

Class 300 (XS/XH)

FIGURE 1161 90° Elbow Straight	Size		A		Unit Weight			
					Black		Galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
	1/4	8	1 ⁵ / ₁₆	24	0.20	0.09	0.20	0.09
	3/8	10	1 ¹ / ₁₆	27	0.29	0.13	0.29	0.13
	1/2	15	1 ¹ / ₄	32	0.47	0.21	0.47	0.21
	3/4	20	1 ⁷ / ₁₆	37	0.66	0.30	0.66	0.30
	1	25	1 ⁵ / ₈	41	1.15	0.52	1.15	0.52
	1 ¹ / ₄	32	1 ¹⁵ / ₁₆	49	1.88	0.85	1.88	0.85
	1 ¹ / ₂	40	2 ¹ / ₈	54	2.47	1.12	2.47	1.12
	2	50	2 ¹ / ₂	64	3.85	1.75	3.85	1.75
	2 ¹ / ₂	65	2 ¹⁵ / ₁₆	75	5.80	2.63	5.80	2.63
	3	80	3 ³ / ₈	86	9.95	4.51	9.95	4.51
	4	100	4 ¹ / ₂	114	16.00	7.26	16.00	7.26

FIGURE 1161R 90° Reducing Elbow	Size		A		B		Unit Weight			
							Black		Galv.	
	NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
	3/8 x 1/4	10 x 8	1	25	1	25	0.26	0.12	-	-
	1/2 x 3/8	15 x 10	1 ³ / ₁₆	30	1 ³ / ₁₆	30	0.41	0.19	-	-
	3/4 x 1/2	20 x 15	1 ⁵ / ₁₆	33	1 ³ / ₈	35	0.62	0.28	0.62	0.28
	1 x 1/2	25 x 15	1 ⁷ / ₁₆	37	1 ¹ / ₂	38	0.87	0.39	-	-
	1 x 3/4	25 x 20	1 ¹ / ₂	38	1 ⁹ / ₁₆	40	1.00	0.45	1.00	.45
	1 ¹ / ₄ x 3/4	32 x 20	1 ⁵ / ₈	41	1 ³ / ₄	44	1.41	0.64	-	-
	1 ¹ / ₄ x 1	32 x 25	1 ³ / ₄	44	1 ⁷ / ₈	47	1.60	0.73	-	-
	1 ¹ / ₂ x 1	40 x 25	1 ⁷ / ₈	47	2	51	1.89	0.86	-	-
	1 ¹ / ₂ x 1 ¹ / ₄	40 x 32	2	51	2 ¹ / ₁₆	52	2.15	0.98	-	-
	2 x 1 ¹ / ₄	50 x 32	2 ¹ / ₈	54	2 ⁵ / ₁₆	59	3.12	1.41	3.12	1.41
	2 x 1 ¹ / ₂	50 x 40	2 ¹ / ₄	57	2 ³ / ₈	60	3.30	1.50	-	-

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 or contact an Anvil Sales Representative.

Malleable Iron Threaded Fittings Pressure - Temperature Ratings

Temperature		Pressure							
		Class 150		Class 300					
				Sizes ¼"-1" (6-25 mm)		Sizes 1¼"-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 ¾" (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.

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.