Miscellaneous Service Summary

Customer Name:

Location Name:	Rebel Store #0871
Location ID Number:	0871
Street Address:	2110 Orchard Road
City, St, Zip:	Montgomery, IL, 60538
Date of Service	11/7/2023
Work Order	MW2- 6305915

Basic UST / AST System information

	Tank #6	Tank #	Tank #	Tank #	Tank #	Tank #
AST / UST	UST					
Product Name	E-85					
Tank Nominal Capacity	4021					
Tank material	Fiberglass					

	Tank #	Tank #	Tank #	Tank #	Tank #	Tank #
AST / UST						
Product Name						
Tank Nominal Capacity						
Tank material						

Description of Service(s) Provided: E85 Compatibility Survey completed.

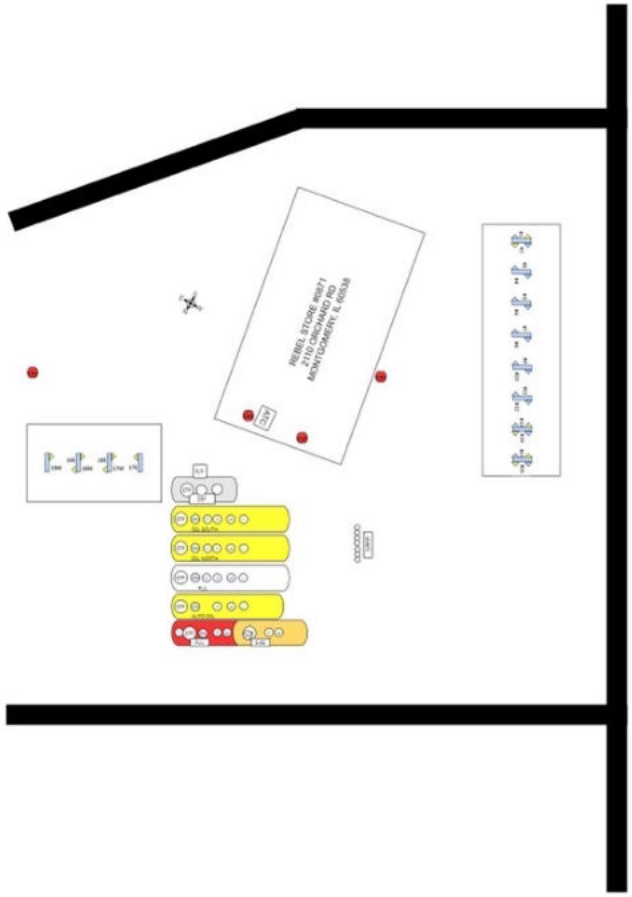
Tanknology Representative: Fernando Rivera

Environmental Compliance for Petroleum Systems

Site Diagram

(This site diagram is for reference only and is not drawn to scale)

Work Order: 6305915
Site ID / Name: 0871 / Rebel Store #0871
Address: 2110 Orchard Road
City: Montgomery State: IL Zip: 60538



E85 Compatibility Checklist

Rebel 0871 Montgomery IL

Make	Tank/Piping	Model	E85 Letter
Tank	Xerxes	DW FRP	X
Piping	Frankling Fueling	UPP Piping	X
Pipe Dope	Green Pipe Dope		
Tank Top Components			
Vent Cap	OPW	623V-2203	X
Fill Cap	OPW	634LPC	X
Fill Adapter	OPW	61SALP	X
Vapor Cap	OPW	1711LPC	X
Vapor Adapter	OPW	61VSA-1020	X
ATG Cap	Veeder-Root	312020-952	x
ATG Probe	Veeder-Root	846391-407	x
ATG Product Float	Veeder-Root	Unknown	
ATG Water Float	N/A	N/A	
Fill Spill Bucket	OPW	1C 2100 Series	X
Interstitial Sensor	Veeder-Root	794390-407	
STP Sump Sensor	Veeder-Root	794380-323	x
Drop Tube	OPW	71SOM-412C (Tube seized, model per State website)	x
Product Line Wall Boots	Franklin UPP	Unknown	x
Conduit Wall Boots	Bravo	Appear to be Bravo	x
STP Sump	Containment Solutions	Unknown - FRP	x
Valves in STP Sump	OPW	21BV Stainless	
STP Flex Connector	Fireflex	Flex-ing Fireflex	x
STP Turbine	FE Petro	STPAGR75-VL2-12	x
Line Leak Detector	Veeder-Root	PLLD Series 8590	x
External Overfill Alarm	N/A		
Suction System	N/A		
Dispenser Components			
Dispenser	Gilbarco VR	Encore (Site Did not have Key for Upper Door)	
Impact Valve	OPW	10 Series Plus	x
Product Line Wall Boots (All Products	Franklin UPP	Unknown	x
Conduit Wall Boots	N/A		
Flex Connector (All Products)	Fireflex	Flex-ing Fireflex	x
UDC	Frankling Fueling System	78A0	
UDC Sensor	Veeder-Root	794380-323	x
Fueling Position _13_ Nozzle	OPW	11BP E85	x
Fueling Position _13_ Swivel	OPW	241TPS-0492	x
Fueling Position _13_ Hose	Continental	E85 559N (Futura Ethan-All)	x
Fueling Position _13_ Breakaway	OPW	66V-0492	x
Fueling Position _13_ Whip Hose	Futura	Ethan-All	x
Fueling Position _14_ Nozzle	OPW	11BP E85	x

Fueling Position _14_ Swivel	OPW	241TPS	x
Fueling Position _14_ Hose	Continental	E85 559N (Futura Ethan-All)	x
Fueling Position _14_ Breakaway	OPW (Catlow)	CTM75-E85	x
Fueling Position _14_ Whip Hose	Futura	Ethan-All	x
Product Line Filter	CimTek	400HA-05 Part# 70991	x

W.O.# MW2-6305915 Cust Ref#: 260275191

Dispenser

W.O.# MW2-6305915 Cust Ref#: 260275191

Nozzle

W.O.# MW2-6305915 Cust Ref#: 260275191

Hose

W.O.# MW2-6305915 Cust Ref#: 260275191

Swivel

Breakaway

W.O.# MW2-6305915 Cust Ref#: 260275191

Dispenser

W.O.# MW2-6305915 Cust Ref#: 260275191

Nozzle

W.O.# MW2-6305915 Cust Ref#: 260275191

Swivel

W.O.# MW2-6305915 Cust Ref#: 260275191

Hose

W.O.# MW2-6305915 Cust Ref#: 260275191

Brakeaway

Impacts

Containment

UDC sensor

Pipe

Sensor

W.O.# MW2-6305915 Cust Ref#: 260275191

Ball valve

Flex connector

Electrical boots

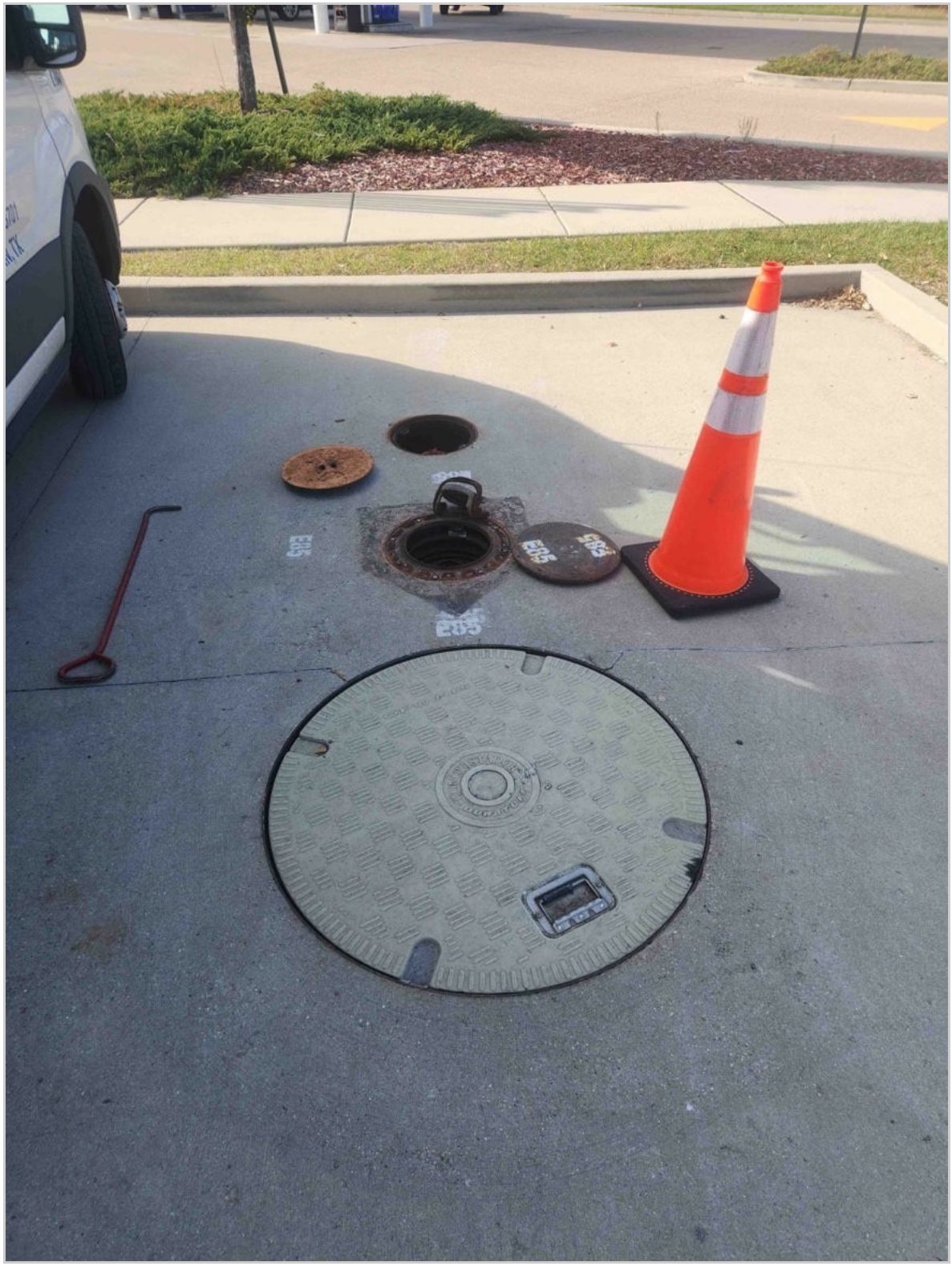

ER-ROOT
D SENSOR
FE CIRCUIT FOR
ARDOUS LOCATIONS
TEMP
CODE
T4
SERIES 8590
S/N
SEE INSTALLATION
MANUAL
577913-933

PLLD

W.O.# MW2-6305915 Cust Ref#: 260275191

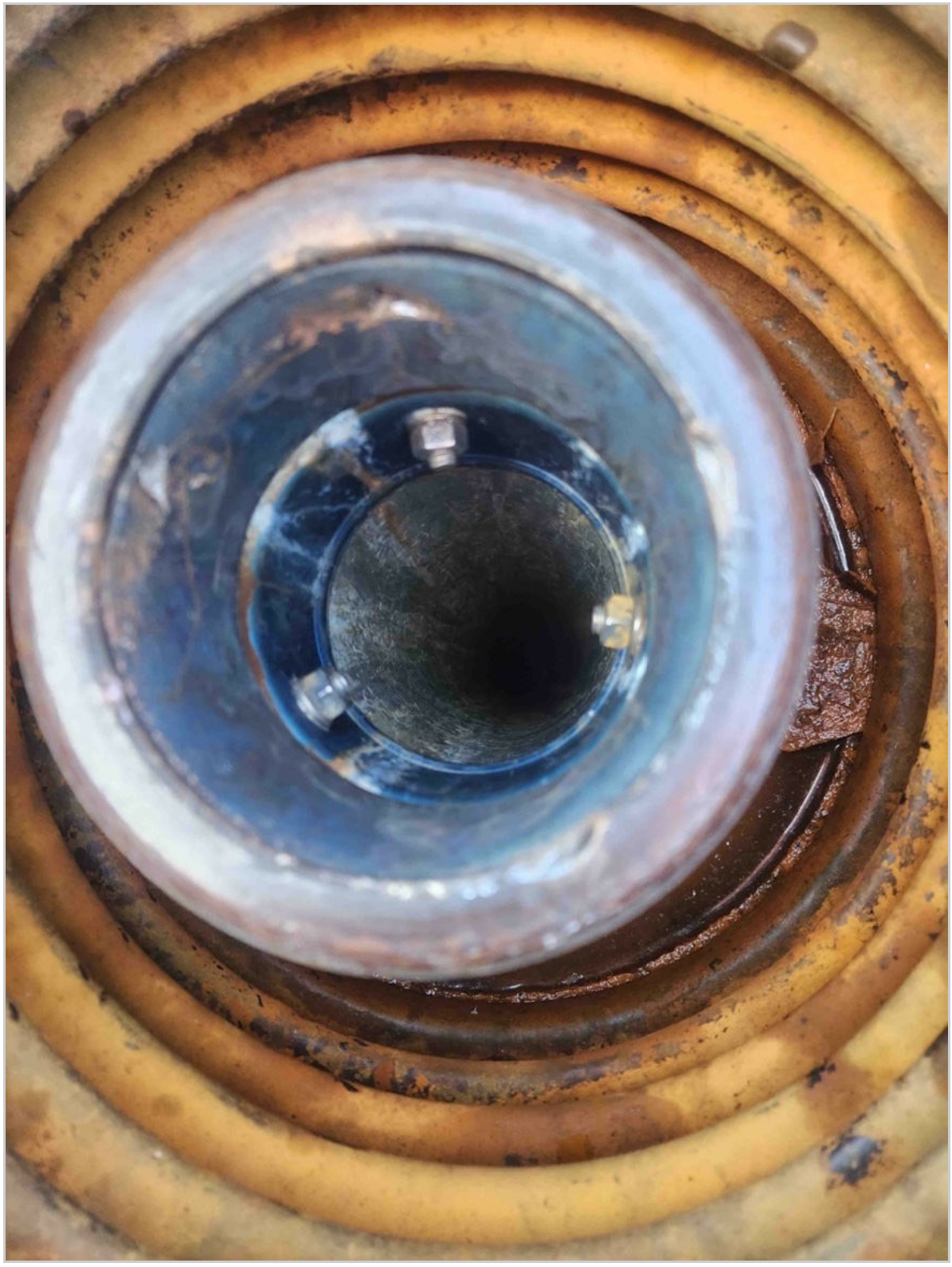
Stp plate

Stp overall



Tank top

Spill bucket components



Drop tube

W.O.# MW2-6305915 Cust Ref#: 260275191

Vapor recovery

Vent cap

Interstitial

W.O.# MW2-6305915 Cust Ref#: 260275191

Probe

Probe

Probe

W.O.# MW2-6305915 Cust Ref#: 260275191

Tanknology Inc.
11000 N. MoPac Expressway, Suite 500 Austin, TX 78759 (800) 964-0010

JOB CLEARANCE FORM & SITE SAFETY CHECKLIST – OVF

Policy 100-29-A
Rev: H
Revised: 6/25/2022

Site Name/#:	Street Address:	W.O.#
Arabi Oil Corp Mobil #0871	2110 Orchard Rd Montgomery IL 60538	6305915
Arrival Time: 0900	**Departure Time:** 1120	**Travel Time:**	**Others on site:**	**Date** 11/7/23

Scope of Work and Tasks Performed (JSA's must be available for all tasks):
E-85 compatibility Survey

Repairs to Equipment or Parts Provided:

Follow-up actions required; equipment isolated; comments:

PPE - PERSONAL PROTECTIVE EQUIPMENT REQUIRED (Check ✓ items used or mark ~ if not applicable)

✓ Safety Vest/Shirt (all jobs)	✓ Gloves (all jobs)	~ Splash Goggles (if needed)	☐ Hearing Protection (if needed)
☐ Safety Toe Boots (all jobs)	✓ Safety Glasses (all jobs)	☐ Hard Hat (if needed)	☐ Other

✓ PRE-TEST PROCEDURES (Check ✓ each item completed or mark ~ if not applicable)

1. ✓ Discuss safety procedures with site personnel. Nearest hospital: _____
2. ✓ Get ATG printout & check fuel/water levels. Prior to fuel delivery the system must be placed back into working order.
3. ✓ Barricade work area (cones, flags, bars/tape) and place Fire Extinguishers & "No Smoking" Signs at perimeter.
4. ✓ Confined Space Entry – If required complete separate CSE Checklist. If NO CSE check the following reason:
   ☐ No CS's ☐ CS's not opened ☐ No entry only visual ☐ No entry - used tools ✓ Work from prone position w/o risk of falling in
5. ✓ Implement Lockout/Tagout per API 1646 (when accessing product piping during tasks)
   - ☐ Secure nozzles with "Out of Service" bags and nylon ties.
   - ~ Secure the circuit breaker(s) with lockout devices and tags.
   - ☐ Close ball valves or check valves on product piping.
   - ☐ Disconnect electrical "bayonet" connector from the STP(s).
   - ☐ All applicable equipment disabled during test(s).
   - ✓ **Verify LOTO is complete by trying to operate pumps.**

SIGN IN	Lead Technician Name	Lead Technician Signature
General Safety Checks: All site personnel have been informed. Is a fuel delivery due today? _____ LOTO procedures have been discussed. Work areas barricaded to protect workers, staff & public.	Fernando Ruiz	
	Site Representative Name	Site Representative Signature

✓ POST-TEST PROCEDURES (Check ✓ each item completed or mark ~ if not applicable)

1. ☐ Remove all "Lockout/Tagout" devices and nozzle bags/ties.
2. ☐ Run all pumps and verify there are no leaks:
   - ☐ Leak Detector & Vent Tubes
   - ☐ Impact Valve Test Ports under dispensers
   - ☐ STP Functional Elements & Relief Screws
3. ☐ Get ATG printout. Confirm water levels same as start or explain difference: _____
4. ☐ Check following components operational:
   - ✓ ATG probes, sensors, & caps
   - ☐ Ball floats, dry breaks & caps
   - ☐ Containment sumps are dry
   - ✓ Manhole covers and sump lids
   - ☐ Spill containers & drain valves
   - ✓ Drop tubes, flapper valves, fill adapters & caps
   - ☐ Shear valves are open
   - ☐ Dispensers & POS operational
   - ✓ Dispenser panels are replaced
   - ☐ Vents & Extractors (not capped, plugged or isolated)
   - ☐ Cathodic protection operational
   - ☐ Siphon lines and manifold valves open
5. ✓ Remove barricades.

SIGN OUT & Operator Verification of Work (OVF)	Lead Technician Name	Lead Technician Signature
General Safety Checks: Work area has been left clean & safe. Site staff aware of work status including any remaining isolation. Changes to equipment are documented and communicated. All incidents, near incidents, and unsafe situations reported.	Fernando Ruiz	
	Site Representative Name	Site Representative Signature
Site Representative Comments:	Daniel P	

Ovf

UPP™ Semi-Rigid Pipework System

Since being introduced as the world's first electrofusion pipework system for fuel applications over thirty years ago, UPP™ brand semi-rigid pipework has become known globally as the standard for watertight electrofusion welded pipework systems. UPP™ brand pipework utilizes the advanced electrofusion welding process to effectively bond system components including pipework and containment together into one, water tight system.

Hand-Held Electrofusion Welder Unit

Electrofusion Entry Boot

Fittings & Adapters

Highlights

- The highly efficient electrofusion welding process that connects pipe, fittings, boots and containment to create a seamless direct burial pipework system.
- The UPP™ electrofusion welding process is safe and simple to complete in any climate and virtually any weather condition. An installer simply preps the components, fits them together attaching welder leads to the fitting, and then presses a single button on the welding unit to initiate the process.
- The welder unit itself calculates the exact settings required to complete the weld, regardless of the pipework diameter or temperature, leaving no settings for the installer to input.
- UPP™ double wall semi-rigid pipe is flexible enough to coil and bend like flexible pipe, while UPP™ single wall pipe is also rigid enough to be used in place of fiberglass pipe for vapor or vent lines.
- Available in both coils and straight sticks, UPP™ pipe can accommodate the sweeping bends of a "loop" pipework system while the straight sticks make installation between dispenser sumps simple by providing a square pipe entry into containment.
- The flexibility of UPP™ double wall semi-rigid pipe allows for easy installation through existing ducting.
- As a vital component to the UPP™ pipework system, patented UPP™ electrofusion entry boots weld directly to the wall of any polyethylene sump creating a watertight seal between the pipework system and containment spaces.

Specifications

- Pipe outer layer: High Density Polyethylene (HDPE) grade PE100
- Pipe liner layer: Ethylene vinyl alcohol (EVOH) resin liner
- Pipe intermediate layer: Tie-layer which permanently bonds HDPE outer layer to EVOH resin liner layer
- Temperature rating: -22 °F to 122 °F
- Primary pipe pressure rating: 90 Psi
- Secondary pipe pressure rating: 58 Psi
- 1½" and 2" double wall pipe bend radius: 3'3"
- 3" and 4" double wall pipe bend radius: 13'2"
- 2" single wall vent/vapor pipe bend radius: 3'3"
- 3" single wall vent/vapor pipe bend radius: 9'10"

Approvals

- UL-971 approved for fuels including:
  - Motor vehicle fuels typically found in consumer dispensing facilities like gasoline or diesel including blended fuels with maximum 15% MTBE, 15% Methanol or 30% Ethanol.
  - Concentrated fuels such as alternate un-blended fuels containing up to 100% concentrations of Toluene, Methanol or Ethanol.
  - High blend fuels with higher than normal gasoline blends with maximum 50% Methanol or 50% Ethanol.
  - Aviation and marine specialty fuels containing up to 100% kerosene or leaded gasoline.
- Michigan, Wisconsin, and Florida EQ-816.

S. Bravo Systems, Inc.
2929 Vail Avenue
Commerce, CA 90040
1-800-AT-BRAVO
www.sbravo.com

Tuesday - August 30 - 2011 R3 10.21.13

RE: Bravo Fiberglass Entry Fittings and Alternative fuels

This letter is to certify the compatibility of Bravo (S. Bravo Systems, Inc.) Single and Double Wall Fiberglass Sump Entry Fittings with Alternative Fuels such as Biodiesel and Ethanol blended fuels. It also addresses compatibility with DEF Diesel Exhaust Fluid.

Bravo Fiberglass Fittings are engineered with the same UL Listed materials used in the manufacture and certification of Fiberglass Tanks, matching the UL Standard 1316. Since our Fiberglass Fittings are Built like a Tank, they can withstand continuous fuel exposure to, or submersion in Biodiesel, Ethanol and Alcohol blends without failure.

All Fiberglass Fittings designed for DoubleWall Sumps are engineered to be fully compliant with the California State Water Resource Control Board Assembly Bill AB-2481 for DoubleWall Sumps and Continuous Monitoring Systems.

The following Single and Double Wall Fiberglass Fittings manufactured by Bravo in Commerce, California are compatible with Biodiesel and Ethanol fuel blends up to B100 and E100, respectively.

> **F-Series** “Full Body” Fiberglass Fittings.
> **FF-Series** “Flange” Fiberglass Fittings.
> **FPE-Series** Fiberglass Fittings for Flexible pipe.
> **FLX-Series** Fiberglass Split Retrofit Fittings for Flexible pipe.
> **FR-Series** Fiberglass Split Test Reducers.
> **F-Series Retrofit-S** & **SD-AB** Fiberglass Split Retrofit Fittings.
> **F-Series D-BLR-S** & **D-INR-S** Fiberglass Split Retrofit Fittings.
> **TBF-Series** Fiberglass Tank Bung Fittings.

Bravo also certifies that these products are compatible with and approved for use in secondarily containing DEF Diesel Exhaust Fluid.

Each respective Series may be UL Listed in addition to being manufactured of UL recognized materials approved for use in the manufacture of Fiberglass UST tanks. Any other relevant documentation will be located in the documents area of each product‘s respective webpage.

Please feel free to contact us with any questions you may have at 800-AT-BRAVO.

Additionally, you may find further information at www.sbravo.com.

Sincerely,

Jonathan E. Smith
Director of Brand Management
S. Bravo Systems, Inc.

XERXES®
a ZCL company

September 29, 2011

To Whom It May Concern:

The following summarizes the suitability of Xerxes' UL listed underground storage tanks for the storage of ethanol-blended fuels and biodiesel fuels:

Single-Wall Tanks

- Tanks manufactured prior to February 1981 were not designed for the storage of ethanol-blended fuel. Tanks are compatible with all ASTM biodiesel blends.

- Tanks manufactured from February 1981 through June 2005 are designed for the storage of ethanol fuel up to a 10% blend (E10), as well as all ASTM biodiesel blends.

- Tanks manufactured from July 2005 to date are designed for the storage of ethanol fuel blends up to 100% (E100), as well as all ASTM biodiesel blends.

Double-Wall Tanks

- Tanks manufactured prior to April 1990 were designed for the storage of ethanol fuel up to a 10% blend (E10), as well as all ASTM biodiesel blends.

- Tanks manufactured from April 1990 to date are designed for the storage of ethanol fuel blends up to 100% (E100), as well as all ASTM biodiesel blends.

Additionally, all storage tanks designed for storage of ethanol-blended fuel up to 100%, as noted above, are also UL listed under UL's Standard 1316 for the storage of ethanol fuel blends up to 100% (E100).

This summary is intended to address standard production tanks. Different tank models with an appropriate UL listing and designed for higher levels of ethanol storage were available throughout this period of time. Ethanol blend compatibility for such tanks is based on the design specifics of each tank.

Further information regarding product compatibility can be found in the applicable Xerxes limited warranty.

Sincerely,

Thomas Tietjen
Vice President
Sales & Marketing

OPW FCS Product Compatibility Matrix 2018

OPW FCS Products	Description	Standard Fuels: ≤15% Ethanol Gasoline ≤5% Bio-Diesel*	High Ethanol Content Gasoline: 15-100% Ethanol	High Biodiesel Content 5-20% Biodiesel*	High Biodiesel Content 5-100% Biodiesel*	Av-Gas / Jet Fuel	Kerosene / Fuel Oil	DEF (Diesel Exhaust Fluid)
CXXA Double Wall Piping	Double Wall Primary Piping	X	X	X	X	X	X	X
DPC Series	Double Wall Pipe Couplings	X	X	X	X	X	X	
SPC Series	Single Wall Pipe Coupling	X	X	X	X	X	X	
SBC Series	Stainless Steel Swivel Bolt On Coupling	X	X	X	X	X	X	X
SMA-1515, SMA-1520, SMA-2020, SMA-3030	E-Coated Male Adaptors	X	X	X	X	X	X	
SMA-7575, SMA-1010	Swivel Male Adaptor (Brass or Zinc Plated)	X					X	
STF-1515, STF-2020, STF-2215, STF-2020	E-Coated Swivel Tees	X	X	X	X	X	X	
SFA-7575, SFA-1010	Swivel Female Adaptor (Brass or Zinc Plated)	X					X	
SEF-1515, SRE-2015, SEF-2020, SEF-3030	E-Coated Swivel Elbows	X	X	X	X	X	X	
Polyethylene and Fiberglass Sumps	Dispenser, Tank, Loop, and Transition Sumps	X	X	X	X	X	X	X
REF Series Entry Fittings	Entry Fittings	X	X	X	X	X	X	X
DEB and EBF Series	Entry Boots	X	X	X		X	X	X
1-2100 Series / Multiports / 1-2200 Series	Spill Containers	X	X	X	X	X	X	***
FibreTite Multiports	Spill Containers	X	X	X	X	X	X	***
101BG-Series	Spill Containers	X	X	X	X	X	X	***
1-3100 Series (Edge)	Double Wall & Single Wall Spill Container Series	X	X	X	X	X	X	***
60V Series	Vapor Line Shear Valve	X	X	X	X	X	X	
10 Series	Emergency Shut Off Valve	X	X	X	X	X	X	
10 Plus Series	Emergency Shut Off Valve	X	X	X	X	X	X	
60V-DEF	DEF Series Shear Valve							X
61SALP Series	Fill Swivel Adaptor	X	X	X	X	X	X	
633T-8076	Fill Adaptor	X	X	X	X	X	X	
61VSA Series	Vapor Swivel Adaptor	X	X	X	X	X	X	
1611AVB-1625	Vapor Adaptor	X	X	X	X	X	X	
634TT-7085-EVR	Fill Cap	X	X	X	X	X	X	
1711T-7085-EVR	Vapor Cap	X	X	X	X	X	X	
634LPC-040	Low Profile Fill Cap	X	X	X	X	X	X	
1711LPC-0300	Low Profile Vapor Cap	X	X	X	X	X	X	
62M Series	Monitoring Probe Cap	X	X	X	X	X	X	X
61SO & 71SO Series	Overfill Valve	X				X	X	
61SOM & 71SOM Series	Overfill Valve Anodized	X	X			X	X	
71SO-B Series	High BioDiesel Overfill Valve	X	X	X	X	X	X	
6111 & 61TP Series	Tank Bottom Protectors	X				X	X	
61T Series	Drop Tubes	X				X	X	
61T-SS Series	Stainless Steel Drop Tube	X	X	X	X	X	X	
61T-DEF Series	Stainless Steel DEF Drop Tube							X
233 Series	Extractor Valve	X	X	X	X	X	X	X
FCXX Series	Stainless Flex Connectors	X	X	X	X	X	X	X
53VML/30MV Series	Ball Floats	X	X	X	X	X	X	
523V Series	Pressure Vacuum Vent	X	X	X	X	X	X	X
623V Series	Pressure Vacuum Vent	X	X	X	X	X	X	X
723V Series	EVR Pressure Vacuum Vent	X	X	X	X	X	X	X

* **Bio-Diesel must meet ASTM Standard for fuel quality to maintain compatibility with products above**

*** **Drain plug versions compatible with DEF if installed with Stainless Steel Drop Tube between Nipple and Fill Adapter**

≤ **Refers to less than or equal to the fuel standard rating for percentage of content**

OPW 1-2100 Series Thread-On Spill Containers

OPW Spill Containment Manholes are designed to prevent spilled product from entering the soil near the fill and vapor return riser connections on underground storage tanks during normal tank filling operation, or in the event of tank overfill. The spill containers catch spillage to help prevent soil contamination and groundwater pollution.
OPW Thread-On Spill Containment Manholes are generally used on new tank or riser pipe installations.

Materials

Cover: Cast aluminum or cast iron
Mounting Ring: Cast iron E-coating
Bellows: Polyethylene
Base: Cast iron E-coating or Duratuff II
Clamps: Stainless steel
Seals: Nitrile

1-2115, 15-Gallon

Features

- **Easy Installation –** reduces job-site time and installation costs. OPW Thread-On Spill Containers screw directly onto 4" NPT riser. No external connections to make; adjust the final grade height and support the unit with backfill.
- **Integral Pull-to-Open Drain Valve –** allows high-speed drainage of excess product into the tank. Designed with a convenient self-cleaning seal and removable screen for easier component cleaning.
- **Capacity –** available in a true 5-gallon capacity as well as 15-gallon capacity.
- **Rain-Shedding Cover –** available in either cast aluminum or cast iron, this unique design incorporates a seal in the underside of the cover. The seal seats between two dams on the mounting ring to prevent surface water from entering the spill container.
- **Fuel Compatibility –** designed to accommodate the fuels of the future, including methanol, ethanol and fuels with MTBE additives.
- **Product Identification Tags –** available for both the cover and bucket to positively identify the product contained in the UST with standard API symbols. (See product I.D. tag specification page for more information: page 82.)
- **Heavy-Duty Mounting Ring –** the angled ramp design offers superior protection against snow plow and traffic damage, and provides for secure concrete anchoring.
- **Corrugated Bellows –** can be adjusted +/- 1 inch for desired grade level.
- **Duratuff® II or Cast Iron Base –** composite Duratuff® II material is lightweight, durable, and conductive. A rugged, optional, cast-iron base is also available.
- **Highway 20 Rated (H20) –** all OPW spill containers and manholes exceed the requirements of the Highway 20 rating.

Listings and Certifications

Look for this label for authentic OPW EVR Approved products.

9393 Princeton-Glendale Road ◆ Hamilton, Ohio USA 45011 ◆ Phone: (800) 422-2525 ◆ Fax: (800) 421-3297

DEVR Models – Fill Port with Drain Valve

Duratuff® II Base with Drain Valve Models

Model #	Gal.	Liter	Cover	lbs.	kg
1-2100-DEVR	5	19	Aluminum	40	18
1C-2100-DEVR	5	19	Cast Iron	53	24
1-2115-DEVR	15	57	Aluminum	47	21
1C-2115-DEVR	15	57	Cast Iron	60	27

Cast Iron Base with Drain Valve Models

Model #	Gal.	Liter	Cover	lbs.	kg
1-2100C-DEVR	5	19	Aluminum	40	18
1C-2100C-DEVR	5	19	Cast Iron	53	24
1-2115C-DEVR	15	57	Aluminum	47	21
1C-2115C-DEVR	15	57	Cast Iron	60	27

PEVR Models – Vapor Port with Plug

Duratuff® II Base with Plug Models

Model #	Gal.	Liter	Cover	lbs.	kg
1-2100-PEVR	5	19	Aluminum	40	18
1C-2100-PEVR	5	19	Cast Iron	53	24

Cast Iron Base with Plug Models

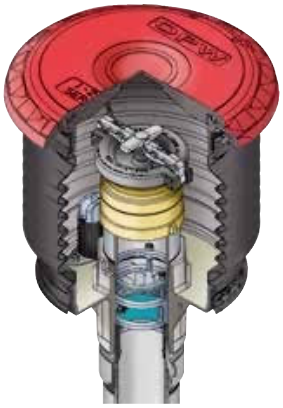
Model #	Gal.	Liter	Cover	lbs.	kg
1-2100C-PEVR	5	19	Aluminum	40	18
1C-2100C-PEVR	5	19	Cast Iron	53	24

4" Threaded Nipples for Mating Spill Bucket to Adaptor

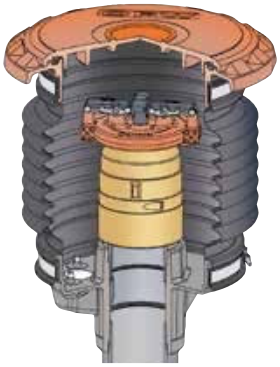
Part #	Description
TC-400	4" Torque Cap
H15144M	4" NPT Nipple, 4" Length
H12806M	4" NPT Nipple, 5" Length
VPN4X7	4" NPT Nipple, 7" Length
H15271M	4" NPT Nipple, 8" Length
H15268M	4" NPT Nipple, 10" Length

Replacement Parts

Part #	Description
1DK-2100-EVR	Drain Valve Kit
1-21AC	Aluminum Cover w/ Seal
1-21CC	Cast Iron Cover w/ Seal
H12229M	Cover Seal
1PPK-2100	Hand Pump & Plug Kit for 1-2100
1DP-2100	Replacement Drain Plug Kit for 1-2100

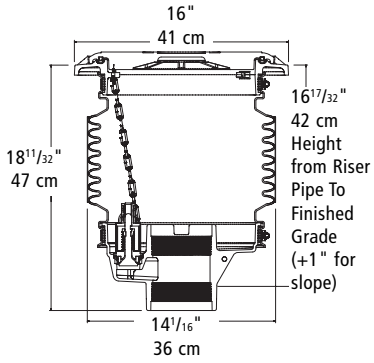


1-2100-DEVR Series
Product Fill Spill Container

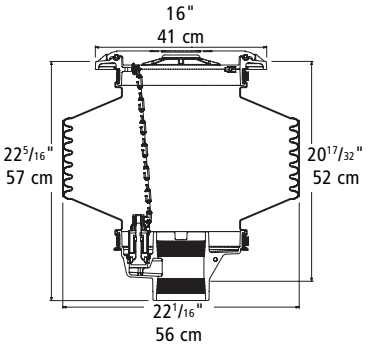


1-2100-PEVR Series
Vapor Recovery Spill Container

OPW 1-2100, 5-Gallon

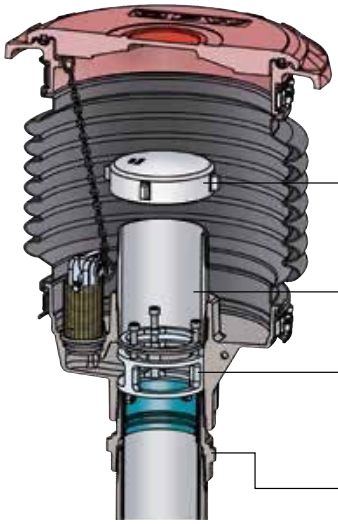


OPW 1-2115, 15-Gallon



*Subtract 2" from height dimension for Cast Iron Base Models.

NOTE: 20 17/32" dimension is height from riser pipe to finish grade (+1" for slope)



TC-400 Torque Cap

Provides an easy means of threading a 4" NPT nipple into a spill container. The OPW TC-400 coupled with the OPW 61SA-TOOL can provide the necessary torque requirements for installing adaptor nipples for spill containers. The TC-400 can easily be removed without disturbing the installed threaded nipple. The TC-400 also eliminates the need for a strap or chain wrench.

4" Threaded Pipe Nipple

OPW pipe nipples are CNC machined, providing a smooth sealing surface where a gasket seal exists. Available in various lengths to custom fit the necessary height requirements for Fill and Vapor Adaptors.

61JSK Jack Screw Device

See page 65 for detailed information.

FSA-400 Face Seal Adaptor

See page 65 for detailed information.

The following products are in compliance with California Water Resources Control Board (W.R.C.B.) for coating of buried metal components, such as stainless steel clamps or entire Spill Containment Bucket bottoms.

Part #	Description
SL-1100	Urethane Sealant (10.3 oz.)
W.R.C.B. approved CCR Title 23, Div. 16, Sec. 1631 & 2636	

OPW 71SO Overfill Prevention Valves

The CARB-certified OPW 71SO vapor-tight Overfill Prevention Valve is designed to prevent the overfill of underground storage tanks by providing a positive shut-off of product delivery. The shut-off valve is an integral part of the drop tube used for gravity filling. The OPW 71SO allows easy installation (without breaking concrete) and requires no special manholes.

The OPW 71SO is a vapor-tight two-stage shut-off valve. When the liquid level rises to about 95% of tank capacity, the valve mechanism is released, closing automatically with the flow. This reduces the flow rate to approximately 5 gpm through a bypass valve. The operator may then stop the filling process and disconnect and drain the delivery hose. As long as the liquid exceeds the 95% level, the valve will close automatically each time delivery is attempted.

If the delivery is not stopped and the liquid rises to about 98% of tank capacity, the bypass valve closes completely. No additional liquid can flow into the tank until the level drops below a reset point.

NOTE: The 71SO Overfill Prevention Valve can be adjusted to shutoff at any desired tank capacity. Please contact the Authority Having Jurisdiction (AHJ) and review local, state, and national codes to determine the regulatory requirements governing shut-off capacity in your region, as well as take into account other considerations such as extreme tank tilt. In all cases, the upper tube must protrude into the tank at least 6 1/2" to ensure that the valve can shut off flow into the tank completely before the top of the tank is wetted as per EPA requirements.

71SO Instruction Sheet Order Number: **H15524PA**

Listings and Certifications

California Air Resources Board

Materials

Valve Body: Cast aluminum
Float: Nitrile rubber, closed cell foam
Valve: Aluminum
Seals: Viton®
Upper & lower Drop Tube: Aluminum
Plastic parts: Acetal
Hardware: Stainless steel

Features

- **Simple, Easy and Quick Installation –** no excavation or special manholes required.
- **Economical –** costs a fraction of expensive, complicated and difficult-to-install valves.
- **Furnished Complete –** supplied with new upper and lower drop tubes, mounting hardware and thorough instructions for quick job site time.
- **Completely Automatic Operation –** no prechecks to perform, no resets and no overrides to be broken or abused.
- **No Pressurization of the Tank –** operates directly from liquid level.
- **Will Accept a Dipstick for Gauging**
- **Retrofits Directly –** for both new and existing tanks with 4" fill risers.
- **Quick Drain Feature –** automatically drains hose when head pressure is relieved.
- **Best Flow Rate in The Industry***

*** OPW Test Lab results**

Important

In order to prevent product spillage from the Underground Storage Tank (UST), properly maintained delivery equipment and a proper connection at the tight-fill adaptor are essential. Delivery personnel should be managed and trained to inspect delivery elbows and hoses for damaged and missing parts. They should always make certain there is a positive connection between the adaptor and elbow. If delivery equipment is not properly maintained, or the elbow is not securely coupled to the adaptor, a serious spill may result when the OPW 71SO closes, causing a hazard and environmental contamination.

NOTE: The OPW 71SO is designed for use on tight-fill gravity drop applications only. Do not use for pressure fill applications.

Advantages of Overfill Prevention Compared to Overfill Warning Systems:

- **Completely Automatic Operation –** does not rely on the alertness or speed of response of the delivery attendant for certainty of overfill prevention.
- **Keeps the Top of UST "Dry," per EPA Requirements –** eliminating possible leaks at loose bung fittings and the need for double containment on vent lines.
- **Does Not Rely on Pressure in the UST to Stop Flow –** allowing faster fill times and reducing spill risk.
- **Speeds Delivery Operations –** product flows unimpeded into the tank until the hose "kick" that accompanies the valve shut-off provides a clear signal that the liquid has reached the shut-off level.
- **Simple and Inexpensive Installation –** in both two-point and coaxial fill applications, no additional excavation, manholes or vent piping are required.

Look for this label for authentic OPW EVR Approved products.
OPW 71SOM is EVR Approved for E85

August 1, 2011

Fuel Storage Compatibility

This letter applies to all fiberglass fuel storage products manufactured since the inception of Containment Solutions, Inc. (CSI) on 1/1/1995 including:

- Single-wall underground tanks
- Double-wall underground tanks
- Triple-wall underground tanks
- ReTank® (In situ double-wall tank upgrade)
- BTU® (Bio fuel Tank Upgrade for fluid compatibility)
- Single-wall tank sumps
- Double-wall tank sumps

CSI single, double, and triple wall tanks are listed by Underwriters Laboratories Inc., under UL Standard 1316 - *Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures*.

All of the above Containment Solutions' products are compatible for use with the following fuels and fuel blends:

- Gasoline, jet fuel, aviation gasoline, motor oil (new or used), kerosene, diesel motor fuel
- Alcohol-gasoline blend motor fuels
    - Gasoline-ethanol blends with up to 100% ethanol
    - Gasoline-methanol blends with up to 100% methanol
- Biodiesel-diesel blends with up to 100% biodiesel (B100 per ASTM)
- Oxygenated motor fuels with up to 20% (by volume) methyl tertiary butyl ether (MTBE), ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary butyl alcohol (TBA), tertiary amyl methyl ether (TAME), or tertiary amyl ethyl ether (TAEE)
- Diesel fuel oil

For more information on CSI products or CSI Field Services contact:

Containment Solutions
1-877-CSI-TANK
sales@csiproducts.com
www.containmentsolutions.com

Sincerely,

Ron Shaffer
Vice President Sales & Marketing
Containment Solutions, Inc.

Sensor Application Matrix

		Where Used						Category						Product type														
	Standards														ASTM D975			ASTM D7467	ASTM D6751	ASTM D975						
Sensor Description	Form Number	Dispenser Pan	Spill Containment	STP	Annular Space	Monitoring Well	Oil/Water Seperator Tank	Discriminating	Non-Discriminating	Position Sensitive	Level Sensing	Static Testing	Hydrostatic	100% Gasoline	Diesel	Kerosene	Jet Fuel	Aviation Gas	E-15	E-85	Bio-Diesel 20	Bio-Diesel 100	Renewable (Green) Diesel	Diesel Exhaust Fuel (DEF)	Waste Oil	Motor Oil	Notes
DPS Standard Dispenser Pan	794380-322	x	x					x						X	X	X	X	X	X		X		X		X	X	
CSS Standard Containment Sump	794380-352		x	x				x						X	X	X	X	X	X		X		X		X	X	
DPO Optical Dispenser Pan	794380-320	x	x					x						X	X	X	X	X	X		X		X		X	X	
CSO Optical Containment Sump	794380-350		x	x				x						X	X	X	X	X	X		X		X		X	X	
MSS Mag Sump Sensor	857080-xxx	x	x	x				x		x	x	x		X	X	X	X	X	X		X	X	X	X	X	X	
SSDP Solid State Dispenser Pan	794380-321	x	x						x					X	X	X	X	X	X		X	X	X		X	X	
SSCS Solid State Containment Sump	794380-351		x	x					x					X	X	X	X	X	X		X	X	X		X	X	
Piping Sump	794380-208	x	x	x					x					X	X	X	X	X	X		X		X		X	X	
Position-Sensitive	794380-323	x	x	x					x	x				X	X	X	X	X	X	X	X		X		X	X	
Interstitial for Fiberglass Tanks, Discriminating	794380-343				x			x						X	X	X	X	X	X		X	X	X		X	X	
Interstitial for Fiberglass Tanks	794380-409				x				x					X	X	X	X	X	X		X		X		X	X	
Interstitial for Fiberglass Tanks, High Alcohol	794380-345				x				x					X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Interstitial for Steel Tanks	794380-4X0				x				x					X	X	X	X	X	X		X		X		X	X	
Interstitial for Steel Tanks, Position Sensitive	794380-333		x		x					x				X	X	X	X	X	X	X	X	X	X		X	X	Small Containment Area's (i.e. Spill Buckets)
Interstitial for Steel Tanks, High Alcohol	794380-430				x				x					X	X	X	X	X	X	X	X	X	X	X	X	X	
Interstitial for Steel Tanks, High Alcohol, small footprint	794380-344				x				x					X	X	X	X	X	X	X	X	X	X		X	X	
Hydrostatic Reservoir (Dual Point)	794380-303				x								x	X	X	X	X	X	X		X		X		X	X	
Single-Point Hydrostatic Sensor	794380-301				x								x	X	X	X	X	X	X		X		X		X	X	
Single Point Mini Hydrostatic Reservoir (High Alochol)	794380-304				x								x	X	X	X	X	X	X		X	X	X		X	X	
Vapor	794380-700					x								X	X	X	X	X	X		X		X		X	X	
GroundWater	794380-62X					x								X	X	X	X	X	X		X		X		X	X	
Oil / Water Separator	794690-XXX						x							X	X	X	X	X	X		X		X		X	X	

VEEDER-ROOT

Stainless Steel Mag Plus In-Tank Probe for Monitoring Alternative Fluids with No Water Detection in both USTs and ASTs

Probe Description & Product Application	**Stainless Steel** Mag Plus In-Tank Probe for Monitoring **Alternative Fluids with No Water Detection** in both USTs and ASTs	

Specific Products Monitored / Product Compatibility

Part # & Description	Approved Products	Monitoring Functionality Options
<u>Leak Detection / BIR - Accuchart Probes</u> 1. 846397-4XX Stainless Steel (SS) In-Tank Probe with High Grade Polymer (HGP) Canister with No Water Detection & 0.1 GPH Testing Capability, UL 2. 846397-5XX SS In-Tank Probe with HGP Canister with No Water Detection & 0.2GPH Testing Capability, UL 3. 846391-4XX SS In-Tank Probe with Aluminum (AL) Canister with No Water Detection & 0.1 GPH Testing Capability, UL 4. 846391-5XX SS In-Tank Probe with AL Canister with No Water Detection & 0.2 GPH Testing Capability, UL **<u>No Leak Detection/Inventory Only Probes</u>** 1. 846397-6XX SS with HGP Canister with No Water Detection & No Leak Detection/ Inventory Only, UL 2. 846391-6XX SS with AL Canister with No Water Detection & No Leak Detection/ Inventory Only, UL	Alcohol (<=100% Alcohol)*	A. 0.1 GPH static in-tank testing for USTs only
	Fuel Oil #6	B. 0.2GPH static in-tank testing for USTs only
	Propylene Glycol	C. 0.2 GPH Continuous Statistical Leak Detection (CSLD) for USTs only
	Methyl Alcohol*	
	Methanol (<=100% Alcohol)*	D. No Leak Detection / Inventory Only for USTs & ASTs
	ETBE (<=100% Ether)	E. BIR – Accuchart for USTs only
	Ethanol (<=100% Alcohol) includes E85*	* *Limited to E85 for ATEX probes*
	MTBE (<=100% Ether)	
	Used Oil	
	Ethylene Glycol	
	Windshield Washer Fluid	
	DEF (AdBlue)	

Console Compatibility	**Maximum Probes / Console**	**Probe Interface Modules**				
		Module Part #	**Module Description**	**# of Modules per Console**	**# of Probe Inputs per Module**	**Availability**
TLS-450PLUS (8600 Series) with TLS-XB installed (3 max per system)	64 (32 with BIR)	332812-001	Universal Sensor Module (USM) Interface for Probes, Sensors, and DPLLD	Up to 4	16	Sold Separately (either Factory Installed or as a Spare Module)
TLS4i (8601 Series)	4	No module required, probe input capability factory installed				
TLS4c (8601 Series)	2					
TLS-350/R/PLUS	16	329356-002	4-Input Probe Interface Module	4	4	Sold Separately (either Factory Installed or as a Spare Module)
TLS-300i	4	No module required, probe input capability factory installed				
TLS-300C	2					

Veeder-Root Company
125 Powder Forest Dr.
Simsbury, CT 06070
USA
Phone: 860-651-2700
Fax: 860-651-2719

July 2, 2019

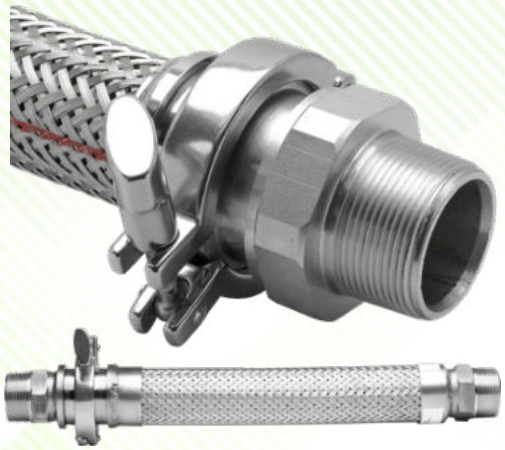
Re: Veeder-Root 312020-952 Cap and Ring compatibility with E-85

To whom it may concern,

Veeder-Root has performed internal testing to verify that the Cap and Ring Kit part number 312020-952 is compatible with E85 and has approved its use for these applications.

Sincerely,

Tyson Reid
Veeder-Root Company
Global Product Manager – ATG Platform
860-651-2883



FLEXIBLE CONNECTORS

FLEX-ING™ brand flexible connectors have become the industry standard and benchmark for quality as a means to easily connect a pipework system to other system components such as submersible pumps or shear valves. As an integral part of any system, installers enjoy how easy they make connections in tight spaces while station owners have come to depend on their durability and their simplification of regular maintenance. End fittings are available in either nickel plated steel or stainless steel construction. FLEX-ING™ flexible connectors offer multiple diameter and length options as well as a wide offering of end fitting connections so you can create the right flexible connector to fit virtually any application.

HIGHLIGHTS

- Standard on all flexible connectors, the stainless steel corrugated fuel contact layers feature a thick construction and gain flexibility from having more corrugations per foot rather than thinner walls.
- Enclosing the corrugated fuel contact layer is a stainless steel braid that is manufactured from only high-grade stainless steel.
- Standard end fittings are nickel plated steel with stainless steel construction options available on any flexible connector that does not include a swivel end fitting.
- Available in a multitude of end connections to ensure the right fit for any application - including tees, elbows, and fiberglass transitions.
- All metal construction means one flexible connector for both above and below ground applications (may not be direct buried).
- Schedule 80 hex end fittings protect against deformation of the ends during installation.
- The EZ FIT union style coupling system is specifically designed to make connections in confined spaces simple and tight.
- EZ FIT union style couplings come complete with couplers and gaskets (flange only fittings excluded).

SPECIFICATIONS

- Meets USA NFPA 30-A fire code requirements.
- Outer shell: 304 stainless steel
- Inner core: 321 stainless steel
- End fittings: Nickel plated steel or stainless steel.
- 100% pressure tested to 100 PSI to assure quality.

Approvals/Certifications

- UL 2039 listed for above and below ground installation for use with gasoline, gas alcohol blends (up to E85), diesel, and Biodiesel.
- UL 2039 approved for 50 psi working pressure.

End Fitting Options

1. EZ Fit flange only*
2. EZ Fit male*
3. EZ Fit female*
4. EZ Fit fiberglass (glued)*
5. Male swivel
6. Female swivel
7. Hex male fixed (NPT)*
8. Hex female fixed (NPT)*
9. Hex male fixed (BSPT)*
10. Hex male swivel (BSPT)*
11. 90° male swivel
12. EZ Fit tee flanges only*
13. Flat faced round flange*
14. Raised faced round flange*

*Also available in stainless steel.

Franklin Fueling Systems

1/3 & 3/4 Hp Fixed Speed Submersible Turbine Pumps

Marketers concerned about fueling times, efficiency, serviceability, reliability and overall quality find it an easy choice to specify FE Petro™ brand submersible turbine pumps (STPs). An STP has to be reliable, it has to be safe, and it has to perform. That's why thousands of station owners around the world have trusted FE Petro™ STPs and the Franklin Electric motors that drive them to keep their business flowing for over 25 years. With best-in-class flow rates and backed by a long history of dependability FE Petro™ STPs simply do their job without fail, delivering fuel to customers day after day without a hitch.

Highlights

Active Air Eliminator

FE Petro™ brand STPs come standard with active air elimination, which eliminates air through the highest point in the pump head at all times when the pump is running, assuring air does not pass into discharge piping.

Safety and Ease of Maintenance

FE Petro™ brand STPs include a contractor electrical disconnect, which requires loosening only one bolt, allowing motor wiring to be disconnected without venting the dangerous tank vapors into the sump when servicing FE Petro™ submersible products.

Simple Servicing

If ever required, the pump can be easily removed from the tank by unthreading three bolts. There is no need to disconnect the syphon system or to remove the leak detector from the system to service the STP.

Manual Pressure Relief

As a standard FE Petro™ feature a vent screw is provided to bleed line pressure to zero when necessary. By turning this screw, product is diverted back to the tank, dropping line pressure to zero. This reduces fuel discharged into the sump manhole or dispenser pan during servicing, further protecting service technicians and the environment.

Reliable Check Valve

The STP uses the proven FE Petro™ line check valve. At 2 ¾" in diameter, this valve reduces pressure loss at high flow rates resulting in faster fueling times. FE Petro™ line check valves are offered in multiple configurations to best suit your line leak application.

Variable Length

The VL2 pump fits 94% of all known tank diameters and tank bury depth combinations. The VL1 and VL3 are available to handle installations shorter or longer than this range. The telescoping connection is a patented FE Petro feature. Pump length can be set by making one simple measurement and setting the pump length without affecting the UL listing.

Outlast, Outperform with Franklin Electric Inside

FE Petro™ STPs are powered by the legendary Franklin Electric motor and built for long term performance. Franklin Electric-powered submersible pumps provide maximum uptime and a proven track record in the fueling industry that spans more than four decades. They feature best-in-class flow rates and a long history of dependability.

Specifications

- 1/3 & 3/4 Hp fixed speed models are available in variable length and fixed length options.
- Check valve: 2 ¾" diameter fluorocarbon seal constructed with cast aluminum body and steel backing washer.
- Pressure relief valve: available in four pressure relief settings, integral to check valve. Standard model relieves at 40 psi and resets above 35 psi.
- Syphon: venturi-type syphon primer supplied with every submersible. Syphon check valve and secondary syphon sold separately.
- Air eliminator: every submersible includes a tank return path with one-way check valve to provide active air elimination.
- Electrical disconnect: electrical yoke for positive contractor disconnect during service.

Pump Motor

- 1/3 & 3/4 Hp fixed speed, 3450 rpm, two-stage centrifugal type pump motor with integral, automatic thermal overload protection.
- 1/3 hp models have a max. pressure of 28 psi.
- 3/4 hp models have a max. pressure of 31 psi.

Approvals

- cULus listed.
- Consult factory for applicable approvals.

Quality Certification

- Franklin Fueling Systems is an ISO 9001Certified Manufacturer.

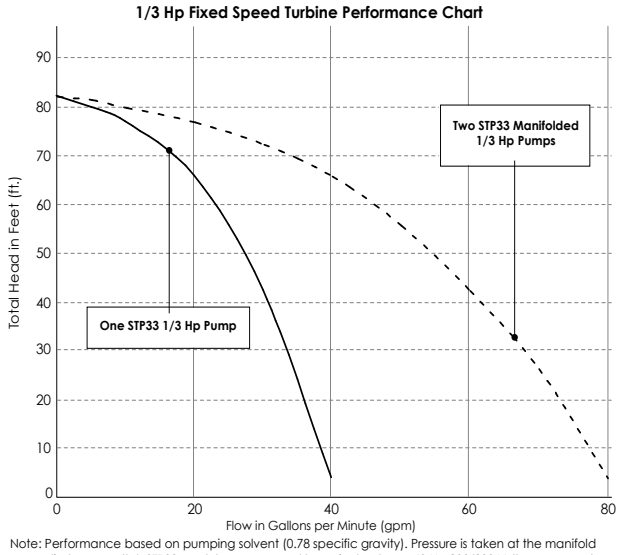
Power Requirements

- 1/3 & 3/4 Hp fixed speed models require single-phase, 208-230 VAC, 60 Hz incoming power.
- 1/3 & 3/4 Hp fixed speed models incorporate a starting and running capacitor, with internal bleed resistor, rated 370 Volt, 15 microfarad.
- STP-SCI single-phase smart controllers and STP-CBS single-phase control boxes are available for 1/3 and 3/4 hp pump control.
- 1/3 Hp max. motor draw: 4 Amps.
- 3/4 Hp max. motor draw: 7 Amps.

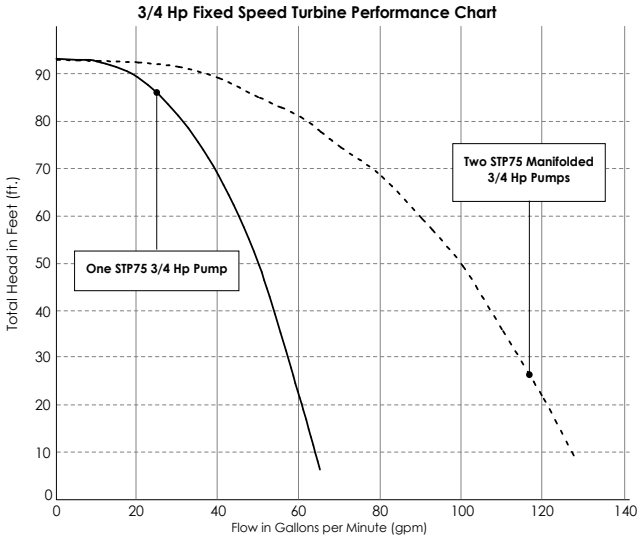
Liquid Compatibility

- Max. liquid viscosity: 70 SSU at 60 °F (15 °C).
- Standard STP models are UL and cUL listed for fuel mixtures containing up to 10% ethanol with gasoline, and 20% MTBE, 20% ETBE or 17% TAME with gasoline.
- STPAG (AG compatible) models are UL and cUL listed for fuel mixtures containing diesel fuel with up to 20% biodiesel, 100% biodiesel, up to 85% ethanol with gasoline, and 20% MTBE, 20% ETBE or 17% TAME with gasoline.
- 1/3 & 3/4 Hp fixed speed models can also be used with diesel fuels, fuel oils, kerosene, Avgas and jet fuels in a non-gelled pourable state.
- All wetted elastomers are made of a high grade, fluorocarbon compound.

Performance



Note: Performance based on pumping solvent (0.78 specific gravity). Pressure is taken at the manifold discharge outlet. STP33 models are powered by a single-phase, 60 Hz, 208/230 Volt power supply.



Note: Performance based on pumping solvent (0.78 specific gravity). Pressure is taken at the manifold discharge outlet. STP75 models are powered by a single-phase, 60 Hz, 208/230 Volt power supply.

Veeder-Root Line Leak Application Guide

Specifications and Compatible Fluids Requirements

The table below lists Veeder-Root Line Leak Detector specifications.

SPECIFICATION	TLS-4XX w/ DPLLD	TLS-350 w/ PLLD	TLS-350 w/ WPLLD
OPERATING TEMP:	-25 TO +130°F	-25 TO +130°F	-25 TO +130°F
COMPATIBLE FUELS:	UNLEADED GASOLINE LEADED GASOLINE 5% METHANOL / 95% UNLEADED 0 - 100% ETHANOL 10% ETHANOL / 90% UNLEADED 15% MTBE / 85% UNLEADED DIESEL BIODIESEL (UP TO B100)[1,2] KEROSENE JET FUEL AVIATION GASOLINE	UNLEADED GASOLINE LEADED GASOLINE 5% METHANOL / 95% UNLEADED 0 - 100% ETHANOL 10% ETHANOL / 90% UNLEADED 15% MTBE / 85% UNLEADED DIESEL BIODIESEL (UP TO B100)[1,2] KEROSENE JET FUEL AVIATION GASOLINE	UNLEADED GASOLINE LEADED GASOLINE 5% METHANOL / 95% UNLEADED 10% ETHANOL / 90% UNLEADED 15% MTBE / 85% UNLEADED DIESEL BIODIESEL (UP TO B100)[1,2] KEROSENE JET FUEL AVIATION GASOLINE
LINE FLOW RATE:	120 GPM MAX. W/SWIFTCHECK VALVE	120 GPM MAX. W/SWIFTCHECK VALVE	120 GPM MAX. W/SWIFTCHECK VALVE
OPERATING RANGE:	0 - 70 PSI	0 - 70 PSI	0 - 70 PSI
PROOF PRESSURE:	200 PSI	200 PSI	200 PSI
MAX. VERTICAL PIPELINE HEIGHT ABOVE TRANSDUCER[3]	11 FEET	11 FEET	11 FEET
MINIMUM PUMP OUTPUT PRESSURE[4]	23 psi	23 psi	23 psi

[1]Biodiesel compliant with ASTM D7467 (up to B20) or ASTM D6751.

[2]Consult pump manufacturer for compatibility ratings on fuel blends greater than B20.

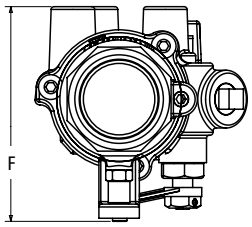
PLLD

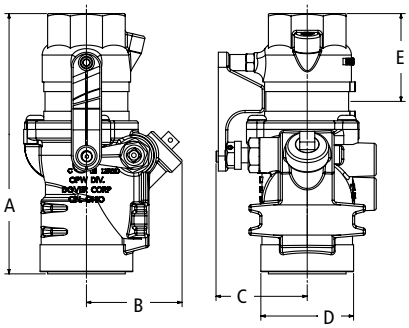
10 Plus Series Emergency Shut-Off Valves

OPW raised the protection standard in emergency valves when it introduced the first double-poppet valve back in 1989. This industry-changing OPW innovation helped to significantly reduce the risk of fire, explosion, personal injury, property damage and environmental contamination at sites around the world. Major oil companies and jobbers agreed that providing added protection for their customers, investments and the environment were the three most convincing reasons for switching to the innovative new valves.

Dimensions

	in.	cm
A	7 9/16	4
B	2 25/32	4
C	2 21/32	4
D	2 11/16	4
E	2 9/16	4
F	4 21/32	4





Materials

Top: Cast iron

Body: Cast iron

Features

- The ONLY emergency shut-off valve in the world designed to protect your customers, investments, and the environment against the potential hazards of undetected shear groove leaks caused by low-impact incidents.
- The patent-pending SmartGuard™ design contains shear groove leaks, preventing fuel from leaking into sumps to help reduce the risk of fire, explosion, personal injury, property damage, environmental contamination, product loss and costly clean-up.
- Superior shear groove design and engineering results in reliable valve shut-off in the event of a pull-over or dislodged dispenser. The 10 Plus utilizes the same time-tested field-proven design of the OPW 10 Series Emergency Shut-off Valve – the most specified emergency shut-off valve in the world.
- Fusible link releases to automatically close the valve to reduce fire hazard.
- Rigorously tested to meet OPW's rigid quality standards.
- E85 model has orange arm for visual indicator

Ordering Specifications

Model #	Body Size		Body Weight		Connection Threads	Poppet Configuration	Application	Mounting System
	in.	cm	lb.	kg				
10P-0150	1 1/2	4	6.7	3.05	NPT	Single	Pressure	Combination
10P-0152	1 1/2	4	6.8	3.10	NPT	Double	Pressure	Combination
*E85 10P-0152E85	1 1/2	4	6.8	3.10	NPT	Double	Pressure	Combination

*E85 Applications

10 Plus Replacement Parts

Part #	Description
10RPLUS-0150	10 Plus Single Poppet Replacement Top
10RPLUS-0152	10 Plus Double Poppet Replacement Top
202950	1 1/2" Tetra Seal
200143	Safety Hub/Fusible Link
H11361M	2" Tetra Seal

Listings and Certifications

10 Plus Series Instruction Sheet Order Number: **201614**

9393 Princeton-Glendale Road ◆ Hamilton, Ohio USA 45011 ◆ Phone: (800) 422-2525 ◆ Fax: (800) 421-3297

Materials

Body: Aluminum w/ nickel plating
Lever & Lever Guard: Duratuff®
Packing: Graphite with Teflon®
Seals: Viton®
Spout: Aluminum w/ nickel plating
Inlet Size: 3/4" NPT
Weight: 2.73 lbs. each
1.25 kg each

Features

Safe for Use

- UL-Listed for up to 85% Ethanol.
- Prevents gasoline spills in prepay or card-lock systems utilizing OPW's unique No Pressure – No Flow Device. It cannot be opened until the pumping system is pressurized, and closes automatically when the pressure is removed.
- Prevents consumer from jamming the nozzle in an open position – blocker on lever guard.
- FlowLock™ allows nozzle to shut-off when falling out of a vehicle, and is tipped up, limiting spillage and unsafe conditions.

Durable and Long Lasting Design

- Cycle-tested and proven to last longer then 1 million cycles – Better then any other nozzle available on the market today*.
- Durable lever guard that won't scratch your customers' vehicles – made from Duratuff®.
- New hold-open clip spring lasts longer then previous designs.

Appealing to Customers

- Easy to use – utilizing Accu-Stop® to-the-penny Flow Control Technology.
- Attractive 2-Piece NEWGARD™ Hand Insulator is the most comfortable nozzle in the industry to use.
- Convenient – one-finger hold-open clip that is easy to set the flow rate (not on all models).

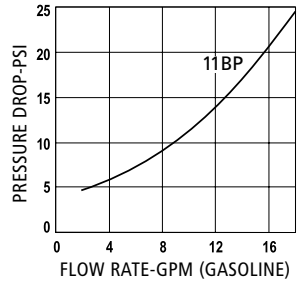
Design working pressure

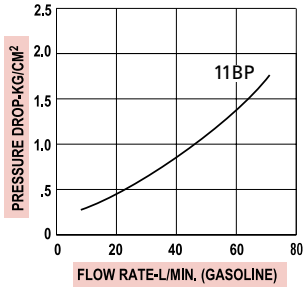
- 50 psi (3.45 bar) maximum pressure.

*** OPW internal lab testing results as of August 2010.**

OPW 11BP E-85 Series Ethanol Nozzles

The OPW 11BP E-85 Series nozzles are designed and rigorously tested for use in today's alternative fuels. It's the first nozzle of its kind to be UL-Listed for use in Ethanol-blended fuels up to 85%.





Ordering Specifications

E-85 **Nozzles compatible up to E85 (85% Ethanol)**

Handwarmer Color	11BP Unleaded 2 Piece Handwarmer	11BP AdMaster™ 2 Piece Handwarmer
Green	11BP-0192-E85	–
Red	11BP-0392-E85	–
Black	11BP-0492-E85	11BP-0492-E85-AD
Yellow	11BP-0992-E85	11BP-0992-E85-AD

Replacement Parts

Product	Product #	O.D. in.	O.D. mm	Length in.	Length mm	Weight lbs.	Weight kg
11BP spout replacement kit	5BBPI-0492	13/16"	21	7"	178	.47	.22

NEWGARD™ Kits See page 154.
11BP Instruction Sheet Order Number: **H15889PAE**

241TPS Ordering Specifications E85 Approved

Product #	Inlet/Outlet	Length A	Depth B
241TPS-0492	3/4" F x 3/4" M (NPT)	4 7/8"	2 3/16"
	19 mm x 19 mm	124 mm	56 mm

66V Ordering Specifications E85 Approved

Product #	Size in.	Size mm	Weight lbs.	Weight kg	Pull Force
66V-0492	3/4" F x 3/4" F (NPT)	19 F x 19 F	0.60	0.27	300 lbs.

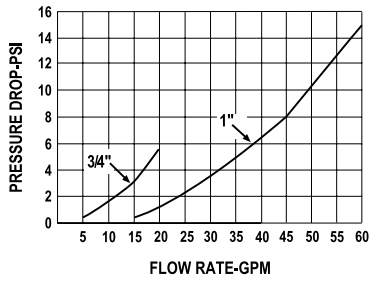
66V Series 3/4" Instruction Sheet Order Number: **H10993PA**

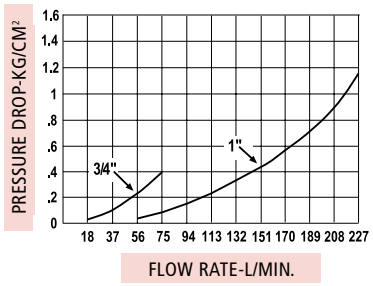
Listings and Certifications

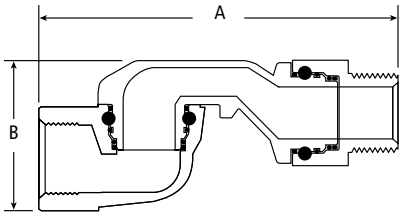
UL Listed for up to 85% Ethanol
2586

OPW 241TPS Series Hose Swivels

The OPW 241TPS Series of swivels are designed and rigorously tested for applications where easy nozzle and hose handling is important for customer convenience. Swivels are installed in between the nozzle and the hose to provide flexibility in the system to reduce customer strain, position the nozzle properly and reduce premature hose wear.







Materials

Body: Aluminum
Inlet Adaptor: Zinc
Outlet Adaptor: Zinc
Seals: Buna-N, Viton®
Bearing: Nylon
Weight: 3/4": .65 lbs., .30 kg
1": 1.55 lbs., .703 kg
Packed: 60 per Case

241TPS - 3/4"

241TPS - 1"

OPW 241TPS-0492 UL Listed for up to 85% Ethanol

Features

- UL and ULC listed for use in gasoline, diesel, and up to 10% ethanol blends. Specific listings available at **www.opwglobal.com**.
- Allows for easy nozzle positioning in fill pipes – utilizing two planes of rotation.
- Reduces premature hose wear – utilizing two planes of rotation.
- Added protection vs. thermal and chemical degradation – Dual Seals.
- 50 psi (3.45 bar) maximum pressure.

Ordering Specifications

Product #	Inlet/Outlet	Length A	Depth B
241TPS-0241	3/4" F x 3/4" M (NPT)	4 7/8"	2 3/16"
241TPS-0492* (E85) 241TPS-75RF** (E25/B20)	19 mm x 19 mm	124 mm	56 mm
241TPS-1000	1" F x 1" M (NPT)	6 1/32"	2 17/32"
241TPS-10RF*** (B20)	25 mm x 25 mm	153 mm	64 mm

*241TPS-0492 is UL Listed for up to 85% Ethanol.
**241TPS-75RF is UL Listed for up to 25% Ethanol and 20% Biodiesel.
***241TPS-10RF is UL Listed for up to 20% Biodiesel.

Listings and Certifications

NOTE: See OPW's Website at www.opwglobal.com for product instruction sheets, trouble-shooting guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

No matter what you are dispensing, we have you covered.

E85

Flexsteel® Futura™
Ethan-All™*

Biodiesel Up To B20 & Ethanol Up To E15

Flexsteel Futura
Pacer™
BC Gasoline
Aggie Gas
BC Marina
BC Cold Flex

For use on systems requiring
E25/E85 UL listed equipment

Standard Dispensing Hose

Flexsteel Futura

Our most ozone-resistant hose features the new Flexsteel Futurin cover that resists cracking, wear and fading for unmatched longevity. Flexsteel Futura is designed for dispensing gasoline, diesel, ethanol blends and biodiesel blends (up to B20).

› Premium hardwall wire braid reinforcement
› UL 330 and CUL approved
› Extraordinarily resistant to ozone cracking and wear
› Cover retains colors better with higher gloss
› Quality hose construction, quality assemblies

BC Gasoline

With premium softwall construction, BC Gasoline is for all types of dispensing pump applications where kink resistance, flexibility and lighter weight are desired. This hose is designed for dispensing gasoline, diesel, ethanol blends and biodiesel blends (up to B20). BC Gasoline is available with one or two textile braids.

› Premium softwall synthetic yarn braided reinforcement with static wire
› UL 330 and CUL approved

Pacer

Superior 4-spiral softwall construction makes this hose ideal for use when flexibility and lighter weight are desired. Pacer is for all types of dispensing applications including gasoline, kerosene, diesel, ethanol blends and biodiesel (up to B20).

› Spiral softwall synthetic yarn reinforcement with static wire
› UL 330 and CUL approved

Materials

Body: Aluminum
Seals: Buna-N and Viton®
Weight: See matrix below

OPW 66V-0492 UL Listed for up to 85% Ethanol

66V Breakaway Scuff Guard

66V

Features

- UL and ULC listed for use in gasoline, diesel and up to 10% ethanol blends. Specific listings available at **www.opwglobal.com**.
- Prevents Costly Damage to Dispensers – pulls apart at less the designed pull force during drive-offs.
- Certainty of Operation – designed for single use, so you know it is replaced instead of re-assembled.
- Prevents Hazardous and Costly Clean Up – unique double poppet design closes leak path from both dispenser and separated hose side.

Design working pressure

- 50 psi (3.45 bar) maximum pressure.

NOTE: OPW 66V Series Breakaways must always be installed with a "straightening" hose with a minimum length of 9" for the ¾" Series and a minimum length of 12" for the 1" Series, such as the 66H Series hoses.

Ordering Specifications

Product #	Connection Size		Weight		Description - Pull Force
	in.	mm	lbs.	kg	
66V-0300	¾" F x ¾" F (NPT)	19 F x 19 F	0.60	0.27	Valve / No More Than 300 lb.
66V-030RF**	¾" F x ¾" F (NPT)	19 F x 19 F	0.60	0.27	Valve / No More Than 300 lb.
66V-0492*	¾" F x ¾" F (NPT)	19 F x 19 F	0.60	0.27	Valve for up to E85 / No More Than 300 lb.
66V-1300	1" F x 1" F (NPT)	25 F x 25 F	0.98	0.45	Valve / No More Than 300 lb.
66V-130RF***	1" F x 1" F (NPT)	25 F x 25 F	0.98	0.45	Valve / No More Than 300 lb.
66V-1350	1" F x 1" F (NPT)	25 F x 25 F	0.98	0.45	Valve / No More Than 350 lb.
66V-135RF***	1" F x 1" F (NPT)	25 F x 25 F	0.98	0.45	Valve / No More Than 350 lb.

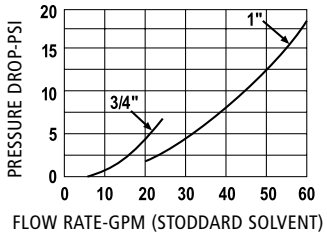
* 66V-0492 is UL Listed for up to 85% Ethanol
** 66V-030RF is UL Listed for up to 25% Ethanol and 20% Biodiesel
*** 66V-130RF and 66V-135RF are UL Listed for up to 20% Biodiesel

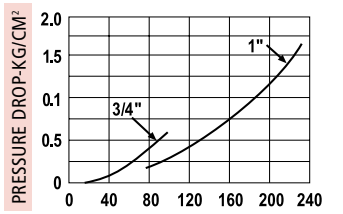
Accessories

66-0075	¾" F x ¾" M (NPT)	19 F x 19 M	1.46	0.66	Valve w/ 9" Hose / No More Than 300 lb.
66-1300	1" F x 1" M (NPT)	25 F x 25 M	2.50	1.13	Valve w/ 12" Hose / Maximum 300 lb.
66S-0075	¾"	19	0.20	0.10	Black Vinyl Scuff Guard Cover
66S-1300	1"	25	0.20	0.10	Black Vinyl Scuff Guard Cover

OPW 66V Series Breakaways

The OPW 66V Series breakaways are designed and rigorously tested for use in today's fuels. Installed on fuel dispensing hoses, they will separate at the designed pull force, reducing expensive damage to the dispenser and piping system. Internal dual valves close automatically during separation, stopping the flow of fuel from both the dispenser and the separated hose, reducing environmental and health risks of potential spilled fuel.



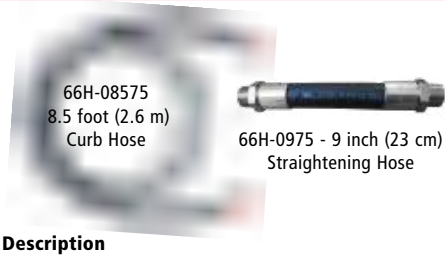


66V Series 3/4" Instruction Sheet Order Number: **H10993PA**
66V Series 1" Instruction Sheet Order Number: **H10993PA**
66S Series Instruction Sheet Order Number: **H11015PA**

Listings and Certifications

66H Series of Hoses

The 66H Series Hoses are UL approved, steel reinforced hardwall flexible to -40°F. 3/4 inch inside diameter with 3/4 inch male NPT chrome crimped ends. Compatible with fuel blends up to E-15 & B-20. Maximum working pressure 50PSI. Also available in Low Permeation per UL330.



66H-08575
8.5 foot (2.6 m)
Curb Hose

66H-0975 - 9 inch (23 cm)
Straightening Hose

Ordering Specifications

Product #	Length	Connection Size		Weight		Description
		in.	mm	lbs.	kg	
66H-0975	9 inch (23 cm)	¾" M x ¾" M (NPT)	19 M x 19 M	0.75	0.34	Straightening Hose
66H-0975-LP	9 inch (23 cm)	¾" M x ¾" M (NPT)	19 M x 19 M	0.75	0.34	Straightening Hose LOW PERMEATION per UL330
66H-1300	12 inch (30 cm)	1" M x 1" M (NPT)	25 M x 25 M	1.40	0.63	Straightening Hose
66H-08575	8.5 feet (2.6 m)	¾" M x ¾" M (NPT)	19 M x 19 M	4	1.8	Curb Hose
66H-08575-LP	8.5 feet (2.6 m)	¾" M x ¾" M (NPT)	19 M x 19 M	4	1.8	Curb Hose LOW PERMEATION per UL330

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W.O.# MW2-6305915 Cust Ref#: 260275191

Filter