

FORGED STEEL
FITTINGS
& UNIONS





B
BONNEY FORGE

SALES CENTER/WAREHOUSE
14496 CROGHAN PIKE
P.O. BOX 330
MT. UNION, PA 17066
(814) 542-2545 • (800) 231-0655
(800) 345-7546 • FAX (814) 542-9977
www.bonneyforge.com
e-mail: bfsales@bonneyforge.com

Corporate Overview.....	2, 3
Condensed Description	4, 5
90° Elbow – Class 2000, 3000, 6000 & 9000	6
45° Elbow – Class 2000, 3000, 6000 & 9000	7
Tee – Class 2000, 3000, 6000 & 9000	8
Cross – Class 2000, 3000, 6000 & 9000.....	9
Lateral – Class 3000, 6000 & 9000.....	10
Street Elbow – Class 3000 & 6000.....	11
QuikLeg 90° – Class 3000 & 6000	12
Boss With Lip – Class 3000 & 6000.....	13
Socket Weld Couplings, Reducers and Caps – Class 3000, 6000 & 9000 ..	14
Threaded Couplings, Reducers and Caps – Class 3000 & 6000	15
Plugs & Bushings – Class 3000/6000	16
Socket Weld Reducer Inserts (MSS-SP-79) – Class 3000, 6000 & 9000 ..	17
SP-83 Union – Class 3000 & 6000.....	18
Rockwood Unions.....	19
Lug Nut Unions	20
Technical Data.....	21





BONNEY FORGE

Bonney Forge - The Company You Rely on For Forged Steel Fittings and Unions

Since 1967, one name has been synonymous with premier Forged Steel Fittings and Unions – Bonney Forge.

Our continued investment in new technology helps maintain a constant level of superior quality in our products, which is unparalleled in the industry. Some of this new technology includes, state-of-the-art machining centers, which reduce product variability while increasing product serviceability and laser marking machines, which increases our capability to provide part information even on the smallest of components.

Backing by the most comprehensive product line in the industry and an extensive inventory that makes all our products readily available, Bonney Forge is the number one resource for the power, oil, chemical, marine, and construction industries through-out the world.

Dependable, Durable, Uniform and Precise

Our unparalleled, integrated, state of the art manufacturing facility allows Bonney Forge to develop products at the highest volume, all of which define the Bonney Forge mission – consistent unyielding quality. The tight control we maintain over our manufacturing process has earned Bonney Forge ISO-9001 recognition. Additionally, products are inspected to the



strict requirements of ASME B16.11, MSS SP-79, and MSS SP-83.

Superior Corrosion Resistance

All carbon and low alloy steel fittings are zinc-phosphate coated for superior corrosion resistance. Stainless steel fittings are electropolished to remove free iron and to provide a high-quality finish. All of this is done to ensure our products have the highest degree of corrosion resistance.

All The Fittings You Need

Our fittings come in a variety of classes and material grades for any application. Socket Weld fittings are available in class 3000, 6000 and 9000. Threaded fittings are available in class 2000, 3000, and 6000.

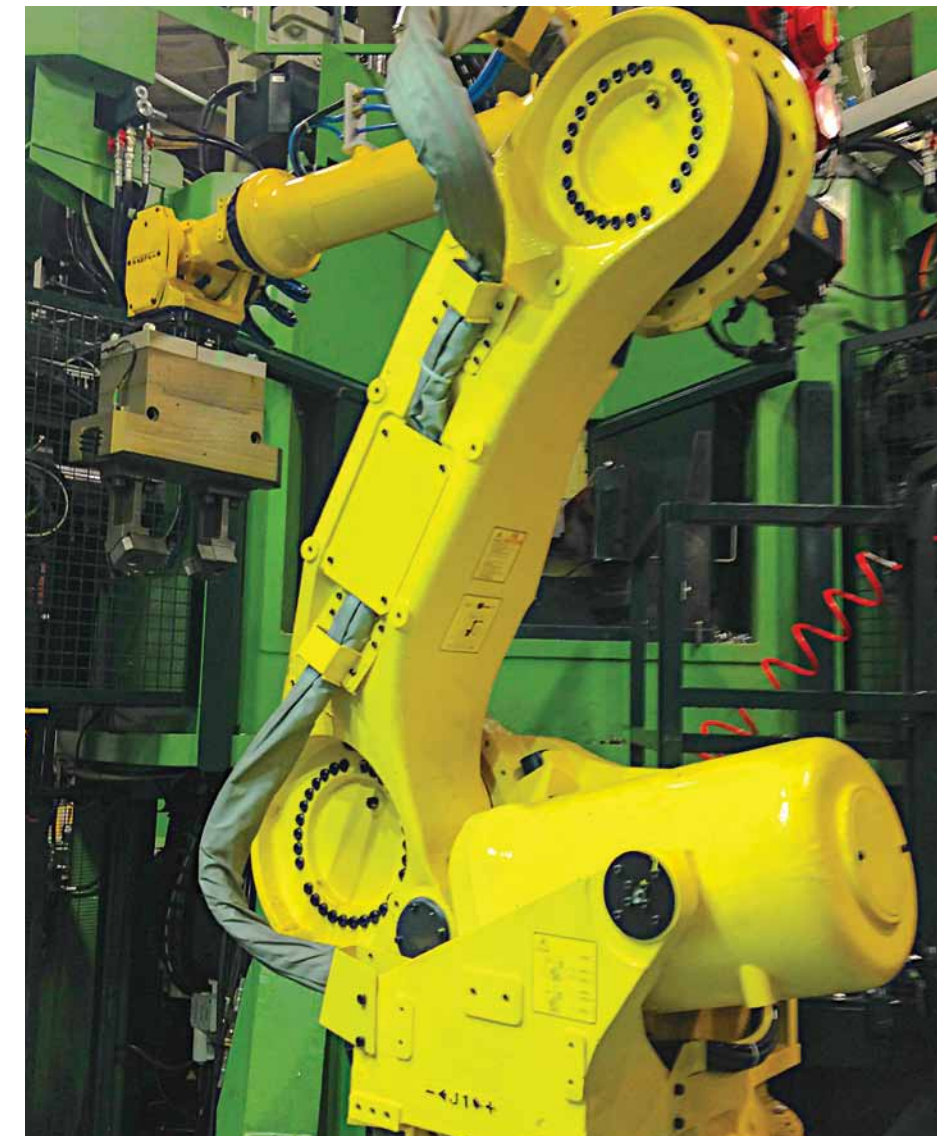
Threaded couplings, reducers, unions, half couplings and caps are available in class 3000 and 6000. Socket Weld couplings, reducers, half couplings and reducer inserts are available in class 3000, 6000 and 9000.

Other specialty designed products are available upon request including the following:

- Reducing Tees
- Multiple end configurations
- Special length couplings
- We also consider customer specific drawings

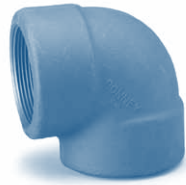


The Best Value - Price, Quality, Service All The Time.



SOCKET WELD/THREADED FITTINGS

- Threaded - Available in Class 2000, 3000, & 6000
- Socket Weld - Available in Class 3000, 6000 & 9000



90° Elbow
Threaded
Class 2000 - 1/4" to 4"
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Socket Weld
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Class 9000 - 1/2" to 2"



45° Elbow
Threaded
Class 2000 - 1/4" to 4"
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Socket Weld
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Class 9000 - 1/2" to 2"



Tee
Threaded
Class 2000 - 1/4" to 4"
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Socket Weld
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Class 9000 - 1/2" to 2"



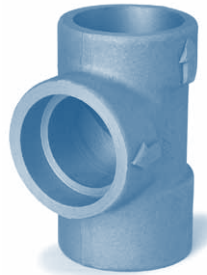
Cross
Threaded
Class 2000 - 1/4" to 4"
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Socket Weld
Class 3000 - 1/8" to 4"
Class 6000 - 1/2" to 3"
Class 9000 - 1/2" to 2"



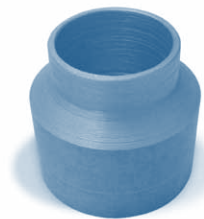
Lateral
Threaded
Class 3000 - 1/4" to 2"
Class 6000 - 1/2" to 1 1/2"
Socket Weld
Class 3000 - 3/8" to 2"
Class 6000 - 1/2" to 2"
Class 9000 - 1/2" to 1 1/2"



Street Elbow
Threaded
Class 3000 - 1/8" to 2"
Class 6000 - 1/8" to 1 1/2"



QuikLeg 90°
Threaded
Class 3000 - 1/2" to 2"
Class 6000 - 1/2" to 1 1/2"
Socket Weld
Class 3000 - 1/2" to 2"
Class 6000 - 3/4" to 2"



Boss w/Lip
Threaded
Class 3000 - 1/4" to 3"
Class 6000 - 1/8" to 3"
Socket Weld
Class 3000 - 1/4" to 3"
Class 6000 - 1/8" to 3"



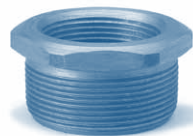
Round Plug
1/8" to 4"



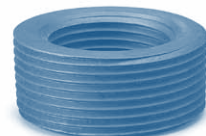
Hexagon Plug
1/8" to 4"



Square Plug
1/8" to 4"



Hexagon Bushing
1/4" to 4"

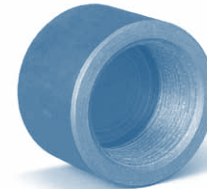


Flush Bushing
1/4" to 4"

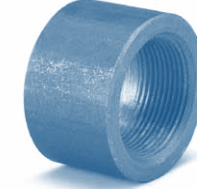
Additional sizes available on request

COUPLINGS, REDUCERS & CAPS

Available in class 3000 and 6000.



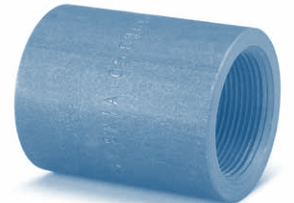
Pipe Cap
Threaded
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Socket Weld
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"



Half Coupling
Threaded
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Socket Weld
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Class 9000 - 1/2" to 2"



Coupling
Threaded
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Socket Weld
Class 3000 - 1/8" to 4"
Class 6000 - 1/8" to 4"
Class 9000 - 1/2" to 2"



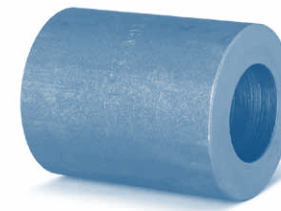
Reducer
Threaded
Class 3000 - 1/4" to 4"
Class 6000 - 1/4" to 4"
Socket Weld
Class 3000 - 1/4" to 4"
Class 6000 - 1/4" to 4"
Class 9000 - 1/2" to 2"

REDUCER INSERTS

Socket weld reducer inserts available in class 3000, 6000 and 9000. Inserts stocked in various materials. Consult factory for special applications.



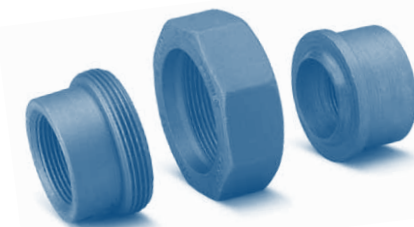
Type 1
Nominal pipe sizes from 1/4" x 1/8" to 2" x 1 1/2"



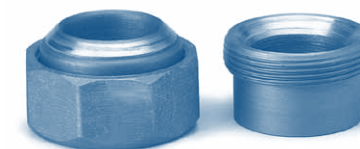
Type 2
Nominal pipe sizes from 1/2" x 1/4" to 2" x 1 1/4"

UNIONS

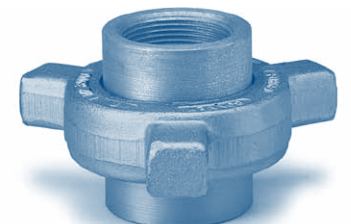
Bonney Forge MSS-SP-83 threaded and socket weld unions in class 3000 and 6000. Use Bonney Forge Rockwood Unions for the ultimate in operation and durability.



MSS-SP-83
Accommodates 1/8" to 3" pipe class 3000 and 1/4" to 2" pipe class 6000.



Rockwood
For use with 1/8" to 2" pipe. 1/8" to 2" threaded connection. 1/4" to 2" socket weld-stainless steel only.



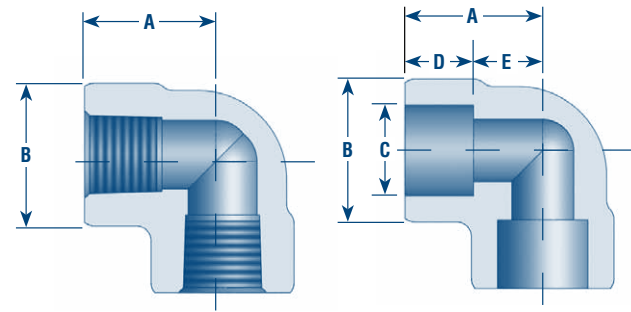
Lug Nut
3/8" to 4" class 3000 and 1/2" to 2" class 6000 threaded & socket weld.

Additional sizes available on request

B[®] 90° ELBOW

BONNEY FORGE

CLASS 2000
CLASS 3000
CLASS 6000
CLASS 9000



SPECIFICATIONS:
ASME B16.11
ASME B1.20.1 - (NPT)

Threaded

CLASS	DIMENSIONS	SIZES (INCHES)												
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	
2000	A		7/8	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	3	3 3/8	4 3/16	
	B		29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 5/8	4 5/16	5 3/4	
	WEIGHT		0.23	0.29	0.48	0.75	1.08	1.59	2.19	3.52	7.09	11.33	25.08	
3000	A		7/8	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	4 1/2
	B		29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	4	4 3/4	6
	WEIGHT		0.27	0.35	0.58	0.97	1.42	2.29	2.77	5.43	5.87	11.03	17.50	33.20
6000	A		31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	4 3/16	4 1/2
	B		1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	4	4 3/4	5 3/4	6
	WEIGHT		0.37	0.65	1.05	1.64	2.69	3.62	6.13	7.84	14.40	22.95	37.12	33.42

Socket Weld

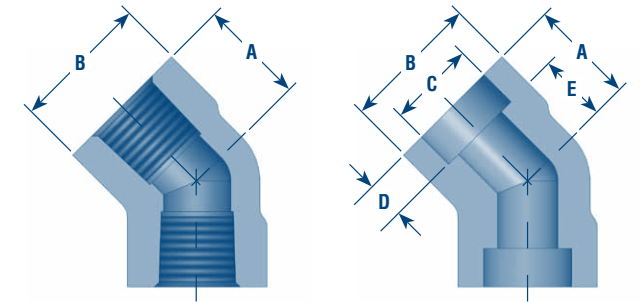
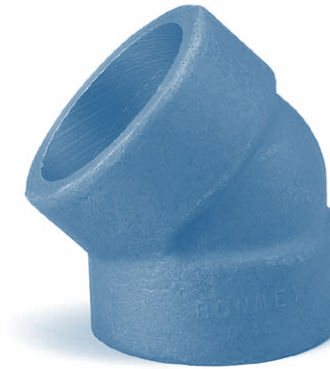
CLASS	DIMENSIONS	SIZES (INCHES)												
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	
3000	A		7/8	7/8	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	3	3 3/8	4 3/16
	B		29/32	29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/16	4 3/8	5 3/4
	C		0.420	0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	D MIN.		3/8	3/8	3/8	3/8	1/2	1/2	1/2	3/8	5/8	5/8	5/8	3/4
	E		7/16	7/16	17/32	5/8	3/4	7/8	1 1/16	1 1/4	1 1/2	1 5/8	2 1/4	2 5/8
	WEIGHT		0.25	0.21	0.26	0.45	0.75	1.05	1.52	2.08	3.37	6.67	11.08	22.59
6000	A		7/8	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	4 1/2
	B		29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	4	4 3/4	6
	C		0.420	0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	D MIN.		3/8	3/8	3/8	3/8	1/2	1/2	1/2	5/8	5/8	5/8	3/4	
	E		7/16	17/32	5/8	3/4	7/8	1 1/16	1 1/4	1 1/2	1 5/8	2 1/4	2 1/2	2 3/4
	WEIGHT		0.26	0.59	0.97	1.42	2.33	2.96	5.71	6.42	12.16	18.69	34.15	
9000	A				1 1/2	1 3/4	2	2 3/8	2 1/2	3				
	B				1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	3 11/16				
	C				0.855	1.065	1.330	1.675	1.915	2.406				
	D MIN.				3/8	1/2	1/2	1/2	1/2	5/8				
	E				1	1 1/8	1 1/4	1 3/8	1 1/2	2 1/8				
	WEIGHT				1.70	2.79	3.81	5.71	8.15	11.26				

Note: 1. All Dimensions are in inches
 2. Weights based on carbon steel (A105)

B[®] 45° ELBOW

BONNEY FORGE

CLASS 2000
CLASS 3000
CLASS 6000
CLASS 9000



SPECIFICATIONS:
ASME B16.11
ASME B1.20.1 - (NPT)

Threaded

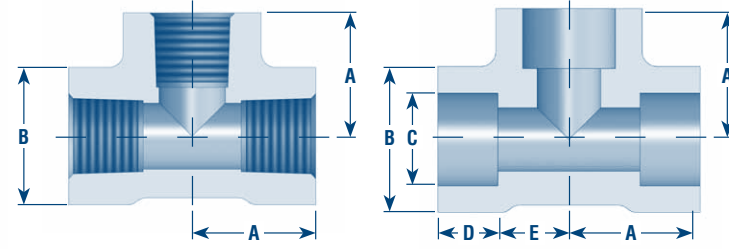
CLASS	DIMENSIONS	SIZES (INCHES)													
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4		
2000	A			3/4	3/4	1	1 1/8	1 1/4	1 5/16	1 3/8	1 3/4	2 1/16	2 1/2	3 1/8	
	B			29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	4	4 3/8	6	
	WEIGHT			0.21	0.24	0.47	0.73	1.03	1.46	1.77	3.03	8.07	9.46	24.57	
3000	A			3/4	3/4	1	1 1/8	1 1/4	1 5/16	1 3/8	1 11/16	1 3/4	2 1/16	2 1/2	3 1/8
	B			29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 5/16	4	4 3/4	6
	WEIGHT			0.23	0.30	0.58	0.91	1.29	2.02	2.29	4.54	5.26	7.83	12.99	24.75
6000	A			3/4	1	1 1/8	1 1/4	1 5/16	1 3/8	1 11/16	1 3/4	2 1/16	2 1/2	3 1/8	3 1/8
	B			1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 5/16	4	4 3/4	6	6
	WEIGHT			0.56	0.58	0.91	1.54	2.25	2.84	5.12	6.82	10.28	15.00	35.20	24.75

Socket Weld

CLASS	DIMENSIONS	SIZES (INCHES)													
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4		
3000	A			3/4	3/4	3/4	1	1 1/8	1 1/4	1 5/16	1 3/8	1 3/4	2 1/16	2 1/2	3 1/8
	B			29/32	29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	4	4 3/8	6
	C			0.420	0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	D MIN.			3/8	3/8	3/8	3/8	1/2	1/2	1/2	5/8	5/8	5/8	3/4	
	E			5/16	5/16	5/16	7/16	1/2	9/16	11/16	13/16	1	1 1/8	1 1/4	1 5/8
	WEIGHT			0.22	0.19	0.22	0.42	0.70	0.95	1.39	1.68	2.96	7.76	8.55	24.06
6000	A			3/4	3/4	1	1 1/8	1 1/4	1 5/16	1 3/8	1 3/4	1 27/32	2 1/16	2 1/2	3 1/8
	B			29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 3/8	4	4 3/4	6
	C			0.420	0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	D MIN.			3/8	3/8	3/8	3/8	1/2	1/2	1/2	5/8	5/8	5/8	3/4	
	E			5/16	5/16	7/16	1/2	9/16	11/16	13/16	1	1 1/8	1 1/4	1 3/8	1 5/8
	WEIGHT			0.22	0.48	0.89	1.26	2.00	2.29	4.49	5.57	8.69	14.20	24.06	
9000	A					1 1/4	1 5/16	1 3/8	1 3/4	1 27/32	2 1/16				
	B					1 27/32	2 7/32	2 1/2	3 1/32	3 3/8	4				
	C					0.855	1.065	1.330	1.675	1.915	2.406				
	D MIN.					3/8	1/2	1/2	1/2	1/2	5/8				
	E					5/8	3/4	13/16	7/8	1	1 1/8				
	WEIGHT					1.31	2.37	2.91	4.31	6.89	10.84				

Note: 1. All Dimensions are in inches
 2. Weights based on carbon steel (A105)

CLASS 2000
CLASS 3000
CLASS 6000
CLASS 9000



SPECIFICATIONS:
ASME B16.11
ASME B1.20.1 - (NPT)

Threaded

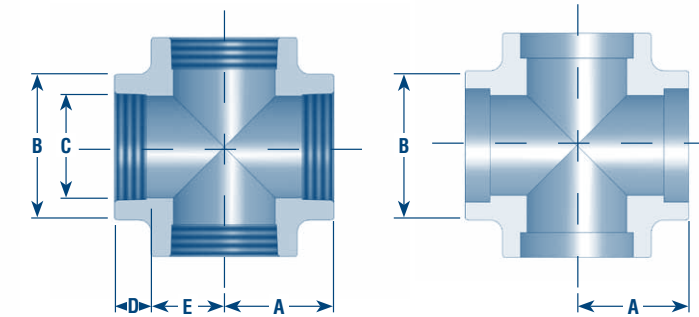
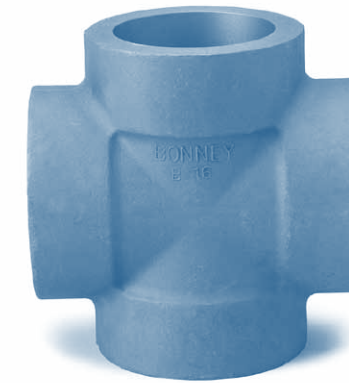
CLASS	DIMENSIONS	SIZES (INCHES)												
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	
2000	A		7/8	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	3	3 3/8	4 3/16	
	B		29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/16	4 5/16	5 3/4	
	WEIGHT		0.29	0.38	0.63	0.95	1.41	2.13	2.91	4.41	9.89	14.17	29.70	
3000	A		7/8	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	4 1/2
	B		29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	1 11/32	4	4 3/4	6
	WEIGHT		0.36	0.47	0.77	1.29	1.89	3.08	3.73	7.00	7.63	14.67	22.65	40.08
6000	A		31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	4 3/16	4 1/2
	B		1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	4	4 3/4	5 3/4	6
	WEIGHT		0.47	0.87	1.45	2.24	3.71	4.92	8.13	10.11	19.16	30.43	47.55	47.77

Socket Weld

CLASS	DIMENSIONS	SIZES (INCHES)												
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	
3000	A		7/8	7/8	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	3	3 3/8	4 3/16
	B		29/32	29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/16	4 3/8	5 3/4
	C		0.420	0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	D MIN.		3/8	3/8	3/8	3/8	1/2	1/2	1/2	5/8	5/8	5/8	5/8	3/4
	E		7/16	7/16	17/32	5/8	3/4	7/8	1 1/16	1 1/4	1 1/2	1 5/8	2 1/4	2 5/8
	WEIGHT		0.33	0.27	0.34	0.59	0.94	1.29	2.04	2.77	4.11	8.68	13.79	28.60
6000	A		7/8	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	4 1/2
	B		29/32	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	4	4 3/4	6
	C		0.420	0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	D MIN.		3/8	3/8	3/8	3/8	1/2	1/2	1/2	5/8	5/8	5/8	5/8	3/4
	E		7/16	17/32	5/8	3/4	7/8	1 1/16	1 1/4	1 1/2	1 5/8	2 1/4	2 1/2	2 3/4
	WEIGHT		0.34	0.80	1.27	1.91	3.17	4.04	7.55	8.19	16.15	24.43	42.79	
9000	A				1 1/2	1 3/4	2	2 3/8	2 1/2	3				
	B				1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	3 11/16				
	C				0.855	1.065	1.330	1.675	1.915	2.406				
	D MIN.				3/8	1/2	1/2	1/2	1/2	5/8				
	E				1	1 1/8	1 1/4	1 3/8	1 1/2	2 1/8				
	WEIGHT				2.31	3.62	5.20	7.55	10.78	15.79				

Note: 1. All Dimensions are in inches
2. Weights based on carbon steel (A105)

CLASS 2000
CLASS 3000
CLASS 6000
CLASS 9000



SPECIFICATIONS:
ASME B16.11
ASME B1.20.1 - (NPT)

Threaded

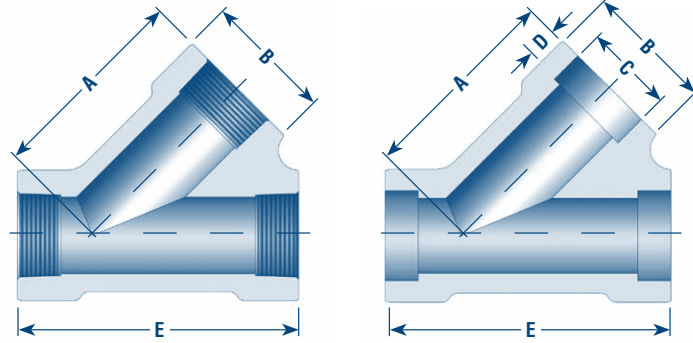
CLASS	DIMENSIONS	SIZES (INCHES)													
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4		
2000	A			31/32	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	3 1/4	3 3/4	4 1/2	
	B			1 1/16	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	4	4 3/4	6	
	WEIGHT			0.56	0.47	0.83	1.19	1.64	2.46	3.51	5.50	18.32	26.41	45.76	
3000	A			31/32	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	4 1/2
	B			1 1/16	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	4	4 3/4	6
	WEIGHT			0.65	0.58	0.97	1.60	2.28	3.65	4.54	8.47	9.10	17.69	26.13	47.37
6000	A			31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	4 1/2	4 1/2
	B			1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	4	4 3/4	6	6
	WEIGHT			0.65	1.19	1.60	2.65	4.34	5.92	10.50	12.12	23.15	28.13	54.00	43.50

Socket Weld

CLASS	DIMENSIONS	SIZES (INCHES)															
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4				
3000	A					15/16	15/16	31/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	3 1/4	3 3/4	4 1/2
	B					1 1/16	1 1/16	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	4	4 3/4	6
	C					0.420	0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	D MIN.					3/8	3/8	3/8	3/8	1/2	1/2	1/2	1/2	5/8	5/8	5/8	3/4
	E					7/16	7/16	17/32	5/8	3/4	7/8	1 1/16	1 1/4	1 1/2	1 5/8	2 1/4	2 5/8
	WEIGHT					0.25	0.25	0.42	0.72	1.17	1.49	2.38	3.25	5.08	15.78	24.73	40.00
6000	A								1 5/16	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	
	B								1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	4	4 3/4	
	C								0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	
	D MIN.								3/8	1/2	1/2	1/2	5/8	5/8	5/8		
	E								3/4	7/8	1 1/16	1 1/4	1 1/2	1 5/8	2 1/4	2 1/2	
	WEIGHT								1.55	2.31	3.74	5.25	8.80	9.66	16.75	23.00	
9000	A								1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4			
	B								1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	4			
	C								0.855	1.065	1.330	1.675	1.915	2.406			
	D MIN.								3/8	1/2	1/2	1/2	1/2	5/8			
	E								1	1 1/8	1 1/4	1 3/8	1 1/2	2 1/8			
	WEIGHT								1.75	4.12	5.25	5.12	8.75	22.19			

Note: 1. All Dimensions are in inches
2. Weights based on carbon steel (A105)

CLASS 3000
CLASS 6000
CLASS 9000



SPECIFICATIONS:
ASME B16.11 - (SOCKET ENDS ONLY)
ASME B1.20.1 - (NPT)

Threaded

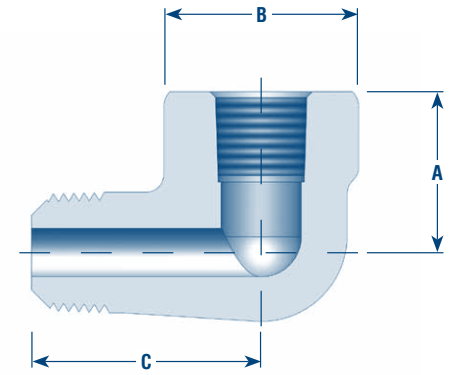
CLASS	DIMENSIONS	SIZES (INCHES)								
		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
3000	A	1 7/8	2 1/8	2 9/16	3	3 1/2	3 15/16	4 3/4	5	
	B	1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	
	E	2 11/16	3	3 9/16	4 1/8	4 13/16	5 3/8	6 7/16	6 5/8	
	WEIGHT		1.00	1.99	2.73	4.43	5.45	11.10	11.70	
6000	A			3	3 1/2	3 15/16	4 3/4	5		
	B			1 27/32	2 7/32	2 1/2	3 1/32	3 11/32		
	E			4 1/8	4 13/16	5 3/8	6 7/16	6 5/8		
	WEIGHT			2.38	3.25	5.44	7.19	12.31		

Socket Weld

CLASS	DIMENSIONS	SIZES (INCHES)								
		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
3000	A		1 7/8	2 1/8	2 9/16	3	3 1/2	3 15/16	4 3/4	
	B		1 1/16	1 5/16	1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	
	C		0.690	0.855	1.065	1.330	1.675	1.915	2.406	
	D MIN.		3/8	3/8	1/2	1/2	1/2	1/2	5/8	
	E		2 11/16	3	3 9/16	4 1/8	4 13/16	5 3/8	6 7/16	
WEIGHT		1.00	0.88	1.56	2.08	3.08	4.22	6.89		
6000	A			2 9/16	3	3 1/2	3 15/16	4 3/4	5	
	B			1 9/16	1 27/32	2 7/32	2 1/2	3 1/32	3 11/32	
	C			0.855	1.065	1.330	1.675	1.915	2.406	
	D MIN.			3/8	1/2	1/2	1/2	1/2	5/8	
	E			3 9/16	4 1/8	4 13/16	5 3/8	6 7/16	6 5/8	
WEIGHT			2.00	3.07	4.85	6.25	11.94	12.50		
9000	A			3	3 1/2	3 15/16	4 3/4	5		
	B			1 27/32	2 7/32	2 1/2	3 1/32	3 11/32		
	C			0.855	1.065	1.330	1.675	1.915		
	D MIN.			9/16	5/8	11/16	7/8	1/2		
	E			4 1/8	4 13/16	5 3/8	6 7/16	6 5/8		
WEIGHT			1.75	2.38	3.75	6.88	6.88			

Note: 1. All Dimensions are in inches
2. Weights based on carbon steel (A105)

CLASS 3000
CLASS 6000



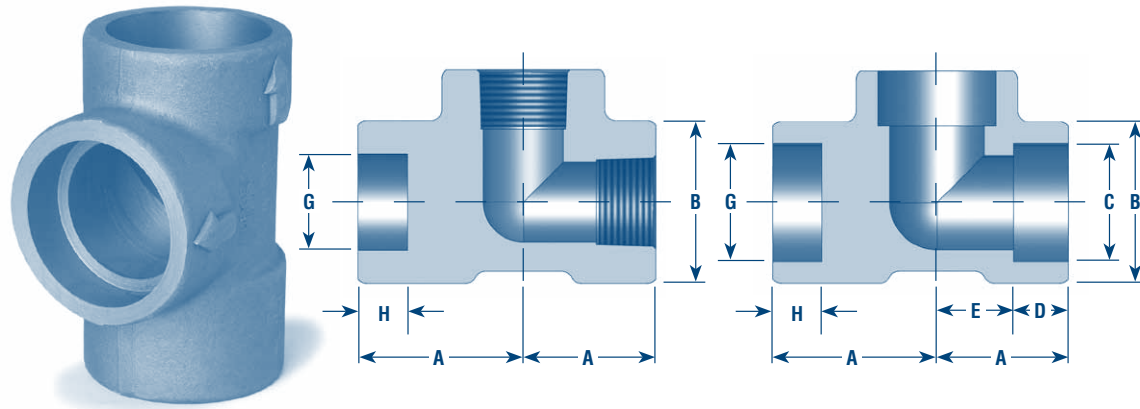
SPECIFICATIONS:
ASME B16.11
ASME B1.20.1 - (NPT)

Threaded

CLASS	DIMENSIONS	SIZES (INCHES)								
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
3000	A	7/8	7/8	1	1 1/8	1 3/8	1 3/4	2	2 1/8	2 1/2
	B	1 1/16	1 1/16	1 5/16	1 1/2	1 13/16	2 3/16	2 7/16	3 1/32	3 5/16
	C	1 1/4	1 1/4	1 1/2	1 5/8	1 7/8	2 1/4	2 5/8	2 15/16	3 5/16
	WEIGHT	0.27	0.25	0.41	0.61	1.02	1.73	2.42	4.05	5.25
6000	A	7/8	1	1 1/8	1 3/8	1 3/4	2	2 1/8	2 1/2	
	B	1 1/16	1 5/16	1 1/2	1 13/16	2 3/16	2 7/16	3 1/32	3 5/16	
	C	1 1/4	1 1/2	1 5/8	1 7/8	2 1/4	2 5/8	2 15/16	3 5/16	
	WEIGHT	0.42	0.44	0.69	1.18	2.09	3.12	4.87	7.04	

Note: 1. All Dimensions are in inches
2. Weights based on carbon steel (A105)

CLASS 3000
CLASS 6000



SPECIFICATIONS:
ASME B16.11 - (SOCKET DIMENSIONS ONLY)
ASME B1.20.1 - (NPT)

Threaded

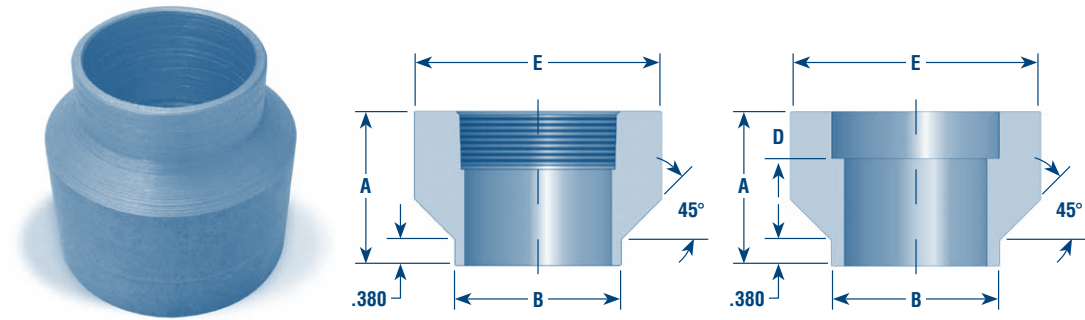
CLASS	DIMENSIONS	SIZES (INCHES)					
		1/2	3/4	1	1 1/4	1 1/2	2
3000	A	1 1/2	1 1/2	2	2	2 3/8	2 1/2
	B	1 7/8	1 7/8	2 1/2	2 1/2	3	3 1/8
	F	1 7/8	1 7/8	2 1/2	2 1/2	3	3 1/4
	G	0.855	1.065	1.330	1.675	1.915	2.406
	H	1/2	9/16	3/4	3/4	3/4	7/8
	WEIGHT	2.63	2.19	6.02		5.10	10.31
6000	A	1 1/2	2	2	2 3/8	2 1/2	
	B	1 7/8	2 1/2	2 1/2	3	3 1/8	
	F	1 7/8	2 1/2	2 1/2	3	3 1/8	
	G	0.855	1.065	1.330	1.675	1.915	
	H	9/16	3/4	3/4	3/4	7/8	
	WEIGHT		6.53			10.31	

Socket Weld

CLASS	DIMENSIONS	SIZES (INCHES)					
		1/2	3/4	1	1 1/4	1 1/2	2
3000	A	1 1/2	1 1/2	1 1/2	2	2	2 3/8
	B	1 7/8	1 7/8	1 7/8	2 1/2	2 1/2	3
	C	0.855	1.065	1.330	1.675	1.915	2.406
	D MIN.	3/8	1/2	1/2	1/2	1/2	5/8
	E	5/8	3/4	7/8	1 1/4	1 1/4	1 1/2
	F	1 7/8	1 7/8	1 7/8	2 1/2	2 1/2	3
	G	0.855	1.065	1.330	1.675	1.915	2.406
	H	9/16	9/16	9/16	3/4	3/4	3/4
	WEIGHT		2.03	2.63		3.89	6.33
6000	A		1 1/2	2	2 3/8	2 3/8	2 1/2
	B		1 7/8	2 1/2	3	3	3 3/8
	C		1.065	1.330	1.675	1.915	2.406
	D MIN.		1/2	1/2	1/2	1/2	5/8
	E		7/8	1 1/16	1 1/4	1 1/2	1 5/8
	F		1 7/8	2 1/2	3	3	3 1/8
	G		1.065	1.330	1.675	1.915	2.406
	H		9/16	3/4	9/16	9/16	11/16
	WEIGHT		2.19	6.02		4.75	10.98

Note: 1. All Dimensions are in inches
2. Weights based on carbon steel (A105)

CLASS 3000
CLASS 6000



SPECIFICATIONS:
ASME B16.11 - (SOCKET DIMENSIONS ONLY)
ASME B1.20.1 - (NPT)

Threaded

CLASS	DIMENSIONS	SIZES (INCHES)										
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
3000	A		1 3/16	1 3/16	1 5/16	1 3/8	1 11/16	1 7/8	2	2 1/4	2 1/2	2 3/4
	B		11/16	13/16	15/16	1 1/16	1 5/16	1 11/16	1 15/16	2 7/16	2 7/8	3 1/2
	E		1	1 1/16	1 3/8	1 1/2	1 13/16	2 1/4	2 1/2	3 1/8	3 5/8	4 3/8
	WEIGHT		0.13	0.21	0.29	0.29	0.51	0.84	1.18	2.04	2.93	4.11
6000	A	1 3/16	1 3/16	1 3/16	1 5/16	1 3/8	1 11/16	1 7/8	2	2 1/4	2 1/2	2 3/4
	B	9/16	11/16	13/16	15/16	1 1/16	1 5/16	1 11/16	1 15/16	2 7/16	2 7/8	3 1/2
	E	7/8	1	1 1/4	1 1/2	1 3/4	2 1/4	2 1/2	3	3 5/8	4 1/4	5
	WEIGHT	0.12	0.15	0.20	0.33	0.43	0.93	1.15	1.86	3.02	4.40	6.40

Socket Weld

CLASS	DIMENSIONS	SIZES (INCHES)										
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
3000	A		1 3/16	1 3/16	1 5/16	1 3/8	1 11/16	1 7/8	2	2 1/4	2 1/2	2 3/4
	B		11/16	13/16	15/16	1 1/16	1 5/16	1 11/16	1 15/16	2 7/16	2 7/8	3 1/2
	D MIN.		3/8	3/8	3/8	1/2	1/2	1/2	1/2	5/8	5/8	5/8
	E		15/16	1 1/16	1 5/16	1 1/2	1 13/16	2 1/4	2 1/2	3 1/8	3 5/8	4 3/8
	F		0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535
	WEIGHT		0.13	0.21	0.29	0.29	0.51	0.84	1.18	2.04	2.93	4.11
6000	A	1 3/16	1 3/16	1 3/16	1 5/16	1 3/8	1 11/16	1 7/8	2	2 1/4	2 1/2	2 3/4
	B	9/16	11/16	13/16	15/16	1 1/16	1 5/16	1 11/16	1 15/16	2 7/16	2 7/8	3 1/2
	D MIN.	3/8	3/8	3/8	3/8	1/2	1/2	1/2	1/2	5/8	5/8	5/8
	E	7/8	1	1 1/4	1 1/2	1 3/4	2 1/4	2 1/2	3	3 5/8	4 1/4	5
	F	0.420	0.555	0.690	0.855	1.065	1.340	1.675	1.915	2.406	2.906	3.535
	WEIGHT	0.18	0.16	0.22	0.33	0.43	0.93	1.24	1.91	3.07	4.83	6.83

Note: 1. All Dimensions are in inches
2. Weights based on carbon steel (A105)

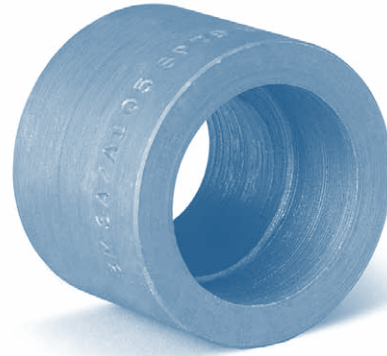
B SOCKET WELD COUPLINGS, REDUCERS AND CAPS

BONNEY FORGE

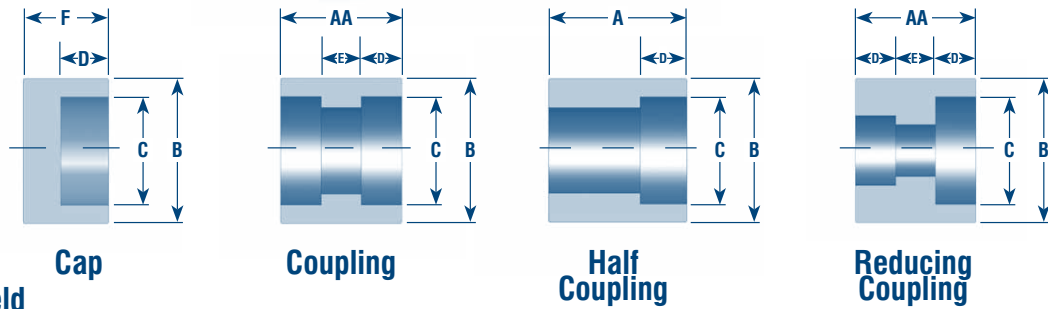
CLASS 3000

CLASS 6000

CLASS 9000



**SPECIFICATIONS:
ASME B16.11**



Socket Weld

CLASS	DIMENSIONS	SIZES (INCHES)											
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
3000	A	1 1/16	1 1/16	1 1/8	1 3/8	1 1/2	1 3/4	1 7/8	2	2 1/2	2 9/16	2 3/4	3
	AA	1 1/32	1 1/32	1 1/32	1 3/16	1 13/32	1 33/64	1 33/64	1 33/64	2 1/64	2 1/64	2 1/64	2 17/64
	B	3/4	7/8	1 1/16	1 1/4	1 1/2	1 13/16	2 1/4	2 1/2	3	3 5/8	4 5/16	5 1/2
	C	0.420	0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	D MIN.	3/8	3/8	3/8	3/8	1/2	1/2	1/2	1/2	5/8	5/8	5/8	3/4
	E	1/4	1/4	1/4	3/8	3/8	1/2	1/2	1/2	3/4	3/4	3/4	3/4
F	11/16	3/4	3/4	7/8	1	1 1/16	1 3/16	1 1/4	1 1/2	1 9/16	1 13/16	2 1/16	
COUPLING	WEIGHT	0.09	0.12	0.16	0.24	0.39	0.57	0.90	1.04	1.79	2.906	4.06	5.73
HALF COUPLING	WEIGHT	0.10	0.13	0.18	0.32	0.46	0.75	1.24	1.33	2.38	3.55	6.24	8.30
REDUCER	WEIGHT		0.12	0.16	0.24	0.39	0.57	0.90	1.04	1.79	2.42	4.06	5.73
CAP	WEIGHT	0.07	0.10	0.14	0.22	0.36	0.55	1.01	1.27	1.99	3.38	6.30	12.08
6000	A	1 1/16	1 1/16	1 1/8	1 3/8	1 1/2	1 3/4	1 7/8	2	2 1/2	2 9/16	2 3/4	3
	AA	1 1/16	1 1/8	1 1/8	1 5/32	1 13/32	1 33/64	1 33/64	1 33/64	2 1/64	2 1/64	2 1/64	2 17/64
	B	7/8	1 1/16	1 5/16	1 1/2	1 3/4	2 1/4	2 1/2	3	3 5/8	4 1/4	5	6 1/4
	C	0.420	0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	D MIN.	3/8	3/8	3/8	3/8	1/2	1/2	1/2	1/2	5/8	5/8	5/8	3/4
	E	1/4	1/4	1/4	3/8	3/8	1/2	1/2	1/2	3/4	3/4	3/4	3/4
F		15/16	15/16	1	1 1/16	1 1/4	1 5/16	1 3/8	1 5/8	1 11/16	1 15/16	2 5/16	
COUPLING	WEIGHT		0.23	0.33	0.45	0.67	1.27	1.37	2.09	3.85	4.93	6.69	8.00
HALF COUPLING	WEIGHT				0.56	0.80	1.58	1.72	2.99	4.99	5.44	9.50	12.64
REDUCER	WEIGHT		0.23	0.33	0.45	0.67	1.27	1.37	2.09	3.85	4.93	6.69	8.00
CAP	WEIGHT		0.20	0.27	0.42	0.58	1.18	1.41	2.19	3.65	5.63	8.78	14.25
9000	A				1 3/8	1 1/2	1 3/4	1 51/64	2	2 1/2			
	AA				1 3/8	1 1/2	1 3/4	1 51/64	2	2 1/2			
	B				1 13/16	2	2 3/8	2 3/4	3 1/16	3 5/8			
	C				0.855	1.065	1.330	1.675	1.915	2.406			
	D MIN.				3/8	1/2	1/2	1/2	1/2	5/8			
	E				3/8	3/8	1/2	1/2	1/2	3/4			
COUPLING	WEIGHT				0.62	1.04	1.71	1.69	2.93	4.61			
HALF COUPLING	WEIGHT				0.88	0.80	1.74	2.22	2.93	4.99			
REDUCER	WEIGHT				0.62	1.04	1.71	1.69	2.93	4.61			

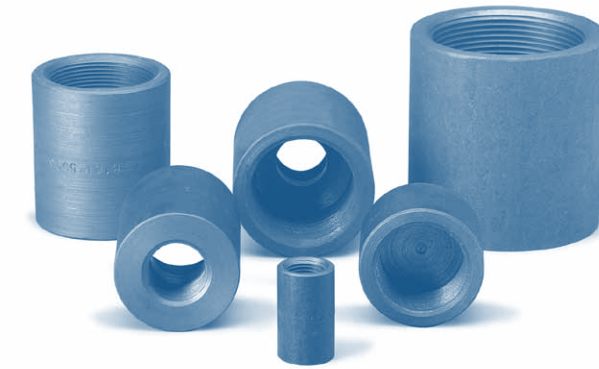
- Note:
1. All dimensions are in inches.
 2. Weights based on carbon steel (A105)
 3. Reducer weights shown are based on full coupling sizes.
 4. Reducers smaller than 1/4" are not offered.

B THREADED COUPLINGS, REDUCERS AND CAPS

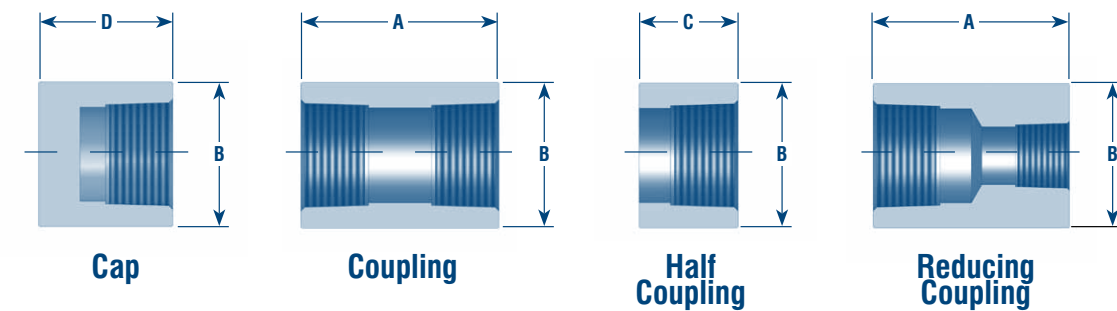
BONNEY FORGE

CLASS 3000

CLASS 6000



**SPECIFICATIONS:
ASME B16.11
ASME B1.20.1 - (NPT)**

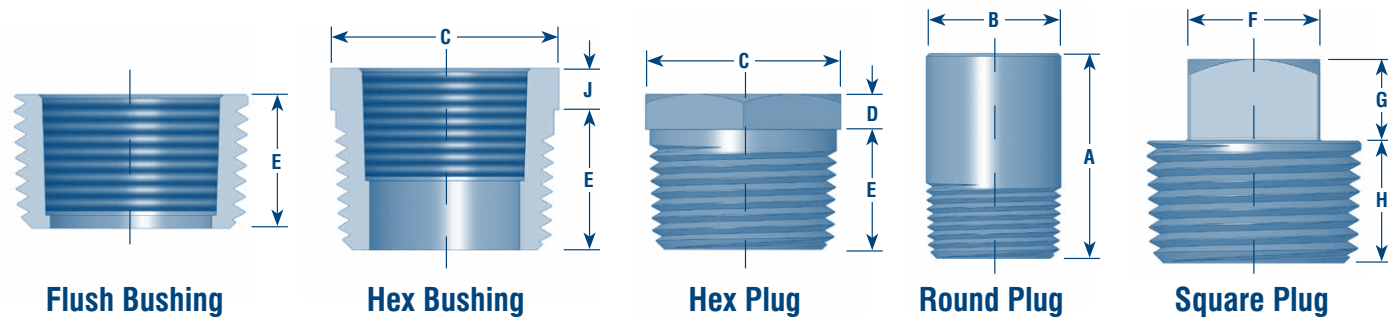
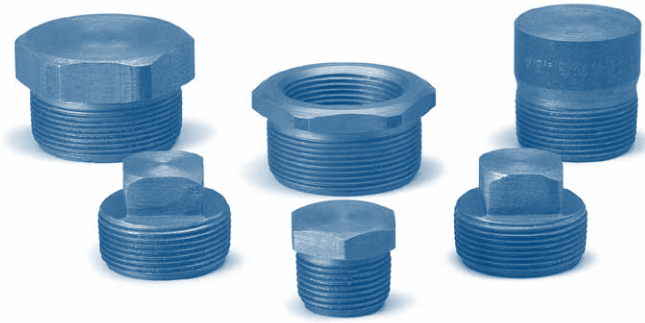


Threaded

CLASS	DIMENSIONS	SIZES (INCHES)											
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
3000	A	1 1/4	1 3/8	1 1/2	1 7/8	2	2 3/8	2 5/8	3 1/8	3 3/8	3 5/8	4 1/4	4 3/4
	B	3/4	3/4	7/8	1 1/8	1 3/8	1 3/4	2 1/4	2 1/2	3	3 5/8	4 1/4	5 1/2
	C	5/8	11/16	3/4	15/16	1	1 3/16	1 5/16	1 9/16	1 11/16	1 13/16	2 1/8	2 3/8
	D	15/16	1	1	1 1/4	1 7/16	1 5/8	1 3/4	1 3/4	1 7/8	2 3/8	2 9/16	2 11/16
COUPLING	WEIGHT	0.13	0.11	0.13	0.29	0.42	0.85	1.60	2.26	2.95	4.61	6.89	12.48
HALF COUPLING	WEIGHT	0.06	0.05	0.06	0.13	0.21	0.42	0.79	1.12	1.53	2.34	3.26	6.48
REDUCER	WEIGHT		0.11	0.13	0.29	0.42	0.85	1.60	2.26	2.95	4.61	6.89	12.48
CAP	WEIGHT	0.10	0.09	0.10	0.24	0.37	0.74	1.35	1.64	2.40	4.45	7.14	12.42
6000	A	1 1/4	1 3/8	1 1/2	1 7/8	2	2 3/8	2 5/8	3 1/8	3 3/8	3 5/8	4 1/4	4 3/4
	B	7/8	1	1 1/4	1 1/2	1 3/4	2 1/4	2 1/2	3	3 5/8	4 1/4	5	6 1/4
	C	5/8	11/16	3/4	15/16	1	1 3/16	1 5/16	1 9/16	1 11/16	1 13/16	2 1/8	2 3/8
	D	1	1 1/16	1 1/16	1 5/16	1 1/2	1 11/16	1 13/16	1 7/8	2	2 1/2	2 11/16	2 15/16
COUPLING	WEIGHT	0.18	0.28	0.39	0.70	0.95	1.93	2.28	4.20	6.00	8.65	13.41	21.86
HALF COUPLING	WEIGHT	0.10	0.12	0.19	0.35	0.49	0.97	1.15	2.08	3.05	4.35	6.83	7.05
REDUCER	WEIGHT		0.28	0.39	0.70	0.95	1.93	2.28	4.20	6.00	8.65	13.41	21.86
CAP	WEIGHT	0.16	0.23	0.31	0.55	0.78	1.55	1.90	2.79	4.35	8.10	10.73	15.58

- Note:
1. All dimensions are in inches.
 2. Weights based on carbon steel (A105)
 3. Reducer weights shown are based on full coupling sizes.
 4. Reducers smaller than 1/4" are not offered.

CLASS 3000
CLASS 6000

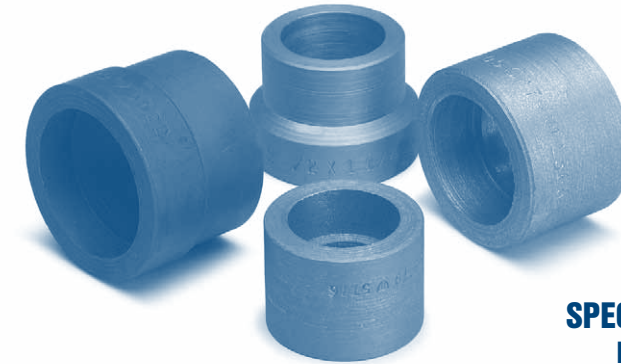


SPECIFICATIONS:
ASME B16.11
ASME B1.20.1 - (NPT)

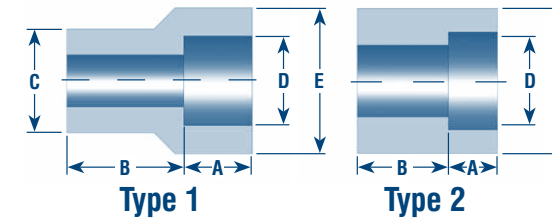
CLASS	DIMENSIONS	SIZES (INCHES)											
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
3000/6000	A	1 3/8	1 5/8	1 5/8	1 3/4	1 3/4	2	2	2	2 1/2	2 3/4	2 3/4	3
	B	13/32	9/16	11/16	13/16	1 1/16	1 5/16	1 11/16	1 29/32	2 3/8	2 7/8	3 1/2	4 1/2
	C	7/16	5/8	11/16	7/8	1 1/16	1 3/8	1 3/4	2	2 1/2	3	3 3/4	4 7/8
	D MIN.	1/4	1/4	5/16	5/16	3/8	3/8	9/16	5/8	11/16	3/4	13/16	1
	E	7/16	1/2	9/16	11/16	3/4	27/32	7/8	15/16	1	1 1/4	1 11/16	1 25/32
	F	9/32	3/8	7/16	9/16	5/8	13/16	15/16	1 1/8	1 5/16	1 1/2	1 11/16	2 1/2
	G	1/4	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	1 1/4
	H	3/8	7/16	1/2	9/16	5/8	3/4	13/16	13/16	7/8	1 1/16	1 1/8	1 1/4
	J MIN.		3/16	3/16	3/16	1/4	1/4	3/8	3/8	3/8	1/2	7/16	1
	ROUND PLUG	WEIGHT	0.05	0.11	0.18	0.25	0.41	0.73	1.20	1.57	3.10	5.01	7.40
HEXAGON PLUG	WEIGHT	0.03	0.06	0.09	0.16	0.27	0.48	0.93	1.35	2.26	3.84	7.08	12.07
SQUARE PLUG	WEIGHT	0.02	0.04	0.06	0.12	0.19	0.35	0.61	0.83	1.41	2.33	3.57	6.28
HEX BUSHING	WEIGHT		0.03	0.04	0.06	0.12	0.21	0.38	0.37	0.77	1.31	3.78	7.31
FLUSH BUSHING	WEIGHT		0.05	0.07	0.03	0.06	0.09	0.17	0.19	0.39	0.62	1.00	1.88

Note: 1. All Dimensions are in inches
2. Weights based on carbon steel (A105)

CLASS 3000
CLASS 6000
CLASS 9000



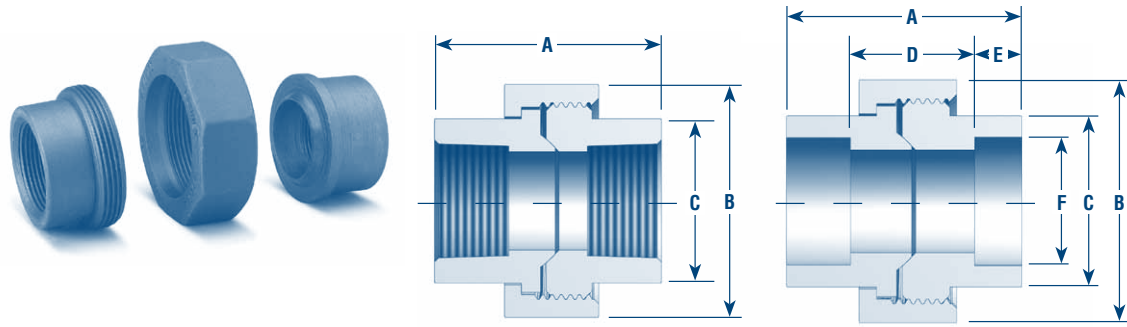
SPECIFICATIONS:
MSS SP-79
ASME B16.11 - (SOCKET DIMENSIONS ONLY)



SIZE	3000			6000			9000			WEIGHT				
	C	D	Fig. Type A (Min.)	B	E	Fig. Type A (Min.)	B	E	Fig. Type A (Min.)	B	E	3000	6000	9000
3/8 x 1/4	0.685	0.555	1	3/8	3/4	15/16	1	3/8	27/32	1		0.12	0.20	
1/2 x 3/8	0.850	0.690	1	3/8	13/16	1 1/16	1	3/8	29/32	1 3/16		0.16	0.19	
1/2 x 1/4	0.850	0.555	1	3/8	13/16	15/16	1	3/8	13/16	1		0.17	0.19	
3/4 x 1/2	1.060	0.855	1	3/8	7/8	15/16	1	3/8	1	1 3/8	1	0.26	0.36	0.62
3/4 x 3/8	1.060	0.690	2	3/8	5/8		1	3/8	7/8	1 3/16		0.19	0.25	
3/4 x 1/4	1.060	0.555	2	3/8	11/16		2	3/8	7/8			0.23	0.27	
1 x 3/4	1.325	1.065	1	1/2	15/16	1 17/32	1	1/2	1 1/8	1 11/16	1	0.38	0.60	1.10
1 x 1/2	1.325	0.855	2	3/8	5/8		1	3/8	1 1/8	1 3/8	1	0.32	0.49	0.74
1 x 3/8	1.325	0.690	2	3/8	11/16		2	3/8	7/8			0.37	0.41	
1 x 1/4	1.325	0.555	2	3/8	3/4		2	3/8	15/16			0.41	0.50	
1 1/4 x 1	1.670	1.330	1	1/2	1	1 7/8	1	1/2	1 3/16	2	1	0.62	0.89	1.44
1 1/4 x 3/4	1.670	1.065	2	1/2	11/16		2	1/2	13/16		1	0.54	1.04	1.81
1 1/4 x 1/2	1.670	0.855	2	3/8	3/4		2	3/8	7/8		2	0.65	0.95	1.14
1 1/4 x 3/8	1.670	0.690	2	3/8	13/16		2	3/8	15/16			0.70	1.04	
1 1/4 x 1/4	1.670	0.555	2	3/8	7/8		2	3/8	1			0.75	1.14	
1 1/2 x 1 1/4	1.910	1.675	1	1/2	1 1/8	2 1/4	1	1/2	1 3/8	2 3/8	1	0.80	1.23	1.90
1 1/2 x 1	1.910	1.330	2	1/2	11/16		1	1/2	1 5/32	2 1/16	1	0.68	1.13	1.13
1 1/2 x 3/4	1.910	1.065	2	1/2	3/4		2	1/2	1		2	0.84	1.04	1.23
1 1/2 x 1/2	1.910	0.855	2	3/8	13/16		2	3/8	1 1/16		2	0.97	1.15	1.33
1 1/2 x 3/8	1.910	0.690	2	3/8	7/8		2	3/8	1 1/8			1.00	1.25	
2 x 1 1/2	2.385	1.915	1	1/2	1 1/4	2 1/2	1	1/2	1 17/32	2 11/16	1	1.24	1.93	2.43
2 x 1 1/4	2.385	1.675	2	1/2	13/16		2	1/2	15/16		1	1.16	1.36	1.96
2 x 1	2.385	1.330	2	1/2	7/8		2	1/2	1		2	1.50	1.86	1.54
2 x 3/4	2.385	1.065	2	1/2	15/16		2	1/2	1 1/16		2	1.69	1.82	1.82
2 x 1/2	2.385	0.855	2	3/8	1		2	3/8	1 1/8		2	1.81	1.92	1.92

Note: 1. All dimensions are in inches.
2. Weights based on carbon steel (A105)
3. Larger sizes are available upon request, and are supplied in accordance to MSS SP-79.

CLASS 3000
CLASS 6000

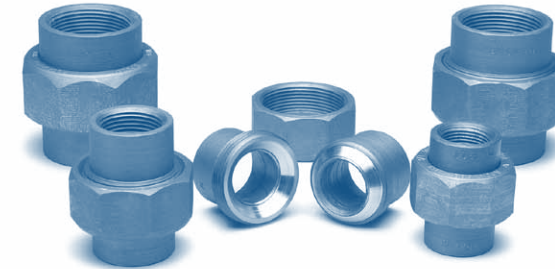


SPECIFICATIONS:
ASME B16.11
ASME B1.20.1 - (NPT)

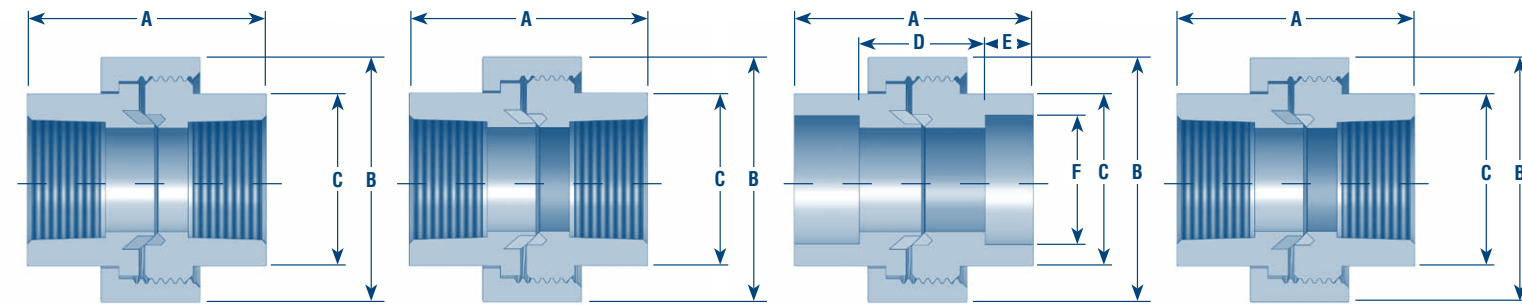
CLASS	DIMENSIONS	SIZES (INCHES)										
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
3000	A	1 45/64	1 23/32	1 7/8	2	2 9/32	2 1/2	2 7/8	3 1/32	3 1/2	4 3/64	4 19/64
	B	1 3/8	1 3/8	1 9/16	1 13/16	2 11/64	2 9/16	3 1/8	3 1/2	4 1/4	4 7/8	5 3/4
	C	7/8	7/8	1 1/32	1 15/64	1 31/64	1 13/16	2 15/64	2 31/64	3 1/32	3 21/32	4 13/32
	D	61/64	31/32	1 1/8	1 1/4	1 9/32	1 1/2	1 7/8	2 1/32	2 1/4	2 51/64	3 3/64
	E MIN.	3/8	3/8	3/8	3/8	1/2	1/2	1/2	1/2	5/8	5/8	5/8
	F	0.420	0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535
	WEIGHT	0.41	0.38	0.54	0.79	1.25	1.80	2.88	3.64	5.81	8.77	12.98
6000	A		1 7/8	1 63/64	2 19/64	2 1/2	2 7/8	3 1/64	3 17/32	4 17/64		
	B		1 37/64	1 13/16	2 13/64	2 37/64	3 7/64	3 27/64	4 3/32	4 7/8		
	C		1 1/32	1 15/64	1 15/32	1 51/64	2 11/64	2 15/32	3 1/32	3 21/32		
	D		1 1/8	1 15/64	1 35/64	1 1/2	1 7/8	2 1/64	2 17/32	3 1/64		
	E MIN.		3/8	3/8	3/8	1/2	1/2	1/2	1/2	5/8		
	F		0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406		
	WEIGHT		0.59	0.84	1.42	2.09	3.40	4.09	7.18	12.44		

Note: 1. The "B" Dimensions is measured across the flats of the union nut.
2. All Dimensions are in inches
3. Weights based on carbon steel (A105)

TYPE 601
TYPE 602
TYPE 602B
TYPE 604



- FEATURES:
- Ideal for Steam Service
 - Designs rated for 3000 WOG / 600 WSP
 - Ball-to-Cone Seats for smooth alignment
 - Can be repeatedly assembled and disassembled
 - Replaceable and interchangeable parts
 - Carbon steel components are coated to resist corrosion
 - Stays sealed - regardless of shock, vibration, expansion and rough wrenching
 - Silicon Bronze and Stainless Steel seats double locked under 120,000 lbs. psi
 - Conveniently packaged
 - Suitable for use with Schedule 40/80 pipe
 - 100% hydro tested
 - Type 604 is preferred over bronze to carbon steel seated unions







Type 601 Type 602 Type 602B Type 604

SPECIFICATIONS:
ASME B16.11 - (SOCKET DIMENSIONS ONLY)
ASME B1.20.1 - (NPT)

TYPE	DIMENSIONS	SIZES (INCHES)									
		1/8 18-NPT	1/4 18-NPT	3/8 18-NPT	1/2 14-NPT	3/4 14-NPT	1 11 1/2-NPT	1 1/4 11 1/2-NPT	1 1/2 11 1/2-NPT	2 11 1/2-NPT	
TYPE 601, 602, 604	A	1 7/8	1 7/8	2	2 5/32	2 25/64	2 25/32	2 31/32	3 5/64	3 21/32	
	B	1 1/4	1 1/4	1 3/8	1 21/32	2	2 3/8	2 3/4	3	3 23/32	
	C	3/4	3/4	29/32	1 7/64	1 27/64	1 41/64	2 1/32	2 5/16	2 13/16	
	STYLE NUT	HEX	HEX	HEX	HEX	OCTAGON	OCTAGON	OCTAGON	OCTAGON	OCTAGON	
	WEIGHT	0.37	0.34	0.43	0.68	1.06	1.51	2.19	2.58	4.83	
TYPE 602B	A		1 3/4	2	2 11/64	2 7/16	2 3/4	2 15/16	3 7/64	3 21/32	
	B		1 1/4	1 3/8	1 21/32	2	2 3/8	2 3/4	3	3 23/32	
	C		3/4	29/32	1 1/8	1 27/64	1 41/64	2 1/32	2 5/16	2 13/16	
	D		1	1 1/4	1 27/64	1 7/16	1 3/4	1 15/16	2 7/64	2 13/32	
	E MIN.		3/8	3/8	3/8	1/2	1/2	1/2	1/2	5/8	
	F		0.555	0.690	0.855	1.065	1.330	1.675	1.915	2.406	
	STYLE NUT		HEX	HEX	HEX	OCTAGON	OCTAGON	OCTAGON	OCTAGON	OCTAGON	
WEIGHT		0.30	0.43	0.68	1.04	1.46	2.09	2.55	4.71		

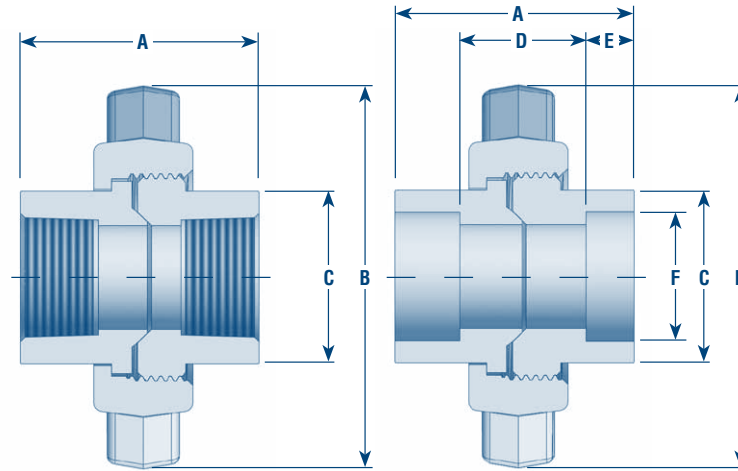
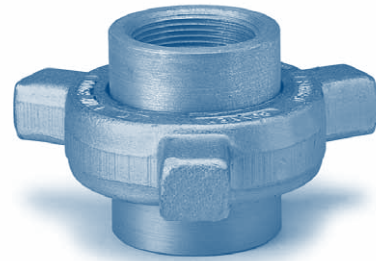
Note: 1. The "B" Dimension is measured across the flats of the union nut.
2. All Dimensions are in inches
3. Weights based on carbon steel (A105)

Product Comparison

	Type 601	Type 602	Type 602B	Type 604
SEAT MATERIAL	 Silicon Bronze	 Stainless Steel	 Stainless Steel	 Silicon Bronze (male) Stainless (female)
END CONNECTION	Threaded	Threaded	Socket Weld	Threaded

CLASS 3000

CLASS 6000



Lug Nut unions from Bonney Forge are supplied with modified Stub Acme threads ideal for applications requiring rapid assembly and/or disassembly.

SPECIFICATIONS:
ASME B16.11 - (SOCKET DIMENSIONS ONLY)
ASME B1.20.1 - (NPT)

CLASS	DIMENSIONS	SIZES (INCHES)									
		3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
3000	A	1 7/8	1 63/64	2 19/64	2 57/64	2 29/32	3 1/32	3 31/64	4 1/16	4 31/64	8 1/32
	B	2 9/16	3	3 5/8	4 1/4	5	5 5/8	6 3/8	7 3/16	8	10 23/64
	C	1 1/32	1 15/64	1 31/64	1 13/16	2 3/16	2 15/32	3 1/32	3 21/32	4 13/32	5 29/64
	D	1 1/8	1 15/64	1 19/64	1 57/64	1 29/32	2 1/32	2 15/64	2 13/16	3 15/64	6 17/32
	E MIN.	3/8	3/8	1/2	1/2	1/2	1/2	5/8	5/8	5/8	3/4
	F	0.690	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	WEIGHT	0.59	0.91	3.12	2.28	3.48	4.66	7.07	11.40	15.42	
6000	A		2 3/8	2 37/64	2 57/64	3 1/8	3 37/64	4 9/64			
	B		3 5/8	4 1/4	5	5 5/8	6 3/8	7 3/16			
	C		1 15/32	1 51/64	2 11/64	2 9/16	3 1/32	3 11/16			
	D		1 5/8	1 37/64	1 57/64	2 1/8	2 37/64	2 57/64			
	E MIN.		3/8	1/2	1/2	1/2	1/2	5/8			
	F		0.855	1.065	1.330	1.675	1.915	2.406			
	WEIGHT		1.95	2.84	3.96		7.00	14.16			

- Note:
- Seating characteristics of MSS SP-83 unions.
 - The "B" dimension is the diameter across the lugs of the union nut.
 - Twin lug design offered in sizes up to 3/4" Class 3000 & 1/2" Class 6000
 - Tri-Lug design offered in sizes from 1" to 3" Class 3000 & 3/4" to 2" Class 6000.
 - Quad-Lug design offered in 4" Class 3000.

PIPE SCHEDULE – EQUIVALENCY

Pressure Ratings for Bonney Forge Forged Steel Fittings comply with ASME B16.11. The allowable pressure rating for fittings are equivalent to the pressure ratings of the corresponding pipe listed in the table below. The fitting is suitable for the application if the application pipe nominal wall thickness is less than or equal to the nominal thickness of the Schedule No. / Wall Designation listed below.

FITTING CLASS	FITTING CONNECTION	PIPE EQUIVALENT	
		Schedule No.	Wall Designation
2000	Threaded	Sch. 80	XS
3000	Threaded	Sch. 160	-
6000	Threaded	-	XXS
3000	Socket-Weld	Sch. 80	XS
6000	Socket-Weld	Sch. 160	-
9000	Socket-Weld	-	XXS

PIPE PRESSURE CALCULATIONS

ASME B31.1 – 2012	ASME B31.3 - 2012
$P = \frac{2 SE (t_m - A)}{D_o - 2y (t_m - A)}$	$t = \frac{PD}{2 (SEW + PY)} \quad \text{or} \quad P = \frac{2 (SEW + PY)}{D - 2tY}$
<p>P = Pressure Rating</p> <p>SE = Allowable Stress (@temperature)</p> <p>t_m = Wall Thickness</p> <p>A = Corrosion Allowance (Typically = 0)</p> <p>D_o = Outer Diameter of Pipe</p> <p>Y = Table 104.1.2 (A) of ASME B31.1 (0.4 if temperature is less than 900°F)</p>	<p>P = Pressure Rating</p> <p>D = Outer Diameter of Pipe</p> <p>S = Allowable Stress (@ Temperature): Table A-1</p> <p>E = Quality Factor: Table A-1A or A-1B</p> <p>W = Weld Joint Strength Reduction Factor: Para. 302.3.5(e) (Typically = 1.0)</p> <p>t = Pipe Wall Thickness</p> <p>Y = Table 304.1.1 or Intermediate Temperature Interpolations (Below Equation)</p> $Y = \frac{d + 2c}{D + d + 2c}$ <p>D = Outer Diameter of Pipe</p> <p>d = Inside Diameter of Pipe</p> <p>c = Sum of Mechanical Allowances plus Corrosion and Erosion Allowances. Threads: Dimension h of ASME B1.20. Machined Surfaces or Grooves: Specified Tolerance (or 0.02" plus Specified Depth of Cut; when tolerance is not specified)</p>

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