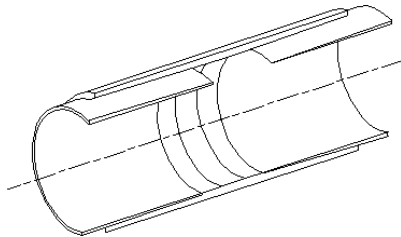




AMERON
INTERNATIONAL

FIBERGLASS-COMPOSITE PIPE GROUP



Fittings Dimensions in 2 through 6-inch Sizes for Dualoy 3000/L piping systems

Units

All dimensions are in U.S. Customary units (inches).
Diametric dimensions are maximums.
Insertion depths (X₁, X₂) are typical.
All weights (lb) are approximate.

Tolerances

Tolerance for centerline-to-face dimensions on fittings with bell-end configuration is $\pm 1/16$ inch.

Listings



Dualoy 3000/L is Listed in the U.S. with Underwriters Laboratories for nonmetallic underground piping for motor vehicle (MV), high blend (HB), concentrated (CT) and aviation and marine (A&M) fuels (File MH9162). Dualoy 3000/L pipe and fittings are also listed with Underwriters Laboratories of Canada (File CMH 715). In Great Britain the Dualoy 3000/L system has been tested and accepted by the London Fire and Civil Defence Authority. Dualoy 3000/L has been issued a Certificate of Compliance to the Institute of Petroleum (IP) Specification by ERA Technology, Ltd.

End configurations

Bell end is standard.

Taper angle

The taper angle on all bell and spigot end configurations is $1\frac{3}{4}^\circ$.

Pressure ratings

See Ameron publication DUALOY 3000/L FIBERGLASS PIPE AND FITTINGS, FP265, for pressure ratings.

Individual system components may not have the same ratings as the pipe. Refer to the detailed product information for the specific components to determine the pressure rating for the system as a whole.

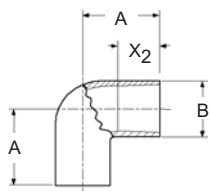
Manufacturing methods

The fiberglass-reinforced epoxy resin fittings shown in this document are manufactured by filament winding or compression molding.

- | | |
|-------------------------------|-------------------------|
| Adapters: bell x NPT female | Flange rings |
| Adapters: bell x NPT male | Flange stub ends |
| Adapters: isolation | Nipples |
| Adapters: spigot x NPT female | Reducer bushings |
| Adapters: spigot x NPT male | Repair couplings |
| 45° Elbows | Sleeve couplings |
| 90° Elbows | Sump penetration pieces |
| End caps | Tees |

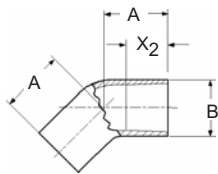
Fittings dimensions

90° Elbows (molded)



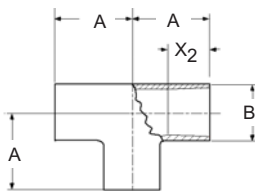
Nominal Pipe Size	Bell A	Bell B	Bell X ₂	Weight	
					(in)
2	50	3.82	2.78	2.05	1.0
3	80	4.42	3.99	2.32	1.5
4	100	5.50	5.00	3.15	3.0
6	150	7.50	7.34	4.00	8.5

45° Elbows (molded)



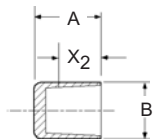
2	50	3.18	2.78	2.05	0.9
3	80	3.43	3.99	2.32	1.5
4	100	4.23	5.00	3.15	2.5
6	150	5.56	7.34	4.00	7.0

Tees (molded)



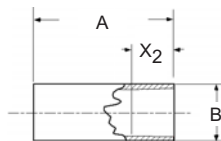
2	50	3.82	2.78	2.05	1.3
3	80	4.50	3.99	2.40	2.5
4	100	5.50	5.00	3.15	4.0
6	150	7.50	7.34	4.00	12.0

End caps (molded)



2	50	3.25	2.93	2.00	0.6
3	80	3.38	4.05	2.25	1.0
4	100	3.38	5.05	2.25	1.4
6	150	4.63	7.44	3.30	4.5

Sleeve couplings (filament wound)

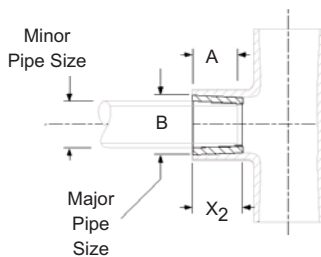


2	50	6.25	2.80	2.13	0.5
3	80	6.50	4.05	2.19	1.1
4*	100	5.45	5.10	2.38	2.1
6*	150	7.00	7.30	3.13	4.6

*4" & 6" are wound-on tooling couplings.

Reducer bushings (molded)

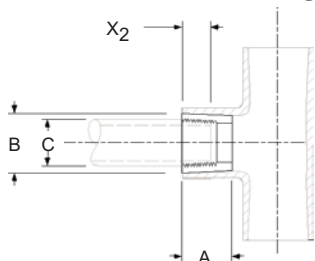
Bonded bushings



Nominal Pipe Size	Length A	OD B	Thread Size C	D	E	Insertion		Wt	
						X ₁	X ₂		(in)
3 x 2	80 x 50	1.88	3.51	—	—	—	—	1.75	0.7
4 x 3	100 x 80	1.96	4.51	—	—	—	—	2.00	0.9
6 x 4	150 x 100	2.86	6.65	—	—	—	—	2.20	4.1

1) Reducer bushings with tapered minor NPS are generally used in the bell ends of elbows and tees.

Threaded bushing

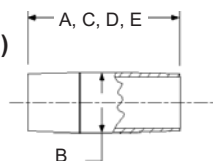


Nominal Pipe Size	Length A	OD B	Thread Size C	D	E	Insertion		Wt	
						X ₁	X ₂		(in)
2 x 1½	50 x 40	1.80	2.40	1½ x 11½	—	—	—	0.7	0.3

1) Outlet NPS x outlet NPT threads per inch. Reducer bushing with BSP threads available. Outlet sizes smaller than 1½ inch are obtained by using galvanized steel bushings in the fiberglass bushing.

Fittings dimensions (cont.)

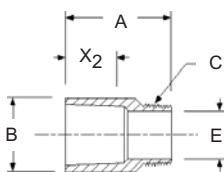
Nipples (filament wound)



Nominal Pipe Size	Length A	OD B	C	D	E	Insertion		Bell	Wt
						X ₁	X ₂		
(in)	(mm)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(lb)
2	50	6.00	2.38	8.00	10.00	12.00	—	—	0.5 ¹
3	80	—	3.50	8.00	10.00	12.00	—	—	0.7
4	100	—	4.50	—	10.00	12.00	—	—	1.0
6	150	—	6.63	—	—	12.00	—	—	1.7

1) Lb/ft.

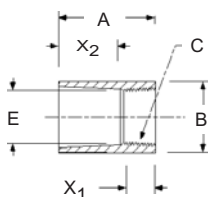
Adapters: bell x NPT male (molded)



2	50	4.16	2.92	2 x 11½ ¹	—	1.90	—	2.00	0.4
3	80	5.00	3.92	3 x 8	—	2.80	—	2.05	0.7
4	100	5.19	4.88	4 x 8	—	3.90	—	2.05	0.9
6	150	6.00	7.40	6 x 8	—	5.90	—	3.20	2.1

1) Nominal pipe size x NPT threads per inch. BSP threads available.

Adapters: bell x NPT female (filament wound)

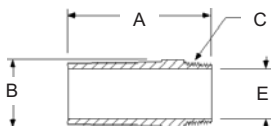


2 x 1½ ¹	50 x 40	6.00	2.80	1½ x 11½ ²	—	2.29	0.70	2.31	0.8
2 x 2	50 x 50	4.75	2.50	2 x 11½ ²	—	2.29	1.13	2.31	0.4
3 x 3	80 x 80	5.38	3.65	3 x 8	—	3.00	1.00	2.00	0.7
4 x 4	100 x 100	5.38	4.65	4 x 8	—	4.00	1.10	2.25	0.9
6 x 6	150 x 150	6.75	6.90	6 x 8	—	6.00	1.20	3.48	2.1

1) Consists of a 2-inch filament-wound sleeve coupling with a factory-bonded 2 x 1½ NPT molded bushing. The end of the sleeve coupling containing the bushing has been reduced in length to facilitate thread make-up in the field.

2) Nominal pipe size x NPT threads per inch. BSP threads available.

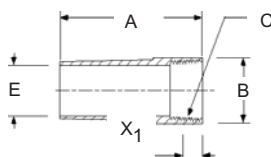
Adapters: spigot x NPT male (filament wound)



2	50	4.38	2.55	2 x 11½ ¹	—	2.00	—	—	0.5
3	80	5.50	3.65	3 x 8	—	3.00	—	—	1.3
4	100	6.00	4.65	4 x 8	—	4.00	—	—	1.7
6	150	8.00	6.90	6 x 8	—	6.00	—	—	4.2

1) Nominal pipe size x NPT threads per inch. BSP threads available.

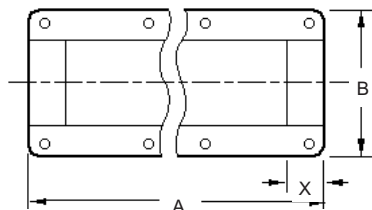
Adapters: spigot x NPT female (filament wound)



2	50	4.38	2.55	2 x 11½ ¹	—	2.00	0.70	—	0.5
3	80	5.50	3.65	3 x 8	—	3.00	1.00	—	1.3
4	100	6.00	4.65	4 x 8	—	4.00	1.20	—	1.7
6	150	8.00	6.90	6 x 8	—	6.00	1.00	—	4.2

1) Nominal pipe size x NPT threads per inch. BSP threads available.

Repair couplings (molded)



2 ¹	50	14.00	4.00	—	—	—	8 ²	1.50	1.3
3	80	14.00	6.00	—	—	—	8	1.50	1.7
4	100	14.00	7.00	—	—	—	8	1.50	2.0

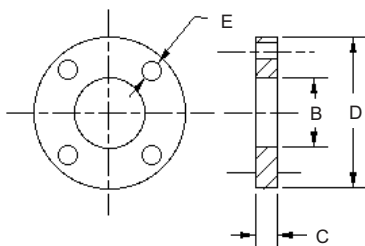
1) Repair coupling inside diameters match pipe outside diameters of the same nominal pipe size.

2) Number of bolt holes.

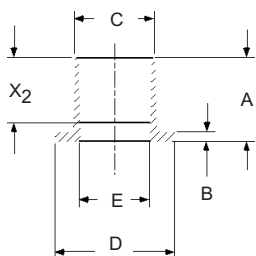
Fittings dimensions (cont.)

Nominal Pipe Size	A	B	C	D	E	Number of bolt holes	X ₂	Wt	
									(in)
2	50	—	2.78	0.82	6.00	0.75	4	—	1.0
3	80	—	3.90	1.10	7.50	0.75	4	—	1.6
4	100	—	4.90	1.10	9.00	0.75	8	—	2.5
6	150	—	7.26	1.25	11.00	0.88	8	—	4.9

Flange rings (molded)



Flange stub ends¹ (molded)

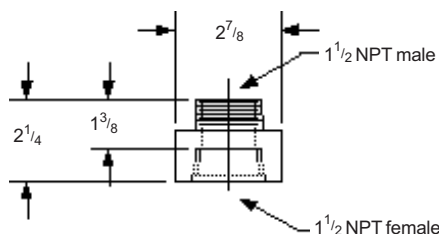


Flanged connections in Dualoy 3000/L piping systems are made using one-piece flange rings and stub ends that are bonded onto the pipe ends. Both flange rings and stub ends are fabricated by compression molding epoxy resins and discontinuous glass fibers. Bolt holes are drilled in accordance with ANSI B16.5, Cl. 150. Dualoy 3000/L flanged connections are rated to the same pressures as pipe and fittings of the same nominal pipe size.

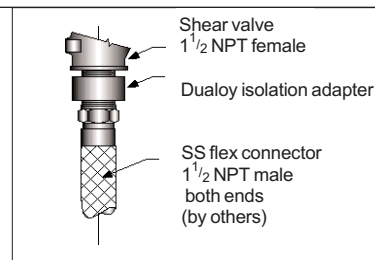
2	50	2.75	0.27	2.65	3.91	2.26	—	2.15	0.5
3	80	2.88	0.28	3.75	5.16	3.38	—	2.40	0.7
4	100	2.88	0.28	4.75	6.66	4.38	—	3.25	1.0
6	150	3.88	0.39	7.10	8.53	6.46	—	3.25	2.4

1) For use with flange rings shown in previous table.

Isolation adapter (molded)



The Dualoy isolation adapter provides electrical isolation from the dispenser for flex connectors that are directly buried and which must be cathodically protected. The adapter is fabricated of compression-molded fiberglass reinforced epoxy resins.



Important notice

This literature and the information and recommendations it contains are based on data reasonably believed to be reliable. However, such factors as variations in environment, application or installation, changes in operating procedures, or extrapolation of data may cause different results. Ameron makes no representation or warranty, express or implied, including warranties of merchantability or fitness for purpose, as to the accuracy, adequacy or completeness of the recommendations or information contained herein. Ameron assumes no liability whatsoever in connection with this literature or the information or recommendations it contains.



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