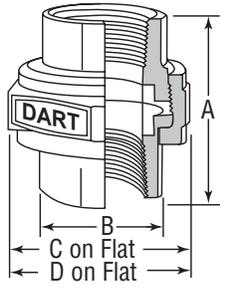


## Malleable Iron Unions • Class 150; 250; 300

 <b>FIGURE 832</b> <b>Dart Union Bronze to</b> <b>Bronze Seat Union</b>	Size		A		B		C		D		Unit Weight			
	NPS	DN	in	mm	in	mm	in	mm	in	mm	Black		Galv.	
											lbs	kg	lbs	kg
 	$\frac{3}{8}$	10	1 $\frac{3}{4}$	44	1 $\frac{5}{16}$	24	1 $\frac{1}{2}$	38	1 $\frac{3}{4}$	44	0.41	0.19	0.43	0.20
	$\frac{1}{2}$	15	2 $\frac{1}{8}$	54	1 $\frac{1}{8}$	29	1 $\frac{3}{16}$	30	2	51	0.58	0.26	0.61	0.28
	$\frac{3}{4}$	20	2 $\frac{5}{16}$	59	1 $\frac{3}{8}$	35	2 $\frac{3}{16}$	56	2 $\frac{1}{2}$	64	0.82	0.37	0.86	0.39
	1	25	2 $\frac{5}{8}$	67	1 $\frac{11}{16}$	43	2 $\frac{9}{16}$	65	3	76	1.31	0.59	1.36	0.62
	1 $\frac{1}{4}$	32	2 $\frac{13}{16}$	73	2 $\frac{1}{16}$	52	3 $\frac{1}{16}$	78	3 $\frac{1}{2}$	89	1.90	0.86	2.00	0.91
	1 $\frac{1}{2}$	40	3	76	2 $\frac{3}{16}$	56	3 $\frac{3}{8}$	86	4	102	2.32	1.05	2.43	1.10
	2	50	3 $\frac{5}{8}$	92	2 $\frac{7}{8}$	73	4 $\frac{1}{16}$	103	4 $\frac{5}{8}$	117	4.00	1.81	4.20	1.90

- Meets ASME B16.39 The standard union for most installations  
 $\frac{3}{8}$  – 2 NPS (10 – 50 DN) – 300lb (136 kg) steam working pressure at 450°F.  
 $\frac{3}{8}$  – 2 NPS (10 – 50 DN) – 600lb (272 kg) cold water, gas, or oil pressure - non-shock.
- Bronze Seat, on both sides of the joint. Resists corrosion.
- True bearing surfaces, unlike ordinary union seats.
- Bodies and nuts are high test air-refined malleable iron - generally superior to mild steel in most services.
- Can be repeatedly installed and removed.
- Straight way through. No cored parts to hold liquid or sediment.
- Extra heavy shoulder on swivel end and in the nut to stand pipe strains, vibration, and wrench abuse.
- Bronze Seat Ball Joint, with extra wide seating surfaces.

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 FITTINGS



## 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
<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
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
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.