

DATE 07/26/2007

# Columbia County Building Permit

PERMIT

This Permit Expires One Year From the Date of Issue

000026061

APPLICANT KEVIN MAY, AGENT FOR KC PETRO

PHONE 904.693.3200

ADDRESS 650 TALLEYRAND AVENUE

JACKSONVILLE

FL

32202

OWNER ABP FL, LLC

PHONE 800.727.6706

ADDRESS 694 SE CR 245

LAKE CITY

FL

32056

CONTRACTOR K.C. PETROLEUM/SCOTT LAMBERSO

PHONE 904.693.3200

LOCATION OF PROPERTY SR 100 TO C-245 TO BLUE LINX (OLD GA PACIFIC) ON THE

R.

TYPE DEVELOPMENT REPLACE FUEL SYSTEM

ESTIMATED COST OF CONSTRUCTION

95000.00

HEATED FLOOR AREA

TOTAL AREA

HEIGHT

STORIES

FOUNDATION

WALLS

ROOF PITCH

FLOOR

LAND USE & ZONING

INDUSTRIAL

MAX. HEIGHT

Minimum Set Back Requirements:

STREET-FRONT

REAR

SIDE

NO. EX.D.U.

FLOOD ZONE

X

DEVELOPMENT PERMIT NO.

PARCEL ID 03-4S-17-07581-000

SUBDIVISION

LOT BLOCK

PHASE

UNIT

TOTAL ACRES

Culvert Permit No.

Culvert Waiver

PCC1256768

Contractor's License Number

EXISTING P07-0297

BLK

Applicant/Owner/Contractor

JTH

N

Driveway Connection

Septic Tank Number

LU & Zoning checked by

Approved for Issuance

New Resident

COMMENTS: NOC ON FILE. LETTER OF AUTHORIZATION ON FILE.

Check # or Cash 1028

## FOR BUILDING & ZONING DEPARTMENT ONLY

Temporary Power

date/app. by

Foundation

date/app. by

Monolithic

(footer/Slab)

date/app. by

Under slab rough-in plumbing

date/app. by

Slab

Sheathing/Nailing

date/app. by

Framing

date/app. by

Rough-in plumbing above slab and below wood floor

date/app. by

# Columbia County Building Permit Application

**For Office Use Only** Application # 0707-55 Date Received 7/19 By JW Permit # 26060-2006  
 Application Approved by - Zoning Official BLK Date 24.07.07 Plans Examiner AKJH Date 7-20-07  
 Flood Zone X Development Permit N/A Zoning I Land Use Plan Map Category INDUSTRIAL  
 Comments LENG. 2 AUTH. ATTACHED  
☒ NOC ☒ EH ☒ Deed or PA ☒ Site Plan ☐ State Road Info ☐ Parent Parcel # ☐ Development Permit

Name Authorized Person Signing Permit Hevin May Phone 904-693-3200  
 Address 650 Talleyrand Ave, JAX., FL 32202  
 Owners Name ABP FL (Lake City) LLC Phone 800-727-6706 EX 113  
 911 Address 694 SE CR. 245, Lake City, FL 32056  
 Contractors Name H.C. Petroleum, Inc. Phone 904-693-3200  
 Address 650 Talleyrand Ave, JAX., FL 32202  
 Fee Simple Owner Name & Address N/A  
 Bonding Co. Name & Address N/A  
 Architect/Engineer Name & Address HC Petroleum, Inc., JAX, FL 32202  
 Mortgage Lenders Name & Address N/A

Circle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progressive Energy  
 Property ID Number 03-45-17-07581-000 Estimated Cost of Construction 95,000.00  
 Subdivision Name \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Unit \_\_\_\_\_ Phase \_\_\_\_\_  
 Driving Directions 100 E to CR 245 go south on CR 245 to 694 CR245

OLD - GIL PARTRICK SITE - (BLUE LINE)

Type of Construction Replace gasoline storage tank and piping Number of Existing Dwellings on Property \_\_\_\_\_  
 Total Acreage \_\_\_\_\_ Lot Size \_\_\_\_\_ Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive  
 Actual Distance of Structure from Property Lines - Front \_\_\_\_\_ Side \_\_\_\_\_ Side \_\_\_\_\_ Rear \_\_\_\_\_  
 Total Building Height \_\_\_\_\_ Number of Stories \_\_\_\_\_ Heated Floor Area \_\_\_\_\_ Roof Pitch \_\_\_\_\_

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

**OWNERS AFFIDAVIT:** I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning.

**WARNING TO OWNER:** YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

2 REMOVALS PLEASE  
 Owner Builder or Authorized Person by Notarized Letter Scott Sumner  
 STATE OF FLORIDA  
 COUNTY OF COLUMBIA  
 Sworn to (or affirmed) and subscribed before me this 17th day of July 2007  
 Personally known ☒ or Produced Identification \_\_\_\_\_  
 Contractor Signature \_\_\_\_\_  
 Contractors License Number PEC1256768  
 Competency Card Number \_\_\_\_\_  
 NOTARY STAMP/SEAL  
 JOYCE COLLISON  
 Notary Public - State of Florida  
 My Commission Expires Aug 7, 2009  
 Commission # DD 457577  
 Bonded By National Notary Assn.  
 Notary Signature \_\_\_\_\_

|                           |   |                               |         |                 |
|---------------------------|---|-------------------------------|---------|-----------------|
| @ CAM112M01               | S | CamaUSA Appraisal System      |         | Columbia County |
| 7/19/2007 11:53           |   | Legal Description Maintenance | 293250  | Land 001 *      |
| Year T Property           |   | Sel                           |         | AG 000          |
| 2007 R 03-4S-17-07581-000 |   | ...                           | 1331919 | Bldg 003 *      |
| DOR 2006                  |   |                               | 39532   | Xfea 005 *      |
| ABP FL (LAKE CITY) LLC    |   |                               | 1664701 | TOTAL B*        |

|    |                                |                             |    |
|----|--------------------------------|-----------------------------|----|
| 1  | COMM NE COR OF SEC, RUN W      | 325.33 FT TO S'LY R/W LINE  | 2  |
| 3  | GS & F RR FOR POB, RUN SE 193  | FT ALONG RR, S 895.52 FT, W | 4  |
| 5  | 891.04 FT, N 1138.88 FT, E 611 | FT TO POB, EX 0.85 AC DESC  | 6  |
| 7  | ORB 572-402.                   | ORB 344-64, 656-272-73,     | 8  |
| 9  | ORB 1015-1914                  |                             | 10 |
| 11 |                                |                             | 12 |
| 13 |                                |                             | 14 |
| 15 |                                |                             | 16 |
| 17 |                                |                             | 18 |
| 19 |                                |                             | 20 |
| 21 |                                |                             | 22 |
| 23 |                                |                             | 24 |
| 25 |                                |                             | 26 |
| 27 |                                |                             | 28 |

Mnt 5/28/2004 LARRY

F1=Task F3=Exit F4=Prompt F10=GoTo PgUp/PgDn F24=More

LIMITED POWER OF ATTORNEY

DATE 7-17-07

I hereby name and appoint KEVIN MAY of K.C. Petroleum Inc. my  
lawful attorney in fact to act for me and apply to Columbia County  
for a permitting + pickup for work to be performed at a  
location described as: Parcel # 03-45-17-07581-000

694 SE CR 245, LAKE CITY, FL 32056  
(Address of Job)

ABP FL (Lake City) LLC, 4300 Wildwood Parkway, Atlanta, GA 30339  
(Owner of Property and Address)

and to sign my name and do all things necessary to this appointment.

Scott Lamberson PCC1256768  
Type or Print name of Certified Contractor, License #

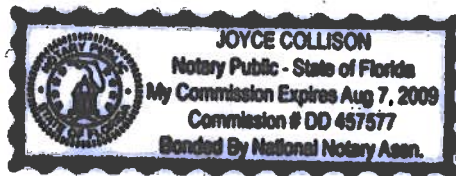
Scott Lamberson  
Signature of Certified Contractor

Acknowledged:

Sworn to and subscribed before me this 17th day of July A.D. 2007  
Notary Public, State of

Florida

(Seal)



My Commission Expires:

8-7-2009  
Joyce Collison



NOTICE OF COMMENCEMENT FORM  
COLUMBIA COUNTY, FLORIDA

\*\*\*THIS DOCUMENT MUST BE RECORDED AT THE COUNTY  
CLERKS OFFICE BEFORE YOUR FIRST INSPECTION.\*\*\*

THE UNDERSIGNED hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

Tax Parcel ID Number 03-45-17-07581-000

1. Description of property: (legal description of the property and street address or 911 address)

Comm NE Cor of Sec, Run W 325.33 FT To SLY R/W Line GS + FRR For POB, Run SE  
193 FT Along RR, S 895.52 FT, W 891.04 FT, N 1139.83 FT, E 611 FT TO POB, EX 0.95 AC  
Desc ORB 572-402, ORB 344-64, C56-272-73, ORB 1015-1914  
Address - 694 SE. CR. 245, Lake City, FL 32056

2. General description of Improvement: Replace underground gasoline storage tanks  
and piping

3. Owner Name & Address ABP FL (Lake City) LLC, 4300 Wildwood Parkway, Atlanta,  
GA. 30339 Interest in Property owner

4. Name & Address of Fee Simple Owner (if other than owner): N/A

5. Contractor Name K.C. Petroleum, Inc Phone Number 904-693-3200

Address 650 Talleyrand Ave., Jax, FL 32202

6. Surety Holders Name N/A Phone Number

Address

Amount of Bond

7. Lender Name N/A Phone Number

Address

8. Persons within the State of Florida designated by the Owner upon whom notices or other documents may be served as provided by section 718.13 (1)(a) 7; Florida Statutes:

Name Kevin Corvick Phone Number 904-693-3200

Address 650 Talleyrand Ave., Jax, FL 32202

9. In addition to himself/herself the owner designates \_\_\_\_\_ of

\_\_\_\_\_ to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) -

(a) 7. Phone Number of the designee \_\_\_\_\_

10. Expiration date of the Notice of Commencement (the expiration date is 1 (one) year from the date of recording, (Unless a different date is specified) \_\_\_\_\_

Inst:200712016155 Date:7/19/2007 Time:11:24 AM

17 DC,P.DeWitt Cason ;Columbia County Page 1 of 1

NOTICE AS PER CHAPTER 713, Florida Statutes:

The owner must sign the notice of commencement and no one else may be permitted to sign in his/her stead.

Michael B. Selmer  
Signature of Owner



ANGELA SWANSON  
Notary Public, State of Florida  
My comm. expires Oct. 26, 2009  
No. DD 485980

Sworn to (or affirmed) and subscribed before this 18  
day of July, 2007

NOTARY STAMP/SEAL

Angela Swanson  
Signature of Notary



# 2006-2007 OCCUPATION LICENSE TAX

CITY OF JACKSONVILLE/DUVAL COUNTY

MIKE HOGAN, TAX COLLECTOR

231 E FORSYTH STREET ROOM 200 JACKSONVILLE, FL 32202-3370

PHONE: (904) 830-2000 FAX: (904) 830-1432

WEBSITE: [www.ccn.net/fl](http://www.ccn.net/fl)

Note - A penalty is imposed for failure to keep this license exhibited conspicuously at your establishment of place of business. This license is furnished pursuant to chapter 770-772 City ordinance codes.

LAMBERSON, SCOTT M  
LAMBERSON, SCOTT M  
533 N 0017TH AV  
JACKSONVILLE, FL 32250-4815

ACCOUNT NUMBER:

LOCATION ADDRESS:

DESCRIPTION:

COUNTY LICENSE DESC:

MUNICIPAL LICENSE DESC:

122200000

550 W 1ST AV  
JACKSONVILLE FL 32202-0000

QUALIFYING AGENT CONTRACTORS

QUALIFYING AGENT CONTRACTORS

MG 772.825

COUNTY TAX:

MUNICIPAL TAX:

TOTAL TAX PAID:

0.00

100.00

100.00

**VALID FROM August 1, 2006 TO September 30, 2007**

## \*\*\*ATTENTION\*\*\*

**THIS LICENSE IS FOR OCCUPATION LICENSE TAX ONLY.**  
CERTAIN OCCUPATIONS MAY REQUIRE ADDITIONAL STATE LICENSING.

This is an occupation license tax only. It does not permit the licensee to violate any existing regulatory or zoning laws of the County or City. Nor does it exempt the licensee from any other license or permit required by law. This is not a certification of the licensee's qualifications.

*Mike Hogan*

TAX COLLECTOR

**THIS BECOMES A RECEIPT AFTER VALIDATION.**

PAID-8322058.0002-0002 Q10 10/04/2006 100.00



AC/ 0007350


STATE OF FLORIDA  
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION  
CONSTRUCTION INDUSTRY LICENSING BOARD

| DATE       | BATCH NUMBER | LICENSE NO. |
|------------|--------------|-------------|
| 02/14/2008 | 0003343      | 0003343     |

The following contract  
Named below is certified  
Under the provisions of Chapter  
Expiration date: Aug 11, 2007

LAMBERTSON, BRADY M  
K C PERROLD INC  
533 17TH AVE N  
JACKSONVILLE BEACH FL 32250

JEB BUSH  
GOVERNOR



IN GOD WE TRUST

SIMONE MARSHALLER  
SECRETARY

DISPLAY AS REQUIRED BY LAW

AC/ 0007350


STATE OF FLORIDA  
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION  
CONSTRUCTION INDUSTRY LICENSING BOARD

| DATE       | BATCH NUMBER | LICENSE NO. |
|------------|--------------|-------------|
| 07/15/2008 | 0003343      | 0003343     |

The following contract  
Named below is certified  
Under the provisions of Chapter  
Expiration date: Aug 11, 2007

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K C PERROLD INC  
533 17TH AVE N  
JACKSONVILLE BEACH FL 32250

JEB BUSH  
GOVERNOR



IN GOD WE TRUST

SIMONE MARSHALLER  
SECRETARY

DISPLAY AS REQUIRED BY LAW



# ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

05/03/2007

PRODUCER (904)353-3181 FAX (904)353-5722

Cecil W. Powell &amp; Co.

P.O. Drawer 41490

219 Newnan St.

Jacksonville, FL 32203-1490

INSURED KC Petroleum Inc  
P O Box 60742  
Jacksonville, FL 32236

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

## INSURERS AFFORDING COVERAGE

NAIC #

INSURER A: AM SAFETY RISK RETENTION GRP

INSURER B: Auto Owners Insurance Co

INSURER C: American Safety Indemnity Co

INSURER D: FCCI Insurance Company

10178

INSURER E:

## COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | ADD'L INSR | TYPE OF INSURANCE   | POLICY NUMBER   | POLICY EFFECTIVE DATE (MM/DD/YY) | POLICY EXPIRATION DATE (MM/DD/YY) | LIMITS   |
|----------|------------|---|-----------------|----------------------------------|-----------------------------------|--|
| A        |            | GENERAL LIABILITY   | ENV010668-06-02 | 09/11/2006                       | 09/11/2007                        | EACH OCCURRENCE \$ 1,000,000   |
|          |            | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY  |                 |                                  |                                   | DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000                                      |
|          |            | <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR                            |                 |                                  |                                   | MED EXP (Any one person) \$ 5,000  |
|          |            | GEN'L AGGREGATE LIMIT APPLIES PER:  |                 |                                  |                                   | PERSONAL & ADV INJURY \$ 1,000,000   |
|          |            | <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC |                 |                                  |                                   | GENERAL AGGREGATE \$ 2,000,000   |
|          |            |   |                 |                                  |                                   | PRODUCTS - COMP/OP AGG \$ 2,000,000  |
| B        |            | AUTOMOBILE LIABILITY  | 4203213900      | 09/11/2006                       | 09/11/2007                        | COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000   |
|          |            | <input checked="" type="checkbox"/> ANY AUTO  |                 |                                  |                                   | BODILY INJURY (Per person) \$  |
|          |            | ALL OWNED AUTOS   |                 |                                  |                                   | BODILY INJURY (Per accident) \$  |
|          |            | SCHEDULED AUTOS   |                 |                                  |                                   | PROPERTY DAMAGE (Per accident) \$  |
|          |            | HIRED AUTOS   |                 |                                  |                                   |  |
|          |            | NON-OWNED AUTOS   |                 |                                  |                                   |  |
|          |            | GARAGE LIABILITY  |                 |                                  |                                   | AUTO ONLY - EA ACCIDENT \$   |
|          |            | <input type="checkbox"/> ANY AUTO   |                 |                                  |                                   | OTHER THAN EA ACC \$   |
|          |            |   |                 |                                  |                                   | AUTO ONLY: AGG \$  |
| C        |            | EXCESS/UMBRELLA LIABILITY   | ENU009058-06-03 | 09/11/2006                       | 09/11/2007                        | EACH OCCURRENCE \$ 2,000,000   |
|          |            | <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE                            |                 |                                  |                                   | AGGREGATE \$ 2,000,000   |
|          |            | DEDUCTIBLE  |                 |                                  |                                   | \$   |
|          |            | <input checked="" type="checkbox"/> RETENTION \$ 10,000   |                 |                                  |                                   | \$   |
| D        |            | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY   | 001WC07A42788   | 05/06/2007                       | 05/06/2008                        | <input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER |
|          |            | ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?   |                 |                                  |                                   | E.L. EACH ACCIDENT \$ 1,000,000  |
|          |            | If yes, describe under SPECIAL PROVISIONS below   |                 |                                  |                                   | E.L. DISEASE - EA EMPLOYEE \$ 1,000,000  |
|          |            |   |                 |                                  |                                   | E.L. DISEASE - POLICY LIMIT \$ 1,000,000   |
| A        |            | OTHER Contractor's Pollution-Written Claims Made Basis  | ENV010668-06-02 | 09/11/2006                       | 09/11/2007                        | Limits of Liability included in Per Occurrence limit and General Aggregate Shown Above   |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

## CERTIFICATE HOLDER

Columbia County  
Building & Zoning  
Attention: Janice Williams  
P O Drawer 1529  
Lake City, FL 32056-1529

## CANCELLATION

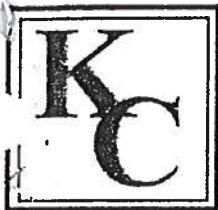
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Susan Jordan/HJS

*Susan Jordan*





# K.C. Petroleum, Inc.

P.O. Box 60742  
Jacksonville, FL 32236  
(904) 693-3200  
(904) 786-8441



CBC-058001 PCC-1256768

Date: 06/08/07

Mike Sellers  
BlueLinx Corporation  
694 SE CR 245  
Lake City, FL  
32056

Job #: 497220  
BlueLinx Tank Remediation  
694 SE CR 245  
Lake City, FL  
32056

JUN 07 2007

FAXED

K.C Petroleum is pleased to provide the following proposal on the above referenced project:

## COMBINED MATERIALS & EQUIPMENT

| Manufacturer | Description  | Quantity | Unit |
|--------------|--|----------|------|
|              | Pemco 18" Round Manhole                                | 3.00     | EA   |
|              | Pemco 2" Vent Cap                                      | 1.00     | EA   |
|              | PetroFiberglass DPF 42 WT-10CMR - Tank Sump            | 1.00     | EA   |
|              | PetroFiberglass DPF- 7 STD - Dispenser Sump            | 1.00     | EA   |
|              | PetroFiberglass DPF SB - Stabilizer Bar                | 1.00     | EA   |
|              | Xerxes 10,000 Gal. DW Fiberglass Tank w/ Collar, Brine | 1.00     | EA   |
|              | 2" Ball Valve  | 1.00     | EA   |
|              | Freight  | 1.00     | LS   |

## FIBERGLASS PIPING & FITTINGS

|          |   |       |     |
|----------|---|-------|-----|
| AO SMITH | 3" RED THREAD IIA PIPE                      | 50.00 | FT  |
| AO SMITH | 2" RED THREAD IIA PIPE                      | 75.00 | FT  |
| AO SMITH | 2" RED THREAD IIA FITTINGS (90 ELBOW)       | 6.00  | EA  |
| AO SMITH | 2" RED THREAD IIA FITTINGS-(45 ELBOW)       | 3.00  | EA  |
| AO SMITH | 2" RED THREAD IIA FITTINGS (SLEEVE)         | 2.00  | EA  |
| AO SMITH | 2" BxM Threaded Adapters                    | 3.00  | EA. |
| AO SMITH | 2x1.5 Female NPT Reducer Bushing            | 1.00  | EA. |
| AO SMITH | 3" 90 Elbow Secondary Cont. Fittings        | 2.00  | EA. |
| AO SMITH | 3" 45 Elbow Secondary Cont. Fittings        | 2.00  | EA. |
| AO SMITH | 3" Sleeve Coupling Secondary Cont. Fittings | 1.00  | EA. |
| AO SMITH | DS-8000 Series Adhesive                     | 10.00 | EA  |

## FLEXIBLE PIPING & FITTINGS

|            |                                    |       |     |
|------------|------------------------------------|-------|-----|
| OPW        | PBF2-300AXPF - 3" Entry            | 2.00  | EA. |
| OPW Pisces | PTB2-320FA - 3" to 2" Reducer Boot | 2.00  | EA. |
| OPW Pisces | PCEF2-751 - Electrical Entry       | 4.00  | EA. |
| OPW Pisces | SL-1100 - Sealant                  | 12.00 | EA. |

## STP'S AND LEAK DETECTORS

|          |                             |      |    |
|----------|-----------------------------|------|----|
| FE PETRO | STP75 VL2 - 3/4 HP Sub-Pump | 1.00 | EA |
|----------|-----------------------------|------|----|

DRESSER

Wayne

FILE COPY

**Job #: 497220 BlueLinx Tank Remediation**

Proposal, Page #: 2

Date: 06/08/07

|        |           |   |      |    |
|--------|-----------|---|------|----|
| EQ 360 | FE PETRO  | STP-DHI-SCI - Isolation Relay w/ Controller | 1.00 | EA |
|        | VAPORLESS | LD-2000 - Leak Detector                     | 1.00 | EA |

**SERVICE STATION PRODUCTS**

|                  |              |  |      |    |
|------------------|--------------|--|------|----|
| EQ 414<br>EQ 634 | EMCO WHEATON | A1100-055P - Overfill Drop Tube w/ Adaptor & Cap | 1.00 | EA |
|                  | OPW          | 7111SS-CSDW - Stainless Double-wall Spill Bucket | 1.00 | EA |

**FLEX CONNECTORS & SHEAR VALVES**

|         |                             |      |    |
|---------|-----------------------------|------|----|
| OPW     | 10BF-5725 - 1.5 Shear Valve | 1.00 | EA |
| FLEXING | 1.5" X 18" FLEXHOSE         | 1.00 | EA |
| FLEXING | 2"x15" Flexhose             | 1.00 | EA |

**MANHOLES & COVERS**

|     |  |      |    |
|-----|--|------|----|
| EBW | 781-443-18 - 42" Composite Manhole (Bolt Down) | 1.00 | EA |
|-----|--|------|----|

**OVERFILL PROTECTION**

|       |                                    |      |    |
|-------|------------------------------------|------|----|
| PEMCO | 5104432LC - Vent Etractor Assembly | 1.00 | EA |
|-------|------------------------------------|------|----|

**DISPENSING EQUIPMENT & CONSOLE**

|        |               |   |      |    |
|--------|---------------|---|------|----|
| EQ 614 | Veeder Root   | 329358-001 - 8-Input Interstitial/Sensor Interface Mod  | 1.00 | EA |
|        | Veeder Root   | 312020-952 - Probe Riser Cap & Ring Kit                 | 1.00 |    |
|        | Veeder Root   | 330020-436 - Interstitial Riser Cap and Ring Kit        | 1.00 | EA |
|        | Veeder Root   | 794380-208 - Piping Sump Sensor                         | 1.00 | EA |
|        | Veeder Root   | 794380-303 - Hydrostatic Interstitial Sensor            | 1.00 | EA |
|        | Dresser Wayne | Reliance G6201D Single Product Dispenser w/ Pulse Outpu | 1.00 | EA |

|                 |
|-----------------|
| Equipment Sub-T |
|-----------------|

**SCOPE OF WORK**

Provide uncertified drawings by K.C. Petroleum, Inc. for permitting.

Obtain permitting with local authorities.

Blow back product line to tank.

Remove existing tank concrete areas and haul off. (1,602 sq. ft.)

Remove (1) existing 10,000 gallon fiberglass clad steel underground storage tank, degas and dispose of, providing the environmental screening and closure report. (Liquids and sludges to be billed separate per "Exhibit B")

Furnish and install (1) 10,000 gallon double-wall fiberglass underground storage tank including dead-men anchoring system. (See "Notes" for NEPDES permit requirements)

Backfill the new tank installation with clean sand fill material as per manufacture including compaction and soil testing.

Ballast new UST with water utilizing available fire hydrant.

Furnish and install all tank top containment sump, risers, vent extractors, double-wall fiberglass product piping from the tank to the new dispenser sump with accessories installed in the existing island form, single-wall fiberglass vent piping from the tank terminating at building tieing to the existing steel vent riser and surface grade manholes.

Furnish and install new sub-pump with leak detector, (1) Wayne G6201D (Up to 22 gpm) mechanical dispenser with hanging hardware and tank inventory probe and sensors using the existing Veeder Root console.

Furnish, place and finish concrete over tank and piping trenches (1,602 sq. ft) using 4,000 psi fiber-mesh reinforced concrete mix..

Provide electrical services for the tank, dispenser and owner supplied fuel management system from the building.

Perform petroleum line testing, start-up, purge and calibration on system.

Clean-up and haul off all uncontaminated construction debris do to this scope of work.

## Proposal Recap:

Equipment Sub-Total:  
Installation Sub-Total:

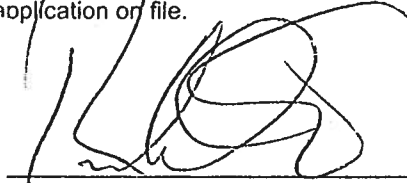
### PROJECT TOTAL:

All applicable sales tax is paid by K.C. Petroleum, Inc. and included in the proposal total above.

Payment is due upon completion of the work and should be made to the address shown above. Past due or unpaid balances shall accrue interest at the rate of 1.5% per month. Purchaser further agrees to pay K. C. Petroleum, Inc. reasonable attorneys fees and cost if this account is placed in the hands of an attorney or outside agency for collection.

#### NOTES:

1.) Exhibits A&B attached and made apart of this proposal. 2.) Environmental screening, closure report included in proposal. 3.) De-watering if required for tank installation, ADD \$7,500.00. NEPDES permits for de-watering discharge will be required as an extra to this proposal, ADD \$2,400.00. 4.) Air sparging equipment if required for de-watering discharge do to environmental issues ; ADD \$1,550.00 per day to this proposal. 5.) Liquids and sludges from the existing underground storage tanks to be billed separate per "Exhibit B" with manifest attached for proof of volume. 6.) Concrete replacement over the estimated proposal quantities; ADD \$7.75 per sq. ft. 7.) Alternate: (1) Furnish and install a high hose retriever at the dispenser; ADD \$750.00. (2) Provide pea gravel backfill around the underground tank in-lieu of sand backfill; ADD \$6,500.00. 8.) PAYMENT TERMS: Net 10 days with approved credit application on file.



Authorized Signature

6/8/07

Date

KC Petroleum, Inc.  
PO Box 60742  
Jacksonville, FL 32236

Acceptance Signature:

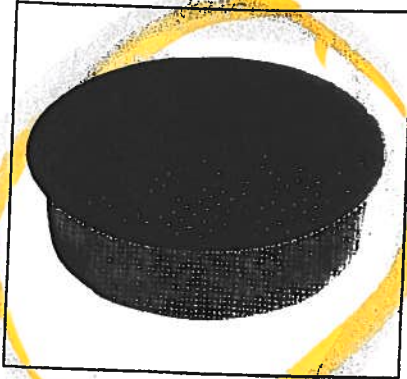
Date

Company Name/Billing Address



# PEMCO

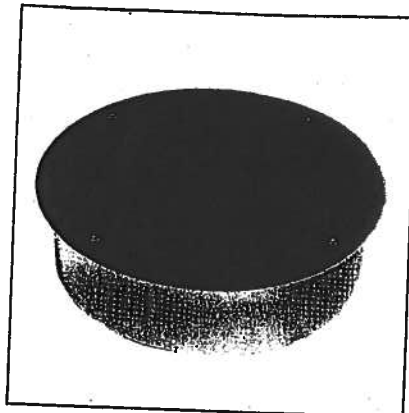
## MULTI-PURPOSE MANHOLES



106

### Heavy Duty Round Manhole

The Heavy Duty Round Manhole features a 1 1/4" wide steel ring frame, 3/8" diamond plate steel cover with rust resistant coating (covers 30" and larger include a 4" wide reinforcing channel welded to the underside of the cover), 14 gauge galvanized steel skirt and carries the H-20 load rating. The 16" to 24" models have covers with finger grip hole (excluding rain tight models). The 30", 36" and 38" model covers include an easy grip recessed handle and the 42" and larger model covers are provided with two easy grip recessed handles. The Model 106LA and Model 107 are limited access manholes, which include four 3/8" flush mount stainless steel bolts. The Model 107 is also a rain tight manhole, which includes a Buna-N gasket. Optional PEMCO Model 106L liners are also available for all models of the heavy duty round manhole.



107

| MODEL           | COVER SIZE | SKIRT SIZE | COVER WEIGHT (LBS.) | SKIRT WEIGHT (LBS.) |
|-----------------|------------|------------|---------------------|---------------------|
| 10616X10        | 16" x 10"  | 10"        | 17 1/4"             | 41.0                |
| 10618X10        | 18" x 10"  | 10"        | 19 1/4"             | 49.0                |
| 10620X10        | 20" x 10"  | 10"        | 21 1/4"             | 57.0                |
| 10624X10        | 24" x 10"  | 10"        | 25 1/4"             | 79.0                |
| 10630X10        | 30" x 10"  | 10"        | 31 1/4"             | 118.0               |
| 10636X10        | 36" x 10"  | 10"        | 37 1/4"             | 170.0               |
| 10638X10        | 38" x 10"  | 10"        | 39 1/4"             | 190.0               |
| 10642X10        | 42" x 10"  | 10"        | 43 1/4"             | 250.0               |
| 10648X10        | 48" x 10"  | 10"        | 49 1/4"             | 315.0               |
| 10652X10        | 52" x 10"  | 10"        | 53 1/4"             | 390.0               |
| 10616X10LA      | 16" x 10"  | 10"        | 17 1/4"             | 41.0                |
| 10618X10LA      | 18" x 10"  | 10"        | 19 1/4"             | 49.0                |
| 10620X10LA      | 20" x 10"  | 10"        | 21 1/4"             | 57.0                |
| 10624X10LA      | 24" x 10"  | 10"        | 25 1/4"             | 79.0                |
| 10630X10LA      | 30" x 10"  | 10"        | 31 1/4"             | 118.0               |
| 10636X10LA      | 36" x 10"  | 10"        | 37 1/4"             | 170.0               |
| 10638X10LA      | 38" x 10"  | 10"        | 39 1/4"             | 190.0               |
| 10642X10LA      | 42" x 10"  | 10"        | 43 1/4"             | 250.0               |
| 10648X10LA      | 48" x 10"  | 10"        | 49 1/4"             | 315.0               |
| 10652X10LA      | 52" x 10"  | 10"        | 53 1/4"             | 390.0               |
| 10716X10        | 16" x 10"  | 10"        | 17 1/4"             | 41.0                |
| 10718X10        | 18" x 10"  | 10"        | 19 1/4"             | 49.0                |
| 10720X10        | 20" x 10"  | 10"        | 21 1/4"             | 57.0                |
| 10724X10        | 24" x 10"  | 10"        | 25 1/4"             | 79.0                |
| 10730X10        | 30" x 10"  | 10"        | 31 1/4"             | 118.0               |
| 10736X10        | 36" x 10"  | 10"        | 37 1/4"             | 170.0               |
| 10738X10        | 38" x 10"  | 10"        | 39 1/4"             | 190.0               |
| 10742X10        | 42" x 10"  | 10"        | 43 1/4"             | 250.0               |
| 10748X10        | 48" x 10"  | 10"        | 49 1/4"             | 315.0               |
| 10752X10        | 52" x 10"  | 10"        | 53 1/4"             | 390.0               |
| 106L 16" TO 24" | -          | -          | -                   | -                   |
| 106L 30" TO 42" | -          | -          | -                   | -                   |
| 106L 48" TO 52" | -          | -          | -                   | -                   |



25

### Upflow Vent

The Upflow Vent allows vapors to vent upwards in accordance with NFPA Code 30. The vent is also available with a 1/2" opening restrictor on the bottom (Model 25R), typically used in vapor recovery applications. The upflow vent features a cast aluminum body, flame-retardant 40 mesh brass screen and includes set screws for easy slip on installation onto a 2" or 3" vent pipe.

| Model | 2" | 4 1/4" | 4 3/8" | 1.0 |
|-------|----|--------|--------|-----|
| 2520  | 2" | 4 1/4" | 4 3/8" | 1.0 |
| 25R20 | 2" | 4 1/4" | 4 3/8" | 1.0 |
| 2530  | 3" | 5 1/2" | 6 3/8" | 3.0 |
| 25R30 | 3" | 5 1/2" | 6 3/8" | 3.0 |



26

### Pressure Vacuum Vent

The Pressure Vacuum Vent is used in vapor recovery applications to allow vapors to vent upwards in accordance with NFPA Code 30. The vent has a pressure setting of 8 oz. and a vacuum setting that does not exceed 1/2 oz. per square inch, to assure the appropriate pressure in the storage tank during filling and dispensing. The pressure vacuum vent features a cast aluminum body, flame-retardant 40 mesh brass screen and female threads for easy installation onto a 2" vent pipe. The vent is also available for slip on installation, with set screws and gasket included (Model 26S).

| Model | 2" | 5 3/4" | 4 3/8" | 2.0 |
|-------|----|--------|--------|-----|
| 26    | 2" | 5 3/4" | 4 3/8" | 2.0 |
| 26S   | 2" | 5 3/4" | 4 3/8" | 2.0 |



## PRODUCTS

NEW  
FEATURES

HISTORY

PRODUCTS

SERVICES

CONTACT US

## PRODUCTS

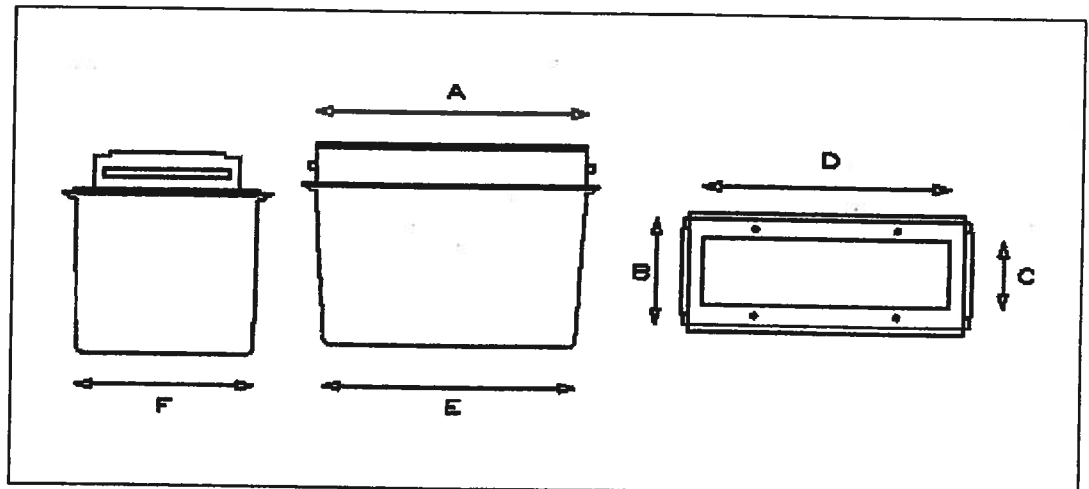
DISPENSER SUMPS

WATER TIGHT TANK SUMPS

WATER TIGHT TANK SUMPS WITH INSPECTION PORT

## DISPENSER SUMPS

Petro Fiberglass Dispenser Sumps are installed beneath fuel dispensers to provide containment of plumbing, shear valves, and underground connections. Our Sumps feature a contractor-friendly, containment chamber for access to the piping connections during installation. You can depend on these durable sumps for all of your containment needs and especially suited for high water table applications. Petro Fiberglass Sumps are built by hand and this is the personal touch that makes the difference to you the Customer and Installer.



| Model No.  | A       | B       | C       | D       | E       | F       | G |
|------------|---------|---------|---------|---------|---------|---------|---|
| DPF 1A STD | 39"     | 21 1/2" | 15 1/4" | 39"     | 37"     | 19 1/4" |   |
| DPF 1B STD | 39"     | 21 1/2" | 15 1/4" | 39"     | 37"     | 19 1/4" |   |
| DPF 1C STD | 41 1/2" | 20 1/4" | 15 1/4" | 41 1/2" | 40"     | 18 3/4" |   |
| DPF 1D STD | 41"     | 20 1/4" | 10 1/4" | 41"     | 40"     | 18 3/4" |   |
| DPF 1E STD | 36"     | 21 1/2" | 17"     | 36"     | 37"     | 26"     |   |
| DPF 1F STD | 41"     | 19 1/4" | 14 1/2" | 41"     | 38 1/2" | 18 1/2" |   |
| DPF 1C W   | 41 1/2" | 20 1/2" | 15 1/4" | 41 1/2" | 41 1/2" | 26"     |   |
| DPF 1D W   | 41 1/2" | 20 1/4" | 10 1/4" | 41"     |         |         |   |
| DPF 2A STD | 40 1/2" | 16"     | 10 1/4" | 40 1/2" | 37 1/2" | 14 1/2" |   |
| DPF 2B STD | 40 1/2" | 16"     | 9 1/4"  | 40 1/2" | 37 1/2" | 14 1/2" |   |
| DPF 2C STD | 40 1/2" | 16"     | 10"     | 35 3/4" | 37 1/2" | 14 1/2" |   |
| DPF 2A W   | 40 1/2" | 16"     | 10 1/4" | 40 1/2" | 40"     | 24"     |   |
| DPF 2B W   | 40 1/2" | 16"     | 9 1/4"  | 40 1/2" | 40"     | 24"     |   |
| DPF 2C W   | 40 1/2" | 16"     | 10 1/4" | 36"     | 40"     | 24"     |   |

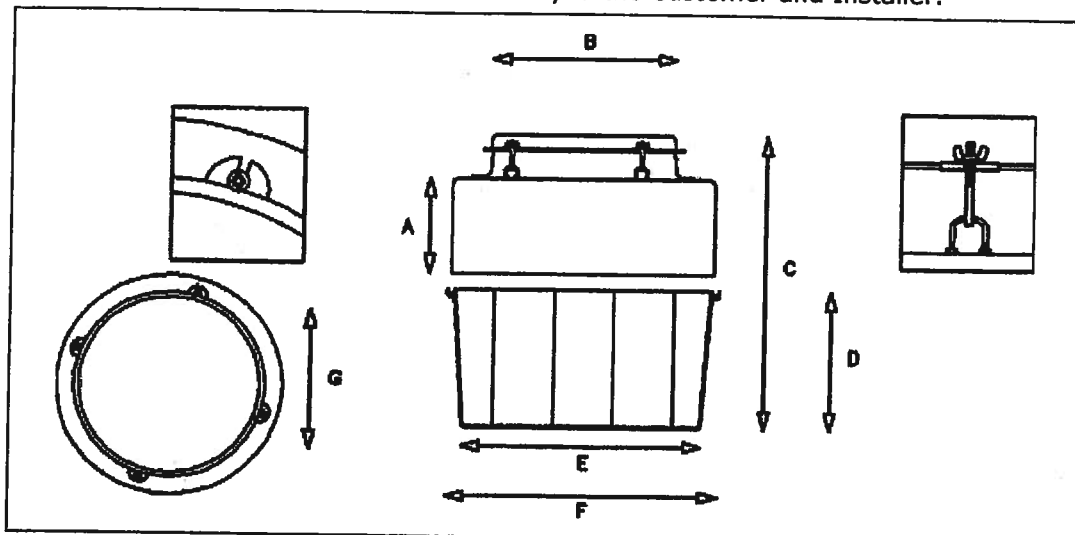


|                  |         |         |         |         |         |         |  |
|------------------|---------|---------|---------|---------|---------|---------|--|
| DPF 4A STD       | 29 1/2" | 21 1/2" | 15 1/4" | 29 1/2" | 27"     | 19"     |  |
| DPF 4B STD       | 24"     | 21 1/2" | 16 3/4" | 24"     | 23"     | 19"     |  |
| DPF 5B W         | 27"     | 16"     | 11"     | 23 3/4" | 28 1/2" | 23 1/2" |  |
| DPF 5A W         | 27"     | 16"     | 7 1/2"  | 24"     | 28 1/2" | 23 1/2" |  |
| DPF 5C W         | 27"     | 16"     | 7 1/2"  | 23 3/4" | 28 1/2" | 23 1/2" |  |
| <b>DPF 7 STD</b> | 21"     | 15"     | 11"     | 21"     | 18 1/4" | 15"     |  |
| DPF 7W           | 21"     | 15"     | 11"     | 21"     | 24"     | 24"     |  |
| DPF 1A C         | 39"     | 21 1/2" | 15 1/4" | 39"     | 34"     | 25"     |  |
| DPF 1A W         | 39"     | 21 1/2" | 15 1/4" | 39"     | 41 1/2" | 25 3/4" |  |
| DPF 1E C         | 36"     | 21 1/2" | 16 3/4" | 36"     | 29 1/4" | 24 1/2" |  |
| DPF 1F C         | 41"     | 19 1/4" | 14 1/4" | 41"     | 34"     | 25"     |  |
| DPF 5B W         | 27"     | 16"     | 11"     | 23 3/4" | 28 1/2" | 23 1/2" |  |
| DPF 7 TS         | 24 3/4" | 19"     | 15"     | 21"     | 24"     | 24"     |  |

[Product List \(Excel\)](#)[Product List \(Acrobat\)](#)[Back To Top](#)

## WATER TIGHT TANK SUMPS

Petro Fiberglass Tank Sumps are installed below grade on top of UST's to provide access to underground equipment such as submersible pumps, and various piping connections. Tank sumps extend from the top of the tank to just below a manhole cover at grade level, and provide a clean, dry working area to facilitate maintenance on UST equipment. Inside of sumps are gel coated to provide high visibility during installation and maintenance. Our Fiberglass Sumps are especially well suited for the rigors of high water table installations. Petro Fiberglass Sumps are built by hand and this is the personal touch that makes the difference to you the Customer and Installer.



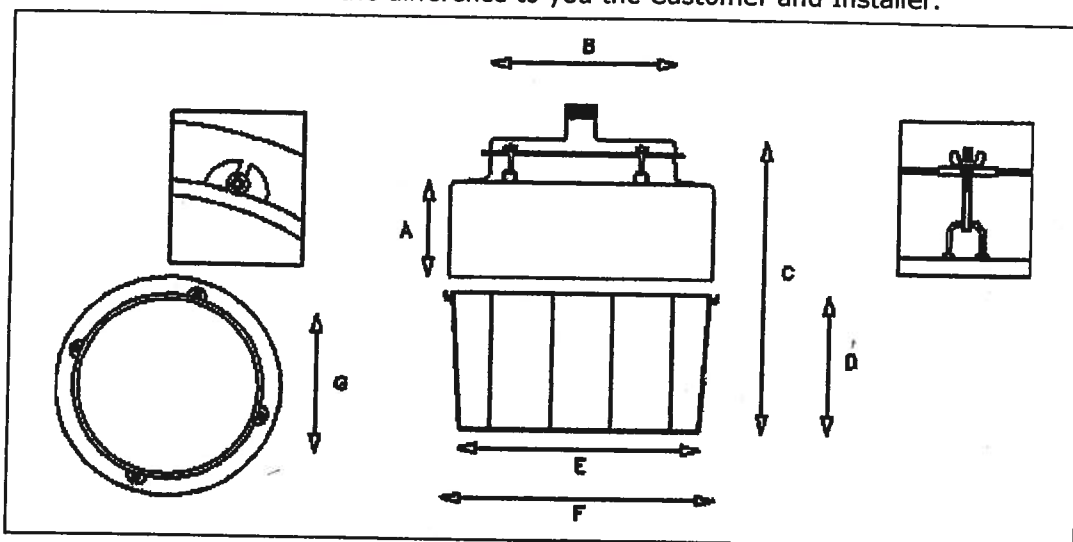
| Model No.           | A   | B       | C   | D   | E       | F       | G   |
|---------------------|-----|---------|-----|-----|---------|---------|-----|
| <b>DPF 42 WT-10</b> | 22" | 29 1/4" | 40" | 10" | 37 1/2" | 43"     | 35" |
| DPF 42 WT-16        | 22" | 29 1/4" | 46" | 16" | 37 1/2" | 43"     | 35" |
| DPF 42 WT Lid & Cap | 22" | 29 1/4" | N/A | N/A | N/A     | N/A     | 35" |
| DPF 42 WT w/6' Ext. | 39" | 29 1/4" | 72" | 16" | 37 1/2" | 43"     | 35" |
| DPF 48 WT-16        | 22" | 29 1/4" | 48" | 16" | 42"     | 51 1/4" | 35" |
| DPF 48 WT Lid & Cap | 22" | 29 1/4" | N/A | N/A | N/A     | N/A     | 35" |
| DPF 48 WT w/6' Ext. | 39" | 29 1/4" | 72" | 16" | 42"     | 51 1/4" | 35" |
| DPF 42 WT-16 CMR    | 22" | 29 1/4" | 46" | 16" | 37 1/2" | 43"     | 35" |

[Product List \(Excel\)](#)[Product List \(Acrobat\)](#)[Back To Top](#)

## WATER TIGHT TANK SUMPS WITH INSPECTION PORT

Petro Fiberglass Tank Sumps are installed below grade on top of UST's to provide access to underground equipment such as submersible pumps, and various piping connections. Tank sumps extend from the top of the tank to just below a manhole cover at grade level, and provide a clean, dry working area to facilitate maintenance on UST

equipment. Inside of sumps are gel coated to provide high visibility during installation and maintenance. Our Fiberglass Sumps are especially well suited for the rigors of high water table installations. Petro Fiberglass Sumps are built by hand and this is the personal touch that makes the difference to you the Customer and Installer.



| Model No.            | A   | B       | C   | D   | E       | F       | G   |
|----------------------|-----|---------|-----|-----|---------|---------|-----|
| DPF 42 WTI-10        | 22" | 29 1/4" | 40" | 10" | 37 1/2" | 43"     | 35" |
| DPF 42 WTI-16        | 22" | 29 1/4" | 46" | 16" | 37 1/2" | 43"     | 35" |
| DPF 42 WTI Lid & Cap | 22" | 29 1/4" | N/A | N/A | N/A     | N/A     | 35" |
| DPF 42 WTI w/6' Ext. | 39" | 29 1/4" | 72" | 16" | 37 1/2" | 43"     | 35" |
| DPF 48 WTI-16        | 22" | 29 1/4" | 48" | 16" | 42"     | 51 1/4" | 35" |
| DPF 48 WTI Lid & Cap | 22" | 29 1/4" | N/A | N/A | N/A     | N/A     | 35" |
| DPF 48 WTI w/6' Ext. | 39" | 29 1/4" | 72" | 16" | 42"     | 51 1/4" | 35" |

[Product List \(Excel\)](#)
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For additional information on our products, please contact Derek Surratte at 704.394.0922 or [dsurratte@petrofiberglass.com](mailto:dsurratte@petrofiberglass.com).

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# **Petro**

**FIBERGLASS SUMPS**

## **PRODUCT & INSTALLATION DATA**

### **Fiberglass Tank & Dispenser Sumps**

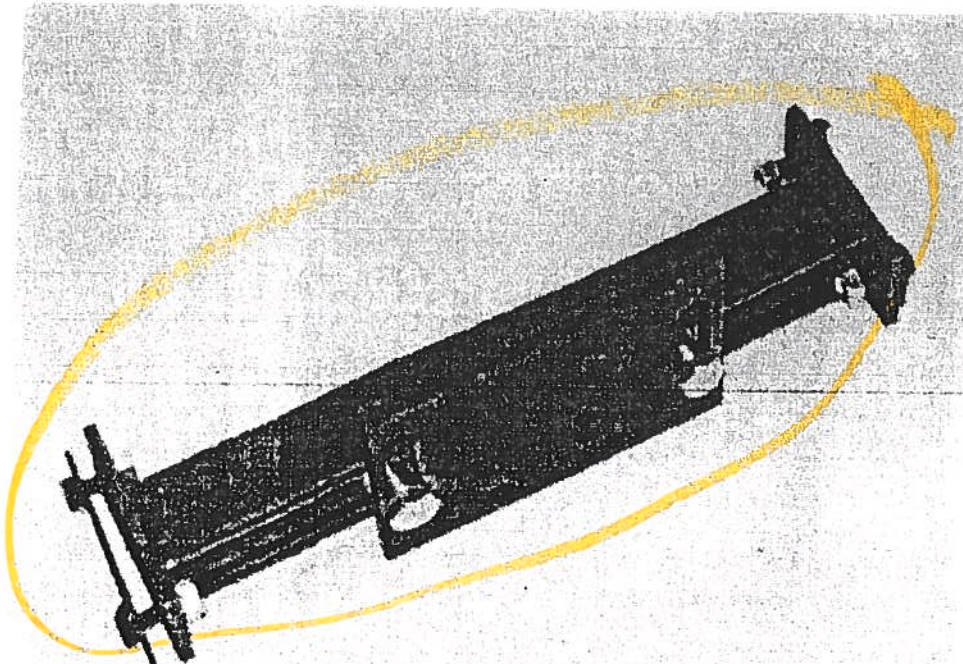
Petro Fiberglass Sumps offers fiberglass reinforced dispenser sumps and tank sumps which are designed to provide secondary containment for underground fuel systems. The sumps are manufactured for compatibility with piping systems. Both dispenser sumps and tank sumps are constructed of Isophthalic Polyester resin and 100% fiberglass reinforcement. These materials provide excellent chemical resistance to oxygenated fuels, alcohol blended fuels, and petroleum products. Stiffer than polyethylene, these stronger materials also resist soil and hydraulic forces in the buried environment resulting in fewer ecological clean-ups.

### **DISPENSER SUMPS**

Dispenser sumps are available in a wide range of sizes to accommodate single, dual, and multi-product dispensers (MPD's).

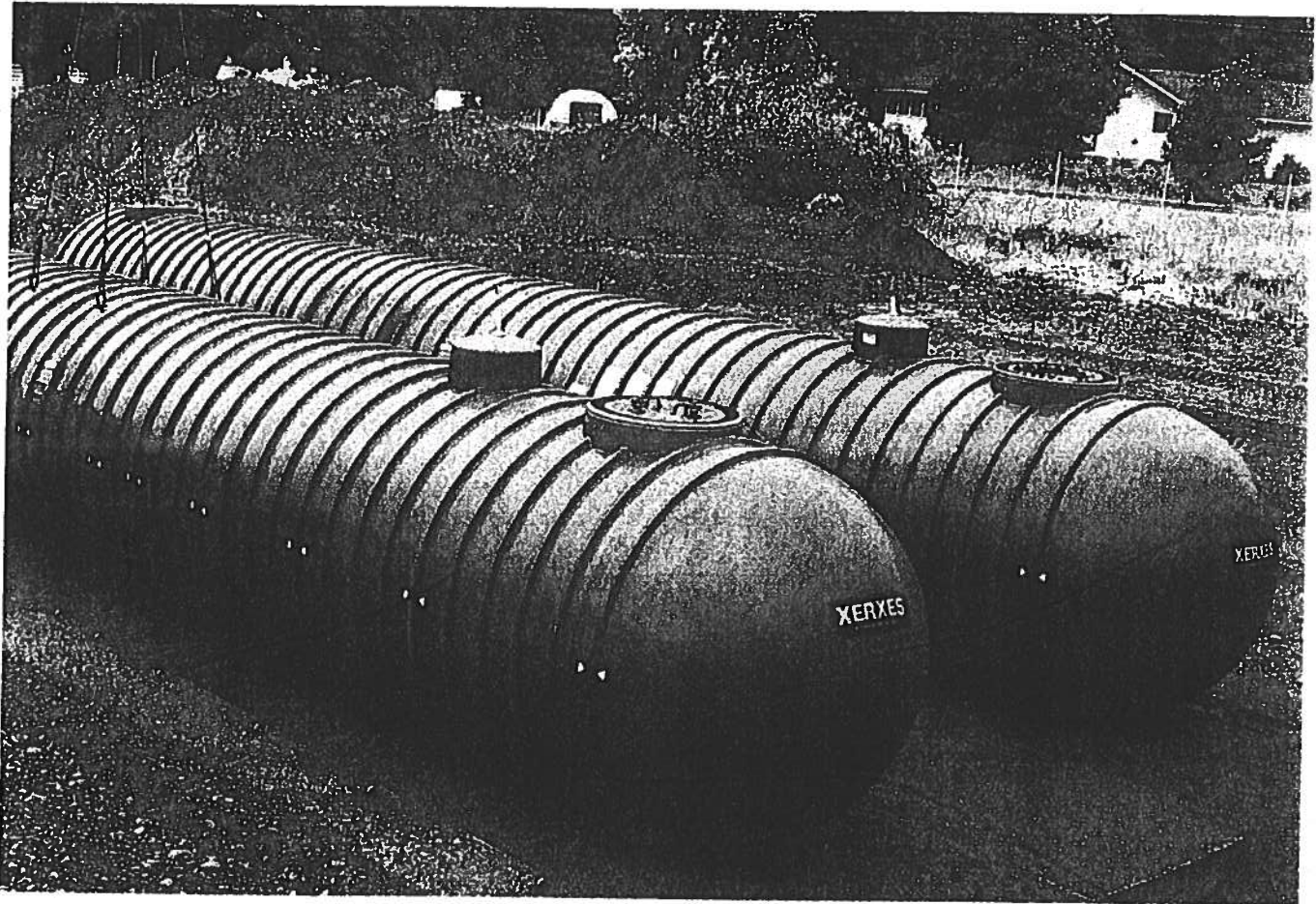
- Dispenser sumps protect primary piping connections and the environment.
- Stabilizer bar kits with mounting plates are ordered with all Petro Fiberglass dispenser sumps.
- Both fiberglass and flexible entry fittings are available, from third party suppliers, for pipe entries.
- Mounting frame is independently tested for corrosion and impact.

### **STABILIZER BAR KIT**





# Xerxes Double-Wall Fiberglass Underground Storage Tanks



## Xerxes fiberglass tanks – for today and tomorrow

Xerxes is headquartered in Minneapolis, Minnesota, and operates four manufacturing facilities strategically located to provide prompt delivery and quality service, both economically and efficiently, to your location. Xerxes' commitment to quality and innovation is the foundation of the strong, long-lasting relationships we have with our customers. Xerxes engineers were the first to utilize integrally constructed ribs in fiberglass tanks for added strength. Xerxes was also the first to manufacture a UL-listed, double-wall fiberglass underground storage tank (UST) and to ship a double-wall UST with an interstice filled at the factory with monitoring fluid.

Unlike less durable goods, Xerxes tanks must perform to standards for decades. We believe in going the extra mile for our customers. It is our commitment to customer satisfaction and quality products that makes Xerxes the first choice in underground storage – for today and tomorrow.

## The Xerxes Mission Statement

Xerxes Corporation is a leading developer, marketer and manufacturer of engineered fiberglass reinforced plastic (FRP) structural products for the petroleum, water/wastewater, chemical, industrial and commercial marketplaces. Our efforts are dedicated to providing high-quality, competitively priced products and services that meet the requirements of our customers. We are committed to a philosophy of growth and continual improvement of our products, services, processes and personnel in order to serve our stakeholders: customers, employees, stockholders and suppliers.



1-501-568-4010  
Fax 1-501-568-4465 .62

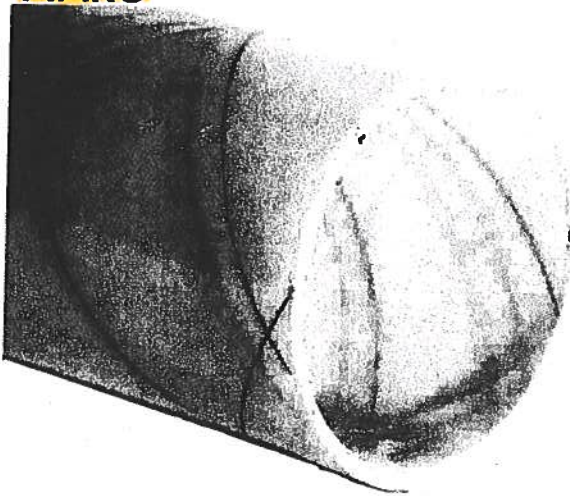
# Fiber Glass Systems™

Bulletin No. B2193  
November 1, 2006

STAR · SMITH · FIBERCAST

## SMITH FIBERCAST PETROLEUM MARKETING Suggested Price Schedule

### PIPING



**RED THREAD® IIA Primary Piping** - All pipe is supplied spigot x spigot ends in 15-ft., 22-25 ft. or 26-30 ft. random lengths. RED THREAD IIA primary pipe is UL/ULC Listed.

#### ALL PRICES - U.S. DOLLARS

| Nominal PIPE SIZE | PART NUMBER  | PIPE LENGTH | PRICE PER FOOT | WEIGHT | LENGTHS PER BUNDLE |
|-------------------|--------------|-------------|----------------|--------|--------------------|
| 2"                | 011020-069-1 | 15'         | 3.90           | 0.4    | 8                  |
| 2"                | 011020-069-2 | 22-25'      | 3.90           | 0.4    | 8                  |
| 2"                | 011020-069-3 | 26-30'      | 3.90           | 0.4    | 8                  |
| 3"                | 011030-069-1 | 15'         | 5.90           | 0.8    | 6                  |
| 3"                | 011030-069-2 | 22-25'      | 5.90           | 0.8    | 6                  |
| 3"                | 011030-069-3 | 26-30'      | 5.90           | 0.8    | 6                  |
| 4"                | 011040-071-1 | 15'         | 7.50           | 1.0    | 4                  |
| 4"                | 011040-069-2 | 22-25'      | 7.50           | 1.0    | 4                  |
| 4"                | 011040-071-3 | 26-30'      | 7.50           | 1.0    | 4                  |

**RED THREAD® IIA Secondary Containment Piping** - All pipe is supplied plain end in 15-ft., 22-25 ft., or 26-30 ft. random lengths. Secondary Containment piping & fittings in 3" and 4" sizes are UL/ULC Listed. Note: 6" pipe and fittings are not UL/ULC Listed.

| NON PIPE SIZE | PART NUMBER  | PIPE LENGTH | PRICE PER FOOT | WEIGHT | LENGTHS PER BUNDLE |
|---------------|--------------|-------------|----------------|--------|--------------------|
| 3"            | 011030-069-4 | 15'         | 5.90           | 0.8    | 6                  |
| 3"            | 011030-069-5 | 22-25'      | 5.90           | 0.8    | 6                  |
| 3"            | 011030-069-6 | 26-30'      | 5.90           | 0.8    | 6                  |
| 4"            | 011040-077-5 | 15'         | 7.50           | 1.0    | 4                  |
| 4"            | 011040-069-5 | 22-25'      | 7.50           | 1.0    | 4                  |
| 4"            | 011040-077-6 | 26-30'      | 7.50           | 1.0    | 4                  |
| 6"            | 011060-120-5 | 15'         | 13.50          | 2.4    | 2                  |
| 6"            | 011060-120-4 | 22-25'      | 13.50          | 2.4    | 2                  |
| 6"            | 011060-120-6 | 26-30'      | 13.50          | 2.4    | 2                  |

### PRIMARY FITTINGS



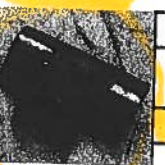
#### 90° PRIMARY ELBOW, belled ends

| SIZE | PART NUMBER  | PRICE | WEIGHT | PARTS PER BOX |
|------|--------------|-------|--------|---------------|
| 2"   | 012020-360-4 | 34.30 | 1.2    | 20            |
| 3"   | 012030-360-4 | 46.80 | 2.3    | 12            |
| 4"   | 012040-360-4 | 65.80 | 3.3    | 6             |



#### 45° PRIMARY ELBOW, belled ends

| SIZE | PART NUMBER  | PRICE | WEIGHT | PARTS PER BOX |
|------|--------------|-------|--------|---------------|
| 2"   | 012020-310-4 | 34.30 | 0.9    | 20            |
| 3"   | 012030-310-4 | 46.80 | 1.6    | 15            |
| 4"   | 012040-310-4 | 59.00 | 2.4    | 6             |



#### TEE, belled ends

| SIZE | PART NUMBER  | PRICE | WEIGHT | PARTS PER BOX |
|------|--------------|-------|--------|---------------|
| 2"   | 012020-410-4 | 49.70 | 1.9    | 12            |
| 3"   | 012030-410-4 | 54.80 | 3.6    | 6             |
| 4"   | 012040-410-4 | 71.90 | 4.9    | 4             |

#### FLANGE, belled end

| SIZE | PART NUMBER  | PRICE | WEIGHT | PARTS PER BOX |
|------|--------------|-------|--------|---------------|
| 2"   | 012020-170-4 | 28.20 | 1.3    | 16            |
| 3"   | 012030-170-4 | 33.30 | 2.6    | 8             |
| 4"   | 012040-170-4 | 38.40 | 3.6    | 6             |



#### SLEEVE COUPLING, belled ends

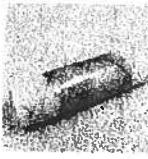
| SIZE | PART NUMBER  | PRICE | WEIGHT | PARTS PER BOX |
|------|--------------|-------|--------|---------------|
| 2"   | 012020-101-8 | 10.20 | 1.2    | 25            |
| 3"   | 012030-101-8 | 15.30 | 2.3    | 12            |
| 4"   | 012040-101-4 | 21.20 | 3.3    | 5             |



#### END CAP

| SIZE | PART NUMBER  | PRICE | WEIGHT | PARTS PER BOX |
|------|--------------|-------|--------|---------------|
| 2"   | 012020-180-4 | 42.00 | 1.4    | 16            |





| NIPPLE, tapered both ends |              |       |               |
|---------------------------|--------------|-------|---------------|
| SIZE                      | PART NUMBER  | PRICE | PARTS PER BOX |
| 2" x 4"                   | 012020-004-5 | 5.90  | 25            |
| 2" x 6"                   | 012020-006-5 | 6.60  | 25            |
| 2" x 8"                   | 012020-008-5 | 7.20  | 25            |
| 2" x 10"                  | 012020-010-5 | 8.50  | 12            |
| 2" x 12"                  | 012020-012-5 | 9.40  | 12            |
| 3" x 6"                   | 012030-006-5 | 7.20  | 12            |
| 3" x 8"                   | 012030-008-5 | 7.30  | 9             |
| 3" x 10"                  | 012030-010-5 | 9.40  | 5             |
| 3" x 12"                  | 012030-012-5 | 10.80 | 5             |
| 4" x 6"                   | 012040-006-4 | 9.20  | 9             |
| 4" x 8"                   | 012040-008-4 | 9.40  | 6             |
| 4" x 10"                  | 012040-010-4 | 10.70 | 4             |
| 4" x 12"                  | 012040-012-4 | 12.60 | 4             |

| THREADED ADAPTER       |              |       |        |               |
|------------------------|--------------|-------|--------|---------------|
| SIZE                   | PART NUMBER  | PRICE | WEIGHT | PARTS PER BOX |
| <b>Bell x Male</b>     |              |       |        |               |
| 2"                     | 012020-191-4 | 15.00 | 0.3    | 25            |
| 3"                     | 012030-191-4 | 28.20 | 0.6    | 12            |
| 4"                     | 012040-191-4 | 31.80 | 1.0    | 9             |
| <b>Bell x Female</b>   |              |       |        |               |
| 2"                     | 012020-194-4 | 15.00 | 0.3    | 25            |
| 3"                     | 012030-194-4 | 28.20 | 0.5    | 12            |
| 4"                     | 012040-194-4 | 31.80 | 0.5    | 8             |
| <b>Spigot x Male</b>   |              |       |        |               |
| 2"                     | 012020-192-4 | 15.00 | 0.3    | 25            |
| 3"                     | 012030-192-4 | 28.20 | 0.6    | 12            |
| 4"                     | 012040-192-4 | 31.80 | 1.0    | 8             |
| <b>Spigot x Female</b> |              |       |        |               |
| 2"                     | 012020-195-4 | 15.00 | 0.3    | 25            |
| 3"                     | 012030-195-4 | 28.20 | 0.5    | 12            |
| 4"                     | 012040-195-4 | 31.80 | 0.6    | 8             |



\* Reduced opening has female NPT threads.

| REDUCER BUSHING |              |       |        |               |
|-----------------|--------------|-------|--------|---------------|
| SIZE            | PART NUMBER  | PRICE | WEIGHT | PARTS PER BOX |
| 2" x 1"         | 012020-233-4 | 22.40 | 0.4    | 20            |
| 2" x 1 1/4"     | 012020-232-4 | 22.40 | 0.1    | 20            |
| 2" x 1 1/2"     | 012020-231-4 | 22.40 | 0.1    | 20            |
| 3" x 2"         | 012030-231-4 | 23.30 | 0.8    | 24            |
| 4" x 3"         | 012040-231-4 | 29.90 | 1.0    | 9             |

| SADDLE, female NPT |              |       |        |               |
|--------------------|--------------|-------|--------|---------------|
| SIZE               | PART NUMBER  | PRICE | WEIGHT | PARTS PER BOX |
| 2" x 1 1/2"        | 012020-516-4 | 35.10 | 0.5    | 1             |



## SUMP FITTINGS



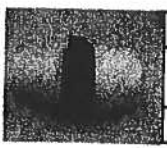
| SUMP ENTRY/TERMINATION FITTING         |              |        |               |
|--|--------------|--------|---------------|
| SIZE                                   | PART NUMBER  | PRICE  | PARTS PER BOX |
| <b>Bonded(1 Port, 3 Tapered Rings)</b> |              |        |               |
| 3"                                     | 012030-626-0 | 157.70 | 1             |
| 4"                                     | 012040-626-0 | 194.00 | 1             |
| <b>Gasketed(1 Port)</b>                |              |        |               |
| 3"                                     | 012030-620-0 | 212.30 | N/A           |
| 4"                                     | 012040-620-0 | 303.20 | N/A           |

| CONCENTRIC REDUCER |              |       |               |
|--------------------|--------------|-------|---------------|
| SIZE               | PART NUMBER  | PRICE | PARTS PER BOX |
| 4" x 3"            | 012040-238-3 | 34.90 | 15            |
| 5" x 4"            | 012050-238-3 | 72.80 | 10            |



4" x 3" Concentric Reducer must be ordered when using 3" sump entry/termination fitting.

5" x 4" Concentric Reducer must be ordered when using 4" sump entry/termination fitting.



| SUMP ADAPTER |              |       |               |
|--------------|--------------|-------|---------------|
| SIZE         | PART NUMBER  | PRICE | PARTS PER BOX |
| 3"           | 012030-610-1 | 92.40 | N/A           |

Note: 3" x 2" Termination Fitting may be used with 3" sump adapter:

| TAP               | PART NUMBER  | PRICE  | PARTS PER BOX |
|-------------------|--------------|--------|---------------|
| With 3/4" NPT Tap | 012030-236-3 | 103.00 | 12            |
| Without Tap       | 012030-235-3 | 55.60  | 10            |

## SECONDARY CONTAINMENT FITTINGS



| 90° ELBOW |              |        |               |
|-----------|--------------|--------|---------------|
| SIZE      | PART NUMBER  | PRICE  | PARTS PER BOX |
| 3"        | 012030-360-3 | 49.20  | 10            |
| 4"        | 012040-360-3 | 95.20  | 5             |
| 6"        | 012060-360-9 | 289.20 | N/A           |

| 45° ELBOW |              |        |               |
|-----------|--------------|--------|---------------|
| SIZE      | PART NUMBER  | PRICE  | PARTS PER BOX |
| 3"        | 012030-310-3 | 49.20  | 10            |
| 4"        | 012040-310-3 | 95.20  | 5             |
| 6"        | 012060-310-9 | 279.90 | N/A           |







| TEE  |              |        |               |
|------|--------------|--------|---------------|
| SIZE | PART NUMBER  | PRICE  | PARTS PER BOX |
| 3"   | 012030-410-3 | 72.20  | 10            |
| 4"   | 012040-410-3 | 118.80 | 5             |
| 6"   | 012060-410-9 | 332.10 | N/A           |



| SLEEVE COUPLING |              |        |               |
|-----------------|--------------|--------|---------------|
| SIZE            | PART NUMBER  | PRICE  | PARTS PER BOX |
| 3"              | 012030-101-3 | 42.20  | 10            |
| 4"              | 012040-101-3 | 92.00  | 5             |
| 6"              | 012060-101-9 | 251.80 | N/A           |



| SLEEVE COUPLING, one-piece, Scarfed O.D. |              |       |               |
|--|--------------|-------|---------------|
| SIZE                                     | PART NUMBER  | PRICE | PARTS PER BOX |
| 2"                                       | 012020-101-9 | 20.80 | 25            |
| 3"                                       | 012030-101-9 | 22.80 | 12            |
| 4"                                       | 012040-101-9 | 28.80 | 5             |



| THREADED ADAPTER, Bell x Male, Scarfed O.D. |              |       |               |
|---|--------------|-------|---------------|
| SIZE  | PART NUMBER  | PRICE | PARTS PER BOX |
| 2"  | 002020-191-7 | 18.00 | 25            |
| 3"  | 002030-191-7 | 31.40 | 12            |
| 4"  | 002040-191-7 | 36.40 | 9             |



| CROSSOVER 45° ELBOW |              |       |               |
|---------------------|--------------|-------|---------------|
| SIZE                | PART NUMBER  | PRICE | PARTS PER BOX |
| 3"                  | 012030-311-3 | 57.50 | 10            |
| 4"                  | 012040-311-3 | 97.80 | 5             |



| CROSSOVER TEE |              |        |               |
|---------------|--------------|--------|---------------|
| SIZE          | PART NUMBER  | PRICE  | PARTS PER BOX |
| 3"            | 012030-411-3 | 74.40  | 10            |
| 4"            | 012040-411-3 | 120.30 | 5             |



| CROSSOVER NIPPLE |              |       |               |
|------------------|--------------|-------|---------------|
| SIZE             | PART NUMBER  | PRICE | PARTS PER BOX |
| 3" x 6"          | 012030-006-7 | 8.00  | 12            |
| 4" x 6"          | 012040-006-7 | 9.30  | 9             |
| 6" x 8"          | 012060-008-7 | 14.20 | N/A           |

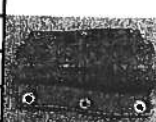
| TERMINATION FITTING |             |       |               |
|---------------------|-------------|-------|---------------|
| SIZE                | PART NUMBER | PRICE | PARTS PER BOX |

**With 3/4" NPT Tap**

|         |              |        |     |
|---------|--------------|--------|-----|
| 3" x 2" | 012030-236-3 | 103.00 | 12  |
| 4" x 3" | 012040-236-3 | 134.80 | 8   |
| 6" x 4" | 012060-234-7 | 285.40 | N/A |

**Without Tap**

|         |              |        |     |
|---------|--------------|--------|-----|
| 3" x 2" | 012030-235-3 | 55.60  | 10  |
| 4" x 3" | 012040-235-3 | 103.00 | 15  |
| 6" x 4" | 012060-235-7 | 251.80 | N/A |



| SADDLE |             |       |               |
|--------|-------------|-------|---------------|
| SIZE   | PART NUMBER | PRICE | PARTS PER BOX |

**Belled Outlet**

|         |              |       |   |
|---------|--------------|-------|---|
| 3" x 2" | 012030-521-4 | 47.00 | 1 |
| 4" x 2" | 012040-521-4 | 53.10 | 1 |
| 4" x 3" | 012040-531-4 | 63.90 | 1 |

**Female NPT Outlet**

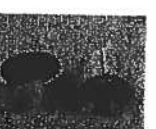
|             |              |       |   |
|-------------|--------------|-------|---|
| 3" x 1"     | 012030-511-4 | 34.80 | 1 |
| 3" x 1 1/4" | 012030-512-4 | 34.80 | 1 |
| 3" x 1 1/2" | 012030-516-4 | 34.80 | 1 |
| 4" x 1"     | 012040-511-4 | 35.10 | 1 |
| 4" x 1 1/4" | 012040-512-4 | 35.10 | 1 |
| 4" x 1 1/2" | 012040-516-4 | 35.10 | 1 |



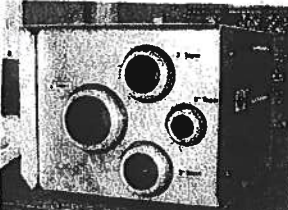
| REDUCER BUSHING, Scarfed O.D. |              |       |               |
|-------------------------------|--------------|-------|---------------|
| SIZE                          | PART NUMBER  | PRICE | PARTS PER BOX |
| 3" x 2"                       | 012030-231-7 | 18.80 | 24            |
| 4" x 3"                       | 012040-231-7 | 26.30 | 9             |



| CENTRALIZER |              |       |               |
|-------------|--------------|-------|---------------|
| SIZE        | PART NUMBER  | PRICE | PARTS PER BOX |
| 2" x 3"     | 013020-650-3 | 12.70 | N/A           |
| 3" x 4"     | 013030-651-4 | 13.80 | N/A           |
| 4" x 6"     | 013040-650-6 | 16.00 | N/A           |



## TOOLS & ACCESSORIES

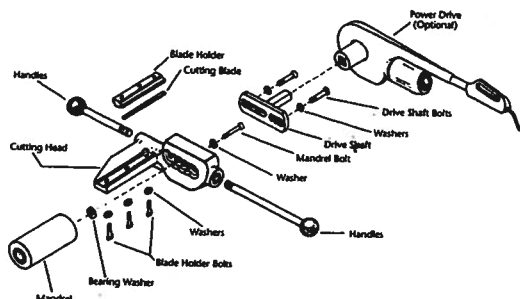


| POWER TOOLS              |              |          |                   |
|--------------------------|--------------|----------|-------------------|
| DESCRIPTION              | PART NUMBER  | PRICE    | SIZE              |
| Model 2100 Taper/Scarf   | 005990-795-0 | 1,771.70 | 110V              |
| Model 2100-I Taper/Scarf | 005990-797-0 | 2,039.60 | 220/240V 50 cycle |
| Model 2102 Taper/Scarf   | 005990-790-0 | 2,063.90 | 110V              |
| Model 2102-I Taper/Scarf | 005990-780-0 | 2,160.90 | 220/240V 50 cycle |



| T.A.B JOINT WRENCH SETS |              |        |                        |
|-------------------------|--------------|--------|------------------------|
| SIZE                    | PART NUMBER  | PRICE  | PRICE (TWO WRENCH SET) |
| 2"                      | 005990-712-0 | 193.50 | 387.00                 |
| 3"                      | 005990-713-0 | 205.60 | 411.20                 |
| 4"                      | 005990-714-0 | 217.80 | 435.60                 |
| 6"                      | 005990-716-0 | 269.60 | 539.20                 |

## MANUAL TOOLS & ACCESSORIES



| MANUAL TOOLS   |              |        |
|--|--------------|--------|
| DESCRIPTION  | PART NUMBER  | PRICE  |
| 2" - 4" Manual Tapering Tool                               | 005990-800-0 | 569.65 |
| Cutting Head Kit   | 005990-810-0 | 336.00 |
| Power Adapter for Cutting Head                             | 005990-813-0 | 58.80  |
| Adapter Block for 1" & 1 1/2"                              | 005990-812-0 | 74.55  |
| Adapter Kit for 1" & 1 1/2"                                | 005990-811-0 | 211.05 |
| Scarfig Adapter Kit for 3" & 4" Secondary Containment Pipe | 005990-915-0 | 109.75 |
| Scarfig Adapter Kit for 6" Secondary Containment Pipe      | 005990-922-1 | 148.60 |
| 1" Mandrel   | 005990-820-0 | 57.75  |
| 1 1/2" Mandrel   | 005990-821-0 | 70.90  |
| 2" Mandrel   | 005990-822-0 | 85.60  |
| 3" Mandrel   | 005990-823-0 | 122.35 |
| 4" Mandrel   | 005990-824-0 | 138.60 |
| 6" Mandrel   | 005990-825-0 | 212.65 |
| Tapering Blade for 1" - 6" Tool                            | 005990-814-0 | 3835   |
| Scarfig Blade for Secondary Containment                    | 005990-916-0 | 71.40  |
| Blade Holder for Secondary Containment Blade               | 005990-917-0 | 73.50  |

### SECONDARY CONTAINMENT GAUGE NIPPLES

| SIZE | PART NUMBER  | PRICE |
|------|--------------|-------|
| 3"   | 012030-050-0 | 6.10  |
| 4"   | 012040-050-0 | 7.30  |
| 6"   | 012060-120-0 | 18.80 |

### ELECTRIC HEATING COLLARS

| SIZE | PART NUMBER  | PRICE  | SIZE |
|------|--------------|--------|------|
| 2"   | 005990-502-0 | 106.00 | 110V |
| 3"   | 005990-503-0 | 122.25 | 110V |
| 4"   | 005990-504-0 | 136.00 | 110V |
| 6"   | 005990-505-0 | 168.00 | 110V |
| 2"   | 005990-502-1 | 149.85 | 240V |
| 3"   | 005990-503-1 | 184.10 | 240V |
| 4"   | 005990-504-1 | 215.05 | 240V |
| 6"   | 005990-505-1 | 264.85 | 240V |

### SMITH HEAT PACK

| SIZE | PART NUMBER  | PRICE | PACKAGING |
|------|--------------|-------|-----------|
| 2"   | 005990-400-1 | 6.40  | 20/case   |
| 3"   | 005990-401-1 | 8.70  | 18/case   |
| 4"   | 005990-402-1 | 11.00 | 16/case   |
| 6"   | 005990-403-1 | 14.60 | 12/case   |

### ADHESIVES

| DESCRIPTION       | PART NUMBER  | PRICE | SIZE                      | PACKAGING |
|-------------------|--------------|-------|---------------------------|-----------|
| 7014              | 002990-000-0 | 16.50 | 6.8 oz.                   | 10/Box    |
| 7024              | 002990-040-0 | 22.10 | 2.5 oz. Twin Pack         | 10/Box    |
| 7069              | 002990-030-0 | 22.10 | 9.95 oz.                  | 10/Box    |
| 8014              | 022990-000-0 | 16.50 | 6.4 oz.                   | 10/Box    |
| 8024              | 022990-050-0 | 22.10 | 2.7 oz. Twin Pack         | 10/Box    |
| 8055              | 022990-020-0 | 11.70 | 1.6 oz. Small Pack        | 20/Case   |
| 8069              | 022990-033-0 | 22.10 | 9.3 oz.                   | 10/Box    |
| FILLER            |              |       |                           |           |
| 7014-8014         | 002990-004-0 | 2.80  | For Secondary Containment | 50/Case   |
| 7069-8069         | 002990-033-0 | 2.80  | For Secondary Containment | 50/Case   |
| SOLVENT           |              |       |                           |           |
| Trichloroethylene | 002990-008-0 | 10.50 | 12 oz.                    | 12/Case   |

| UL TRAINING KIT       | PART NUMBER  | PRICE  |
|-----------------------|--------------|--------|
| 4-Person Training Kit | 012030-000-2 | 330.80 |

- 1 Each - 8024 Kit
- 2 Each - 2" 90° Elbows, 3" S.C. Couplings, 8014 Kit, 8014 Filler Kits
- 4 Each - 2" x 12" Plain End Pipe & 3" x 12" Plain End Pipe, B2160

MINIMUM ORDER - Total Quantity \$250.00

NOTE: MINIMUM ORDER TO RECEIVE DISCOUNT IS \$500.00

**TERMS - F.O.B. Origin.** A maximum of one pipe per bundle factory coupled lengths (joiners) may be shipped. All shipments will be to the nearest random length and billings will be made to the nearest foot shipped. Prices subject to change without notice. All sales subject to Fiber Glass Systems General Terms and Conditions of Sale.



## PISCES™ CONICAL SEAL ENTRY FITTINGS

PISCES™ Conical Seal Entry Fittings are installed in sump walls to seal the entry of fuel pipes, conduits, and vapor pipes. Conical seal fittings require a single entry hole to be cut in the sump wall for installation, and can be replaced without excavation from inside the sump if installed with a PISCES™ Backfill Guard.

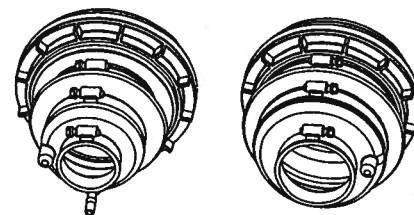


### Ordering Specifications

| Model No. | Conical Seal Pipe Entry Fittings                                | Nominal Boot ID. | Hole Saw Required | Weight lbs. | kg. | Packaging |
|-----------|---|------------------|-------------------|-------------|-----|-----------|
| CS-400    | 4" PISCES™ AP40 Access/Containment or 4" FRP Pipe Entry Fitting | 4 1/4"           | HS-600 (6")       | 1.5         | 0.7 | 6/box     |
| CS-300    | 3" PISCES™ AP30 Access/Containment or 3" FRP Pipe Entry Fitting | 3 3/4"           | HS-600 (6")       | 1.5         | 0.7 | 6/box     |
| CS-200    | 2" PISCES™ CP20 Double-Wall Primary Pipe Entry Fitting          | 2 1/2"           | HS-600 (6")       | 1.5         | 0.7 | 6/box     |
| CS-200F   | 2" FRP Pipe Entry Fitting                                       | 2 1/2"           | HS-500 (5")       | 1.5         | 0.7 | 6/box     |
| CS-150    | 1 1/2" PISCES™ CP15 Double-Wall Pipe Entry Fitting              | 2"               | HS-500 (5")       | 1.3         | 0.6 | 6/box     |
| CS-100    | 1" Rigid Conduit Entry Fitting                                  | 1 1/4"           | HS-375 (3 3/4")   | 1.3         | 0.6 | 6/box     |
| CS-075    | 3/4" Rigid Conduit Entry Fitting                                | 1 1/4"           | HS-375 (3 3/4")   | 1.3         | 0.6 | 6/box     |

### Conical Seal Entry Fittings With Integral Test Boots

Integral Test Boots provided on these fittings isolate the interstitial space between the primary and secondary pipes for air testing. A test port is provided for use with the LTK-36 Secondary Line Test Kit, and an optional air test valve is available.



### Ordering Specifications

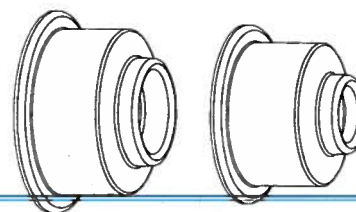
| Model No. | Conical Seal Pipe Entry Fittings  | Nominal Boot ID. | Hole Saw Required | Weight lbs. | kg. | Packaging |
|-----------|---|------------------|-------------------|-------------|-----|-----------|
| CS-420    | 4" PISCES™ AP40 Access/Containment or 4" FRP Pipe Entry Fitting with Test Boot for 2" PISCES™ or FRP Primary Pipe               | 2 1/2"           | HS-600            | 1.5         | 0.7 | 6/box     |
| CS-420A   | 4" PISCES™ AP40 Access/Containment or 4" FRP Pipe Entry Fitting with Test Boot with Air Stem for 2" PISCES™ or FRP Primary Pipe | 2 1/2"           | HS-600            | 1.5         | 0.7 | 6/box     |
| CS-415    | 4" PISCES™ AP40 Access/Containment Pipe Entry Fitting with Test Boot for 1 1/2" PISCES™ Primary Pipe                            | 2"               | HS-600            | 1.5         | 0.7 | 6/box     |
| CS-415A   | 4" PISCES™ AP40 Access/Containment Pipe Entry Fitting with Test Boot with Air Stem for 1 1/2" PISCES™ Primary Pipe              | 2"               | HS-600            | 1.5         | 0.7 | 6/box     |
| CS315     | 3" PISCES™ AP30 Access/Containment Pipe Entry Fitting with Test Boot for 1 1/2" PISCES™ Primary Pipe                            | 2"               | HS-600            | 1.5         | 0.7 | 6/box     |
| CS-315A   | 3" PISCES™ AP30 Access/Containment Pipe Entry Fitting with Test Boot with Air Stem For 1 1/2" PISCES™ Primary Pipe              | 2"               | HS-600            | 1.5         | 0.7 | 6/box     |

### Conical Seal Entry Fitting Backfill Guards

Backfill Guards are installed with conical seal fittings and enable the fittings to be replaced without excavation from inside the pump.

### Ordering Specifications

| Model No. | Used with Fittings | Weight lbs. | kg. | Packaging |
|-----------|--------------------|-------------|-----|-----------|
| BG-400    | CS-400 Series      | 1           | 0.5 | 6/box     |
| BG-300    | CS-300 Series      | 1           | 0.5 | 6/box     |
| BG-200    | CS-200             | 1           | 0.5 | 6/box     |
| BG-200F   | CS-200F            | 1           | 0.5 | 6/box     |
| BG-150    | CS-150             | 1           | 0.5 | 6/box     |
| BG-100    | CS-100             | 0.5         | 0.2 | 6/box     |
| BG-075    | CS-075             | 0.5         | 0.2 | 6/box     |

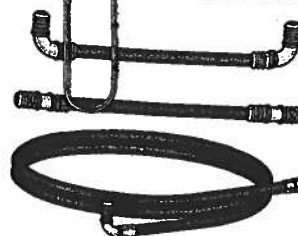




# **PISCES™ ENTRY FITTINGS AND ACCESSORIES**

## **Test Boots and Line Test Kits**

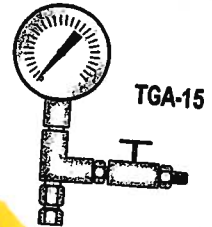
PISCES™ Test Boots and Line Test Kits are used to isolate and air-test the interstitial space between the primary and secondary pipes. One (1) Test Boot is required for each pipe end. Separate Test Boots are not required when using entry fittings with integral Test Boots. One (1) Line Test Kit LTK-36 is required per pipe section. Line Test Kits are not required when using on entry fittings with an integral Test Boot with an Air Test Stem on each pipe section.



TJ-200

TJ-300

TLT-36



TGA-15

TB-150/200



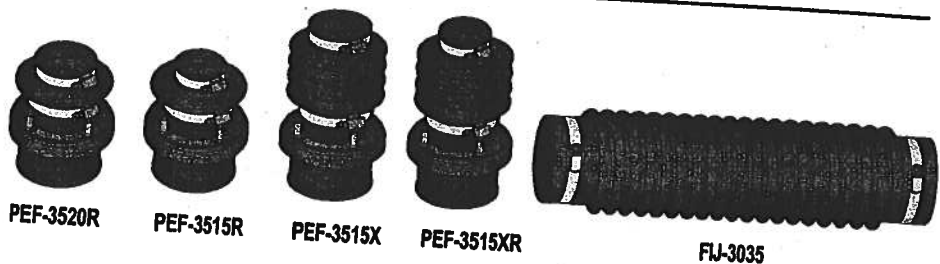
TB-315/415/420

## **Ordering Specifications**

| Model No. | Application   | Weight |     | Packaging |
|-----------|---|--------|-----|-----------|
|           |   | lbs.   | kg. |           |
| TB-150    | Test Boot, PISCES™ 1½" (4 cm) Coaxial Pipe Interstice   | 0.2    | 0.1 | 12/box    |
| TB-200    | Test Boot, PISCES™ 2" (5 cm) Coaxial Pipe Interstice  | 0.2    | 0.1 | 12/box    |
| TB-315    | Test Boot, PISCES™ 3" (8 cm) Access Pipe to 1½" (4 cm) Primary Pipe   | 0.2    | 0.1 | 6/box     |
| TB-315A   | Test Boot, PISCES™ 3" (8 cm) Access Pipe to 1½" (4 cm) Primary Pipe with Air Stem                           | 0.2    | 0.1 | 6/box     |
| TB-320    | Test Boot, PISCES™ 3" (8 cm) Access Pipe to 2" (5 cm) Primary Pipe, or 3" (8 cm) FRP to 2" (5 cm) FRP Pipe  | 0.2    | 0.1 | 6/box     |
| TB-320A   | Test Boot, PISCES™ 3" (8 cm) Access Pipe to 2" (5 cm) Primary Pipe with Air Stem                            | 0.2    | 0.1 | 6/box     |
| TB-415    | Test Boot, PISCES™ 4" (10 cm) Access Pipe to 1½" (4 cm) Primary Pipe  | 0.2    | 0.1 | 6/box     |
| TB-415A   | Test Boot, PISCES™ 4" (10 cm) Access Pipe to 1½" (4 cm) Primary Pipe with Air Stem                          | 0.2    | 0.1 | 6/box     |
| TB-420    | Test Boot, PISCES™ 4" (10 cm) Access Pipe to 2" (5 cm) Primary Pipe or 4" (10 cm) FRP to 2" (5 cm) FRP Pipe | 0.2    | 0.1 | 6/box     |
| TB-420A   | Test Boot, PISCES™ 4" (10 cm) Access Pipe to 2" (5 cm) Primary Pipe with Air Stem                           | 0.2    | 0.1 | 6/box     |
| TB-430    | Test Boot, PISCES™ 4" (10 cm) Access Pipe to 3" (8 cm) Access Pipe  | 0.2    | 0.1 | 6/box     |
| TB-430A   | Test Boot, PISCES™ 4" (10 cm) Access Pipe to 3" (8 cm) Access Pipe with Air Stem                            | 0.2    | 0.1 | 6/box     |
| TJ-300    | Test Jumper Kit for Retractable Pipe (connects TB-420, TB-320, TB-415, and TB-315)                          | 0.2    | 0.1 | 1/bag     |
| TJ-200    | Test Jumper Kit for CP Pipe (connects TB-150 and TB-200)  | 0.2    | 0.1 | 1/bag     |
| TJ-200A   | Test Jumper Kit with Air Stem Connections   | 0.2    | 0.1 | 1/bag     |
| TLT-36    | Test Line Termination Kit, 36" (91 cm)  | 0.2    | 0.1 | 1/bag     |
| TLT-36A   | Test Line Termination Kit for use with Airstream Boots, 36" (91 cm)   | 0.2    | 0.1 | 1/bag     |
| TGA-15    | Secondary Line Test Gauge/Valve Assembly - (0-15 PSIG / 0-1 bar)  | 0.2    | 0.1 | 1/bag     |
| FI-1077   | Reducer Insert for CS/BF-100, .77" (19.5 mm) ID. (for Small Dia. Tech Wire)                                 | 0.5    | 0.2 | 1/box     |
| FI-1106   | Reducer Insert for CS/BF-100, .1031" (2.6 mm) ID. (for ¾" / 2 cm Conduit/Large Dia. Tech Wire)              | 0.2    | 0.1 | 1/bag     |

## **Dispenser Pan Fittings and Accessories**

PISCES™ Pan Fittings are installed in the bottom of PISCES™ Dispenser Pans to accommodate Pipe and Flex Connector Entries. The FIJ-3035 is used to isolate and contain Flex Connectors.



PEF-3520R

PEF-3515R

PEF-3515X

PEF-3515XR

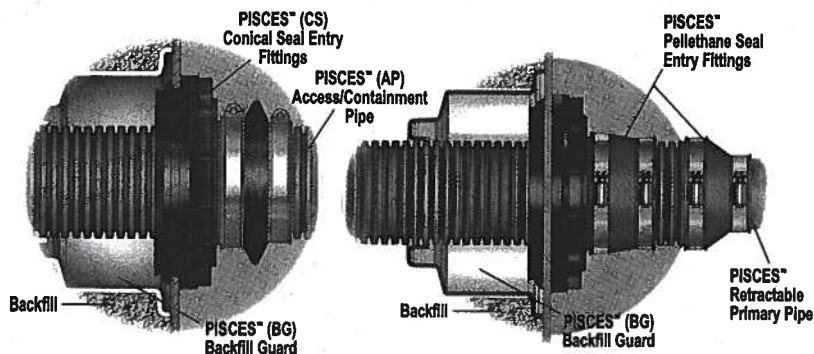
FIJ-3035

## **Ordering Specifications**

|            |   | Nominal Boot I.D. |    | Hole Saw Required  | Weight |     | Packaging |
|------------|---|-------------------|----|--------------------|--------|-----|-----------|
|            |   | in.               | cm |                    | in.    | kg. |           |
| PEF-3520R  | Pan Entry Fitting, 2" (5 cm) FRP Pipe Entry                   | 2½"               | 6  | HS-300 (3" / 8 cm) | 2.5    | 1   | 3/box     |
| PEF-3515R  | Pan Entry Fitting, 1½" (4 cm) Pipe Entry                      | 2"                | 5  | HS-300 (3" / 8 cm) | 2.5    | 1   | 3/box     |
| PEF-3515X  | Pan Entry Fitting, 1½" (4 cm) Flex Connector (Hex Seal)       | 2" (Hex)          | 5  | HS-300 (3" / 8 cm) | 2.5    | 1   | 3/box     |
| PEF-3515XR | Pan Entry Fitting, 1½" (4 cm) Flex Connector (Round Seal)     | 2½"               | 6  | HS-300 (3" / 8 cm) | 2.5    | 1   | 3/box     |
|            | Add "A" To Above Model Numbers for Air-Test Valve             |                   |    |                    |        |     |           |
| FIJ-3035   | Flexible Isolation Jacket, 30" (76 cm) Long x 3½" (9 cm) I.D. |                   |    |                    | 2      | 1   | 6/box     |
| JI-20R     | Insert, 2" / 5 cm FRP Pipe (2½" / 6 cm I.D. Seal)             |                   |    |                    | 0.2    | 0.1 | 1/bag     |
| JI-20X     | Insert, 2" / 5 cm Flex Connector (2½" / 6 cm Hex Seal)        |                   |    |                    | 0.2    | 0.1 | 1/bag     |
| JI-15X     | Insert, 1½" / 4 cm Flex Connector (2" / 5 cm Hex Seal)        |                   |    |                    | 0.2    | 0.1 | 1/bag     |

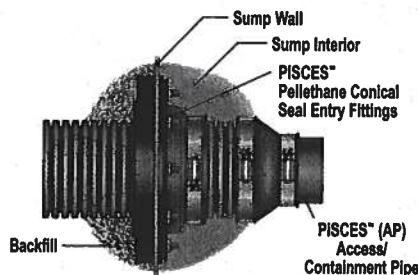


# PISCES™ Entry Fittings



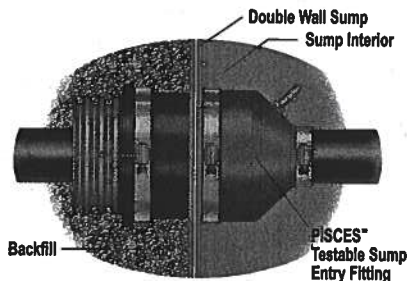
## PISCES™ Conical Seal Entry Fittings

PISCES™ Conical Seal Entry Fittings provide a reliable seal for piping and conduit entries through containment sump walls, and are engineered for long-term integrity in the harsh underground environment. Featuring a single hole through the sump wall for quick installation, PISCES™ Conical Seal Entry Fittings are completely field-replaceable without excavation when installed with a PISCES™ Backfill Guard. Massive sealing forces are generated against the I.D. of the hole in the sump wall as the cone is pulled inward by tightening the nut. Molded Acme threads and a blunt starter thread provide precision "spin-on" assembly and prevent cross-threading.



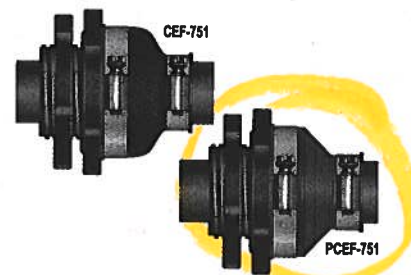
## PISCES™ Bolted Flange Entry Fittings

PISCES™ Bolted Flange Entry Fittings feature a ribbed sealing surface for added sealing protection, and rubber encapsulated metallic or reinforced composite parts outside the sump for corrosion resistance. Minimum spacing between nuts ensures consistent sealing forces on uneven sump wall surfaces, and a lipped ring provides added strength and rigidity. In addition, PISCES™ Bolted Flange Entry Fittings offer a positive mechanical seal with nuts that pull the fitting body and studded ring against the outer sump wall. The boots on "BFP" fittings are replaceable from inside the sump without excavation.



## PISCES™ Testable Dispenser Sump Entry Fittings

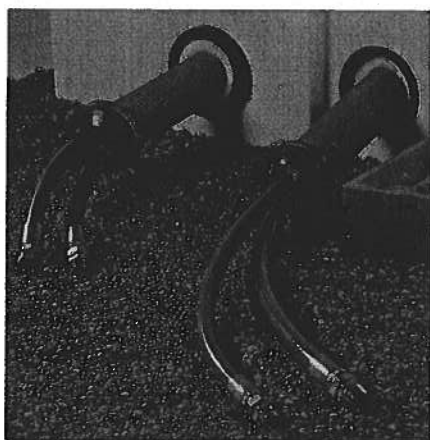
High-quality PISCES™ entry fittings provide a reliable seal for piping and conduit entries through containment sumps. PISCES™ now offers testable entry fittings specifically designed for continuous vacuum monitoring of the secondary containment system, compliant with AB-2481.



## Compact Electrical Conduit Fittings

These compact, electrician-friendly conduit fittings require only one hole to be drilled in the sump wall. A captured o-ring ensures long term seal integrity. The low profile (3½" diameter) and 15° angled entry capability preserves flexibility in conduit entry locations.

# PISCES™ Fuel Oil/Generator System Piping



The PISCES™ Fuel Oil Piping System is designed to provide a reliable, secondarily contained fuel supply system to generators and boilers from remote fuel tanks. Typical applications include both a ¾" supply and a 1" overflow return line running from a remote AST or UST to a generator engine or boiler day tank. Both lines are typically inserted into a common PISCES™ Access/Containment Pipe to provide retractable access to, and containment of, the fuel lines.

## PISCES™ Primary Fuel Oil/Generator System Pipe Nylon-Lined Core Tube

- Excellent fuel and chemical resistance properties.
- Smooth bore ensures efficient flow characteristics.

## Nylon Outer Jacket

- Unparalleled resistance to microbial attack.
- Integral braided fiber reinforcement for strength and pressure containment.

## PISCES™ Double Wall Access/Containment Pipe

- Allows for retractability of primary pipe without excavation for inspection, repair or replacement.
- Superior crush and puncture resistance for added protection from backfill.
- Added layer of containment protection.



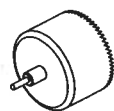
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Fax: (800) 421-3297  
www.opw-fc.com

Notice: OPW/PISCES™ by OPW, Inc. products must be used in compliance with applicable federal, state, provincial, and local laws and regulations. Product selection should be based on physical specifications and limitations and compatibility with the environment and material to be handled. OPW/PISCES™ by OPW, Inc. makes no warranty of fitness for a particular use. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials, and specifications are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation. For complete OPW warranty information visit our web site at [www.opw-fc.com](http://www.opw-fc.com).

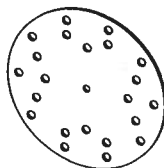


PISCES™ Fuel Oil Pipe is UL Listed per UL 971, standard for non-metallic piping for use with flammable liquids, and for use with Diesel and Fuel Oil.

U.S. Patent Numbers



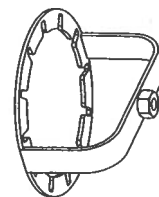
HS



BFT-300



SL-1100



CSW

## Ordering Specifications

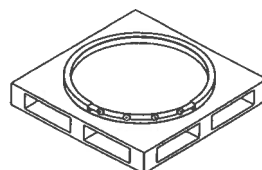
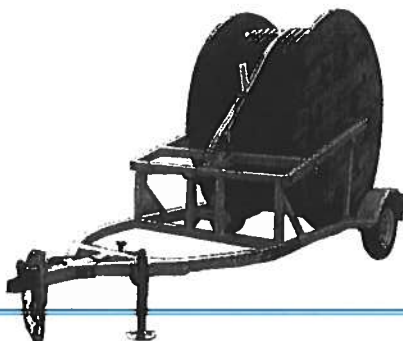
| Model No. | Description  | Weight |     |
|-----------|--|--------|-----|
|           |  | lbs.   | kg. |
| HS-275    | Hole Saw, 2½" c/w Arbor  | 0.5    | 0.2 |
| HS-300    | Hole Saw, 3" c/w Arbor   | 0.5    | 0.2 |
| HS-350    | Hole Saw, 3½" c/w Arbor  | 0.5    | 0.2 |
| HS-375    | Hole Saw, 3¾" c/w Arbor  | 0.5    | 0.2 |
| HS-450    | Hole Saw, 4½" c/w Arbor  | 1      | 0.5 |
| HS-500    | Hole Saw, 5" c/w Arbor   | 1      | 0.5 |
| HS-550    | Hole Saw, 5½" c/w Arbor  | 1      | 0.5 |
| HS-600    | Hole Saw, 6" c/w Arbor   | 1      | 0.5 |
| CHS-275   | Carbide Tip Hole Saw, 2½" (for FRP Sumps)  | 0.5    | 0.2 |
| CHS-300   | Carbide Tip Hole Saw, 3" (for FRP Sumps)   | 0.5    | 0.2 |
| CHS-350   | Carbide Tip Hole Saw, 3½" (for FRP Sumps)  | 0.5    | 0.2 |
| CHS-375   | Carbide Tip Hole Saw, 3¾" (for FRP Sumps)  | 0.5    | 0.2 |
| CHS-450   | Carbide Tip Hole Saw, 4½" (for FRP Sumps)  | 1      | 0.5 |
| CHS-500   | Carbide Tip Hole Saw, 5" (for FRP Sumps)   | 1      | 0.5 |
| CHS-550   | Carbide Tip Hole Saw, 5½" (for FRP Sumps)  | 1      | 0.5 |
| CHS-600   | Carbide Tip Hole Saw, 6" (for FRP Sumps)   | 1      | 0.5 |
| HSA-600   | Hole Saw Arbor for Carbide Tip Hole Saws (CHS)                                   | 1      | 0.5 |
| BFT-300   | Bolted Flex-Flange Fitting Installation Template                                 | 1      | 0.5 |
| SL-1100   | Urethane Sealant (Packaged 12 Tubes/Case)  | 1      | 0.5 |
| CSW-300   | Conical Seal Entry Fitting Wrench (for CS-200, 300, 400)                         | 0.5    | 0.2 |
| CSW-200   | Conical Seal Entry Fitting Wrench (for CS-200F, 150)                             | 0.5    | 0.2 |
| CSW-100   | Conical Seal Entry Fitting Wrench (for CS-100, 075)                              | 0.5    | 0.2 |
| BCW-30    | Band Clamp Wrench, 30 in. lbs.   | 1      | 0.5 |
| BCW-60    | Band Clamp Wrench, 60 in. lbs.   | 1      | 0.5 |
| SW-300    | Open-Face Entry Fitting Spanner Wrench (for all CS Fittings with pipe installed) | 1      | 0.5 |

## PISCES™ Pipe Reel Handling Equipment

The PISCES™ Pipe Reel Trailer provides a convenient means to both transport and unroll PISCES™ Pipe. The PISCES™ Pipe Reel Carousel provides a convenient means of unrolling PISCES™ Pipe Reels.

### Ordering Specifications

| Model No. | Description                |
|-----------|----------------------------|
| PRT-1000  | PISCES™ Pipe Reel Trailer  |
| PRC-1000  | PISCES™ Pipe Reel Carousel |





# SUBMERGED TURBINE PUMPS



...NOW, WITH OUR UNIQUE VARIABLE LENGTH  
AND VARIABLE SPEED OPTIONS



**FE PETRO** INC<sup>®</sup>



**FE PETRO****Franklin Fueling Systems**

# Product Specification

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## SUBMERSIBLE TURBINE PUMP SPECIFICATIONS

(Fixed speed models: 1/3, 3/4, 1-1/2, and 2 horsepower)\*

### GENERAL

- The entire pumping assembly shall have UL listing and shall meet all requirements of UL Standard UL 79.
- The pump discharge head and manifold assembly shall be manufactured from ASTM A48 Class 25 gray iron.
- The pump shall be available in 1/3, 3/4, 1 1/2, and 2 horsepower sizes and shall be manufactured to the proper length as determined by the tank diameter, type of tank, and bury depth.
- An optional variable length telescopic feature shall be provided such that the length of the pump is field adjusted at the job site to fit the specific pump length required. This variable length option shall be available in three variable length ranges, referred to as VL1, VL2 & VL3, where the VL2 model will fit 94% of all known installations.
- The pump motor shall have a thermal over-current overload protector with automatic reset.
- The pump motor assembly shall be clearly marked with pertinent information including Model, Horsepower, Voltage, Phase, and Manufacturer.
- Fixed speed Single-phase pump motors shall be a permanent split phase capacitor, and shall incorporate a 15 µF capacitor for 1/3, 3/4, and 1 1/2 horsepower motors and a 40 µF capacitor for 2 horsepower motors.
- The pump shall be UL listed for blend concentrations of:
 

|  |                            |
|--|----------------------------|
| Standard models:                           |                            |
| 0% - 15% ethanol or methanol and gasoline  | 20% MTBE with 80% gasoline |
| 20% ETBE with 80% gasoline                 | 17% TAME with 83% gasoline |
| AG (alcohol/gasoline) models:              |                            |
| 0% - 100% ethanol or methanol and gasoline | 20% MTBE with 80% gasoline |
| 20% ETBE with 80% gasoline                 | 17% TAME with 83% gasoline |
- The pumping unit shall not incorporate any flexible diaphragms and all sealing shall be accomplished with O-rings or UL recognized gaskets.
- The pump shall be rated to operate between -40°F (-40°C) and 104°F (40°C) with non-gelled product.
- FE Petro Inc. shall manufacture the pump.

### INSTALLATION AND MAINTENANCE

- The pump shall have a two or three wire field connection depending on single or three phase models and an easy access ground wire terminal, and shall incorporate a wire retainer which will accommodate these wires.
- The pump shall incorporate a port for line pressure testing that shall be sealed with a 1/4" NPT pipe plug.
- The pump head shall be equipped with a manual pressure relief screw to manually drop line pressure to zero by venting line pressure into storage tank. Purpose of this function is to avoid fuel spraying into dispenser and pump containment sumps during any routine service requiring piping to be opened to atmosphere such as filter replacement or leak detector maintenance.
- The pump unit shall have a fully extractable head in order to permit removal of the pump motor assembly without disturbing the discharge piping, product in the pipelines downstream of the check valve, syphoning system with syphon check valve installed, or the electrical wiring.
- During the removal of the extractable portion of the pump, product contained in the discharge manifold of the pump shall drain automatically into the storage tank.
- The pump will be equipped as standard with a 2 3/4" line check valve.
- The line check valve shall be independent of the removable head and shall be easily accessible.
- The pump motor shall be interchangeable by horsepower with different manufacturers' products.

### OPERATION

- The pump shall have an air/vapor elimination system that returns air or vapors to the underground storage tank through a tube.
- The pump unit shall contain a built-in expansion relief valve that relieves pressure at or above pumping pressure but below 50 psi as standard. Other pressure relief settings required by electronic line leak detection shall be

available.

- The pump motor shall utilize the product being pumped for lubrication of the motor bearings and for cooling the stator, and this fluid shall discharge into the underground storage tank at the top of the motor.
- The pump shall have syphon capability built into the pump as standard.

\* **Note: Some fixed speed model pumps may not be available in certain voltage, frequency, and phase ratings**

STP001

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## FE PETRO DISPENSER HOOK ISOLATION

**STP-DHI**


**ISOLATES DISPENSER HOOK CIRCUITS TO PREVENT ELECTRICAL FEEDBACK AS REQUIRED BY MOST ELECTRICAL CODES**

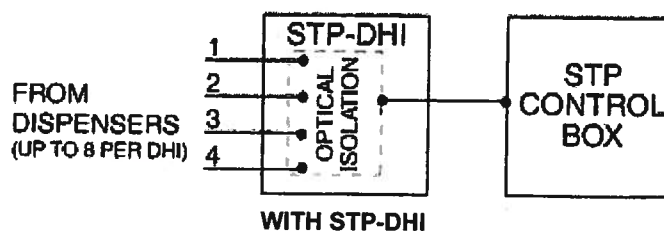
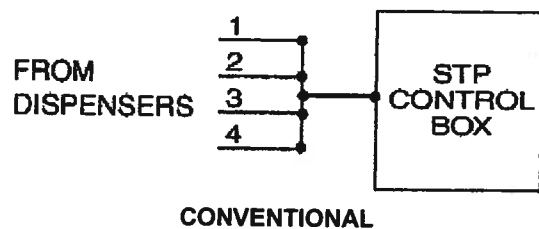
### FEATURES:

- Optically isolated inputs from up to eight dispensers.
- LED's indicate when source power is applied and dispenser hook signals are present.
- Can be supplied factory wired in tandem with the FE Petro Smart Controller or our standard control box.
- Compatible with any submersible pump controller.
- Fuse protected output to submersible pump controller.
- Retrofittable to any existing site.

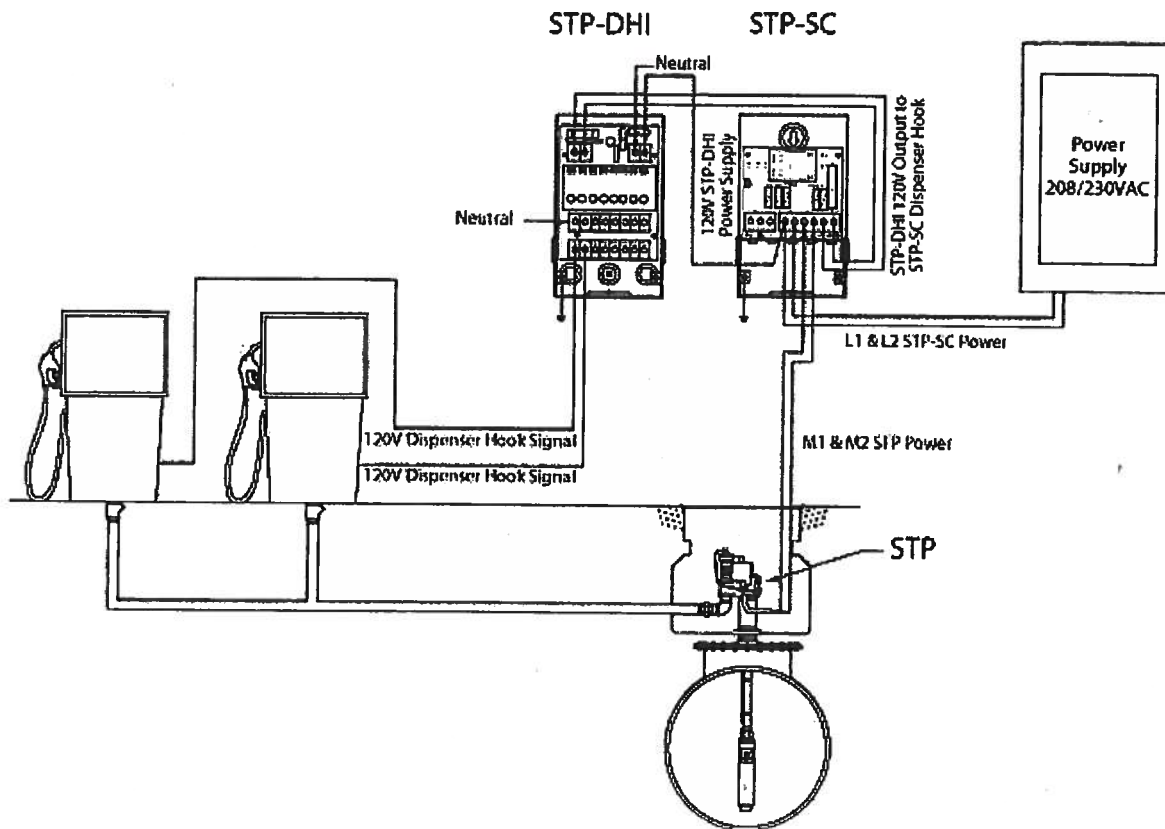
### BENEFITS:

- Prevents damage to dispenser relay boards caused by cross-phasing.
- Prevents electrical feedback between dispenser hook circuits during periods of maintenance and service as required by NEC 514-6, 1999, and other international codes.
- Aids in troubleshooting dispenser hook circuits because signals are isolated.
- Eliminates false STP run due to voltage leakage of multiple dispensers connected in parallel.
- Small size.
- Low cost.

### EASY TO RETROFIT:



### TYPICAL INSTALLATION:



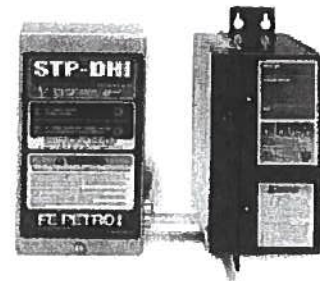
### CONFIGURATIONS:



### STP-DHI With Standard Pump Controller



### STP-DHI With Smart Controller



**STP-DHI With Variable Frequency Controller**  
**Note: Not available factory wired**

**SPECIFICATIONS:**

- Enclosure size: 8.5"h x 5"w x 3"d (215mm x 127mm x 76mm)
- 8 optically isolated inputs from dispenser
- One STP-DHI required per product grade for up to 8 dispensers
- 120V & 240V models available:
  - 120V STP-DHI: (1) 120V 30VA input from supply. (8) 120V, 10mA inputs from dispensers
  - 240V STP-DHIB: (1) 240V 30VA input from supply. (8) 240V, 10mA inputs from dispensers
- Output fuse rating: 250V 1A, fast acting
- 300 Volt surge protection
- Maximum ambient temperature rating: 120°F
- UL and C-UL Listed

STPB006

Rev. 9/99



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## THE FE PETRO SMART CONTROLLER™

## STP-SCI



PROTECTS AND CONTROLS YOUR  
SUBMERSIBLE PUMP INVESTMENT

DESIGNED TO REPLACE STANDARD CONTROL BOXES IN BOTH NEW AND EXISTING INSTALLATIONS, THE STP-SCI CONTROLLER PROVIDES VALUABLE PUMP PROTECTION AND PERFORMANCE FEATURES NEVER BEFORE OFFERED IN ONE ECONOMICAL CONTROLLER.

### FEATURE:

#### EXTENDED PUMP RUN DETECTION

Automatically shuts pump off after 60 minutes of running with no pumping activity.

#### MASTER/SLAVE OPERATION

Provides "on demand" automatic pump start of up to 16 submersible pumps manifolded to the same discharge line. Master pump starts under low demand, and additional pumps are started as needed as demand increases. **Note:** Auto start feature is designed for pumps rated 3/4 HP and higher.

#### DRY RUN PROTECTION WITH AUTOMATIC RESET

Detects dry run condition in empty tank and automatically shuts pump off. Condition is indicated by an audible and visual alarm. The condition automatically resets if tank is refilled.

#### EASY RETROFIT

The SCI is compatible with single phase STP's 1/3 through 2HP; FE Petro or competitive makes.

#### ALTERNATING PUMP CONTROL

In manifolded pumping systems, controllers continually

### BENEFITS:

- Since all mechanical and most electronic line leak detection systems require that the submersible pump be shut off to perform a line leak test, this feature ensures the pump will shut off to enable the leak detection device the opportunity to test for line leaks.
- Indicates fault in dispenser on/off control signal to submersible.
- Extends motor life by protecting the motor from continuous running conditions that cause needless wear on motor bearings.
- Can be disabled for back-up generator systems that run STP for more than one hour during testing.
- Reduces power consumption and extends pump life by running only the number of pumps needed to meet the current demand of open nozzles.
- Improves flow rates during busy periods by automatically starting additional pump(s) on demand.

Significantly extends motor life by eliminating this frequent cause of premature motor failure.

Retrofitting existing stations is as simple as replacing the existing control box with the STP-SCI and pressing the reset button to allow the controller to automatically "learn" the electrical characteristics of the pump.

- Provides for equal wear of all pumps in the

alternate the lead pump.

#### **HISTORY STORAGE OF PUMP CONDITIONS**

In manifolded pumping systems, controllers continually alternate the lead pump.

#### **OPEN CIRCUIT DETECTION**

Detects an open circuit between motor and controller. Condition is indicated on flashing red light alerting service technician to the cause of the problem.

#### **LOW VOLTAGE DETECTION**

Detects low voltage conditions that cause excessive heat in motor. Condition is detected and pump automatically shuts off. Once voltage returns to operating range, the STP-SCI auto resets allowing motor to run.

#### **PUMP MOTOR FAILURE DETECTION**

Signals locked rotor in pump motor by flashing red light.

#### **REMOTE DIAGNOSTIC CAPABILITY**

All STP-SCI controllers are equipped with an RS485 serial communication port to facilitate on site and remote communications of all diagnostic functions for future site integration.

manifolded system by alternating the lead pump on every start cycle.

- In the event of a pump failure, the other pumps in the manifolded system continue to operate normally, providing a backup system and avoiding shut down of that grade of product.

Service technicians can quickly view a history of abnormal conditions, particularly useful when troubleshooting intermittent conditions.

Reduces service cost by quickly defining the cause of trouble to the service technician.

Extends motor life by eliminating progressive heat damage to motor windings.

Reduces service time by immediately alerting service technician to cause of problem.

Provides the future opportunity for service personnel to determine the "fault" prior to arriving at the site, assuring the availability of parts and technical support on the first service call. This reduces the chance of multiple service visits to correct a pump problem, thereby reducing service costs and downtime.

### **COMPARE THE STP-SCI CONTROLLER FEATURES TO STANDARD SUBMERSIBLE PUMP CONTROL BOXES.**

| <b>FEATURE</b>                       | <b>STP-SCI SMART CONTROLLER</b> | <b>STANDARD CONTROL BOX</b> |
|--------------------------------------|---------------------------------|-----------------------------|
| Dry Run Protection w/Automatic Reset | Yes                             | No                          |
| Low Voltage Detection                | Yes                             | No                          |
| Pump Motor Failure Detection         | Yes                             | No                          |
| Open Circuit Detection               | Yes                             | No                          |
| Extended Pump Run Detection          | Yes                             | No                          |
| Slave Pump Auto Start Operation      | Yes                             | No                          |
| Auto Sequencing of Manifolded Pumps  | Yes                             | No                          |
| Fault Diagnostic Lights              | Yes                             | No                          |
| Pump Operating Light                 | Yes                             | No                          |
| High Voltage Surge Protection        | Yes                             | No                          |
| Power "ON" Light                     | Yes                             | Yes                         |
| External Run Light Provision         | Yes                             | Yes                         |
| Compatible with 1/3 through HP       | Yes                             | Yes                         |
| 30 Amp Line Contractor Relay         | Yes                             | Yes                         |

#### **SPECIFICATIONS:**

- Controller size: 8.5"h x 5"w x 3"d (215mm x 127mm x 76mm)
- Relay amperage rating: 30 amps.
- Relay/hook signal voltage: 120/240 volt
- Compatible for use on all FE Petro single-phase submersibles and competitive makes.

- UL and CUL Listed.

**OTHER STANDARD FEATURES:**

- Communication from tank gauge will signal either pump to "lead", based on product level in the tank of a manifolded system.
- "Pump on" indication is provided by flashing green light.
- Provision for remote "pump on" pilot light.
- Built-in 300 volt surge protection.
- Flashing yellow light indicates RS485 is communicating.
- RS485 comp port.

STPB005

Rev. 06/02

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## **VMI 99 LD-2000** New Series

Highest Performance,  
Most Requested Mechanical Line Leak Detector Built Today!!

- Any Fuel\*
- Any Pump\*
- Any Pipeline System\*
- Longest Length Pipeline System\*
- Largest Volume Pipeline System\*
- Integrated Check Valve / Pressure relief

\*see technical specification

**VMI** The 99 LD-2000



The 99 LD-2000 is now the most requested mechanical line leak detector built today. New engineering and the VMI 2-year warranty (after installation) make the 99 LD-2000 more attractive to station operators today than ever before. Not only is the 99 LD-2000 less expensive to own, it is faster and less subject to field and line variables than ever before!

### **Integrated In-Line Check Valve / Pressure Relief**

Leaking check valves in the turbine, defective submersible pump pressure relief, or a defective bypass valve will allow the line system to depressurize, resetting the leak detector. Drain-back into the pump or thermal contraction will cause vapor pockets to form. Vapor pockets increase the length of time it takes for a leak detector to open to full flow. Pump problems such as these result in slow flow and technical support calls. The resulting service costs and customer dissatisfaction all take away from the bottom line - making money.

**The 99 LD-2000 Is The Only Leak Detector  
Capable Of Holding Line Pressure After the Pump Is Off—  
Even With Pump Component Wear Or Failure.**

In addition to the submersible pump problems encountered without an in-line check valve, the metering portion of the leak detector is hammered by hydraulic shock. This results in many leaks going undetected. Those leak detectors are just not equipped for the job you purchased them for.

The 99 LD-2000 is the answer you have been looking for. VMI leak detectors, with an integrated check valve and pressure relief valve, will save money and reduce customer frustration at the dispenser and reduce service calls.

## **The 99 LD-2000**

**Has A Higher Level Of Performance Over A broader Range of Burial Depth, Line Length, And Piping System Types Than Any Other Leak Detector**

### **Additional Features**

- Over 20% increased flow capacity
- Guaranteed for 24 months from date of installation to detect 3 GPH @10 PSI leak
- One Way Poppet flow path
- Reverse Ratio Piston / Poppet combination
- Smaller Volume - Faster Response piston size
- Shortest profile leak detector available for "tight" installations
- All fuels ( gasoline - diesel - alcohol )
- All pipelines (flexible - fiberglass - steel) up to 400 ml. resiliency
- Exceeds EPA regulations (3 GPH @ 10 PSI)
- Detects leaks up to 10' above the leak detector
- Installs with 2 1/16" six point socket or pipe wrench

### **Increased Flow Capacity**

- The 99 LD-2000 has maximized the flow and flow path in existing, older submersible pump heads. This new design allows over 20% more flow than previous LD -2000 models, maximizing pump performance for earlier pump heads.

### **Longest Guarantee**

- The 99 LD-2000 shares the longest guarantee available in the industry, along with all other VMI 99 LD-2000 series leak detectors. For 24 months from date of installation, the LD-2000 is guaranteed to see a 3 GPH leak @ 10 PSI

### **One Way Poppet Flow Path**

- The One Way Poppet Flow Path isolates pump turbulence from line leak detection at pump startup. The hardened stainless steel poppet does not dimensionally change because of thermal conditions encountered during station operation (precision metering change is insignificant down to -20° F).

### Reverse Ratio Piston / Poppet Combination

- Reverse Ratio means the leak detector has a smaller diameter piston area (smaller than the poppet it is attached to). This smaller piston area keeps the leak detector in the fast fill position (2 GPM) to a higher pressure while compressing vapor pockets and stretching flexible lines faster. *This means less time to full flow!* The leak detector does not have to completely reset (as with competitive leak detectors) for the poppet to be forced into the reset mode at pump startup.

### Smaller Volume / Faster Response Piston Size

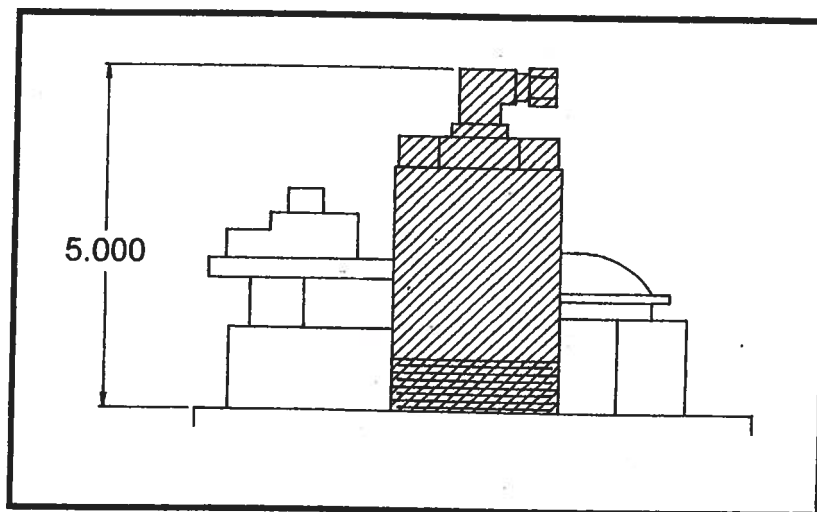
- With a reduced piston size there is one fourth the volume to replace when in leak search and one fourth the volume to return to the line when the pump turns off. This combination makes for a more responsive and faster leak detector. Less volume to leave the line for the leak detector to reset and catch leaks. *Less volume to fill and provide full flow for dispensing!*

### Superior Flex-Pipe Performance

- The reduced surface area of the piston significantly reduces the surface area exposed to hydraulic line shock. This results in enhanced performance with steel and fiberglass pipe, and *especially with today's flexible pipe.*

### Shortest Leak Detector Profile

- The 99 series leak detectors are the lowest profile leak detectors available.



Vaporless Manufacturing Inc.

8700 East Long Mesa Drive

Prescott Valley, Arizona 86314

1-800-367-0185 (928) 775-5191

Fax (928) 775-5309

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



# Technical Specifications 99 LD-2000

## All Fuels

- Gasoline, 100% methanol, 100% ethanol, up to 15% MTBE
- Any combination of the above
- #1 or #2 diesel, Kerosene, (Jet A or JP 4 \*consult factory for substitution of bronze parts)

## Certified to meet EPA 3 GPH @ 10 PSI:

- Maximum Rigid Pipeline size: 400 ft. of 3.25 inch diameter line or up to 172 gallon volume
- Maximum Flexible Pipeline size: 415 ft. of 1.5 inch diameter line or up to 39.5 gallon volume

## U.L. listed containment housing

- for pump pressures through 50 PSI
- Schedule 40 cast iron internally plated with zinc phosphate. Externally finished with oven baked powder coat

## Internal Housing

- Hard Anodized, 6061 T6 Aluminum

## Check Valve

- Delrin
- Tygothane® - polyurethane seal

## Pressure Relief

- Stainless Steel
- 29 PSI Pressure relief (holds in addition to pump pressure relief)

## Seals

- Piston / Poppet: Teflon, stainless steel spring energized
- O Rings: Mil Specification; R-83248 Fluorocarbon

## Metering Pin and Poppet

- 17-4 Stainless Steel

## Misc. Component Specification

- 660 Bronze
- 6061 T6 Aluminum
- 1026 cold roll steel chrome plated

## Reverse Ratio Piston-Poppet

## One Way Poppet Flow-Path

For Installation with variable or non-variable speed turbines.

Vent line must be unobstructed, leak tight and connected to headspace of tank, not to be subjected to pressure or vacuum.

Can be installed in submersible pump or leak detector adapter Tee.

For chemical applications other than listed above, contact factory.

For installation instructions or further information on the 99 LD-2000

or other line leak detection equipment, contact your local distributor or call:



**Vaporless Manufacturing Inc.**

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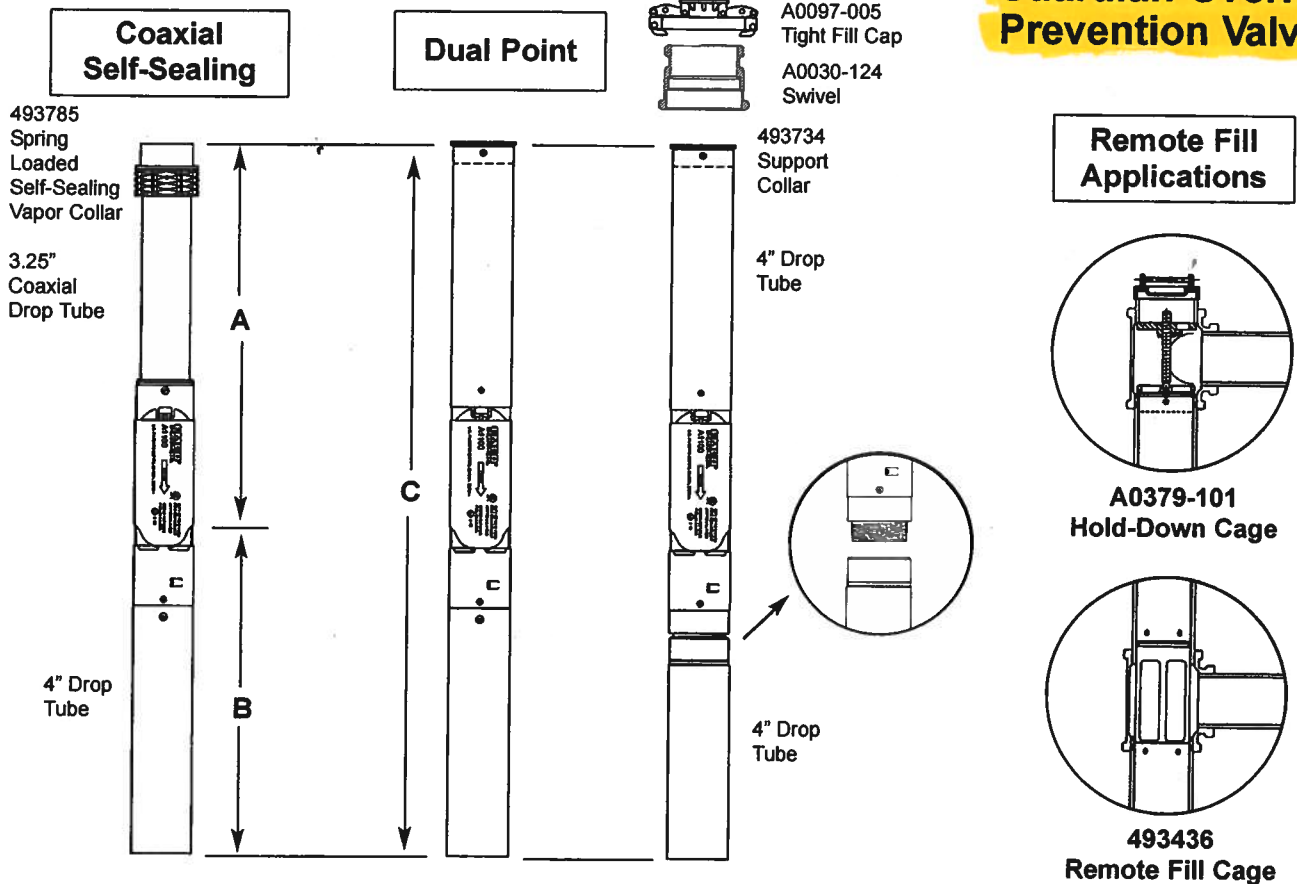
\*Patent pending

6/15/01

Made in the United States of America

# A1100

## Guardian Overfill Prevention Valve



| Model No.   | Upper Description        | Lower Length A | Overall Length B | Max. Burial Length C | Nominal Depth | Tank Dia. | Weight    |
|-------------|--------------------------|----------------|------------------|----------------------|---------------|-----------|-----------|
| A1100-010   | Valve Only               | N/A            | N/A              | N/A                  | N/A           | N/A       | 4.3 lbs.  |
| A1100-055   | Dual Point               | 77"            | 89"              | 166"                 | 6.0'          | 8'        | 19.2 lbs. |
| A1100-056   | Dual Point               | 89"            | 101"             | 190"                 | 7.0'          | 10'       | 21.4 lbs. |
| A1100-057   | Dual Point               | 89"            | 127"             | 216"                 | 7.0'          | 12'       | 24.8 lbs. |
| A1100-058   | Dual Point               | 127"           | 127"             | 254"                 | 10.0'         | 12'       | 28.1 lbs. |
| A1100-055S  | Dual Pt Screw Together   | 77"            | 92"              | 169"                 | 6.0'          | 8'        | 21.5 lbs. |
| A1100-056S  | Dual Pt Screw Together   | 89"            | 104"             | 193"                 | 7.0'          | 10'       | 23.7 lbs. |
| A1100-057S  | Dual Pt Screw Together   | 89"            | 130"             | 219"                 | 7.0'          | 12'       | 27.1 lbs. |
| A1100-058S  | Dual Pt Screw Together   | 127"           | 130"             | 257"                 | 10.0'         | 12'       | 30.4 lbs. |
| A1100-054SC | DP Screw Together w/Cage | 54"            | 110"             | 164"                 | N/A           | N/A       | 26.0 lbs. |
| A1100-065   | Coaxial                  | 73"            | 89"              | 161"                 | 6.0'          | 8'        | 20.4 lbs. |
| A1100-066   | Coaxial                  | 73"            | 101"             | 173"                 | 5.5'          | 10'       | 22.8 lbs. |
| A1100-067   | Coaxial                  | 73"            | 127"             | 199"                 | 5.0'          | 12'       | 25.3 lbs. |
| A1100-085   | Coaxial Self-Sealing     | 73"            | 89"              | 162"                 | 6.0'          | 8'        | 20.9 lbs. |
| A1100-086   | Coaxial Self-Sealing     | 73"            | 101"             | 174"                 | 5.5'          | 10'       | 23.3 lbs. |
| A1100-087   | Coaxial Self-Sealing     | 73"            | 127"             | 200"                 | 5.0'          | 12'       | 25.8 lbs. |

For custom lengths, please contact our Customer Service Department. Lengths A and B are measured from the shut-off point (flapper). Maximum burial depth assumes 95% shut-off and 6" clearance between top of drop tube and inside bottom of containment manhole lid. Consult our Customer Service Department for shorter profile adapters.

All assemblies available  
with screw-together option.

**Emco Wheaton Retail Corporation**  
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Form O-1004  
Date 05/05

# OPW 711SS-CSDW DOUBLE WALL STAINLESS STEEL SPILL CONTAINER

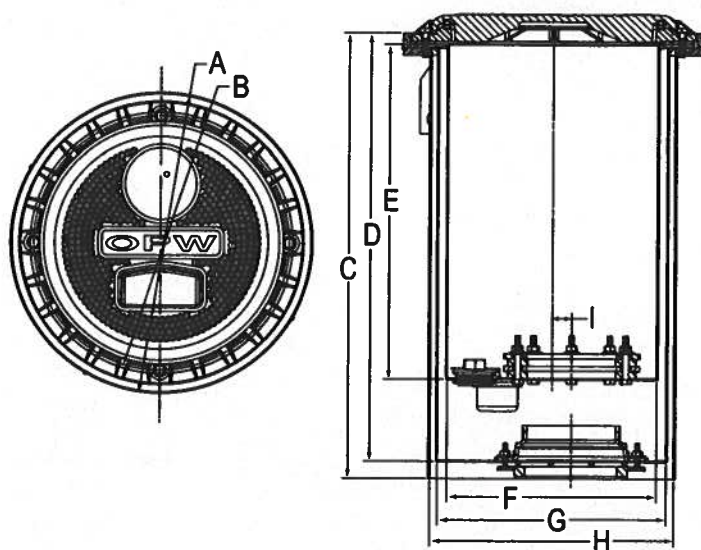
## FEATURES & BENEFITS

- **Primary and Secondary Spill Buckets** are completely field replaceable without needing to break concrete.
- **Shallow Bury Applications** – At only 21-3/4" deep with a 5-gallon capacity, this spill container is great for shallow bury applications.
- **Dual Stainless Steel Construction**
- **Flat-Wall Entry Fitting** – Allows for numerous installation possibilities. Designed for 3" or 4" entry fittings, field installed to desired depth.
- **Spill Bucket Cover** – Spacious hand-grip pocket provides easy access; new cover seal prevents water and debris from entering the bucket.
- **16" center-to-center spacing** – 1" per bucket offset from center on 15 -1/8" cover allows for nearly 3" of concrete between 16" center of bucket.
- **Built-In Flex Joint** – Constructed with premium Pellethane fitting to allow for ground shift while keeping secondary bucket in place in the ground.
- **Monitoring Port** – Provides quick access to the secondary bucket for monitoring or testing.
- **Stainless Steel Secondary Containment** – Isolates the spill bucket and riser from backfill, preventing a product spill from entering the soil in the event of a damaged primary unit.
- **Powder Coated Galvanized Steel Skirt** – Isolates the spill bucket from backfill, allowing both primary and secondary to be field replaceable.

## MATERIALS

**Primary Spill Bucket: Stainless Steel**  
**Secondary Spill Bucket: Stainless Steel**  
**Entry Fitting: Pellethane**  
**Compression Seal: Nitrile**  
**Cover and Mounting Ring: Cast Iron, Powder Coated**  
**All Other Seals: Nitrile**  
**All Other Components: Stainless Steel**  
**Skirt: Powder Coated Galvanized Steel**

## DIMENSIONS



|   | inches    | cm    |
|---|-----------|-------|
| A | 15-1/8"   | 38.42 |
| B | 12-29/32" | 32.78 |
| C | 22-5/8"   | 57.46 |
| D | 21-3/4"   | 55.25 |
| E | 17"       | 43.18 |
| F | 10-9/16"  | 26.83 |
| G | 11-1/2"   | 29.21 |
| H | 12-1/4"   | 31.12 |
| I | 1.0"      | 2.54  |

## ORDERING SPECIFICATIONS

| Part Number | Description  |
|-------------|--|
| 7111SS-CSDW | 5 Gallon Double Wall Stainless Steel Spill Container |

**Note:** Consult OPW for continuous interstitial monitoring option.

## APPROVALS



ULC - MH27236



Florida EQ# 654

**IMPORTANT:** OPW/PISCES™ by OPW Inc. products must be used in compliance with applicable federal, state, provincial, and local laws and regulations. Product selection should be based on physical specifications and limitations, and compatibility with the environment and material to be handled. OPW/PISCES™ by OPW Inc. makes no warranty of fitness for a particular use. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials, and specifications are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation. For complete OPW warranty information visit our web site at [www.opw-fc.com](http://www.opw-fc.com).

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7111SS-10/06-3M



# EMERGENCY SHUT-OFF AND VAPOR LINE SHEAR VALVES/CONNECTORS/ADAPTORS

## EMERGENCY SHUT-OFF VALVES AND VAPOR LINE SHEAR VALVES

### OPW 10 Series Emergency Shut-Off Valves

OPW 10 Series Emergency Shut-Off Valves are installed on fuel supply lines beneath dispensers at grade-level to minimize hazards associated with collision or fire at the dispenser. If the dispenser is pulled over or dislodged by collision, the top of the valve breaks off at the integral shear groove, activating poppets and shutting off the flow of fuel. Single-Poppet models shut off supply flow, while Double-Poppet models shut off supply as well as prevent release of fuel from the dispenser's internal piping.

### PA15 Offset Adaptor

The OPW PA15 Offset Adaptor is designed for adjusting misalignment of pipe in dispenser sumps and suction stubs. The PA15 has a low profile feature, and is designed for maximum flow.

### OPW 60V Series Vapor Line Shear Valves

OPW 60 Series Vapor Line Shear Valves are installed on vapor return lines beneath dispensers at grade-level to minimize hazards associated with collision or fire at the dispenser. If the dispenser is pulled over or dislodged by collision, the top of the valve breaks free at the integral shear groove to minimize damage to the dispenser piping. Poppeted models afford additional protection by preventing the release of vapors from the dispenser's internal piping and the vapor line to the tank.

### OPW Stainless-Steel Flexible Connectors

Stainless Steel Flexible Connectors provide flexibility in the installation and operation of fuel piping systems. Flexible Connectors can be used as a convenient means of connecting piping to pumps and dispensers and throughout the piping systems where connections and changes of direction are necessary.

### PISCES™ Sump Fire Suppression System

The FireStomper® Automatic Sump Fire Suppression System is designed to quickly and completely extinguish a fire inside a dispenser containment sump. The FireStomper® automatically discharges when the actuator temperature reaches 155° F (68° C), extinguishing a sump fire within seconds of ignition, and protecting the low-melt material piping in accordance with NFPA 30A (2001 Edition) requirements.

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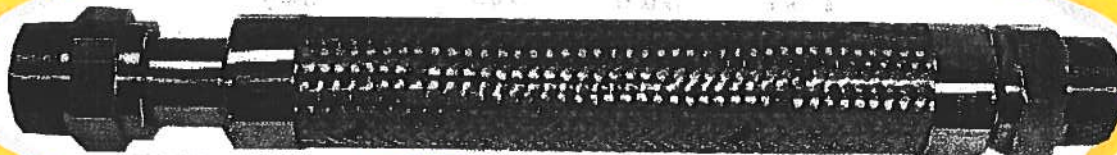
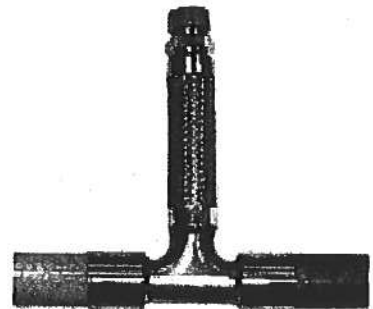
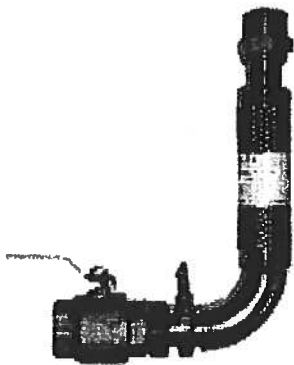
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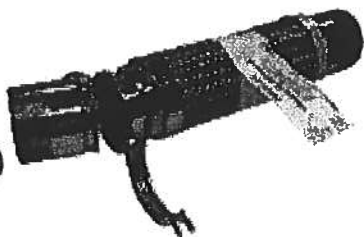


Facilitates  
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## FLEX-CONNECTOR SYSTEMS



1 1/2" x 18"  
2" x 15"



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# SAFE-LITE™ FRC Manholes 30" 36" & 42"

## Technical Information

### Handle Covers



with Stainless Steel bolts



### 30" 36" 42" SAFE-LITE™ FRC Manholes

#### Bolt Down models

| Part No.   | Size (in.) | Assembly Parts | Lbs. |
|------------|------------|----------------|------|
| 781-430-12 | 30         | assm           | 95   |
| 781-459-01 | 30         | cover          | 45   |
| 781-433-12 | 36         | assm           | 125  |
| 781-456-01 | 36         | cover          | 65   |
| 781-443-12 | 42         | assm           | 157  |
| 781-441-01 | 42         | cover          | 95   |

#### Non Bolted models

| Part No.   | Size (in.) | Assembly Parts | Lbs. |
|------------|------------|----------------|------|
| 781-430-13 | 30         | assm           | 95   |
| 781-490-01 | 30         | cover          | 45   |
| 781-433-13 | 36         | assm           | 125  |
| 781-448-01 | 36         | cover          | 65   |
| 781-443-13 | 42         | assm           | 157  |
| 781-445-01 | 42         | cover          | 95   |

### Slide Action Cover



### 30" 36" 42" SAFE-LITE™ FRC Manholes

#### Slide Action Models

| Part No.   | Size (in.) | Assembly Parts | Lbs. |
|------------|------------|----------------|------|
| 781-484-12 | 30         | assm           | 95   |
| 781-481-01 | 30         | cover          | 45   |
| 781-485-12 | 36         | assm           | 125  |
| 781-482-01 | 36         | cover          | 65   |
| 781-486-12 | 42         | assm           | 157  |
| 781-483-01 | 42         | cover          | 95   |



\*Must be ordered separately

#### Slide Action Handle\*

| Part No.   | Lbs. |
|------------|------|
| 781-341-01 | 2.6  |



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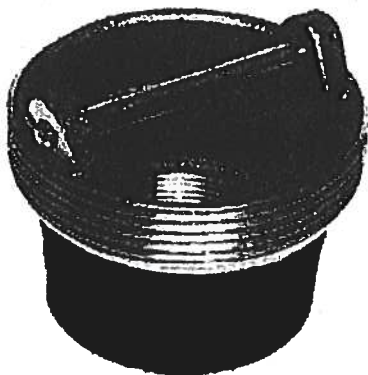


**PEMCO**Vapor Recovery Products (page 1)**510 & 510LC****Extractor Vent Valve Assembly**

The Extractor Vent Valve Assembly positions and allows for easy removal of float vent valves in underground storage tank vent lines. In addition to vapor recovery applications, the valve can also be used to manifold underground tank lines. The valve features a rust resistant epoxy coated cast iron body and standard 4" inlet and outlet, with a variety of side port sizes available. The Model 510 includes PEMCO Model 520 Extractor Fitting and the Model 510LC does not include PEMCO Model 520 Extractor Fitting.

[Click here for drawing](#)

| Model     | Port Size | Height | Width  | Weight (lbs.) |
|-----------|-----------|--------|--------|---------------|
| 510442    | 0"x2"     | 8 3/8" | 6 1/4" | 17.0          |
| 5104422   | 2"x2"     | 8 3/8" | 6 3/4" | 18.0          |
| 510443    | 0"x3"     | 8 3/8" | 6 1/2" | 18.0          |
| 5104432   | 3"x2"     | 8 3/8" | 7 1/8" | 18.0          |
| 5104433   | 3"x3"     | 8 3/8" | 7 1/8" | 19.0          |
| 510442LC  | 0"x2"     | 8 3/8" | 6 1/4" | 15.0          |
| 5104422LC | 2"x2"     | 8 3/8" | 6 3/4" | 16.0          |
| 510443LC  | 0"x3"     | 8 3/8" | 6 1/2" | 16.0          |
| 5104432LC | 3"x2"     | 8 3/8" | 7 1/8" | 16.0          |
| 5104433LC | 3"x3"     | 8 3/8" | 7 1/8" | 17.0          |

**520****Extractor Fitting**

A fitting which is used to hold the Model 515 Float Vent Valve in the Model 510 Extractor Vent Valve Assembly. The fitting features a bronze body and plated steel pin.

| Model | Weight (lbs.) |
|-------|---------------|
| 520   | 2.0           |



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## ATG/TLS Monitoring Products

### ATG/TLS Monitoring Consoles & Accessories

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TLS-350 Plus

TLS-350J

TLS-2

TLS-300C 1-2 Tank Configurable Console

TLS-300i 3-4 Tank Configurable Console

EMC

Red Jacket ProMax

Red Jacket ProPlus

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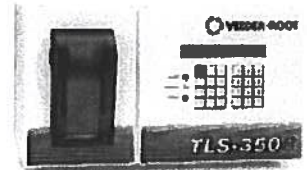
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Product Brochures

## TLS-350R

### UST Monitoring Systems

Veeder-Root's TLS-350R Monitoring System adds value to automatic tank gauging with a highly advanced, automatic inventory management capability - Business Inventory Reconciliation. This fully integrated system automatically collects dispensing data, in-tank inventories and deliveries, and reconciles the totals at the end of each shift, day or period into a comprehensive reconciliation report to meet federal, state, and local requirements. It also interfaces directly with electronic or mechanical dispensers to automatically access metered sales information. The TLS-350R is available with CSLD for 24-hour leak detection without tank shut down.



The TLS-350R uses AccuChart, Veeder-Root's patented tank calibration algorithm, to minimize errors due to dynamics, such as tank tilt, deflection and end shape, to create an optimal tank chart for each tank in the system. The automatic calibration process, which typically takes one month, is conducted through the typical operating levels in the tank as fuel is dispensed. Once enough valid data has been analyzed, the tank calibration is complete. An updated tank chart can be retrieved from the TLS-350R through an RS-232 interface using a computer.

Automatic Tank-To-Meter Mapping, which typically takes up to 2 days, eliminates the possibility that product being dispensed through the meter is reconciled against the wrong product. When dispensing begins, the TLS-350R recognizes a reduction in in-tank inventory and is alerted through a Dispenser Interface Module (DIM) that a specific meter is running. When the metered volume data equals an inventory reduction, the mapping feature matches that meter and tank.

The TLS-350R is available with an integral printer or can be interfaced with a remote printer. The system can be programmed to generate reports at the end of a shift, day, or period. Periodic reports are programmable to cover up to a 35-day cycle and can print in either column (summary) or row (line item) formats.

An adjusted delivery report makes sure you get what you pay for. When a bulk delivery is made, the TLS-350R measures the amount of any fuel dispensed during the delivery and the system provides a report showing the volume increase, the amount of fuel dispensed during the delivery, and the actual delivery amount.

The TLS-350R automatically calculates periodic variance thresholds based on the U.S. E.P.A. requirement of +/- (1% of monthly throughput +130 gallons) and includes them on the Periodic Reconciliation Report. The variance threshold is programmable so it can be set to local regulations if necessary.

### Features

- Automatic Business Inventory Reconciliation
- AccuChart™ Automatic Tank Calibration
- Automatic Tank-To-Meter Mapping
- 0.1 GPH and 0.2 GPH In-Tank Leak Detection with Magnetostrictive Probes
- Electronic Line Leak Detection Capabilities
- Inventory Monitoring and Reporting
- Interstitial/Sump Leak Sensing Capabilities
- Vapor Well Monitoring Capability
- Groundwater Monitoring Capability
- Input/Output Capability
- Sump and Dispenser Monitoring Capabilities

- RS-232 Data Communications
- Internal Modem
- Auto-Dial Fax (SiteFax)
- Optional Integral Printer or Remote Printer Interface
- Emergency generator applications selectable via programming
- One system handles mix of standard and emergency generator tanks
- Records generator activity
- Complete inventory reports before and after generator operation
- Audible and Visual Alarm Capabilities
- Monitors up to 12 tanks
- Maximum Tank Capacity: 15,000 Gallons; 37,000 gallons with CSLD software enhancement
- Leak Testing and Reconciliation for Manifolded Tanks

### Standard Models

**Console Form Number:** 848290-102

**Description:** TLS-350R Console without Integral Printer

**Console Form Number:** 848290-122

**Description:** TLS-350R Console with Integral Printer

**Console Form Number:** 330532-001

**Description:** Memory Expansion Module (required to support BIR for manifolded tanks only)

### TLS-350R Interface Modules

The TLS-350R monitoring console contains three compartments in which individual interface modules can be installed. Interface modules may be factory-installed in the console upon initial ordering, or ordered separately as spare modules to expand an existing system.

Low-Power Compartment (Limit eight per console, unless otherwise noted.)

| Form No.<br>Factory<br>Installed<br>Modules | Description   | Feature Compatibility   |
|---|---|---|
| 329356-002                                  | Four-Input Probe Interface Module (Maximum three per console. Includes terminal connector for one ground temperature thermistor for the volumetric line leak detector). | Series 8463 Mag Plus Probe  |
| 329358-001                                  | Eight-Input Interstitial/Liquid Sensor  | Series 7943 Interstitial Sensor for Fiberglass Tanks and<br>Interstitial Sensor for Steel Tanks<br>Series 7943 Piping Sump Sensor<br>Series 7943 Hydrostatic Sensor |
| 329357-001                                  | Five-Input Vapor Sensor Interface Module  | Series 7943 Vapor Sensor  |
| 329399-001                                  | Five-Input Groundwater Sensor Module  | 4SITE Series 7943 Groundwater Sensor  |
| 329956-001                                  | Eight-Input Type A Sensor Interface Module  | 4SITE Series 7943 Solid State Discriminating Interstitial Sensor  |
| 329950-001                                  | Six-Input Type B Sensor Interface Module  | 4SITE Series 7943 Solid State Dispenser Pan and Containment Sensors   |
| 330373-001                                  | Six-Input Pressurized Line Leak Interface Module (One per console)  | Series 8484 Pressurized Line Leak Detection System Requires TLS-350 Plus Version 7.0 or higher software   |
| 329356-004                                  | 8 Input Smart Sensor Module   | Requires Software 24.0 or higher software   |

High-Power Compartment (Limit eight per console, unless otherwise noted)

| Form No. Factory<br>Installed Modules | Description                                 | Feature Compatibility                           |
|---------------------------------------|---|---|
| 329356-004                            | 8 Input smart Sensor Module                 | Requires ELS350 Version 24.0 or higher software |
| 329359-001                            | Four-Relay Output Interface Module          |   |
| 329360-001                            | Two-Input/Two-Relay Output Interface Module |   |

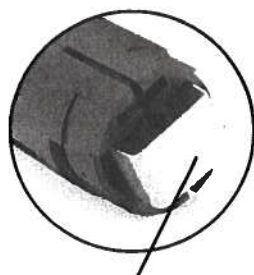


# Position Sensitive Pan/**Sump** Sensor

Quickly detects the presence of liquid  
and keeps you in compliance.

Provides positive alarm indication of any liquid in underground fuel storage tank sumps or pans. Provides positive alarm indication if the sensor is moved from its installed position on the bottom of the sump.

Veeder-Root's Position Sensitive Pan/Sump Sensor detects the presence of liquid in a UST piping sump or dispenser pan while simultaneously detecting sensor position. Liquid presence could mean a dangerous line leak. When the sensor detects liquid, it sends an alarm signal to the TLS console monitor, where both visual and audible built-in alarm indicators immediately identify the location of the problem. You can then quickly take action to help prevent serious safety and environmental problems. Additionally the sensor utilizes a position sensor to detect when it has been moved. A "sensor out" alarm is issued when the sensor is moved from its installed position at the bottom of the sump or pan. This enables the user to quickly and accurately reposition the sensor to ensure accurate and consistent leak detection and compliance.



Integral position sensor ensures proper placement is maintained.



## Features

- Positive alarm indication of any liquid in underground fuel storage tank piping sumps/pans
- Provides a "sensor out" indication if the sensor is moved from contact with bottom of the sump
- A direct replacement for an existing Piping Sump Sensor (794380-208)
- For TLS-350R, TLS-350, TLS-350J, ILS-350, TLS-300i, Red Jacket ProMax/ProPlus, UST Monitoring Systems
- System indicators pinpoint alarm location
- Simple to install
- Two-wire connection to system monitor

## Standard Models

| Form Number | Description                                       |
|-------------|---|
| 794380-323  | Position Sensitive Pan/Sump Sensor- 12 ft cable   |
| 331102-001  | Optional component: 20' replacement cable         |
| 330020-012  | Optional component: Universal sensor mounting kit |

## Standard Components

| Quantity | Description              |
|----------|--------------------------|
| 1        | Pan/Sump sensor assembly |
| 1        | Watertight cord grip     |
| 2        | Wire nuts                |
| 1        | Epoxy pack               |

The Series 7943 Position Sensitive Pan/Sump Sensor is compatible with the following consoles:

| Console   | Series |
|-----------|--------|
| TLS-350R* | 8482   |
| TLS-350*  | 8470   |
| TLS-350J  | 8470   |
| ILS-350** | 8450   |
| TLS-300i  | 8485   |
| TLS-300C* | 8485   |

## Standard Specifications

**Power Requirements:** Intrinsically safe power supplied by Veeder-Root TLS-350R, TLS-350, TLS-350J, ILS-350, TLS-300i, TLS-300C, TLS-250i, or ILS-250 system

**Alarm Height:** 1 1/2 inch of liquid

### Temperature Rating:

**Storage:** -40 degrees C to +70 degrees C

**Operating:** -0 degrees to +60 degrees C

**\*Note:** an Interstitial Sensor Interface Module is required for use of the piping sump sensor with the TLS-350 or TLS-350R system.

**\*\*Note:** a Two-Wire Module is required for use of the piping sump sensor with the ILS-350 system.

# Ease of installation and proper positioning protects your investment.

## Sensor Detection Capabilities - Alarm Conditions

Fuel alarm is triggered when liquid reaches a nominal height of 1-1/2 inches. Sensor Out alarm is triggered when sensor is moved off bottom of the pan/sump.

## Operating Capabilities

- Operating temperature range: 0 to +60°C.
- Storage temperature range: -40 to +70°C.
- Sensor dimensions: 12" high, 2.2" diameter.

## Sensor/Cable Length Configurations

- Position-Sensitive Sensor w/ 12 foot cable - Form Number 794380-323
- 20' replacement cable with connector - Part Number 331102-001

## Sensor Interface Module

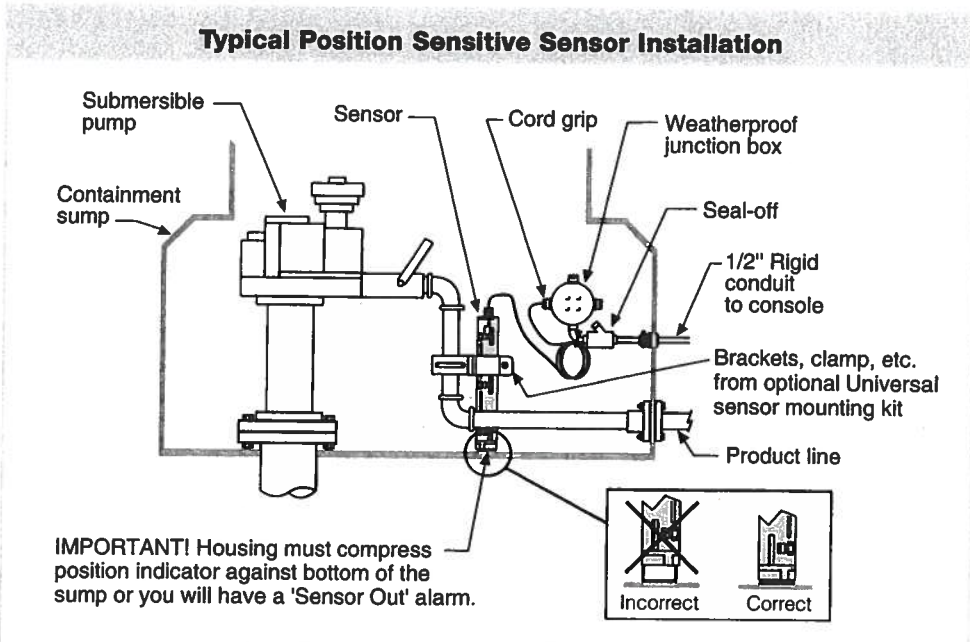
- TLS-350 Series Consoles (except TLS-350J) - Interstitial Sensor Interface Module (Form Number 847490-102) accepts up to 8 sensors (a maximum of 64 sensors could be monitored by the console).
- TLS-350J Console - 3 sensors max.
- TLS-300/PC-300 Series Consoles (no Interface Module required) - 8 sensors max.
- ILS-350 Console - A Two-Wire Module (Form Number 845190-100) accepts up to 4 sensors (a maximum of 16 sensors could be monitored by the console).

## Console Software Compatibility

- All TLS-350 Series/TLS-300 Consoles
- All ILS-350 Consoles

## Compatible Fuels

- Unleaded gasoline
- Leaded gasoline
- Diesel
- Kerosene
- Jet fuel
- Aviation gasoline
- 5% methanol/95% unleaded
- 15% ethanol/85% unleaded
- 15% MTBE/85% unleaded



For more information call  
**1-888-561-7942**



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## ATG/TLS Monitoring Products

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[Sump Monitoring](#)

[Dispenser Pan Monitoring](#)

[Double Wall Tank Monitoring](#)

[Interstitial Sensor for Steel Tanks](#)

[Interstitial Sensor for Fiberglass Tanks](#)

[Solid State Discriminating Interstitial Sensor](#)

[Hydrostatic Sensor](#)

[Micro Sensor](#)

[Monitoring Wells](#)

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[Product Line Monitoring](#)

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## Hydrostatic Sensor

### For use with TLS and ILS Systems

Veeder-Root's Hydrostatic Reservoir Sensor accurately detects fluid level change in the reservoir and interstice of a double-wall storage tank. Dual-float and single-float technology models are ideal for locations with high or low water tables.

Available in a dual-float or single-float configuration. The Dual-Float Hydrostatic Sensor is ideal for high groundwater areas, and can differentiate between a high level alarm condition and a low level alarm condition. If an inner-wall leak occurs, the brine solution seeps into the tank lowering the brine level in the reservoir. The Dual-Float Sensor will then trigger a low level alarm. If an outer-wall leak occurs, the groundwater seeps into the reservoir. The dual-float sensor will then triggers a high level alarm.

The Single-float sensor is ideal for low groundwater areas, since it only detects low level alarm conditions. If an Inner wall leak occurs, the brine solution seeps into the tank. If an outer-wall leak occurs, the brine solution leaks out of the tank. In both cases, the brine level decreases and the Single-Float Sensor triggers a low level alarm.

This product is designed to meet California's requirement for secondary space monitoring for tanks as required by AB 2481.

### Features

Dual-float sensor alarm conditions:

- Leak in inner wall triggers a low level alarm
- Leak in outer wall triggers a high level alarm in high groundwater areas; low level alarm in low groundwater areas

Single-float sensor alarm conditions:

- Leak in inner or outer wall triggers a low level alarm in low groundwater areas

### Temperature Rating

**Storage:** -40 degrees C to + 70 degrees C

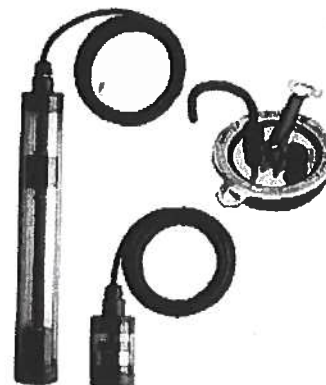
**Operating:** -25 degrees C to +40 degrees C

Rests in salt brine solution of up to 30% calcium chloride

**Cable length:** 12 feet **Single-Float Sensor Dimensions:** 6.0" high, 2.5" diameter

**Dual-Float Sensor Dimensions:** 19.3" high, 2.5" diameter

- Withstands removal from reservoir several times a year without sensor damage
- Clear plastic housing for visual inspection or float operation





**Standard Models**

| Form No.   | Description                               |
|------------|---|
| 794380-301 | Single-Float Hydrostatic Reservoir Sensor |
| 794380-303 | Dual-Float Hydrostatic Reservoir Sensor   |

**Hydrostatic Reservoir Sensor Console Capability**

The Series 7943 Hydrostatic Reservoir Sensor is comparable with the following consoles:

| Console   | Series |
|-----------|--------|
| TLS-350R* | 8482   |
| TLS-350*  | 8470   |
| TLS-350J  | 8470   |
| TLS-300I  | 8485   |
| TLS-300C  | 8485   |
| TLS-250I  | 7941   |

\*Note: An Interstitial Sensor Interface Module is required for the use of the Hydrostatic Sensors with the TLS-350 Console.

**- Related Links and Documents**

- » Liquid-Phase Product Detectors - Results of U.S. E.P.A. Standard Evaluations (576013-917 Rev. B) (PDF)  
Products: 847990-001, 847990-002
- » Point Sensor - Liquid Contact Product Detectors - Certification Reports - Results of U.S. E.P.A. Standard Evaluations (576013-864 Rev G) (PDF)  
Products: TLS-350, TLS-300, TLS-300i, ILS-350, EMC, EMC BASIC, ProMax, ProPlus, Simplicity
- » Sensor Products - Application Guide (577013-750 Rev K) (PDF)
- » MicroSensor - Installation Guide (576013-285 Rev D) (PDF)
- » Oil/Water Separator Sensor Installation Manual (577013-737 Rev B) (PDF)
- » High/Low Level Sensor for Guardian Systems Installation Guide (576013-309 Rev C) (PDF)
- » Hydrostatic Reservoir Sensors for Double-Wall Fiberglass Tanks - Installation Guide (576013-795 Rev E) (PDF)
- » Universal Mounting Kit Installation (576013-827 Rev B) (PDF)

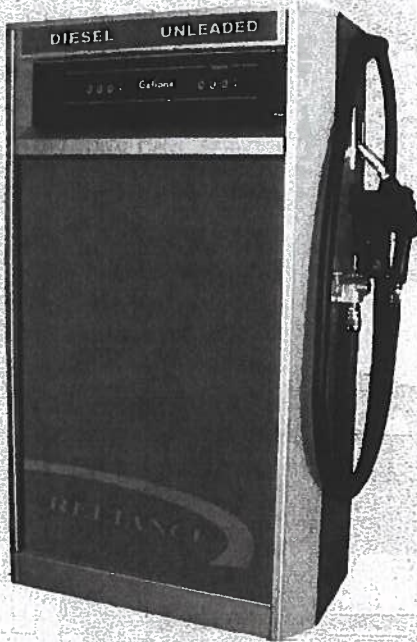
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# **Reliance<sup>TM</sup> Series Fleet Pumps & Dispensers**

*A Reliable Solution for Fleet Fueling*



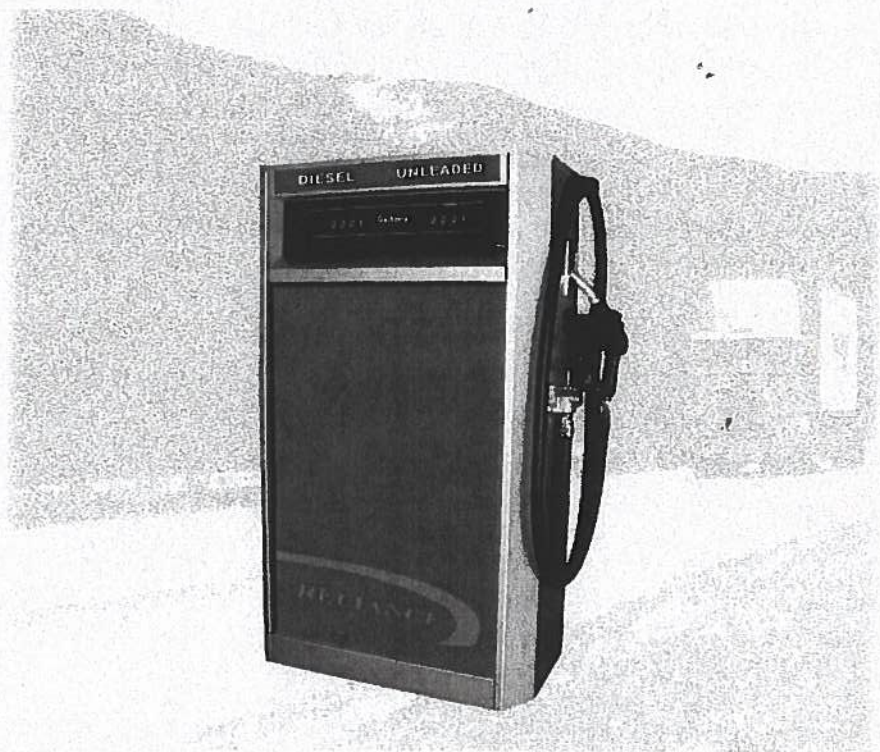


## Overview

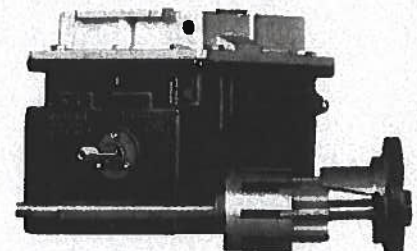
The Wayne Reliance G6200 Series incorporates **reliable, time-proven mechanical registers** into an **attractive modern cabinet**. The durable construction and electro-mechanical operation of this series enables it to withstand the harshest fleet environments. **Single AC power line requirements** make it easy to retrofit to any installation. The G6200 Series includes a host of standard features to ensure high performance and long life.

## Key Features & Benefits

- Field-proven components ensure dependable operation
  - Reliable mechanical registers require low maintenance
  - **Gear-type pumping units** (suction models) withstand years of hard use
- Heavy gauge galvanized steel external panels with powder-coated finish provide superior weather and corrosion resistance
- **Heavy-duty one HP motors** (suction models) and **one-inch internal piping** deliver maximum flow performance
- Convenient hinged doors provide easy service access
- Single AC power line feed simplifies retrofitting existing installations
- Internal filters help ensure product purity
- All user controls **meet American Disabilities Act (ADA) requirements**



*Accuracy and reliability are the foundation of the compact pumping unit*

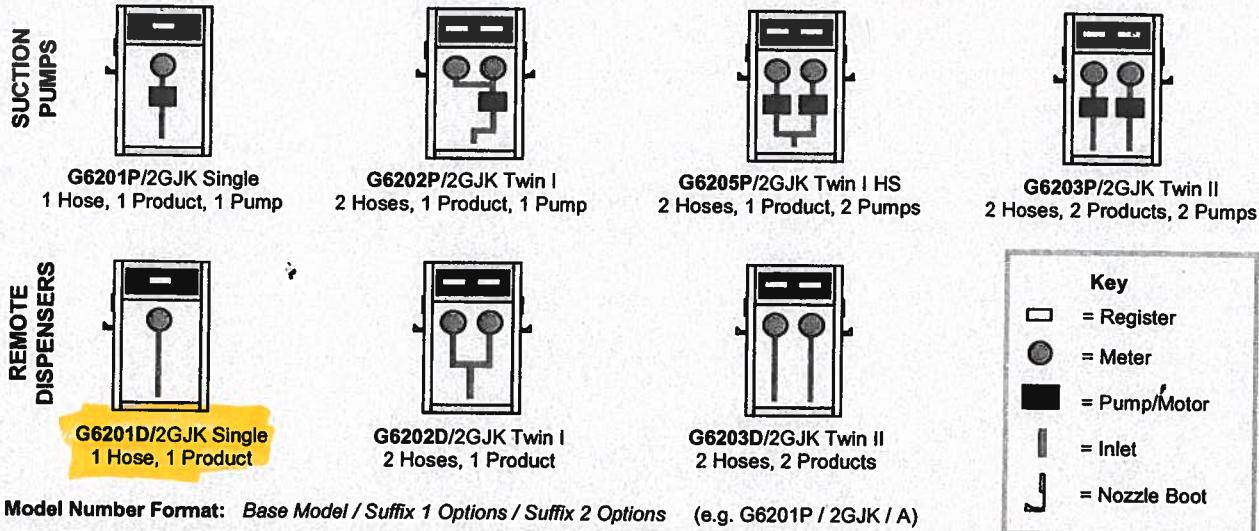


## Optional Features

- Pulsers allow connection to all popular fuel control systems
- Stainless steel panels provide maximum corrosion protection for harsh environments
- Internal hose retractor and hose mast options help keep hoses out of the fueling lane
- Lights enhance register viewing for evening and night operation



## G6200 Models



**Model Number Format:** Base Model / Suffix 1 Options / Suffix 2 Options (e.g. G6201P / 2GJK / A)

All models include the following options as standard: 1" piping [2], internal filter [G], AC j-box [J], and hose hanger [K]. Option suffixes are noted with the options below in [ ]. A "/" (e.g. [/A]) indicates a suffix 2 option.

## G6200 Specifications

**Performance:** Up to 22 GPM (83 lpm) per hose (exception: Twin I suction is 22 GPM per one hose operating, or 12 GPM (45 lpm) per hose with both operating).

**Note:** Specified rates are maximum test rates. Actual flow rates will depend upon the installation conditions, dispenser accessories, and for remote dispensers, size of the submersible pump.

**Register:** Non-computer mechanical register with power reset with interlock. **Displays on both sides of cabinet.** Maximum 999.9 gallons.

**Totalizer:** Non-resettable totalizer up to 9999999.9. Displays on front dial face.

**Meter:** Reliable, micro-accurate 2-piston positive displacement design. Weights & Measures sealable.

**Pumping Unit\*:** Positive displacement, self-priming, gear-type pumping unit with integral centrifugal air separator and adjustable bypass valve. Suction strainers at inlet connection.

**Motor\*:** 1-HP continuous duty with thermal overload protection. Adjustable V-link belt connects to pump pulley.

**Electrical:** 115VAC, 60Hz operation. Motors – 115/230VAC 50/60Hz.

**Internal Filter [G]:** Adapter with ten-micron filter helps ensure product purity.

**Inlet Connection:** 1½" (3.8 cm).

**Discharge:** 1" (2.5 cm) with ¾" reducing bushing.

**Solenoid Valve:** 1" (2.5 cm) two-stage valve. Standard on remote dispensers and Twin I suction. Also provides slow flow control for fuel control systems.

**Satellite Connection:** Discharge assembly includes internal port for satellite piping connection on remote dispensers.

**Cabinet Finish:** Extremely durable powder-coated finish gives outstanding appearance and toughness. Sides, top, bezel, and base painted silver. Doors painted blue (optional black, green, red, silver, or white). Black register face.

**Cabinet Construction:** All panels are fabricated from heavy gauge galvanized steel. 14-gauge side panels and 18-gauge doors. Top of bezel provides space for product id decals (specify w/ order).

**Nozzle Boot and Hook:** Fits standard U.L. interchangeable automatic nozzles. Hook may be adjusted for an OPW 11-VF long spout balanced vapor recovery nozzle.

**Hose Hanger [K]:** Keeps hose off the island when not in use.

**Actual Dimensions:**  
32.25" W x 19.38" D x 54.38" H  
(81.9cm W x 49.2cm D x 138.1cm H)

**Approvals:** C-UL-US Listed. Sealable by U.S. Weights & Measures for the resale of fuel with contracted periodic billing of the fuel dispensed.

## Options

**Pulsers:** Transmit electrical pulses for each register revolution for connection to fuel control systems. 10:1 [7A] and 100:1 [7B] ratio options available.

**Light [/A]:** Illuminates register faces and backlights the translucent product id panels that are included with the light option. One bulb per side.

**External Filter Kits\*:** Make filter visible as maintenance reminder (p/n 889921-001).

**Stainless Steel Panels:** Ideal for very corrosive environments. All exterior panels [/S] or all panels except painted galvanized doors [/S1].

**Liter Measure [8]:** Computes in liters.

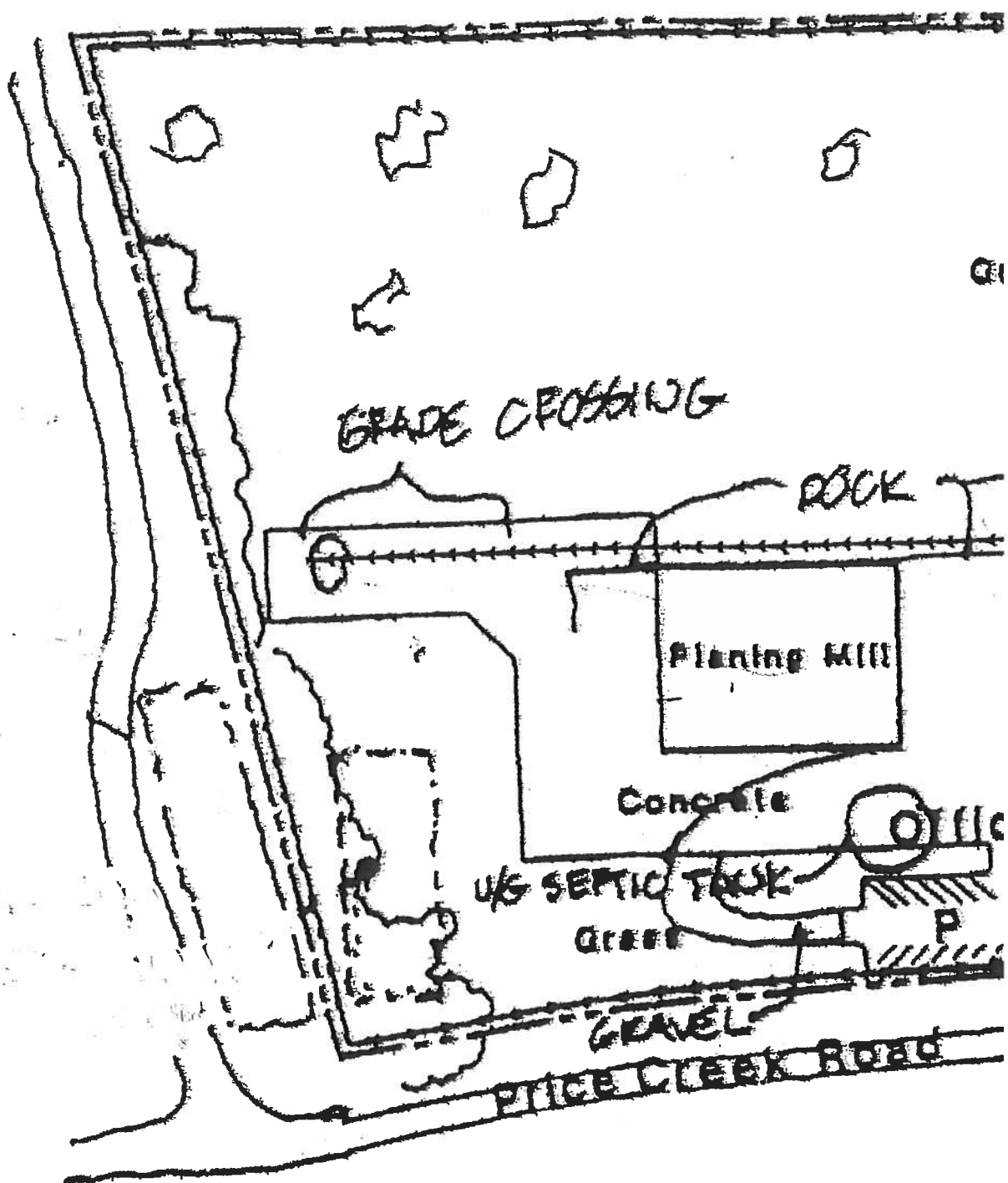
**Electrical Options:** 230VAC 50/60 Hz. operation [Z]. For light option @ 50 Hz, also add [/C]. For 380VAC 50/60Hz motor, also add [/G].

**Other Options:** Internal hose retractor [/H], hose mast kit\* [/J], manual reset [M], hand crank kit\* [3], reversed accumulative totalizer [/F], inlet check valve kit\* [/M], & solenoid valves [/W1] on suction models.

*\*Note: Applies to suction models only*

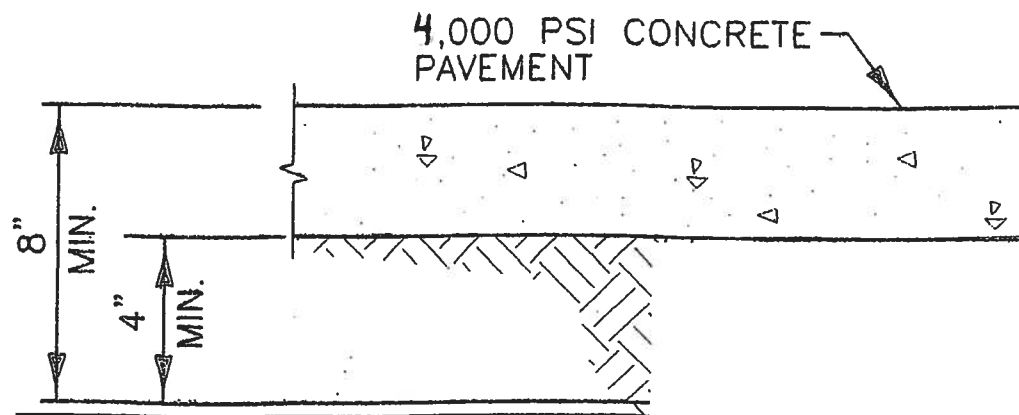
*\*Note: Kits require field assembly*

Note: Dispenser hoses should comply with local regulations for blending applications as fuel volume contained within the hose and related components is affected by type, length and manufacturer.



{ TYPICAL }

CROSS-SECTION THRU UNDER  
NOT TO SCALE

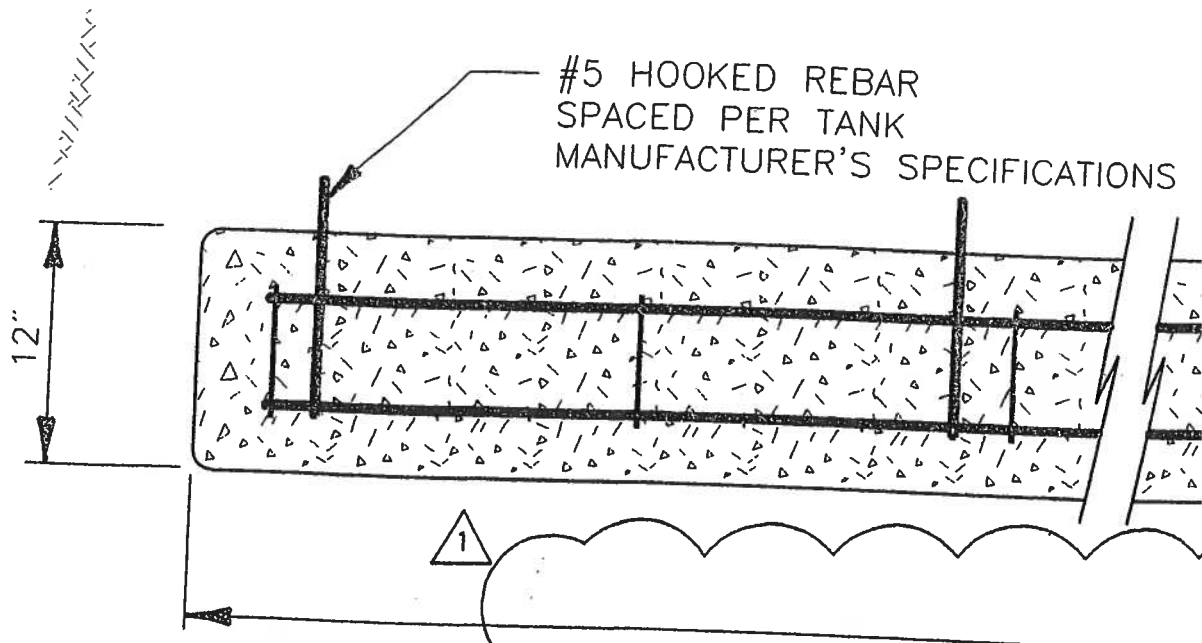
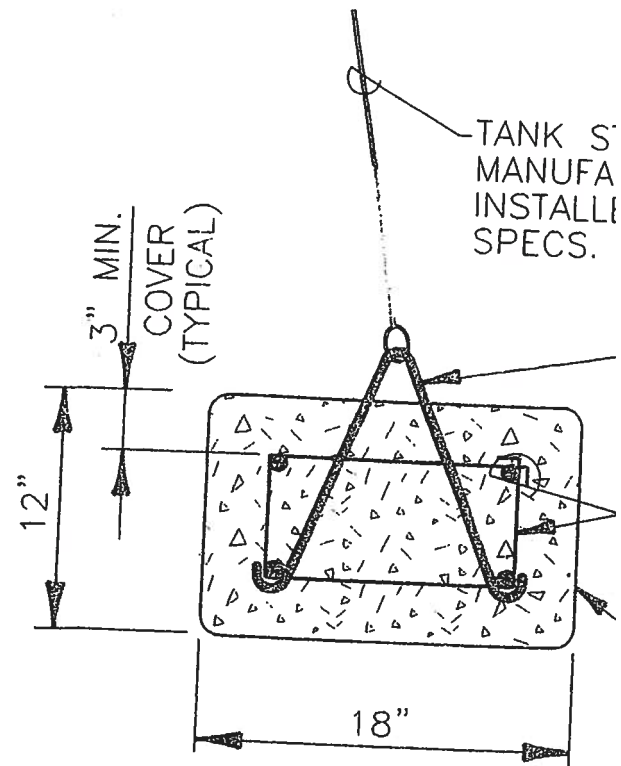


DEPTH MUST PERMIT SLOPING OF PIPE TO  
TANK AREA

TYPICAL PII

NOT





DEADMAN DETAILS  
NOT TO SCALE

42 5/16"

42" MANWAY & COVER, —  
SEE "MATERIAL & EQUIPMENT  
SCHEDULE" THIS SHEET

6'  
(TYP.)

4"  
MIN.

SKIRT API COLOR CODED FRP-  
OR GALVANIZED

2 HP, VARIABLE SPEED  
F.E. PETRO SUB-PUMP &  
LEAK DETECTOR

60" CABLE (2 WIRE)  
SUPPLIED WITH LEAK  
SENSOR

2" Ø PVC LIQUID SENSOR-  
SLEEVE, SUPPLIED BY G.C.  
TO BE HUNG FROM CONDUIT  
& SECURED WITH STAINLESS  
STEEL STRAPS

3/4" CONDUIT  
FROM INTERSTICE

SPARE BUNG

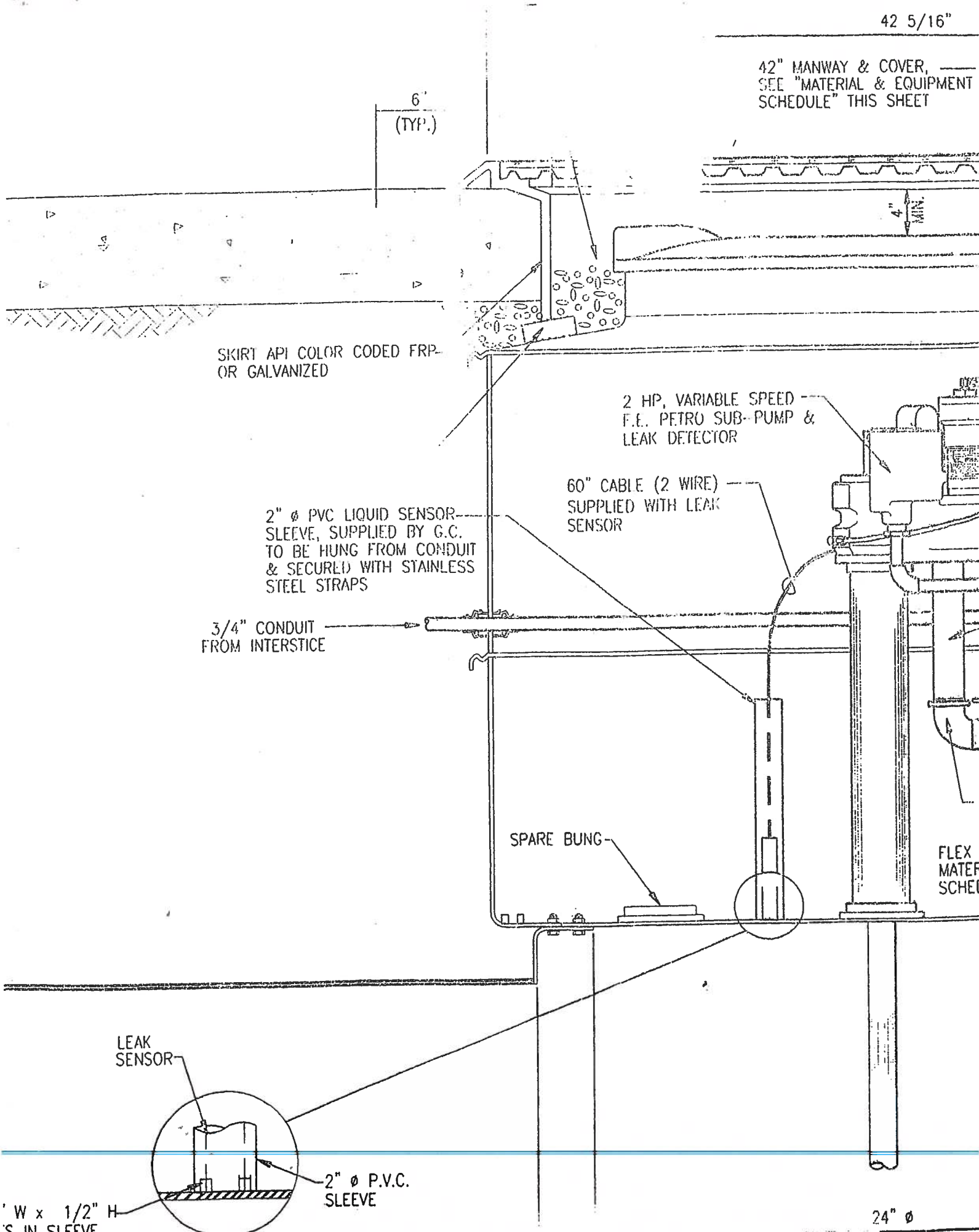
FLEX  
MATE  
SCHEI

LEAK  
SENSOR

2" Ø P.V.C.  
SLEEVE

1" W x 1/2" H  
IN SLEEVE

24" Ø



4" ELECTRICAL CONDUIT FOR  
EAKER, SHOWN FOR CLARITY  
E SHEET STD-8 FOR ACTUAL  
LOCATION

1" RAIN LIP

SEALING FITTINGS (TYP.)

1" CONDUIT FOR FUTURE USE,  
FURNISHED BY ELECTRICAL  
CONTRACTOR. FOR LOCATION  
SEE SHT. STD-1

1" CONDUIT, FURNISHED  
BY ELECTRICAL CONTRACTOR.  
FOR LOCATION SEE  
SHT. STD-1

3/4" CONDUIT FOR SPEAKER,  
FURNISHED BY ELECTRICAL  
CONTRACTOR. FOR LOCATION  
SEE SHT. STD-8

CAPPED, 3/4" CONDUIT FOR LEAK  
DETECTOR, FURNISHED  
BY ELECTRICAL CONTRACTOR.  
FOR LOCATION SEE SHT. STD-1

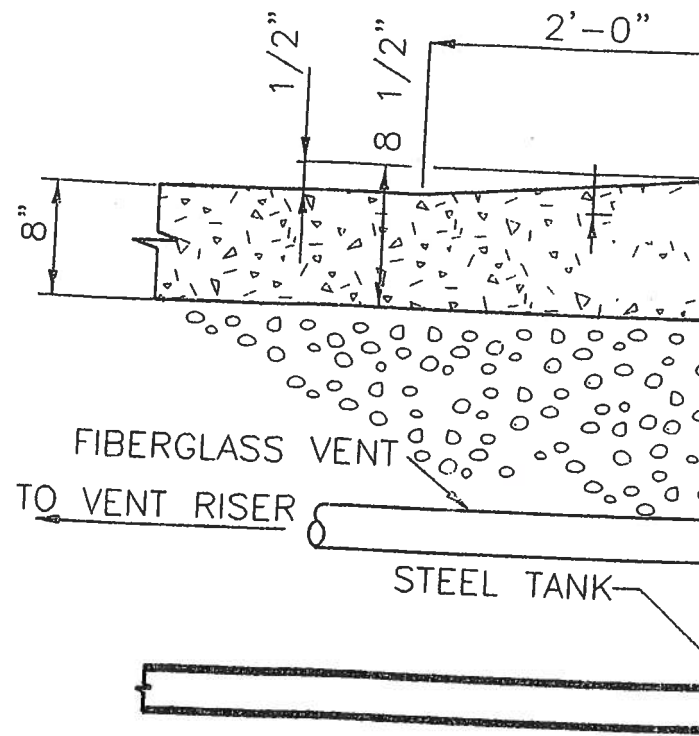
2" x 1  
ELBOW

CONTAINMEN

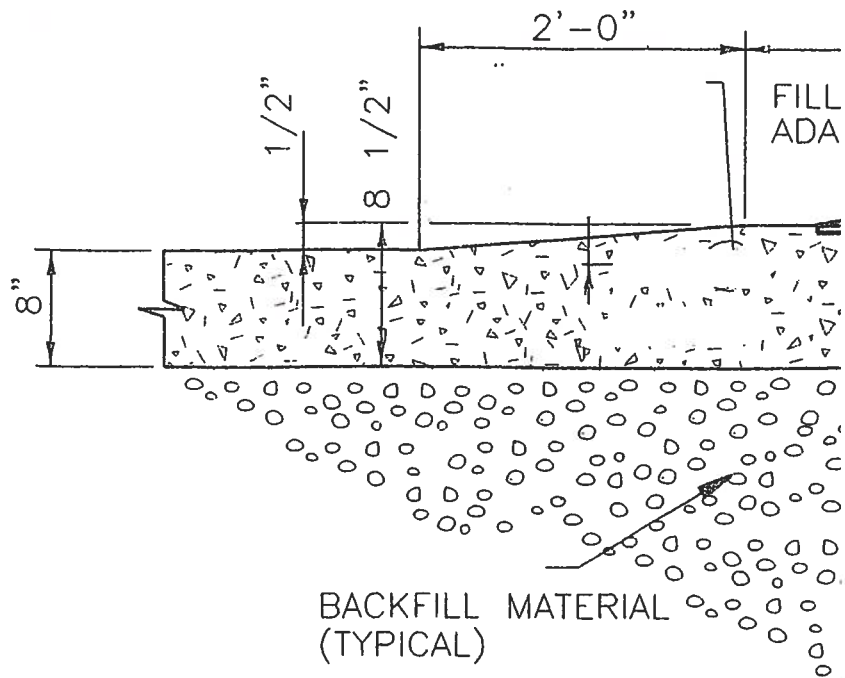
TYPICAL  
SUMP SECTION AT



CONT  
W/ CAST IRON COVER AND



\* FOR EXACT  
SEE CHART



STEEL TANK



TANK