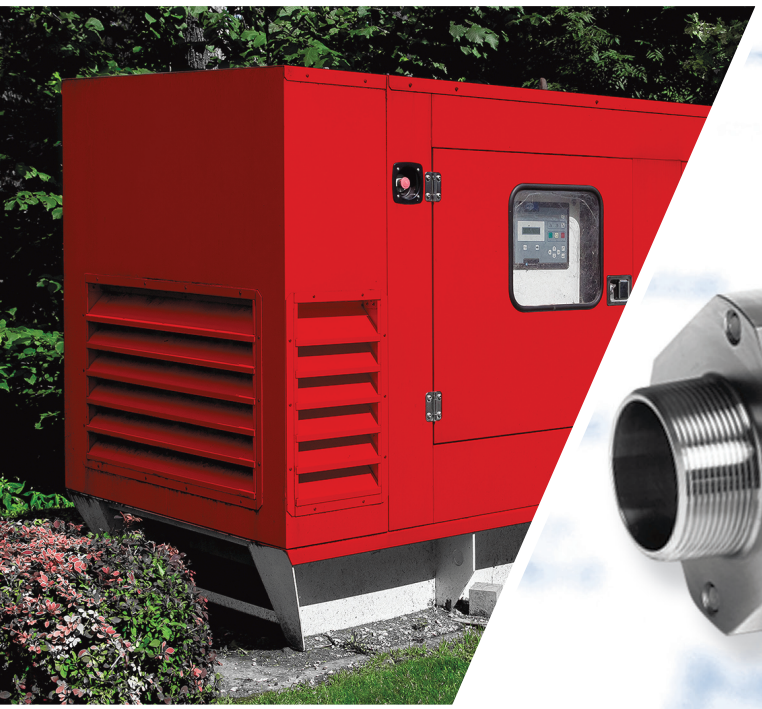
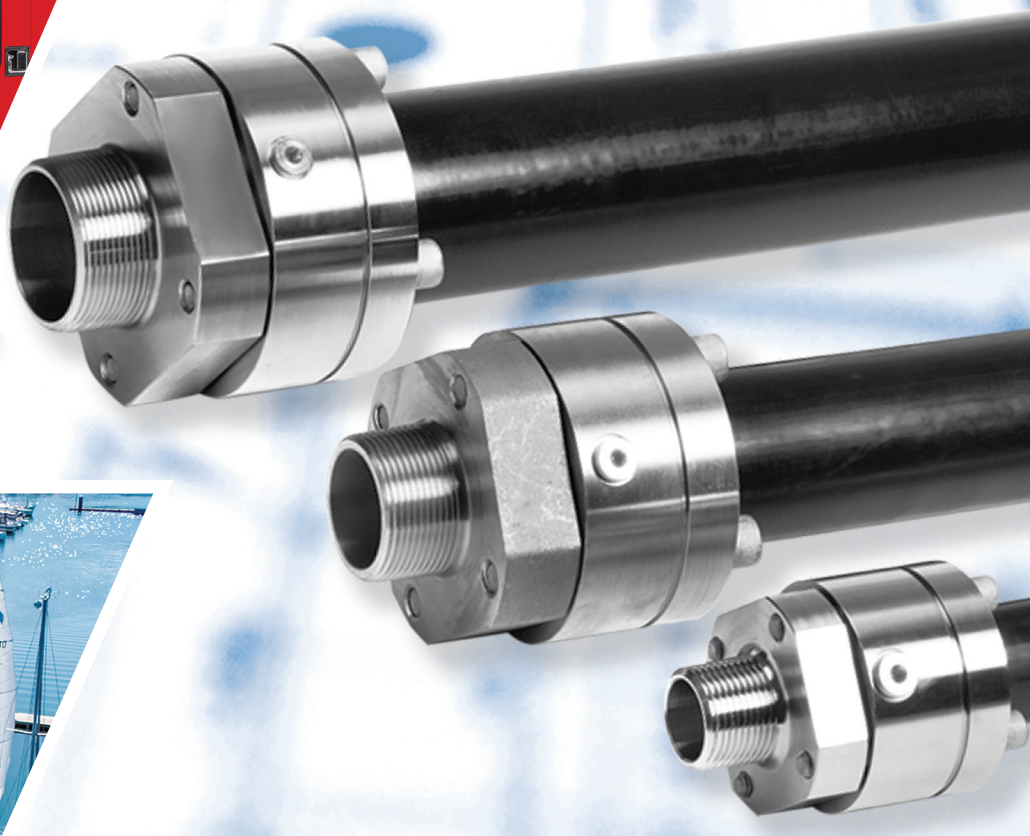
DoubleTrac®

Easy Installation. Zero Permeation.

Design & Installation Guide

September 2025





OmegaFlex®

MADE IN THE USA

DBT-001 Rev 0925

DoubleTrac®

Easy Installation. Zero Permeation.

Next Generation of UL971A and UL1369 Stainless Steel Double Containment Piping

Important Information Follow All Instructions

ABOVEGROUND, UNDERGROUND, AND MARINA APPLICATIONS
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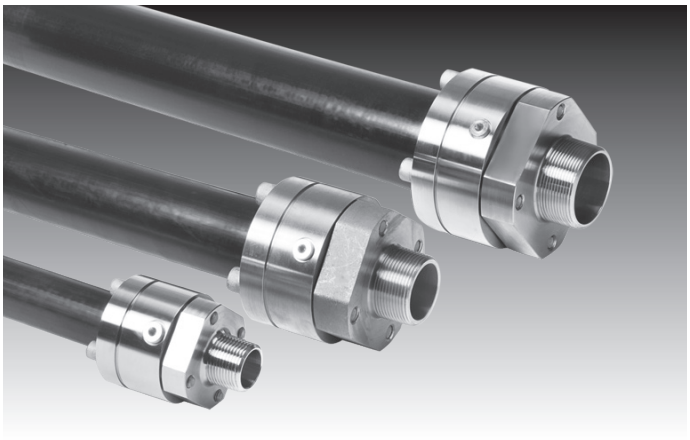
Aboveground, Underground, and Marina Applications

Important Information Follow All Instructions



DoubleTrac® Aboveground, Underground and Marina Piping System

SECTION 1.0 – INTRODUCTION

⚠ CAUTION

This manual provides the installer with general instructions for the design and installation of aboveground, underground, and marina fuel piping systems using DoubleTrac® petroleum piping system with built-in secondary containment.

Other components of the piping system have their own individual installation instructions provided by the equipment manufacturer. The installation instructions provided by all component manufacturers must be followed for the aboveground, underground and marina petroleum piping system to operate safely as designed.

The OmegaFlex DoubleTrac® piping system must only be installed or serviced by a qualified installer who has been trained through the DoubleTrac® Petroleum Piping Systems Installation Training Program. The use of non-trained personnel or any deviations from these written procedures could result in damage or leakage of the system and void the product warranty. Contact Omega Flex, Inc. Customer Service for more information at 800-355-1039 or on the web at www.omegaflex.com or www.doubletrac.net.

These instructions must be used in conjunction with federal and state regulations for aboveground, underground, and marina bulk petroleum storage and piping, which must be followed.

All aboveground, underground, and marina fuel piping systems must be installed in accordance with recognized engineering practices.

At the completion of work this installation manual must be given to the site operator or owner.

⚠ CAUTION

If the DoubleTrac® system is improperly installed, the contents of the piping may leak and possibly cause personal injury or damage to the environment. The instructions in this manual and applicable local codes must be strictly followed.

Overview

DoubleTrac's® innovative double wall design includes a primary interior layer of zero-permeation, highly corrosion resistant corrugated stainless steel with an outer EFEP barrier layer bonded to a Nylon 12 protective layer. The unmatched strength of stainless steel combined with the superior chemical resistance of EFEP in the secondary barrier layer provide a highly durable design utilizing proven materials in the industry. The interstitial space provides continuous monitoring for leak detection—making DoubleTrac® piping the industry's most effective zero permeation piping solution. DoubleTrac® piping is suitable for use in marinas, harbors, fuel terminals, fuel oil lines, and emergency generator feed and return lines.

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SECTION 2.0 - LISTINGS and APPROVALS

OmegaFlex® DoubleTrac® piping system has both a primary and secondary containment jacket and is dual listed with UL 1369 and UL971A/ULC S679-17 under file number MH 45578.

UL 1369 titled:
ABOVEGROUND PIPING FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS
Pressure System Supply Piping
Suction System Supply Piping
Tank Vent Piping
Stage II Vapor Recovery Piping

UL 971A/ULC S679-17 titled:
METALLIC UNDERGROUND FUEL PIPE
Pressure System Supply Piping
Suction System Supply Piping
Tank Vent Piping
Stage II Vapor Recovery Piping

SECTION 3.0 - PRESSURE RATINGS

DoubleTrac® piping and fittings have a minimum five to one safety factor from the maximum rated operating pressure for the primary and secondary pipes. The product media must not exceed the maximum operating pressures indicated for each pipe size shown in Table 1.

SECTION 4.0—OPERATING TEMPERATURE

Underground: -40°F to 155°F

Aboveground: -22°F to 122°F

SECTION 5.0—BEND RADIUS

DoubleTrac® piping must never be bent at a radius smaller than the designed bend radius shown in Table 2.

Table 2
Pipe Size with Minimum Bend Radius

Pipe Size	Minimum Bend Radius
1"	12"
1-1/2"	24"
2"	32"

SECTION 6.0 - INSPECTION, HANDLING and STORAGE

Inspect all piping, fittings, and components when they arrive at the job site. Any piping that has been cut, crushed, or otherwise subjected to physical damage during transportation or storage shall be discarded and never used. The piping and fittings shall be handled in such a manner that will not cause any damage. Keep all components in the original packaging until ready for use. Inspect fittings prior to installation.

⚠ CAUTION

The end of the piping must be protected at all times. Extra caps are provided with each shipment.

Table 1
Pipe Size with Maximum Operating Pressure

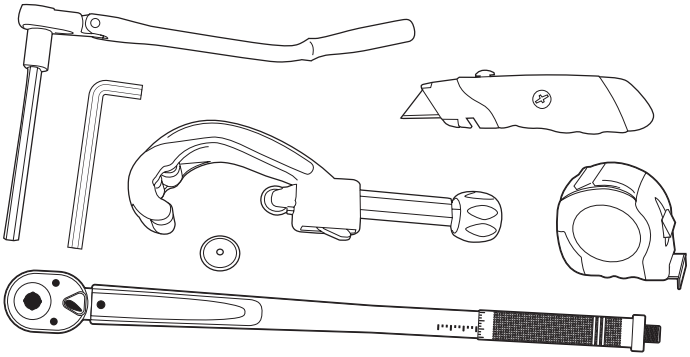
Pipe Size	O.D. Nom	Weight	Primary Max Operating Pressure	Secondary Max Operating Pressure	Max Vacuum Rating
1"	1.55	0.75 lbs/ft	125 psig	50 psig	29" Hg
1-1/2"	2.30	1.50 lbs/ft	100 psig	50 psig	29" Hg
2"	2.93	2.00 lbs/ft	75 psig	50 psig	29" Hg

Important Information Follow All Instructions

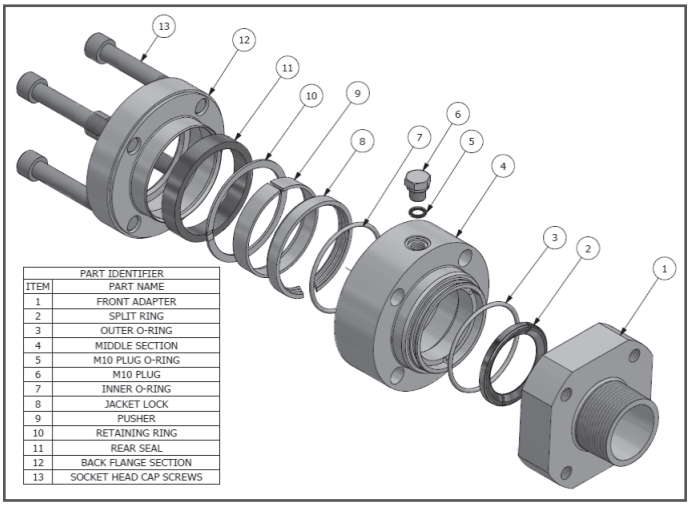
SECTION 7.0 - ASSEMBLY OF DoubleTrac® FITTING

Tools required for Assembly

- Utility knife with sharp blade
- Tape measure
- Ratchet
- Appropriate size allen wrench/allen wrench socket
- Tubing Cutter
- Torque Wrench FT/LBS
- OmegaFlex cutting wheel P/N# UGF-E-5272



1. Components



PART IDENTIFIER	
ITEM	PART NAME
1	FRONT ADAPTER
2	SPLIT RING
3	OUTER O-RING
4	MIDDLE SECTION
5	M10 PLUG O-RING
6	M10 PLUG
7	INNER O-RING
8	JACKET LOCK
9	PUSHER
10	RETAINING RING
11	REAR SEAL
12	BACK FLANGE SECTION
13	SOCKET HEAD CAP SCREWS

2. To determine the jacket strip length measure back 3" from the end (Figure 7-1).

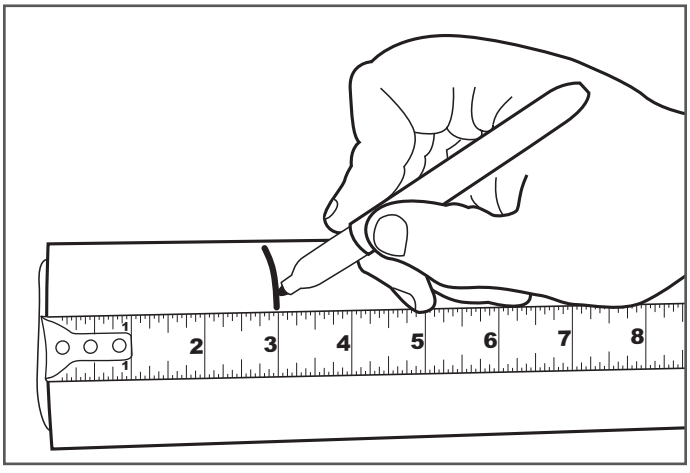


Figure 7-1

3. Using the tubing cutter, score the outer jacket approximately three quarters of the way through the jacket circumference. Use extreme caution not to cut or score the stainless corrugated pipe (Figure 7-2).

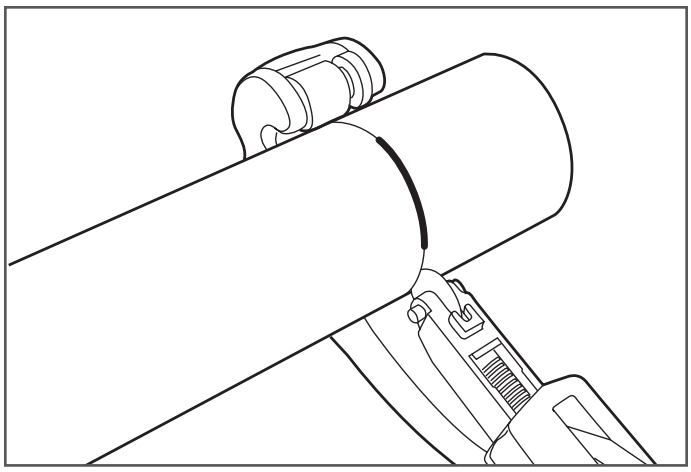


Figure 7-2

4. Finish cutting through the outer jacket down to the stainless corrugated pipe using a sharp utility knife (Figure 7-3).

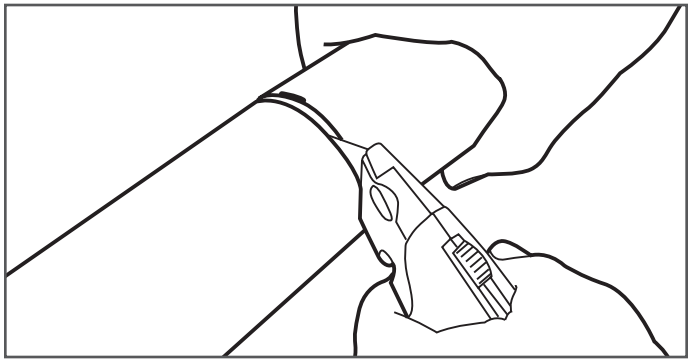


Figure 7-3

5. Carefully cut outer jacket longitudinally with a utility knife for ease of removal. Do not score DoubleTrac® piping (Figure 7-4).

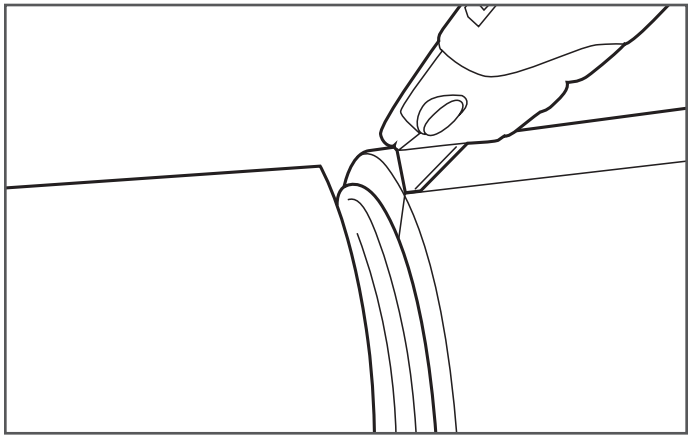


Figure 7-4

6. Remove portion of outer jacket (Figure 7-5).

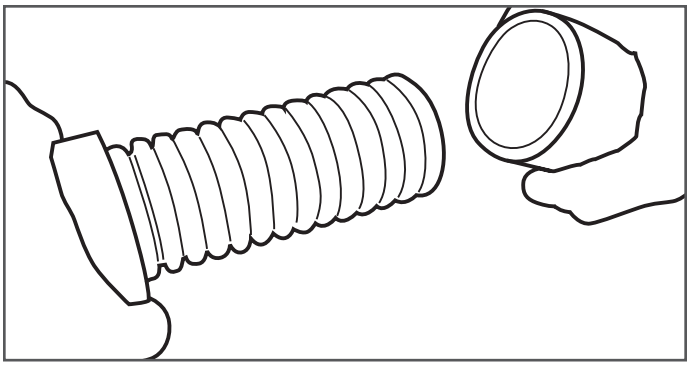


Figure 7-5

⚠ CAUTION

Inspect the stainless steel pipe for scoring from the tubing cutter. If the stainless steel pipe is damaged, remove the damaged portion and repeat this procedure.

7. DoubleTrac® field attachable fittings (Figure 7-6).

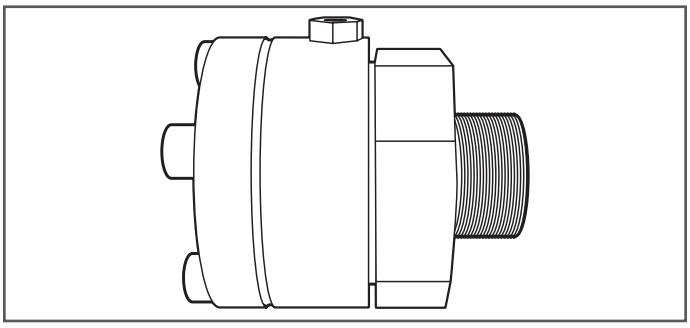


Figure 7-6

8. Loosen cap screws (Figure 7-7).

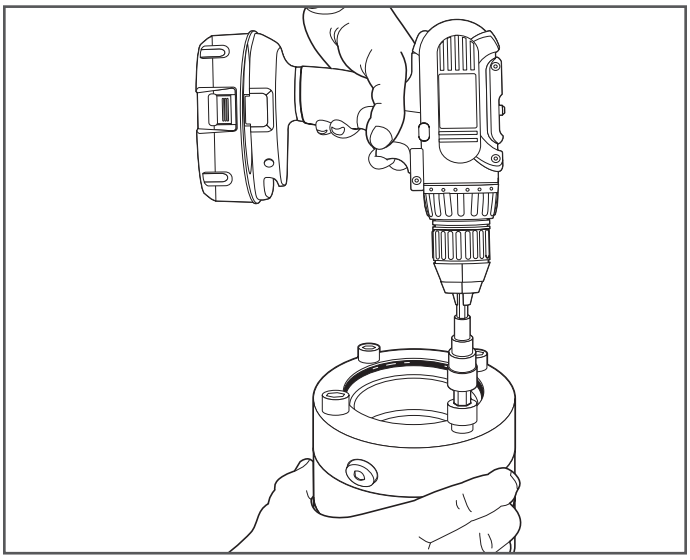


Figure 7-7

9. Remove all cap screws (Figure 7-8).

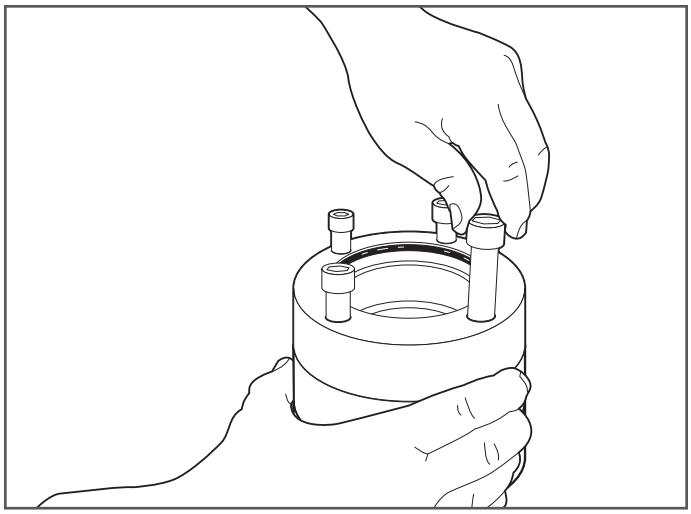


Figure 7-8

10. Separate the three sections of DoubleTrac® fitting (Figure 7-9).

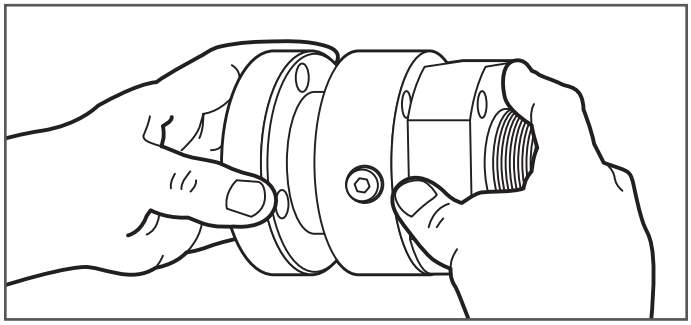


Figure 7-9

11. Ensure that the Pusher Ring, Spiral Retaining Ring, and square profile Rear Seal are installed within the back section of the fitting (Figure 7-10).

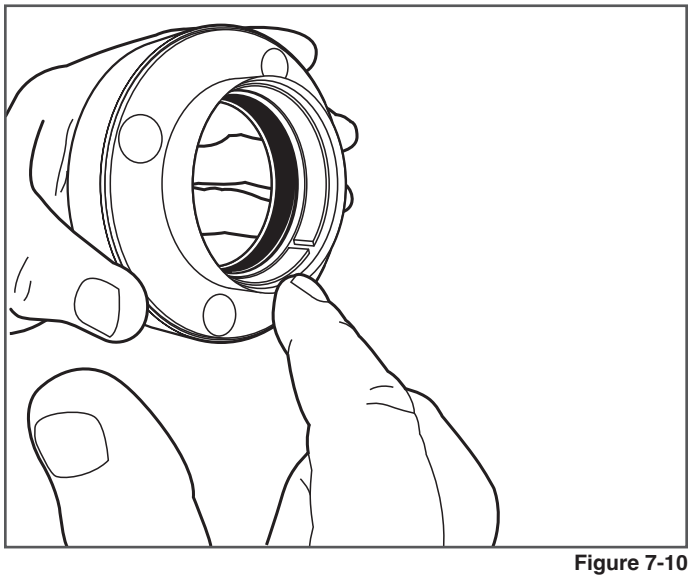


Figure 7-10

12. Inspect front section of DoubleTrac® fitting. Ensure the fitting does not have any damage to NPT threads or front adaptor (Figure 7-11).

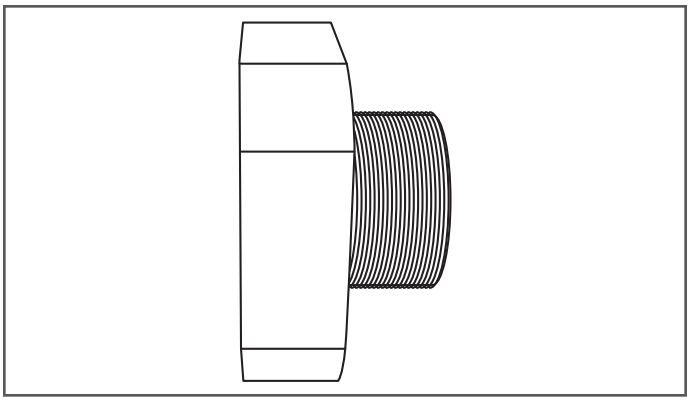


Figure 7-11

13. Remove split rings from middle section of DoubleTrac® fitting (Figure 7-12).

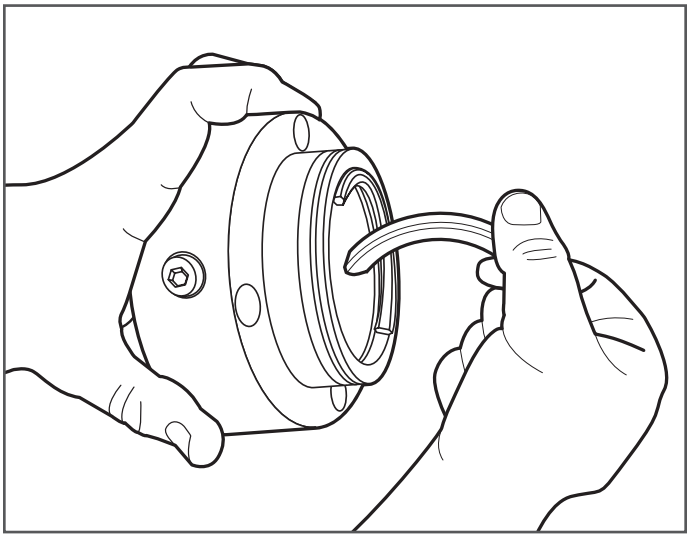


Figure 7-12

14. Ensure outer o-ring is not damaged or torn (Figure 7-13).

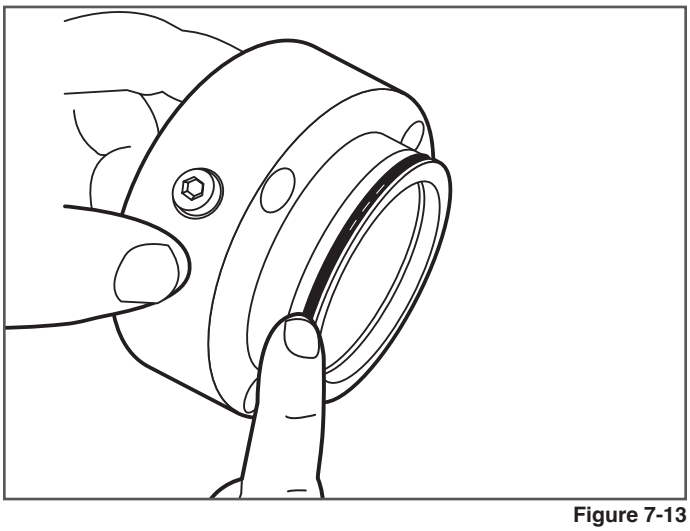


Figure 7-13

15. Ensure inner o-ring is not damaged or torn (Figure 7-14).

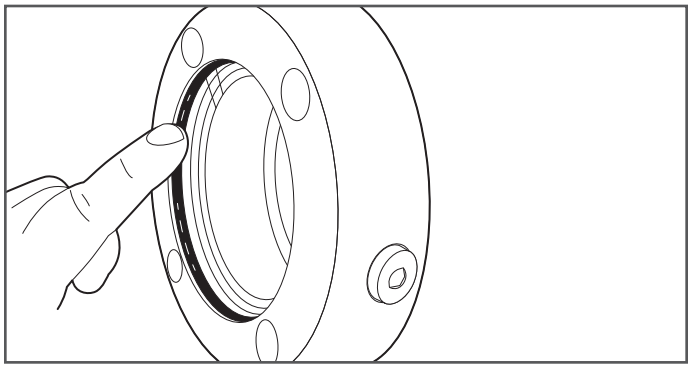


Figure 7-14

16. Ensure the beveled/tapered edge of jacket lock faces outward (Figure 7-15).

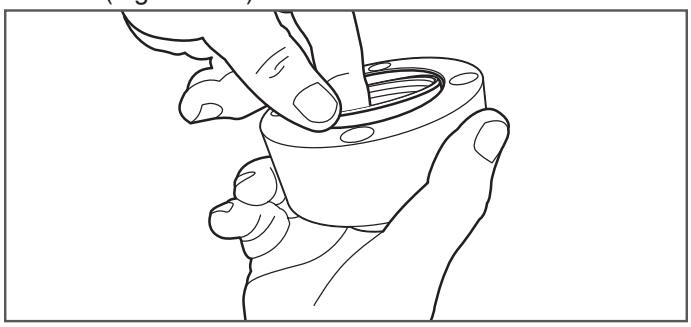


Figure 7-15

17. Prepare DoubleTrac® piping for final cut. Slide middle section of fitting onto the DoubleTrac® pipe until it bottoms out (Figure 7-16).

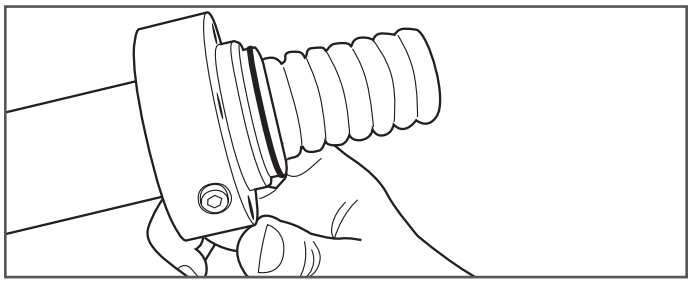


Figure 7-16

18. Mark DoubleTrac® piping for final cut. Once the middle section of the fitting has bottomed out on piping, place one split ring half in the corrugation closest to the middle section of the fitting. Ensure split ring drops into first corrugation freely. Place a mark on top of the first two corrugations that are past the split ring (Figure 7-17).

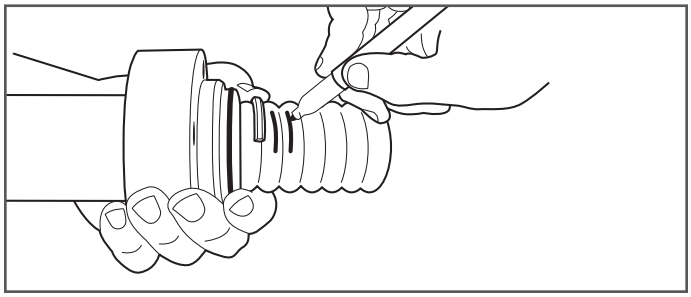


Figure 7-17

19. Remove middle section of DoubleTrac® fittting and cut through the corrugated piping using a tubing cutter with a sharp wheel. Cut must be centered in the valley between the two marked corrugations. Use full circular strokes in one direction and tighten roller pressure slightly after each revolution. DO NOT over tighten roller which may flatten tube (Figure 7-18).

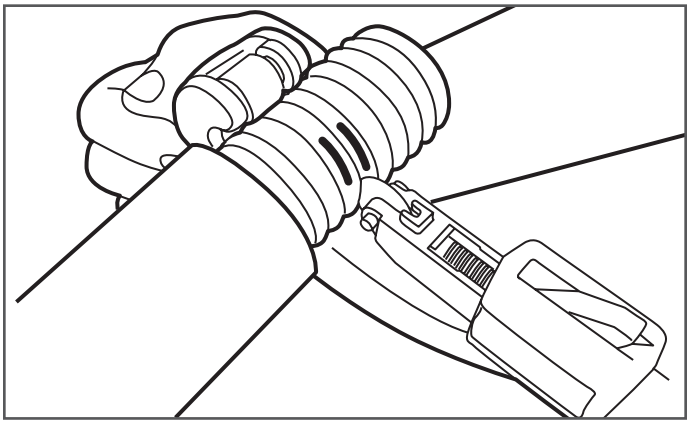


Figure 7-18

⚠ CAUTION

Finishing the cut by bending or twisting may cause an improper seat.

⚠ CAUTION

When making the final cut, do not cut DoubleTrac® piping with a reciprocating saw or hack saw.

20. Slide the back and middle section of the fitting onto the pipe and insert the split rings into the valley of the first corrugation closest to middle section of the fitting (Figure 7-19).

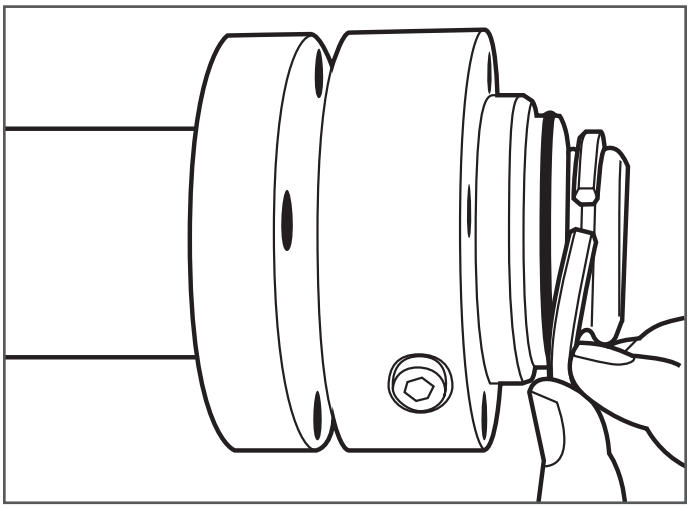


Figure 7-19

21. Slide the back and middle section of the fitting up until the split rings are covered by fitting (Figure 7-20).

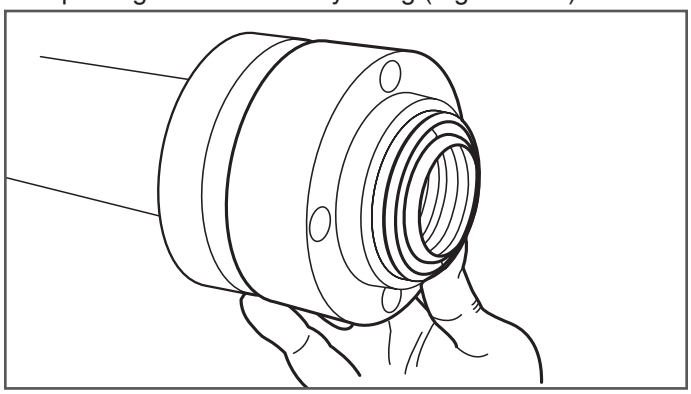


Figure 7-20

⚠ CAUTION

DoubleTrac® field attachable fittings are stainless steel and require the use of an anti-galling agent on the stainless steel bolts. Omega Flex, Inc. recommends using Permatex 77124 nickel based anti-seize or equivalent.

⚠ CAUTION

Apply constant pressure on backside of fitting to ensure split rings do not come out of seat.

22. Apply an anti-galling agent on the cap screws and insert cap screws into the back section of the fitting. Partially tighten cap screws allowing the fitting to swivel. Swivel DoubleTrac® NPT fitting into existing piping (elbow, tee, valve etc.) (Figure 7-21).

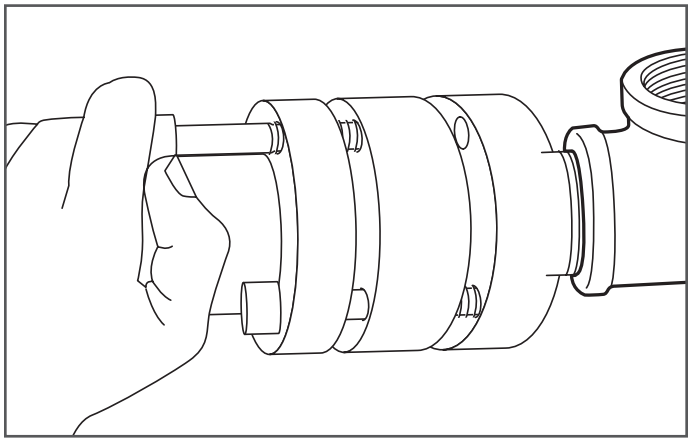


Figure 7-21

⚠ CAUTION

Do not use any pipe dope or thread sealants on the self-flaring connection. This connection is a metal to metal seat and will not seal properly if pipe dope or thread sealants are used. Sealants are to be used on the NPT Connector to the equipment only.

23. Tighten all cap screws in an alternating pattern to the torque values listed in Table 3 (Figure 7-22).

Table 3
DoubleTrac® Piping Recommended Torque Values

DoubleTrac® Pipe Size	Torque Settings
1"	30 FT-LBS
1-1/2" & 2"	50 FT-LBS

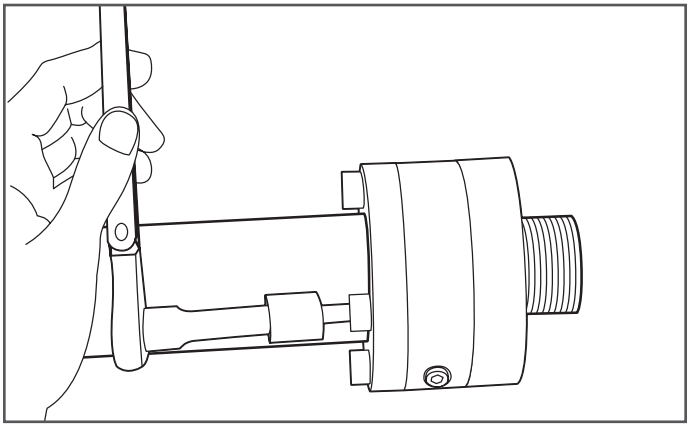


Figure 7-22

SECTION 8.0 - DISASSEMBLY OF DOUBLETRAC® FITTING

1. Loosen the cap screws using a ratchet and the appropriate size hex driver (Figure 8-1).

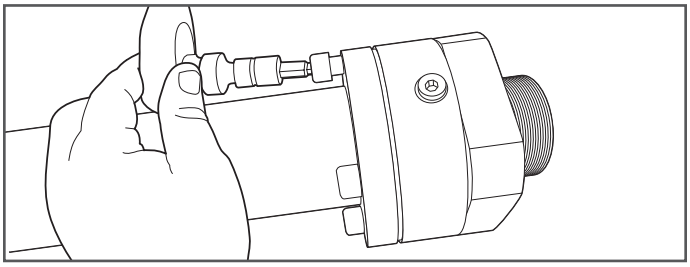


Figure 8-1

2. Pry off fitting front adaptor using a flat tip screwdriver or flat pry bar (Figure 8-2).

⚠ CAUTION

Use extreme care not to damage fitting or internal o-ring.

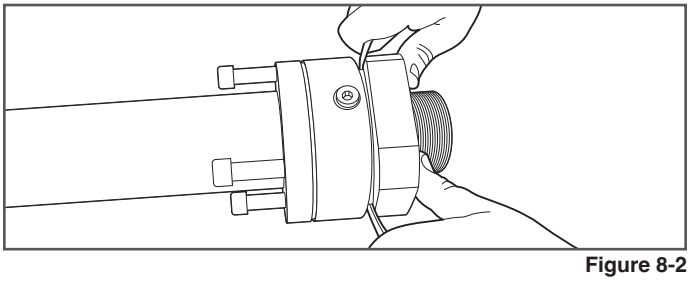


Figure 8-2

3. Remove all cap screws (Figure 8-3).

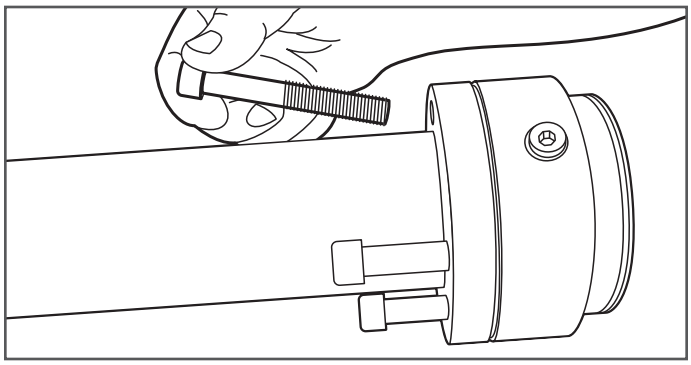


Figure 8-3

4. Pry the back section of the DoubleTrac® fitting using a flat tip screwdriver or flat pry bar (Figure 8-4).

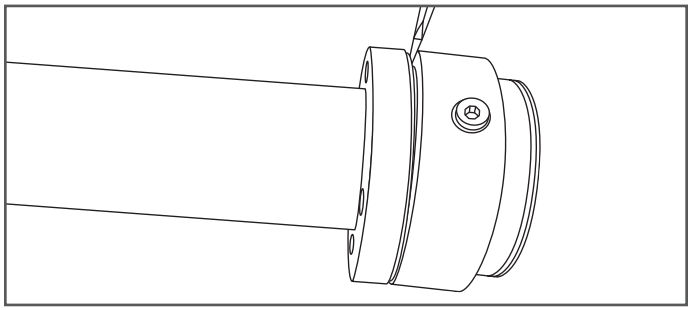


Figure 8-4

5. Once the back section is pried apart from the middle section of DoubleTrac® fitting, slide the back section far enough away to allow the middle section of DoubleTrac® fitting to slide back exposing the split rings (Figure 8-5).

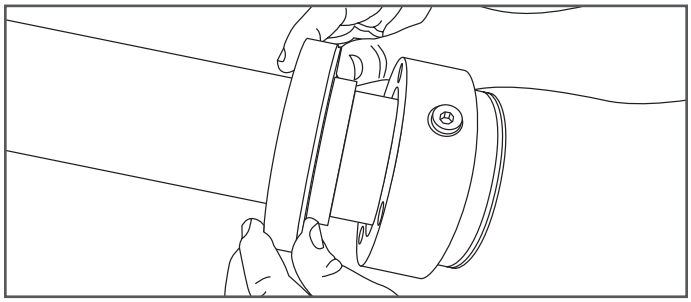


Figure 8-5

6. With the split rings exposed, remove split rings from DoubleTrac® fitting (Figure 8-6).

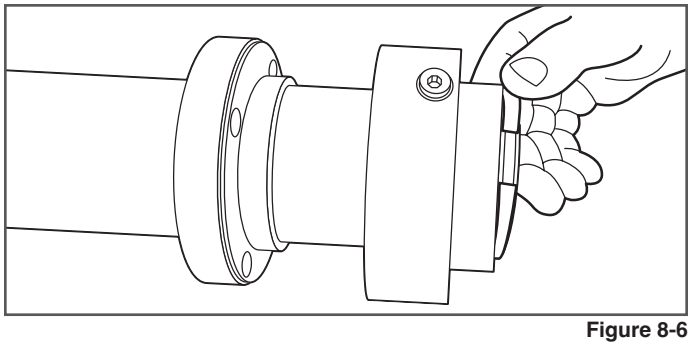


Figure 8-6

7. Remove middle section of DoubleTrac® fitting (Figure 8-7).

⚠ CAUTION

The jacket lock will remain on the outer nylon 12 jacket of the DoubleTrac® pipe.

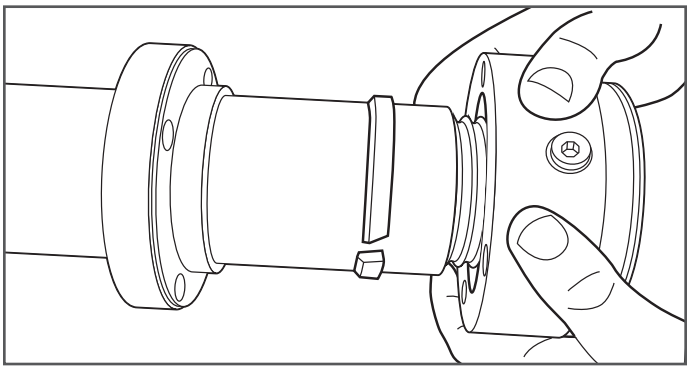


Figure 8-7

8. Using a flat tip screwdriver or flat pry bar, open up jacket lock and remove (Figure 8-8).

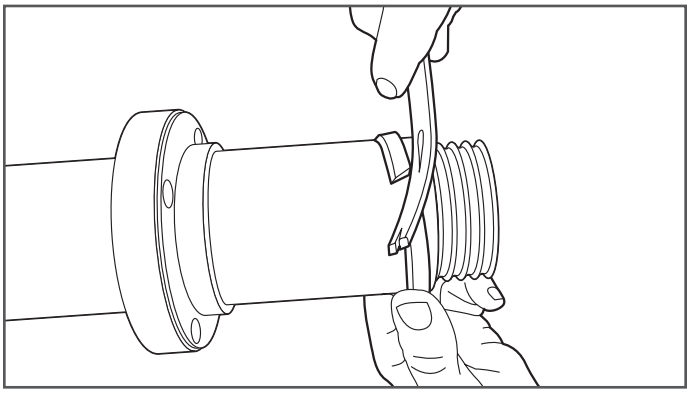


Figure 8-8

9. Remove back section of DoubleTrac® fitting (Figure 8-9).

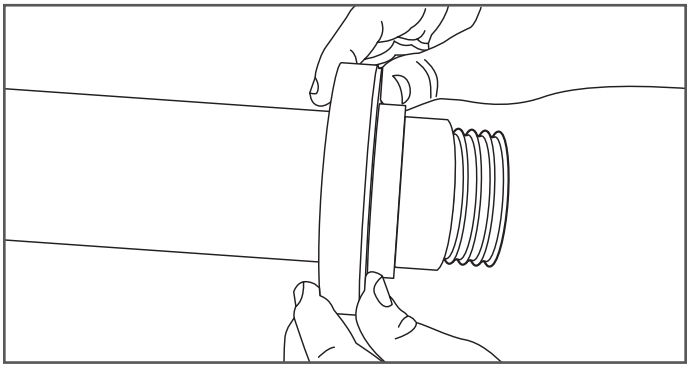


Figure 8-9

SECTION 9.0 - INSPECTION OF DOUBLETRAC® FITTING COMPONENTS

1. Remove DoubleTrac® fitting sections and inspect the Nylon 12 outer jacket and AutoFlare of the primary piping for any visible defects (Figure 9-1).

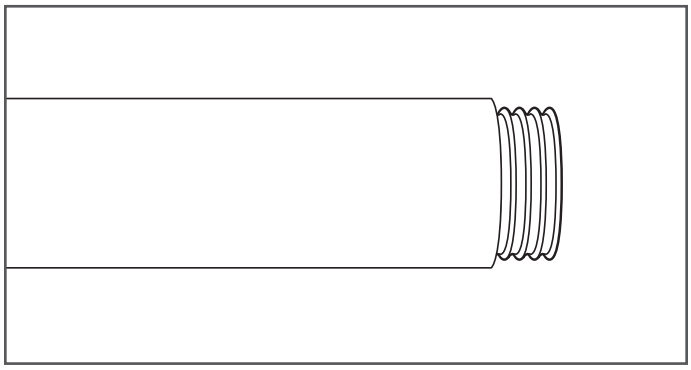


Figure 9-1

2. Prior to reattaching DoubleTrac® fitting, thoroughly wipe clean all fitting components (Figure 9-2).

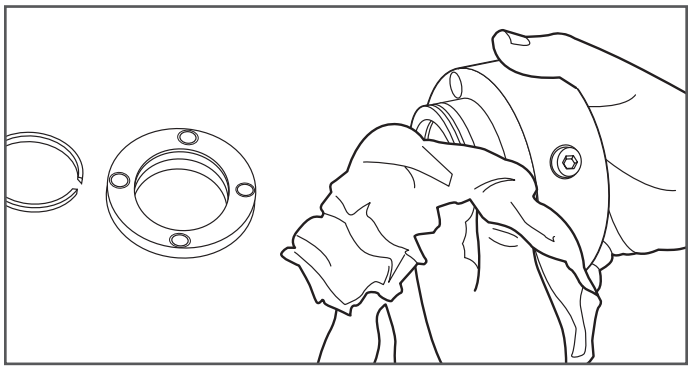


Figure 9-2

3. Remove outer O-ring on the middle section of DoubleTrac® fitting. Inspect O-ring for tears, scuffs, or any visible defect. Replace O-ring as needed (Figure 9-3).

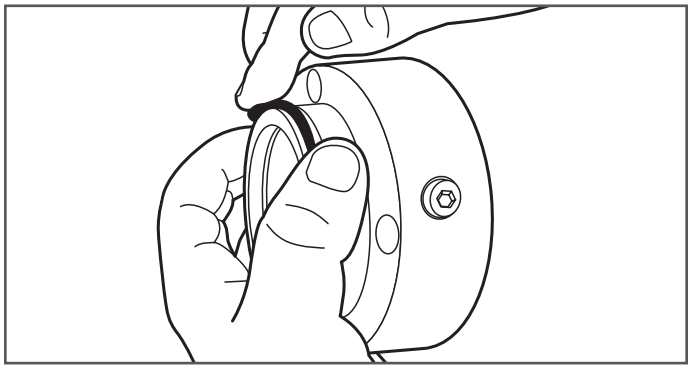


Figure 9-3

4. Remove inner O-ring on the middle section of DoubleTrac® fitting. Inspect O-ring for tears, scuffs, or any visible defect. Replace O-ring as needed (Figure 9-4).

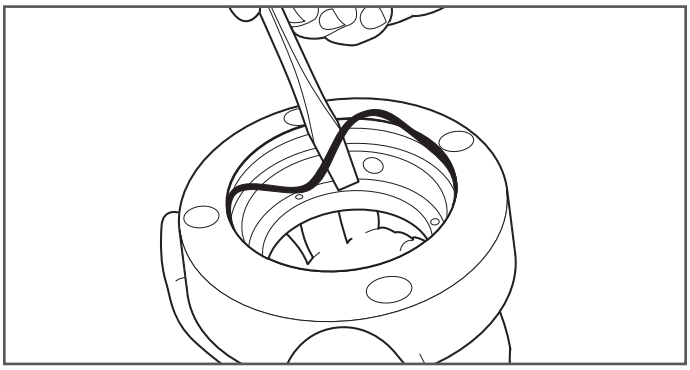


Figure 9-4

5. Wipe jacket lock off and inspect for any visible defect (Figure 9-5).

Figure 9-5

6. Wipe the split rings off and inspect for any visible defect (Figure 9-6).

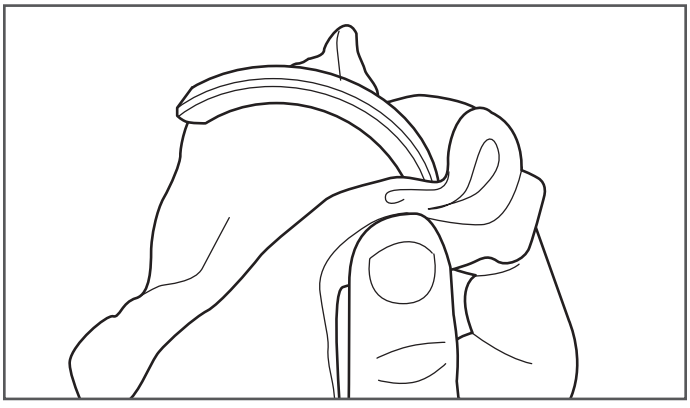


Figure 9-6

7. Insert jacket lock into the middle section of DoubleTrac® fitting (Figure 9-7).

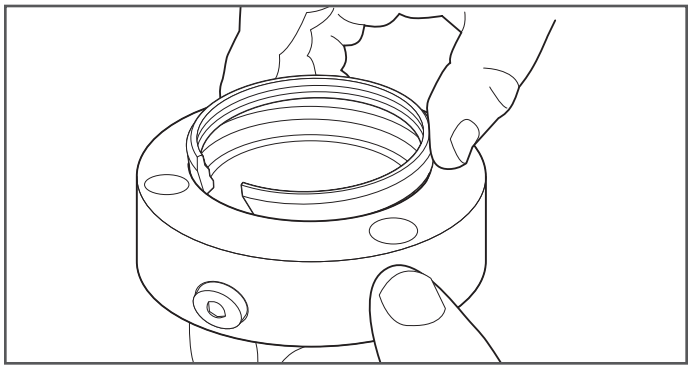


Figure 9-7

⚠ CAUTION

Beveled/tapered edge of jacket lock must face outward toward the back section of DoubleTrac® fitting.

8. Reinstall inner O-ring. Apply an ample amount of clean bearing grease or lithium grease to inner O-ring (Figure 9-8).

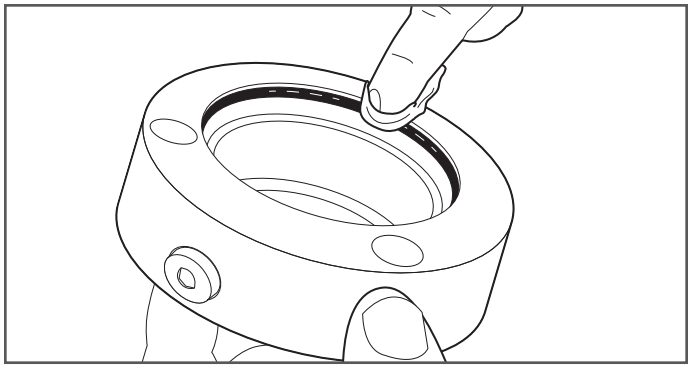


Figure 9-8

9. Reinstall outer O-ring. Apply an ample amount of clean bearing grease or lithium grease to outer O-ring (Figure 9-9).

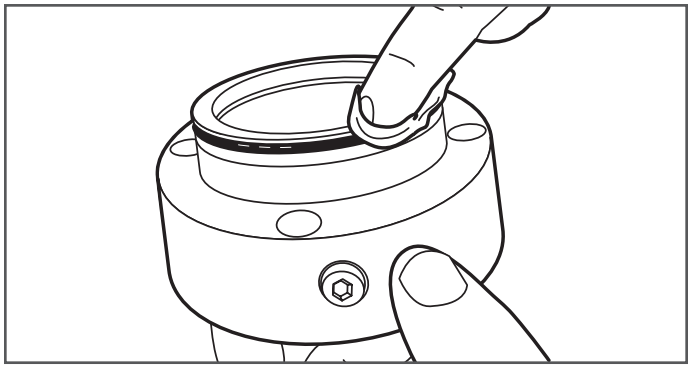


Figure 9-9

10. Use clean bearing grease or lithium grease to coat the interior surface of DoubleTrac® fitting front adaptor (Figure 9-10).

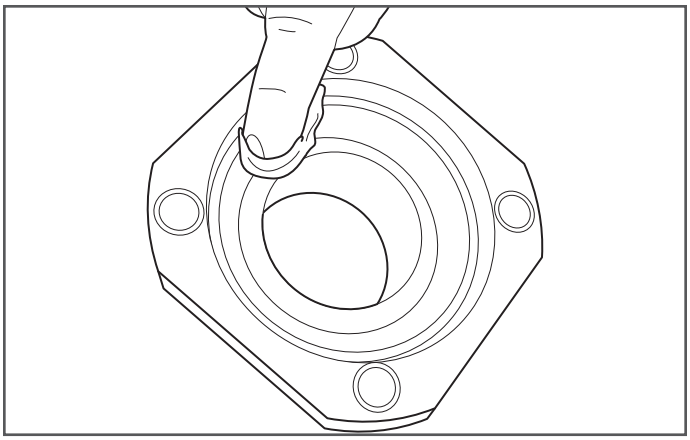


Figure 9-10

11. The DoubleTrac® fitting is ready to reinstall, Follow assembly of DoubleTrac® fitting instructions beginning in section 7 (Figure 9-11).

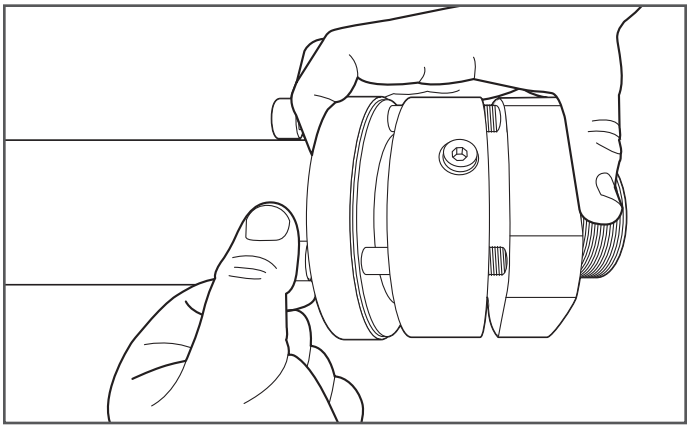


Figure 9-11

SECTION 10.0 - TIGHTNESS TESTING OF DOUBLETRAC® PIPING

TIGHTNESS TESTING OF SECONDARY CONTAINMAINT PIPING

For Tightness testing of DoubleTrac® piping, the secondary piping (Interstitial Space) must be pressurized with air up to 50 psig for a minimum of 30-minutes. No signs of pressure loss are allowed. For final tightness testing it is recommended that the secondary test is performed for a minimum of 12 hours and shows no sign of pressure loss (Figure 10-1, Figure 10-2 and Figure 10-3).

The site owner/operator must keep a copy of the final test results on file on location.

NOTE: When testing the secondary, the primary is also being tested.

⚠ CAUTION

When performing a tightness test, the piping must be completely isolated from the rest of the system.

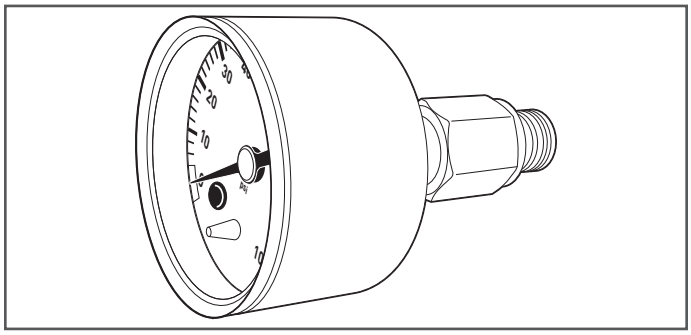


Figure 10-1

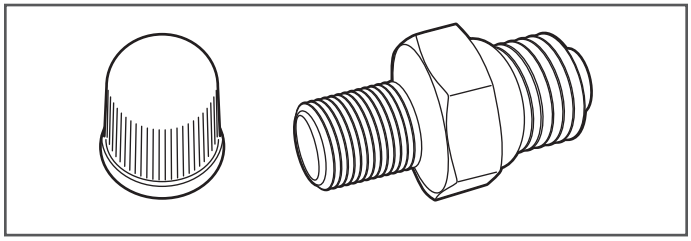


Figure 10-2

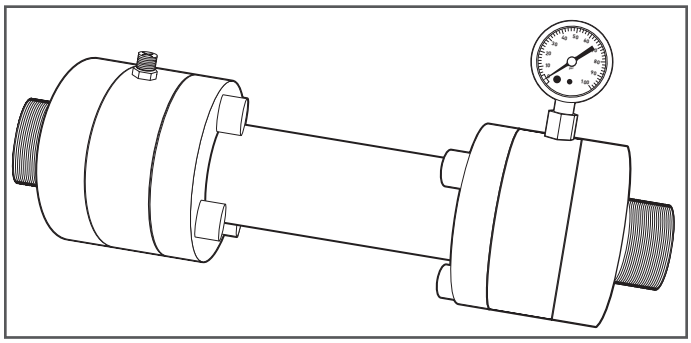


Figure 10-3

TIGHTNESS TESTING OF PRIMARY PIPING

The piping system must be isolated from the tanks and subjected to a pipe tightness test on the primary and secondary piping.

For tightness testing of DoubleTrac® piping, the primary piping is pressurized with air to a level of 1.5 times the maximum operating pressure of the system. Maintain this pressure for a minimum of one hour, making sure there is no drop in pressure.

NOTE: Before the piping system is backfilled, it must be isolated from the tanks and subjected to a pipe tightness test on the primary and secondary piping.

SECTION 11.0—DOUBLETRAC® CONTINUOUS MONITORING

Continuous interstitial monitoring is required for pipe complying with UL/ULC 1369 Fire Test Clause 12.5 exception 2. Prior to Installation of the Continuous Monitoring System, Tightness Testing must be performed per section 10. Refer to section 20 for DoubleTrac® Continuous Monitoring Installation instructions.

SECTION 12.0—INSTALLATION OF CHECK VALVE

⚠ CAUTION

Check valves can only be installed on fittings located in landside sumps. For fittings in sumps located over water install stainless steel plugs

Once all testing has been completed a check valve or stainless steel plug is installed in the secondary port of the DoubleTrac fitting (Figure 12-1).

⚠ CAUTION

Do not overtighten check valve.

⚠ CAUTION

If check valves are not installed, then the plug which originally came with the fitting must be installed. Prior to releasing for service, either a plug or check valve must be installed. Failure to do so voids all warranty.

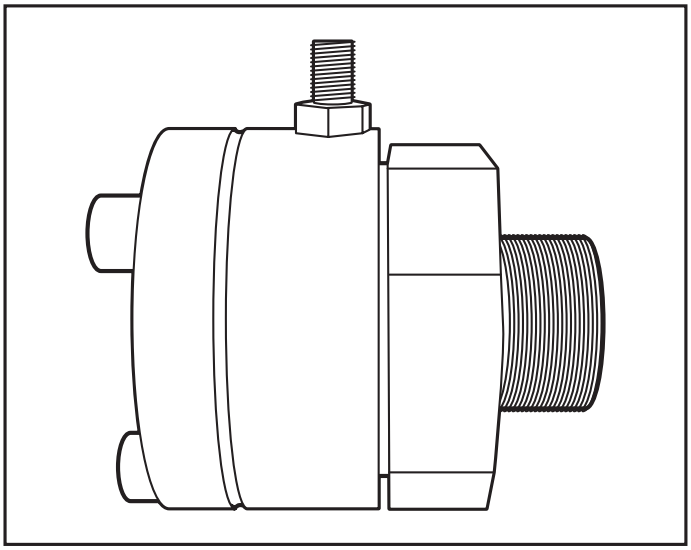


Figure 12-1

SECTION 13.0—PIPE BURIAL, TRENCHING AND BACKFILL REQUIREMENTS

Provide a trench width equal to the pipe outer diameter plus six inches on each side. Separate multiple lines by at least 4 inches. The distance between any piping and the trench excavation walls must be at least 6 inches. For example, an installation of three 2" outer diameter pipes, the trench would be 26" wide and a minimum of 26" deep.

Whenever possible, product lines should be run in a single trench between the tank area and pump dispenser island area. Vent lines between the tank and the structure to which the aboveground vent lines are attached should also be installed in a single trench. Where more than one trench is required, piping should not cross over each other or cross over underground, aboveground and marina tanks.

The trench bottom must be sloped uniformly from the dispensers back to the tanks or sumps at a minimum slope of 1/8 inch per foot and be free of any sharp or protruding hard objects. In pressure systems, slope may not be necessary on supply lines: rather, communication between the interstitial space of the secondary contained pressure supply lines and collection sumps should be maintained so that released product can enter a sump and be visually observed or detected by sensors. The trench bottom must be graded with a minimum of six inches of backfill such as washed sand, or pea gravel.

For backfilling, provide a minimum level of clean backfill between the top of the pipe and the surface as provided in Table 4.

Table 4
Minimum Backfill Requirements

Surface Pavement	Min. Depth of Pavement	Min. Level of Clean Backfill
Unpaved	N/A	18"
Asphalt	2"	8"
Reinforced Concrete	4"	4"

⚠ CAUTION

Native back fill materials must never be used.

SECTION 14.0 – ROUTINE MAINTENANCE AND VISUAL INSPECTIONS - PROBLEMS

It is recommended that a visual inspection of all components as well as the inside of all containment sumps be completed at least once per month. Typical monthly inspections include, but are not limited to:

- Visual inspection of piping: no visible damage to the outer jacket such as cracks, crushing, kinking, or puncture.
- Visual inspection of all mounting hardware: all hardware must be intact and securely mounted in the original location.
- Visual inspection of DoubleTrac® fittings: no visible damage to fittings, no sign of leakage, all vent/test port fittings or bypass hoses must not show signs of crushing, kinking, or puncture.

Fuel leaks collected in containment sumps must be reported immediately and investigated by the site owner. If leakage or damage to the piping system is observed or suspected, Omega Flex, Inc. must be notified immediately. All sumps must be kept free of fuel, water and debris. When changing fuel filters at the dispenser, make sure any spilled product is cleaned out of the bottom of the dispenser sump to prevent possible fire hazard.

⚠ CAUTION

Ignoring or disabling leak detection alarms can lead to further damage and possible failure of the system.

Failure to remove fuel and liquids from the containment sumps may compromise the performance and integrity of the sump and its associated fittings (entry fittings) and seals over prolonged periods of time.

SECTION 15.0 – OMEGA FLEX, INC. CONTACT INFORMATION

Omega Flex, Inc. can be contacted if there are any questions concerning the installation, maintenance or repair of DoubleTrac® piping system. Please contact Omega Flex, Inc. customer service at 1-800-355-1035 or on the web at www.omegaflex.com or www.doubletrac.net.

SECTION 16.0 – PIPING GUIDE FOR ABOVEGROUND, UNDERGROUND AND MARINA APPLICATIONS

Application Basics

All installations must be performed by a trained operator. Typically each installation is unique and requires some level of review; however, there are some general guidelines that are applicable to all installations. Inspect all piping, fittings and components when they arrive at the job site. Any piping that has been cut, crushed, or otherwise subjected to physical damage during transportation or storage shall be discarded and never used. The piping and fittings must be handled in such a manner that will not cause any unnecessary damage. Keep all components in the original packaging until ready for use. Inspect fittings prior to installation.

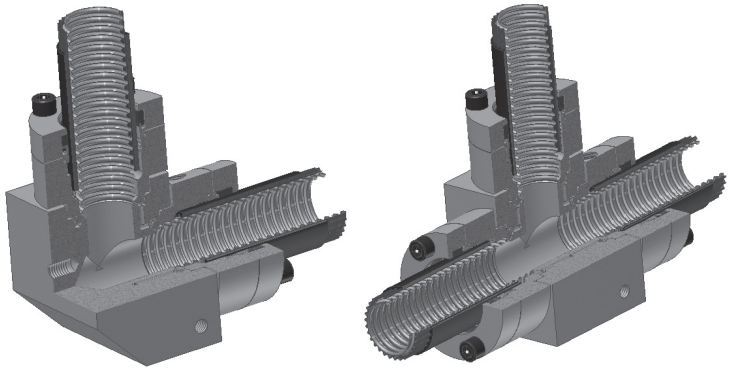
SECTION 17.0 – DOUBLETRAC® 90 DEGREE ELBOWS, TEES AND COUPLERS

DoubleTrac® piping is the only Double Containment Fuel Piping System that offers Double Containment Tee's, 90° Elbows, and Couplers, which allows the interstitial communication to pass through, eliminating the need for transitions sumps.

DoubleTrac® 90° Elbows are used when the fuel piping run exceeds the minimum bend radius.

DoubleTrac® Tee's are used to split the fuel piping run to two different locations.

DoubleTrac® Couplers can be used to extend an existing DoubleTrac® fuel piping run.



Using DoubleTrac® Tee's, 90° Elbows, and Couplers saves the end user thousands of dollars eliminating transitions sumps and all the fuel sensing equipment needed to properly monitor transition sumps.

NOTE: Tee's, 90° Elbows, and Couplers are only used in aboveground applications.

SECTION 18.0 – RECOMMENDED ENTRY FITTINGS FOR FLAT WALL SUMPS

Omega Flex, Inc. recommends the entry fittings shown in tables 5 and 6 to properly mate up with DoubleTrac® piping. These entry fittings have been evaluated for proper sizing. Other entry fittings may also be used based on compatibility. All entry fittings must meet local, state, and federal regulations for bulk petroleum storage and piping.

Table 5
Recommended Entry Fittings for Single Wall Sumps: Flat Wall

DoubleTrac® Pipe Size	O.D. Nom	Bravo Part No.	Diversified Part No.	Chase Pipe Fitting	Omegaflex Part No.	Diversified Products – Fiberglass Rigid Entry Fitting - Flat Wall
1"	1.55	F-10-OFLX-CR3.5	B 3.5-1.6	UGF-OFDT-B6-1.6	UGF-EF-16	UGF-FGC-2.5-1.6
1-1/2"	2.30	F-15-OFLX-CR5	B 3.5-2.4	UGF-OFDT-B6-2.4	UGF-EF-24	UGF-FGC-4.5-2.3
2"	2.93	F-20-OFLX-CR5	B 5-3.0	UGF-OFDT-B6-3.0	UGF-EF-32	UGF-FGC-4.5-3.0

Table 6
Recommended Entry Fittings for Double Wall Sumps: Flat Wall

DoubleTrac® Pipe Size	O.D. Nom	Bravo Part No.	Diversified Products Part No.	Diversified Products – Fiberglass Rigid Entry Fitting - Flat Wall
1"	1.55	F-10-OFLX-D-CR3.5	U8M-1.6	OF PF-FGC-2.5-1.6
1-1/2"	2.30	F-15-OFLX-D-CR5	U8M-2.4	OF PF-FGC-4.5-2.3
2"	2.93	F-20-OFLX-D-CR5	U8M-3.0	OF PF-FGC-4.5-3.0

LinkSeal® Installation Detail (Figure 18-1).

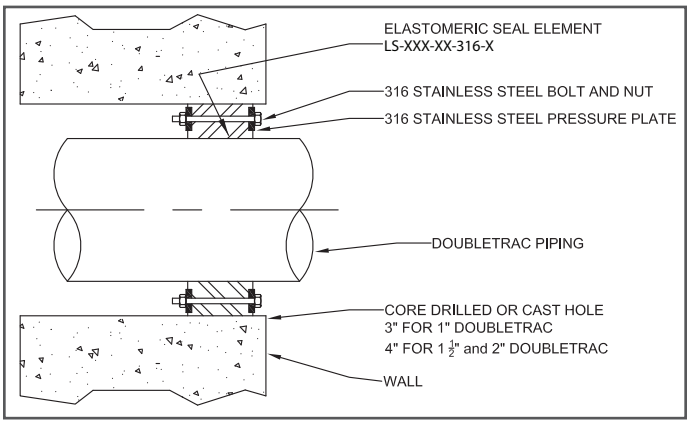


Figure 18-1

Table 7
Recommended Link Seal®

Size	LinkSeal® No.	
1"	LS-275-OS-316-8	Nitrile Seals
1-1/2"	LS-300-OS-316-6	Nitrile Seals
2"	LS-200-OS-316-9	Nitrile Seals
1"	LS-275-LS-316-8	EPDM UV Seals
1-1/2"	LS-300-LS-316-6	EPDM UV Seals
2"	LS-200-LS-316-9	EPDM UV Seals

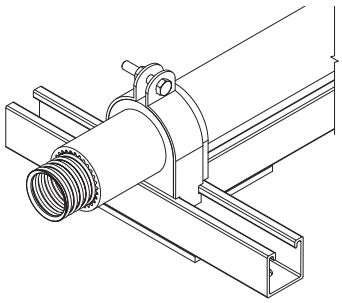
SECTION 19.0 – INDOOR/OUTDOOR PIPE CLAMPING AND INSTALLATION

When installed indoor/outdoor, the DoubleTrac® piping must be adequately protected from puncture, shear, crush or other physical damage threats, including possible damage from:
- vehicular or pedestrian traffic
- corrosion
- twisting, bending, kinking, chafing, and excessive prolonged movement of the piping
- construction and excavation

When installed along the inside/outside of a structure in an exposed condition, the DoubleTrac® piping shall be installed in a location which will not subject the piping to mechanical damage. NOTE: For support and protection, Omega Flex, Inc. recommends that inside/outside runs along the side of a building be clamped securely to the wall or other structural component per Table 8. Typical supports are Unistrut conduit hangers, “U” bolts, PVC pipe couplers, or Hosebuns.

Table 8
Clamp Spacing

Maximum Spacing for DoubleTrac® Clamping System			
Size	Horizontal	Vertical	Part Number
1"	6ft max	All sizes of Doubtrac® piping Clamped every floor not to exceed 15ft	UGF-DTSC-16
1-1/2"	8ft max		UGF-DTSC-24
2"	10ft max		UGF-DTSC-32



NOTE: For floating docks piping must be supported evenly along the entire run with clamp spacing a minimum of every 6 feet.

SECTION 20.0 – MARINA PIPE CLAMPING AND INSTALLATION

Fixed Dock

When installing DoubleTrac® piping on a fixed dock, the piping may be run along the side or underneath it. In either case, the routing must be such that it cannot be damaged, crushed, or kinked during normal use of the dock. The piping must be supported evenly along the entire run; supports are required per Table 8. Typical supports are Unistrut conduit hangers, “U” bolts, PVC pipe couplers, or Hosebuns.

Floating Dock

Floating docks are unique and require Omega Flex, Inc. Engineering to determine if DoubleTrac® piping can be used along the gangway. In many cases DoubleTrac® piping can be used along the gangway because the tidal surge is not significant enough to cause fatigue or premature failures.

When Omega Flex, Inc. Engineering determines DoubleTrac® piping cannot be used along the gangway, the dock to shore connection must be an approved flexible connector.

DoubleTrac® piping can be installed along the length of the floating dock portion. The routing must be such that DoubleTrac® piping cannot be damaged, kinked, or crushed during normal use of the dock. The piping must be supported evenly along the entire run; supports are required a minimum of every 6 feet. Typical supports are dock structure, built-in troughs, Unistrut pipe clamps, "U" bolts, pipe loop hangers, PVC pipe, or Hosebuns.

NOTE: Contact Omega Flex, Inc. Engineering Department for flexible double contained dock connectors at 1-800-355-1039.

⚠ CAUTION

DoubleTrac® field attachable fittings MUST NEVER be submerged under water!

SECTION 21.0—DOUBLETRAC® FUEL SENSOR HOUSING KIT INSTALLATION INSTRUCTIONS

Continuous interstitial monitoring is required for pipe complying with UL/ULC 1369 Fire Test Clause 12.5 exception 2. Prior to Installation of the Continuous Monitoring System, Tightness Testing must be performed per section 10.

UGF-FSH-KIT

(1) Fuel Sensor Housing

(1) Secondary Monitoring Shrader Hose

(Figure 21-1)

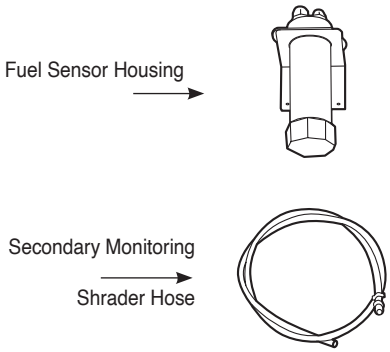


Figure 21-1

NOTE: Any Third Party Single Point Fuel Sensor can be used.

Any Third Party Fuel Sensing Controller can be used.

⚠ WARNINGS

IMPORTANT WARNING NOTES

1. Installation of this equipment and its associated tank, pipe work and fittings must be carried out by a qualified installer.

2. The installation must be carried out in accordance with the requirements of the latest relevant electrical and local authority regulations and standards.

3. DoubeTrac® Fuel Sensor Housing Kit must not be used with any liquids or applications other than those specified. Omega Flex, Inc. will not accept warranty claims or liability if it is used for other liquids or applications.

FUEL SENSOR AND FUEL SENSOR HOUSING INSTALLATION

1. Place Fuel Sensor Housing mounting bracket over housing thread (Figure 21-2).

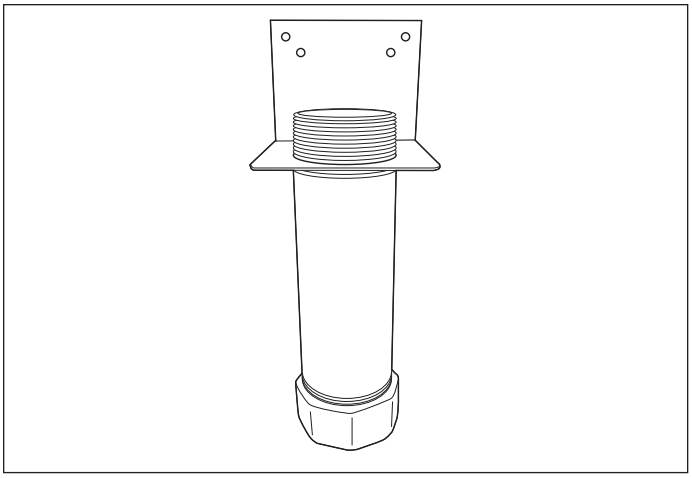


Figure 21-2

2. Feed Fuel Sensor wire through the bulkhead fitting located on the Fuel Sensor housing cap. Install sensor into the housing and ensure sensor is resting on the bottom of the housing (Figure 21-3).

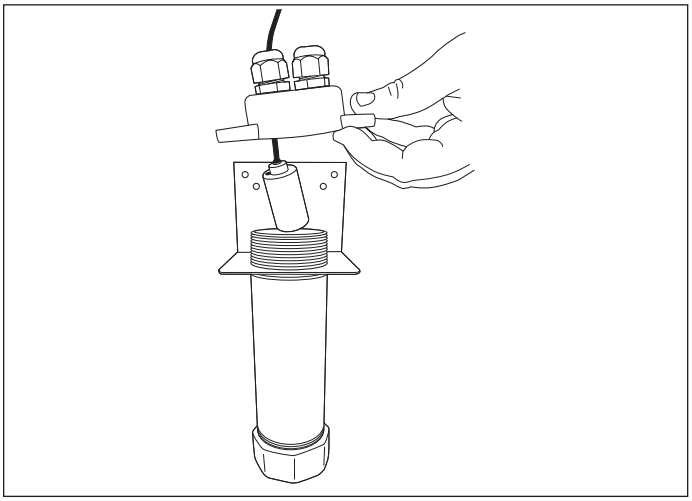


Figure 21-3

3. Using a pipe wrench, tighten the Fuel Sensor Housing cap (Figure 21-4).

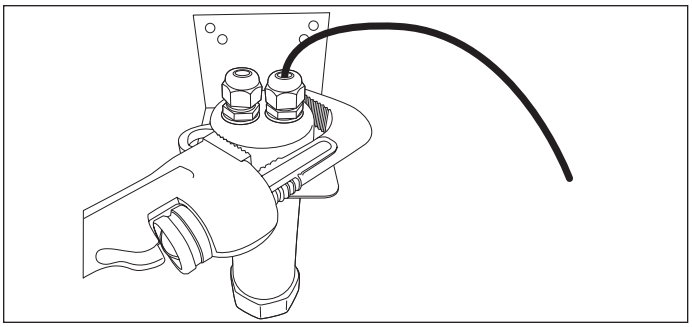


Figure 21-4

4. Mount the assembled Fuel Sensor Housing near the DoubleTrac® end fitting (Figure 21-5).

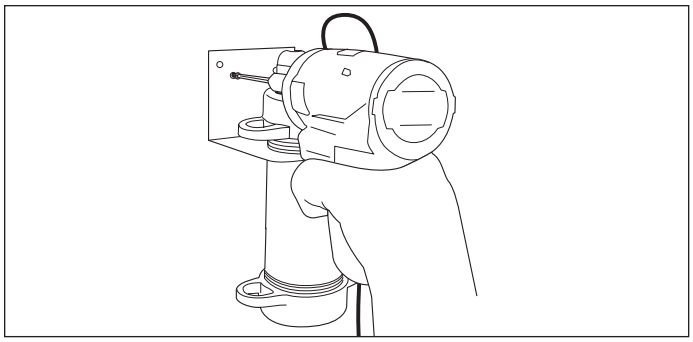


Figure 21-5

5. Install Secondary Monitoring Schrader Hose into the housing cap bulkhead fitting. Tighten both housing cap fittings (Figure 21-6).

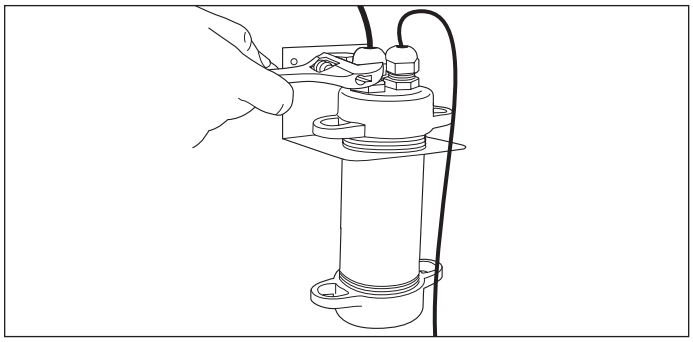


Figure 21-6

6. Install and tighten male Schrader valve adapter into the DoubleTrac® end fitting (Figure 21-7).

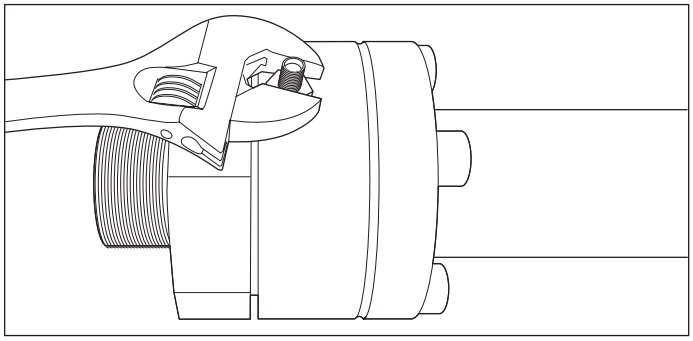


Figure 21-7

7. Attach Fuel Sensor housing hose to the DoubleTrac® end fitting (Figure 21-8).

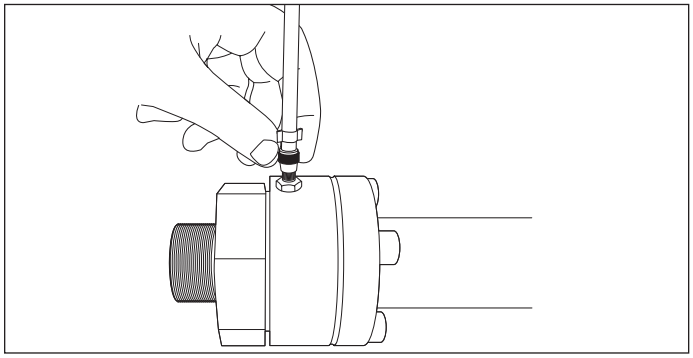


Figure 21-8

8. Repeat the Fuel Sensor and Fuel Sensor Housing Installation procedures if an additional fuel sensor is being installed on the opposite end fitting. If only using one fuel sensor then ensure DoubleTrac® secondary plug on opposite end fitting is installed and tightened (Figure 21-9).

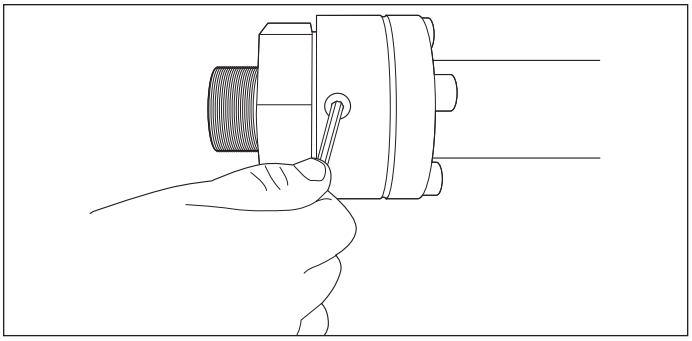


Figure 21-9

SECTION 22.0—RIGID ENTRY FITTING ATTACHMENT INSTALLATION INSTRUCTIONS

Components for the Rigid Entry fitting
Included with fitting

Rigid Entry Fitting P/N/# UGF-EF-(16, 24, or 32)
60 Grit Sandpaper

Required Accessories

Epoxy Applicator Gun P/N# DF-APGUN-50HD
Entry Fitting Cleaner P/N# UGF-EF-CLR
50ML Epoxy Bonder P/N# UGF-EPB-50

Assemble the rigid entry components on the DoubleTrac® Pipe entering the sump in the following order (Figure 22-1).

1. Threaded body
2. Rubber ring
3. Plastic ring
4. Internal compression nut

**Internal locking ring* (only component that does not slide onto pipe)

NOTE: For ease of system installation, DO NOT glue entry fittings to enclosure until the DoubleTrac Piping system has been installed and tightness testing has been completed.

Instructions

1. Find the center of your penetration point and drill your hole using a hole saw (see Table 9 for size).

2. Rough cut DoubleTrac® pipe and prep the end according to section 7.

3. Sand the exterior of the DoubleTrac® piping that will be contained within the entry fitting. Additionally, sand the inside of the DoubleTrac® entry fitting and all the surfaces of the DoubleTrac entry fitting marked with an arrow (Figure 22-1 and Figure 22-2).

4. Use the cleaner to clear debris from all the sanded surfaces and the locking ring/threaded body where it makes contact with the mounting surface.

5. Assemble rigid entry fitting components on DoubleTrac® pipe (see Figure 22-1).

6. Assemble DoubleTrac® fitting according to Section 7. Ensure the internal locking ring is placed on the ancillary equipment (see Figure 22-2) prior to attaching the DoubeTrac fitting to equipment.

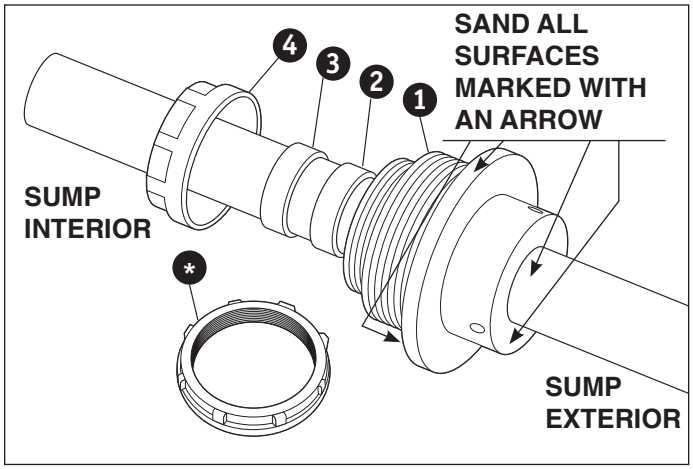


Figure 22-1

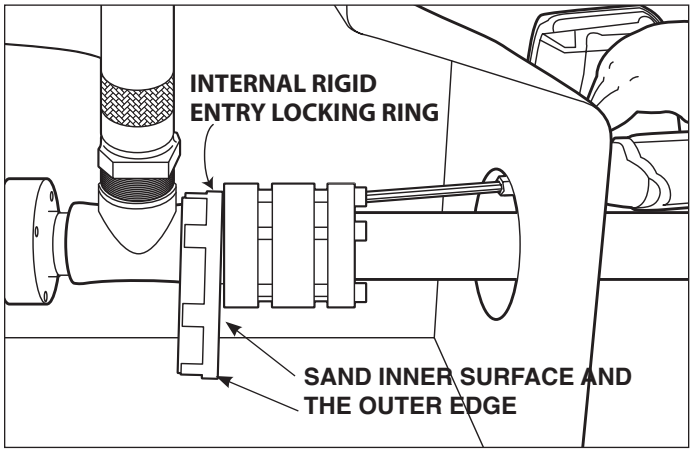


Figure 22-2

Table 9
Hole Saw and Bonder Requirements

Pipe Size	Hole Saw Size	# of Bonders
1"	3-1/2"	(1) UGF-EPB-50
1-1/2"	5"	(2) UGF-EPB-50
2"	5"	(2) UGF-EPB-50

7. Prior to gluing DoubleTrac® entry fitting to sump wall, tightness testing of secondary containment piping must be performed per section 10.

8. Use epoxy bonder cartridge with the applicator gun to cover the serrated surface of the threaded body and internal locking ring and tighten both down to the sump wall (Figure 22-3). For stainless steel sumps there is a Viton gasket to be used in place of the epoxy.

9. Tighten rigid entry compression nut onto the threaded body.

10. Use epoxy bonder cartridge with the applicator gun to fill all three ports on the threaded body until the ports are visibly full (see Figure 22-4).

11. Use any remaining epoxy bonder to “caulk” any seams or contact surfaces.

12. Smooth any extra epoxy bonder to create a continuous seal on all seams and contact surfaces.

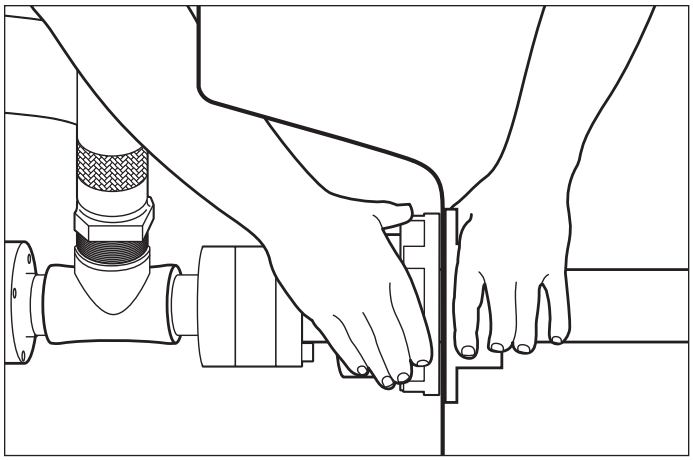


Figure 22-3

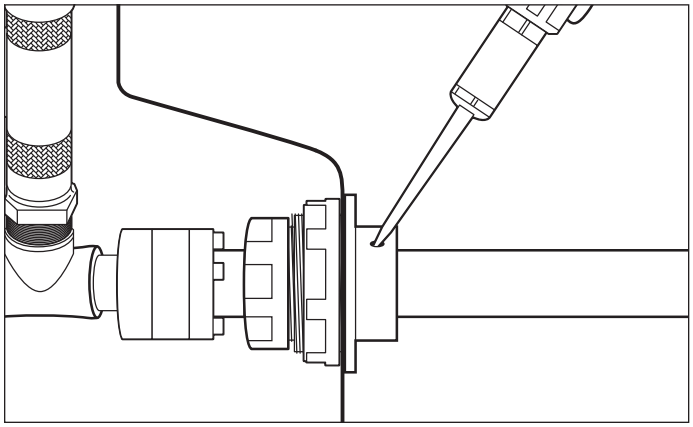


Figure 22-4

SECTION 23.0—DOUBLETRAC® CHASE PIPE ENTRY FITTING INSTALLATION

Tools and Components:

Required accessories not included with Chase Pipe Entry Fitting (Figure 23-1):

1. 6" Hole Saw
2. 5/16" Nut Driver/Drill
3. Part No. UGF-EF-CLR (Chase Pipe Entry Fitting Cleaner)
4. Part No. UGF-APGUN-50HD (50ml Heavy Duty Application Gun)
5. Part No. UGF-EPB-50 (Epoxy Bonder)
6. Sand Paper

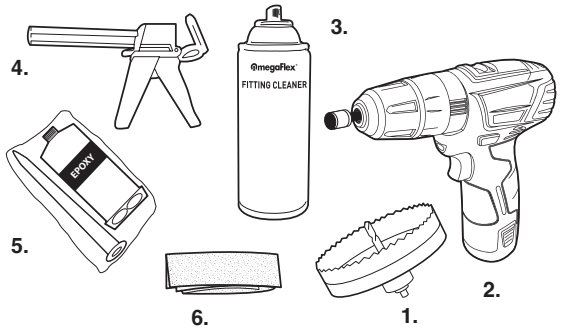


Figure 23-1

Table 10
Chase Pipe Fitting Part Numbers

DoubleTrac® Size	Chase Pipe Entry Fitting P/N#
1"	UGF-OFDT-B6-1.6
1-1/2"	UGF-OFDT-B6-2.4
2"	UGF-OFDT-B6-3.0

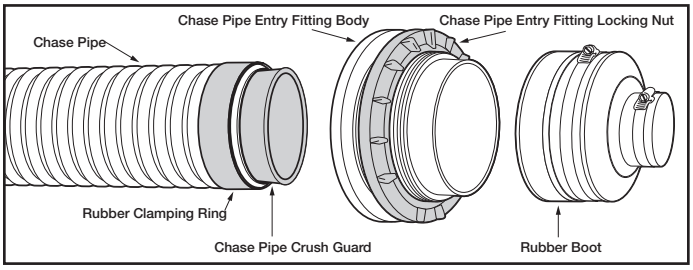


Figure 23-2

1. Drill through sump wall using a 6" hole saw (Figure 23-3).

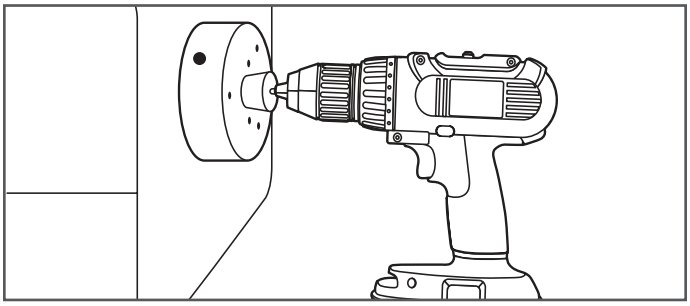


Figure 23-3

2. Sand 1-1/2" around the throughput hole on interior and exterior of sump (Figure 23-4).

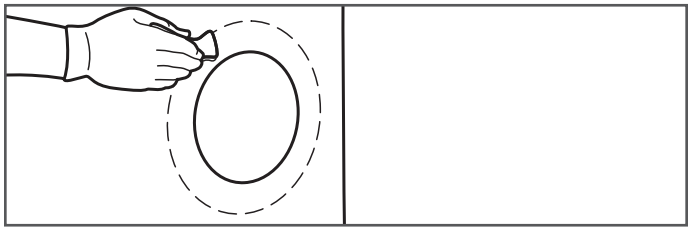


Figure 23-4

3. Clean all surfaces using Part No. UGF-EF-CLR and allow to dry (Figure 23-5).

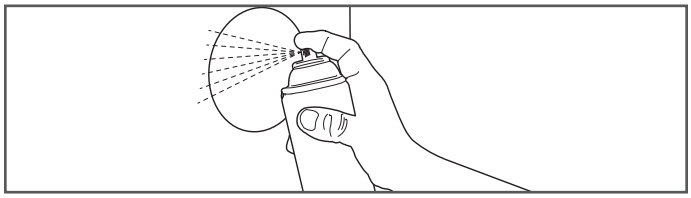


Figure 23-5

4. Apply an ample amount of Part No. UGF-EPB-50 bonder to the ribbed sealing surface of entry fitting. Ensure enough bonder is used for complete coverage (Figure 23-6) .

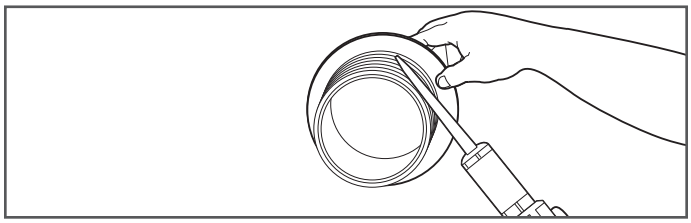


Figure 23-6

5. Install the body of the Chase Pipe Entry Fitting through the sump wall (Figure 23-7).

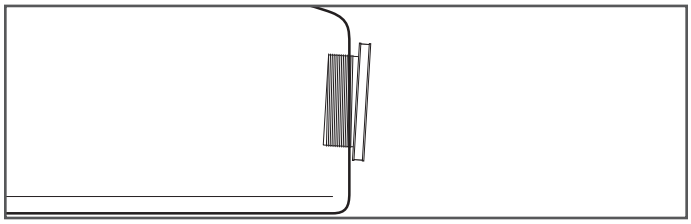


Figure 23-7

6. On the interior of sump thread locking nut onto entry fitting body. Use a pipe wrench to tighten locking nut until snug (Figure 23-8).

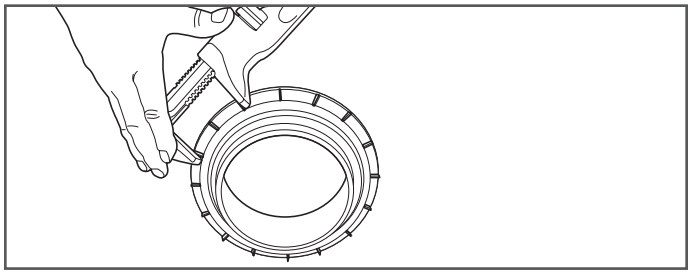


Figure 23-8

⚠ CAUTION

Do not overtighten locking nut.

7. Trim face of chase pipe evenly in the valley of a corrugation. Install rubber clamping ring into the valley after the first corrugation. Slide chase pipe into entry fitting until the face of the rubber clamping ring is flush with the face of the chase pipe entry fitting body (Figure 23-9).

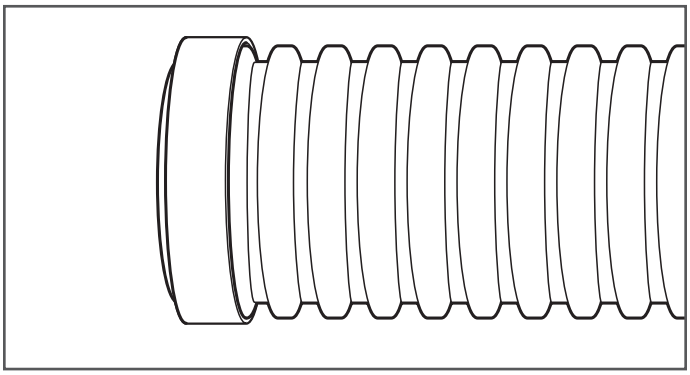


Figure 23-9

8. Insert DoubleTrac® piping through chase piping to the center point of sump. Insert Chase Pipe Crush Guard into the inside of chase piping (Figure 23-10).

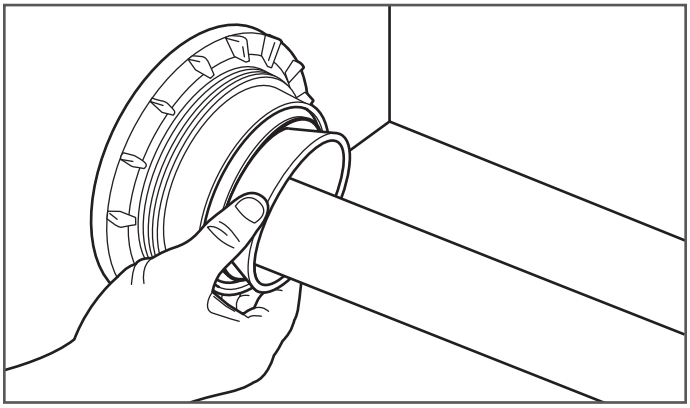


Figure 23-10

9. Ensure Rubber Clamping Ring is aligned under the Rubber Boot band clamp per Assembled Chase Pipe Cross Section View (Figure 23-14). Slide rubber boot over DoubleTrac® piping and ensure the rubber boot bottoms out onto the rubber edge of the entry fitting (Figure 23-11).

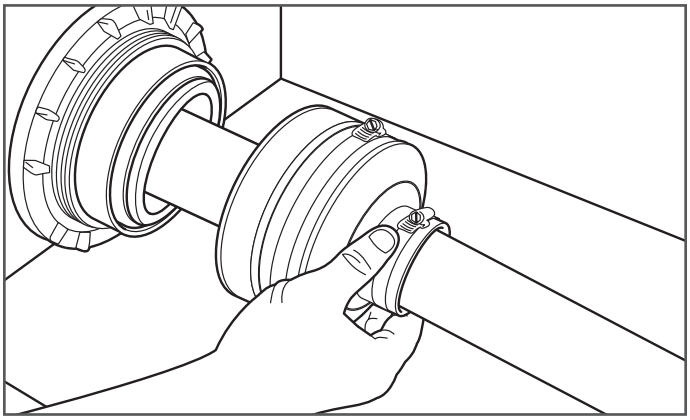


Figure 23-11

10. Use a 5/16" Nut Driver/Drill to tighten the band clamps (Figure 23-12).

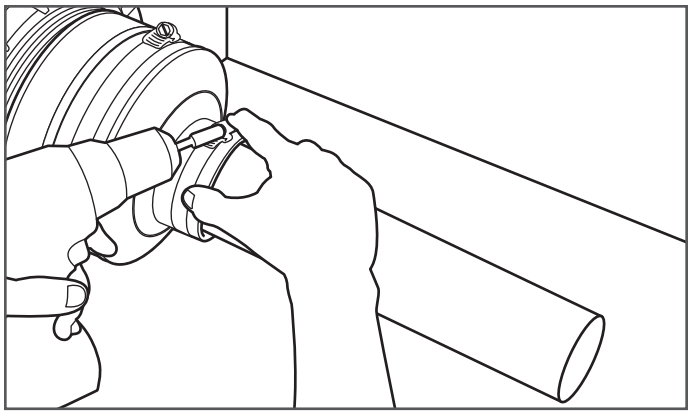


Figure 23-12

⚠ CAUTION

Do not overtighten band clamps.

11. Refer to section 7 for instructions on how to install DoubleTrac field attachable fitting (Figure 23-13).

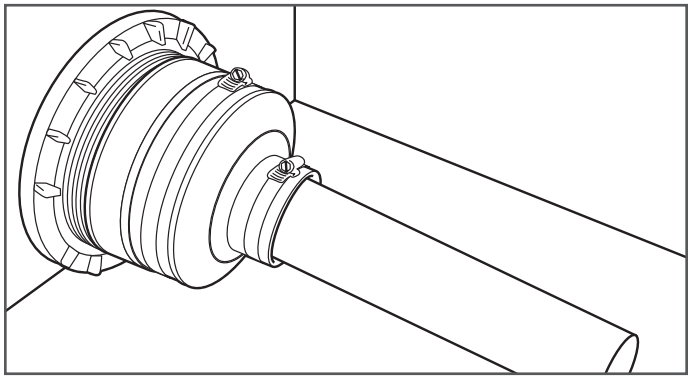


Figure 23-13

Assembled Chase Pipe Cross Section View (Figure 23-14):

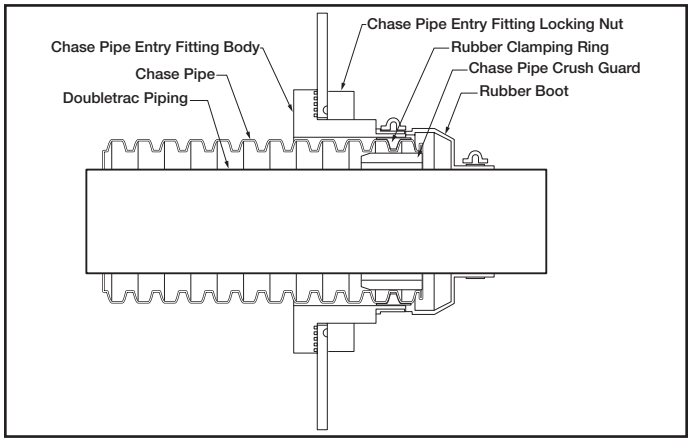


Figure 23-14

SECTION 24.0 – LIMITED WARRANTY INFORMATION

PRODUCT	ABOVEGROUND: LENGTH OF LIMITED WARRANTY	UNDERGROUND: LENGTH OF LIMITED WARRANTY
DoubleTrac® petroleum pipe & fittings	15 years	30 years

LIMITED WARRANTY: ALL SALES ARE SUBJECT TO OUR LIMITED WARRANTY, WHICH IS AVAILABLE AT HTTPS://OMEGAFLEXCORP.COM/LEGAL-INFORMATION AND

Important Information Follow All Instructions

SECTION 25.0 – LIMITED WARRANTY- Installation Form

Warranty Disclaimer: The DoubleTrac® Limited Warranty is only valid if this form is received by the DoubleTrac® Customer Service Team within 30 days after installation is complete.

Contractor	**Installation Site**
Name _____	Name _____
Address _____	Address _____
Email _____	
Phone _____	Installation Date _____
Fax _____	Completion Date _____
Distributor _____	
Installer's State Certification No. _____	Installer's Training Cert No.: _____

Piping

1. What size DoubleTrac® piping was used? *(Circle all that apply)* 1" 1.5" 2"
2. Installation type *(Circle all that apply):* Aboveground (Non-Marina) Aboveground (Marina) Underground
3. Was DoubleTrac® piping system continuously monitored? *(Circle one)* Yes No

Please circle yes or no to the following:

4. Was any other piping used other than DoubleTrac® piping? *(Circle One)* Yes No
   If so, what kind? _____
5. What types of fuels are to be stored? *(Circle all that apply)*
   Gasoline Gasohol Diesel Ethanol Methanol Fuel Oil Bio-diesel Other _____
6. Was the site contaminated before installation? Yes No
   If yes: (a) Was the site fully remediated? Yes No
   (b) Did the site receive clearance from government authorities? Yes No
   (c) What is the name of the environmental contractor? _____
7. Were all piping and fittings inspected for damage before and after installation? Yes No
8. Was the DoubleTrac® Design and Installation Guide followed? Yes No
9. Were all DoubleTrac® Fittings tightened to proper torque specifications? Yes No
10. Was any direct buried pipe crossed over? Yes No If so, were crossover supports used? Yes No
11. Was the DoubleTrac® Interstitial Space pressure tested? Yes No
12. Was the Secondary Jacket left open to atmosphere after testing? Yes No

Pipe Entry Points *(please provide)*

Name of Entry Fitting Manufacturer _____

All Entry Fitting part numbers _____

Dispenser Sumps *(please provide)*

Name of Dispenser Sump Manufacturer _____

All Dispenser Sump part numbers _____

Circle yes or no: Were sumps inspected for damage before and after installation? Yes No

Were the instructions followed? Yes No

Tank Sumps *(please provide)*

Name of Tank Sump Manufacturer _____

All Tank Sump part numbers _____

Contractor Signature _____ Date _____

Omega Flex, Inc. 451Creamery Way • Exton PA 19341 • 800.355.1039 (Fax) 610.524.6484 • www.doubletrac.net

Important Information Follow All Instructions

NOTES:

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DBT-001 REV 09/25