# **FORGED STEEL FITTINGS**



## Class 6000 Socket Weld

FIGURE 2176		Si	ze		Socke		Porc			E	Socket	Depth	Unit V	Veight
Reducing Couplings			Lowest R	eduction	SUCKE	il Dia.	Bore Dia.				Minimum			
	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
	1/2	15	1/4	8	.875 .855	22.2 21.8	.494 .434	12.5 11.0	0.38	9.5	0.38	9.5	_	-
	3/4	20	3/8	10	1.085 1.065	27.6 27.2	.642 .582	16.3 14.8	0.38	9.5	0.50	12.5	0.81	0.37
	1	25	3/8	10	1.350 1.330	<i>34.3 33.9</i>	.845 .785	21.5 19.9	0.50	12.5	0.50	12.5	1.80	0.82
	11/4	32	1/2	15	1.695 1.675	43.1 42.7	1.190 1.130	<i>30.2 28.7</i>	0.50	12.5	0.50	12.5	2.00	0.91
B D D T	1½	40	1/2	15	1.935 1.915	49.2 48.8	1.368 1.308	<i>34.7 33.2</i>	0.50	12.5	0.50	12.5	3.20	1.45
	2	50	3/4	20	2.426 2.406	61.7 61.2	1.717 1.657	43.6 42.1	0.75	19.0	0.62	16.0	5.40	2.45
	21/2	65	11/4	32	2.931 2.906	74.4 73.9	2.185 2.065	55.5 52.5	0.75	19.0	0.62	16.0	_	-
	3	80	11/2	40	3.560 3.535	90.3 89.8	2.684 2.564	68.2 65.1	0.75	19.0	0.62	16.0	_	_
	4	100	2	50	4.570 4.545		3.498 3.378	88.8 85.8	0.75	19.0	0.75	19.0	_	-

FIGURE 2177 Pipe Caps	Size		<b>B</b> Socket Dia.		<b>C</b> Minimum		J Socket Depth Minimum		<b>K</b> Minimum		Unit Weight	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
	1/2	15	.875 .855	22.2 21.8	0.204	5.18	0.38	9.5	0.31	7.9	0.42	0.19
	3/4	20	1.085 1.065	27.6 27.2	0.238	6.04	0.50	12.5	0.31	7.9	0.58	0.26
	1	25	1.350 1.330	34.3 33.9	0.273	6.93	0.50	12.5	0.44	11.2	1.21	0.55
	11/4	32	1.695 1.675	43.1 42.7	0.273	6.93	0.50	12.5	0.44	11.2	1.00	0.45
	11/2	40	1.935 1.915	49.2 48.8	0.307	7.80	0.50	12.5	0.50	12.7	2.12	0.96
	2	50	2.426 2.406	61.7 61.2	0.374	9.50	0.62	16.0	0.62	15.7	4.87	2.21
	21/2	65	2.931 2.906	74.4 73.9	0.41	10.41	0.62	16.0	0.75	19.0	_	-
	3	80	3.560 3.535	90.3 89.8	0.48	12.19	0.62	16.0	0.88	22.4	_	_
	4	100	4.570 4.545	115.7 115.2	0.58	14.73	0.75	19.0	1.12	28.4	_	_

Note: When the pipe is seated against the bottom of the socket prior to welding, to prevent possible cracking of the fillet welds, it is recommended that the pipe be withdrawn approximately  $\frac{1}{16}$  in (1.6mm) away from contact with the bottom of the socket before starting the weld.

Average of socket wall thickness around periphery shall be no less than listed values. The minimum values are permitted in localized areas.

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





#### **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

#### **Dimensions**

ASME B16.11, unless otherwise noted

#### **Threads**

ASME B1.20.1 NPT Threads

## **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.

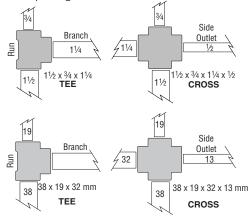
PRESSURE RATINGS							
Class	Schedule						
Glass	N.P.T.	S.W.					
2000	80	-					
3000	160	80					
6000	XXS/XXH	160					

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.

## **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 Rating									
FORGED STEEL THREADED FITTINGS									
Class 2000, 3000, 6000	ASME B16.11	ASTM A105, ASTM A182, ASTM A350	ASME B1.20.1	ASME B16.11					