04	0.47
		<b>1</b> <sup>1</sup> ⁄4	32	<b>1</b> <sup>15</sup> ⁄16	49	27⁄8	73	1.60	0.73	1.60	0.73
	+	<b>1</b> <sup>1</sup> ⁄2	40	2 <sup>1</sup> /8	54	3 <sup>1</sup> /8	79	2.20	1.00	2.20	1.00
		2	50	<b>2</b> <sup>1</sup> / <sub>2</sub>	64	3 <sup>11</sup> /16	94	3.59	1.63	3.59	1.63
		3	80	33/8	86	5½	130	9.55	4.33	-	-

FIGURE 1164		Size		Center to End		Unit Weight			
Straight Tee	3120		Α		Black		Galv.		
	NPS	DN	in	тт	lbs	kg	lbs	kg	
	1⁄4	8	<b>1</b> 5⁄16	33	0.27	0.12	0.27	0.12	
	3⁄8	10	<b>1</b> <sup>1</sup> ⁄16	27	0.42	0.19	0.42	0.19	
	1/2	15	1 <sup>1</sup> ⁄4	32	0.65	0.29	0.65	0.29	
$  \longleftarrow A \rightarrow   \longleftarrow A \rightarrow  $	3⁄4	20	<b>1</b> <sup>7</sup> ⁄16	37	1.07	0.49	1.07	0.49	
CHOIONWENC	1	25	15⁄%	41	1.62	0.73	1.62	0.73	
	11⁄4	32	<b>1</b> <sup>15</sup> ⁄16	49	2.49	1.13	2.49	1.13	
A	1½	40	2 <sup>1</sup> /8	54	3.40	1.54	3.40	1.54	
	2	50	<b>2</b> <sup>1</sup> / <sub>2</sub>	64	5.20	2.36	5.20	2.36	
	<b>2</b> <sup>1</sup> / <sub>2</sub>	65	2 <sup>15</sup> /16	75	7.87	3.57	7.87	3.57	
	3	80	<b>3</b> <sup>3</sup> ⁄8	86	12.46	5.65	12.46	5.65	
	4	100	4 <sup>1</sup> /2	114	24.02	10.89	24.02	10.89	

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										
Temperature		Pressure								
Tempo	eralure	Class	<b>: 150</b>	Class 250 Clas			ss 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  $450^{\circ}\mathrm{F}$ 



APPROVED

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										
Tempe	erature			Class 300							
icinperature		Class 150		Sizes 1		Sizes 1		Sizes 21/2"-3"			
				(6-25	<u>5 mm)</u>	(32–5	<u>1 mm)</u>	(64–7	6 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  $\%^{\prime\prime}$  (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					
MALLEABLE IRON FITTINGS										
Class 150/PN 20	ASME B16.3	ASTM A-197	ASTM A-153	ASME B1 20.1	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					
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					

\* 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.