

High Pressure Bushings

FIGURE 2139	Size			Α		F		G		Unit Weight		
Hex Head Bushings			Lowest R	Reduction	^		•		G		onit weight	
	NPS	DN	NPS	DN	in	тт	in	тт	in	тт	lbs	kg
	1⁄4	8	1⁄8	6	0.44	11	0.62	16	0.12	3	0.02	0.01
	3⁄8	10	1⁄/8	6	0.50	13	0.69	18	0.16	4	0.03	0.01
	1⁄2	15	1⁄8	6	0.56	14	0.88	22	0.19	5	0.06	0.03
	3⁄4	20	1⁄8	6	0.62	16	1.06	27	0.22	6	0.11	0.05
	1	25	1⁄8	6	0.75	19	1.38	36	0.25	6	0.20	0.09
	1 ¹ ⁄4	32	1⁄8	6	0.81	21	1.75	46	0.28	7	0.40	0.18
	1½	40	1⁄4	8	0.81	21	2.00	50	0.31	8	0.50	0.23
	2	50	1⁄4	8	0.88	22	2.50	65	0.34	9	0.85	0.39
	2 ¹ / ₂	65	1/2	15	1.06	27	3.00	75	0.38	10	1.20	0.54
	3	80	1/2	15	1.12	28	3.50	90	0.41	10	2.60	1.18
	4	100	1½	40	1.25	32	4.62	115	0.50	13	7.00	3.17

FIGURE 2140	Size				Α		Unit Weight	
Flush Bushings			Lowest F	Reduction	A		Unit weight	
	NPS	DN	NPS	DN	in	тт	lbs	kg
	1⁄4	8	1⁄8	6	0.44	11	0.03	0.01
	3⁄8	10	1⁄8	6	0.50	13	0.03	0.01
	1⁄2	15	1⁄8	6	0.56	14	0.06	0.03
	3⁄4	20	1⁄8	6	0.62	16	0.09	0.04
	1	25	1⁄8	6	0.75	19	0.12	0.05
	1 ¹ ⁄4	32	1⁄8	6	0.81	21	0.15	0.07
	11⁄2	40	1⁄4	8	0.81	21	0.20	0.09
	2	50	1⁄4	8	0.88	22	0.35	0.16

Note: Plugs and bushings are not identified by Pressure Class. They may be used for ratings up to Pressure Class 6000 (per ASME B16.11)

PROJECT INFORMATION	APPROVAL STAMP			
Project:	Approved			
Address:	Approved as noted			
Contractor:	Not approved			
Engineer:	Remarks:			
Submittal Date:				
Notes 1:				
Notes 2:				
PF-2.17				

FORGED STEEL FITTINGS





Materials

The steel for Anvil Forged Carbon Steel Fittings consists of forging, bars, seamless pipe or tubes which conform to the requirements for melting process, chemical composition and mechanical properties of ASTM A105.

Design Basis

ASME B16.11 - Forged fittings, socket-weld and threaded

Forged Steel Fittings

In accordance with ASME standard B16.11 - "Forged Fittings, Socket-Welding and Threaded" this table shows the schedule of pipe corresponding to each class of fitting for rating purposes.

PRESSURE RATINGS						
Class	Schedule					
61855	N.P.T.	S.W.				
2000	80	-				
3000	160	80				
6000	XXS/XXH	160				

ASME B16.11 provides that the maximum allowable pressure of a fitting be computed in accordance with the applicable piping code or regulation for straight seamless pipe or for material of equivalent composition and mechanical properties to the fitting. Any corrosion or mechanical allowances and any reduction in allowable stress due to temperature or other service conditions must be applied to the pipe and fitting alike.

Dimensions

ASME B16.11, unless otherwise noted

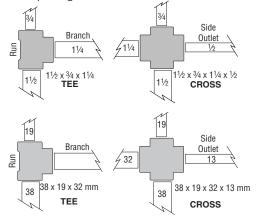
Threads

ASME B1.20.1 NPT Threads

Reducing Fittings

Reducing elbows, tees and crosses are available in both threaded and socket-welding.

On reducing tees and crosses give the size of the largest run opening; then give the opposite opening. On a tee give the branch size last. On a cross give the largest side outlet third and the opposite opening last.



Standards and Specifications								
Dimensions Material Thread Pressure Rati								
FORGED STEEL THREADED FITTINGS								
Class 2000, 3000, 6000	ASME B16.11	ASTM A105, ASTM A182, ASTM A350	ASME B1.20.1	ASME B16.11				

FORGED STEEL FITTINGS



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 41/2 turns to 5 turns.
 - For 2¹/₂" through 4" sizes, wrench tight makeup is considered two full turns past handtight. Handtight engagement for 2¹/₂" through 4" thread varies from 5¹/₂ turns to 6³/₄ turns.