



State of Illinois  
Office of the State Fire Marshal

## Checklist for Documenting UST Compatibility

**SUBMIT THIS FORM WITH SUPPORTING DOCUMENTATION ATTACHED.**

**ALL COMPONENTS MUST BE LISTED IN DETAIL, & COMPATIBILITY DOCUMENTATION MUST CLEARLY IDENTIFY THE COMPONENTS.**

**Facility where equipment is located:**

Facility Number:       New        
 Facility Owner:       Hanikrishna, LLC        
 Facility Name:       Atlanta Travel Center        
 Street Address:       103 Empire St.        
 City:       Atlanta        
 County:       Logan      

**UST Information:**

Tank ID Number:       4        
 Tank Material: Steel         
                   FRP       X        
 Single Wall        Double Wall       X        
 Tank Volume:       10,000        
 Tank Product:       B-99      

Complete the checklist below, listing compatibility determination, method used and description. **All answers must be "YES" and supported with a sufficient description or supporting documentation** in order for your UST system to demonstrate compatibility with the blended fuel/biofuel product.

UST SYSTEM COMPONENTS	DOCUMENTATION DEMONSTRATING COMPATIBILITY WITH SUBSTANCE LISTED ABOVE		METHOD A or B (MAY USE BOTH)	DESCRIPTION OF COMPONENT TYPE, MODEL NUMBER, & NATIONAL LABORATORY CERTIFICATION, LISTING OR MANUFACTURER APPROVAL (ATTACH TO CHECKLIST)
TANK	NO	<input checked="" type="radio"/> YES	A & B	Xerox DW FRP Tank UL 1316 Xerox SW FRP Tank Sump
PIPING (incl. shear valves, flex connectors)	NO	<input checked="" type="radio"/> YES		NOV Ameron <sup>DW</sup> 3000 LCA UL-971
CONTAINMENT SUMPS	NO	<input checked="" type="radio"/> YES		Bravo - 72" x 30" x 42" Tall UL 1316
PUMPS (STPs/Suction; Dispensers, hoses, nozzles)	NO	<input checked="" type="radio"/> YES		5hp Gorman Rupp Bid SS Pump

UST SYSTEM COMPONENTS	DOCUMENTATION DEMONSTRATING COMPATIBILITY WITH SUBSTANCE LISTED ABOVE		METHOD A or B (MAY USE BOTH)	DESCRIPTION OF COMPONENT TYPE, MODEL NUMBER, & NATIONAL LABORATORY CERTIFICATION, LISTING OR MANUFACTURER APPROVAL (ATTACH TO CHECKLIST)
RELEASE DETECTION EQUIPMENT	NO	(YES)		Incon FMP-LL3-125 PROBES Incon FMP-HFS Interstitial Sensors Incon FMP-ULS Sump Sensors
SPILL PREVENTION EQUIPMENT	NO	(YES)		OPW IC-2100-DEUR Sgd SW
OVERFILL PREVENTION EQUIPMENT	NO	(YES)		OPW 7150-410CB Bio- over fill valve
GASKETS & SEALS (installs after 10/13/18)	NO	(YES)		OPW 634TT-8076 Fill Adpt OPW 634TT-7085 FILL CAP MORRISON 69155 BALL VALVE
JOINT DOPES & ADHESIVES (installs after 10/13/18)	NO	(YES)		Gasolva E-seal

**Methods:**

- A. Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored.
- B. Equipment or manufacturer approval. The manufacturer's approval must be in writing, indicate an affirmative statement of compatibility, specify the range of biofuel blends the component is compatible with, and be from the equipment or component manufacturer

Note: Owners and operators may find American Petroleum Institute's Recommended Practice 1626, *Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Filling Stations*, useful in complying with the compatibility requirements.

In order to be in compliance with the 2015 federal UST regulation compatibility requirements for storing biofuels, you must keep documentation of compatibility of the UST system components listed on this page as long as you store the fuel.

For your records, you should update this checklist each time you repair or replace components of your UST system to ensure you have all the required compatibility documentation while storing biofuels.

Checklist Completed By: print name: Chuck Heering date completed: 2/22/21  
signature: Chuck Heering position/title: Operations Manager



## Below Ground Products Fuel Compatibility Matrix

Updated 12/2018

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 Series	Overfill Valve Anodized	X	X			X	X	
71SOM Series	Overfill Valve Anodized	X	X	X	X	X	X	
71SO-B Series	High BioDiesel Overfill Valve	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

# XERXES<sup>®</sup>

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

making a **lasting** difference™

7901 Xerxes Avenue South • Minneapolis • Minnesota • United States • 55431-1288  
Ph: 952-887-1890 • Fax: 952-887-1870 • Web: [www.xerxes.com](http://www.xerxes.com)

October 10, 2016

**RE: Compatibility of Red Thread™ IIA and Dualoy™ Piping Products**

To Whom It May Concern:

NOV Fiber Glass Systems has been manufacturing highly-engineered fiberglass pipe for the fuel handling industry for almost 50 years, receiving our first Underwriters Laboratories (UL) listing in 1968. We currently have two product lines serving the Fuel Handling market: Red Thread IIA and Dualoy (3000/L and 3000/LCX). This letter addresses compatibility with current and past product generations.

**Red Thread IIA**

The Red Thread IIA piping system has been manufactured since 1990. The system was UL listed for alcohol compatibility in 1990, and is UL-971 listed for all fuels and applications per UL Standard 971-2004. In addition, the materials are compatible with Ethanol, Methanol, and Biodiesel blended fuels, through 100 percent concentrations.

Red Thread (manufactured and UL listed from 1968 to 1984) and Red Thread II (manufactured and UL listed from 1984 to 1990) are both compatible with all ethanol fuels up to 100 percent concentration.

**Dualoy 3000/L & 3000/LCX**

The Dualoy piping systems have been manufactured since 1971. The system was UL listed for alcohol compatibility in 1988, and is UL-971 listed for all fuels and applications per UL Standard 971-2004. In addition, the materials are compatible with Ethanol and Methanol blended fuels, through 100 percent concentrations, and Biodiesel blended fuels.

Prior to 1988, UL did not offer a Listing for alcohol blended fuels, although legacy Dualoy products prior to the Listing were compatible with ethanol and all concentrations of ethanol blended fuels.

If you have any questions or require additional information, please let us know.

Respectfully yours,



**Josh Fowler**  
Manager, Fuel Handling Sales



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

Wednesday - August 25 - 2010

R3 10.21.13

**RE: Bravo Fiberglass Sumps and Alternative fuels**

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

Bravo Fiberglass products 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 containment sumps are Built like a Tank, they can withstand continuous fuel exposure to Biodiesel, Ethanol and Alcohol blends without failure.

All DoubleWall Containment 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 Containment Sumps manufactured by Bravo Systems in Commerce, California are compatible with Biodiesel and Ethanol fuel blends up to B100 and E100, respectively.

- > B3XX Series Spill Buckets
- > B4XX Series Tank Sumps & Covers
- > B5XX Series Planter Transition Sumps
- > B6XX Series Walkover Transition Sumps
- > B7XX Series H-20 Rated Transition Sumps
- > B8XX Series Transition Sumps
- > B1XXX Series UDC Sumps
- > B7XXX Series UDC Sumps
- > B8XXX Series UDC Sumps
- > B9XXX Series UDC Sumps

Bravo Systems 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](http://www.sbravo.com).

Sincerely,

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



Issue Date: December 20, 2013

## Franklin Fueling Systems

### S940 Alarm Console with TSP-HFS Horizontal Float Switch Sensor, TSP-HLS High TSP-UHS Universal Hydrostatic Sensor, and TSP-ULS Universal Liquid

#### INTERSTITIAL DETECTOR (LIQUID-PHASE)

**Detector:**

Output Type: qualitative  
 Sampling Frequency: continuous  
 Operating principle: float/reed switch

**Test Results:**

	<u>unleaded gasoline</u>	<u>diesel*</u>	<u>water</u>	<u>biodiesel*</u>	<u>E85</u>
<b>TSP-HFS</b>					
Detection time (min)	<1	<1	<1	<1	<1
Fall time (min)	<1	<1	<1	<1	<1
Threshold Level (in)	0.5146	0.4908	0.4480	0.4690	0.5046
<b>TSP-HLS</b>					
Detection time (min)	<1	<1	<1	<1	<1
Fall time (min)	<1	<1	<1	<1	<1
Threshold Level (in)	2.0328	1.9408	1.7658	1.8985	2.0030
<b>TSP-UHS</b>					
Detection time (min)	<1	<1	<1	<1	<1
Fall time (min)	<1	<1	<1	<1	<1
Threshold Level (in)	0.9628	0.8966	0.7952	0.8839	0.9125
<b>TSP-ULS</b>					
Detection time (min)	<1	<1	<1	<1	<1
Fall time (min)	<1	<1	<1	<1	<1
Threshold Level (in)	1.1243	1.0726	0.9529	1.0620	1.0994

\*Evaluations determined these sensors' responses to the liquids shown above. Biodiesel blends B6-B20 meeting ASTM D7467 and biodiesel B100 meeting ASTM D6751 would also produce an alarm if the sensor threshold is exceeded. Responses to these fuels were determined, but would be expected to be very similar to the diesel responses.

**Comments:**

Sensor TSP-UHS is the same as the TSP-ULS sensor except that the float has been inverted so that it may be used to monitor the bottom reservoir of containment sumps. An alarm condition will occur when the fluid level drops below the end of the sensor. Sensors are reusable.

Franklin Fueling Systems  
 3760 Marsh Road  
 Madison, WI 53718  
 Tel: (800) 225-9787  
 E-mail: info@franklinfueling.com

Evaluator: Ken Wilcox Associates  
 Tel: (816) 443-2494  
 Dates of Evaluations: 08/23/2013



The Bio Blender is an on-demand, real-time blending system. This fully automated system continuously monitors the blend and adjusts itself to maintain a precise mixture. The status can be monitored, and blend rate can be modified either locally or remotely. Blend rate changes take effect immediately.

By blending fuel as it is drawn out of the tanks, you maximize your storage capacity. All of your stored fuel remains pure. The Bio Blender provides the opportunity to offer straight fuel to some islands and blended fuel to others.



[www.BioBlending.com](http://www.BioBlending.com)

**866-356-3336**



**866-356-3336**

[www.BioBlending.com](http://www.BioBlending.com)

# BIO BLENDER™

- Maximizes Your Fuel Storage
- Eliminates Storage of Mixed Fuel
- Simple Setup and Monitoring
- Fully Automated Blending
- Earn Your Blending Credit
- Suitable for New Installs or Retrofits
- Adjust Your Blend at Any Time
- Ensures Accurate Blend to Islands





USA

*The Pump People®*

## GHS SERIES

The GHS Series of high capacity pumps is designed for continuous duty service for applications in the operating ranges noted. The units are ideal for bulk handling both thin and viscous liquids. For temperature control, backhead and housing jackets are standard; head jackets are available. Also available are carbon graphite bushings for low viscosity liquids, silicon carbide bushings for wear resistance, and numerous seal options. This heavy duty series provides superior rotor shaft support and an integral, maintenance-free radial/thrust bearing, for reduced deflection and wear.



## Specifications

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<b>Size</b>	1" (25 mm), 1-1/2" (40 mm), 2" (50 mm), 2-1/2" (60 mm), 3" (80 mm), 4" (100 mm), 5" (125 mm), 6" (150 mm)
<b>Max Capacity</b>	600 GPM (38 lps)
<b>Max Viscosity</b>	2000000 SSU (431400 cST)
<b>Max Pressure</b>	300 PSI (21 BAR)
<b>Min Temperature</b>	-60 F (-51 C)
<b>Max Temperature</b>	675 F (357 C)
<b>Materials of Construction</b>	Cast Iron, Cast Steel, Ductile Iron, Stainless Steel

## Models

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Show   entries

Search:

Item	Size	Casing	Impeller / Rotor	Drive	Flange	Seal
GHS2 1/2NM3-B	2.5 x 2.5	Cast Iron	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS2 1/2NM9-B	2.5 x 2.5	Stainless Steel	Stainless Steel	Basic	NPT	Mechanical or Packing
GHS2 1/2NP3-B	2.5 x 2.5	Cast Iron	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS2 1/2NP9-B	2.5 x 2.5	Stainless Steel	Stainless Steel	Basic	NPT	Mechanical or Packing
GHS2 1/2RM3-B	2.5 x 2.5	Cast Iron	Ductile Iron	Basic	ANSI	Mechanical or Packing
GHS2 1/2RM32-B	2.5 x 2.5	Cast Steel	Ductile Iron	Basic	ANSI	Mechanical or Packing
GHS2 1/2RM9-B	2.5 x 2.5	Stainless Steel	Stainless Steel	Basic	ANSI	Mechanical or Packing
GHS2 1/2RP3-B	2.5 x 2.5	Cast Iron	Ductile Iron	Basic	ANSI	Mechanical or Packing
GHS2 1/2RP32-B	2.5 x 2.5	Cast Steel	Ductile Iron	Basic	ANSI	Mechanical or Packing
GHS2 1/2RR3-B	2.5 x 2.5	Cast Iron	Ductile Iron	Basic	ANSI	Mechanical or Packing
GHS3JG3-B	3 x 3	Cast Iron	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS3JG32-B	3 x 3	Cast Steel	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS3JG9-B	3 x 3	Stainless Steel	Stainless Steel	Basic	NPT	Mechanical or Packing
GHS3JJ3-B	3 x 3	Cast Iron	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS3JJ32-B	3 x 3	Cast Steel	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS3JJ9-B	3 x 3	Stainless Steel	Stainless Steel	Basic	NPT	Mechanical or Packing
GHS3JL3-B	3 x 3	Cast Iron	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS3JL32-B	3 x 3	Cast Steel	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS3JL9-B	3 x 3	Stainless Steel	Stainless Steel	Basic	NPT	Mechanical or Packing
GHS3JP3-B	3 x 3	Cast Iron	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS3JP32-B	3 x 3	Cast Steel	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS3JP9-B	3 x 3	Stainless Steel	Stainless Steel	Basic	NPT	Mechanical or Packing
GHS3NK3-B	3 x 3	Cast Iron	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS3NK32-B	3 x 3	Cast Steel	Ductile Iron	Basic	NPT	Mechanical or Packing
GHS3NK9-B	3 x 3	Stainless Steel	Stainless Steel	Basic	NPT	Mechanical or Packing

Showing 51 to 75 of 116 entries