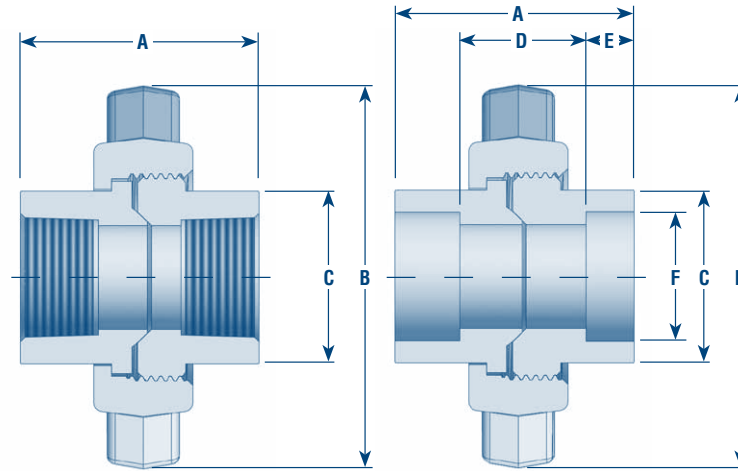
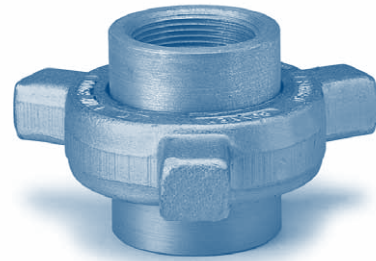


CLASS 3000

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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