

Dualoy® 3000/LCX Secondary Containment Fittings

Uses and Applications

- Service station product, vent and vapor recovery piping
- Bulk plant terminals and fueling terminals
- Central fuel oil systems
- Marinas and marine terminals (onshore only)
- All underground piping systems requiring UL or ULC Listing for MV, HB, CT and A&M fuels
- Containment piping for all of the above
- Designed for use with pressure, vacuum or hydrostatic monitoring systems

Description

Dualoy 3000/LCX systems employ a coaxial construction for the pipe wall and specially designed primary and containment fittings. The system provides a complete double-wall enclosure for all product, vent and vapor recovery lines. The "LCX" contained system has been designed for providing a compact profile and easy, fast and reliable installation. "LCX" can be installed in either parallel or series patterns, taking advantage, where possible, of the reduced cost and number of buried fittings afforded by the series pattern. See details below.

Features of Dualoy 3000/LCX containment systems include:

- Filament-wound, fiberglass-reinforced pipe with integral liner;
- Compact fittings dimensions to minimize trench excavation;
- Smooth exterior pipe surface that eliminates the need for special end preparation tools;
- Ready accessibility to and complete inspectability of primary fittings prior to closure of the containment;
- Complete testability during installation and at any time thereafter;
- Rapid joint makeup with pre-inserted nuts and ambient cure adhesive.

Listings

Dualoy 3000/LCX is Listed in the United States with Underwriters Laboratories for nonmetallic underground piping for motor vehicle (MV), high blend (HB), concentrated (CT) and aviation and marine (A&M) under File MH9162. Dualoy 3000/LCX pipe and fittings are also Listed with Underwriters' Laboratories of Canada (File CMH715)

Performance

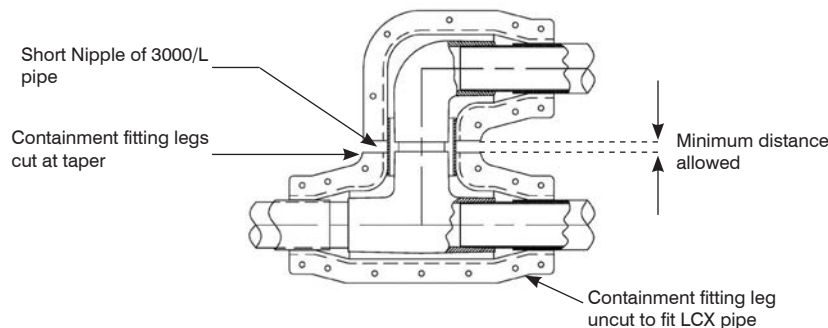
Containment pressure rated to 50 psig

Continuous operating temperatures to 150°F (66°C)

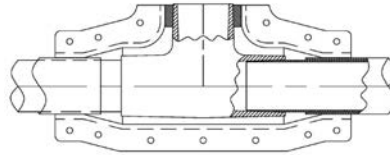
Individual system components may not have the same ratings as the pipe. Refer to the detailed product information for the specific components to determine the pressure rating for the system as a whole.

Piping System Features

Low Profile Crossovers - Dualoy 3000/LCX clamshell fittings are specifically designed to allow the minimum distance between primary fittings to be maintained when crossovers or offsets are needed. The center portion of the fitting is designed to fit the next-size-larger single wall pipe size. When distance between primary fittings is critical, simply cut off the corresponding tapered legs of the clamshell fittings and connect them with single wall pipe. (Reference dimension E on part drawings.) The distance between center lines shown in the drawing below is exactly the same as it would be for a single-wall system.

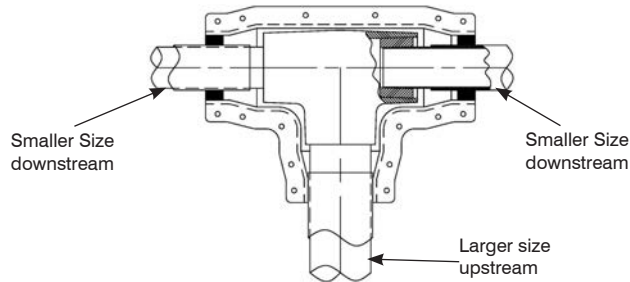


Branch Termination for Series Installation - Dualoy 3000/LCX piping can be installed in series with the pipe coming in on one side of the sump and exiting the other side. To maintain the containment continuity through the sump, the system can be configured with a termination ring on the branch of the tee or leg of an elbow. To do this, the tapered portion of the clamshell fitting leg is cut off and a termination ring is bonded between the primary fitting and the clamshell. A bushing or pipe nipple can be bonded into the primary bell as needed.



Size Reductions - For large systems where larger diameter trunk lines are used, pipe diameter reductions are easily made with the Dualoy 3000/LCX system at fittings. Single piece bushings are used in the primary fitting to reduce the primary pipe size. The containment pipe size is reduced by bonding a 2-piece reducer ring between the clamshell and the smaller pipe jacket. No cutting of clamshell fitting tapers is involved.

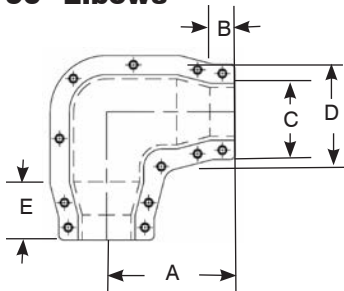
Size reduction can be done on any fitting leg or legs (as on a tee).



Continuous Monitoring - The Dualoy 3000/LCX system has exceptional performance in continuously monitored systems. Due to its small interstitial space, it is very reliable in detecting leaks in systems monitored by pressure, vacuum or hydrostatic methods. False alarms are eliminated by the lesser sensitivity to external conditions while detection capability of actual leaks is increased. Consult NOV Fiber Glass Systems Engineering for details and design of monitoring methods.

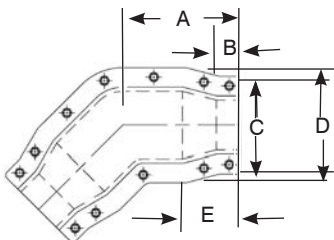
LCX Fittings Dimensions

90° Elbows



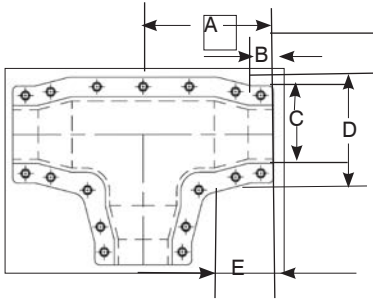
Size		A	B	C	D	E	Weight
(in)	(mm)						lbs
2	50	6.88	1.34	5.12	6.04	3.00	3.55
3	80	7.75	1.38	6.32	7.13	3.00	4.70
4	100	8.75	1.35	7.23	9.19	3.50	7.50

45° Elbows



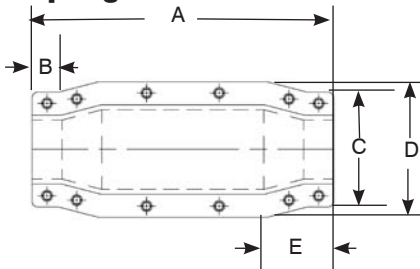
Size		A	B	C	D	E	Weight
(in)	(mm)						lbs.
2	50	6.25	1.34	5.12	6.04	3.00	3.30
3	80	6.75	1.38	6.32	7.13	3.00	4.15
4	100	7.50	1.35	7.23	9.19	3.50	6.50

Tees



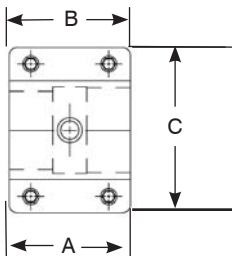
Size		A	B	C	D	E	Weight
(in)	(mm)						lbs.
2	50	6.88	1.34	5.12	6.04	3.00	4.30
3	80	7.75	1.38	6.32	7.13	3.00	6.00
4	100	8.75	1.35	7.23	9.19	3.50	9.95

Containment-Couplings



Size		A	B	C	D	E	Weight
(in)	(mm)						lbs.
2	50	13.50	1.34	5.12	6.04	3.00	3.12
3	80	12.81	1.38	6.32	7.13	3.00	2.95
4	100	12.25	1.38	7.23	9.19	3.50	3.44

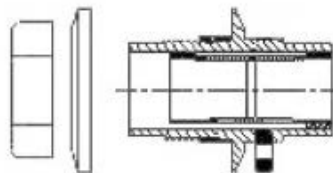
Termination



Size		A	B	C	Weight
(in)	(mm)				lbs.
2	50	3.75	1.34	5.12	1.00
3	80	3.75	1.38	6.32	1.35
4	100	3.75	1.35	7.23	1.45

Sump Penetration Fittings

Sump penetration fittings (SPF) can be used on straight sumps. Dualoy 3000/LCX pipe can pass through or be terminated at the SPF. Ends are closed by bonding half-sections of 2-inch coupling clamshells between the SPF and the pipe jacket. Shrader valves can be supplied for testing or monitoring. SPF is not open to mid-wall of double wall sump, as provided. Field drilling of SPF body near flange can be done to open interstice between SPF and pipe to sump interstice.



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North America

17115 San Pedro Ave. Suite 200
San Antonio, Texas 78232 USA
Phone: 210 477 7500

South America

Avenida Fernando Simoes
Recife, Brazil 51020-390
Phone: 55 31 3326 69020

Europe

P.O. Box 6, 4190 CA
Geldermalsen, The Netherlands
Phone: 31 346 587 587

Asia Pacific

No. 7A, Tuas Avenue 3
Jurong, Singapore 639407
Phone: 65 6861 6118

Middle East

P.O. Box 17324
Dubai, UAE
Phone: 971 4881 3566

www.fgspipe.com • fgspipe@nov.com

NOV Fiber Glass Systems

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