

DATE 11/24/2008

Columbia County Building Permit

PERMIT

This Permit Must Be Prominently Posted on Premises During Construction

000027497

APPLICANT KEVIN MAY PHONE 904-693-3200
 ADDRESS 58 CORIANDER TERRACE MIDDLEBURG FL 32068
 OWNER GEORGE HUNTER(LAND O SUN MGT CORP) PHONE 352 333-3011
 ADDRESS 4008 W US 90 LAKE CITY FL 32055
 CONTRACTOR KC PETROLEUM, INC PHONE 904-693-3200
 LOCATION OF PROPERTY 90W, PAST I-75, 1 MILE ON LEFT (FAST TRACK)

TYPE DEVELOPMENT REPLACING TANKS ESTIMATED COST OF CONSTRUCTION 153966.00
 HEATED FLOOR AREA _____ TOTAL AREA _____ HEIGHT _____ STORIES _____
 FOUNDATION _____ WALLS _____ ROOF PITCH _____ FLOOR _____
 LAND USE & ZONING CHI MAX. HEIGHT 35
 Minimum Set Back Requirments: STREET-FRONT _____ REAR _____ SIDE _____
 NO. EX.D.U. 1 FLOOD ZONE NA DEVELOPMENT PERMIT NO. _____

PARCEL ID 34-3S-16-02491-005 SUBDIVISION _____
 LOT _____ BLOCK _____ PHASE _____ UNIT _____ TOTAL ACRES _____

PCC1256768 *Kevin May*
 Culvert Permit No. _____ Culvert Waiver _____ Contractor's License Number _____ Applicant/Owner/Contractor _____
 EXISTING P08-377 BK WR N
 Driveway Connection _____ Septic Tank Number _____ LU & Zoning checked by _____ Approved for Issuance _____ New Resident _____

COMMENTS: NOC ON FILE, IMPACT FEE EXEMPT
REMOVAL PERMIT #27496

Check # or Cash 90107007

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power _____ Foundation _____ Monolithic _____
 date/app. by _____ date/app. by _____ date/app. by _____
 Under slab rough-in plumbing _____ Slab _____ Sheathing/Nailing _____
 date/app. by _____ date/app. by _____ date/app. by _____
 Framing _____ Rough-in plumbing above slab and below wood floor _____
 date/app. by _____ date/app. by _____
 Electrical rough-in _____ Heat & Air Duct _____ Peri. beam (Lintel) _____
 date/app. by _____ date/app. by _____ date/app. by _____
 Permanent power _____ C.O. Final _____ Culvert _____
 date/app. by _____ date/app. by _____ date/app. by _____
 M/H tie downs, blocking, electricity and plumbing _____ Pool _____
 date/app. by _____ date/app. by _____
 Reconnection _____ Pump pole _____ Utility Pole _____
 date/app. by _____ date/app. by _____ date/app. by _____
 M/H Pole _____ Travel Trailer _____ Re-roof _____
 date/app. by _____ date/app. by _____ date/app. by _____

BUILDING PERMIT FEE \$ 770.00 CERTIFICATION FEE \$ 0.00 SURCHARGE FEE \$ 0.00
 MISC. FEES \$ 0.00 ZONING CERT. FEE \$ _____ FIRE FEE \$ 0.00 WASTE FEE \$ _____
 FLOOD DEVELOPMENT FEE \$ _____ FLOOD ZONE FEE \$ _____ CULVERT FEE \$ _____ **TOTAL FEE** 770.00

INSPECTORS OFFICE *JH* CLERKS OFFICE *CH*

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

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

EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS THE WORK AUTHORIZED BY SUCH PERMIT IS COMMENCED WITHIN 180 DAYS AFTER ITS ISSUANCE, OR IF THE WORK AUTHORIZED BY SUCH PERMIT IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AFTER THE TIME THE WORK IS COMMENCED. A VALID PERMIT RECIEVES AN APPROVED INSPECTION EVERY 180 DAYS. WORK SHALL BE CONSIDERED TO BE IN ACTIVE PROGRESS WHEN THE PERMIT HAS RECIEVED AN APPROVED INSPECTION WITHIN 180 DAYS.

The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.

2 permits w/ REMOVAL - \$60.00
② Replacement TANKS

Columbia County Building Permit Application

Alt# 90107007

For Office Use Only Application # 0811-30 Date Received 11/19/08 By GJ Permit # 27496/27497

Zoning Official BLK Date 19.11.08 Flood Zone N/A FEMA Map # N/A Zoning CHI

Land Use Highway Interchange Elevation N/A MFE N/A River N/A Plans Examiner (u) Date 11/19/08

Comments Impact Fee Exempt

NOC EH Deed or PA Site Plan State Road Info Parent Parcel # _____

Dev Permit # _____ In Floodway Letter of Authorization from Contractor

Unincorporated area Incorporated area Town of Fort White Town of Fort White Compliance letter

Septic Permit No. _____ Fax 904-796-8441

Name Authorized Person Signing Permit Kevin May Phone 904-693-3200
(cell 904-237-8450)

Address 58 Coriander Terrace, Middleburg, FL 32068

Owners Name Hunter George W Phone 386-752-0777

911 Address 4008 US Hwy 90 West, Lake City, FL 32055

Contractors Name KC Petroleum, Inc Phone 904-693-3200

Address 650 Talleyrand Ave., Jax, FL 32202

Fee Simple Owner Name & Address _____

Bonding Co. Name & Address _____

Architect/Engineer Name & Address KC Petroleum, Inc, 650 Talleyrand Ave, Jax, FL 32202

Mortgage Lenders Name & Address _____

Circle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progress Energy

Property ID Number 34-35-16-02491-005 Estimated Cost of Construction 153,966.

Subdivision Name _____ Lot _____ Block _____ Unit _____ Phase _____

Driving Directions West on Hwy 90 to CR252 at corner of 4590 and CR252, named Chevron Fast Trac, 4008 us Hwy 90

Number of Existing Dwellings on Property 1

Construction of Replace ^{3 remove} existing storage tanks and piping Total Acreage _____ Lot Size _____

Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height _____

Actual Distance of Structure from Property Lines - Front N/A Side N/A Side N/A Rear N/A

Number of Stories _____ Heated Floor Area _____ Total 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.

Spoke to
Kevin
11/19/08
Revised 11-30-07

Columbia County Building Permit Application

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

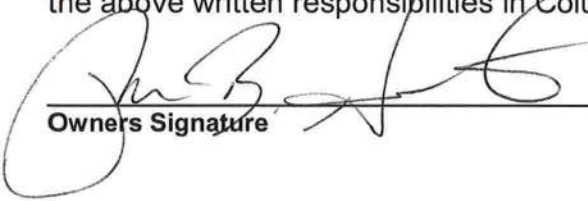
FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment

According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

NOTICE OF RESPONSIBILITY TO BUILDING PERMITEE:

YOU ARE HEREBY NOTIFIED as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

OWNERS CERTIFICATION: 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. I further understand the above written responsibilities in Columbia County for obtaining this Building Permit.



Owners Signature

CONTRACTORS AFFIDAVIT: By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit.



Contractor's Signature (Permitee)

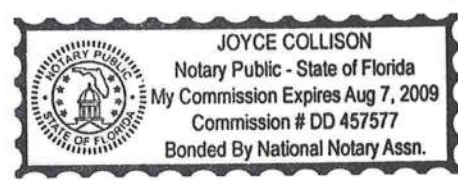
Contractor's License Number PCC 1256768
Columbia County
Competency Card Number _____

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 17th day of November 2008.
Personally known or Produced Identification _____



State of Florida Notary Signature (For the Contractor)

SEAL:



LIMITED POWER OF ATTORNEY

DATE 11-17-08

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 and pick up for work to be performed at a location described as: Parcel # 34-35-16-02491-005

4008 US Hwy 90 West, Lake City, FL 32055
(Address of Job)

Hunter George W, 1130 West US Hwy 90, Lake City, FL 32055
(Owner of Property and Address)

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

Scott Lamberson PCC 1256768
Type or Print name of Certified Contractor, License #

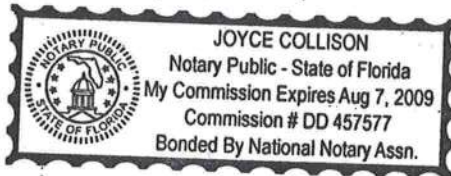
Scott Lamberson
Signature of Certified Contractor

Acknowledged:

Sworn to and subscribed before me this 17th day of November A.D. 2008
Notary Public, State of

Florida

(Seal)



My Commission Expires:

8-7-09
Joyce Collison

>> Print as PDF <<

COMM INTERS W LINE SW1/4 OF HUNTER GEORGE W 34-3S-16-02491-005 Columbia County 2008 R
 SE1/4 & N R/W CR-252, RUN E 1130 WEST U S HWY 90 CARD 001 of 001
 957.38 FT FOR POB, RUN NW (SUWANNEE SWIFTY #299) PRINTED 10/21/2008 9:41 BY JEFF
 171.57 FT TO S R/W US-90, SE LAKE CITY, FL 32055 APPR 5/06/2008 DF

MOD	DESCRIPTION	AE?	N	HTD AREA	INDEX	DIST	2	PUSE	001126	CONV STORE/GAS
BUSE	004300 NBHD CONVE			2147	87.526	34316.00				
MOD	4 COMMERCIAL BATH			2814	43.325	100.000	INDX	STR 34- 3S- 16		
EXW	19 COMMON BRK	5		121917		1989	AYB	MKT AREA 06		98,752 BLDG
	10% 28 GLASS THRM			81.00	%GOOD	98,752	B BLDG VAL	1989 EYB		13,715 XFOB
RSTR	04 WOOD TRUSS	2						(PUD1		286,191 LAND
RCVR	04 BUILT-UP							AC	.730	0 AG
	20% 12 MODULAR MT							NTCD		0 MKAG
INTW	04 PLYWOOD	10						APPR CD		0 CLAS
	% N/A							CNDO		398,658 JUST
FLOR	05 ASPH TILE							SUBD		0 SOHD
	% N/A							BLK		0 ASSD
HTTP	09 ENG F AIR							LOT		0 EXPT
A/C	06 ENG CENTRL							MAP#		0 COTXBL
QUAL	05 05		06					TXDT	002	
FNDN	N/A		N/A							
SIZE	ALL		N/A							
CEIL	01 FIN.SUSPD		N/A							
ARCH	N/A		N/A							
FRME	03 MASONARY		N/A							
KTCH	N/A		N/A							
WNDO	N/A		N/A							
CLAS	N/A		N/A							
OCC	N/A		N/A							
COND	03 03		N/A							
SUB	A-AREA % E-AREA									
BAS93	2147 100 2147									
CAN93	1800 30 540									
FST93	253 50 127									
TOTAL	4200 2814 98752									

AE BN	CODE	DESC	LEN	WID	HGHT	QTY	QL	YR	ADJ	UNITS	UT	PRICE	ADJ	UT	PR	SPCD	%GOOD	XFOB	VALUE
Y	0166	CONC, PAVMT	30	35		1		0000	1.00	1050.000	UT	1.700		1.700			100.00		1,785
Y	0260	PAVEMENT-ASP				1		0000	1.00	13255.000	UT	.900		.900			100.00		11,930

LAND	DESC	ZONE	ROAD	{UD1	{UD3	FRONT	DEPTH	FIELD CK:	ADJUSTMENTS	UNITS	UT	PRICE	ADJ	UT	PR	LAND	VALUE
N	001410	CONV STORE CG							1.00 1.00 .75 1.50	31799.000	SF	8.000		9.00		286,191	
B001		SUWANNEE SWIFTY															
		2008															

AC# 3850995

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L08071100584

DATE	BATCH NUMBER	LICENSE NBR
07/11/2008	080032040	CBC058001

The BUILDING CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2010

LAMBERSON, SCOTT M
K C PETROLEUM INC
533 17TH AVE N
JACKSONVILLE BEACH FL 32250

CHARLIE CRIST
GOVERNOR

CHUCK DRAGO
INTERIM SECRETARY

DISPLAY AS REQUIRED BY LAW

AC# 3851515

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L08071101104

DATE	BATCH NUMBER	LICENSE NBR
07/11/2008	080032041	PCC1256768

The POLLUTANT STORAGE SYSTEMS CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2010

LAMBERSON, SCOTT M
K C PETROLEUM INC
533 17TH AVE N
JACKSONVILLE BEACH FL 32250

CHARLIE CRIST
GOVERNOR

CHUCK DRAGO
INTERIM SECRETARY

DISPLAY AS REQUIRED BY LAW

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
09/10/2008

PRODUCER (904)353-3181 FAX (904)353-5722
Cecil W. Powell & Co.
P.O. Drawer 41490
219 Newnan St.

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.

Jacksonville, FL 32203-1490
Insured KC Petroleum Inc
P O Box 60742
Jacksonville, FL 32236

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 ADD'L LTR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A		GENERAL LIABILITY	ENV0106680804	09/11/2008	09/11/2009	EACH OCCURRENCE \$ 1,000,000
		<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B		AUTOMOBILE LIABILITY	4203213900	09/11/2008	09/11/2009	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
		<input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
		GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
C		EXCESS/UMBRELLA LIABILITY	ENU0090580805	09/11/2008	09/11/2009	EACH OCCURRENCE \$ 2,000,000
		<input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$ 10,000				AGGREGATE \$ 2,000,000 \$ \$ \$
D		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	001WC08A42788	05/06/2008	05/06/2009	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below				E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A		OTHER Contractor's Pollution - Claims Made Basis	ENV0106680804	09/11/2008	09/11/2009	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

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 34-35-16-02491

Inst:200812020822 Date:11/19/2008 Time:8:44 AM
04 DC,P.DeWitt Cason,Columbia County Page 1 of 1 B:1162 P:833

1. Description of property: (legal description of the property and street address or 911 address)
Comm Inters W Line SW 1/4 of SE 1/4 & N R/W CR-252, Run E 957.38 FT FOR
POB, Run NW 171.57 FT To S R/W US-90, SE 309.62 FT, S'ly 69.30 FT, SW 275
FT To POB (Lease to Suwannee Swifty) ORB 673-403
Address: 4008 US Hwy 90 West, Lake City, FL 32055
2. General description of improvement: Replace existing underground storage tanks
and piping
3. Owner Name & Address Hunter George W, 1130 West US Hwy 90, Lake City, FL 32055
Interest in Property owner
4. Name & Address of Fee Simple Owner (if other than owner): N/A
5. Contractor Name KC Petroleum, Inc Phone Number 904-693-3200
Address 650 Talleyrand Ave., Jacksonville, FL 32202
6. Surety Holders Name _____ Phone Number _____
Address _____
Amount of Bond _____
7. Lender Name _____ 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 Cormier Phone Number 904-693-3200
Address 650 Talleyrand Ave., Jacksonville, 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) _____

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.


Signature of Owner

Sworn to, or affirmed, and subscribed before
day 19, 2008
NOTARY PUBLIC
JAMES P. HARDEN
Signature of Notary



K.C. Petroleum, Inc.

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



CBC-058001 PCC-1256768

Date: 10/29/08

John Hunter
GW HUNTER INC.
PO BOX 958
LAKECITY, FL
32056-0958

Job #: 544020
Hunter #299 Tank Remediation
US 90 & CR 252
Lake City, FL

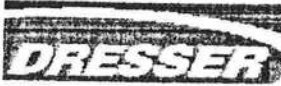
K.C Petroleum is pleased to provide the following proposal on the above referenced project:

COMBINED MATERIALS & EQUIPMENT

Manufacturer	Description	Quantity	Unit
	2" Ball Valve	3.00	EA
	Signs and Decals	1.00	LS
	PetroFiberglass DPF-42-WT-16 - Tank Sump	3.00	EA
	PetroFiberglass DPT-TA - Mounting Nipple	6.00	EA
EQ 296	PetroFiberglass DPF-1E STD - Encore Dispenser Sump	2.00	EA
	PetroFiberglass DPF-1A W - Dispenser Sump	2.00	EA
	PetroFiberglass DPF-SB-- Stabilizer Bar	10.00	EA
	Blend Valves	2.00	EA

FIBERGLASS PIPING & FITTINGS

EQ 252	AO SMITH	3" RED THREAD IIA PIPE	650.00	FT
	AO SMITH	2" RED THREAD IIA PIPE	650.00	FT
	AO SMITH	3" RED THREAD IIA FITTINGS (90 ELBOW)	6.00	EA.
	AO SMITH	4" RED THREAD IIA FITTINGS (90 ELBOW)	1.00	EA.
	AO SMITH	3" RED THREAD FITTINGS (TEE)	2.00	EA
	AO SMITH	3" BxM Threaded Adapter	3.00	EA.
	AO SMITH	4" BxM Threaded Adapter	1.00	EA.
	AO SMITH	4x3 Reducer Bushing	1.00	EA.
	AO SMITH	2" RED THREAD IIA FITTINGS (90 ELBOW)	28.00	EA
	AO SMITH	2" RED THREAD IIA FITTINGS-(45 ELBOW)	16.00	EA
	AO SMITH	2" RED THREAD IIA FITTINGS (TEE)	7.00	EA
	AO SMITH	2" RED THREAD IIA FITTINGS (SLEEVE)	16.00	EA
	AO SMITH	3" RED THREAD IIA FITTINGS (SLEEVE)	1.00	EA
	AO SMITH	2" BxM Threaded Adapters	5.00	EA.
	AO SMITH	2x1.5 Female NPT Reducer Bushing	10.00	EA.
	AO SMITH	3" 90 Elbow Secondary Cont. Fittings	15.00	EA.
	AO SMITH	3" 45 Elbow Secondary Cont. Fittings	15.00	EA.
	AO SMITH	3" Tee Secondary Cont. Fittings	7.00	EA.
	AO SMITH	3" Sleeve Coupling Secondary Cont. Fittings	15.00	EA.
	AO SMITH	3" to 2" Termination w/ Tap Secondary Cont. Fittings	3.00	EA.



Wayne

Job #: 544020 Hunter #299 Tank Remediation

Proposal, Page #: 2

Date: 10/29/08

AO SMITH	DS-8000 Series Adhesive	60.00	EA
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FLEXIBLE PIPING & FITTINGS

<i>EQ 255</i>	OPW Pisces	EBF-0300 - 3" FRP Pipe Entry Fitting	13.00	EA.
	OPW Pisces	TBA-3020 - 3" to 2" Test Boot	10.00	EA.
	OPW Pisces	EBF-0751 - Electrical Pipe Entry Fitting	20.00	EA.

STP'S AND LEAK DETECTORS

<i>EQ 335</i>	FE PETRO	STP-MLD COMBO - 2-Gas & 1-Diesel Leak Detector	1.00	EA
	FE PETRO	STP150-VL2 - 1-1/2 HP Sub-Pump	3.00	EA
	FE PETRO	STP-DHI-SCI - Isolation Relay w/ Control Box	3.00	EA

SERVICE STATION PRODUCTS

	OPW	634TT-7085 - Tight Fill Cap 4"	3.00	EA
	OPW	633T-8076 - Fill Cap Adapter	3.00	EA
<i>EQ 654</i>	OPW	7111SS-CSDW - Stainless Steel DW Spill Bucket	3.00	EA
<i>EQ 224</i>	OPW	1C-2100-PEVR - Vapor Spill Bucket	1.00	EA
	OPW	1611AV-1620 - Vapor Recovery Adapter	1.00	EA
	OPW	1711T-7085 - Vapor Recovery Cap	1.00	EA
	OPW	23-0055 - 3" Vent Cap	1.00	EA
	OPW	23-0033 - 2" Vent Cap	1.00	EA
	MORRISON	305XPA-2200 AK - 2" Monitoring Adaptor/Cap	1.00	EA.
	MORRISON	305XPA-1200 AK - 4" Monitoring Adaptor/Cap	3.00	EA.

FLEX CONNECTORS & SHEAR VALVES

	FLEXING	1.5" x 18" MSxM Flexhose	8.00	EA
	FLEXING	2" x 15" MxM Flexhose	3.00	EA
	OPW	10BF-5725 - 1.5 Shear Valve	10.00	EA

MANHOLES & COVERS

	POMECO	44CD-PL10 - 44" Composite Manhole	3.00	EA
	OPW	104A-1800 - 18" CAST IRON MANHOLE	7.00	EA

OVERFILL PROTECTION

	OPW	61S0-4000 - OVERFILL VALVE 2 POINT	3.00	EA
	OPW	233-4432 - Vent Extractor Assembly	3.00	EA

DISPENSING EQUIPMENT & CONSOLE

<i>EQ 614</i>	Veeder Root	846390-109 - 10 Inventory Probe	3.00	EA
	Veeder Root	846400-000 - In-Tank Probe Installation Kit (Gas)	2.00	EA
	Veeder Root	846400-001 - In-Tank Probe Installation Kit (Diesel)	1.00	EA
<i>EQ 614</i>	Veeder Root	794380-208 - Sump Sensor	3.00	EA
	Veeder Root	794390-460 - Interstitial Sensor	1.00	EA
		Freight	1.00	LS

Equipment Sub

SCOPE OF WORK

Apply for permits for our scope of work.

Disconnect and set aside the existing dispensers and blow back each product line to the tanks.

Remove and dispose of up to 3,000 square feet of surface grade level concrete at the tank and fuel trench areas including the existing dispenser islands.

Remove and dispose of (3) existing underground storage tanks. (Liquids and sludges from the existing underground storage tanks to be billed separate per "Exhibit B" with manifest provide for proof of volume)

Provide installation and anchor using concrete dead-men for the owner supplied double-walled underground storage tank using the existing excavated soil material for backfill.

Furnish and install all related tank top containment sumps, sub-pumps with leak detectors, vent extractors, fill assemblies and grade level manholes.

Furnish and install blend valves on (2) existing dispensers.

Job #: 544020 Hunter #299 Tank Remediation

Proposal, Page #: 3

Date: 10/29/08

Furnish and install dispenser sumps with shear valves, flex hoses, pipe entries and connect dispensers using double-walled fiberglass product piping from the tanks to each dispenser location.

Connect tank vent line using single-wall fiberglass piping and terminate in the landscape area.

Provide electrical services for the tanks and dispensers using the existing conduits from the building.

Furnish, place and finish the concrete tank slab and pipe trenches using 3,500 psi concrete mix with fiber-mesh reinforcement (3,000 sq. ft.).

Purge and calibrate dispensers on start-up.

Precision test lines only.

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.

If payment is not made in a timely manner, a lien will be filed on the property and will not be released until the balance is paid in full, including interest, attorney fees and recording fees.

NOTES:

1.) Exhibit A & B attached and made apart of this proposal. 2.) Tank and dispensers by owner. 3.) Liquids and sludges from the existing underground tanks to be billed separate per attached "Exhibit B" with manifest attached for proof of volume. 4.) Payment Terms: Net 10 Days from each progress draw invoice. 5.) Bid Form - Revision 2, Hunter Oil Company UST Upgrades At Multiple Locations made apart of this contract proposal.



Authorized Signature

10/29/08

Date

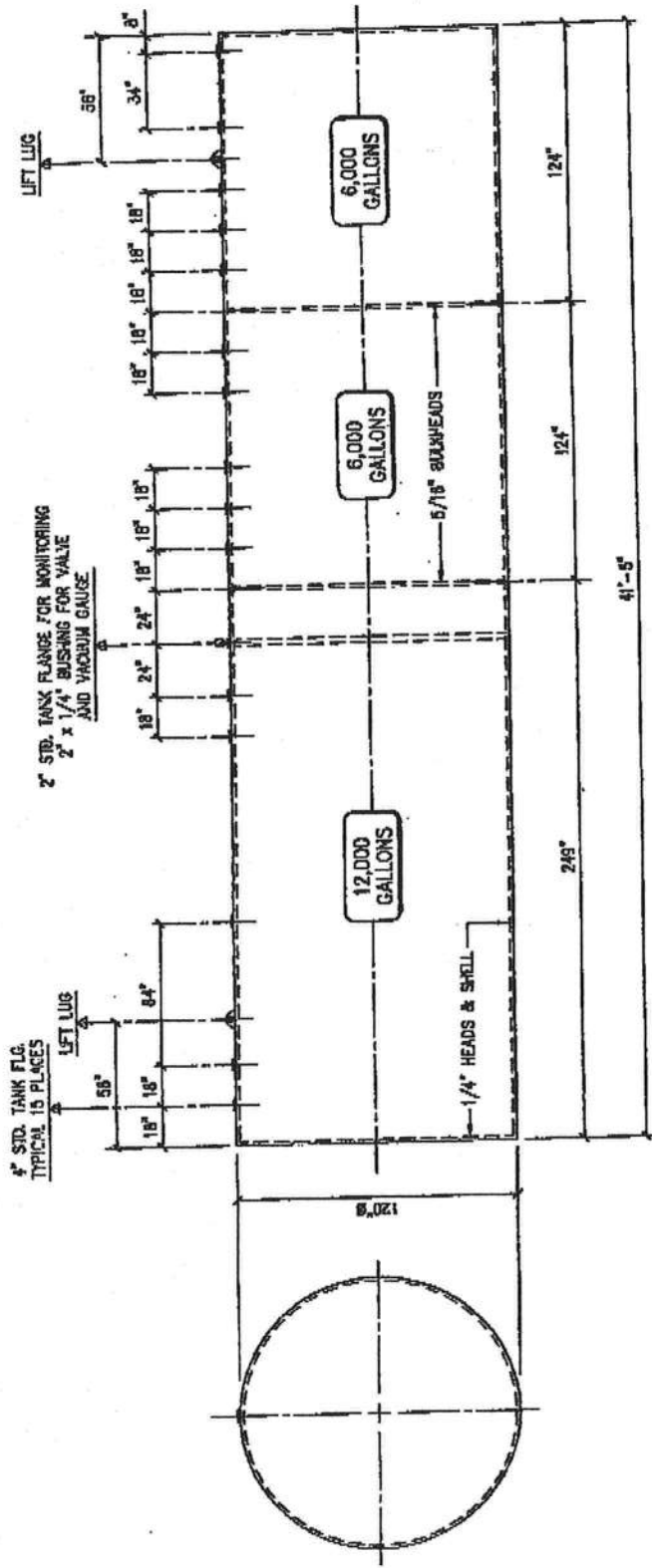
Acceptance Signature: Date

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

Company Name/Billing Address

EQ 156

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OK TO FABRICATE 10/23/08
 [Signature] K.C. Brown, Inc.

GENERAL NOTES:

1. CAPACITY 12M/8M GALLONS (24,000 TOTAL).
2. FAB. PER UL-58 & UL-1746 SPECS., LABELS REQ'D.
3. INSTALL STRIKER PLATES UNDER ALL OPENINGS.
4. PRESSURE TEST PRIMARY TANK AT 3-5 PSI AIR.
5. MAKE LEAK FREE PRIOR TO APPLYING SEPARATOR & JACKET.
6. APPLY SEPARATOR OVER EXTERIOR OF PRIMARY TANK & THEN COAT WITH MIN. 100 MILS GLASTEEL PER UL-1746.
7. AIR TEST INTERSTITIAL SPACE AT 1 PSI AIR MAX.
8. SPARK TEST JACKET AT 35,000 VOLTS.
9. TEST SECONDARY TANK BY APPLYING A VACUUM ON INTERSTITIAL SPACE (12" Hg. MIN.), HOLD FOR 24 HOURS.
10. LEAVE VALVES & GAUGES IN PLACE TO VERIFY VACUUM.
11. SHIP TANK WITH VACUUM ON INTERSTITIAL SPACE.
12. CLOSE OFF ALL OPENINGS PRIOR TO SHIPMENT.

Mat'l: CARBON STEEL	Blunt Ext: SSPO-SPTD	Int'l: ---
Paint Ext: "FIBERGLASS JACKET" - 100 MILS MIN.		
Paint Int'l: ---		
modern welding company of florida, inc. ORLANDO - Phone (407) 843-1270 - Fax (407) 423-8187		
24,000 GALLON - GLASTEEL II JACKETED - U/G		
Dwn. by: A.K.	Scale: 1/4" = 1'	Date: 4/21/2008
Drawn by: A.K.	Scale: 1/4" = 1'	Date: 4/21/2008
Sheet No. of 1	Sheet No. of 1	Sheet No. of 1
6B-3541-29	6B-3541-29	6B-3541-29

[Signature]



NEW FEATURES

HISTORY

PRODUCTS

SERVICES

CONTACT US

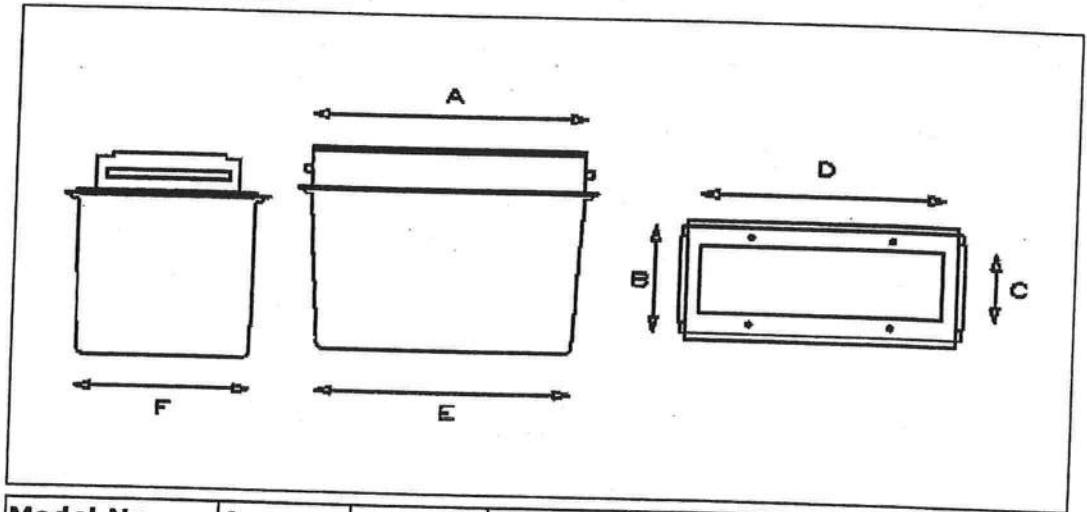
PRODUCTS

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"
DPF 7 STD	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"

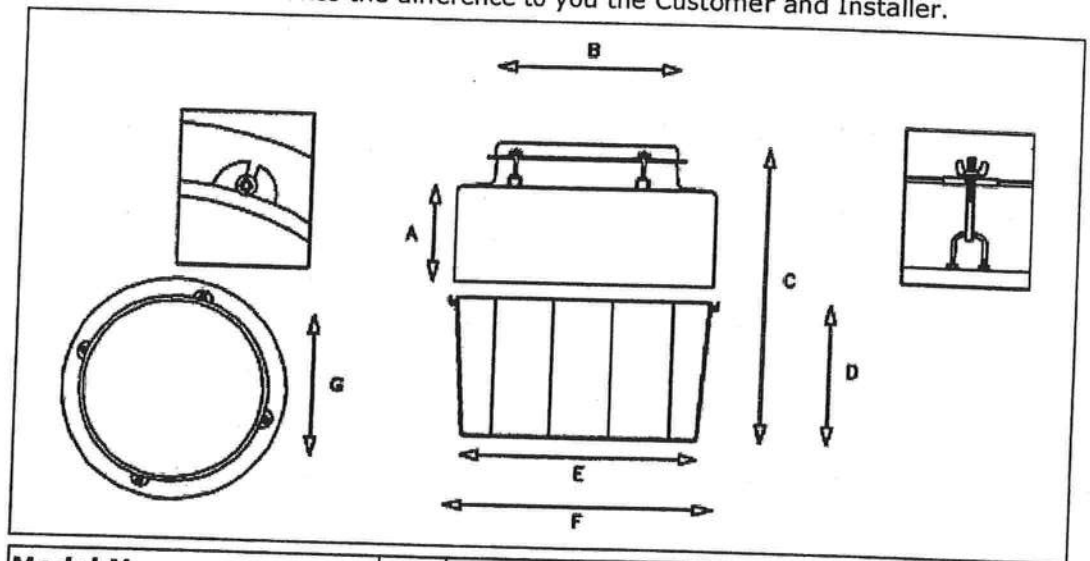
[Product List \(Excel\)](#)

[Product List \(Acrobat\)](#)

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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
DPF 42 WT-10	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 \(Excel\)](#)

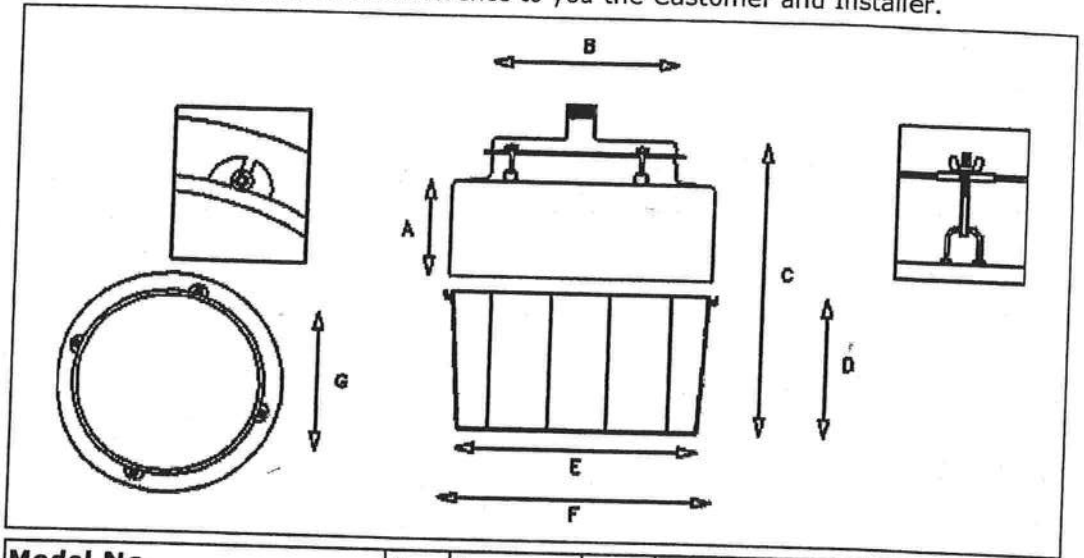
[Product List \(Acrobat\)](#)

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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 \(Excel\)](#)

[Product List \(Acrobat\)](#)

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For additional information on our products, please contact Derek Surratte at 704.394.0922 or dsurratte@petrofiberglass.com.

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Petro

FIBERGLASS SUMPS

PRODUCT & INSTALLATION DATA

Fiberglass Tank & Dispenser Sumps

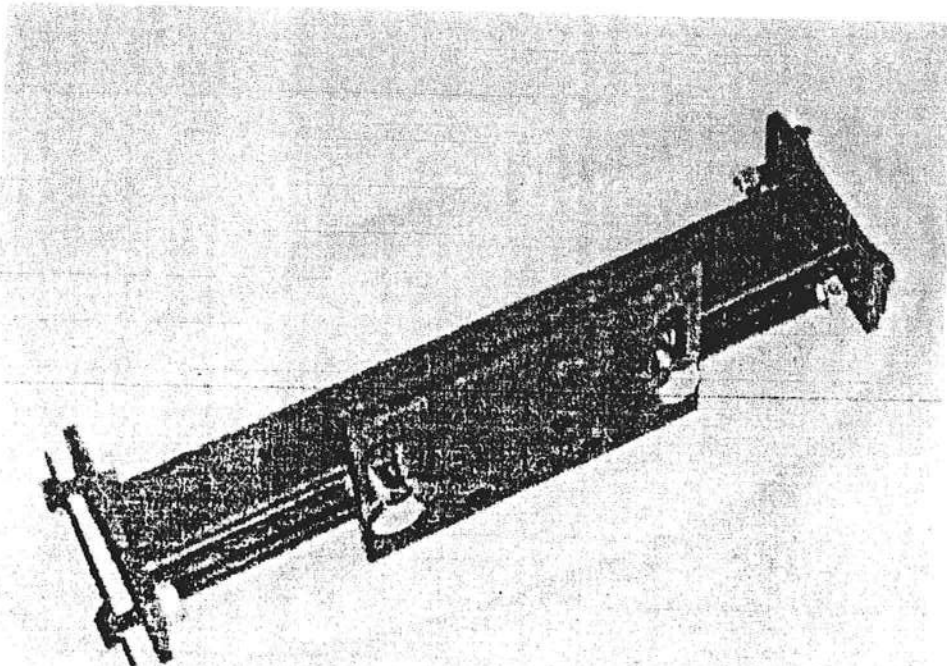
Petro Fiberglass Sumps offers fiberglass reinforced dispenser sumps and tank sumps which are designed to provide secondary containment for underground fuel systems. The sumps are manufactured for compatibility with piping systems. Both dispenser sumps and tank sumps are constructed of Isophthalic Polyester 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



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

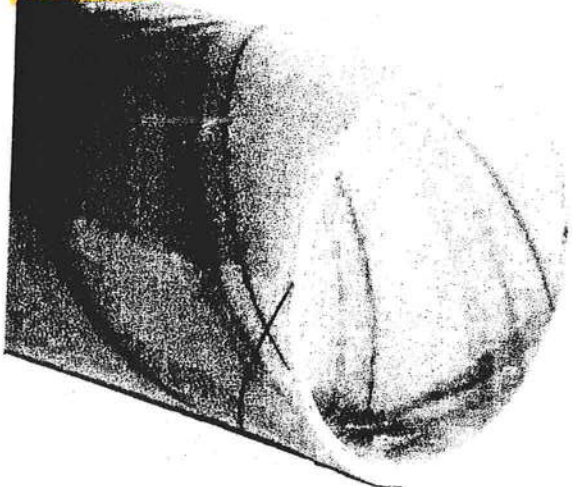
Bulletin No. B2193
 November 1, 2006

Fiber Glass Systems™

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



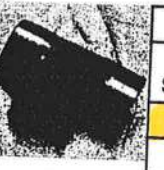
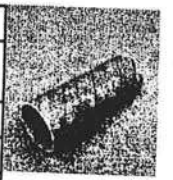
90° PRIMARY ELBOW, belled ends				
SIZE	PART NUMBER	PRICE	WEIGHT	PARTS PER BOX
2"	012020-360-4	34.30	1.2	20
3"	012030-360-4	46.80	2.3	12
4"	012040-360-4	65.80	3.3	6

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



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


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



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



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
Bell x Male				
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
Bell x Female				
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
Spigot x Male				
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
Spigot x Female				
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


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

* Reduced opening has female NPT threads.

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



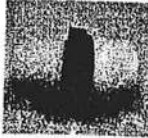
SUMP ENTRY/TERMINATION FITTING			
SIZE	PART NUMBER	PRICE	PARTS PER BOX
Bonded(1 Port, 3 Tapered Rings)			
3"	012030-626-0	157.70	1
4"	012040-626-0	194.00	1
Gasketed(1 Port)			
3"	012030-620-0	212.30	N/A
4"	012040-620-0	303.20	N/A

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.

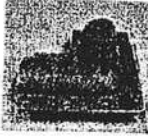


SUMP ADAPTER			
SIZE	PART NUMBER	PRICE	PARTS PER BOX
3"	012030-610-1	92.40	N/A


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

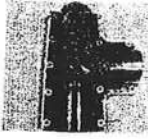
SECONDARY CONTAINMENT FITTINGS



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



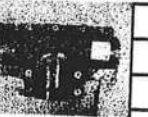
SLEEVE COUPLING, one-piece, Scarfed O.D.			
SIZE	PART NUMBER	PRICE	PARTS PER BOX
2"	012020-101-9	20.80	25
3"	012030-101-9	22.80	12
4"	012040-101-9	28.80	5



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

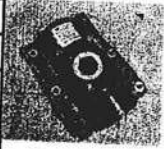


CROSSOVER TEE			
SIZE	PART NUMBER	PRICE	PARTS PER BOX
3"	012030-411-3	74.40	10
4"	012040-411-3	120.30	5

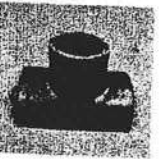


CROSSOVER NIPPLE			
SIZE	PART NUMBER	PRICE	PARTS PER BOX
3" x 6"	012030-006-7	8.00	12
4" x 6"	012040-006-7	9.30	9
6" x 8"	012060-008-7	14.20	N/A

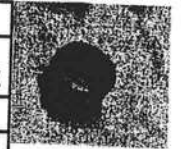
TERMINATION FITTING			
SIZE	PART NUMBER	PRICE	PARTS PER BOX
<i>With 3/4" NPT Tap</i>			
3" x 2"	012030-236-3	103.00	12
4" x 3"	012040-236-3	134.80	8
6" x 4"	012060-234-7	285.40	N/A
<i>Without Tap</i>			
3" x 2"	012030-235-3	55.60	10
4" x 3"	012040-235-3	103.00	15
6" x 4"	012060-235-7	251.80	N/A



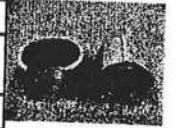
SADDLE			
SIZE	PART NUMBER	PRICE	PARTS PER BOX
<i>Belled Outlet</i>			
3" x 2"	012030-521-4	47.00	1
4" x 2"	012040-521-4	53.10	1
4" x 3"	012040-531-4	63.90	1
<i>Female NPT Outlet</i>			
3" x 1"	012030-511-4	34.80	1
3" x 1 1/4"	012030-512-4	34.80	1
3" x 1 1/2"	012030-516-4	34.80	1
4" x 1"	012040-511-4	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



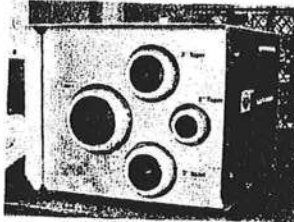
REDUCER BUSHING, Scarfed O.D.			
SIZE	PART NUMBER	PRICE	PARTS PER BOX
3" x 2"	012030-231-7	18.80	24
4" x 3"	012040-231-7	26.30	9



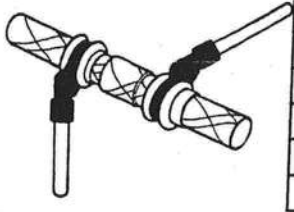
CENTRALIZER			
SIZE	PART NUMBER	PRICE	PARTS PER BOX
2" x 3"	013020-650-3	12.70	N/A
3" x 4"	013030-651-4	13.80	N/A
4" x 6"	013040-650-6	16.00	N/A



TOOLS & ACCESSORIES

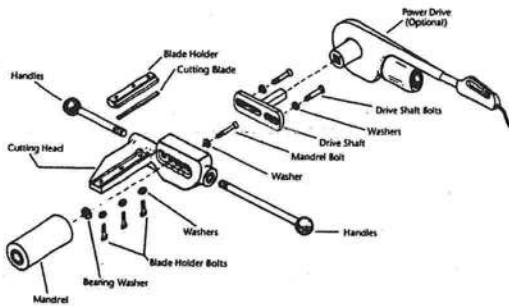


POWER TOOLS			
DESCRIPTION	PART NUMBER	PRICE	SIZE
Model 2100 Taper/Scarf	005990-795-0	1,771.70	110V
Model 2100-I Taper/Scarf	005990-797-0	2,039.60	220/240V 50 cycle
Model 2102 Taper/Scarf	005990-790-0	2,063.90	110V
Model 2102-I Taper/Scarf	005990-780-0	2,160.90	220/240V 50 cycle



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
Scarfing Adapter Kit for 3" & 4" Secondary Containment Pipe	005990-915-0	109.75
Scarfing 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
Scarfing 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

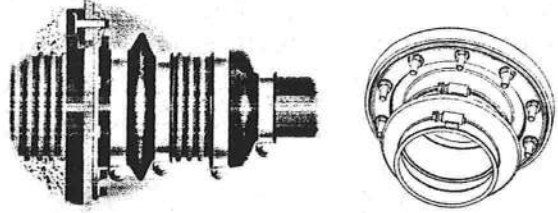
MINIMUM ORDER - Total Quantity \$250.00

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™ BOLTED FLANGE ENTRY FITTINGS

PISCES™ Bolted Flange Entry Fittings are installed in sump walls to seal the entry of fuel pipes, conduits, and vapor pipes. The boots on these fittings are replaceable from inside the sump without excavation.

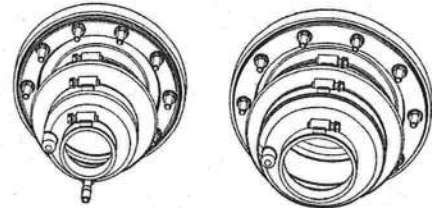


Ordering Specifications

Model No.	Bolted Flange Entry Fittings	Nominal Boot ID.	Hole Saw Required	Weight		Packaging
				lbs.	kg.	
BFP-400	4" PISCES™ AP40 Access/Containment or 4" FRP Pipe Entry Fitting	4 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	1.5	0.7	6/box
BFP-300	3" PISCES™ AP30 Access/Containment or 3" FRP Pipe Entry Fitting	3 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	1.5	0.7	6/box
BFP-200	2" PISCES™ CP20 Double Wall Primary Pipe Entry Fitting	2 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	1.5	0.7	6/box
BFP-200F	2" FRP Pipe Entry Fitting	2 $\frac{1}{2}$ "	3 $\frac{1}{2}$ "	1.5	0.7	6/box
BFP-150	1 $\frac{1}{2}$ " PISCES™ CP15 Double Wall Primary Pipe Entry Fitting	2"	3 $\frac{1}{2}$ "	1.3	0.6	6/box

Bolted Flange 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.

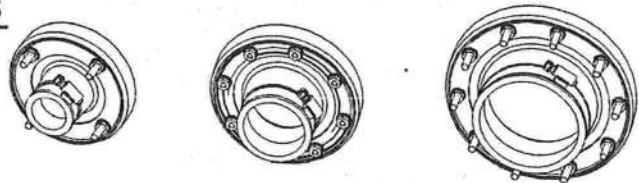


Ordering Specifications

Model No.	Bolted Flange Entry Fittings	Nominal Boot ID.	Hole Saw Required	Weight		Packaging
				lbs.	kg.	
BFP-420	4" PISCES™ AP40 Access/Containment or 4" FRP Pipe Entry Fitting with Test Boot for 2" PISCES™ or FRP Primary Pipe	2 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	1.5	0.7	6/box
BFP-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 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	1.5	0.7	6/box
BFP-415	4" PISCES™ AP40 Access/Containment Pipe Entry Fitting with Test Boot for 1 $\frac{1}{2}$ " PISCES™ Primary Pipe	2"	5 $\frac{1}{2}$ "	1.5	0.7	6/box
BFP-415A	4" PISCES™ AP40 Access/Containment Pipe Entry Fitting with Test Boot with Air Stem for 1 $\frac{1}{2}$ " PISCES™ Primary Pipe	2"	5 $\frac{1}{2}$ "	1.5	0.7	6/box
BFP-315	3" PISCES™ AP30 Access/Containment Pipe Entry Fitting with Test Boot for 1 $\frac{1}{2}$ " PISCES™ Primary Pipe	2"	4 $\frac{1}{2}$ "	1.5	0.7	6/box
BFP-315A	3" PISCES™ AP30 Access/Containment Pipe Entry Fitting with Test Boot with Air Stem for 1 $\frac{1}{2}$ " PISCES™ Primary Pipe	2"	4 $\frac{1}{2}$ "	1.5	0.7	6/box

One-Piece Bolted Flex-Flange Entry Fittings

PISCES™ Bolted Flex-Flange Entry Fittings are installed in sump walls to seal the entry of fuel pipes, conduits, and vapor pipes. Bolted flange fittings require an entry hole to be cut and a bolt pattern to be drilled in the sump wall for installation.



Ordering Specifications

Model No.	Bolted Flex-Flange Entry Fittings	Nominal Boot ID.	Hole Saw Required	Weight		Packaging
				lbs.	kg.	
BF-300	3" PISCES™ Access/Containment or 3" FRP Pipe Entry Fitting	3 $\frac{1}{2}$ "	HS-500 (5")	1.8	0.8	6/box
BF-200	2" PISCES™ Double Wall Primary Pipe Entry Fitting	2 $\frac{1}{2}$ "	HS-375 (3 $\frac{1}{2}$ ")	1.8	0.8	6/box
BF-200F	2" FRP Pipe Entry Fitting	2 $\frac{1}{2}$ "	HS-375 (3 $\frac{1}{2}$ ")	1.3	0.6	6/box
BF-150	1 $\frac{1}{2}$ " PISCES™ Double Wall Primary Pipe Entry Fitting	2"	HS-375 (3 $\frac{1}{2}$ ")	1.5	0.7	6/box
BF-100	1" Rigid Conduit Entry Fitting	1 $\frac{1}{2}$ "	HS-275 (2 $\frac{1}{2}$ ")	1.0	0.5	6/box
BF-075	$\frac{3}{4}$ " Rigid Conduit Entry Fitting	1 $\frac{1}{2}$ "	HS-275 (2 $\frac{1}{2}$ ")	1.0	0.5	6/box



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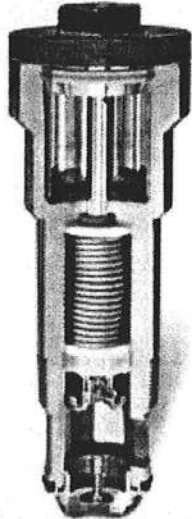
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MECHANICAL LINE LEAK DETECTOR

MLD

PRECISION BUILT FOR LONG LIFE AND MAXIMUM FLOW RATES



[Click for Construction Details](#)

The FE Petro MLD product line has unique construction features designed to provide maximum flow rates in busy stations and long service life. Both are critical issues for profitable station operation.

Design Features:

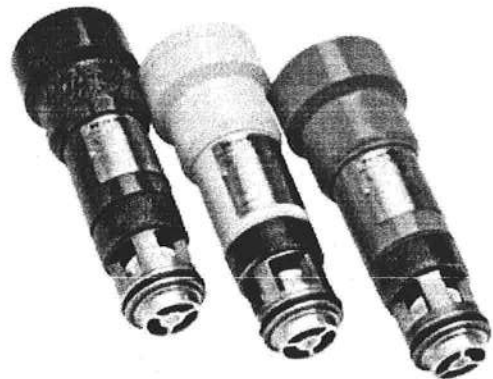
- Piston design offers the maximum flow rate possible by keeping flow restriction through the leak detector at a minimum. Piston has a full 1 5/8" (4.1 cm) of travel to move the leak detection poppet fully out of the flow path when product is being pumped.
- Piston cylinder has 5.75 cubic inches (94.2 cc) of volume to help minimize nuisance tripping due to thermal contraction. This also reduces the number of daily line tests during thermal contraction periods and thereby extends the life of the leak detector.

Built-in precision to maximize life:

- Burnished Brass Cylinder Liner has an 8 to 24 micron finish. The piston rod is polished stainless steel. Both are designed to minimize friction by providing an extremely smooth surface to reduce wear of the Teflon seals.
- Metering Pin is constructed of 416 stainless steel to minimize wear of the critical 3 GPH leak rate orifice.

Three MLD Models for the exact application*

- The MLD (blue in color) is designed for use in gasoline and alcohol blends and 100% alcohol applications using ridged pipe, or flexible pipe with low modulus of elasticity.
 - The MLD-D (light tan in color) is designed for use in diesel fuel and kerosene applications.
 - The MLD-E (gray in color) is designed for use with some flexible piping systems with a high modulus of elasticity.
- * Always follow MLD installation instructions in flexible piping systems to determine if model MLD-E (gray), the standard MLD (blue), or MLD-D (tan) model is required to detect a 3 GPH line leak.



SPECIFICATIONS:

- Capable of detecting line leaks equal to 3 GPH at 10 psi (114 LPH at .68 bar).
- Once in the open position, MLD remains open during product delivery to pressures as low as 1 psi. Therefore, the MLD will not close when several nozzles are open at the same time.
- 3rd party certified to comply with US EPA requirements 280.41 (B) and 280.44 (A) for continuous monitoring of pressurized piping.
- UL listed for installation in all 4" FE Petro pumps and most competitive makes.

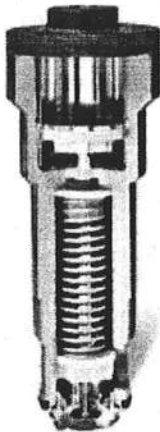
- Compatible with all blends of motor fuels including alcohol blends from 0 to 100% ethanol or methanol, 20% MTBE or ETBE with 80% gasoline, or 17% TAME with 83% gasoline as well as diesel, fuel oil, avgas, jet fuel, and kerosene.
- MLD signals a line leak by allowing less than 3 GPM (11 .4 LPM) restricted flow rate, at leak sizes of 3 GPH or greater. Leaks of less than 3 GPH are indicated by the leak detector taking longer than 2 to 3 seconds to open.
- Time required to make a line test is 2 to 3 seconds when no line leaks exist and air is purged from piping.
- Maximum static head on MLD is approximately 10 feet (3.28m) from MLD to the highest point in the piping system.
- Weight: 9.2 pounds (4.2 kg).
- Minimum height requirement from 2" NPT port to manhole cover for clearance is 9" (22.9 cm).
- Maximum product viscosity is 70 SSU at 60° F(15.6° C).

OPERATING CHARACTERISTICS:

The FE Petro STP-MLD leak detector is a three position, pressure-sensing, piston operated valve designed to continuously monitor the piping by indicating any leakage in the piping between the discharge and the submersible pump and the solenoid valve in a service station dispenser.

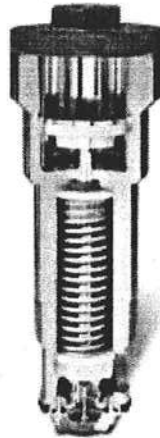
When the submerged pump is turned on after the system pressure has dropped significantly below the normal static system pressure, three GPH (at 10 psi) is metered through the STP-MLD into the piping system. If a leak is present that equals or exceeds this amount, as much product escapes from the system as is metered through the STP-MLD. Under this condition, pressure cannot build up in the piping system. When a nozzle is opened, a poppet in the STP-MLD moves to a position that restricts the flow to 2 GPM. This is the indication to the operator that a leak is present. If there are no leaks, pressure rapidly builds in the system forcing the STP-MLD to open to the full-flow position. In a system with no leaks, it takes approximately three seconds for a complete test. No further line testing takes place until the line pressure drops significantly below the normal static system pressure.

1. The Tripped or Bottom Position



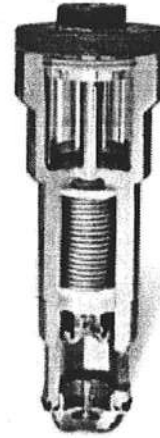
When the system is less than 1 psi, the piston and poppet are in the "bottom" or "tripped" position. In this position of the poppet, product flows through the horizontal hole in the poppet and around the metering pin at a rate of approximately 2 GPM flow into the delivery line when the submersible pump is running. In normal operations the piping remains full of fluid and when the submersible pump is turned on, with a flow rate of 2 GPM through the poppet, pressure builds rapidly and the poppet moves to the leak

2. Leak Sensing Position



In this position the system pressure has increased to approximately 12 psi and all the flow must travel around the metering pin which limits it to approximately a 3 GPH rate (at 10psi). If there is a leak in the system which will allow leakage to exceed this amount, the line pressure will not build beyond this point and the valve will remain in the leak sensing position with the main flow blocked. If there is an attempt to dispense while the valve is in this position, the line pressure will drop to less than 1 psi, the piston will respond, and the

3. Non-Leak or Full Flow Position



This position allows full flow. The poppet will remain in approximately this position as long as the system pressure remains at about the pumping pressure. If the pressure in the system drops when the pump is turned off, either due to thermal contraction of the product or due to a leak, the piston moves downward and the poppet engages and seals inside the cage at about 3 psi, or approximately 10 feet of head, in gasoline. Any time the pump is turned on after the seal on the poppet is inside the cage, a line test

sensing position.

poppet will return to Position 1 where will be performed.
2 GPM will flow to the dispensers.
Leaks smaller than 3 GPH will be indicated by the STP-MLD taking longer than three seconds to open completely because some of the flow leaks out of the system and the rest builds pressure. If there is no leakage in the system, the small flow around the metering pin increases the line pressure and in approximately three seconds the piston will move the poppet to Position 3.

Rev. 11/04

MLDB001



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Corporate Submersible EMPD - Fractional HP Motors Fueling Systems International

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E-mail: webmaster@fepetro.com Tel: 608.838.8786 Fax: 608.838.6433



SUBMERGED TURBINE PUMPS



...NOW, WITH OUR UNIQUE VARIABLE LENGTH
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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 μ F capacitor for 1/3, 3/4, and 1 1/2 horsepower motors and a 40 μ F 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

07/15/02



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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

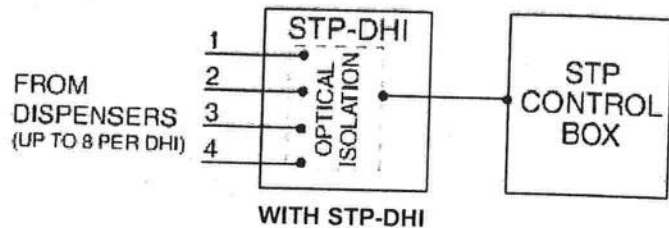
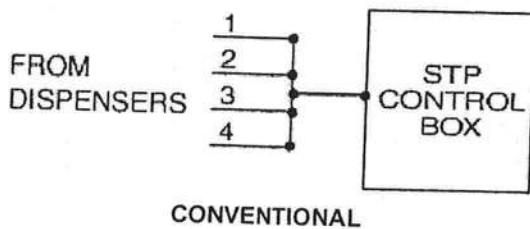
FEATURES:

- 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.

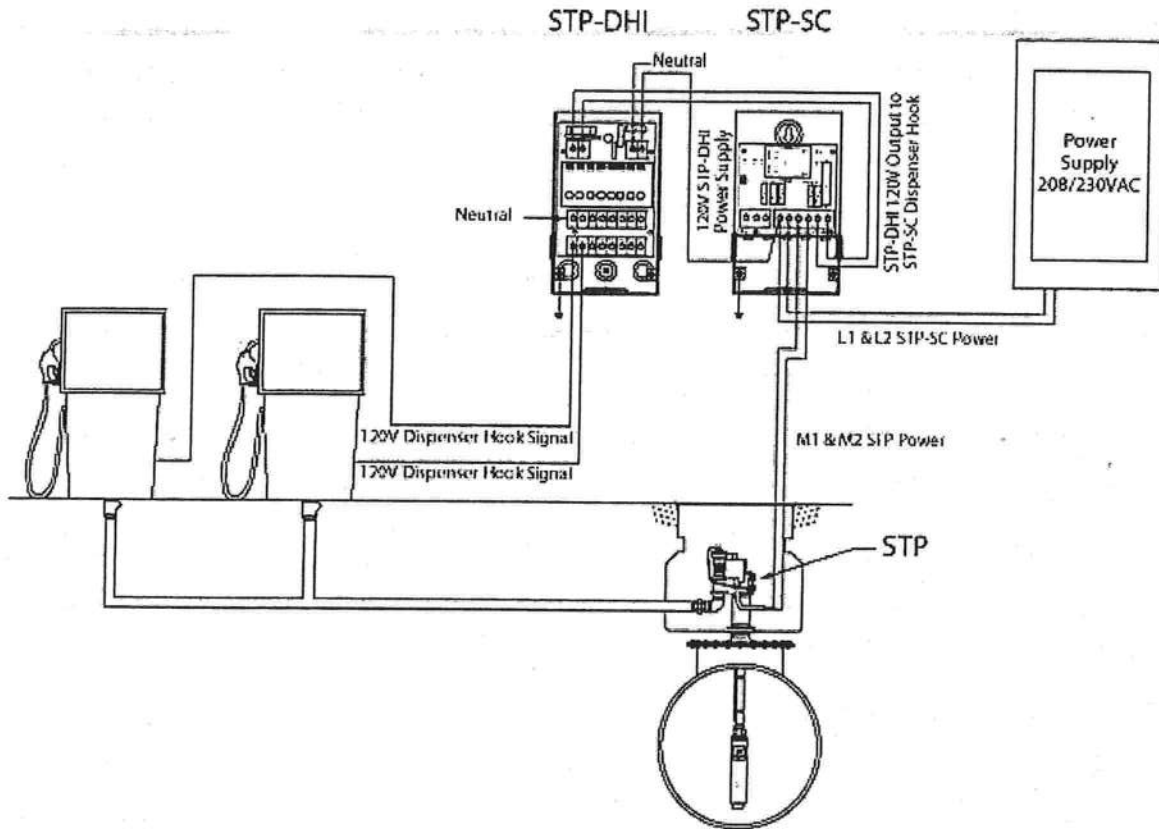
BENEFITS:

- 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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Product Literature

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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.

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.

HISTORY STORAGE OF PUMP CONDITIONS

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

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

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.

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

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.

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

PUMP MOTOR FAILURE DETECTION

Signals locked rotor in pump motor by flashing red light.

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

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.

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.

FEATURE	STP-SCI SMART CONTROLLER	STANDARD CONTROL BOX
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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TOP



OPW 634 SERIES TIGHT-FILL TOP-SEAL CAPS

Tight-Fill Top-Seal Caps are installed on top seal adaptors, when not in use, to prevent gasoline vapors from escaping and to prevent water, dust and debris from entering the tank.

OPW 634TT

The OPW 634TT is designed to mate with 4" 633T, 633TE, 61SA, 633TC, and 633TCP Top-Seal Adaptors.

Heavy duty and corrosion resistant, the body is made of Duratuff® to help eliminate rust and oxidation for a long, maintenance-free life.

The toggle lever distributes downward pressure to compress its Buna-N gasket evenly, assuring a positive, water and vapor-tight seal. The 634TT can be locked with a padlock or wire seal.

Ordering Specifications

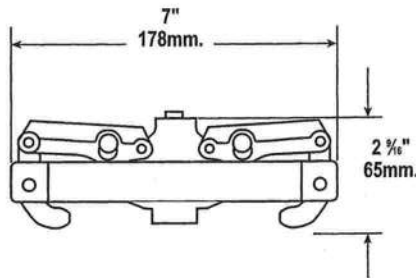
Product No.	in.	lbs.	kg.
634TT-7085	4"	1.01	.46

Replacement Parts

Part No.	Description
H-05995-M	Buna-N Gasket

Materials

Cap & links: Duratuff®
 Pins: stainless steel
 Gasket: Buna-N
 Color: grey



OPW 634TT

OPW 634TTP

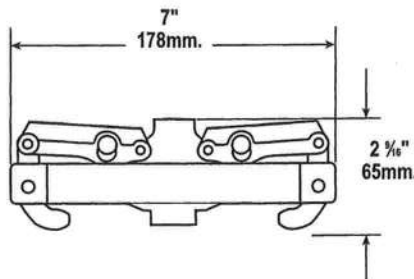
The OPW 634TTP is similar to the 634TT with the added feature of a pressure relief valve incorporated into the stem of the fill cap. A small button protrudes out of the top/center of the toggle lever, and may be manually pushed open prior to removal of the cap. If any pressure buildup occurs in the drop tube, bleed-off is possible before removing the cap.

It is important to note the use of OPW 634TTP will not release any more vapors than would be released by removing the cap normally.

Ordering Specifications

Product No.	in.	lbs.	kg.
634TTP-8076	4"	1.01	.46

Dimensions shown applicable to 634TT, 634TTP, 634TTM, 62TT and 1711T.



OPW 634TTP

OPW 634TE

The OPW 634TE is a single lever action top seal cap designed to mate with 3" OPW 633T Top Seal Adaptors.

The locking lever seats in the groove in the adaptor, providing a cam-down action on the cap for a positive water and vapor-tight seal. The 634TE can be locked with a padlock or wire seal. Patent #3,118,561.

Ordering Specifications

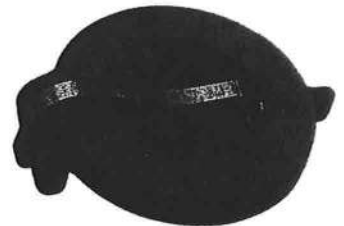
Product No.	in.	lbs.	kg.
634TE-7085	3"	1.11	.50

Replacement Parts

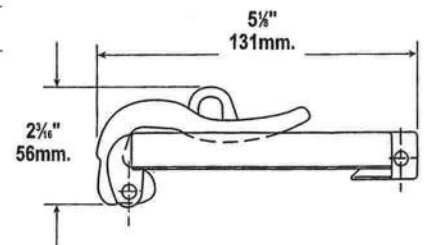
Part No.	Description
C-01094-RB	Lever
H-10765-M	Gasket
H-10731-RE	Pivot Pin

Materials

Cap: Duratuff®
 Lever: brass
 Gasket: Buna-N
 Pivot pin: stainless steel
 Color: arev



OPW 634TE



OPW TIGHT-FILL TOP-SEAL ADAPTORS

Tight-Fill Top-Seal Adaptors are installed in spill containment manholes on the fill riser pipe from an underground fuel storage tank. They mate with the gravity drop delivery elbow on the transport truck.

OPW 633T

OPW 633T Top-Seal Adaptors thread onto the fillpipe of underground storage tanks, and are designed to mate with top seal delivery elbows. Use OPW 634TT, 634TE or 634TTP Top Seal Caps with 633T Adaptors.

- ◆ **Easy Installation** – Integral internal wrenching lugs are provided for installing in the confined space of spill containers.
- ◆ **Manufactured from Durable, Corrosion-Resistant Materials** – Bronze, hardcoat aluminum and composite Duratuff®.

OPW 633TE

The OPW 633TE adaptor is similar to the 633T, except it does not have internal wrenching lugs.



OPW 633T-8076

- ◆ **Accommodate 633LC Lock Clamp** – 4" x 4" 633T (E) models incorporate dual notches in the base to accept 633LC Clamps.

Ordering Specifications

Product No.	Elbow Size	Riser Thread	lbs.	kg.	Material
633T-8050	3"	2"	0.54	.25	Hardcoated Al.
633T-8060	3"	3"	0.96	.44	Bronze
633T-8070	3"	4"	0.71	.32	Hardcoated Al.
633T-8075	4"	4"	0.82	.37	Hardcoated Al.
633T-8076	4"	4"	2.70	1.23	Bronze
633T-7985	4"	4"	0.45	.20	Duratuff® II
633T-8080	4"	3"	0.89	.40	Hardcoated Al.
633TE-8160	3"	3"	0.94	.43	Bronze
633TE-8180	4"	4"	0.79	.36	Hardcoated Al.
633TE-7986	4"	4"	0.48	.22	Duratuff® II

Replacement Parts

Part No.	Size	Description
H-05289-M	3" x 3"	Gasket
H-04150-M	3" x 4"	Gasket
H-04145-M	4" x 3"	Gasket
H-11199-M	4" x 4"	Gasket

Note: Maximum height of adaptor is 2¹/₁₆" (68mm).

OPW 61SA Swivel Adaptor

Pressure decay testing of underground storage tank systems has identified the joint between the tight-fill adaptor and the nipple or tank riser as a persistent leak point.

Considerable movement takes place along the hose while the fill elbow is connected. Walk-downs and changes from one compartment to another move the hose across the pavement, rotating the elbow along with it. The result can be a loosening of the adaptor. As the adaptor backs off, the seal between it and the nipple is relaxed and a leak path is created allowing vapors to escape to the atmosphere. Vacuum-assist dispensing systems can aggravate this situation due to the slight pressurization of the UST.

The 61SA Swivel Adaptor mates with 4" top-seal delivery elbows and features a top section that rotates with hose movement while the bottom section remains securely in place maintaining seal integrity.

- ◆ **Dual Seals** – ensure a vapor and liquid-tight seal.
- ◆ **Conductive, Self-Lubricating Retaining Rod** – ensures maintenance-free, reliable service life.
- ◆ **Same Internal Dimension as Standard 633T Adaptors** – to minimize pressure drop and maximize flow rates for quick product delivery.

Ordering Specifications

Product No.	Base Material	Adaptor Material	Weight lbs.	kg.
61SA-1000	Aluminum	Bronze	7	3.2
61SA-1010	Aluminum	Aluminum	5	2.3
61SA-1020	Bronze	Bronze	10	4.5

Certifications and Listings

Series	CARB Approval Letter
61SA-1000 Series	#95-1

Materials

Adaptor: bronze or nickel plated aluminum

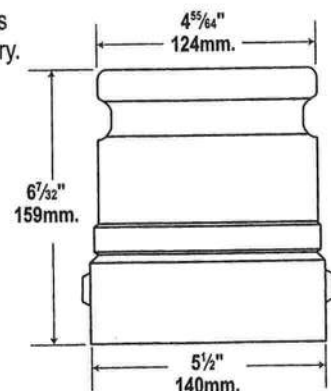
Base: bronze or nickel plated aluminum

Retaining ring: conductive nylon

Set screws: stainless steel
Seals: Buna-N



OPW 61SA-1000



OPW 711SS-CSDW DOUBLE WALL STAINLESS STEEL SPILL CONTAINER

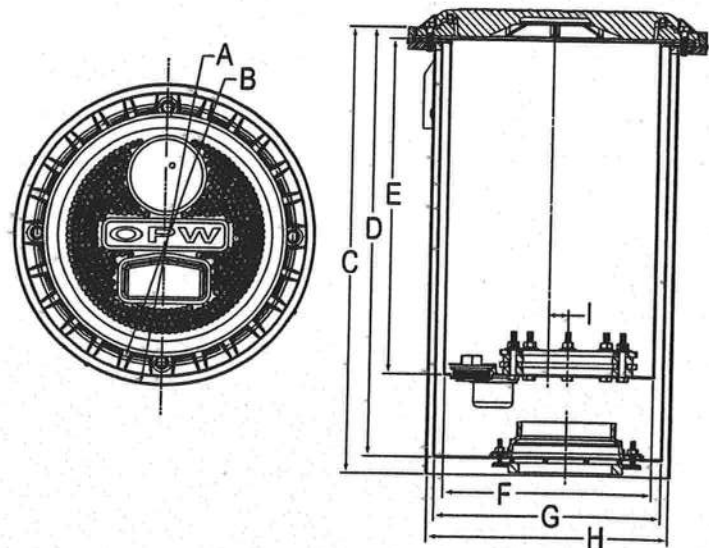
FEATURES & BENEFITS

- **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.



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www.opw-fc.com

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OPW 1-2100 SERIES THREAD-ON SPILL CONTAINERS

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

Features:

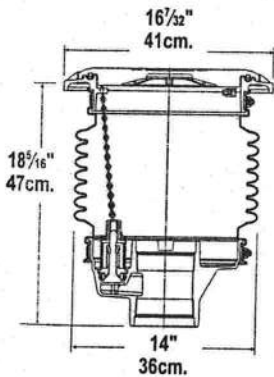
- ◆ **Easy Installation** - Reduces job-site time and installation costs. OPW Thread-On Spill Containers screw directly onto 4" NPT or BSPT risers. No external connections to make; adjust the final grade height and support the unit with backfill.
- ◆ **Integral Pull-to-Open Drain Valve** - Allows high-speed drainage of excess product into the tank. Designed with a convenient self-cleaning seal and removable screen for easier component cleaning.
- ◆ **Capacity** - Available in a true 5-gallon capacity as well as 15-gallon capacity. Deep bucket 7.5-gallon models (1-2100E and 1C-2100E) are also available to provide additional clearance for threaded-top OPW 61TNG Overfill Valve installations.
The 10-gallon (38 liter) capacity, 1-2400 model features a large 16" (400mm) diameter opening to provide greater access to adaptor fittings.
- ◆ **Rain-Shedding Cover** - Available in either cast aluminum or cast iron, this unique design incorporates a seal in the underside of the cover. The seal seats between two dams on the mounting ring to prevent surface water from entering the spill container.
- ◆ **Fuel Compatibility** - Designed to accommodate the fuels of the future, including methanol, ethanol and fuels with MTBE additives.
- ◆ **Product Identification Tags** - Available for both the spill container cover and bucket to positively identify the product contained in the UST with standard API symbols. (See product I.D. tag specification page for more information)
- ◆ **Heavy-Duty Mounting Ring** - The angled ramp design offers superior protection against snow plow and traffic damage, and provides for secure concrete anchoring.
- ◆ **Duratuff® II or Cast Iron Base** - Composite Duratuff® II material is lightweight, durable, and conductive. A rugged optional cast iron base is also available.
- ◆ **Highway 20 Rated (H20)** - All OPW spill containers and manholes exceed the requirements of the Highway 20 rating.



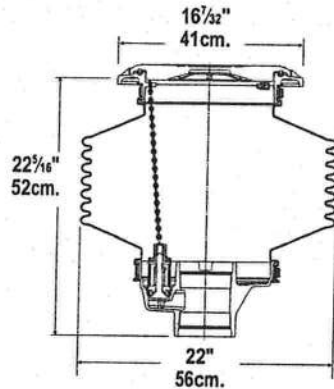
OPW 1-2115, 15-Gallon

Materials:

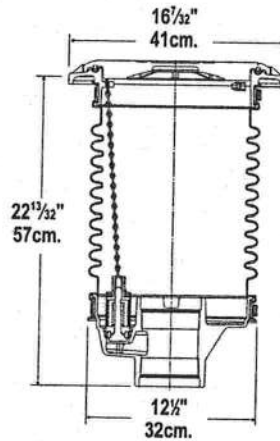
Cover: cast aluminum or cast iron
Mounting ring: Duragard® coated cast iron
Bellows: polyethylene
Base: Duratuff® II or cast iron
Clamps: stainless steel
Seals: Buna-N



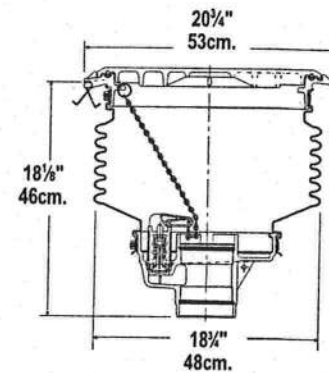
OPW 1-2100, 5-Gallon



OPW 1-2115, 15-Gallon



OPW 1-2100E, 7.5-Gallon
(Deep Bucket Model)



OPW 1-2400 Series

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

Ordering Specifications

Duratuff® II Base Models

Model	Gal.	Liter	Cover	lbs.	kg.
1-2100	5	19	Aluminum	40	18
1C-2100	5	19	Cast Iron	53	24
1-2115	15	57	Aluminum	47	21
1C-2115	15	57	Cast Iron	60	27
1-2400	10	38	Aluminum	55	25
1-2100E	7.5	28	Aluminum	41	19
			Deep Bucket Model		
1C-2100E	7.5	28	Cast Iron	54	25
			Deep Bucket Model		

Cast Iron Base Models

Model	Gal.	Liter	Cover	lbs.	kg.
1-2100C	5	19	Aluminum	53	24
1C-2100C	5	19	Cast Iron	66	30
1-2115C	15	56	Aluminum	59	27
1C-2115C	15	56	Cast Iron	72	33
1-2400C	10	38	Aluminum	67	31
1-2100EC	7.5	28	Aluminum	53	24
			Deep Bucket Model		
1C-2100EC	7.5	28	Cast Iron	67	30
			Deep Bucket Model		

Replacement Parts

Part No.	Description
1DK-2100	Drain Valve Kit
1-21AC	Aluminum Cover w/ Seal
1-21CC	Cast Iron Cover w/ Seal
H12229M	Cover Seal

CARB Certifications and Listings

1-2100	Approval Letter #93-26
1C-2100	
1-2115	
1C-2115	

OPW STAGE I VAPOR RECOVERY ADAPTORS AND CAPS

Stage I Vapor Recovery Adaptors are installed in spill containment manholes on the vapor recovery riser pipe from an underground gasoline storage tank. They mate with the vapor recovery elbow on the delivery transport truck when recovery of gasoline vapors is required.

VAPOR RECOVERY ADAPTORS

OPW 1611 Series

The OPW 1611AV and 1611AVB are popped adaptors, designed to mate with a vapor recovery elbow, for returning gasoline vapor to the tank truck during a fuel delivery to an underground tank. The 1611 Series is rated at 10 psi maximum working pressure.

Ordering Specifications

Product No.	Elbow Size	Riser Thread	lbs.	kg.	Body Material
1611AV-1605	3"	3"	2.91	1.32	Hard Coated Aluminum
1611AV-1620	3"	4"	3.25	1.48	Hard Coated Aluminum
1611AVB-1625	3"	4"	7.97	3.62	Bronze
1611VR-1665	3"	3"	6.50	2.95	Hard Coated Aluminum

Replacement Parts

Key	Part No.	Description
1	C-2642-M	Bridge Guide
Not Shown	H-7866-M	Screw (3")
2	H-8607-M	Retaining Ring
3	H-4145-M	Gasket (3")
	H-4150-M	Gasket (3" x 4")
4	H-8989-M	Spring

VAPOR RECOVERY CAP

OPW 1711T

The OPW 1711T Vapor Recovery Cap is for use with the OPW 1611AV, 1611AVB and 1611VR Adaptors. The 1711T is installed on the vapor recovery adaptor, when not in use, to prevent vapors from escaping and to prevent water, dust and debris from entering the tank.

Constructed of Duratuff® to help prevent corrosion, the OPW 1711T will couple to Civacon/OPW 4" Kamlocks, and features a center post that allows an even distribution of force when coupling to the adaptor. The 1711T can be locked with a padlock.

Ordering Specifications

Product No.	in.	lbs.	kg.
1711T-7085	3"	1.1	.50

Materials

Body: Duratuff®
 Pins: stainless steel
 Links: Duratuff®
 Gasket: Buna-N
 Color: orange

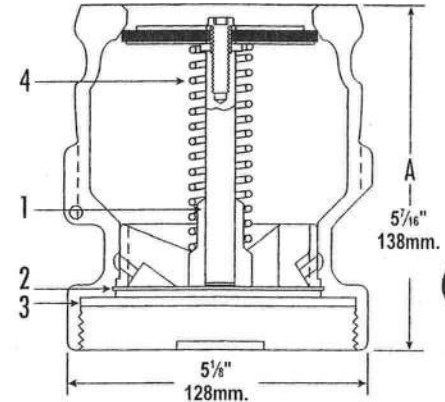
OPW 1611VR Slide Sleeve

OPW 1611VR Adaptor is used when manifolding vent lines above ground. When the vapor recovery elbow is attached, a sliding valve within the adaptor closes off the normal breathing vent lines and diverts the vapor into the tank truck via the vapor return hose.

Available in 3" size for use with 2" vent line.

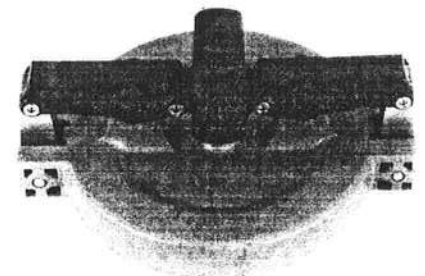


OPW 1611AV 3" x 4"



Materials

Body: hard coated aluminum or cast bronze
 Stem: chrome plated steel
 Stem Guide: acetal resin
 Spring: stainless steel
 Gasket: Buna-N



OPW 1711T

Replacement Parts

Part No.	Description
H-10886-M	Buna-N Gasket

OPEN ATMOSPHERIC VENTS

Open Atmospheric Vents are installed on the top of vent pipes from underground or above-ground fuel storage tanks. The vent cap and internal wire screen are designed to protect the tank vent lines against intrusion and blockage from water, debris or insects. These vents are always open to atmosphere and allow any pressure or vacuum in the tank to vent.

OPW 23 Series Open Atmospheric Vent Features

- ◆ **Reliable Service** – Vent cap drain spouts extend outward to deter rainwater entry.
- ◆ **Corrosion-Resistant Construction** – Aluminum body and cap assure a long service life.
- ◆ **Easy Installation** – The 23 is available in 2" and 3" slip-on models that provide for attachment to the vent line with set screws.
- ◆ **Complies with NFPA 30 Requirements** – for venting gasoline vapors upward.
- ◆ **High Maximum Flow Rate** – 7000 SCFH at 2 psi pressure drop.
- ◆ **40-Mesh Brass Wire Screen** – Helps prevent debris and insects from entering the tank vent lines.



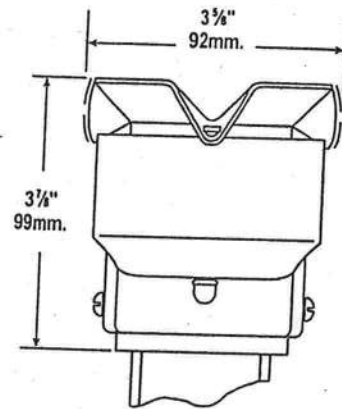
OPW 23

Ordering Specifications

Product No.	in.	lbs.	kg.	Description	List Price
23-0044	1½"	.25	.11	Open Vent	\$17.00
23-0033	2"	.25	.11	Open Vent	\$17.00
23-0055	3"	1.6	.73	Open Vent	\$35.75

Materials

Body: aluminum
Screen: 40-mesh brass
Set Screws: brass



Replacement Parts

Part No.	Description	List Price
H-00122-M	Screw	\$1.00
H-01967-M	Nut	\$1.00
H-01969-M	Screen	\$4.25

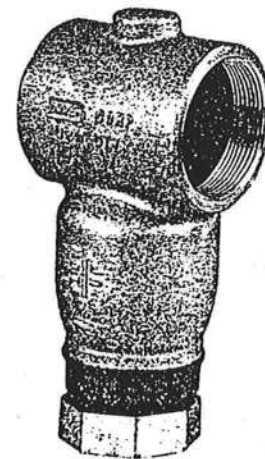
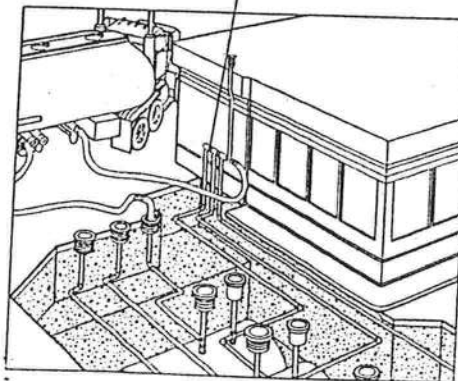
OPW 320DV Isolation Float Vent Valves

Isolation Float Vent Valves are installed aboveground on manifold vent pipes from underground fuel storage tanks. An internal stainless steel ball isolates each tank vent, should the storage tank overfill sending product into the vent lines, to help prevent intermixing of different grades of fuel.

Features

- ◆ **Stainless Steel Ball Float** – Ensures a clean, tight seal against the valve body.
- ◆ **Aluminum Valve Body** – Corrosion-resistant for a long service life.

OPW 320DV



OPW 320 DV

Ordering Specifications

Product No.	in.	lbs.	kg.	List Price
320DV-0130	3" x 3" x 2"	4.75	2.15	\$265.55



A DOVER COMPANY

North America Toll Free – TELEPHONE: (800) 422-2525 ♦ Fax: (800) 421-3297 ♦ Email: domesticsales@opw-fc.com
International – TELEPHONE: (513) 870-3315 or (513) 870-3261 ♦ Fax: (513) 870-3157 ♦ Email: intlsales@opw-fc.com
www.opw-fc.com

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FLEX-INGTM

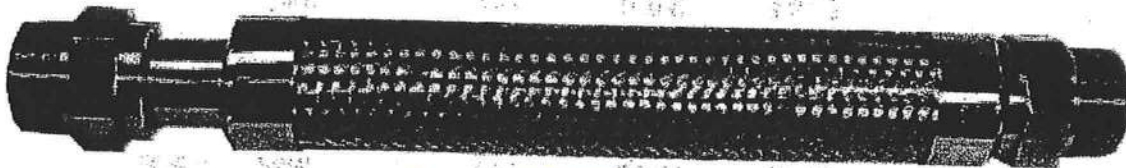
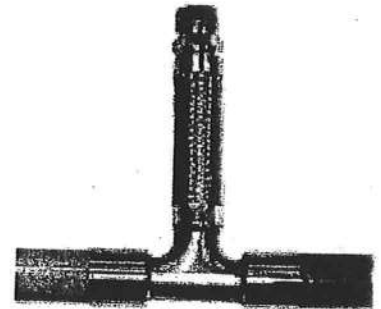
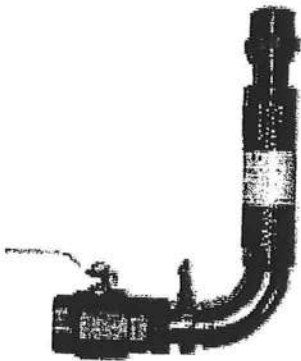


Facilitates
Compliance of
NFPA 30 & 30A

Flexible Ideas For Flexible Products

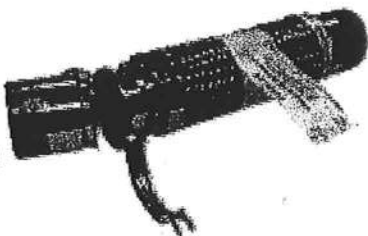
*For The
Petroleum, Hydraulic and Cryogenic Industries*

FLEX-CONNECTOR SYSTEMS



1 1/2" x 18"

2" x 15"

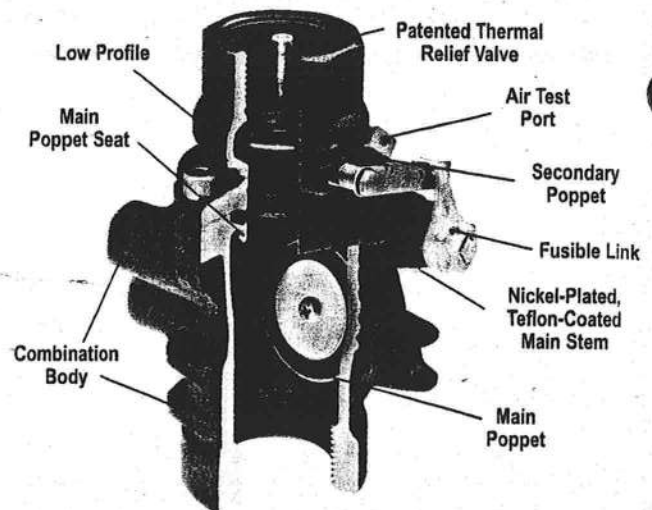


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OPW 10 SERIES EMERGENCY SHUT-OFF VALVES

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. The base of the Emergency Valve is securely anchored to the concrete dispenser island through a stabilizer bar system within the dispenser sump or pan to ensure proper shearing action. The valve base is secured to the stabilizer bar using a three-point boss mount system or with a U-Bolt Kit. Valve inlet (bottom) connections are female pipe threads and outlet (top) connections are available with female threads, male threads, or a union fitting. Other options include suction system models with a normally closed secondary poppet which maintains prime, and models with external threads on the inlet body which connect to secondary containment systems.



Features

- ◆ **High Flow Capacity** – The primary poppet is held out of the flow stream while the secondary poppet is held normally open to minimize head loss across the valve and to protect the poppet seals from damage and erosion. True 1½" and 2" body sizes ensure maximum flow.
- ◆ **Fire Protection** – A fusible link trips the valve closed at 165° F to shut off fuel supply to the dispenser.
- ◆ **Main Poppet Seat Integral to the Top Assembly** – Having the main poppet seat as an integral part of the valve top assures a new, clean seating surface is installed each time the top is replaced. This design also ensures that the integrity of the seal between the valve top and bottom is verified during line testing and allows full inspection of the main poppet when the top is removed.
- ◆ **Reliable Shut-off** – A Stainless Steel Main Spring, a Teflon-Coated Brass Packing Nut, and a Copper-Nickel-Chrome Plated Brass Stem are designed to prevent tar build-up and corrosion from interfering with poppet operation after long periods of normal service without activation.
- ◆ **Integral Test Port** – A ½" Test Port allows the piping system to be air tested without breaking any piping connections.
- ◆ **Patented Thermal Relief Valve** – Relieves excessive pressure build-up caused by thermal expansion of fuel in the dispenser piping system in the event of fire (double-poppet models only).
- ◆ **Low-Profile Tops** – Female and Union-top double-poppet valves have a low-profile top to allow upgrading from OPW single-poppet valves without changing existing piping.
- ◆ **Multiple Mounting Options** – Valves are boss-mounted to stabilizer bars in sumps and pans or mounted to bars embedded in the island with U-Bolt kits. Versatile Combination Body (boss mount/U-Bolt mount) models are available to accommodate most mounting applications with one valve style.
- ◆ **Underwriters Laboratories** – Listed for use with gasoline and 85% and 100% methanol. All OPW 10 Emergency Shut-Off Valves meet requirements of UL STANDARD 842.
- ◆ **Duragard®-Coat Finish** – Provides superior corrosion resistance.

NOTICE:

As per NFPA 30A, electrical supply to the submersible pump must always be disconnected before servicing meters, dispensers or emergency shut-off valves.

Materials

- Top: cast iron*
- Body: cast iron*
- Disc: M-19
- Carrier: zinc plated steel
- Stem: copper-nickel-chrome plated brass
- Poppet spring: stainless steel
- Seal: M-19 O-ring
- Packing nut: brass, Teflon® coated
- Inlet and outlet thread: 1½" NPT (British threads available)
- *With black Duragard® coating

IMPORTANT NOTICE:

When mounting the OPW 10 Series Emergency Shut-off Valves, the anchoring system employed must withstand a force greater than 650 ft. pounds per valve. NFPA Code 30A, Automotive and Marine Service Station Code, requires that the automatic closing feature of emergency shut-off valves be checked at least once per year by manually tripping the hold-open linkage. OPW recommends the use of PISCES™ Stabilizer Bar Support System for proper mounting of 10 Series Valves.

OPW 10S Stabilizer Bar Assembly

The OPW 10S Stabilizer Bar Assembly is used in installations where no valve mounting system exists. When properly imbedded into the island concrete, 10S holds the OPW 10 Series valves rigidly in place to assure proper shearing action. The 10S assembly includes all necessary installation hardware.

OPW 10RW Wrench

The OPW 10RW Wrench is used to install and remove 1½" OPW 10 Series Emergency Shut-off Valves and is designed to prevent stress to the shear section of the valve during installation.

This wrench is made of ductile iron and has a 1¾" diameter boss for use with a pipe wrench, and a hole for a ½" diameter rod.

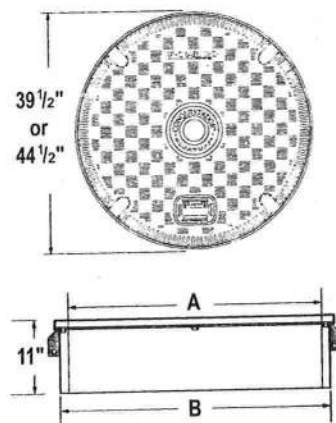
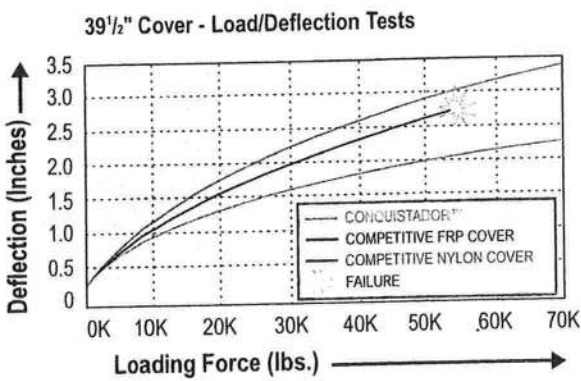
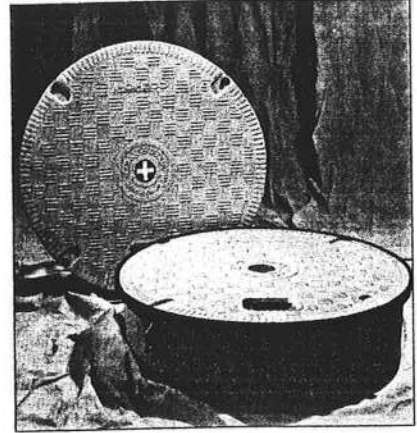
POMEKO/OPW CONQUISTADOR™ COMPOSITE COVER MANHOLES

Lightweight and extremely durable, composite cover manholes make sump accessibility safer and easier than ever before. Designed for use in many service station, commercial, and industrial driveway applications, these manholes offer a wide variety of features to ensure the ultimate in user-friendly convenience and long-lasting performance.

The Conquistador Duratuff® helps put an end to the risk of back, foot and hand injuries with a slip-resistant tread pattern and lightweight, low-profile construction for easier and safer access to tank sumps and other underground equipment.

Features

- ◆ Slip-resistant tread pattern
- ◆ Easy removal and replacement
- ◆ Two lifting options
- ◆ Reduced risk of back, foot and hand injuries
- ◆ Unmatched deflection performance
- ◆ Outstanding long-term durability in rigorous cycle tests
- ◆ Three mounting options
- ◆ Unique structural fiberglass reinforcement matrix
- ◆ Water-resistant models available
- ◆ Bolt-down models available
- ◆ Interchangeable with other manufacturers' covers
- ◆ Load rated to over three times H2O



Dimensions

Cover	A	B	Cover Wt.	Assembly Wt.
39 1/2"	36 11/32" 92 cm	38 5/8" 98 cm	65 lbs.	125 lbs.
44 1/4"	41 1/8" 104 cm	43 13/32" 110 cm	85 lbs.	157 lbs.

Ordering Specifications

Cover Manhole Assembly		
Product No:		Description:
39 1/2"	44 1/4"	
39CD-PL10	44CD-PL10	Cover, Plain with Recessed Handle
39CD-PLKL	44CD-PLKL	Cover, Plain with Key-Lift Provision
39CD-BD10	44CD-BD10	Cover, Bolt-Down with Recessed Handle
39CD-BDKL	44CD-BDKL	Cover, Bolt-Down with Key-Lift Provision
39CD-WT10	44CD-WT10	Cover, Bolt-Down, Gasketed, Recessed Handle
39CD-WTKL	44CD-WTKL	Cover, Bolt-Down, Gasketed with Key-Lift Provision

Covers only		
Product No:		Description:
39 1/2"	44 1/4"	
P39CD-PL10	P44CD-PL10	Cover, Plain with Recessed Handle
P39CD-PLKL	P44CD-PLKL	Cover, Plain with Key-Lift Provision
P39CD-WT10	P44CD-WT10	Cover, Bolt-Down, Recessed Handle
P39CD-WTKL	P44CD-WTKL	Cover, Bolt-Down with Key-Lift Provision
90K-KLS		Key-Lift Provision Stick

Mounting Options:

Lifting Options



Choose from two easy-lifting options for one-step manhole cover removal.



(90K-KLS Stick Not Included)

OPW 104 SERIES CAST IRON MANHOLES

Heavily ribbed cast iron covers and body rings ensure maximum load bearing capacity on cast iron manholes and fill boxes. These manholes are ideal for connecting underground tank lines directly to the surface without sump enclosures. A variety of features available on cast iron manholes and fill boxes make them the perfect choice for many applications.

OPW 104A Cast Iron Manhole

A sturdy steel skirt on the standard 104A extends nearly a foot below grade to ensure trouble-free installation in deep concrete, and optional skirts that extend a full 19 1/4" below grade are available in 12" and 18" diameters for sandy soil locations.

Features:

- ◆ Full-size internal diameters for maximum access and working area
- ◆ H20 Load Rating
- ◆ Rugged cast iron covers and body rings

Dimensions

Product No.	A	B	C
104A-0800	8"	10 1/8"	11 1/4"
104A/FG-1200	12"	14 1/4"	11 1/4"
104A/FG-1219	12"	14 1/4"	19 1/4"
104A-1800	18"	20 1/8"	11 1/4"
104A-1819	18"	20 1/8"	19 1/4"

Ordering Specifications

Product No.	ID(in.)	ID(mm.)	lbs.	kg.
104A-0800	8"	203	15	6.8
104A-1200	12"	305	28	12.7
104A-1219	12"	305	33	15.0
104FG-1200*	12"	305	28	12.7
104FG-1219*	12"	305	33	15.0
104A-1800	18"	457	50	22.7
104A-1819	18"	457	57	25.9

* Finger Grip Cover Manhole

OPW 104FG Cast Iron Manhole

The 104FG provides a convenient finger grip feature on the cover to facilitate cover removal.

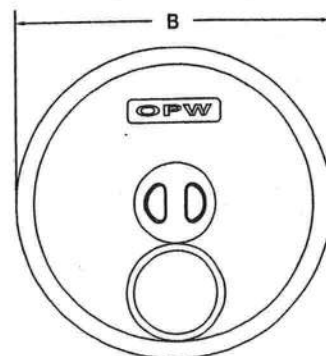
- ◆ Cast-in non-skid finish on covers
- ◆ Sturdy, extra long steel skirts
- ◆ Individually boxed for ease of handling

Materials

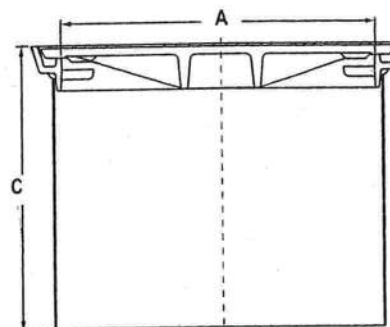
Body ring: cast iron
Cover: cast iron
Skirt: steel

Replacement Parts

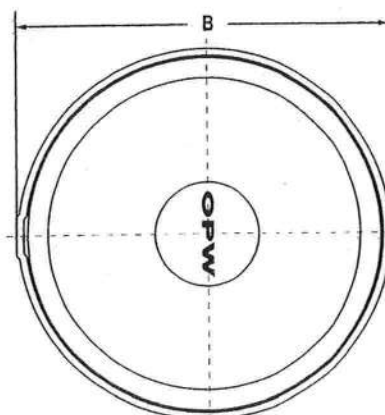
Part No.	Description
E00508M	Cover for 8" 104A-0800
E00510M	Cover for 12" 104A-1200
E00584M	Cover for 12" 104FG-1200
E00512M	Cover for 18" 104A-1800
DO1747M	Cover for 20" 104C-2000



OPW 104FG Cast Iron Manhole Cover



OPW 104A/FG Cast Iron Cover Manholes



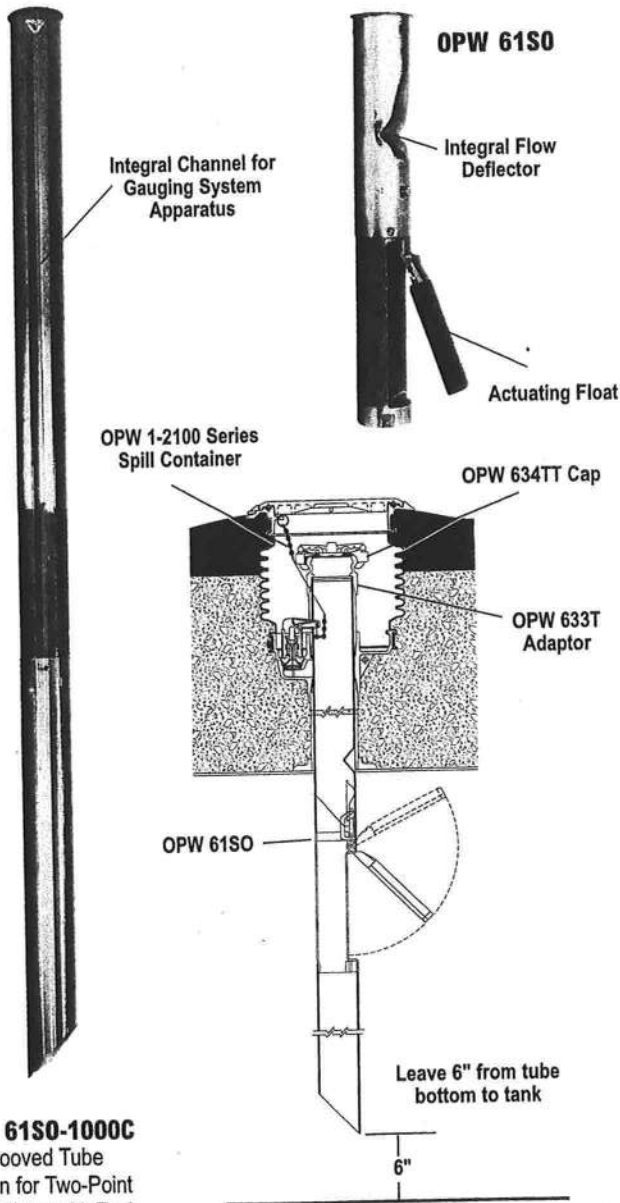
OPW 104A Cover

OPW 61SO OVERFILL PREVENTION VALVES

61SO Two-Point

The OPW 61SO Two-Point is used for two-point fill applications, tanks equipped with separate product and vapor return connections. The OPW 61SO replaces the standard fill drop tube in 3" or 4" fill riser pipes. The 61SOM* models are specially designed for compatibility with M-85 and M-100 methanol fuels. Both the OPW 61SO and 61SOM are available with sealed vapor paths for use in areas where CARB requirements have been adopted. The OPW 61SO-1000 and 61SO-100C (CARB) feature a groove that runs the full length of the tube to allow a gauging system to share the fill riser with the overfill prevention valve. The OPW 61SO-4901 features low flow shut-off (10 gpm) for use in areas requiring KIWA approved overfill prevention valve. The OPW 61SO-490C is a vapor-tight KIWA approved valve.

OPW 61SO OVERFILL PREVENTION VALVES



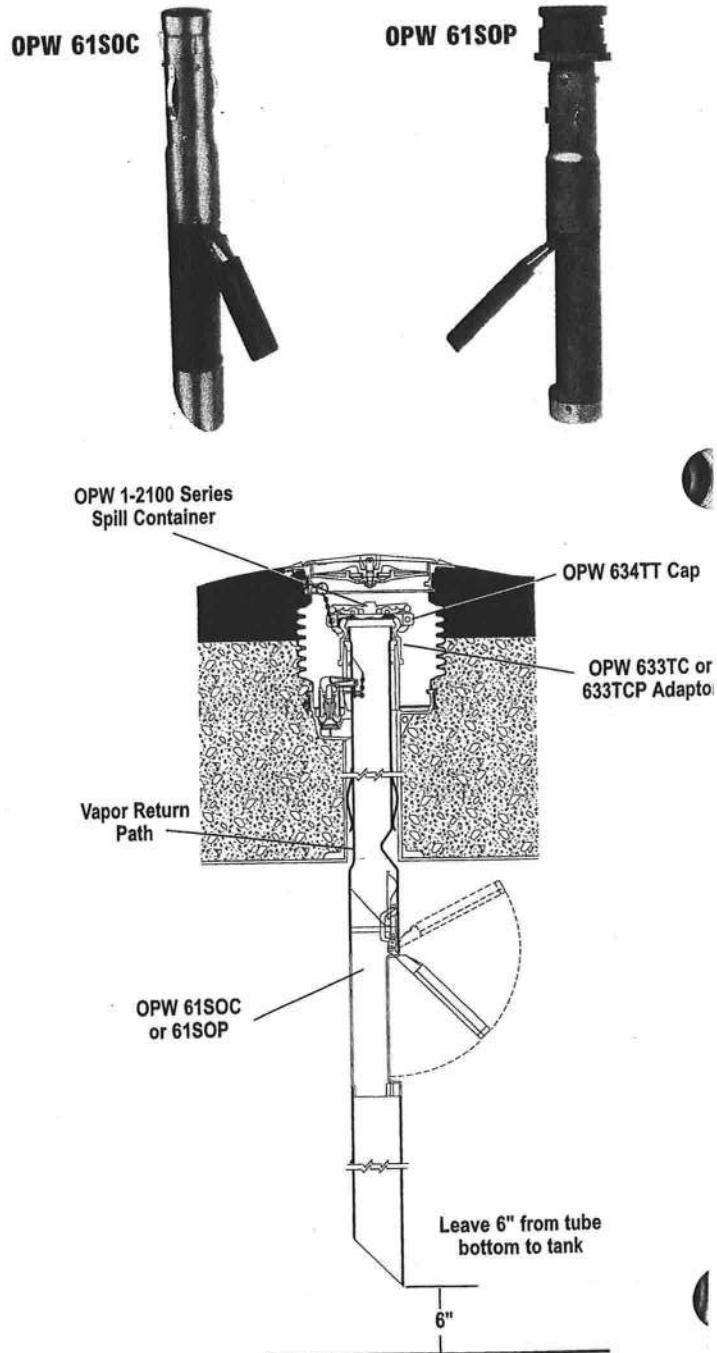
OPW 61SO-1000C
Grooved Tube
Design for Two-Point
Applications with Tank
Gauging Probes.

61SOC Coaxial

The OPW 61SOC is used for coaxial fill applications, tanks equipped with a single product/vapor return connection. The 61SOC replaces the standard coaxial fill drop tube in a 4" riser fill pipe.

61SOP Poppeted Coaxial

The OPW 61SOP is used in poppeted coaxial fill applications in areas where CARB requirements have been adopted. (CARB Executive order G-70-52AN). A special poppeted adaptor fitting allows the vapor return path to open only when a fill elbow is connected, thus preventing fugitive emissions.



OPW 233 SERIES EXTRACTOR FITTINGS

OPW 233 Series Extractor Fittings thread into 4" NPT openings on underground storage tanks. A 4" riser pipe threads into the top of the 233 for use in Stage I Vapor Recovery or to access a ball float. The 233 Extractor Fittings have threaded single-outlet connections for attaching tank vent lines or multiple outlets used to manifold tank vents or accommodate Stage II vapor return lines from dispensers. Internal threads on the 233 are designed to install a ball float or test plug in the extractor.

Features Include

- ◆ **Duragard® Coated Cast Iron Body** – Helps prevent rust and corrosion for long service life.
- ◆ **ZA12 Zinc/Alloy Cage Assembly** – Eases installation and removal of ball float vent valves and test plugs.
- ◆ **Precision Machined Threads** – Help prevent cross threading of the ball float or tank riser pipe.

OPW 233

The OPW 233 Extractor Fittings are designed for use with all OPW 30MV and 3" 53VML Ball Float Vent Valves that include an extractor cage (the OPW 233 does not include an extractor cage). The 233 Extractor incorporates either single-outlet or multiple outlet threads.

OPW 233V

The OPW 233V Extractor Fittings are designed for use with all OPW 53V 2" Ball Float Vent Valves (the OPW 233V includes an extractor cage). The 233V is a threaded single-outlet extractor designed to connect vent lines to the underground tank.

OPW 233VM

The OPW 233VM Extractor Fittings are designed for use with all OPW 53V 2" Ball Float Vent Valves. (The OPW 233VM includes an extractor cage). The 233VM is a multiple-outlet extractor used to manifold tank vents or accommodate Stage II vapor return lines from dispensers.

OPW 233VP Extractor Test Plug

The OPW 233VP Extractor Fitting Test Plug is used on all OPW 233, 233V and 233VM Series Extractor Fittings. The 233VP incorporates an O-ring above the threads (on the plug) to isolate the tank from the vent piping systems during a tank test.

OPW 233VMP Extractor Test Plug

The OPW 233VMP Extractor Fitting Test Plug is used with the OPW 1611VR Slide Sleeve Vapor Recovery Adaptor System. The 233VMP incorporates an O-ring below the threads (on the plug) to isolate the tank from the vent piping systems during a tank test.

Ordering Specifications

Product No.	Top Thread		Outlet Thread		Bottom Thread		Weight	
	in.	mm.	in.	mm.	in.	mm.	lbs.	kgs.
233-4420 (Tee)*	4"	102	2"	51	4"	102 Ext.	13.89	6.31
233-4430 (Tee)*	4"	102	3"	76	4"	102 Ext.	14.06	6.39
233-4422 (Cross)*	4"	102	2" x 2"	51 x 51	4"	102 Ext.	15.18	6.90
233-4433 (Cross)*	4"	102	3" x 3"	76 x 76	4"	102 Ext.	15.54	7.06
233-4432 (Cross)*	4"	102	3" x 2"	76 x 51	4"	102 Ext.	17.29	7.86
233V-4420 (Tee)	4"	102	2"	51	4"	102 Ext.	15.33	6.99
233V-4430 (Tee)	4"	102	3"	76	4"	102 Ext.	12.50	5.68
233VM-4422 (Cross)	4"	102	2" x 2"	51 x 51	4"	102 Ext.	16.62	7.55
233VM-4433 (Cross)	4"	102	3" x 3"	76 x 76	4"	102 Ext.	16.98	7.72
233VM-6045 (Cross)	4"	102	3" x 2"	76 x 51	4"	102 Ext.	16.62	8.51
233VM-604L (BSPP)	4"	102	3" x 2"	76 x 51	4"	102 Ext.	16.62	8.51

* without cage assembly



(TEE)



(CROSS)

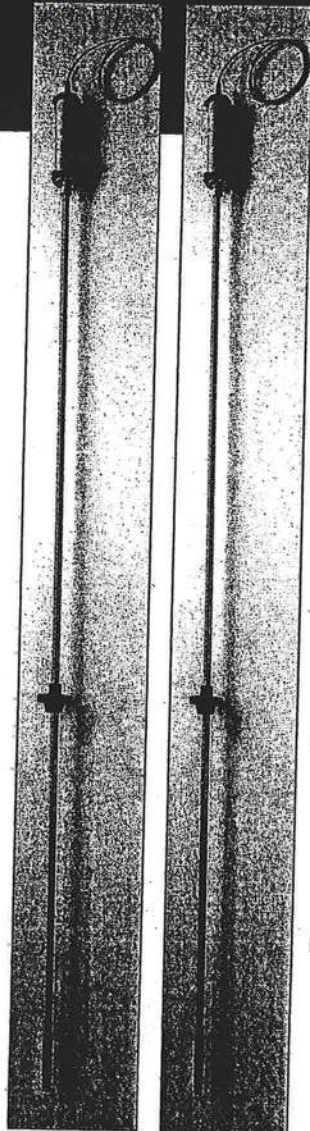
Replacement Parts

OPW 233V and 233VM

Part No.	Description
H-8932	Cage SA

Magnetostrictive Probes for Alternative Fluids

Certified performance for inventory control and in-tank leak detection in fuel blends up to 100% alcohol



0.1 GPH 0.2 GPH
Magnetostrictive Probes
for Alternative Fluids

- ▶ *Non-corrosive, stainless steel tubing for long-life monitoring in fuels up to 100% alcohol.*
- ▶ *Highly accurate Magnetostrictive measurement technology.*
- ▶ *Fast, accurate leak tests.*
- ▶ *0.1 GPH Mag Probe for Alternative Fluids is third-party certified to exceed U.S. E.P.A. performance standards for 0.1 GPH Volumetric Tank Tightness Testing.*
- ▶ *0.1 GPH Mag Probe for Alternative Fluids is compatible with TLS-350 and TLS-350R with CSLD for continuous statistical leak detection.*
- ▶ *0.2 GPH Mag Probe for Alternative Fluids is third-party certified to exceed U.S. E.P.A. performance standards for 0.2 GPH Automatic Tank Gauging.*
- ▶ *2" and 4" Float Kits available*

Veeder-Root offers two types of Magnetostrictive Probes for Alternative Fluids to provide highly accurate, trouble-free in-tank leak detection and inventory control in fluids of up to 100% alcohol. The Magnetostrictive Probe for Alternative Fluids with Water Detection is ideal for fuel blends with less than 20% alcohol. The Magnetostrictive Probe for Alternative Fluids without Water Detection has been developed for fluids up to 100% alcohol, in which water is absorbed into the alcohol.

Series 8473 0.1 GPH Mag Probe for Alternative Fluids

The 0.1 GPH Mag Probe for Alternative Fluids has been third-party tested and certified to perform far better than

the U.S. E.P.A. standards for both 0.1 GPH volumetric tank tightness testing and 0.2 GPH automatic tank gauging. See the summary of leak test performance on back or call us for a copy of the complete test results.

0.1 GPH Mag Probe and CSLD — Leak detection without shutting down your tanks!

CSLD, Continuous Statistical Leak Detection, is an advanced tank testing technology that makes full use of the TLS-350 and TLS-350R's in-tank monitoring capabilities. CSLD eliminates the need for tank shutdown to perform a leak test — no lost business, no lost operating time!

The TLS-350 and TLS-350R equipped with CSLD use the 0.1 GPH Mag Probe to continuously monitor fuel height and temperature information to detect idle times in the tank. During each idle time, data collected forms a highly accurate leak detection database. Sophisticated statistical analysis techniques in CSLD constantly evaluate the database to discard invalid data and perform leak tests based on only high-quality information in the current database. In fact, a new leak test is performed every time new data from an idle period is added.

Series 8473 0.2 GPH Mag Probe for Alternative Fuels

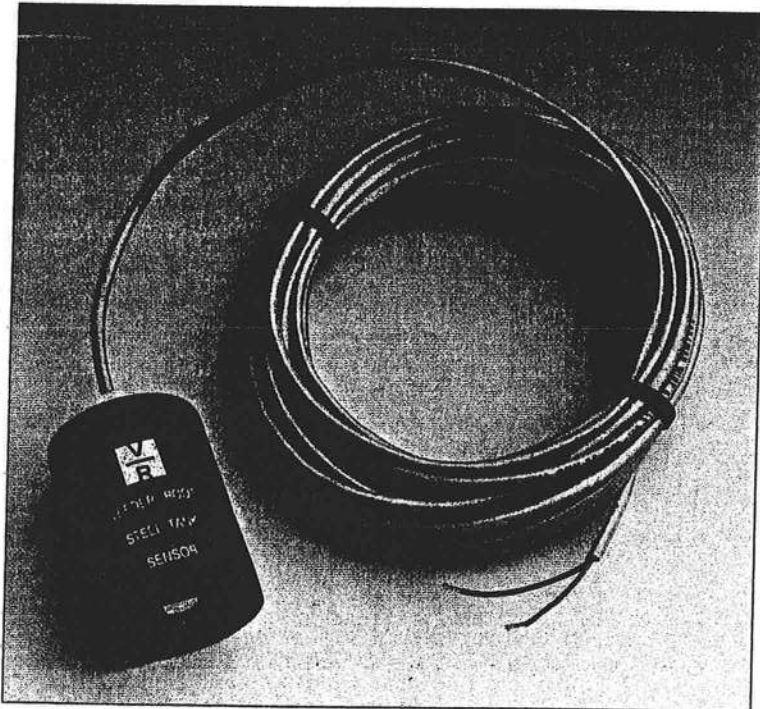
The 0.2 GPH Mag Probe for Alternative Fluids provides the same reliable inventory control features and fluid compatibility as the 0.1 GPH Mag Probe for Alternative Fluids, but offers 0.2 GPH leak detection at a lower cost. It offers MAG probe performance with 0.2 GPH monthly monitoring capability.

The 0.2 GPH Mag Probe for Alternative Fluids has also been third-party tested and certified to exceed U.S. E.P.A. standards for 0.2 GPH automatic tank gauging. See the summary of leak test performance on back or call us for a copy of the complete test results.

Approved for Aboveground Tank Applications

Veeder-Root Magnetostrictive Probes are approved for use in aboveground storage tanks to monitor fuel inventory. An AST Installation Kit (Form Number 312020-984) is required for these applications and is available from Veeder-Root or your authorized Veeder-Root distributor.

Interstitial Sensor for use in Double-Wall Steel Tanks



- ▶ **Positive alarm indication of any liquid in double-wall steel tanks.**
- ▶ **System indicators pinpoint alarm location.**
- ▶ **Simple to install.**
- ▶ **Two-wire connection to system monitor.**
- ▶ **Fast action helps prevent serious safety and environmental problems.**

The Veeder-Root Interstitial Sensor for use in Steel Tanks detects the presence of liquid in the interstitial space of a double-wall steel tank. Liquid in the annulus could mean a dangerous leak. When liquid is detected, the sensor sends an alarm signal to a TLS-350R, TLS-350, ILS-350, TLS-300i or TLS-300C monitor. The monitor's visual and audible built-in alarm indicators immediately tell you where the problem is, so you can quickly take action to help prevent serious safety and environmental problems.

The TLS-350R, TLS-350, ILS-350, TLS-300i, TLS-300C, TLS-250i and ILS-250 systems feature internal alarm relays that can also trigger on-site alarms for even greater warning capability. The TLS-350R, TLS-350, TLS-300i and TLS-300C alarm signals from the sensor triggers a report showing the time and the location of the alarm condition. This information is stored in the system's alarm history and can be retrieved through the monitor's integral printer or remotely through its data communications interface.

The Veeder-Root Interstitial Sensor for Steel Tanks can be used in the annulus of steel tanks with a sensor riser pipe of 1.5" I.D. or greater. Only two wires are required to connect the sensor to a TLS or ILS system.

Detection Capabilities

- ▶ *The presence of any liquid in the tank's interstitial space triggers a Fuel Alarm.*

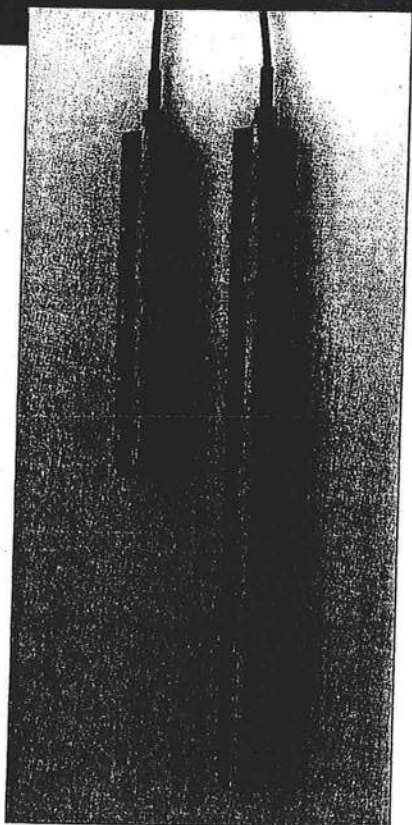
Operating Capabilities

- ▶ *Operating Temperature Range: -20°C to +70°C (Hydrocarbons); 0°C to 70°C (non-freezing Water).*
- ▶ *Storage Temperature Range: -40°C to +75°C.*
- ▶ *Available Cable Lengths: 16 or 30 feet.*
- ▶ *Dimensions: 2.5" high, 1.50" dia.*

Standard Components

QTY	DESCRIPTION
1	Interstitial Steel Tank Sensor
2	Watertight Cord Grips

Solid-State Dispenser Pan and Containment Sump Sensors



- ▶ **Ultrasonic technology provides positive alarm indication of any liquid in dispenser pans or containment sumps.**
- ▶ **Effective in harsh environments – even icy conditions.**
- ▶ **TLS-350R and TLS-350 consoles pinpoint alarm conditions.**
- ▶ **Simple installation.**
- ▶ **Two-wire connection to TLS console.**
- ▶ **Long-life, durable construction withstands even the most harsh environments.**

Veeder-Root's Solid-State Dispenser Pan and Containment Sump Sensors quickly detect the presence of liquid in dispenser pans and containment sumps. Liquid presence could mean a serious line leak. Because alarm conditions detected by sensors are pinpointed, you can quickly take action to prevent serious product loss, and safety and environmental problems.

Alarm conditions – Fuel Alarm, Sensor Out – detected by either sensor are indicated by an audible alarm, a displayed message, and a printed message on the on the TLS-350R or TLS-350. They are also recorded as part of the TLS-350R or TLS-350 Alarm History Report.

Durable and accurate, the Solid-State Dispenser Pan and Containment Sump Sensors have no moving parts to wear out or stick. The sensors also withstand harsh environments; they continue to detect fluid and hydrocarbons accurately – even in icy conditions.

The Solid-State Dispenser Pan and Containment Sump Sensors are easily installed using Veeder-Root's Universal Sensor Mounting Kit. Only two wires are required to connect the sensor to the TLS system.

The Solid-State Dispenser Pan and Containment Sump Sensors are warranted to be free from material defects for a period of one year from the date of installation or 15 months from the date of invoice.

Detection Capabilities

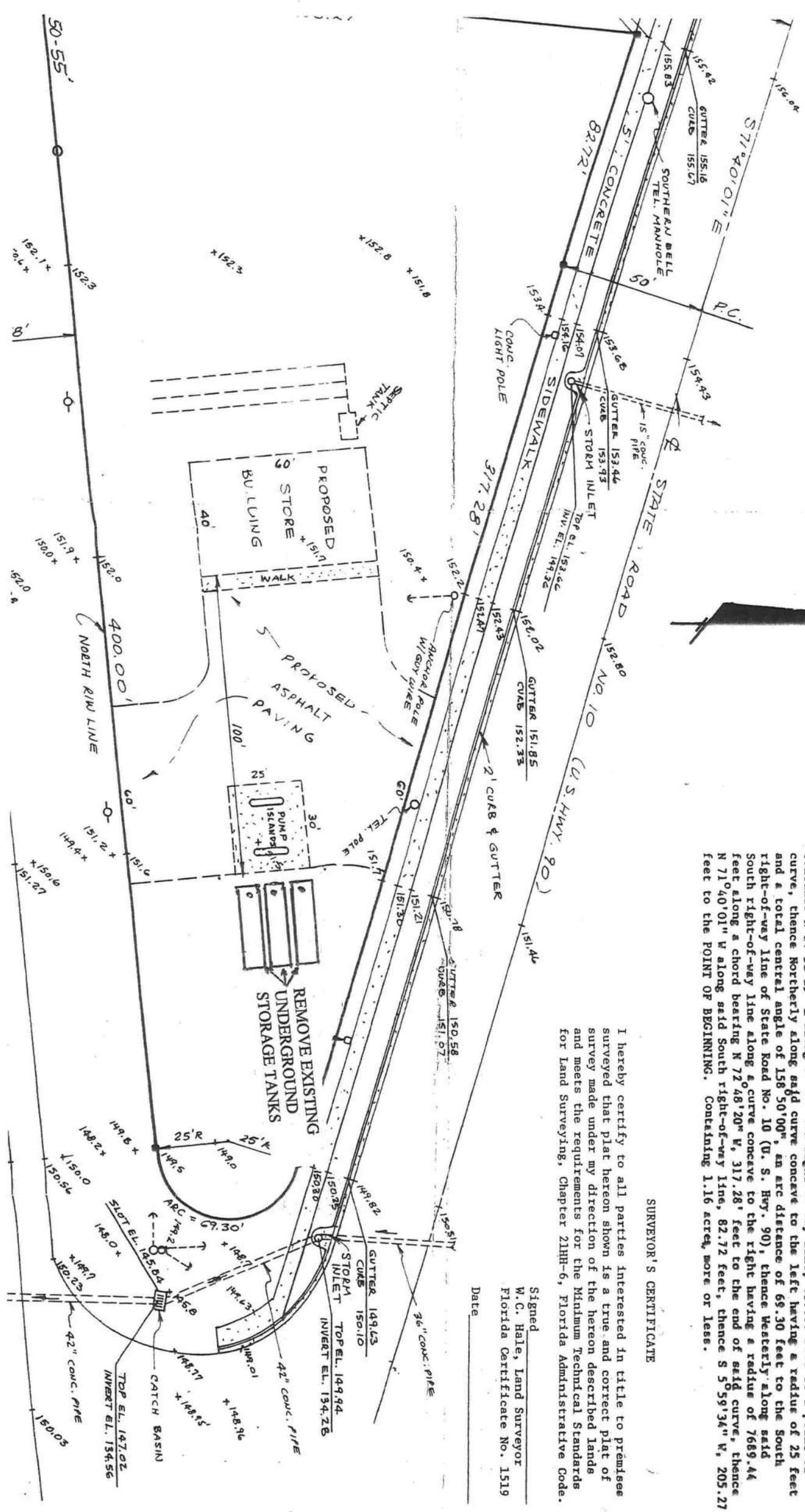
- ▶ **Sensor Alarm Conditions;**
 - **Fuel Alarm is triggered when liquid reaches 1.0" high on both Dispenser Pan and Containment Sump Sensors.**
- ▶ **Sensor should be tested in liquid at least once a year or as required by local codes.**

Operating Capabilities

- ▶ **Operating Temperature Range: - 40°C to +70°C.**
- ▶ **Storage Temperature Range: - 40°C to +70°C.**
- ▶ **Cable Length: 6 feet.**
- ▶ **Dispenser Pan Sensor Dimensions: 11.53" high, 2.13" diameter**
- ▶ **Containment Sump Sensor Dimensions: 22.03" high, 2.13" diameter.**
- ▶ **Withstand removal and replacement from sensing environment without sensor damage.**

TOPOGRAPHIC SURVEY

OF
 A PART OF THE SW 1/4 OF SE 1/4, SECTION 34, T3-S, R16-E
 COLUMBIA COUNTY, FLORIDA



DESCRIPTION

Commence at the Intersection of the West line of the SW 1/4 of SE 1/4, Section 34, Township 3 South, Range 16 East, Columbia County, Florida with the North right-of-way line of County Road No. C-252 and run thence N 63°07'59" E along said North right-of-way line, 300.00 feet to a point of curve, thence Easterly still along said North right-of-way line along said curve concave to the right having a radius of 1004.93 feet along a chord bearing N 74°00'16" E, 379.05 feet to the end of said curve, thence N 84°52'29" E still along said North right-of-way line, 151.05 feet to the POINT OF BEGINNING, thence continue N 84°52'29" E along said North right-of-way line, 400.00 feet to a point of curve, thence Northerly along said curve concave to the left having a radius of 25 feet and a total central angle of 158°50'00", an arc distance of 69.30 feet to the South right-of-way line of State Road No. 10 (U. S. Hwy. 90), thence Westerly along said South right-of-way line along a curve concave to the right having a radius of 7689.44 feet along a chord bearing N 72°48'20" W, 317.28 feet to the end of said curve, thence N 71°40'01" W along said South right-of-way line, 82.72 feet, thence S 5°59'34" W, 205.27 feet to the POINT OF BEGINNING. Containing 1.16 acre, more or less.

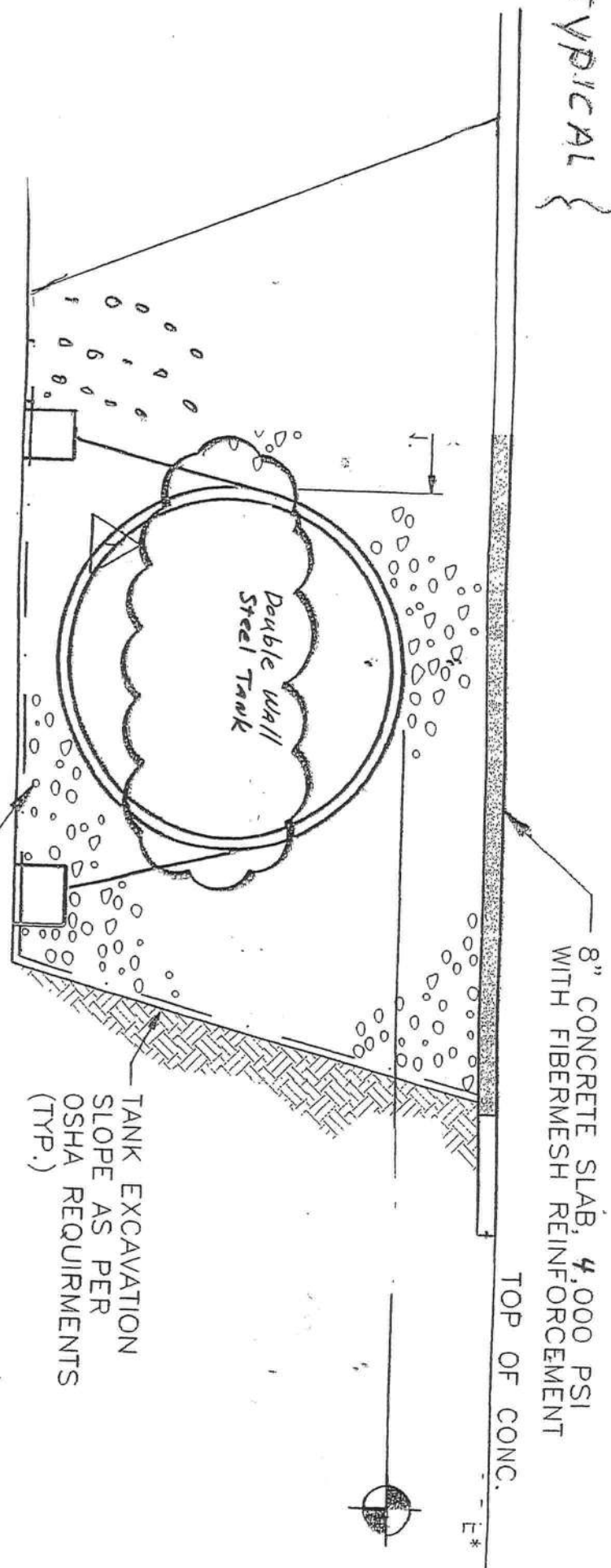
SURVEYOR'S CERTIFICATE

I hereby certify to all parties interested in title to premises surveyed that plat hereon shown is a true and correct plat of survey made under my direction of the hereon described lands and meets the requirements for the Minimum Technical Standards for Land Surveying, Chapter 21HH-6, Florida Administrative Code.

Signed
 W. C. Hale, Land Surveyor
 Florida Certificate No. 1519
 Date _____

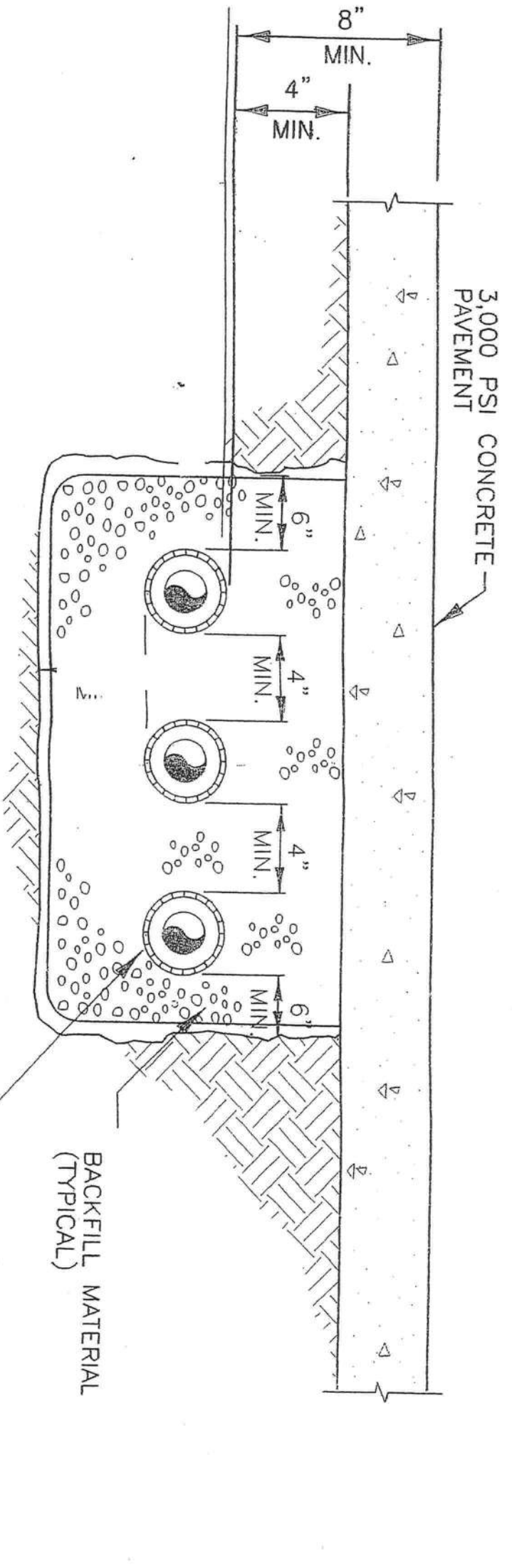
§ TYPICAL §

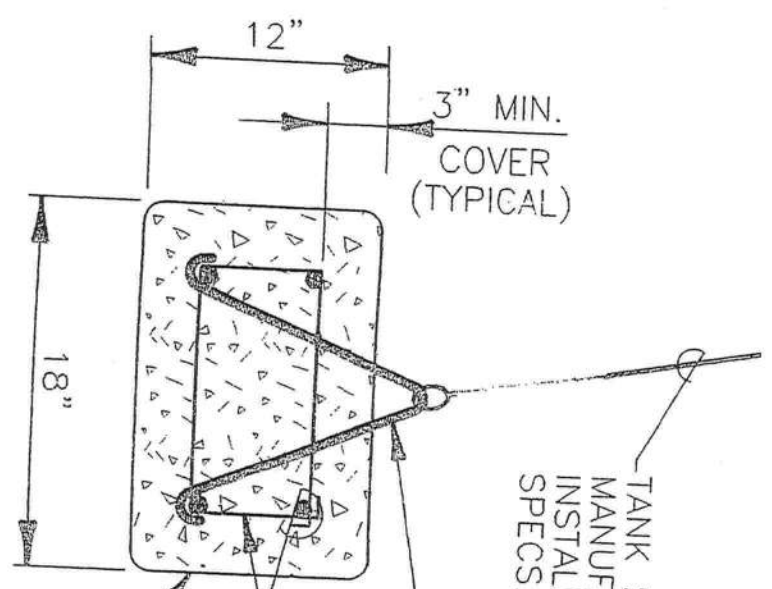
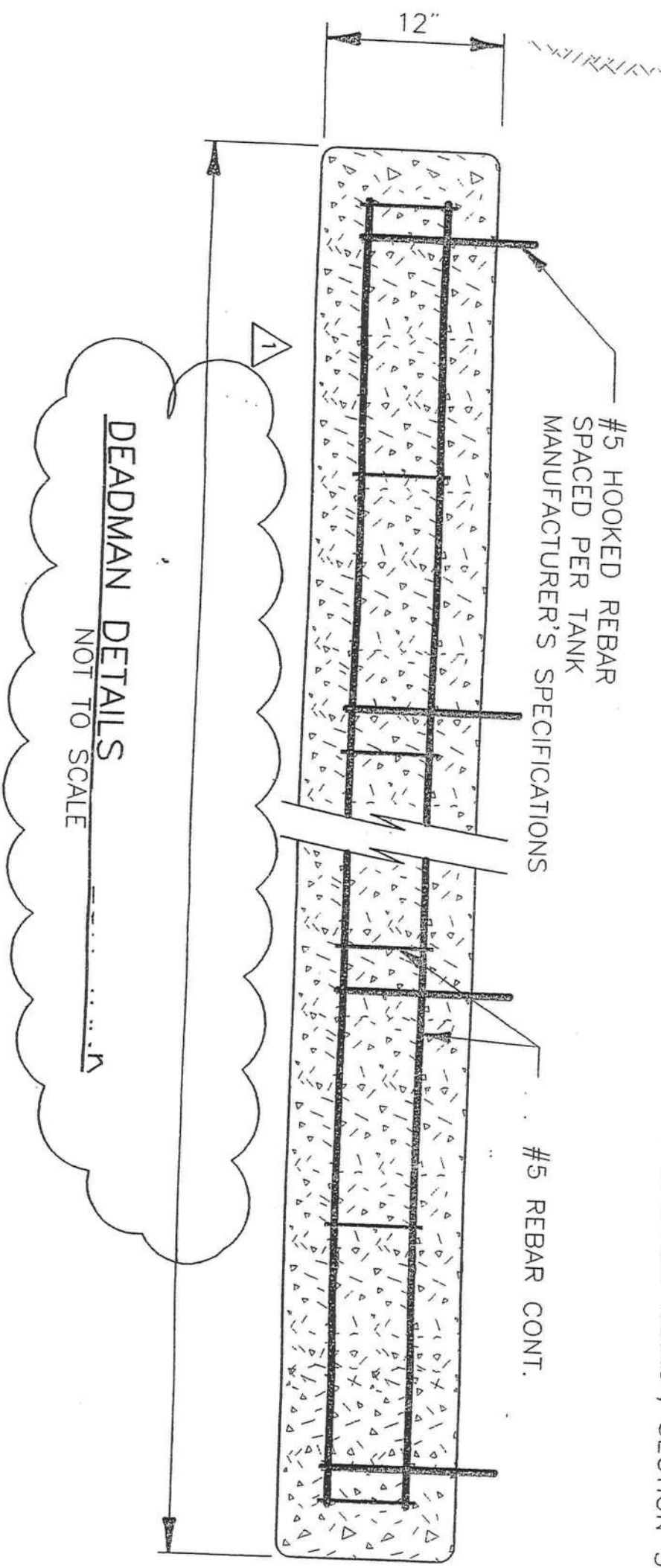
CROSS-SECTION THRU UNDERGROUND TANK
NOT TO SCALE



DEPTH MUST PERMIT SLOPING OF PIPE TO TANK AREA

TYPICAL PIPE BURIAL DETAIL
NOT TO SCALE



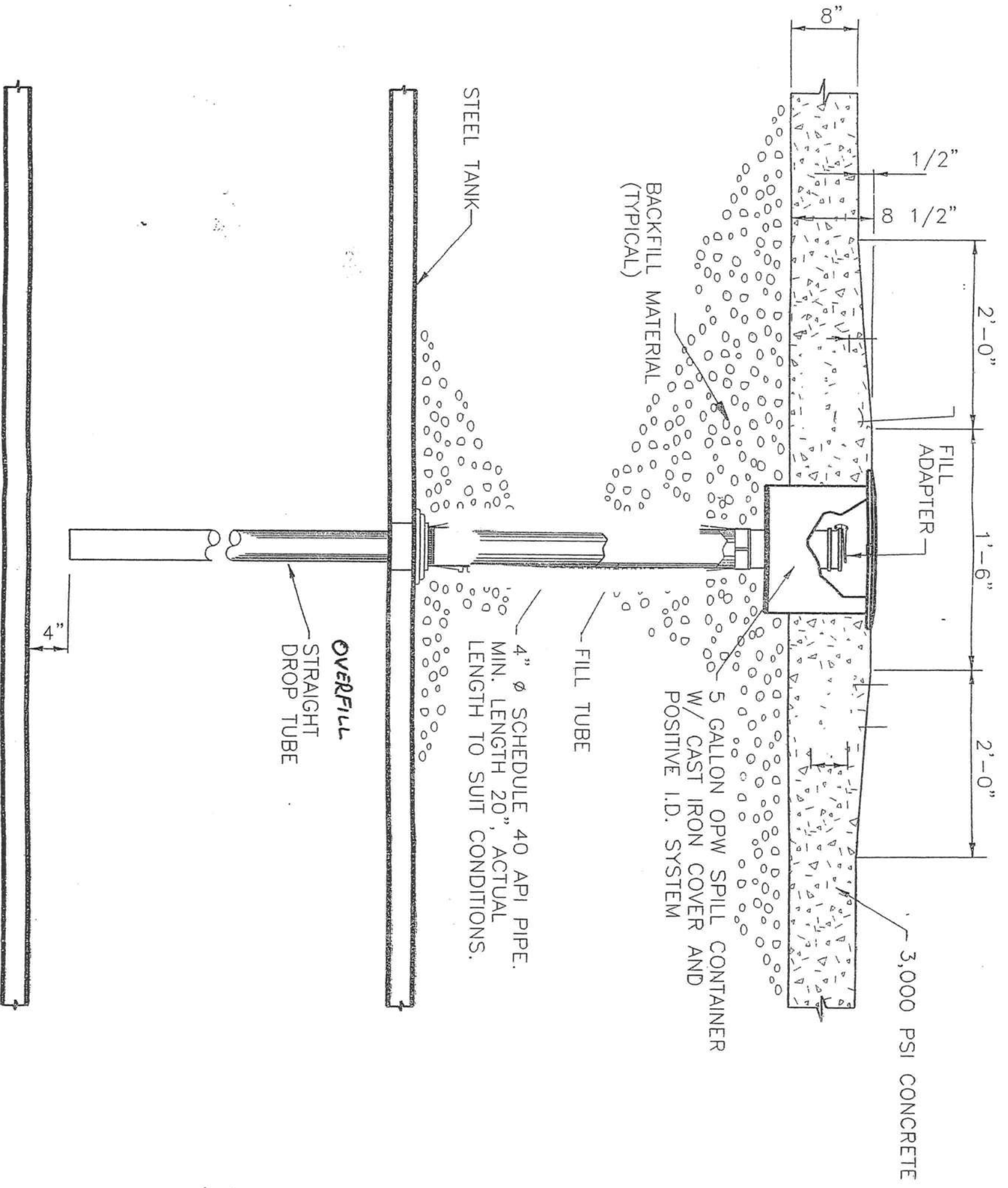


#5 HOOKED REBAR
SPACED PER TANK
MANUFACTURER'S SPECIFICATIONS

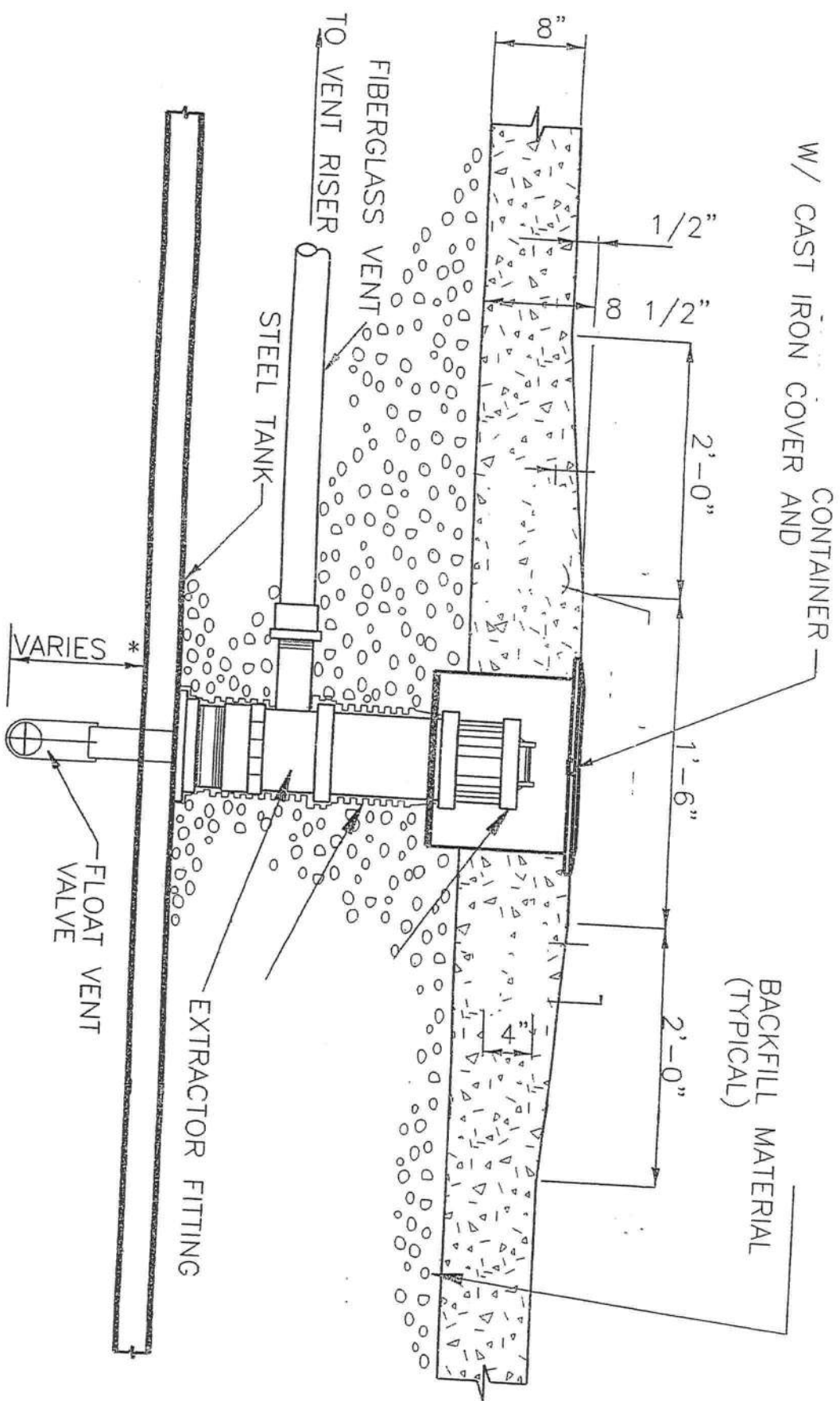
#5 REBAR

CONCRETE DEADMAN

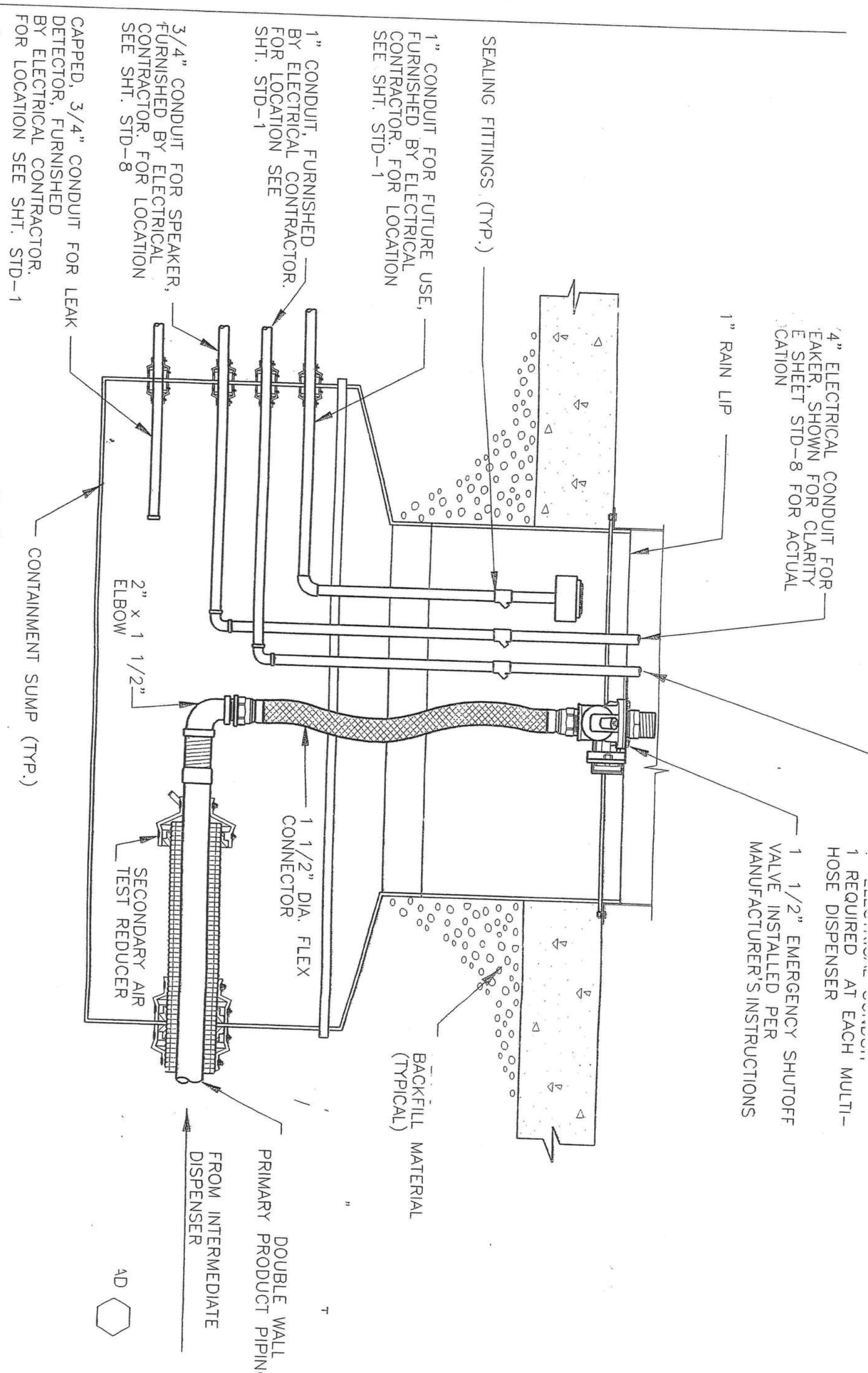
NOTE:
REFER TO PEI/RP100-90, "RECOMMENDED
PRACTICES FOR THE INSTALLATION OF UNDER-
GROUND LIQUID STORAGE TANKS", SECTION 5.



TANK FILL DETAIL



* FOR EXACT VALVE DEPTH FOR EACH TANK,
 SEE CHART BELOW.



4" ELECTRICAL CONDUIT FOR SPEAKER, SHOWN FOR CLARITY SEE SHEET STD-8 FOR ACTUAL LOCATION

1 REQUIRED AT EACH MULTI-HOSE DISPENSER
 1 1/2" EMERGENCY SHUTOFF VALVE INSTALLED PER MANUFACTURER'S INSTRUCTIONS

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

CONTAINMENT SUMP (TYP.)

2" x 1 1/2" ELBOW

1 1/2" DIA. FLEX CONNECTOR

BACKFILL MATERIAL (TYPICAL)

DOUBLE WALL PRIMARY PRODUCT PIPING FROM INTERMEDIATE DISPENSER

4D

Typical
 DISPENSER SIMILAR)
 SUMP SECTION AT END GASOLINE DISPENSER
 NOT TO SCALE

42" HANWAY & COVER, SEE "MATERIAL & EQUIPMENT SCHEDULE" THIS SHEET

6" (TYP.)

SKIRT API COLOR CODED FRP OR GALVANIZED

13/16"

2"

CONTAINMENT SUMP

EXPLOSION PROOF, WEATHER PROOF J-BOX. MIN. 16 CU IN. WITH 3/4" NPT OPENINGS. (AS REQUIRED) INSTALLED SUCH THAT IT IS EASILY ACCESSIBLE (TYP.)

SEALING FITTING (TYP.)

3/4" CONDUIT TO ELECTRICAL ROOM

3/4" CONDUIT TO PROBE

DOUBLE WALL PRIMARY PRODUCT PIPING

ENTRY FITTING (TYP.) SEE NOTE 2

TOP OF TANK

SPARE BUNG

FLEX CONNECTOR, SEE "MATERIAL AND EQUIPMENT SCHEDULE ON THIS SHEET"

1 1/2" GALV. ELL

BALL VALVE

1 1/2" GALV. NIPPLE

①

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

LEAK SENSOR

2" Ø P.V.C. SLEEVE

1/2" H S IN SLEEVE

TYPICAL SUBMERGED pump sump

