



Malleable Iron

Cast Iron

Small Steel Fittings

Pipe Nipples & Pipe Couplings

Forged Steel Fittings & Unions

Anvils

Catawissa

J.B. Smith Products

## 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					
				Sizes 1/4"-1" (6-25 mm)		Sizes 1 1/4"-2" (32-51 mm)		Sizes 2 1/2"-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 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.



## Malleable Hex and Face Bushing



FIGURE 383 Hex Bushing	Size				Unit Weight				
					Black		Galv.		
	NPS	DN	Hex Type	NPS	DN	lbs	kg	lbs	kg
 <p>Outside Hex Type A</p> <p>Inside Hex Type B</p> <p>See page 49-50 (Cast Iron) for other available sizes.</p>	3/4	10	A	1/8	6	0.12	0.05	0.12	0.05
			A	1/4	8	0.14	0.06	0.14	0.06
			A	3/8	10	0.11	0.05	0.11	0.05
			A	1/2	15	0.09	0.04	0.09	0.04
	1	25	B	1/8	6	0.24	0.11	0.24	0.11
			B	1/4	8	0.18	0.08	0.18	0.08
			B	3/8	10	0.18	0.08	0.18	0.08
			A	1/2	15	0.20	0.09	0.20	0.09
	1 1/4	32	A	3/4	20	0.16	0.07	0.16	0.07
			B	1/4	8	0.33	0.15	0.33	0.15
			B	3/8	10	0.27	0.12	0.27	0.12
			B	1/2	15	0.34	0.15	0.34	0.15
	1 1/2	40	A	3/4	20	0.39	0.18	0.39	0.18
			A	1	25	0.30	0.14	0.30	0.14
	2	50	A	1 1/2	40	0.64	0.29	0.64	0.29
	2 1/2	65	A	2	50	1.02	0.46	1.02	0.46

FIGURE 385 Face Bushing	Size				Unit Weight			
					Black		Galv.	
	NPS	DN	NPS	DN	lbs	kg	lbs	kg
 <p>See page 51 (Cast Iron) for other available sizes.</p>	3/4	20	3/8	10	0.08	0.04	—	—
			1/2	15	0.06	0.03	0.06	0.03
	1	25	1/2	15	0.16	0.07	0.16	0.07
			3/4	20	0.10	0.05	0.10	0.05
	1 1/4	32	1/2	15	0.30	0.14	—	—
			3/4	20	0.27	0.12	—	—
			1	25	0.19	0.09	0.19	0.09
	1 1/2	40	1/2	15	0.40	0.18	—	—
			3/4	20	0.39	0.18	—	—
			1	25	0.33	0.15	—	—
			1 1/4	32	0.16	0.07	0.16	0.07
	2	50	1	25	0.65	0.29	0.65	0.29
			1 1/4	32	0.53	0.24	0.53	0.24
			1 1/2	40	0.40	0.18	0.40	0.18
	2 1/2	65	1 1/4	32	1.10	0.50	—	—
			1 1/2	40	0.93	0.42	—	—
2			50	0.40	0.18	0.40	0.18	
3	80	2 1/2	65	0.99	0.45	—	—	

**Note:** Hexagon head or octagon head bushings 2 1/2 NPS (65 DN) and smaller reducing one size may be made of malleable iron, ductile iron or steel. Other sizes may be made of cast iron, ductile iron, malleable iron or steel. Face bushings 2 1/2 NPS (65 DN) and smaller may be made of malleable iron, ductile iron or steel. Face bushings 3NPS (80 DN) and larger reducing one size may be made of malleable iron, ductile iron or steel. Face bushings 3NPS (80 DN) and larger reducing two sizes or more may be made of cast or malleable iron, ductile iron, or steel. According to specifications, hex bushings and cored plugs should be used with 150# malleable iron and 125# cast iron. Solid plugs and face bushings are recommended for use with 250# and 300# fittings.