

Gruvlok G-PRESS Stainless Steel Fittings provide a complete line of mechanically joined press-fittings in sizes 1/2 through 2 inches. These fittings are designed to work with Schedule 5 or 10 Stainless Steel IPS pipe. Press joints can be readily achieved using several commercially available pressing tools.

Several press-fittings are available with male or female threaded ends to enable connectivity with threaded piping systems. Conversion to flanged systems can be made with ANSI Class 125/150, PN 10/16, and BS 10 Table E Flange Adapters. Where breaks in pipe work may be needed, the Union Coupling can be used for quick and easy connections/disconnections. Weld and grooved adapters are available to transition to welded or grooved piping systems.

G-PRESS Stainless Steel Fittings use a three-step installation process: cutting and de-burring the pipe; marking and inserting pipe into the fitting; and pressing the fitting and pipe together to form a pipe joint using one of the pressing tools identified in the installation instructions on page 15.

G-PRESS Stainless Steel Fittings make it easy to quickly and safely install piping systems in a wide range of mechanical, industrial and marine applications. These fittings are made from a highly corrosion-resistant 316 stainless steel and are available

with a variety of O-Ring seals, making them suitable for use in numerous applications such as HVAC, plumbing, municipal, and industrial installations.

G-PRESS Fittings incorporate a unique O-Ring seal design that provides an important Leak-Before-Press feature as shown in Figure 1. When the fitting and pipe are pressed together, they deform to create a durable permanent pipe joint, while the O-Ring compresses to make the joint leak-proof. An improperly pressed fitting allows a leak path for liquids and gases, thereby enabling an installer to identify the incorrectly installed fitting easily. The Leak-Before-Press feature significantly reduces the chance of improper joints, helping to ensure a leak-free system.

Main advantages of the G-PRESS Stainless Steel Fittings include the following:

- Quick and safe installations
- Excellent corrosion resistance
- Reduced labor requirements
- Easy handling and light weight
- Dependability, even under severe use conditions
- No fire-watch requirements

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

MATERIAL SPECIFICATIONS

FITTING HOUSING:

Stainless Steel per ANSI 316/316L with a wall thickness of 0.065" (1.65mm) and the following characteristics:

- Hygienic material often used in food, beverage, and pharmaceutical industry
- Higher surface roughness friction factor resulting in less flow loss
- Excellent corrosion resistance

For local country potable water approvals, contact an Anvil Sales Representative

WORKING PRESSURE:

The working pressure range is from full vacuum to 300 psi (20.7 bar) on Schedule 5 and 10 Stainless Steel Pipe.

O-RING SPECIFICATIONS

O-ring style gasket is resistant to hot water, ageing, and additives commonly used in drinking water. EPDM and Nitrile are certified to all requirements of NSF/ANSI 61, Annex G and NSF/ANSI 372.

EPDM O-Ring (Black color code), Grade "E"

-4°F to 230°F (Service Temperature Range)(-20°C to 110°C)

Recommended for hot water, dilute acids, alkalies, oil free air and many chemical services.

Excellent oxidation resistance.

NOT FOR USE WITH HYDROCARBONS.

Nitrile O-Ring (Gray color code), Grade "T"

-13°F to 230°F (Service Temperature Range)(-25°C to 110°C)

Recommended for petroleum products, vegetable oils, mineral oils and air with oils.

NOT FOR USE IN HOT WATER OR HOT AIR.

Fluoro-Elastomer O-Ring (Green color code), Grade "O"

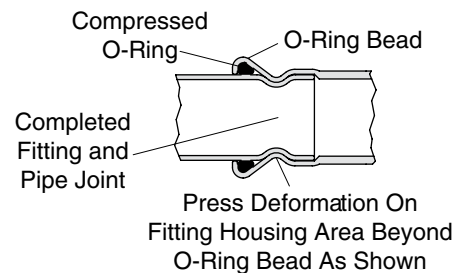
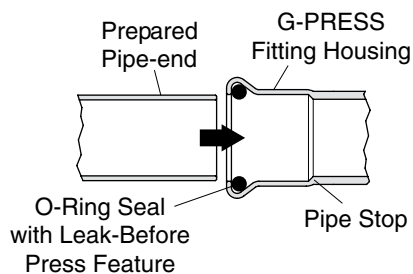
-22°F to 300°F (Service Temperature Range)(-30°C to 149°C)

Recommended for oxidizing acids, petroleum products, hydraulic fluids, lubricants, halogenated hydrocarbons.

Certified to all requirements of NSF/ANSI 61, Annex G and NSF/ANSI 372.

Gruvlok G-PRESS Stainless Steel Fittings have IAPMO certifications and are compliant with ASME B31.1, B31.3, and B31.9 piping codes. See table below for a detailed summary of approvals.

STAINLESS STEEL G-PRESS SYSTEM AGENCY APPROVALS					
Fitting Type	Figure No.	Thread Type/Bolt Pattern	O-Ring Material	IAPMO	NSF
Non - threaded Fittings	407, 408, 442, 461, 467, 468, 470, 471, 484, 485, 473, 474	N/A	EPDM	Y	Y
			Nitrile	Y	Y
			Fluoroelastomer	N	N
Threaded Fittings	476, 478, 479	ISO 7R/7-1 RP	EPDM	Y	Y
			Nitrile	Y	Y
			Fluoroelastomer	N	N
		ANSI/ASME B.1.20.1	EPDM	Y	Y
			Nitrile	Y	Y
			Fluoroelastomer	N	N
Flange Adapters	466, 475	ANSI 125/250	EPDM	Y	Y
			Nitrile	Y	Y
			Fluoroelastomer	N	N
		DIN PN16, Table E	EPDM	N	N
			Nitrile	N	N
			Fluoroelastomer	N	N
Other Fittings	477	N/A	EPDM	Y	Y
			Nitrile	Y	Y
			Fluoroelastomer	N	N



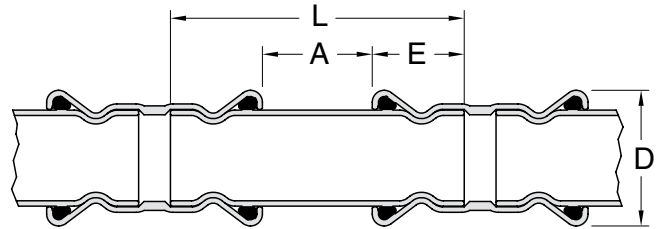
As shown in the drawings above, the G-PRESS O-Ring Seal design provides a unique Leak-Before-Press feature that quickly identifies during pressure testing any fittings not properly pressed. Fittings pressed incorrectly will allow liquids and gases

to bypass the seal. The Leak-Before-Press feature significantly reduces the chance of improper joints, helping to ensure a leak-free system.

MINIMUM FITTING DISTANCES

Nominal Size	O.D.	A Minimum Distance Between Fittings	L Minimum Pipe Length Between Fittings	E Socket Insertion Depth	D Fitting Housing Diameter
In./mm	In./mm	In./mm	In./mm	In./mm	In./mm
1/2 15	0.840 21.3	0.39 10	2.05 52	0.83 21	1.26 32
3/4 20	1.050 26.7	0.39 10	2.28 58	0.94 24	1.46 37
1 25	1.315 33.4	0.39 10	2.44 62	1.02 26	1.73 44
1 1/2 40	1.900 48.3	0.39 10	3.23 82	1.22 31	2.48 63
2 50	2.375 60.3	0.79 20	4.33 110	1.22 31	3.08 78

Minimum Fitting Distance is the recommended minimum distances between fittings to permit mechanical forming of the pipe during the pressing process.



G-PRESS Stainless Steel Fittings are designed for use with Schedule 5 or 10 Type 304/304L or 316/316L Stainless Steel pipe conforming to ASTM A-312. Refer to the Pipe Tolerance and Hanger Supports Table for pipe tolerance specifications.

G-PRESS Stainless Steel Fittings can be suspended on hangers, brackets, or other supports with the maximum vertical and horizontal spacing as indicated in the the Pipe Tolerance and Hanger Supports table. Details by pipe manufacturers or application requirements may specify additional hanging requirements.

Proper bearing and spacing of supports is necessary to prevent excessive bending or sagging when supporting pipe.

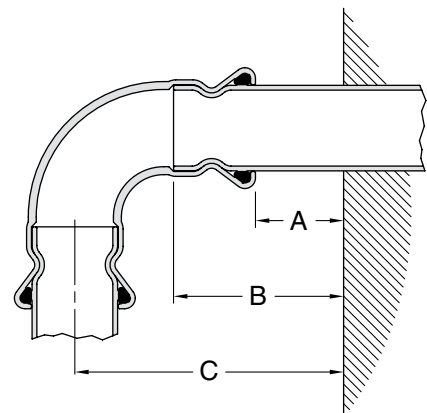
For locations where there is insufficient access to accommodate the pressing tool, consider pre-fabricating the pipework or using an alternate joining solution. Tables below show the minimum clearances required for wall and corner installations.

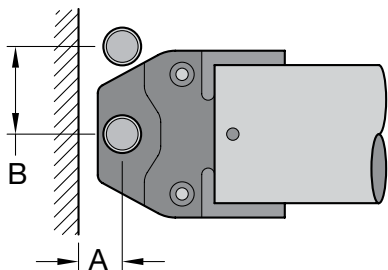
PIPE TOLERANCE & HANGER SUPPORTS

Pipe Size		Pipe Tolerance		Pipework Support	
Nominal	O.D.	Pipe O.D. Tolerance +/-	Pipe Wall Thickness Sch. 5	Vertical Intervals	Horizontal Intervals
In./mm	In./mm	In./mm	In./mm	Ft./m	Ft./m
1/2 15	0.840 21.3	0.004 0.10	0.065 1.65	6 1.8	4 1.2
3/4 20	1.050 26.7	0.006 0.14	0.065 1.65	6 1.8	5 1.5
1 25	1.315 33.4	0.006 0.14	0.065 1.65	8 2.4	6 1.8
1 1/2 40	1.900 48.3	0.008 0.20	0.065 1.65	10 3.1	8 2.4
2 50	2.375 60.3	0.011 0.28	0.065 1.65	10 3.1	8 2.4

MINIMUM WALL CLEARANCE FOR PERPENDICULAR RUNS

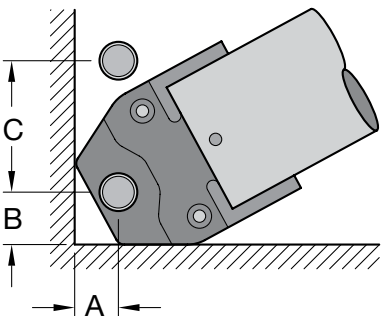
Pipe Size		A Minimum Wall to Fitting Distance	B Minimum Horizontal Pipe Distance from Wall	C Minimum Vertical Pipe Distance from Wall
Nominal	O.D.	In./mm	In./mm	Ft./m
In./mm	In./mm	In./mm	In./mm	Ft./m
1/2 15	0.840 21.3	1.38 35	2.20 56	3.78 96
3/4 20	1.050 26.7	1.38 35	2.32 59	4.21 107
1 25	1.315 33.4	1.38 35	2.40 61	4.76 121
1 1/2 40	1.900 48.3	1.38 35	2.60 66	5.08 129
2 50	2.375 60.3	1.38 35	3.15 80	6.38 162





MINIMUM WALL CLEARANCE FOR PARALLEL RUNS WALL AND PIPE CLEARANCE			
Pipe Size		A Wall Clearance	B Parallel Pipe Clearance
Nominal	O.D.		
In./mm	In./mm	In./mm	In./mm
1/2	0.840	0.875	2.25
15	21.3	22	57
3/4	1.050	0.875	2.375
20	26.7	22	60
1	1.315	1.00	2.625
25	33.4	25	67
1 1/2	1.900	1.188	3.00
40	48.3	30	76
2	2.375	2.375	5.625
50	60.3	60	143
2 *	2.375	3.00	4.625
50	60.3	76	117

* Loop-Type Jaw clearances
Dimensions may vary based on pressing tool. Refer to pressing tool manufacturer's instructions for specific dimensions.
See page 15 for installation instructions.



MINIMUM WALL CLEARANCE FOR PARALLEL RUNS CORNER AND PIPE CLEARANCE				
Pipe Size		A Wall Clearance	B Wall Clearance	C Parallel Pipe Clearance
Nominal	O.D.			
In./mm	In./mm	In./mm	In./mm	In./mm
1/2	0.840	0.875	1.25	3.00
15	21.3	22	32	76
3/4	1.050	1.00	1.125	3.00
20	26.7	25	29	76
1	1.315	1.25	1.375	2.625
25	33.4	32	35	80
1 1/2	1.900	1.25	1.75	3.00
40	48.3	32	44	76
2	2.375	2.375	4.375	5.625
50	60.3	60	111	143
2 *	2.375	3.00	3.00	4.625
50	60.3	76	76	117

* Loop-Type Jaw clearances
Dimensions may vary based on pressing tool. Refer to pressing tool manufacturer's instructions for specific dimensions.
See page 15 for installation instructions.

MINIMUM WALL CLEARANCE FOR PARALLEL RUNS RECESS AND PIPE CLEARANCE				
Pipe Size		A Wall Clearance	B Parallel Pipe Clearance	C Minimum Recess Width
Nominal	O.D.			
In./mm	In./mm	In./mm	In./mm	In./mm
1/2	0.840	0.875	3.00	0.625
15	21.3	22	76	16
3/4	1.050	1.00	3.00	5.25
20	26.7	25	76	133
1	1.315	1.25	2.625	6.00
25	33.4	32	80	80
1 1/2	1.900	1.25	2.625	6.75
40	48.3	32	80	171
2	2.375	2.375	5.625	14.25
50	60.3	60	111	362
2 *	2.375	3.00	4.625	10.50
50	60.3	76	117	267

* Loop-Type Jaw clearances
Dimensions may vary based on pressing tool. Refer to pressing tool manufacturer's instructions for specific dimensions.
See page 15 for installation instructions.

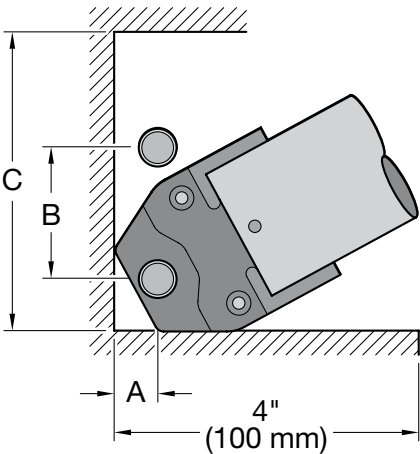


FIG. 407

Straight Coupling (Press x Press)

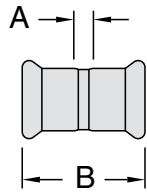


FIGURE 407 STRAIGHT COUPLING (PRESS X PRESS)

Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	A	B	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
1/2 15	0.840 21.3	0.42 10.7	2.09 53.1	0.13 0.1
3/4 20	1.050 26.7	0.44 11.2	2.33 59.2	0.18 0.1
1 25	1.315 33.4	0.43 10.9	2.48 63.0	0.23 0.1
1 1/2 40	1.900 48.3	0.43 10.9	2.84 72.1	0.40 0.2
2 50	2.375 60.3	0.50 12.7	4.05 103	0.74 0.3

FIG. 408

Slip Coupling (Press x Press)

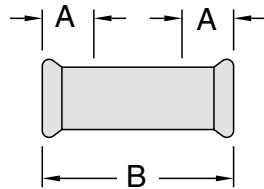


FIGURE 408 SLIP COUPLING (PRESS X PRESS)

Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	A	B	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
1/2 15	0.840 21.3	0.83 21.1	2.95 74.9	0.18 0.1
3/4 20	1.050 26.7	0.95 24.1	3.40 86.4	0.25 0.1
1 25	1.315 33.4	1.02 25.9	3.83 97.3	0.34 0.2
1 1/2 40	1.900 48.3	1.20 30.5	4.81 122.2	0.63 0.3
2 50	2.375 60.3	1.77 45.0	6.76 171.7	1.13 0.5

FIG. 468

90° Elbow (Press x Press)

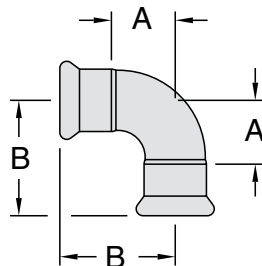


FIGURE 468 90° ELBOW (PRESS X PRESS)

Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	A	B	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
1/2 15	0.840 21.3	1.57 39.9	2.41 61.2	0.22 0.1
3/4 20	1.050 26.7	1.89 48.0	2.84 72.1	0.33 0.2
1 25	1.315 33.4	2.37 60.2	3.40 86.4	0.48 0.2
1 1/2 40	1.900 48.3	2.56 65.0	3.76 95.5	0.79 0.4
2 50	2.375 60.3	3.23 82.0	5.00 127.0	1.39 0.6

Notes:

See pages 1 - 4 for G-Press Specifications.
Refer to page 15 for installation instructions.

FIG. 467

90° Elbow (Male x Female)

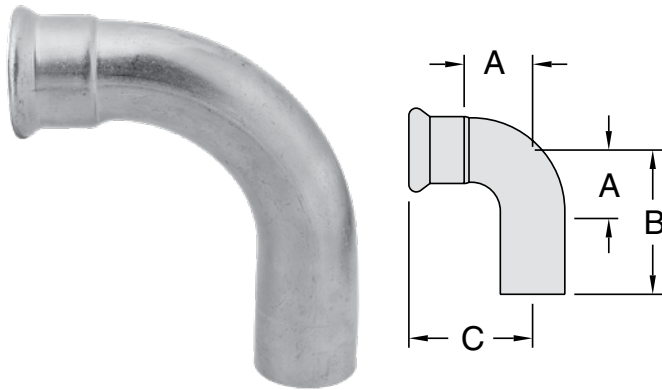


FIGURE 467 90° ELBOW (MALE X FEMALE)

Pipe Size		Dimensions			Approx. Wt. Ea.
Nominal Size	O.D.	A	B	C	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
1/2	0.840	1.57	2.87	2.41	0.24
15	21.3	39.9	72.9	61.2	0.1
3/4	1.050	1.89	3.27	2.84	0.33
20	26.7	48.0	83.0	72.1	0.2
1	1.315	2.37	3.82	3.40	0.37
25	33.4	60.2	97.0	86.4	0.2
1 1/2	1.900	2.48	4.06	3.69	0.77
40	48.3	63.0	103.1	93.7	0.4
2	2.375	3.23	5.52	5.00	1.34
50	60.3	82.0	140.2	127.0	0.6

FIG. 471

45° Elbow (Press x Press)

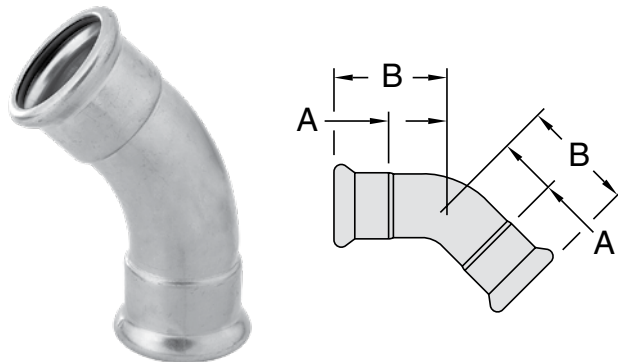


FIGURE 471 45° ELBOW (PRESS X PRESS)

Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	A	B	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
1/2	0.840	0.79	1.62	0.18
15	21.3	20.1	41.1	0.1
3/4	1.050	0.90	1.85	0.24
20	26.7	22.9	47.0	0.1
1	1.315	1.13	2.14	0.37
25	33.4	28.7	54.4	0.2
1 1/2	1.900	1.17	2.37	0.59
40	48.3	29.7	60.2	0.3
2	2.375	1.48	3.24	1.06
50	60.3	37.6	82.3	0.5

FIG. 470

45° Elbow (Male x Female)

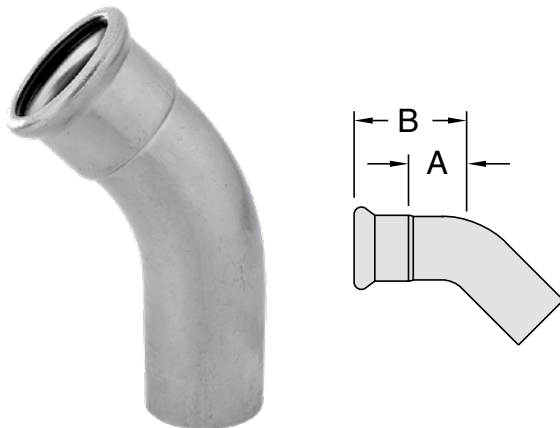


FIGURE 470 45° ELBOW (MALE X FEMALE)

Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	A	B	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
1/2	0.840	0.79	1.62	0.20
15	21.3	20.1	41.1	0.1
3/4	1.050	0.90	1.85	0.26
20	26.7	22.9	47.0	0.1
1	1.315	1.13	2.14	0.37
25	33.4	28.7	54.4	0.2
1 1/2	1.900	1.17	2.37	0.60
40	48.3	29.7	60.2	0.3
2	2.375	1.48	3.24	1.06
50	60.3	37.6	82.3	0.5

Notes:

See pages 1 - 4 for G-Press Specifications.
Refer to page 15 for installation instructions.

FIG. 484

End Cap (Female Press)



FIGURE 484 END CAP (FEMALE PRESS)				
Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	A	B	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
1/2	0.840	0.72	1.56	0.09
15	21.3	18.3	39.6	0.1
3/4	1.050	0.79	1.74	0.13
20	26.7	20.1	44.2	0.1
1	1.315	0.83	1.85	0.18
25	33.4	21.1	47.0	0.1
1 1/2	1.900	0.95	2.15	0.33
40	48.3	24.1	54.6	0.1
2	2.375	1.14	2.91	0.55
50	60.3	29.0	73.9	0.2

FIG. 442

Equal Tees (Press x Press x Press)



FIGURE 442 EQUAL TEES (PRESS X PRESS X PRESS)						
Pipe Size		Dimensions				Approx. Wt. Ea.
Nominal Size	O.D.	A	B	C	D	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
1/2	0.840	1.28	0.80	1.48	1.64	0.24
15	21,3	32,5	20,3	37,6	41,7	0,1
3/4	1.050	1.50	0.92	1.70	1.87	0.33
20	26,7	38,1	23,4	43,2	47,5	0,2
1	1.315	1.78	1.07	1.91	2.09	0.46
25	33,4	45,2	27,2	48,5	53,1	0,2
1 1/2	1.900	3.19	1.42	2.80	2.63	0.84
40	48,3	81,0	36,1	71,1	66,8	0,4
2	2.375	3.22	1.61	3.39	3.39	1.48
50	60,3	81,8	40,9	86,1	86,1	0,7

Notes:
 See pages 1 - 4 for G-Press Specifications.
 Refer to page 15 for installation instructions.

FIG. 473

Reducing Tees (Press x Press x Press)

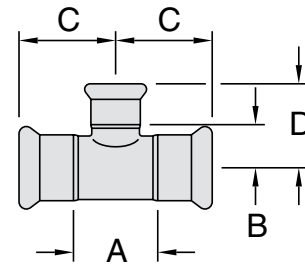


FIGURE 473 REDUCING TEES (PRESS X PRESS X PRESS)

Pipe Size		Dimensions				Approx. Wt. Ea.
Nominal Size	O.D.	A	B	C	D	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
$\frac{3}{4} \times \frac{3}{4} \times \frac{1}{2}$ 20 x 20 x 15	1.050 x 1.050 x 0.840 26.7 x 26.7 x 21.3	1.50 38.1	0.91 23.1	1.70 43.2	1.74 44.2	0.31 0.1
$1 \times 1 \times \frac{1}{2}$ 25 x 25 x 15	1.315 x 1.315 x 0.840 33.4 x 33.4 x 21.3	1.78 45.2	1.06 26.9	1.91 48.5	1.89 48.0	0.40 0.2
$1 \times 1 \times \frac{3}{4}$ 25 x 25 x 20	1.315 x 1.315 x 1.050 33.4 x 33.4 x 26.7	1.78 45.2	1.07 27.2	1.91 48.5	2.02 51.3	0.42 0.2
$1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ 40 x 40 x 15	1.900 x 1.900 x 0.840 48.3 x 48.3 x 21.3	3.19 81.0	1.35 34.3	2.80 71.1	2.19 55.6	0.79 0.34
$1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4}$ 40 x 40 x 20	1.900 x 1.900 x 1.050 48.3 x 48.3 x 26.7	2.40 61.0	1.37 34.8	2.80 71.1	2.31 58.7	0.81 0.4
$1\frac{1}{2} \times 1\frac{1}{2} \times 1$ 40 x 40 x 25	1.900 x 1.900 x 1.315 48.3 x 48.3 x 33.4	3.19 81.0	1.42 36.1	2.80 71.1	2.45 62.2	0.84 0.4
$2 \times 2 \times \frac{1}{2}$ 50 x 50 x 15	2.375 x 2.375 x 0.840 60.3 x 60.3 x 21.3	3.22 81.8	1.60 40.6	3.39 86.1	2.44 62.0	1.17 0.5
$2 \times 2 \times \frac{3}{4}$ 50 x 50 x 20	2.375 x 2.375 x 1.050 60.3 x 60.3 x 26.7	3.22 81.8	1.62 41.1	3.39 86.1	2.56 65.0	1.19 0.5
$2 \times 2 \times 1$ 50 x 50 x 25	2.375 x 2.375 x 1.315 60.3 x 60.3 x 33.4	3.22 81.8	1.61 40.9	3.39 86.1	2.62 66.5	1.23 0.6
$2 \times 2 \times 1\frac{1}{2}$ 50 x 50 x 40	2.375 x 2.375 x 1.900 60.3 x 60.3 x 48.3	3.22 81.8	1.61 40.9	3.39 86.1	2.82 71.6	1.32 0.6

Notes:

See pages 1 - 4 for G-Press Specifications.
Refer to page 15 for installation instructions.

FIG. 478

Tee and Reducing Tee Adapters (Press x Press x Female NPT)

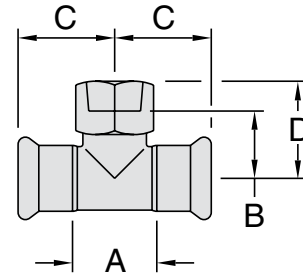


FIGURE 478 TEE AND REDUCING TEE ADAPTERS (PRESS X PRESS X FEMALE NPT)

Pipe Size		Dimensions				Approx. Wt. Ea.
Nominal Size	O.D.	A	B	C	D	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
1/2 x 1/2 x 1/2 15 x 15 x 15	0.840 x 0.840 x 0.840 21.3 x 21.3 x 21.3	1.28 32.5	0.93 23.6	1.48 37.6	1.52 38.6	0.26 0.1
1/2 x 1/2 x 3/4 15 x 15 x 20	0.840 x 0.840 x 1.050 21.3 x 21.3 x 26.7	1.28 32.5	1.30 33.0	1.48 37.6	1.84 46.7	0.37 0.2
3/4 x 3/4 x 1/2 20 x 20 x 15	1.050 x 1.050 x 0.840 26.7 x 26.7 x 21.3	1.50 38.1	1.04 26.4	1.70 43.2	1.63 41.4	0.33 0.1
3/4 x 3/4 x 3/4 20 x 20 x 20	1.050 x 1.050 x 1.050 26.7 x 26.7 x 26.7	1.50 38.1	1.27 32.3	1.70 43.2	1.81 46.0	0.40 0.2
3/4 x 3/4 x 1 20 x 20 x 25	1.050 x 1.050 x 1.315 26.7 x 26.7 x 33.4	1.50 38.1	1.29 32.8	1.70 43.2	1.97 50.0	0.46 0.2
1 x 1 x 1/2 25 x 25 x 15	1.315 x 1.315 x 0.840 33.4 x 33.4 x 21.3	1.78 45.2	1.19 30.2	1.91 48.5	1.78 45.2	0.42 0.2
1 x 1 x 3/4 25 x 25 x 20	1.315 x 1.315 x 1.050 33.4 x 33.4 x 26.7	1.78 45.2	1.42 36.1	1.91 48.5	1.96 49.8	0.48 0.2
1 x 1 x 1 25 x 25 x 25	1.315 x 1.315 x 1.315 33.4 x 33.4 x 33.4	1.78 45.2	1.23 31.2	1.92 48.8	2.01 51.1	0.65 0.3
1 x 1 x 1 1/4 25 x 25 x 32	1.315 x 1.315 x 1.660 33.4 x 33.4 x 42.2	1.78 45.2	1.38 35.1	1.91 48.5	2.13 54.1	0.66 0.3
1 1/2 x 1 1/2 x 1/2 40 x 40 x 15	1.900 x 1.900 x 0.840 48.3 x 48.3 x 21.3	3.19 81.0	1.48 37.6	2.80 71.1	2.07 52.6	0.85 0.4
1 1/2 x 1 1/2 x 3/4 40 x 40 x 20	1.900 x 1.900 x 1.050 48.3 x 48.3 x 26.7	3.19 81.0	1.71 43.4	2.80 71.1	2.25 57.2	0.91 0.4
1 1/2 x 1 1/2 x 1 40 x 40 x 25	1.900 x 1.900 x 1.315 48.3 x 48.3 x 33.4	3.19 81.0	1.59 40.4	2.80 71.1	2.27 57.7	1.03 0.45
1 1/2 x 1 1/2 x 1 1/2 40 x 40 x 40	1.900 x 1.900 x 1.900 48.3 x 48.3 x 48.3	3.19 81.0	1.74 44.2	2.80 71.1	2.58 65.5	1.27 0.6
2 x 2 x 1/2 50 x 50 x 15	2.375 x 2.375 x 0.840 60.3 x 60.3 x 21.3	3.22 81.8	1.73 43.9	3.39 86.1	2.32 58.9	1.19 0.5
2 x 2 x 3/4 50 x 50 x 20	2.375 x 2.375 x 1.050 60.3 x 60.3 x 26.7	3.22 81.8	1.96 49.8	3.39 86.1	2.50 63.5	1.26 0.6
2 x 2 x 1 50 x 50 x 25	2.375 x 2.375 x 1.315 60.3 x 60.3 x 33.4	3.22 81.8	1.84 46.7	3.39 86.1	2.52 64.0	1.32 0.6
2 x 2 x 2 50 x 50 x 50	2.375 x 2.375 x 2.375 60.3 x 60.3 x 60.3	3.22 81.8	2.14 54.4	3.39 86.1	3.19 81.0	1.90 0.9

Notes:

See pages 1 - 4 for G-Press Specifications.
Refer to page 15 for installation instructions.

FIG. 474

Reducer (Female Press x Male Press)

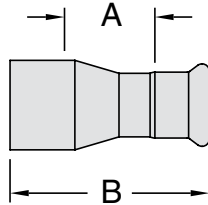


FIGURE 474 REDUCER (FEMALE PRESS X MALE PRESS)				
Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	A	B	
In./mm	In./mm	In./mm	In./mm	Lbs./Kg
3/4 x 1/2	1.050 x 0.840	1.21	3.04	0.18
20 x 15	26.7 x 21.3	30.7	77.2	0.1
1 x 1/2	1.315 x 0.840	1.30	3.19	0.28
25 x 15	33.4 x 21.3	33.0	81.0	0.1
1 x 3/4	1.315 x 1.050	1.75	3.76	0.26
25 x 20	33.4 x 26.7	44.5	95.5	0.1
1 1/2 x 1/2	1.900 x 0.840	1.15	3.42	0.33
40 x 15	48.3 x 21.3	29.2	86.9	0.1
1 1/2 x 3/4	1.900 x 1.050	1.60	3.55	0.55
40 x 20	48.3 x 26.7	40.6	90.2	0.2
1 1/2 x 1	1.900 x 1.315	2.03	4.25	0.37
40 x 25	48.3 x 33.4	51.6	108.0	0.2
2 x 1/2	2.375 x 0.840	1.62	4.23	0.53
50 x 15	60.3 x 21.3	41.1	107.4	0.2
2 x 3/4	2.375 x 1.050	1.59	4.34	0.35
50 x 20	60.3 x 26.7	40.4	110.2	0.2
2 x 1	2.375 x 1.315	1.55	4.37	0.57
50 x 25	60.3 x 33.4	39.4	111.0	0.3
2 x 1 1/2	2.375 x 1.900	1.79	4.77	0.70
50 x 40	60.3 x 48.3	45.5	121.0	0.3

FIG. 476

Straight Connector (Female Press x Male NPT)

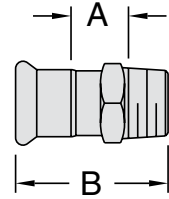


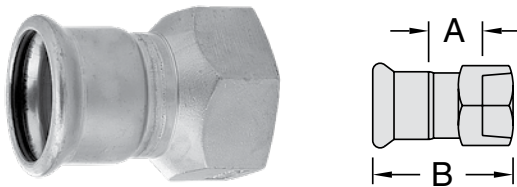
FIGURE 476 STRAIGHT CONNECTOR (FEMALE PRESS X MALE NPT)				
Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	A	B	
In./mm	In./mm	In./mm	In./mm	Lbs./Kg
1/2 x 1/2	0.840 x 0.840	0.78	2.21	0.15
15 x 15	21.3 x 21.3	19.8	56.1	0.1
1/2 x 3/4	0.840 x 1.050	0.80	2.30	0.20
15 x 20	21.3 x 26.7	20.3	58.4	0.1
1/2 x 1	0.840 x 1.315	0.87	2.44	0.34
15 x 20	21.3 x 33.4	22.1	62.0	0.2
3/4 x 1/2	1.050 x 0.840	0.81	2.35	0.22
20 x 15	26.7 x 21.3	20.6	59.7	0.1
3/4 x 3/4	1.050 x 1.050	0.81	2.43	0.22
20 x 20	26.7 x 26.7	20.6	61.7	0.1
3/4 x 1	1.050 x 1.315	0.87	2.56	0.29
20 x 25	26.7 x 33.4	22.1	65.0	0.1
3/4 x 1 1/4	1.050 x 1.660	0.90	2.66	0.52
20 x 32	26.7 x 42.2	22.9	67.6	0.2
1 x 3/4	1.315 x 1.050	0.83	2.52	0.28
25 x 20	33.4 x 26.7	21.1	64.0	0.1
1 x 1	1.315 x 1.315	0.83	2.64	0.32
25 x 25	33.4 x 33.4	21.1	67.1	0.1
1 x 1 1/4	1.315 x 1.660	0.92	2.77	0.52
25 x 32	33.4 x 42.2	23.4	70.4	0.2
1 x 1 1/2	1.315 x 1.900	0.90	2.74	0.58
25 x 40	33.4 x 48.3	22.9	69.6	0.3
1 1/2 x 3/4	1.900 x 1.050	0.91	2.78	0.55
40 x 20	48.3 x 26.7	23.1	70.6	0.2
1 1/2 x 1	1.900 x 1.315	0.91	2.90	0.62
40 x 25	48.3 x 33.4	23.1	73.7	0.3
1 1/2 x 1 1/4	1.900 x 1.660	0.90	2.92	0.55
40 x 32	48.3 x 42.2	22.9	74.2	0.2
1 1/2 x 1 1/2	1.900 x 1.900	0.90	2.92	0.64
40 x 40	48.3 x 48.3	22.9	74.2	0.3
2 x 1 1/2	2.375 x 1.900	0.90	3.48	0.94
50 x 40	60.3 x 48.3	22.9	88.4	0.4
2 x 2	2.375 x 2.375	0.98	3.78	1.04
50 x 50	60.3 x 60.3	24.9	96.0	0.5

Notes:

See pages 1 - 4 for G-Press Specifications.
Refer to page 15 for installation instructions.

FIG. 479

Straight Connector (Female Press x Female NPT)



**FIGURE 476 STRAIGHT CONNECTOR
(FEMALE PRESS X MALE NPT)**

Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	A	B	
In./mm	In./mm	In./mm	In./mm	Lbs./Kg
1/2 x 1/2	0.840 x 0.840	0.66	2.17	0.28
15 x 15	21.3 x 21.3	16.7	55.1	0.1
1/2 x 3/4	0.840 x 1.050	0.92	2.44	0.28
15 x 20	21.3 x 26.7	23.4	62.0	0.1
1/2 x 1	0.840 x 1.315	0.89	2.56	0.43
15 x 25	21.3 x 33.4	22.6	65.0	0.2
3/4 x 1/2	1.050 x 0.840	0.84	2.47	0.32
20 x 15	26.7 x 21.3	21.3	62.7	0.1
3/4 x 3/4	1.050 x 1.050	0.70	2.45	0.28
20 x 20	26.7 x 26.7	17.8	62.2	0.1
3/4 x 1	1.050 x 1.315	0.66	2.59	0.43
20 x 25	26.7 x 33.4	16.8	65.8	0.2
3/4 x 1 1/4	1.050 x 1.660	1.10	3.03	0.72
20 x 32	26.7 x 42.2	27.9	77.0	0.3
1 x 1/2	1.315 x 0.840	0.86	2.56	0.50
25 x 25	33.4 x 21.3	21.8	65.0	0.2
1 x 3/4	1.315 x 1.050	0.86	2.56	0.43
25 x 25	33.4 x 26.7	21.8	65.0	0.2
1 x 1	1.315 x 1.315	0.72	2.56	0.43
25 x 25	33.4 x 33.4	18.3	65.0	0.2
1 x 1 1/4	1.315 x 1.660	1.09	2.95	0.69
25 x 32	33.4 x 42.2	27.7	74.9	0.3
1 x 1 1/2	1.315 x 1.900	1.05	3.13	0.80
25 x 40	33.4 x 48.3	26.7	79.5	0.4
1 1/2 x 1	1.900 x 1.315	1.01	3.06	1.26
40 x 25	48.3 x 33.4	25.7	77.7	0.6
1 1/2 x 1 1/4	1.900 x 1.660	0.66	2.70	0.63
40 x 32	48.3 x 42.2	16.8	68.6	0.3
1 1/2 x 1 1/2	1.900 x 1.900	0.80	3.05	0.64
40 x 40	48.3 x 48.3	20.3	77.5	0.32
1 1/2 x 2	1.900 x 2.375	1.39	3.65	1.21
40 x 50	48.3 x 60.3	35.3	92.7	0.5
2 x 1 1/4	2.375 x 1.660	0.87	3.39	1.48
50 x 32	60.3 x 42.2	22.1	86.1	0.7
2 x 1 1/2	2.375 x 1.900	1.20	3.90	1.83
50 x 40	60.3 x 48.3	30.5	99.1	0.8
2 x 2	2.375 x 2.375	1.18	3.94	1.04
50 x 50	60.3 x 60.3	30.0	100.1	0.5

Notes:

See pages 1 - 4 for G-Press Specifications.
Refer to page 15 for installation instructions.

FIG. 485

3-Piece Union (Press x Press)

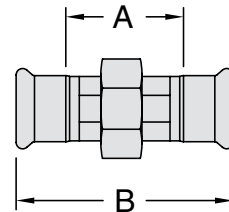
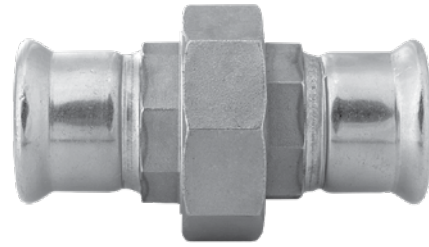


FIGURE 485 3-PIECE UNION (PRESS X PRESS)

Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	A	B	
In./mm	In./mm	In./mm	In./mm	Lbs./Kg
1/2	0.840	2.35	4.02	0.62
15	21.3	59.7	102.1	0.3
3/4	1.050	2.64	4.54	0.82
20	26.7	67.1	115.3	0.4
1	1.315	2.72	4.76	0.97
25	33.4	69.1	120.9	0.4
1 1/2	1.900	3.88	6.29	2.36
40	48.3	98.6	159.8	1.1
2	2.375	4.72	8.26	3.70
50	60.3	119.0	209.8	1.7

FIG. 466

Van Stone Flange Adapter (Female Press x ANSI 125/150 Flange)

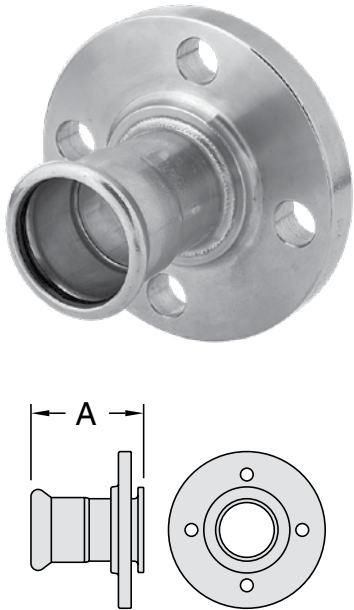


FIGURE 466 VAN STONE FLANGE ADAPTER (FEMALE PRESS X ANSI 125/150 FLANGE)			
Pipe Size		Dimension	Approx. Wt. Ea.
Nominal Size	O.D.	A	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
1/2	0.840	3.07	0.93
15	21.3	77.9	0.4
3/4	1.050	3.19	1.39
20	26.7	81.0	0.6
1	1.315	3.27	1.84
25	33.4	823.1	0.8
1 1/2	1.900	3.44	2.98
40	48.3	87.4	1.4
2	2.375	4.53	4.79
50	60.3	115.1	2.2

Flange material is AISI 304 and the body is AISI 316/316L.

FIG. 477

Transition Nipple Grooved (Groove x Male Press)

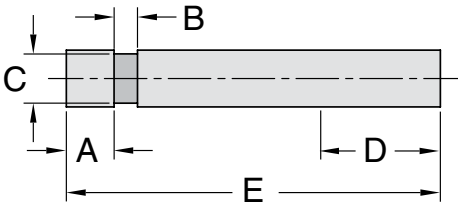


FIGURE 477 TRANSITION NIPPLE GROOVED (GROOVE X MALE PRESS)							
Pipe Size		Dimensions					Approx. Wt. Ea.
Nominal Size	O.D.	A	B	C	D	E	
<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>In./mm</i>	<i>Lbs./Kg</i>
3/4	1.050	0.625	0.313	0.938	1.57	4.94	0.32
20	26.7	15.9	7.9	23.8	39.9	125.5	0.1
1	1.315	0.625	0.313	1.190	1.18	5.02	0.42
25	33.4	15.9	7.9	30.2	30.0	127.5	0.2
1 1/2	1.900	0.625	0.313	1.775	1.57	5.20	0.64
40	48.3	15.9	7.9	45.1	39.9	132.1	0.3
2	2.375	0.625	0.313	2.250	2.36	5.77	0.87
50	60.3	15.9	7.9	57.2	59.9	146.6	0.4

Notes:
See pages 1 - 4 for G-Press Specifications.
Refer to page 15 for installation instructions.

FIG. 475

Flange Adapter
 (Female Press x ANSI 125/150 Flange) (Female Press x AS4087 PN16 Flange) (Female Press x BS 10 Table E Flange)

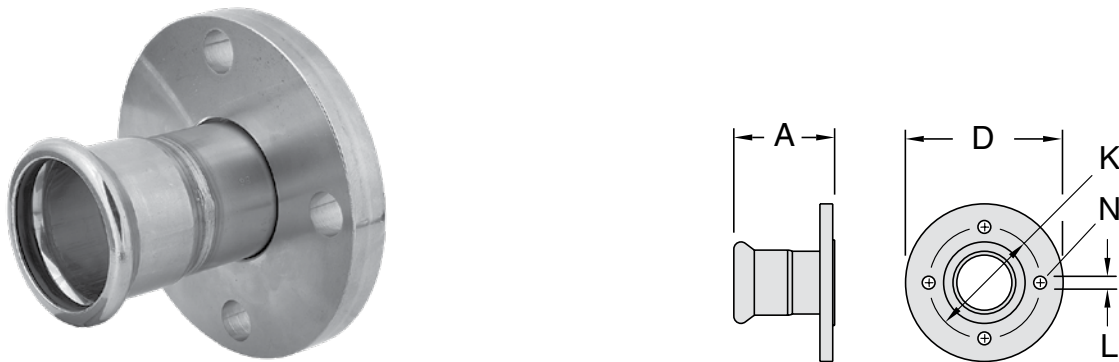
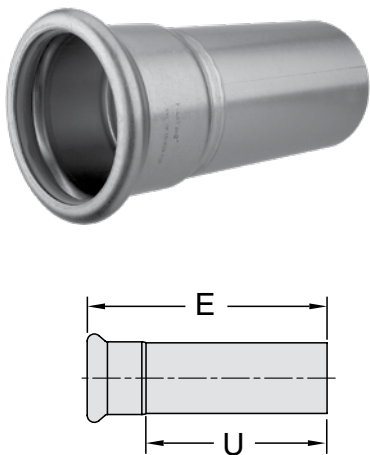


FIGURE 475 FLANGE ADAPTERS														
Pipe Size		ANSI 125/150 Flange Adapter Dimensions				AS4087 PN 16 Flange Adapter Dimensions				BS10 Table E Flange Adapter Dimensions				Approx. Wt. Ea.
Nominal Size	O.D.	A	D	K	L Bolt Holes (4-Holes)	A	D	K	L Bolt Holes (4-Holes)	A	D	K	L Bolt Holes (4-Holes)	
In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	Lbs./Kg
1/2 15	0.840 21.3	1.85 47.0	3.50 88.9	2.37 60.2	0.62 15.8	1.85 47.0	3.74 95.0	2.56 65.0	0.55 14	1.85 47.0	3.75 95.3	2.64 67.1	0.55 14	0.90 0.4
3/4 20	1.050 26.7	2.23 56.6	3.94 100.1	2.75 69.9	0.62 15.8	2.20 55.9	4.13 105	2.95 74.9	0.55 14	2.20 55.9	3.94 100.1	2.87 72.9	0.55 14	1.30 0.6
1 25	1.315 33.4	2.52 64.0	4.33 110.0	3.13 79.5	0.62 15.8	2.52 64.0	4.52 115	3.35 85.1	0.55 14	2.52 64.0	4.53 115.1	3.27 83.1	0.55 14	1.83 0.8
1 1/2 40	1.900 48.3	3.40 86.4	4.92 125.0	3.87 98.3	0.62 15.8	2.48 63.0	5.90 150	4.33 110	0.71 18	2.48 63.0	5.31 134.9	3.86 98.0	0.71 18	3.03 1.4
2 50	2.375 60.3	4.71 119.6	5.91 150.1	4.75 120.7	0.75 19.1	3.46 87.9	6.50 165	4.92 125	0.71 18	3.46 87.9	5.91 150.1	4.49 114.0	0.71 18	4.91 2.2

FIG. 461

Weld Adapter (Male Weld x Female Press)



Notes:
 See pages 1 - 4 for G-Press Specifications.
 Refer to page 15 for installation instructions.

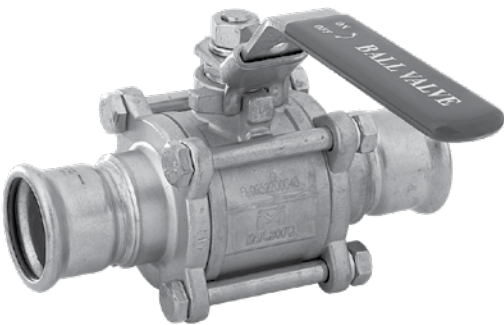
FIGURE 461 WELD ADAPTER (MALE WELD X FEMALE PRESS)				
Pipe Size		Dimensions		Approx. Wt. Ea.
Nominal Size	O.D.	E	U	
In./mm	In./mm	In./mm	In./mm	Lbs./Kg
1/2 15	0.840 21.3	5.13 130.3	4.00 101.6	0.25 0.1
3/4 20	1.050 26.7	5.27 133.9	4.00 101.6	0.33 0.1
1 25	1.315 33.4	5.34 135.6	4.00 101.6	0.42 0.2
1 1/2 40	1.900 48.3	5.52 140.2	4.00 101.6	0.65 0.3
2 50	2.375 60.3	6.09 154.7	4.00 101.6	0.92 0.4

FIG. 469

Ball Valve (Press x Press)

The G-PRESS Figure 469 Ball Valve is a Teflon seated full port ball made of stainless steel and the cast equivalent to 316 Stainless Steel, CF8M. The full port, commonly called full bore, ball valve creates an unrestricted flow reducing head loss through the valve. The flow can enter the valve from either direction which allows the valve to be oriented in different positions in tight spaces. The valve is a 1/4 turn open/close with a latch lock in both the full open and closed positions. The inline direction of the handle when the valve is open lets you see whether the valve is opened or closed. The lock latch has a lock-out feature to pad lock the valve in the open or closed position.

MAXIMUM WORKING PRESSURE: 300 psi (20.7 bar)



MATERIALS OF CONSTRUCTION

BODY, CAP & BALL: Cast Stainless Steel per ASTM A351-CF8M

STEM: Stainless Steel per ASTM A276-316

BALL SEAT, BODY SEAL, THRUST WASHER & PACKING: PTFE/RTFE

HANDLE, SPRING WASHER, NUTS, LOCK NUT, BOLTS & SPRING WASHER: Stainless Steel per AISI Type 304L

HANDLE SLEEVE: PVC

G-PRESS ENDS: PVC

O-RING SPECIFICATIONS:

For O-Ring Seal compound applications, refer to the Technical Data Section of the Gruvlok Catalog.

- EPDM O-Ring (Black color) -4°F to 230°F (-20°C to 110°C) Recommended for hot water, dilute acids, alkalis, oil free air and many chemical services. Excellent oxidation resistance.

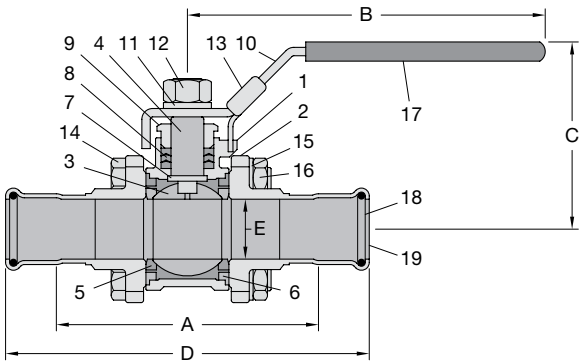
Note: Not for use with hydrocarbons.

- Nitrile O-Ring (Gray color) -13°F to 230°F (-25°C to 110°C) Recommended for petroleum products, vegetable oils, mineral oils and air with oils.

Note: Not for use with hot water or hot dry air

- Fluoroelastomer O-Ring (Green color) -22°F to 300°F (-30°C to 149°C) Recommended for oxidizing acids, petroleum products, hydraulic fluids, lubricants, and halogenated hydrocarbons.

MATERIAL SPECIFICATIONS



1. BODY: ASTM A351-C8M

2. CAP: ASTM A351-C8M

3. BALL: ASTM A351-C8M

4. STEM: ASTM A276-316

5. BALL SEAT: PTFE/RTFE

6. BODY SEAL: PTFE/RTFE

7. THRUST WASHER: PTFE/RTFE

8. PACKING: PTFE/RTFE

9. GLAND NUT: AISI 304

10. HANDLE: AISI 304
11. SPRING WASHER: AISI 304

12. NUT: AISI 304

13. LATCH LOCK: AISI 304

14. BOLT: AISI 304

15. SPRING WASHER: AISI 304

16. NUT: AISI 304

17. HANDLE SLEEVE: PVC

18. O-RING: EPDM, Nitrile, Fluoroelastomer

19. G-PRESS ENDS: 316L

FIGURE 469 BALL VALVE (PRESS X PRESS)							
Pipe Size		Dimensions					Approx. Wt. Ea.
Nominal Size	O.D.	A	B	C	D	E	
<i>in./mm</i>	<i>in./mm</i>	<i>in./mm</i>	<i>in./mm</i>	<i>in./mm</i>	<i>in./mm</i>	<i>in./mm</i>	<i>Lbs./Kg</i>
1/2	0.840	3.16	3.94	2.44	4.84	0.59	1.24
15	21.3	80.3	100.1	62.0	122.9	15.0	0.6
3/4	1.050	3.59	4.92	2.44	5.49	0.79	1.73
20	26.7	91.2	125.0	62.0	139.4	20.0	0.8
1	1.315	3.99	5.87	3.03	6.03	0.98	2.46
25	33.4	101.3	149.1	77.0	153.2	24.9	1.1
1 1/2	1.900	5.05	7.48	3.94	7.45	1.50	5.93
40	48.3	128.3	190.0	100.1	189.2	38.1	2.7
2	2.375	5.84	7.48	4.25	9.38	2.01	8.48
50	60.3	148.3	190.0	108.0	238.3	51.0	3.8

INSTALLATION

G-PRESS Stainless Steel Fittings must be installed in accordance with this section.

Always ensure that the pressing tool, and its jaws are appropriate for the schedule of pipe and size of fitting. Always refer to the pressing tool manufacturer's instructions for operation and maintenance prior to use with G-PRESS Stainless Steel Fittings. Failure to follow these instructions may void the warranty.



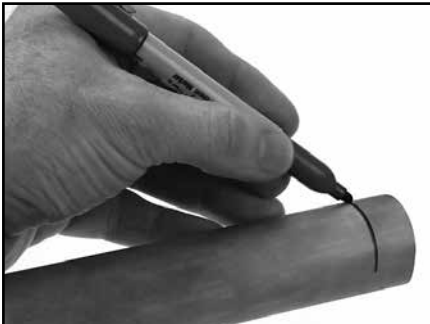
1 SELECT & CUT PIPE— Select the correct size of pipe and fitting for the job. Ensure that both are clean and free from damage and imperfections. Cut pipe squarely, making sure to avoid jagged edges or scratching and denting pipe surface.



2 DE-BURR PIPE — De-burr inside and outside of pipe, removing debris that can impede flow or damage the O-Ring Seal material. Clean pipe surface of oil and debris.



3 CHECK PRESS FITTING Check the Press fittings to ensure the O-Ring Seal material is appropriate for the application. The color of the O-Ring Seal indicates the material type. Select the O-Ring Seal based on the intended application. For more information on O-Ring Seal compounds, refer to the Technical Data section of the Gruvlok Catalog.



4 MEASURE & MARK PIPE— With a permanent marker, mark the insertion depth at the appropriate distance from the end of the pipe.



5 INSERT PIPE INTO FITTING— Insert the pipe until it contacts the pipe stop of the fitting. With the fitting on the pipe, the insertion mark should be visible.

The Figure 408 Slip Coupling does not have a pipe stop and must be centered between the pipe ends. However, the minimum pipe insertion depth must be maintained and marked.

6 VERIFY TOOL & JAW— Using an approved Pressing Tool from Table, verify the Tool Jaw is the appropriate size for the fitting. For wall and tube clearances, refer to the pressing tool manufacturer's instructions. Failure to follow these instructions may void the warranty.

7 POSITION TOOL AND SQUEEZE TRIGGER— Position the Tool Jaws on the raised surface of the fitting, then squeeze the trigger until the pressing action is complete. The pressing will complete a cycle and then stop.

Do not release the trigger until the pressing action is complete. Incomplete presses may reduce the pressure retention capabilities of the joint and lead to subsequent system leakage.

8 REMOVE TOOL FROM FITTING & INSPECT—Release the trigger and remove the Jaw from the fitting. Inspect the connection to make sure the fitting insertion mark is in the appropriate place.

PRESSING TOOLS

The G-PRESS system uses only Type M press configuration and can be installed using any of the press tools shown in the table below. Tools are powered with a rechargeable battery. Each tool has a unique set of easily interchangeable jaws/collars for each pipe size.

PRESSING TOOLS			
Tool Manufacturer	Pipe Schedule	Fitting Size	Model Number
Novopress	5 or 10	1/2 to 1 1/2 Inches	AC0202
Novopress	5 or 10	1/2 to 2 Inches	AFP202XL
Milwaukee	5 or 10	1/2 to 1 Inches	M18
Milwaukee	5 or 10	1/2 to 2 Inches	M18 XL

INSERTION MARK LOCATION

Nominal Pipe Size	Insertion Mark Distance
In.	In./mm
1/2	0.875 22
3/4	1.000 25.4
1	1.063 27
1 1/2	1.250 32
2	1.813 46