EMCO
WHEATON RETAIL

ENGINEERING CUSTOMER SATISFACTION™

Phase I CARB
EVR Certified
EMCO®
WHEATON RETAIL

PHASE I EVR SYSTEM
CONTRACTOR TRAINING MANUAL
INSTALLATION, PREVENTIVE MAINTENANCE & COMPLIANCE TESTING

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Multi-Port Phase I EVR System
Executive Order VR-105

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Affordable • Watertight • Serviceable • Compliant

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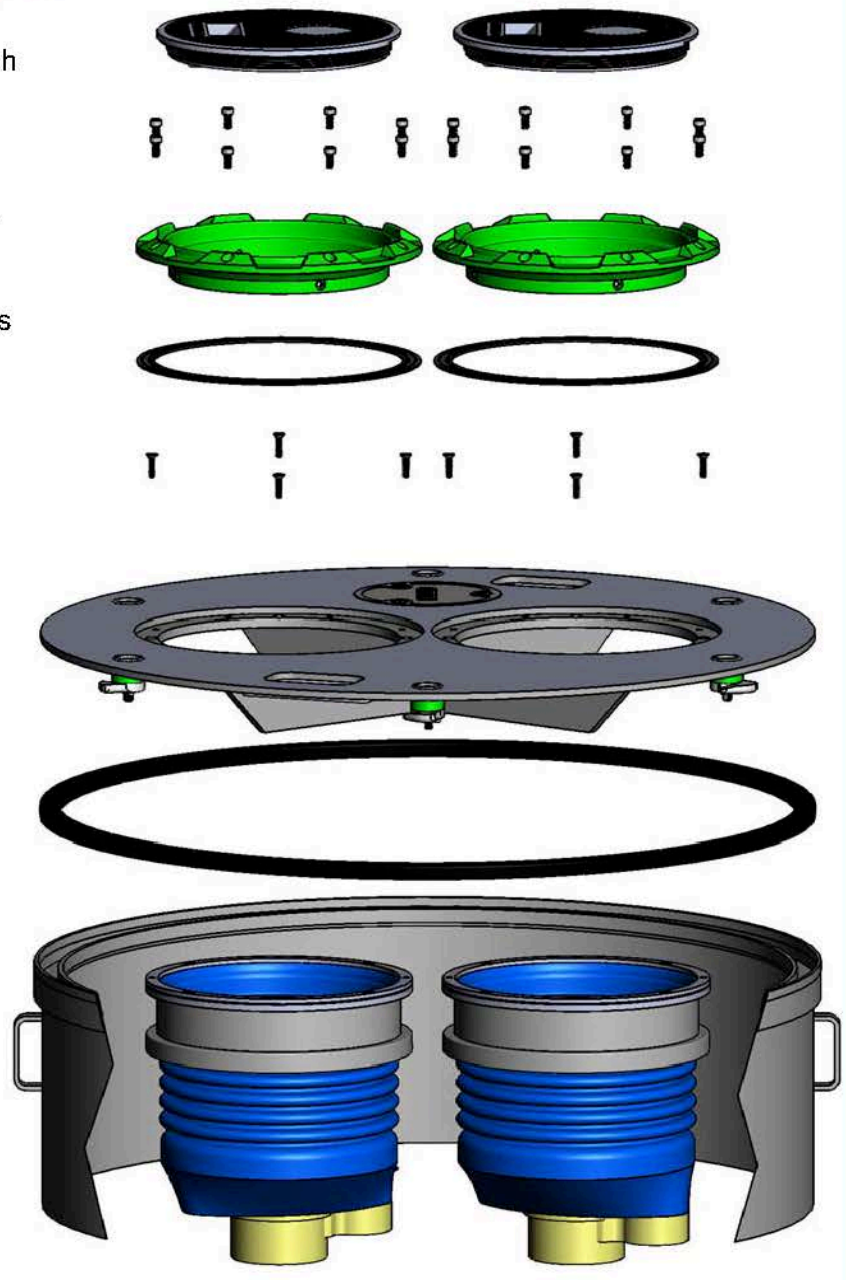
Watertight

A1004EVR Multi-Port Spill Containment

Guide Specification:

- 42-inch steel diamond plate lid with 16-inch tank bung spacing
  Optional diamond plate lid in light weight aluminum
- 6 cam-locks and dual lid handles for easy lock-down and removal
- 8-inch observation port w/ water tight seals
- All mounting bolts non-corrosive stainless steel
- Manhole rim channel w/ D-seal for water tightness integrity between lid and rim
- Manhole available w/ 12-inch or 18-inch galvanized skirt
- Nominal spill container capacity of 5 US gallons
- Cast iron spill container base w/ 4-inch NPT thread connection
  Requires no face seal adapter
- Powder coated, heavy duty, cast iron lid and ductile iron plow ring, exceeds DOT H-20 loading
  Optional lid in composite material
- Lid w/ triple wiper seal
- HDPE primary spill container bellows
- Drain valve w/ filter or plug option
- Compatible with most water shrouds and boot kits



Model No.	Description	Spill Container #1	Drain Type	Spill Container #2	Drain Type
A1004EVR-2421D1A	42" Multi-Port MH, 8" Observation Port 12" Skirt, Gasoline	SW, 5 gal	Drain Valve	SW, 5 gal	No Drain
A1004EVR-242101A	42" Multi-Port MH, 8" Observation Port 12" Skirt, Gasoline	SW, 5 gal	No Drain	SW, 5 gal	No Drain
A1004EVR-2421D0A	42" Multi-Port MH, 8" Observation Port 12" Skirt, Diesel	SW, 5 gal	Drain Valve	None	N/A
A1004EVR-242100A	42" Multi-Port MH, 8" Observation Port 12" Skirt, Diesel	SW, 5 gal	No Drain	None	N/A

Custom configurations are available upon request

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Direct Bury Phase I EVR System
Executive Order VR-105

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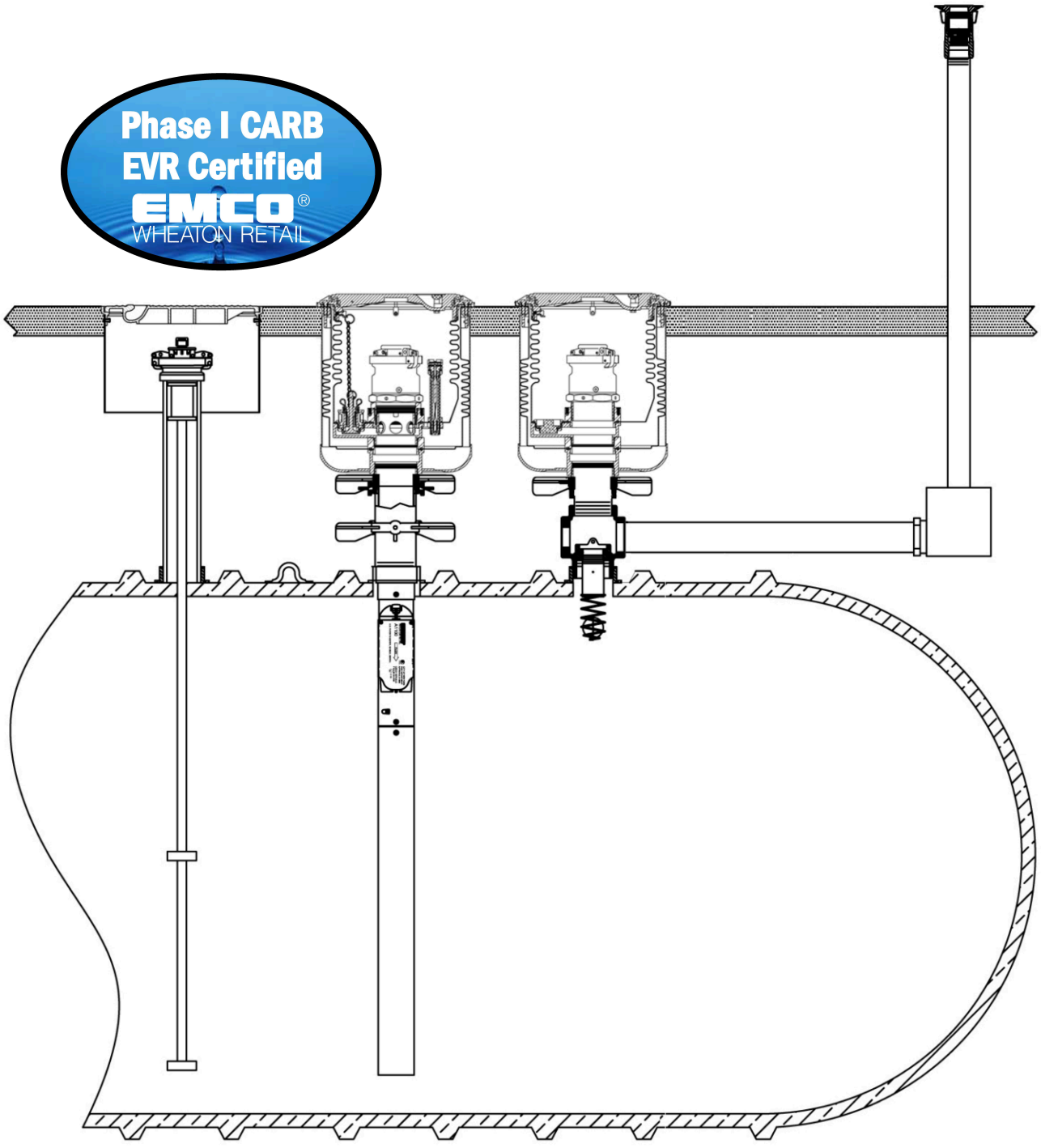

Affordable • Watertight • Serviceable • Compliant

A1004EVR Direct Bury Spill Containment

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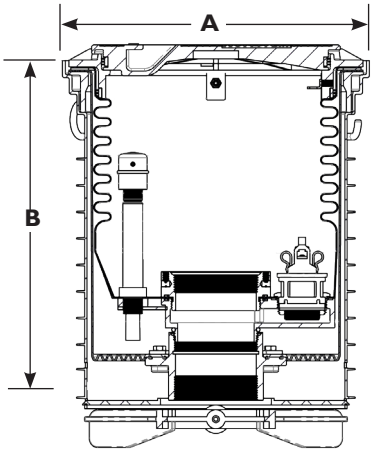
Never Break Concrete Again!

Field Replaceable

Guide Specification:

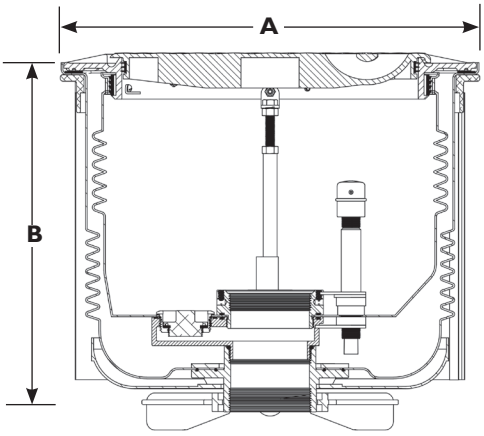
- Nominal spill container capacity of 5 or 15 US gallons
- Cast iron spill container base w/ 4-inch NPT thread connection
  Requires no face seal adapter
- Powder coated, heavy duty, cast iron lid and ductile iron plow ring, exceeds DOT H-20 loading
  Optional lid in composite material
- Lid w/ triple wiper seal
- Replaceable from grade level HDPE primary and secondary bellows
- Drain valve w/ filter or plug option
- EZ-Gage or float sensor option for interstitial monitoring of secondary containment
- HDPE or galvanized gravel guard
- HDPE gravel pan

5 Gallon



A1004EVR-316S

15 Gallon



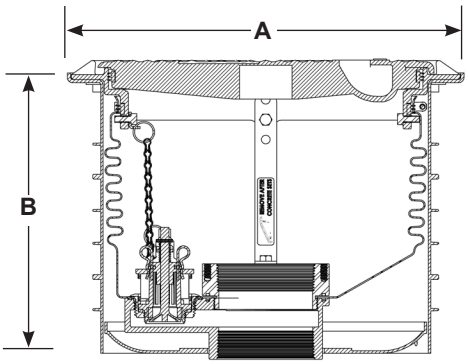
A1004EVR-216S

Model No.	Description	Width Dia. A	Installed Ht. B	Lid Dia.	Lid Wt.	Total Wt.	Drain Type
A1004EVR-316A	SW, 5 gal, 16” center	16.0”	15.0”	13.2”	15.9 lbs.	66.0 lbs.	Drain Valve
A1004EVR-317A	SW, 5 gal, 16” center	16.0”	15.0”	13.2”	15.9 lbs.	63.0 lbs.	None
A1004EVR-216A	SW, 15 gal	22.6”	18.0”	17.1”	29.5 lbs.	126.0 lbs.	None
A1004EVR-316S	DW, 5 gal, 16” center	16.0”	17.1”	13.2”	15.9 lbs.	84.0 lbs.	Drain Valve
A1004EVR-317S	DW, 5 gal, 16” center	16.0”	17.1”	13.2”	15.9 lbs.	79.9 lbs.	None
A1004EVR-216S	DW, 15 gal	22.6”	19.0”	17.1”	29.5 lbs.	151.0 lbs.	None

Field Non-Replaceable

Guide Specification:

- Nominal spill container capacity of 5 US gallons
- Cast iron spill container base w/ 4-inch NPT thread connection
  Requires no face seal adapter
- Powder coated, heavy duty, cast iron lid and ductile iron plow ring, exceeds DOT H-20 loading
  Optional lid in composite material
- Lid w/ triple wiper seal
- Non-replaceable from grade level HDPE primary bellows
- Drain valve w/ filter or plug option
- HDPE gravel guard
- HDPE gravel pan



Model No.	Description	Width Dia. A	Installed Ht. B	Lid Dia.	Lid Wt.	Total Wt.	Drain Type
A1004EVR-010	Slimline, SW, 5 gal	17.6”	13.6”	15.3”	20.0 lbs.	58.5 lbs.	Drain Valve
A1004EVR-011	Slimline, SW, 5 gal	17.6”	13.6”	15.3”	20.0 lbs.	57.9 lbs.	None

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A1004EVR-317SS

Stainless Steel Primary/HDPE Secondary Spill Containment

Evolution

The Next Generation of Spill Containment

New

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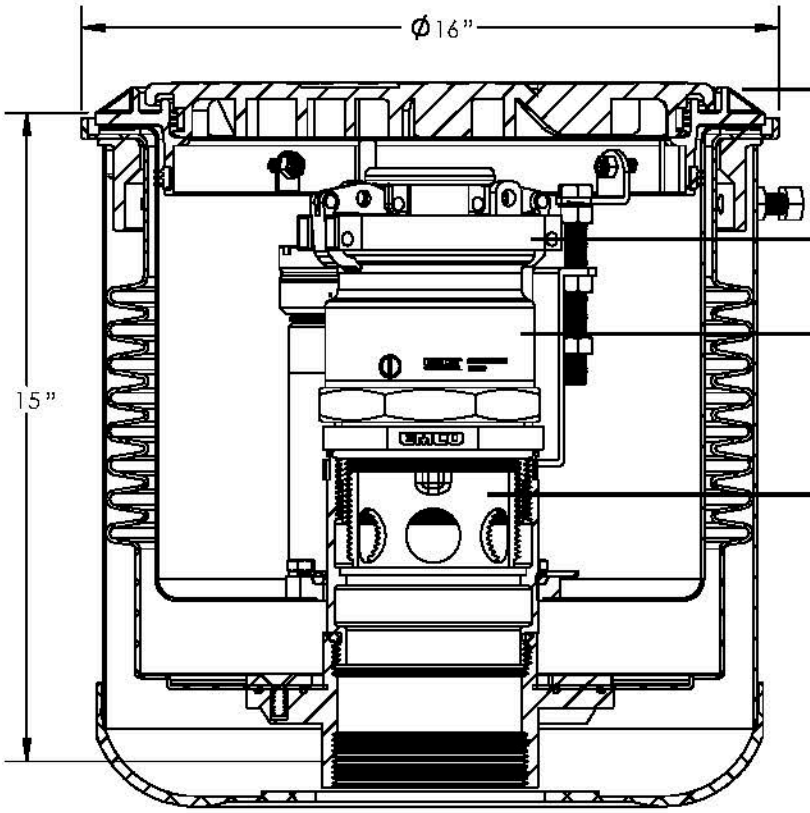
A1004EVR-317SS

Stainless Steel Primary/HDPE Secondary



Available Options:

Lid/rim
- Composite lid/stainless steel rim
- Cast iron lid and rim
- Powder coated lid and rim with color choice and product ID

Fill Adapter Cap A0097-005 or
Vapor Adapter Cap A0099-002

Swivel Fill Adapter A0030-124S or
Swivel Vapor Adapter A0076-124S

Riser Seal 494096, (for use on tank fill riser only) or
A0079-005SS pipe nipple

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Guide Specification:

- Nominal spill container capacity of 5 US gallons
- Cast iron or stainless steel spill container base, w/ 4-inch NPT thread connection **Requires no face seal adapter**
- Replaceable from grade level stainless steel primary, HDPE secondary
- Installs on 16-inch tank bung centers
- No Drain Valve
- EZ-Gage or float sensor option for interstitial monitoring of secondary containment

Model No.	Description
A1004EVR-317SS100	SST Pri/HDPE Sec, Cast Rim/Lid
A1004EVR-317SS140	SST Pri/HDPE Sec, Cast Rim/Lid, Fill Cap, Swivel Adapter, Riser Seal
A1004EVR-317SS150	SST Pri/HDPE Sec, Cast Rim/Lid, Vapor Cap, Swivel Adapter, SST Close Nipple
A1004EVR-317SS200	SST Pri/HDPE Sec, SST Rim/Composite Lid

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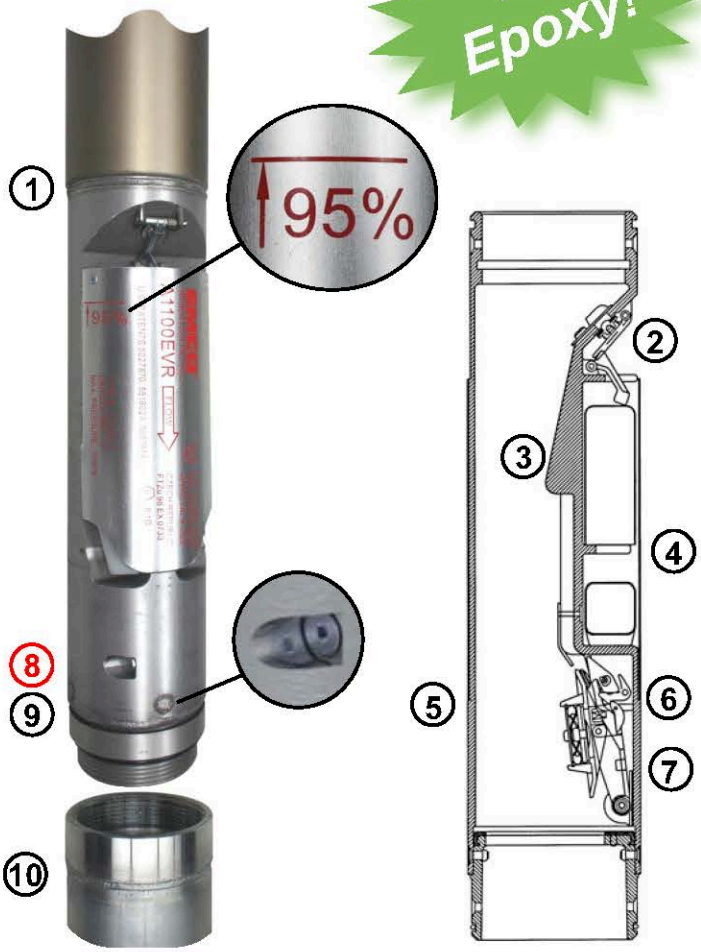
A1100EVR Overfill Prevention Valve



Guide Specification:

1. Upper drop tube to valve body factory welded
   Optional: Upper drop tube factory anodized to prevent corrosion
2. Bleed valve drains fuel delivery hose after 95% shut-off
3. Diverter fins protect flapper valve during routine "tank stick" gauging
4. Top and bottom floats contained in protective sleeve to insure damage-free installation and removal from tank fill riser
5. Die cast aluminum valve body design provides the highest delivery flow rate
6. Spring loaded reset function opens flapper valve and allows for immediate "tank stick" gauging
7. Flapper valve provides positive fuel shut-off at 95% total storage tank capacity
8. External field test port allows for manual routine testing of flapper valve
9. Valve body to male coupling factory welded
10. Female coupling to lower drop tube factory welded

- All materials and seals are compatible with up to E25 ethanol blend gasoline and B20 biodiesel blends
- 100% factory tested for operability and vapor tightness integrity
- For underground storage tanks less than 6.5' in diameter, please consult your local EMCO Factory Representative

Model No.	Anodized Model No.	Overall Length	Maximum Burial Depth	Nominal Tank Diameter	Weight
A1100EVR-055	A1100EVR-055CF	14.0 ft.	6.0 ft.	8 ft.	25.2 lbs.
A1100EVR-056	A1100EVR-056CF	16.0 ft.	7.0 ft.	10 ft.	27.2 lbs.
A1100EVR-057	A1100EVR-057CF	18.2 ft.	6.8 ft.	12 ft.	30.3 lbs.
A1100EVR-058	A1100EVR-058CF	21.7 ft.	10.0 ft.	12 ft.	31.0 lbs.

A0020EVR Straight Drop Tube

A0020EVR
Rolled Edge Collar

A0020EVRC
Heavy Duty Collar

Model No.	Model No.	Overall Length
A0020EVR-004	A0020EVRC-004	12'
A0020EVR-005	A0020EVRC-005	15'
A0020EVR-007	A0020EVRC-007	17'
A0020EVR-008	A0020EVRC-008	14'

Guide Specification:

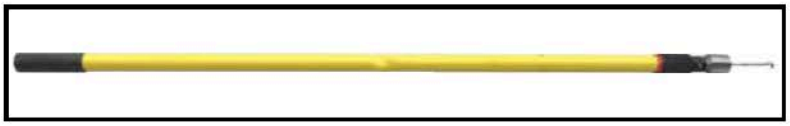
- 4-inch diameter aluminum construction
- Available standard rolled edge or heavy duty collar
- Installs on a typical 4-inch tank fill riser

Model A1100 Overfill Prevention Valve OPV

Field Operational Test Procedure TP-A1100
For Primary Float and Flapper Valve

Service Tools Required:

• EMCO Model A0081-1101 test tool



• Scribe tool

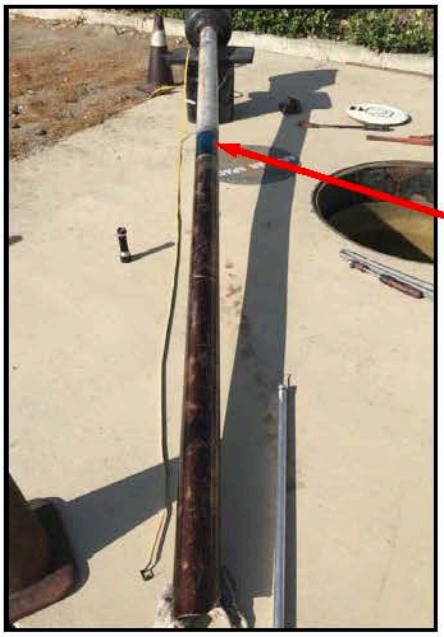
CAUTION:

1. Always barricade work area to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the phase I system.

Securing the Flapper Valve:

Step 1: Remove the spill container lid, fill cap and adapter from the tank fill riser. Note: only remove manhole cover and water shroud system if necessary.

Step 2: Remove the Model A1100 OPV from the tank fill riser.



Step 3: Place the Model A1100 OPV on its side with the primary float facing downward. ***Refer to Figures 1 and 2 for details.***

Figure 1: Correct position, primary float facing downward.

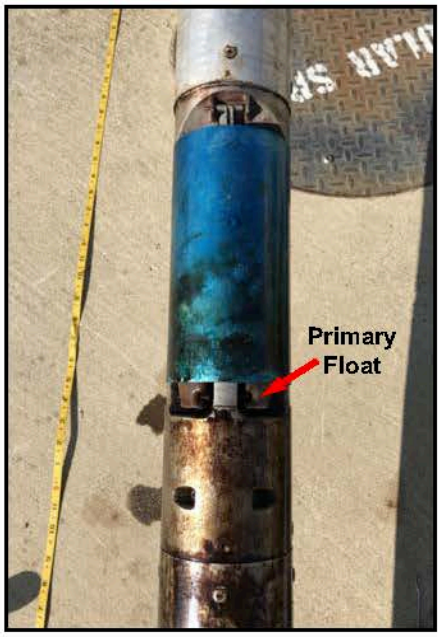
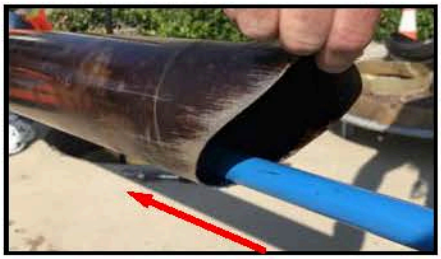


Figure 2: Improper position, primary float facing upward

Model A1100 Overfill Prevention Valve OPV



Step 4: Slowly insert the Model A0081-1101 test tool from the bottom of the lower tube until the hook end secures to the underside of the flapper valve. ***Refer to Figures 3 and 4 for details.***

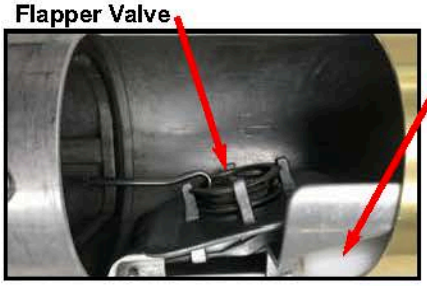
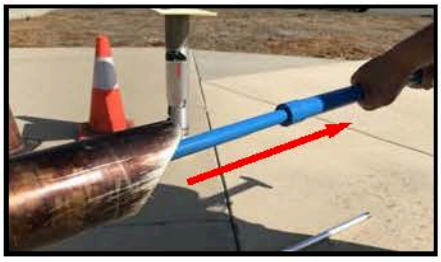


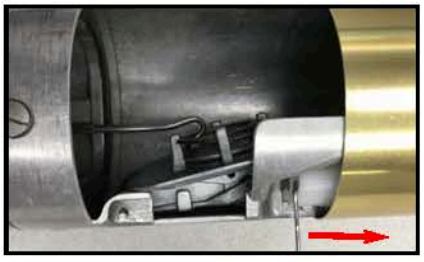
Figure 3: Hook end secured to the underside of the flapper valve.

Figure 4: Close-up

Testing the Primary Float and Flapper Valve:



Step 5: With the flapper valve latched open, and the hook end secured, gently tug on the test tool, the flapper valve must remain open.



Step 6: Using a scribe move the primary float upward to unlatch the flapper valve, and with the hook end secured, gently tug on the test tool, the flapper valve must close, the test tool will move about 3" downward. ***Refer to Figures 5, 6, 7 and 8 for details.***

Figure 5: Primary float, downward position.

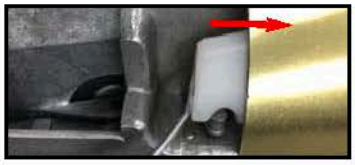


Figure 6: Primary float, upward position.

Figure 7: Primary float upward, flapper valve unlatched and closing.

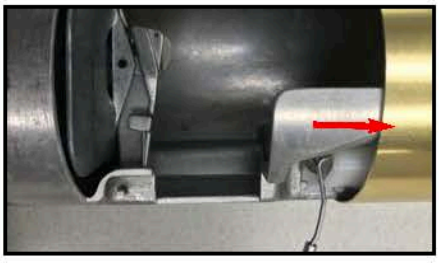
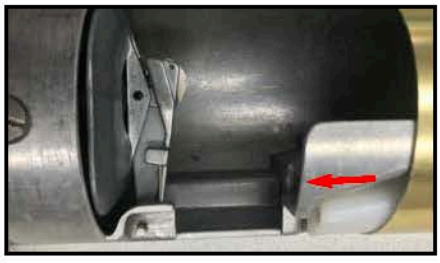


Figure 8: Primary float upward, flapper valve unlatched and closed.



Step 7: Using the scribe move the primary float downward.

Step 8: With the hook end secured, gently allow the flapper valve to move upward and spring back into an open position, tug gently on the test tool, the flapper valve must relatch and remain open.

IMPORTANT: Perform steps 6 through 8 a minimum of three times to assure the primary float, latch and flapper valve components of the Model A1100 OPV are operating properly.

Step 9: Lift the Model A1100 OPV with the collar upward and re-install on the tank fill riser. Replace the drop tube o-ring part number 569461 if damaged or missing.

Step 10: Re-install the fill adapter, cap and spill container lid on the tank fill riser.

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TP-A1100
08/18, Rev. A

Phase I EVR Components

A0097-005
Fill Adapter Cap

A0099-002
Vapor Adapter Cap

A0097-010
ATG Probe
Adapter Cap

A0097-004LP
Low Profile
Fill Adapter Cap

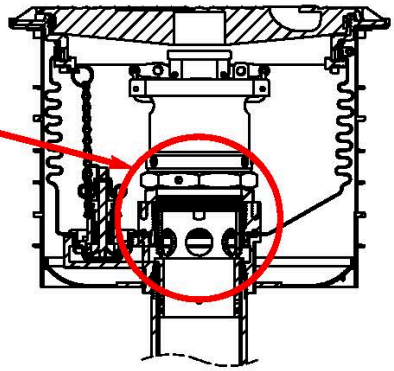
A0099-004LP
Low Profile
Vapor Adapter Cap

A0030-124S
Swivel Fill Adapter

A0076-124S
Swivel Vapor Adapter

A0030-014
ATG Probe Adapter

494096 Riser Seal



A0075
Ball Float

A0079 Extractor
Cross Fitting

A0079 Extractor
Tee Fitting

A0179
Extractor Cage

A0279 Extractor
Test Plug

Guide Specification:

- Top-seal cam and groove design for vapor tightness integrity
- Aluminum body powder coated orange or gray for field identification
- Lockable toggle action aluminum handle with self-aligning cams
- The Model A0099-003 includes a 12-inch chain to prevent theft
- The Model A0097-010 includes cord grip for use with ATG probes
- **A0097-010A includes ATG probe cap and adapter**

Guide Specification:

- A 360 degree rotation prevents accidental loosening from 4-inch tank fill or vapor riser
- Brass construction cam and groove design for use with top-seal caps for vapor tightness integrity
- Flat gasket with 4-inch NPSM thread connection
- The Model A0076-124S available with a normally closed poppet
- The Model A0030-014 is non-swivel for use with ATG probes
- Allows for complete field serviceability should the swivel adapter fail CARB static torque TP-201.B, leak tightness integrity tests TP-201.D or TP-201.3

Guide Specification:

- Lowers the top of the drop tube collar below the spill containment drain valve path
- Two-piece stainless steel construction

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P-1011
08/18

Multiport Phase I EVR System Repair and Replacement Kits

Phase I CARB EVR Certified
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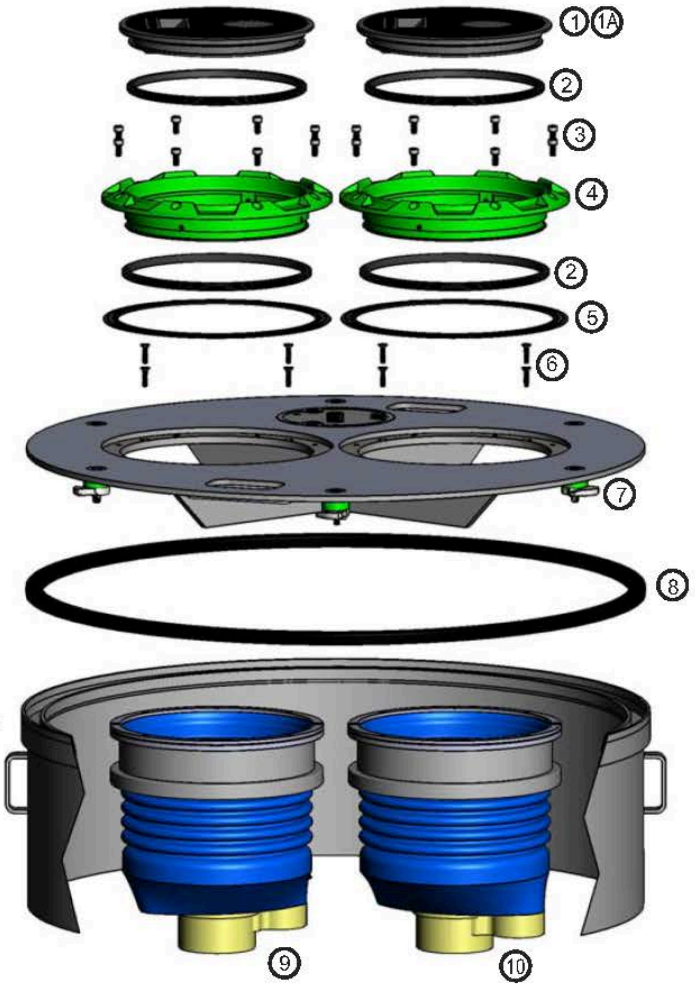
Part Number	Description
	Spill Containers
A1004EVR-316C1	(9) 5 gal spill container w/ drain (1) (4) Plow ring (1) (2) Triple wiper seal (2) (1) Lid (1) (3) Plow ring hex bolts (8) (5) Plow ring gasket (1) (6) Spill container hex bolts (4)
A1004EVR-316T1	(9) 5 gal spill container w/ drain (1) (6) Spill container hex bolts (4)
A1004EVR-317C1	(10) 5 gal spill container w/ no drain (1) (4) Plow ring (1) (2) Triple wiper seal (2) (1) Lid (1) (3) Plow ring hex bolts (8) (5) Plow ring gasket (1) (6) Spill container hex bolts (4)
A1004EVR-317T1	(10) 5 gal spill container w/ no drain (1) (6) Spill container hex bolts (4)
	Lids & Drain Valve
A1004-316CLID	(1) (2) Lid w/ triple wiper seal, cast iron (1)
A1004-316LID	(1A) (2) Lid w/ triple wiper seal, composite (1)
494118	(11) Drain valve kit w/ filter (1)
	Seal Kits
570012	(2) Triple wiper seal (1)
569989	(5) Plow ring gasket (1)
495673	Multiport watertight seals kit for gasoline applications includes: (2) Triple wiper seals (4) (5) Plow ring gaskets (2) (8) Manhole "D" seal (1)
495672	Multiport watertight seals kit for gasoline and diesel applications includes: (2) Triple wiper seals (2) (5) Plow ring gasket (1) (8) Manhole "D" seal (1)
	Other Kits
495674	(7) Multiport cam-lock kit (1)
495733	Multiport mounting hex bolts kit includes: (3) Plow ring hex bolts (8) (6) Spill containment hex bolts (4)



A1004-316CLID
Cast Iron Lid

A1004-316LID
Optional Composite Lid

Multiport Phase I EVR System Repair and Replacement Kits

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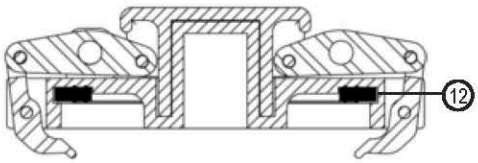
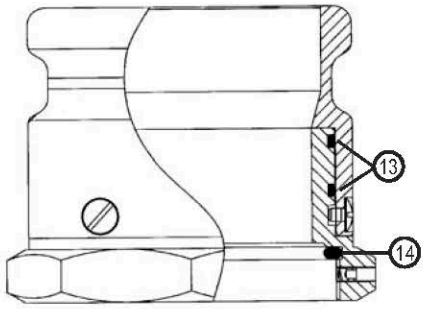
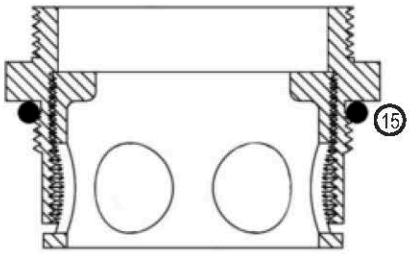
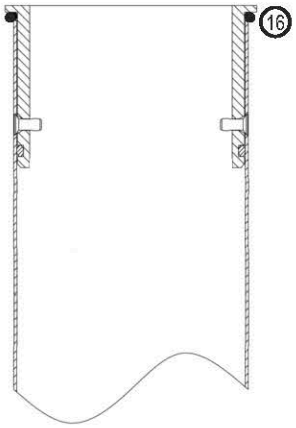
Part Number	Description
	Gasket & O-ring Kits
570739	(12) Adapter cap gasket replacement for models A0097-004LP, A0097-005, A0097-010, A0099-002, A0099-004LP *Includes (1) gasket*
494301	(13) Adapter o-ring replacement for models A0030-124S, A0076-124S *Includes (2) o-rings and (1) gasket*
569924	(14) Adapter gasket replacement for models A0030-014, A0030-124S, A0076-124S *Includes (1) gasket*
494242	(15) Riser seal o-ring *Includes (1) o-ring*
569461	(16) Drop tube collar o-ring replacement for models A0020EVR, A0020EVRC, A1100EVR *Includes (1) o-ring*









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Phase I EVR System

Installation and Maintenance Tools

Phase I CARB EVR Certified
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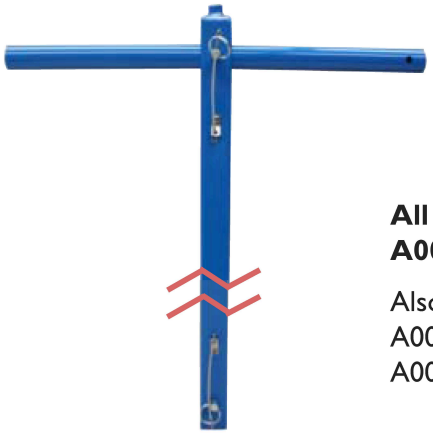

All tool bits are fully interchangeable with A0081-001D Drive Shaft and A0081-001X Cross Bar

Also available:
A0081-001A Extension
A0081-001Q Quick Release Pin

A0081-001B
Adapter Wrench Bit

Installation and removal of:

- Models A0030-014, A0030-124S & A0076-124S Adapters
- Model 494096 Riser Seal

A0081-001HB
Spill Containment Wrench Bit

Installation and removal of:

- Model A1004EVR Series Spill Containers (Multiport or Direct Bury)

A0081-001LB
Riser Seal Wrench Bit

Installation and removal of:

- Model 494096 Riser Seal Center Insert
- Models A0030-024 & A0030-024A Adapters

Phase I EVR System

Installation and Maintenance Tools

Phase I CARB EVR Certified
EMCO WHEATON RETAIL

493820
Drain Valve Wrench

Installation and removal of:

- Drain Valve Part Number 494118

494240
Swivel Adapter Torque Test Wrench

Verification of static torque for:

- Models A0030-124S and A0076-124S per CARB test procedure TP-201.1B

566675
A1100EVR Collar Drill Fixture

Drilling of collar mounting holes:

- Model A1100EVR Overfill Valve

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State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER VR-105-F

Relating to Certification of Vapor Recovery Systems

EMCO Wheaton Retail Phase I Vapor Recovery System

WHEREAS, the California Air Resources Board (CARB) has established, pursuant to California Health and Safety Code sections 25290.1.2, 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during the filling of underground gasoline storage tanks (Phase I EVR System), in its Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) as last amended April 23, 2015, incorporated by reference in Title 17, California Code of Regulations, Section 94011;

WHEREAS, CARB has established, pursuant to California Health and Safety Code Sections 39600, 39601, 39607, and 41954, test procedures for determining the compliance of Phase I EVR Systems with emission standards;

WHEREAS, EMCO Wheaton Retail (EMCO) requested and was granted certification of the EMCO Wheaton Retail Phase I Vapor Recovery System (EMCO System) pursuant to CP-201 on October 20, 2006 by Executive Order VR-105-A; and last modified on June 8, 2017, by Executive Order VR-105-E;

WHEREAS, Executive Order VR-105-E expires on August 27, 2018;

WHEREAS, CP-201 provides a process for the renewal of Phase I EVR system certification;

WHEREAS, CP-201 authorizes the Executive Order to renew the certification of the EMCO Phase I Vapor Recovery System if an evaluation determines that there are no identified deficiencies;

WHEREAS, additional time is necessary to gather and evaluate information needed to complete the certification renewal of the Husky Model 5885 pressure/vacuum (P/V) vent valve;

WHEREAS, Husky requested amendment of the Installation, Operation, and Maintenance Manual for the Husky Model 5885 P/V vent valve;

WHEREAS, CP-201 provides that the CARB Executive Officer shall issue an Executive Order if he determines that the vapor recovery system, including modifications, conforms to all of the applicable requirements set forth in CP-201;

WHEREAS, Executive Order G-01-032 delegates to the Chief of the Monitoring and Laboratory Division the authority to certify or approve modifications to certified Phase I and Phase II vapor recovery systems for gasoline dispensing facilities (GDF); and

WHEREAS, I, Catherine Dunwoody, Chief of the Monitoring and Laboratory Division, find that the EMCO System, as amended to include the components listed above, conforms with all the requirements set forth in CP-201, and results in a vapor recovery system which is at least 98.0 percent efficient when tested pursuant to test procedure TP-201.1, Volumetric Efficiency for Phase I Systems (July 26, 2012);

NOW THEREFORE, IT IS HEREBY ORDERED that the EMCO System is certified to be at least 98.0 percent efficient when installed, operated, and maintained as specified herein and in the following exhibits. Exhibit 1 contains a list of the certified components. Exhibit 2 contains the performance standards and specifications, typical installation drawings, and maintenance intervals applicable to the EMCO System as installed in a GDF. Exhibit 3 contains the manufacturing performance specifications. Exhibit 4 contains the manufacturer warranties. Exhibit 5 is the below-grade vaulted tank configuration.

IT IS FURTHER ORDERED that compliance with the applicable certification requirements, rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board are made conditions of this certification.

IT IS FURTHER ORDERED that each component manufacturer listed in Exhibit 1 shall provide a warranty for the vapor recovery component(s) to the initial purchaser. The warranty shall be passed on to each subsequent purchaser within the warranty period. The warranty shall include the ongoing compliance with all applicable performance standards and specifications and shall comply with all warranty requirements in Section 16.5 of CP-201. Manufacturers may specify that the warranty is contingent upon the use of trained installers. The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

IT IS FURTHER ORDERED that every certified component manufactured by EMCO, Franklin Fueling Systems (FFS), OPW, and Husky Corporation (Husky) shall meet the manufacturing performance specifications as provided in Exhibit 3.

IT IS FURTHER ORDERED that the certified EMCO System shall be installed, operated, and maintained in accordance with the CARB-Approved Installation, Operation and Maintenance Manual for the EMCO Wheaton Phase I Vapor Recovery System as certified by Executive Order VR-105-F. Equipment shall be inspected quarterly and annually per the procedures identified in the CARB Approved Installation,

Operation, and Maintenance Manual. These inspections shall also apply to systems certified by Executive Orders VR-105-A to E. A copy of this Executive Order and the CARB Approved Installation, Operation, and Maintenance Manual shall be maintained at each GDF where a certified EMCO System is installed.

IT IS FURTHER ORDERED that all equipment listed in Exhibit 1, unless exempted, shall be clearly identified with a permanent identification showing the manufacturer's name and model number.

IT IS FURTHER ORDERED that any alteration in the equipment parts, design, installation or operation of the system provided in the manufacturer's certification application or documents and certified hereby is prohibited and deemed inconsistent with this certification unless the alteration has been submitted in writing pursuant to the process for Executive Order amendments set forth in Section 18 of CP-201 and approved in writing by the CARB Executive Officer or his delegate. Any sale, offer for sale, or installation of any system or component without CARB's approval as set forth above is subject to enforcement action.

IT IS FURTHER ORDERED that the following requirements are made a condition of certification. The owner or operator of the EMCO System shall conduct, and pass, the following tests no later than 60 days after startup and at least once every (3) years after startup testing, using the following test procedures. Shorter time periods may be specified by the District.

- TP-201.3, Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities (July 26, 2012);
- TP-201.1B, Static Torque of Rotatable Phase I Adaptors (October 8, 2003); and
- Depending on the system configuration, either TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003) or TP-201.1D, Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).

Districts may specify the sequencing of the above tests. Notification of testing, and submittal of test results, shall be done in accordance with District requirements and pursuant to the policies established by that District. Districts may require the use of alternate test form(s), provided they include the same minimum parameters identified in the datasheet referenced in the test procedure(s). Alternate test procedures, including the most recent versions of test procedures listed above, may be used if determined by the CARB Executive Officer or his delegate, in writing, to yield equivalent results. Testing the pressure/vacuum (P/V) vent valve will be at the option of the Districts. If P/V vent valve testing is required by the District, the test shall be conducted in accordance with TP-201.1E, Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves (October 8, 2003) and Exhibit 2.

IT IS FURTHER ORDERED that the EMCO System shall be compatible with gasoline in common use in California at the time of certification. Any modifications to comply with future California gasoline requirements shall be approved in writing by the Executive Officer or his delegate.

IT IS FURTHER ORDERED that the certification of the EMCO Wheaton Phase I Vapor Recovery System with the exception of the Husky Model 5885 P/V vent valve is valid through May 31, 2022.

IT IS FURTHER ORDERED that to provide the Executive Officer with the necessary time to fully gather and evaluate information to make a determination regarding the renewal certification of the Husky Model 5885 P/V vent valve consistent with Section 17.3 and 17.4 of CP 201, the certification of the Husky Model 5885 P/V vent valve is extended by one year from the date this Executive Order is signed.

IT IS FURTHER ORDERED that Executive Order VR-105-E issued on June 8, 2017, is hereby superseded by this Executive Order. EMCO Wheaton Phase I Vapor Recovery Systems certified under Executive Orders VR-105-A through E may remain in use at existing installations up to four years after the expiration date of this Executive Order when the certification is not renewed.

IT IS FURTHER ORDERED that this Executive Order shall apply to new installations or major modification of the Phase I system of existing gasoline dispensing facilities.

Executed at Sacramento, California, this 1st day of June 2018.

Catherine Dunwoody, Chief
Monitoring and Laboratory Division

Attachments:

Exhibit 1	EMCO Wheaton Phase I Vapor Recovery System Equipment List
Exhibit 2	Installation, Maintenance and Compliance Specifications
Exhibit 3	Manufacturing Performance Standards and Specifications
Exhibit 4	Manufacturer Warranties
Exhibit 5	Vaulted Aboveground Storage Tank Configuration *(Optional)*

Exhibit 1

EMCO Wheaton Phase I Vapor Recovery System Equipment List

Equipment	Manufacturer/Model Number
Pressure/Vacuum Vent Valve	FFS PV-Zero Husky 5885 OPW Model 723V
Spill Container[1]	EMCO Model A1004EVR-X Series Multi-port and Direct Burial Configurations Single and Double Wall Multi-Port X= 237, 242 or 248 Direct Burial (5 gallon) X= 003, 004, 005, 006, 010, 011, 012, 013, 210A, 210AB, 210S, 210SB 211A, 211AB, 211S, 211SB, 316A, 316S, 317A, 317AS, 317S, 317SS Direct Burial (15 gallon) X= 215A, 215AB, 215S, 215SB, 216A, 216AB, 216S, 216SB
Drain Valve[2]	EMCO Model 494118
Drop Tube[3]	EMCO Model A0020EVR-X EMCO Model A0020EVRC-X X= 004, 005, 007 or 008
Straight Drop Tube with Overfill Prevention Device	EMCO Model A1100EVR-X X= 055, 056, 057 or 058
Riser Seal	EMCO Model 494096
Product Adaptor	EMCO Model A0030-124S
Vapor Adaptor	EMCO Model A0076-124S
Dust Caps	EMCO Model A0097-005 (product)

[1] Drain Valves are an optional component for Product Spill Containers. Customers can install what is traditionally considered a Vapor Spill Container (Drain Valve Port Factory Plugged) in lieu of the Product Spill Container with a drain valve.

[2] For Product Spill Containers that contain a drain valve, only this component and model number specified above shall be installed or used.

[3] The A0020EVR has a sealing surface made by machine rolling the metal of the drop tube. The A0020EVRC has a machined collar that is installed on the drop tube.

	EMCO Model A0099-X (vapor) X = 002 (no chain) or 003 (with chain)
	EMCO Model A0097-004LP (product) EMCO Model A0099-004LP (vapor) CompX CSP1-634LPC (product) CompX CSP3-1711LPC (vapor) CompX CSP2-634LPC (product) CompX CSP4-1711LPC (vapor) OPW 634LPC (product) OPW 1711LPC (vapor)
Tank Gauge Port Components	EMCO Model A0097-010 (Cap) EMCO Model A0030-014 (Adaptor)
Fuel Lock[4]	McGard FL1 – Stick Only Fuel Lock (125007) (Gas) McGard FL2 – Stick/Sampling Fuel Lock (125008) (Gas)
Bladder Plug	McGard PSI104 (Gas)
Emergency Vent	Exhibit 5 (for below-grade vaulted tank configuration)

Table 1
Components Exempt from Identification Requirements

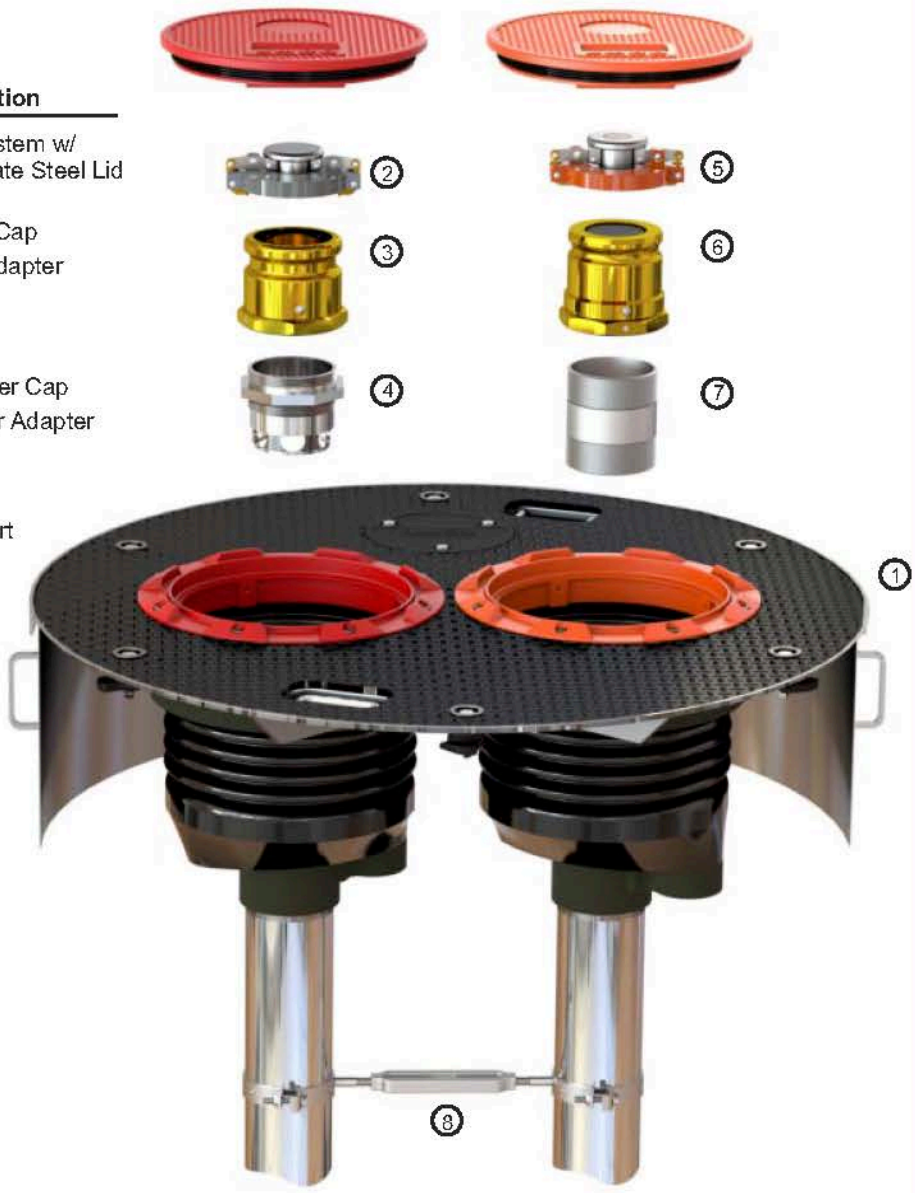
Component Name	Manufacturer	Model Number
Riser Seal	EMCO	494096
Drop Tube	EMCO	A0020EVR, A0020EVRC
Sump / Sump Lids / Spill Container Covers	Varies	Varies
Fuel Lock	McGard	FL1, FL2
Bladder Plug	McGard	PSI104

[4] If these components are installed, only those components and model numbers specified above shall be installed or used.

Multiport Phase I EVR System
Gasoline Fuel Applications
A1004EVR-242-2000R

Phase I CARB EVR Certified
EMCO WHEATON RETAIL

Part Number	Description
A1004EVR-242-1D1AR	① Multiport System w/ Diamond Plate Steel Lid
Tank Fill Riser	
A0097-005	② Fill Adapter Cap
A0030-124S	③ Swivel Fill Adapter
494096	④ Riser Seal
Tank Vapor Riser	
A0099-002	⑤ Vapor Adapter Cap
A0076-124S	⑥ Swivel Vapor Adapter
A7901-005	⑦ Pipe Nipple
Other	
A0029-004	⑧ Riser Support



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Multiport Phase I EVR System

Diesel Fuel Applications

A1004EVR-242-1000Y

Phase I CARB EVR Certified

EMCO WHEATON RETAIL

Part Number	Description
A1004EVR-242-1D0AY	① Multiport System w/ Diamond Plate Steel Lid
Tank Fill Riser	
A0097-005	② Fill Adapter Cap
A0030-124S	③ Swivel Fill Adapter
494096	④ Riser Seal
Other	
A0785-001	2" Downward Mushroom Vent (Not Shown)

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Direct Bury Phase I EVR System
Gasoline Fuel Applications
A1004EVR Series

Phase I CARB EVR Certified
EMCO WHEATON RETAIL

Part Number		Description
Tank Fill Riser		
A1004EVR-316S	①	Direct Bury Spill Containment Double Wall Replaceable HDPE w/ Drain
A0097-005	②	Fill Adapter Cap
A0030-124S	③	Swivel Fill Adapter
494096	④	Riser Seal
A1100EVR	⑤	Overfill Prevention Valve
Tank Vapor Riser		
A1004EVR-317A	⑥	Direct Bury Spill Containment Single Wall Replaceable HDPE w/ No Drain
A0099-002	⑦	Vapor Adapter Cap
A0076-124S	⑧	Swivel Vapor Adapter
A7901-005	⑨	Pipe Nipple

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Direct Bury Phase I EVR System
Diesel Applications
A1004EVR Series

Phase I CARB EVR Certified
EMCO WHEATON RETAIL

Part Number	Description
Tank Fill Riser	
A1004EVR-316S	① Direct Bury Spill Containment Double Wall Replaceable HDPE w/ Drain
A0097-005	② Fill Adapter Cap
A0030-124S	③ Swivel Fill Adapter
494096	④ Riser Seal
A1100EVR	⑤ Overfill Prevention Valve

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California Environmental Protection Agency

Air Resources Board

CARB Approved

Installation, Operation and Maintenance Manual

For the EMCO Wheaton Retail Phase I Vapor Recovery System
As Certified by Executive Order VR-105-F

NOTICE:

The **ARB Approved Installation, Operation and Maintenance Manual for the EMCO Wheaton Retail Phase I EVR System** describes the tools and methods required to install and maintain the EMCO Phase I EVR System. Unless specified otherwise, only technicians that are trained and certified by EMCO (i.e. EMCO Certified Technicians) are able to perform installation, maintenance or repairs of components manufactured by EMCO or the warranty will be void. A list of EMCO certified technicians can be viewed on EMCO Wheaton Retail's website at www.emcoretail.com.

To schedule a training class, EMCO can be contacted at the following:

Jose E. Rodriguez
Director of Technical Services,
CARB Liaison, West Coast Sales & Marketing
EMCO Wheaton Retail Corporation
Phone: 619-846-9882
Email: jerodriguezsd@aol.com

Only technicians that are trained and certified by FFS (i.e. FFS Certified Technicians) are able to perform installation, maintenance or repairs of the PV-Zero, manufactured by FFS, or the warranty will be void. A list of FFS Certified Technicians can be viewed at http://www.franklinfueling.com/service/

To schedule a training class, FFS can be contacted at the following:

John Covington Allan Busch, or Steve Langlie
Enhanced Vapor Recovery Systems
Franklin Fueling Systems
Phone: 800-225-9787
Email: covington@franklinfueling.com
busch@franklinfueling.com
langlie@franklinfueling.com

Only technicians that are trained and certified by OPW (i.e. OPW Certified Technicians) are able to perform installation, maintenance or repairs of components manufactured by OPW or the warranty will be void. A list of OPW Certified Technicians can be viewed at http://www.opw-fc.com.

To schedule a training class, OPW can be contacted at the following:

OPW Fueling Components
Phone: 800-422-2525
Web: www.opw-fc.com

It is the responsibility of each EMCO, FFS, and/or OPW Certified Technician to be familiar with the current requirements of state, federal and local codes for installation and repair of gasoline dispensing equipment. It is also the responsibility of the EMCO, FFS, and/or OPW Certified Technician to be aware of all necessary safety precautions and site safety requirements to assure a safe and trouble free installation.

Any hazardous waste generated from installation, maintenance and/or cleaning activities must be disposed of properly.

Summary of Guidelines for Maintenance Activities Required of the EMCO Wheaton Retail Phase I Vapor Recovery System[1]

Component — **Interval**

Pressure/Vacuum Vent Valve: Annually
FFS Model PV-Zero

1.) Visually inspect the housing, pipe, fittings and rain cap for obvious signs of damage, missing parts or fluid leaks.
2.) Visually inspect the rain cap from ground level for signs of bird's nests or insect activity.
3.) Every year drain and inspect fill fluid per the **Fluid Inspection Procedures**.

Pressure/Vacuum Vent Valve:
Husky Model 5885 Annually

1.) Remove the screws that hold the top cover on.
2.) Remove any debris that might be sitting inside the lower cover.
3.) Check the drain holes in the lower cover for blockage.
4.) The two (2) screens should not be removed.
5.) Reinstall the top cover and retaining screws.
6.) Tighten the screws firmly.

OPW Model 723V Annually

Remove and inspect filter screens – clean or replace as necessary. Test as necessary.
Upper Screen Maintenance:
See instructions on page 138 of IOM.
Lower Screen Maintenance:
See instructions on page 139 of IOM

Spill Containment: Quarterly &
EMCO A1004EVR-X Single or Double Wall After Each Delivery

1.) Quarterly verify that the inside of the A1004EVR Spill Containment bucket is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR Spill Containment bucket using soapy water and a disposable towel.
2.) After each delivery, the station operator must remove any standing gasoline from the inside of the A1004EVR Spill Containment.
    a. For spill containment buckets that do not contain a drain valve, the fuel must be removed manually. Any components that become contaminated with gasoline must be disposed of properly.
    b. For spill containment buckets that contain the #494118 Drain Valve, if the gasoline does not drain, refer to the #494118 drain valve preventive maintenance instructions.

Drain Valve Assembly (if equipped): Quarterly
EMCO 494118

1.) Quarterly test the operation of the drain valve assembly by pulling up on the chain located inside the A1004EVR Spill Containment bucket.
2.) If gasoline does not drain when actuating the drain valve assembly perform steps (a) through (d) below:
    a. Remove the filter from the drain valve. Using a pair of needle nose pliers, remove both cotter pins and disassemble the linkage from the top of the drain valve. Soak the filter in soapy water and use

[1] **These maintenance requirements shall not circumvent use of the manufacturer's maintenance instructions. Maintenance contractors or owner/operators shall refer to the manufacturers complete installation and maintenance instructions found here for the EMCO Wheaton Retail System to ensure that all maintenance and torque requirements are met.**

Component **Interval**

Drain Valve Assembly (if equipped): **Quarterly**
EMCO 494118 (Continued from page iii)

high pressure air to clean and remove all debris. Replace the filter #569131 only if the screen is damaged.

b. Using the Emco Wheaton Retail #493820 Drain Wrench unscrew the drain valve and remove from the bottom of the A1004EVR Spill Containment bucket. Soak the drain valve in soapy water and use high pressure air to clean and remove all debris. Replace the flat gasket #567108 before re-installing.
c. To re-install the drain valve assembly, refer to installation instruction steps 3 through 5. Verify leak tightness integrity of the drain valve assembly by performing CARB test procedure TP-201.1D.
d. If the drain valve assembly fails to pass CARB test procedure TP-201.1D, replace with new and refer to installation instructions steps 1 through 5.

Dust Caps:

EMCO A0097-005 Product
EMCO A0097-004LP Product **Annually**

1.) Annually verify that the gasket seal is installed and properly secured and is free of tears. If cap fails to comply, replace with new cap.

EMCO A0099-X Vapor: **Annually**
X=002, No Chain or 003, With Chain
EMCO A0099-004LP Vapor

1.) Annually verify that the gasket seal is installed and properly secured and is free of tears. If cap fails to comply, replace with new cap.

All "non-EMCO" Dust Caps : **Annually**

1.) Visually inspect the seal in cap and replace if damaged or missing.

Product Adaptor:
EMCO A0030-124S **Annually**

Static Torque Test:

1.) Using the EMCO Wheaton Retail #494240 Swivel Adaptor Torque Wrench, annually verify the static torque of the swivel adaptor by performing CARB test procedure TP-201.1B.
2.) If the swivel adaptor fails to meet the static torque test requirements, replace both O-rings with the EMCO Wheaton O-ring kit #494301.

Leak Tightness Integrity Test:

1.) Annually verify leak tightness integrity of the swivel adaptor by performing CARB test procedure TP-201.1D.
2.) If the swivel adaptor fails to meet the leak tightness integrity test requirements, replace both O-rings with the EMCO Wheaton O-ring kit #494301 and/or gasket #568793.

Vapor Adaptor:
EMCO A0076-124S **Annually**

Static Torque Test:

1.) Using the EMCO Wheaton Retail #494240 Swivel Adaptor Torque Wrench, annually verify the static torque of the swivel adaptor by performing CARB test procedure TP-201.1B.

Component	**Interval**

Vapor Adaptor:
EMCO A0076-124S (continued from page iv) **Annually**

2.) If the swivel adaptor fails to meet the static torque test requirements, replace both O-rings with the EMCO Wheaton O-ring kit #494301.

Leak Tightness Integrity Test:

1.) Annually verify leak tightness integrity of the swivel adaptor by performing CARB test procedure TP-201.1D.
2.) If the swivel adaptor fails to meet the leak tightness integrity test requirements, replace both O-rings with the EMCO Wheaton O-ring kit #494301 and/or gasket #568793.

Extractor Assembly:
EMCO A0079-X **None Required**
X=043, 044, 050, 051, 052, 150 or 152

1.) No preventative maintenance is required for this product.

Extractor Cage:
EMCO A0179-002 **None Required**

1.) No preventative maintenance is required for this product.

Ball Float Valve:
EMCO A0075-X **None Required**
X=001, 002, 004, 006, 010, 013, 015 or 017

1.) No preventative maintenance is required for this product.

Riser Seal:
EMCO 494096 **Annually**

1.) Annually verify leak tightness integrity of the riser seal by performing CARB test procedure TP-201.1D.
2.) If the riser fails to meet the leak tightness integrity test requirements, replace the bottom O-ring with the EMCO Wheaton O-ring kit #494242.

Drop Tube Overfill Prevention Device:
EMCO A1100EVR **Annually**

1.) Annually, conduct a visual inspection of the flapper valve assembly located inside the A1100EVR Overfill Prevention Valve. Begin by removing the spill containment lid and fill adaptor cap, looking down over the fill opening, verify that the flapper valve assembly is open and free of any foreign objects that can block or restrict the flow of gasoline into the underground storage tank during a fuel delivery.
2.) Annually, verify leak tightness integrity of the A1100EVR Overfill Prevention Valve by performing CARB test procedure TP-201.1D.

Straight Drop Tube:
EMCO A0020EVR Flared Collar & A0020EVRC Machined Collar **Annually**

1.) Annually, verify leak tightness integrity of the A0020EVR or A0020EVRC Straight Drop Tube by performing CARB test procedure TP-201.1D.

EMCO A0020EVR Flared Collar & A0020EVRC Machined Collar **Annually**
(continued from page v)

2.) If the A0020EVR or A0020EVRC Straight Drop Tube fails to meet the leak tightness integrity test requirements, replace the drop tube O-ring with the EMCO Wheaton O-ring kit #569461.

Component	**Interval**

Tank Gauge Port Components:

EMCO A0097-010 Cap **Annually**

1.) Annually verify that the gasket seal is installed and properly secured and is free of tears. If cap fails to comply, replace with new cap.

EMCO A0030-014 Adaptor **Annually**

Leak Tightness Integrity Test:

1.) Annually verify leak tightness integrity of the probe adaptor by performing CARB test procedure TP-201.3.
2.) If the probe fails to meet the leak tightness integrity test requirements, replace the gasket #568793.

Summary of Component Torque Values of the EMCO Wheaton Retail Phase I Vapor Recovery System

Component	Tool Required	Torque Value
Pressure/Vacuum Vent Valve:		
Husky Model 5885, 2-inch threaded	Standard Wrench and Socket	20 to 50 ft-lbs
FFS Model PV-Zero, 3-inch threaded	Chain/Strap Wrench	See Page 4 of the PV-Zero IOM Document for Specific Instructions
OPW Model 723V, 2-inch threaded	Standard Wrench	35 to 55 ft-lbs
Spill Containment:		
EMCO A1004EVR Single or Double Wall	EMCO #494241 Spill Containment Wrench	100 to 150 ft-lbs
Drain Valve Assembly:		
EMCO 494118	EMCO #493820 Drain Wrench	13 to 15 ft-lbs
Dust Caps:		
EMCO A0097-005 Product	None Required	None Required
EMCO A0097-004LP Product	None Required	None Required
EMCO A0099-004LP Vapor	None Required	None Required
EMCO A0099-X Vapor (all models)	None Required	None Required
All Non-EMCO Dust Caps	None Required	None Required
Product Adaptor:		
EMCO A0030-124S	EMCO #A0081-001C Adaptor Wrench	60 to 75 ft-lbs
Base Screws (Part of A0030-124S)	Standard Wrench and Socket	20 in-lbs
Vapor Adaptor:		
EMCO A0076-124S	EMCO #A0081-001C Adaptor Wrench	60 to 75 ft-lbs
Base Screws (Part of A0076-124S)	Standard Wrench and Socket	20 in-lbs
Extractor Assembly:		
EMCO A0079-X (all models)	Standard Chain Wrench with a ½ inch Off-Set	100 to 150 ft-lbs
Extractor Cage:		
EMCO A0179-002	EMCO #A0560-003 Extractor Wrench	25 to 35 ft-lbs
Ball Float Valve:		
EMCO A0075-X (all models)	Strap Wrench with a ½ inch Off-Set	15 to 25 ft-lbs
Riser Seal:		
EMCO Wheaton Retail #494096	EMCO #A0081-001C Adaptor Wrench	80 ft-lbs
Center Insert (Part of #494096)	EMCO #494120 Riser Seal Wrench	35 to 45 ft-lbs
Drop Tube Overfill Prevention Device:		
EMCO A1100EVR	None Required	None Required
Straight Drop Tube:		
EMCO A0020EVR Flared Collar	None Required	None Required
EMCO A0020EVRC Machined Collar	None Required	None Required
Tank Gauge Port Components:		
EMCO A0097-010 Cap	None Required	None Required
EMCO A0030-014 Adaptor	EMCO #A0081-001C Adaptor Wrench	60 to 75 ft-lbs
Base Screws (Part of A0030-014)	Standard Wrench and Socket	20 in-lbs

EMCO Wheaton Retail Phase I EVR Equipment Installation Checklist for Installing Components per ARB Executive Order VR-105

Date:_____ Signature:_____

Site Location and Name:	Installing Contractor:
Street Address:	Business Address:
City/State/Zip:	City/State/Zip:
Contact/Phone:	Contact/Phone:
Installing Technician (name):	Technician Certification Number:

Tank Number:_____ Product Grade:_____ Capacity (Gal):_____

Tank Number:_____ Product Grade:_____ Capacity (Gal):_____

Tank Number:_____ Product Grade:_____ Capacity (Gal):_____

Tank Number:_____ Product Grade:_____ Capacity (Gal):_____

Note: Because this checklist serves a dual purpose as and installation and retrofit checklist, there are some items that will be non-applicable (e.g. cut riser pipe). The technician should note "**N/A**" for Non-Applicable in the "Yes/No" box in those instances.

Yes/No	Initials	
		1. Is all the installed equipment for the Phase I EVR listed in ARB Executive Order VR-105? **Note: All Phase I EVR installed equipment must be listed in Executive Order (E.O.) VR-105.**
Yes/No	Initials	
		2. **A1004EVR Spill Containment Single or Double Wall Configurations**
Yes/No	Initials	
		2a. Before installing the fill and vapor spill containment buckets verify that the 4 inch diameter riser Pipes have been properly sized and threads cut to either NPT or BSP standards.
Yes/No	Initials	
		2b. Before installing the fill and vapor spill containment buckets verify that the top edges of the 4 inch diameter riser pipes have been filed flat and square with threads free of all debris to insure a proper sealing surface.
Yes/No	Initials	
		2c. Using a non-hardening, gasoline resistant pipe thread seal compound, manually install the fill and vapor spill containment buckets on to the 4 inch diameter riser pipes and torque between 100 – 150 ft-lbs.
Note: For installations of the EMCO A0020EVR or A0020EVRC Straight Drop Tube, proceed to Step 4.		
Yes/No	Initials	
		3. **A1100EVR Overfill Prevention Valve (OPV)** **IMPORTANT: Do not apply a 45° miter cut to the very bottom of the lower drop tube.**
Yes/No	Initials	
		3a. Has the A1100EVR OPV been properly sized for the required tank burial depth and tank riser pipe length?

EMCO Wheaton Retail Phase I EVR Equipment Installation Checklist for Installing Components per ARB Executive Order VR-105 (Continued)

Note: If the underground storage tank is also equipped with a ball float vent valve, the ball float vent valve cannot extend below the shut-off point of the EMCO A1100EVR overfill prevention valve.		
Yes/No	Initials	3b. Has the A1100EVR collar and lower drop tube been properly assembled?
Yes/No	Initials	3c. Once completely assembled, has the A1100EVR OPV sealant cured for a minimum of 24 hours before installing into the underground storage tank (UST)?
Yes/No	Initials	A1100 EVR OPV Sealant Applied — Date: _____ Time: _____
Yes/No	Initials	A1100 EVR OPV Installed into UST — Date: _____ Time: _____
Yes/No	Initials	3d. Once completely assembled, has the A1100EVR OPV passed the leak tightness integrity test (≤ 0.17 cfh @ 2.00" wc) before installing into the UST?
Yes/No	Initials	3e. Before installing the A1100EVR OPV into the tank fill riser pipe, verify that the sealing O-ring is Installed and properly secured. Proceed to step 5.
Note: When installing the EMCO A0020EVR or A0020EVRC Straight Drop Tube, a Ball Float Valve must be installed to serve as an overfill prevention device.		
Yes/No	Initials	**4. A0020EVR Flared Collar or A0020EVRC Machined Collar Straight Drop Tube IMPORTANT: Do not apply a 45° miter cut to the very bottom of the lower drop tube.**
Yes/No	Initials	4a. Has the A0020EVR or A0020EVRC been properly sized for the required tank burial depth and tank riser pipe length?
Yes/No	Initials	4b. Before installing the A0020EVR or A0020EVRC into the tank fill riser pipe, verify that the sealing O-ring is installed and properly secured.
Yes/No	Initials	**5. 494096 Riser Seal**
Yes/No	Initials	5a. Before installing the 494096 into the fill side spill containment bucket, verify that the sealing O-ring is installed and properly secured. Torque to 80 ft-lbs.
Yes/No	Initials	5b. Has the center insert of the 494096 been manually installed and torqued between 35 – 45 ft-lbs.?
Yes/No	Initials	**6. A0076-124S Vapor and A0030-124S Product Rotatable Adaptors**
Yes/No	Initials	6a. Before installing the A0076-124S, verify that the top edge of the top containment nipple has been filed flat and square with threads free of all debris to insure a proper sealing surface.

EMCO Wheaton Retail Phase I EVR Equipment Installation Checklist for Installing Components per ARB Executive Order VR-105 (Continued)

Yes/No	Initials	
		6b. Before installing the A0076-124S and A0030-124S onto the vapor and fill spill buckets, verify that the flat gaskets for each are installed and properly secured.
Yes/No	Initials	6c. **IMPORTANT: Do not use pipe thread sealant compound when installing the rotatable adaptors.**
Yes/No	Initials	6d. Have the A0076-124S and A0030-124S set screws been installed with lock-tite model #222MS threadlocker and torqued to 20 in-lbs.?
Yes/No	Initials	**7. A0097-004LP or A0097-005 Product and A0099-004LP or A0099-002,003 Vapor Dust Caps (if using caps from a different manufacturer, write in NO and skip to section 8).**
Yes/No	Initials	7a. Before installing the A0097-004LP or A0097-005 and A0099-004LP or A0099-002,003 caps onto the appropriate rotatable adaptors, verify that the gasket seals are free of tears and installed and properly secured. If a cap fails to comply, replace with new cap. Proceed to step 9.
Yes/No	Initials	**8. All "non-EMCO" Product and Vapor Dust Caps (if EMCO caps are used, write in NO and skip to section 9).**
Yes/No	Initials	8a. Provide the manufacturer name and model number for the product and vapor dust caps used. Refer to the appropriate section of the Installation, Operation and Maintenance Manual (IOM) for proper installation instructions.
Yes/No	Initials	Product Cap Manufacturer:_____ Model #:_____
Yes/No	Initials	Vapor Cap Manufacturer:_____ Model #:_____
Yes/No	Initials	**9. A0030-014 ATG Probe Adaptor**
Yes/No	Initials	9a. Before installing the A0030-014, verify that the top edge of the tank riser pipe has been filed flat and square with threads free of all debris to insure a proper sealing surface.
Yes/No	Initials	9b. Before installing the A0030-014 onto the riser pipe, verify that the flat gasket is installed and properly secured. Torque between 60 – 75 ft-lbs.
Yes/No	Initials	9c. **IMPORTANT: Do not use pipe thread sealant compound when installing the ATG probe adaptor.**
Yes/No	Initials	9d. Has the A0030-014 set screws been installed with lock-tite model #222MS threadlocker and torqued to 20 in-lbs.?
Yes/No	Initials	**10. A0097-010 ATG Probe Adaptor Cap**

EMCO Wheaton Retail Phase I EVR Equipment Installation Checklist for Installing Components per ARB Executive Order VR-105 (Continued)

Yes/No	Initials	
		10a. Before installing the A0097-010 onto the appropriate ATG probe adaptor, verify that the gasket seal is installed and properly secured and is free of tears.
Yes/No	Initials	
		10b. Has the ATG probe signal cable been properly installed and secured by manually tightening the leak tight connector nut?
Yes/No	Initials	
		11. A0079 Extractor Assembly (optional)
Yes/No	Initials	
		11a. Has the A0079 been manually installed onto the tank bung collar using a non-hardening, gasoline resistant pipe seal compound and torqued between 100 – 150 ft-lbs.?
Yes/No	Initials	
		12. Pressure/Vacuum Vent (P/V) Valve
Yes/No	Initials	
		12a. Provide the manufacturer name, model number and quantity of the P/V valve(s) installed. Refer to the appropriate section of the IOM for proper installation instructions.
Yes/No	Initials	
		P/V Vent Manufacturer:_____ Model:_____ Quantity: _____

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EMCO Wheaton Retail Installation, Operation and Maintenance Manual

Table of Contents (continued)

[2] Extractor Assembly instructions provided for those installations that use Ball Float Vent Valves as means for Overfill protection. Extractor (Model A0179-X) and Ball Float Vent Valves (Model A0075-X) are also available in a kit under the EMCO part number Model A0078-X series. Installation torque values also listed for both components for clarity during installations.

Table of Contents (continued)

Figure A-1
Typical Product Side Installation of a Multi-port Configuration of the EMCO Wheaton Retail System

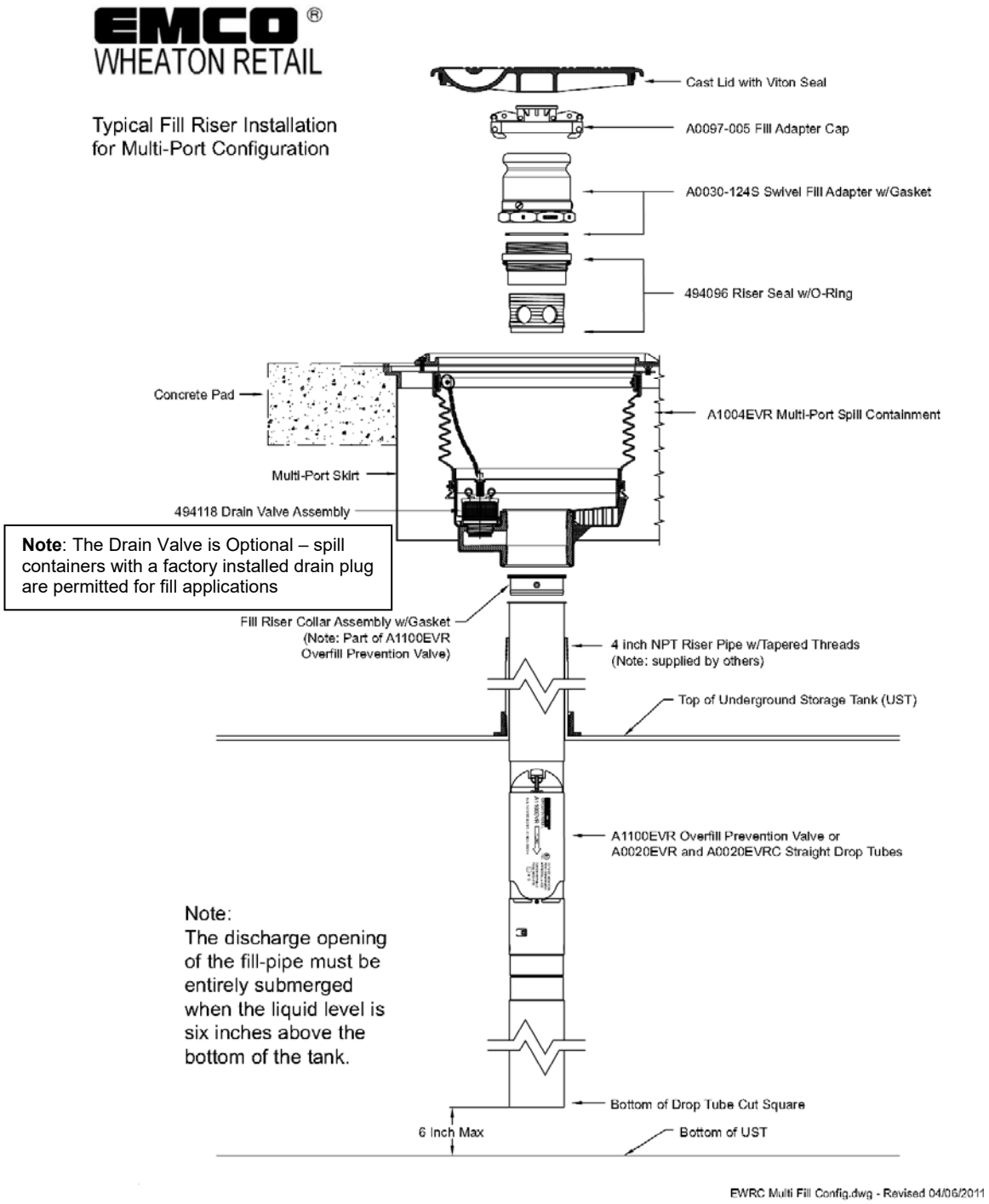


Figure A-2
Typical Vapor Side Installation of a Multi-port Configuration of the EMCO Wheaton Retail System

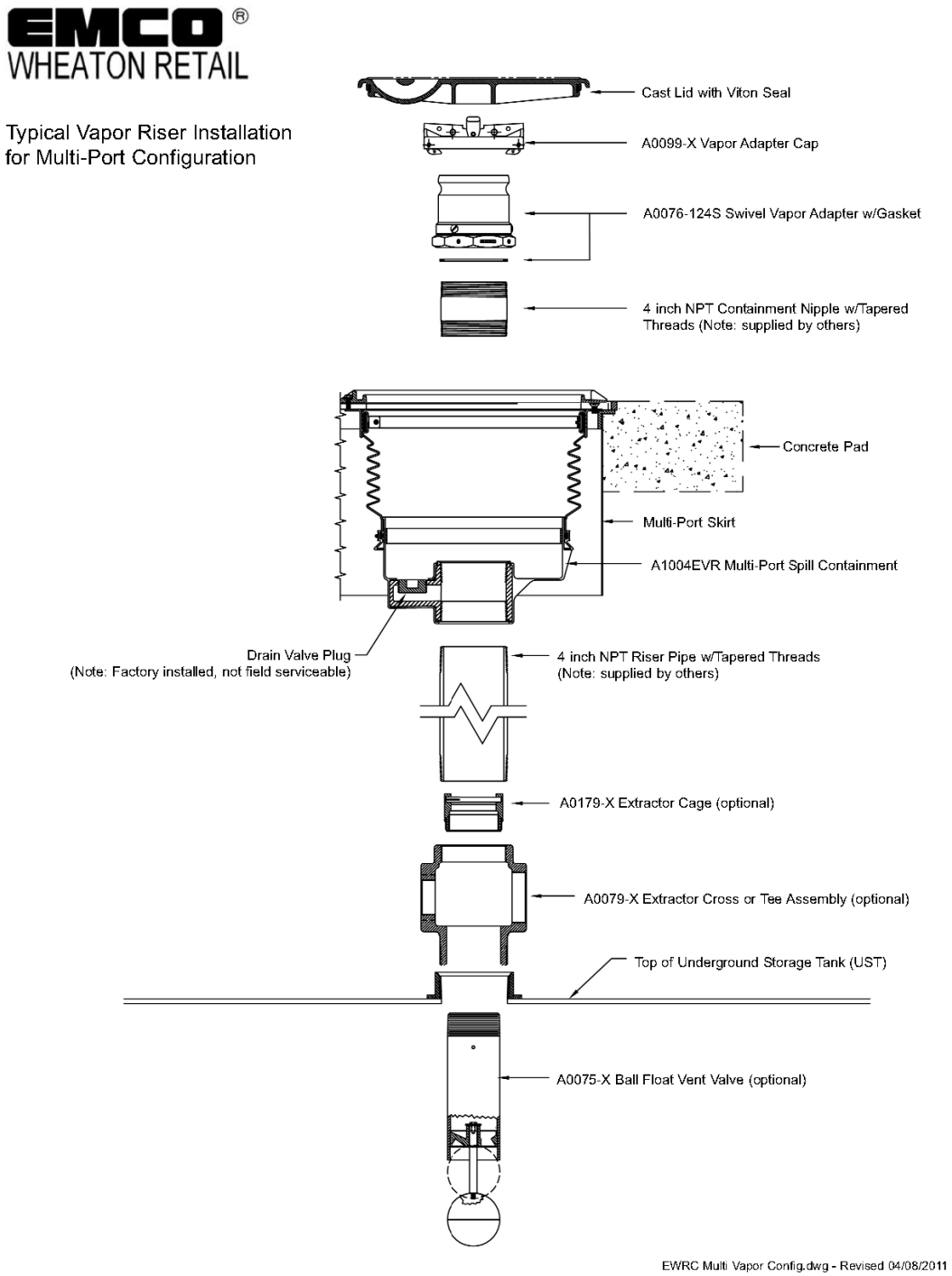


Figure A-3
Typical Product Side Installation of a Direct Burial Configuration of the EMCO Wheaton Retail System

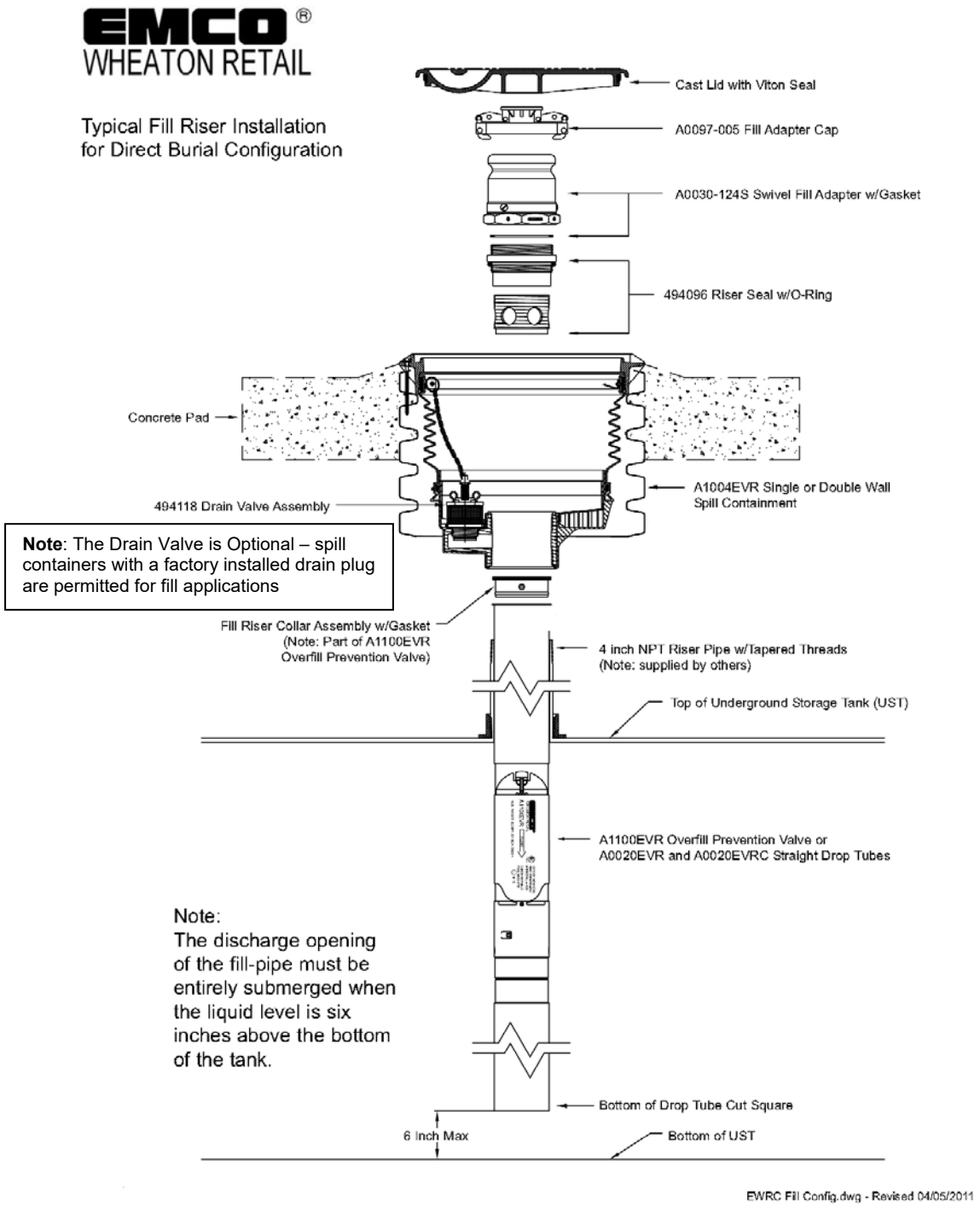


Figure A-4
Typical Vapor Side Installation of a Direct Burial Configuration of the EMCO Wheaton Retail System

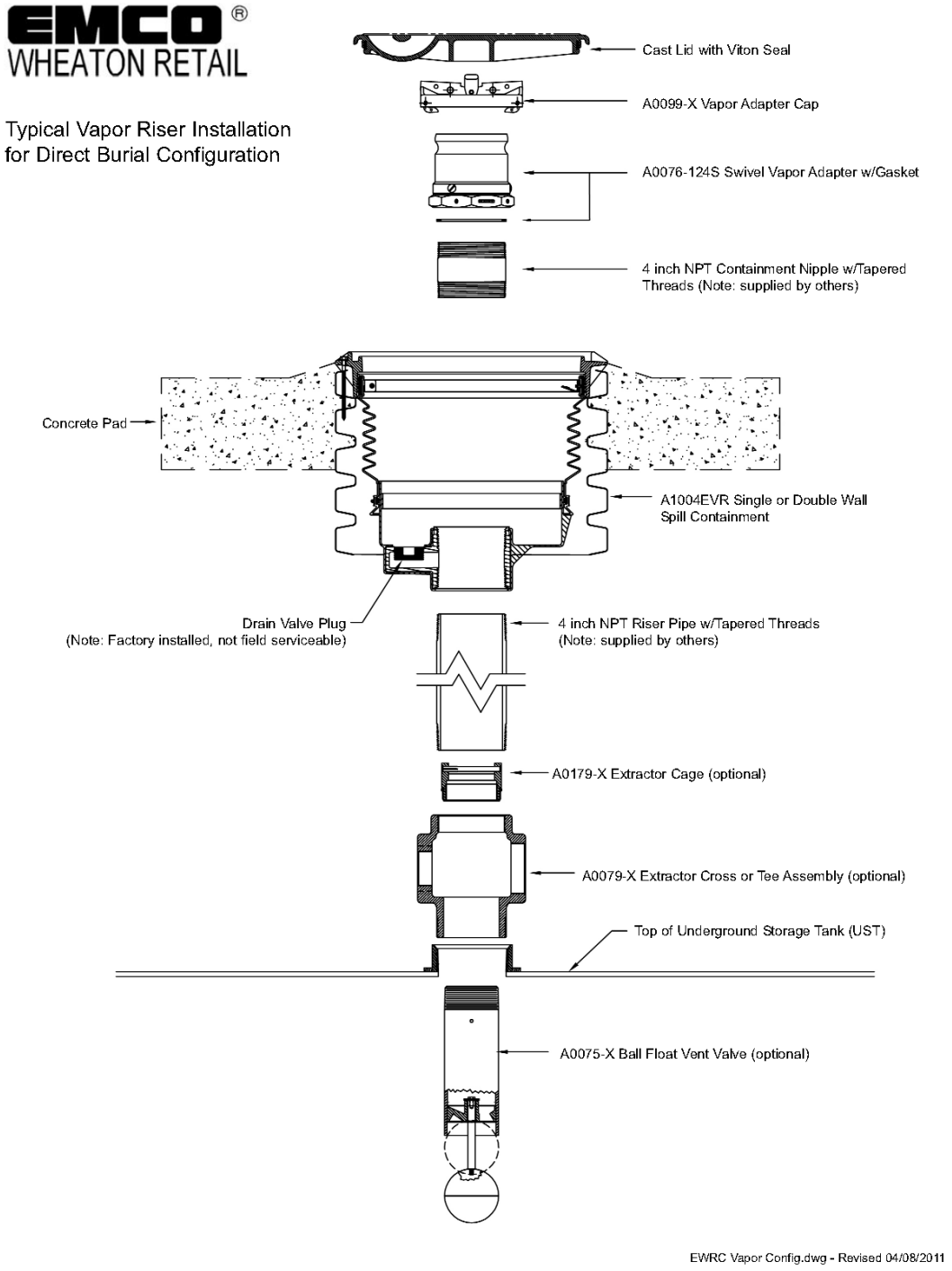
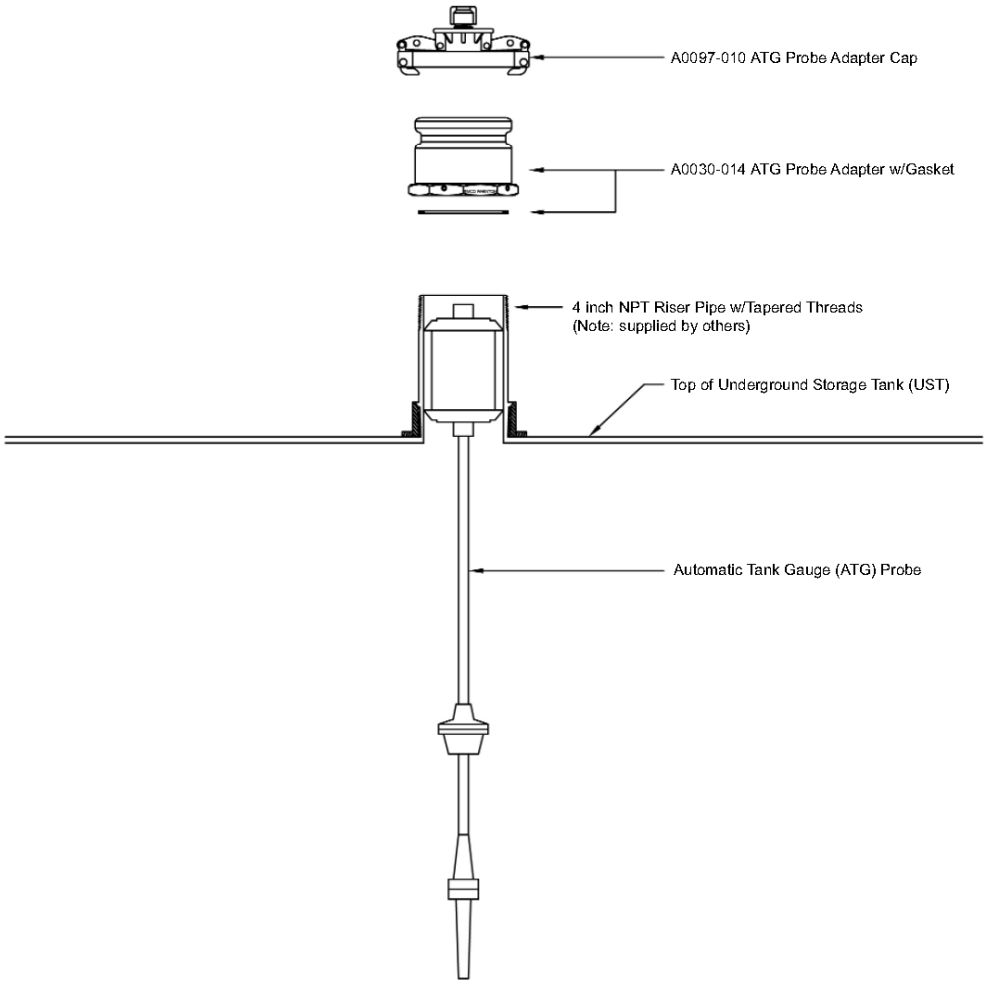


Figure A-5
Typical Automatic Tank Gauge Probe Riser Installation
of the EMCO Wheaton Retail System

EMCO® WHEATON RETAIL

Typical Automatic Tank Gauge
(ATG) Probe Riser Configuration



EWRC ATG Probe Config.dwg - Revised 04/07/2011

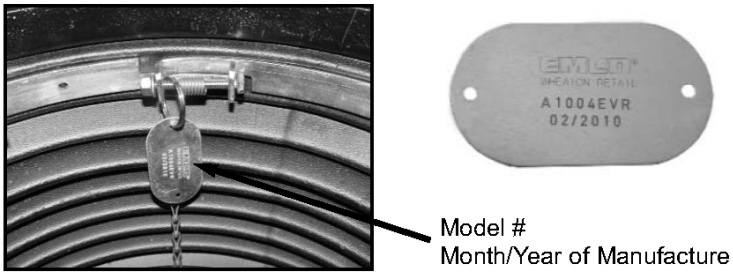
Figure B-1
Installation Instructions for Multi-port Containment Assembly

EMCO® WHEATON RETAIL

A1004EVR
SPILL CONTAINMENT
MULTI-PORT APPLICATION

INSTALLATION INSTRUCTIONS

Permanent Identification:



Model Numbers	Description
A1004EVR-237	Multi-port 37”
A1004EVR-242	Multi-port 42”
A1004EVR-248	Multi-port 48”

Required Service Tools:

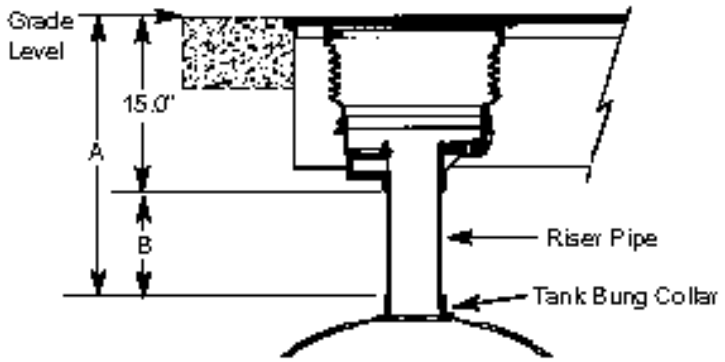
- Tape Measure
- Ratchet
- 5/16" Socket
- 5/16" Allen Hex Driver
- Torque Wrench w/ 100 to 150 ft-lbs Setting
- Pipe Thread Sealant Compound
- Spill Containment Wrench p/n 494241
- Torque Wrench w/ 9 to 11 ft-lbs Setting

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure B-1 (continued)

Sizing the Riser Pipe



1. Find measurement A, the distance between grade level to the top of the tank bung collar.

IMPORTANT: The A1004EVR spill containment fill or vapor are 15.0 inches in height when the factory installed spacer bars are mounted in place.

2. Find measurement B, by subtracting the height of the A1004EVR spill containment fill or vapor from measurement A, then add 2.0 inches for the riser pipe threads.

3. After properly sizing the 4-inch diameter riser pipe, cut threads to either NPT or BSPT standards. Use a non-hardening, gasoline resistant pipe thread sealant compound, and fasten the 4-inch diameter riser pipe to the tank bung collar.

IMPORTANT: Do not use hacksaw to cut riser pipe.

Installation Example for A1004EVR Spill Containment

1. The tank burial is 36 inches from grade level to the top of the tank bung collar. Measurement A equals 36 inches.

2. The height of the **A1004EVR** spill containment fill or vapor is 15.0 inches. Subtract the height of 15.0 inches from measurement A, 36 inches, then add 2 inches for the riser pipe threads.

3. The required lengh for the 4-inch diameter riser pipe is measurement B, 23.0 inches.

Figure B-1 (continued)

A1004EVR Spill Containment Backfill and Concrete Finish

1. Complete the backfill over the tank and around the manhole skirting of the A1004EVR spill containment. Be sure the height of the backfill meets the depth requirements for the concrete pad.

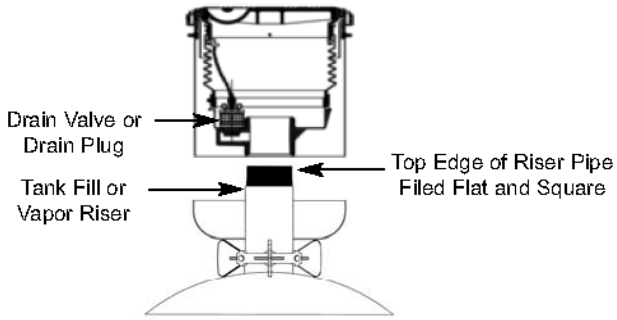
2. Concrete must completely fill around the A1004EVR spill containment manhole rim and skirting to insure proper anchoring.

3. Once the concrete sets remove all excess concrete from the top of the manhole rim and lid.

4. Clean and remove all debris from the inside of the A1004EVR spill containment.

5. Paint the A1004EVR spill containment rim and lid to the desired fuel grade color code.

Spill Containment to Riser Pipe



1. Before installing the A1004EVR spill containment fill or vapor, the top edge of the riser pipe must be filed flat and square to insure a proper sealing sur face between the riser pipe and base of the A1004EVR spill containment.

   IMPORTANT: The A1004EVR spill containment comes with a factory installed non-removal drain plug, and is CARB EVR approved for use on the tank fill or vapor risers.

2. Apply a non-hardening gasoline resistant pipe thread sealant compound to the threads of the riser pipe. Manually tighten the A1004EVR spill containment fill or vapor onto the riser pipe to avoid cross threading. Use the EMCO Spill Containment Wrench p/n A0081-001H to tighten and torque the A1004EVR spill containment fill or vapor between 100 and 150 ft-lbs.

Figure B-1 (continued)

3. Fasten the manhole lid to the manhole rim. Manually install the factory supplied 5/16 Allen hex bolts to avoid cross threading. Tighten and torque between 9 and 11 ft-lbs.

4. Fasten the A1004EVR spill containment fill and vapor to the bottom of the manhole. Manually install the factory supplied 5/16 Allen hex bolts to avoid cross threading. Tighten and torque between 9 ft and 11 ft-lbs.

5. Fasten the A1004EVR spill containment lid rims fill and vapor to the top of the manhole lid. Manually install the factory supplied 5/16 hex bolts to avoid cross threading. Tighten and torque between 9 ft and 11 ft-lbs.

Figure B-1 (continued)

Spill Containment with Overfill Prevention Valve or Straight Drop Tube, Riser Seal, Swivel Fill Adapter and Fill Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton overfill prevention valve, please refer to the A1100EVR installation instructions.

2. When installing the A1004EVR spill containment with an Emco Wheaton straight drop tube, please refer to the A0020EVR and A0020EVRC installation instructions.

IMPORTANT: The fill riser installation will only allow for one type of EVR drop tube configuration.

3. When installing the A1004EVR spill containment with an Emco Wheaton riser seal, please refer to the 494096 installation instructions.

4. When installing the A1004EVR spill containment with an Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.

5. When installing the A1004EVR spill containment with an Emco Wheaton fill adapter cap, please refer to the A0097-005 installation instrucions.

Spill Containment with Swivel Vapor Adapter and Vapor Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton swivel vapor adapter, please refer to the A0076-124S installation instructions.

2. When installing the A1004EVR spill containment with an Emco Wheaton vapor adapter cap, please refer to the A0099-002, -003 installation instructions.

Figure B-1 (continued)

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment fill or vapor is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment bucket using soapy water and a disposable towel.

2. After each delivery, the station operator must remove any standing gasoline from the inside of the A1004EVR spill containment. If gasoline does not drain, refer to the #494118 drain valve preventive maintenance instructions.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits:

Description	Part Number
• 493806	Lid and Seal
• 494118	Drain Valve Kit

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

Figure B-1 (continued)

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

IMPORTANT: Tank Operator Responsibilities

- Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.
- All operators must be familiar with proper filling procedures.
- The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.
- The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.
- When tank vehicles are being unloaded, the vehicle operators must remain:
  (a) in constant view of the transfer nozzle and fill pipe; and
  (b) in constant attendance at the discharge control valve.

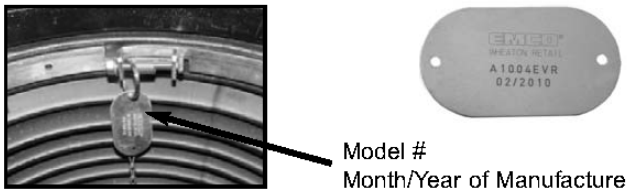
Figure B-2
Installation Instructions for 5 Gallon Direct Burial Containment Assemblies -003, -005, -010, -012, -210 and -316 Configurations

EMCO® WHEATON RETAIL

A1004EVR
Spill Containment
Direct Burial Application

INSTALLATION INSTRUCTIONS

Permanent Identification:



Model Numbers	Description
A1004EVR-003	Fatboy, Drain Valve, NPT
A1004EVR-005	Fatboy, Drain Valve, BSPT
A1004EVR-010	Slimline, Drain Valve, NPT
A1004EVR-012	Slimline, Drain Valve, BSPT
A1004EVR-210A	Single Wall, Drain Valve, NPT
A1004EVR-210AB	Single Wall, Drain Valve, BSPT
A1004EVR-210S	Double Wall, Drain Valve, NPT
A1004EVR-210SB	Double Wall, Drain Valve, BSPT
A1004EVR-316A	Single Wall, Drain Valve, NPT, 16" Center
A1004EVR-316S	Double Wall, Drain Valve, NPT, 16" Center

Required Service Tools:

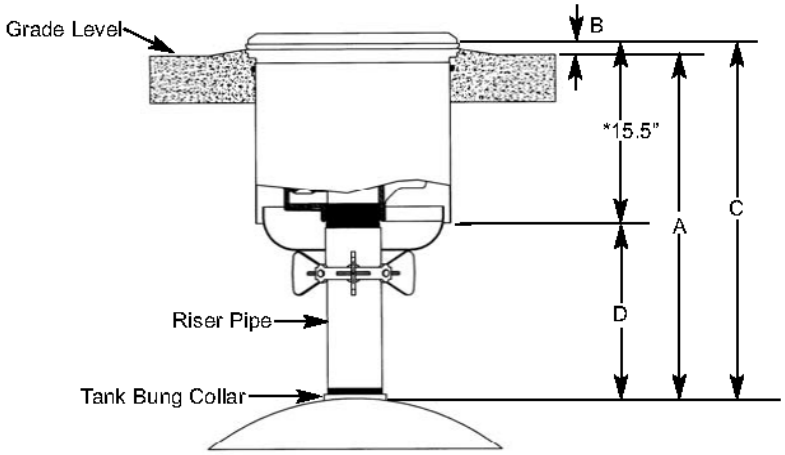
- Tape Measure
- Torque Wrench w/ 15 ft-lbs. Setting
- Pipe Thread Sealant Compound
- EMCO Spill Containment Wrench p/n A0081-001H Wrench
- Torque Wrench w/ 100 to 150 ft-lbs. Setting
- Ratchet
- ½" Socket
- ½" Crows Foot
- ¾" Socket
- ½" Hand Wrench

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure B-2 (continued)

Sizing the Riser Pipe



1. Find measurement A, the distance between grade level to the top of the tank bung collar.
2. Find measurement C, by adding measurement A to measurement B, the crown height.

EXAMPLE: Measurement C equals Measurement A, plus Measurement B, the crown height.

IMPORTANT: Crown height must be a minimum of 1 inch for proper water run-off.

3. *The height of the A1004EVR spill containment varies between single wall and double wall configurations, refer below for proper height specifications.

Model Number	Spill Containment	Height (inches)
A1004EVR-003	Fatboy	15.6
A1004EVR-005	Fatboy	15.6
A1004EVR-010	Slimline	15.6
A1004EVR-012	Slimline	15.6
A1004EVR-210A	Single Wall	15.5
A1004EVR-210S	Double Wall	20.5
A1004EVR-316A	Single Wall	16.7
A1004EVR-316S	Double Wall	13.7

IMPORTANT: Do not remove the factory installed jack assembly or stabilizer bars until the concrete has set. Failure to do so will change the factory set height of the A1004EVR spill containment causing an improper installation.

Figure B-2 (continued)

4. Find measurement D, by subtracting the height of the A1004EVR spill containment from measurement C, then add 2.0 inches for the riser pipe threads.
5. After properly sizing the 4-inch diameter riser pipe, cut threads to ether NPT or BSPT standards. Use a non-hardening gasoline resistant pipe thread sealant compound before installing the 4-inch diameter riser pipe to the tank bung collar.

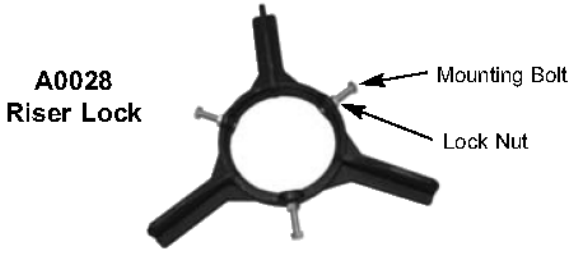
IMPORTANT: Do not use hacksaw to cut riser pipe.

Installation Example for the A1004EVR-210A Spill Containment

1. The tank burial is 36 inches from grade level to the top of the tank bung collar. Measurement A equals 36 inches.
2. The site installation requires a 1-inch crown height for proper water run-off. Measurement B is 1 inch. Add measurement A 36 inches, to measurement B, 1 inch, equals measurement C, 37 inches.
3. The height of the **A1004EVR-210A single wall spill containment** is 15.5 inches. Subtract the height of 15.5 inches from measurement C, 37 inches, then add 2 inches for the riser pipe threads.
4. The required length for the 4-inch diameter riser pipe is measurement D, 23.5 inches.

Figure B-2 (continued)

Riser Lock to Riser Pipe



IMPORTANT: All A1004EVR-210 and -316 single wall configurations come standard from the factory with one A0028 riser lock. The purpose of the A0028 riser lock is to prevent the riser pipe from turning during removal and installation of the primary liner.

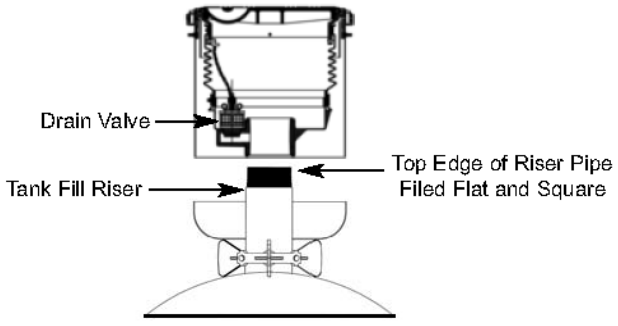
IMPORTANT: All double wall configurations come standard from the factory with one A0028 riser lock. The purpose of the A0028 riser lock is to prevent the bottom flange and riser pipe from turning during the removal and installation of the primary and secondary liners. A second A0028 riser lock is highly recommended but optional.

1. Before attempting to install the A0028 riser lock onto the riser pipe, loosen all mounting bolts and lock nuts using a ½" hand wrench.
2. Install the A0028 riser lock onto the top of the riser pipe. Slide the A0028 riser lock downward until resting on the backfill or top of tank.

IMPORTANT: When installing a second A0028 riser lock, repeat Steps 1 and 2.

3. Install the gravel pan onto the top of the riser pipe. Slide the gravel pan downward until resting on the A0028 riser lock.

Spill Containment to Riser Pipe

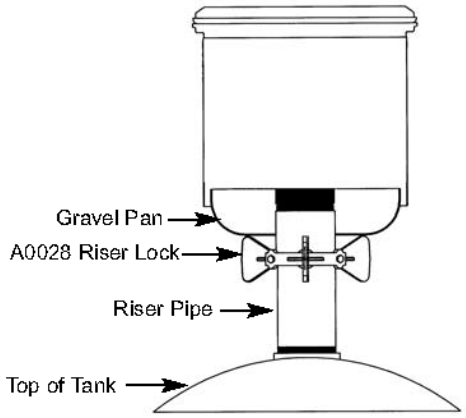


1. Before installing the A1004EVR spill containment, the top edge of the riser pipe must be filed flat and square to insure a proper sealing surface between the riser pipe and base of the 1004EVR spill containment.

Figure B-2 (continued)

2. Apply a non-hardening gasoline resistant pipe thread sealant compound to the threads of the riser pipe. Manually tighten the A1004EVR spill containment onto the riser pipe to avoid cross threading. Use the EMCO Spill Containment Wrench p/n A0081-001H to tighten and torque the A1004EVR spill containment between 100 and 150 ft-lbs.

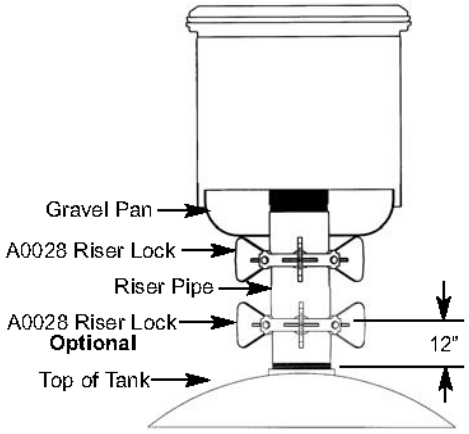
Riser Lock Installation for Single Wall Configurations



3. Slide the gravel pan and A0028 riser lock upward against the bottom of the A1004EVR spill containment. Using a ½" socket and torque wrench tighten and torque all mounting bolts to 15 ft-lbs. Using a ½" crows foot and torque wrench tighten and torque all lock nuts to 10 ft-lbs.

IMPORTANT: When installing a second A0028 riser lock continue to Step 4.

Riser Lock Installation for Double Wall Configurations



4. Slide the second A0028 riser lock upward keeping a distance of 12 inches from top of tank. Using a ½" socket and torque wrench tighten and torque all mounting bolts to 15 ft-lbs. Using a ½" crows foot and torque wrench tighten and torque all lock nuts to 10 ft-lbs.

Figure B-2 (continued)

A1004EVR Spill Containment Backfill and Concrete Finish

1. Complete the backfill over the tank and around the gravel guard of the A1004EVR spill containment. Be sure the height of the backfill meets the depth requirements for the concrete pad.
2. Concrete must completely fill around and under the A1004EVR spill containment rim to insure proper anchoring.
3. Before the concrete sets remove all excess concrete from the top of A1004EVR spill containment rim and water run-off channels.

IMPORTANT: Crown height must be a minimum of 1 inch for proper water run-off.

Removing the Jack Assembly or Spacer Bars

1. Once the concrete has set, remove the factory installed jack assembly or spacer bars from the inside of the A1004EVR spill containment:

- Models A1004EVR-003, 005, 010 and 012 - Remove the 3 spacer bars and dispose.
- Models A1004EVR-210 - Use a ¾" socket and ratchet wrench to turn the adjustment bolt counter clockwise to loosen. Swing the top cross bar away from the inside edge of the rim and dispose.
- Models A1004EVR-316 - Remove the cotter pin from the top of each jack, and slide the bracket off of the clevis. The unthreaded bolt and bottom brackets will remain in place. Dispose of the cotter pins, jacks, brackets, clevis and bolts.

2. Clean and remove all debris from the inside of the A1004EVR spill containment, drain valve and filter.
3. Paint the A1004EVR spill containment rim and lid to the desired fuel grade color code.

Spill Containment with Overfill Prevention Valve or Straight Drop Tube, Riser Seal, Swivel Fill Adapter and Fill Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton overfill prevention valve, please refer to the A1100EVR installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton straight drop tube, please refer to the A0020EVR and A0020EVRC installation instructions.

IMPORTANT: The tank fill riser installation will only allow for one type of EVR drop tube configuration.

3. When installing the A1004EVR spill containment with an Emco Wheaton riser seal, please refer to the 494096 installation instructions.
4. When installing the A1004EVR spill containment with an Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.
5. When installing the A1004EVR spill containment with an Emco Wheaton fill adapter cap, please refer to the A0097 installation instructions.

Figure B-2 (continued)

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment using soapy water and disposable towels.
2. After each delivery, the station operator must remove any standing fuel from the inside of the A1004EVR spill containment. If gasoline does not drain, refer to the #494118 drain valve preventive maintenance instructions.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits

Part Number	Description
• 493806	Lid and Seal -010 Series
• 494118	Drain Valve Kit
• 494360EVR	-210A Primary Repair Kit
• 494350EVR	-210S Primary Repair Kit
• 494797EVR	-316A Primary Repair Kit
• 494794EVR	-316S Primary Repair Kit
• 566332	Lid and Seal -003 Series
• A1004-210LID	Lid and Seal -210 Series
• A1004-316CLID	Lid and Seal -316 Series

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

IMPORTANT: Tank Operator Responsibilities

- Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.
- All operators must be familiar with proper filling procedures.
- The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.
- The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.
- When tank vehicles are being unloaded, the vehicle operators must remain:
  (a) in constant view of the transfer nozzle and fill pipe; and
  (b) in constant attendance at the discharge control valve.

Figure B-2 (continued)

Figure B-3
Installation Instructions for 5 Gallon Direct Burial Containment Assemblies -004, -006, -011, -013, -211 and -317 Configurations

EMCO® WHEATON RETAIL

A1004EVR
Spill Containment
Direct Burial Application

INSTALLATION INSTRUCTIONS

Permanent Identification:

Model Numbers	Description
A1004EVR-004	Fatboy, No Drain, NPT
A1004EVR-006	Fatboy, No Drain, BSPT
A1004EVR-011	Slimline, No Drain, NPT
A1004EVR-013	Slimline, No Drain, BSPT
A1004EVR-211A	Single Wall, No Drain, NPT
A1004EVR-211AB	Single Wall, No Drain, BSPT
A1004EVR-211S	Double Wall, No Drain, NPT
A1004EVR-211SB	Double Wall, No Drain, BSPT
A1004EVR-317A	Single Wall, No Drain, NPT
A1004EVR-317AS	Single Wall, No Drain, NPT
A1004EVR-317S	Double Wall, No Drain, NPT
A1004EVR-317SS	Double Wall, No Drain, NPT

Required Service Tools:

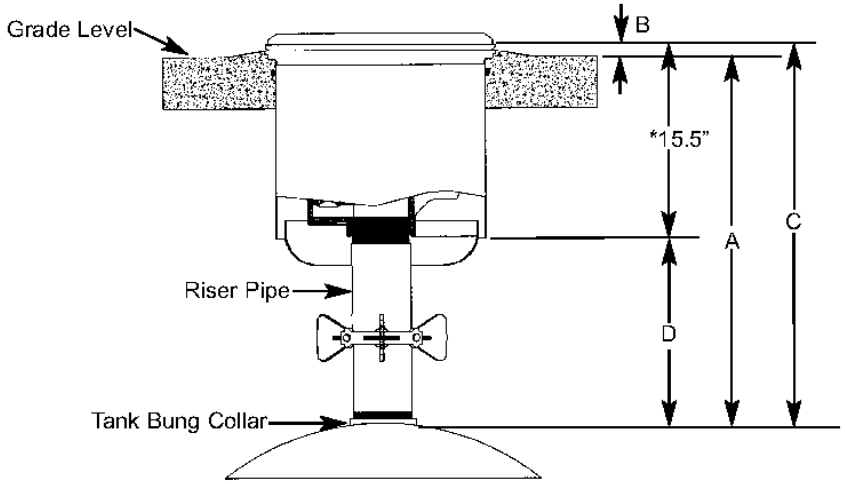
- Tape Measure
- Torque Wrench w/ 15 ft-lbs. Setting
- Pipe Thread Sealant Compound
- EMCO Spill Containment Wrench p/n A0081-001H Wrench
- Torque Wrench w/ 100 to 150 ft-lbs. Setting
- Ratchet
- ½" Socket
- ½" Crows Foot
- ¾" Socket
- ½" Hand Wrench

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure B-3 (continued)

Sizing the Riser Pipe



1. Find measurement A, the distance between grade level to the top of the tank bung collar.

2. Find measurement C, by adding measurement A to measurement B, the crown height.

EXAMPLE: Measurement C equals Measurement A, plus Measurement B, the crown height.

IMPORTANT: Crown height must be a minimum of 1 inch for proper water run-off.

3. *The height of the A1004EVR spill containment varies between single wall and double wall configurations, refer below for proper height specifications.

Model Number	Spill Containment	Install Height (inches)
A1004EVR-004	Fatboy	15.6
A1004EVR-006	Fatboy	15.6
A1004EVR-011	Slimline	15.6
A1004EVR-013	Slimline	15.6
A1004EVR-211A	Single Wall	16.0
A1004EVR-211S	Double Wall	17.0
A1004EVR-317A	Single Wall	13.6
A1004EVR-317AS	Single Wall	12.9
A1004EVR-317S	Double Wall	13.6
A1004EVR-317SS	Double Wall	15.3

IMPORTANT: Do not remove the factory installed jack assembly or stabilizer bars until the concrete has set. Failure to do so will change the factory set height of the A1004EVR spill containment causing an improper installation.

Figure B-3 (continued)

4. Find measurement D, by subtracting the install height of the A1004EVR spill containment from measurement C, then add 1.0 inch for the riser pipe threads.

5. After properly sizing the 4-inch diameter riser pipe, cut threads to ether NPT or BSPT standards. Use a non-hardening gasoline resistant pipe thread sealant compound before installing the 4-inch diameter riser pipe to the tank bung collar.

IMPORTANT: Do not use hacksaw to cut riser pipe.

Installation Example for the A1004EVR-211A Spill Containment

1. The tank burial is 36 inches from grade level to the top of the tank bung collar. Measurement A equals 36 inches.

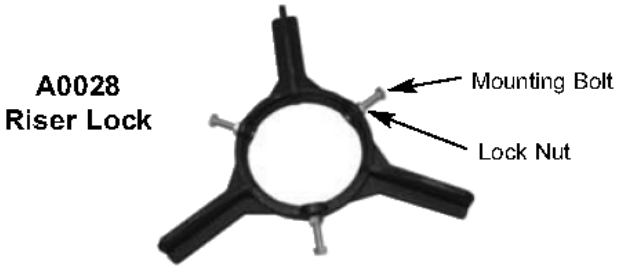
2. The site installation requires a 1-inch crown height for proper water run-off. Measurement B is 1 inch. Add measurement A 36 inches, to measurement B, 1 inch, equals measurement C, 37 inches.

3. The height of the **A1004EVR-211A single wall spill containmen**t is 16.0 inches. Subtract the height of 16.0 inches from measurement C, 37 inches, then add 1 inch for the riser pipe threads.

4. The required length for the 4-inch diameter riser pipe is measurement D, 23.0 inches.

Figure B-3 (continued)

Riser Lock to Riser Pipe



IMPORTANT: All A1004EVR-211 and -317 single wall configurations come standard from the factory with one A0028 riser lock. The purpose of the A0028 riser lock is to prevent the riser pipe from turning during removal and installation of the primary liner.

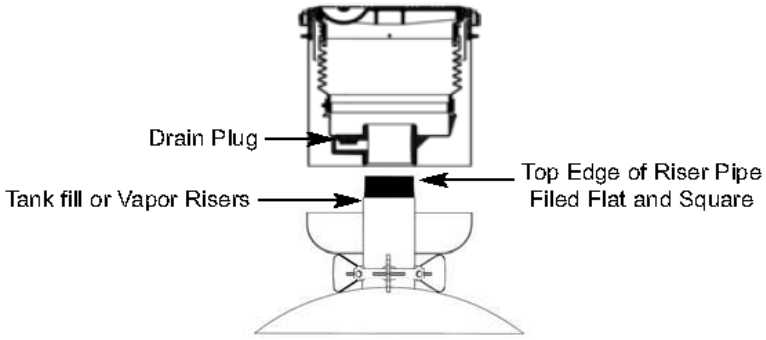
IMPORTANT: All double wall configurations come standard from the factory with one A0028 riser lock. The purpose of the A0028 riser lock is to prevent the bottom flange and riser pipe from turning during the removal and installation of the primary and secondary liners. A second A0028 riser lock is highly recommended but optional.

1. Before attempting to install the A0028 riser lock onto the riser pipe, loosen all mounting bolts and lock nuts using a ½" hand wrench.
2. Install the A0028 riser lock onto the top of the riser pipe. Slide the A0028 riser lock downward until resting on the backfill or top of tank.

IMPORTANT: When installing a second A0028 riser lock, repeat Steps 1 and 2.

3. Install the gravel pan onto the top of the riser pipe. Slide the gravel pan downward until resting on the A0028 riser lock.

Spill Containment to Riser Pipe



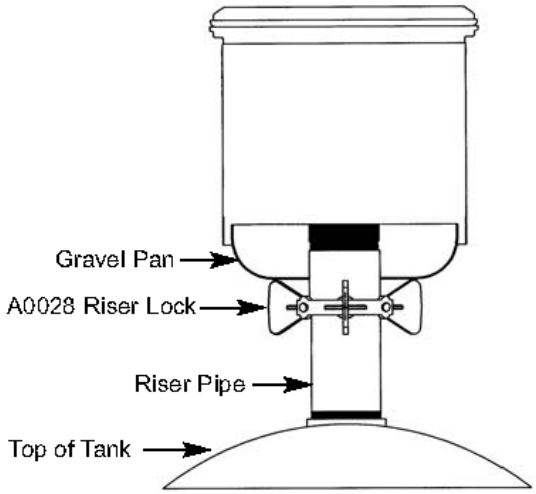
1. Before installing the A1004EVR spill containment, the top edge of the riser pipe must be filed flat and square to insure a proper sealing surface between the riser pipe and base of the 1004EVR spill containment.

IMPORTANT: The A1004EVR spill containment comes with a factory installed non-removal drain plug, and is CARB EVR approved for use on the tank fill or vapor risers.

Figure B-3 (continued)

2. Apply a non-hardening gasoline resistant pipe thread sealant compound to the threads of the riser pipe. Manually tighten the A1004EVR spill containment onto the riser pipe to avoid cross threading. Use the EMCO Spill Containment Wrench p/n A0081-001H to tighten and torque the A1004EVR spill containment between 100 and 150 ft-lbs.

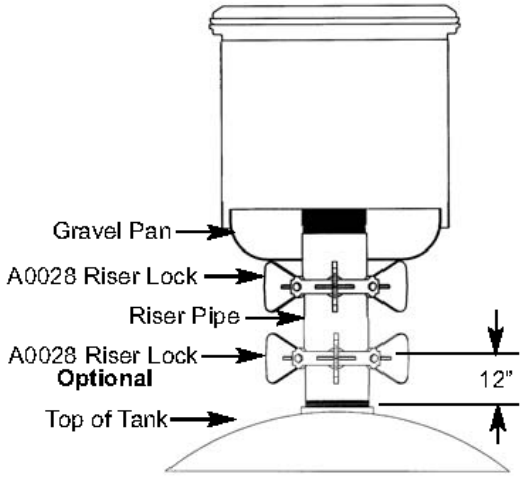
Riser Lock Installation for Single Wall Configurations



3. Slide the gravel pan and A0028 riser lock upward against the bottom of the A1004EVR spill containment. Using a ½" socket and torque wrench tighten and torque all mounting bolts to 15 ft-lbs. Using a ½" crows foot and torque wrench tighten and torque all lock nuts to 10 ft-lbs.

IMPORTANT: When installing a second A0028 riser lock continue to Step 4.

Riser Lock Installation for Double Wall Configurations



4. Slide the second A0028 riser lock upward keeping a distance of 12 inches from top of tank. Using a ½" socket and torque wrench tighten and torque all mounting bolts to 15 ft-lbs. Using a ½" crows foot and torque wrench tighten and torque all lock nuts to 10 ft-lbs.

Figure B-3 (continued)

A1004EVR Spill Containment Backfill and Concrete Finish

1. Complete the backfill over the tank and around the gravel guard of the A1004EVR spill containment. Be sure the height of the backfill meets the depth requirements for the concrete pad.
2. Concrete must completely fill around and under the A1004EVR spill containment rim to insure proper anchoring.
3. Before the concrete sets remove all excess concrete from the top of A1004EVR spill containment rim and water run-off channels.

IMPORTANT: Crown height must be a minimum of 1 inch for proper water run-off.

Removing the Jack Assembly or Spacer Bars

1. Once the concrete has set, remove the factory installed jack assembly or spacer bars from the inside of the A1004EVR spill containment:

- Models A1004EVR-004, 006, 011 and 013 - Remove the 3 spacer bars and dispose.
- Models A1004EVR-211 - Use a ¾" socket and ratchet wrench to turn the adjustment bolt counter clockwise to loosen. Swing the top cross bar away from the inside edge of the rim and dispose.
- Models A1004EVR-317 - Remove the cotter pin from the top of each jack, and slide the bracket off of the clevis. The unthreaded bolt and bottom brackets will remain in place. Dispose of the cotter pins, jacks, brackets, clevis and bolts.
- Models A1004EVR-317AS and -317SS – Do not come with factory installed spacer bars or jack assemblies. The spill containment height is fixed.

2. Clean and remove all debris from the inside of the A1004EVR spill containment.
3. Paint the A1004EVR spill containment rim and lid to the desired fuel grade color code.

Spill Containment with Swivel Vapor Adapter and Vapor Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton swivel vapor adapter, please refer to the A0076-124S installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton vapor adapter cap, please refer to the A0099 installation instructions.

Figure B-3 (continued)

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment using soapy water and disposable towels.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits

Part Number	Description
• 493806	Lid and Seal -010 Series
• 494466EVR	-211A Primary Repair Kit
• 494467EVR	-211S Primary Repair Kit
• 494798EVR	-317A Primary Repair Kit
• 494795EVR	-317S Primary Repair Kit
• 495394EVR	-317AS Primary Repair Kit
• 495395EVR	-317SS Primary Repair Kit
• 566332	Lid and Seal -003 Series
• A1004-210LID	Lid and Seal -211 Series
• A1004-316CLID	Lid and Seal -317 Series

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

IMPORTANT: Tank Operator Responsibilities

- Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.
- All operators must be familiar with proper filling procedures.
- The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.
- The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.
- When tank vehicles are being unloaded, the vehicle operators must remain:
  (a) in constant view of the transfer nozzle and fill pipe; and
  (b) in constant attendance at the discharge control valve.

Figure B-3 (continued)

Emco Wheaton Retail Corp.
2300 Industrial Park Dr. • Wilson, NC 27893
252-243-0150 • 252-243-4759 (fax)

p/n 569930
Rev. M, 09/15

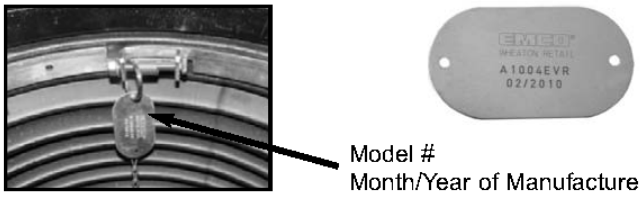
Figure B-4
Installation Instructions for 15 Gallon Direct Burial Containment -215 Configuration

EMCO® WHEATON RETAIL

A1004EVR
Spill Containment
Direct Burial Application

INSTALLATION INSTRUCTIONS

Permanent Identification:



Model Numbers	Description
A1004EVR-215A	Single Wall, Drain Valve, NPT
A1004EVR-215AB	Single Wall, Drain Valve, BSPT
A1004EVR-215S	Double Wall, Drain Valve, NPT
A1004EVR-215SB	Double Wall, Drain Valve, BSPT

Required Service Tools:

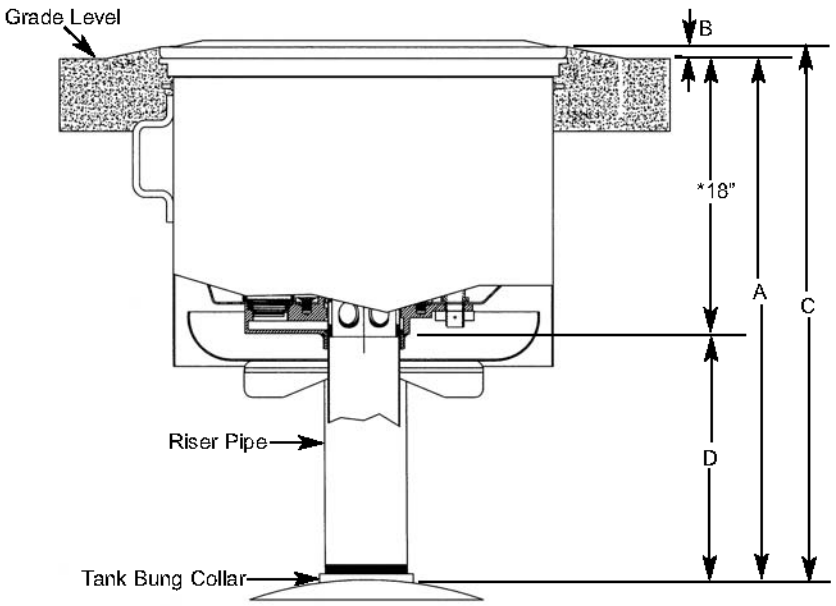
- Tape Measure
- Torque Wrench w/ 15 ft-lbs. Setting
- Pipe Thread Sealant Compound
- EMCO Spill Containment Wrench p/n A0081-001H Wrench
- Torque Wrench w/ 100 to 150 ft-lbs. Setting
- Ratchet
- ½" Socket
- ½" Crows Foot
- ¾" Socket
- ½" Hand Wrench

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure B-4 (Continued)

Sizing the Riser Pipe



1. Find measurement A, the distance between grade level to the top of the tank bung collar.
2. Find measurement C, by adding measurement A to measurement B, the crown height.

EXAMPLE: Measurement C equals Measurement A, plus Measurement B, the crown height.

IMPORTANT: Crown height must be a minimum of 1 inch for proper water run-off.

3. *The height of the A1004EVR spill containment varies between single wall and double wall configurations, refer below for proper height specifications.

Model Number	Spill Containment	Height (inches)
A1004EVR-215A	Single Wall	18.0
A1004EVR-215S	Double Wall	17.5

4. Find measurement D, by subtracting the height of the A1004EVR spill containment from measurement C, then add 2.0 inches for the riser pipe threads.
5. After properly sizing the 4-inch diameter riser pipe, cut threads to ether NPT or BSPT standards. Use a non-hardening gasoline resistant pipe thread sealant compound before installing the 4-inch diameter riser pipe to the tank bung collar.

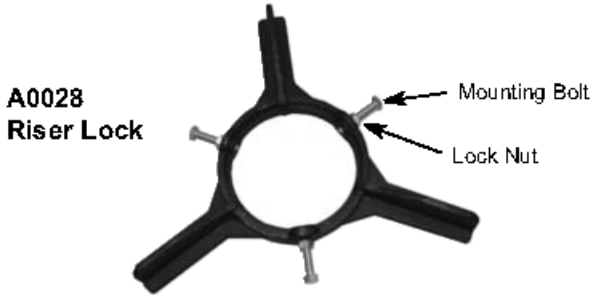
IMPORTANT: Do not use hacksaw to cut riser pipe.

Figure B-4 (Continued)

Installation Example for the A1004EVR-215A Spill Containment

1. The tank burial is 36 inches from grade level to the top of the tank bung collar. Measurement A equals 36 inches.
2. The site installation requires a 1-inch crown height for proper water run-off. Measurement B is 1 inch. Add measurement A 36 inches, to measurement B, 1 inch, equals measurement C, 37 inches.
3. The height of the **A1004EVR-215A single wall spill containment** is 18 inches. Subtract the height of 18 inches from measurement C, 37 inches, then add 2 inches for the riser pipe threads.
4. The required length for the 4-inch diameter riser pipe is measurement D, 21 inches.

Riser Lock to Riser Pipe



IMPORTANT: All <u>single wall configurations</u> come standard from the factory with one A0028 riser lock. The purpose of the A0028 riser lock is to prevent the riser pipe from turning during removal and installation of the primary liner.

IMPORTANT: All <u>double wall configurations</u> come standard from the factory with one A0028 riser lock. The purpose of the A0028 riser lock is to prevent the bottom flange and riser pipe from turning during the removal and installation of the primary and secondary liners. A second A0028 riser lock is highly recommended but optional.

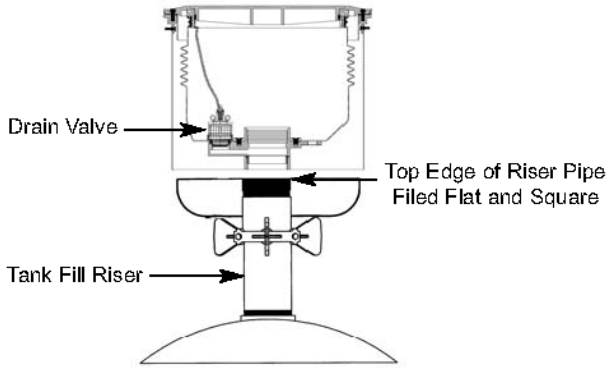
1. Before attempting to install the A0028 riser lock onto the riser pipe, loosen all mounting bolts and lock nuts using a ½" hand wrench.
2. Install the A0028 riser lock onto the top of the riser pipe. Slide the A0028 riser lock downward until resting on the backfill or top of tank.

IMPORTANT: When installing a second A0028 riser lock, repeat Steps 1 and 2.

3. Install the gravel pan onto the top of the riser pipe. Slide the gravel pan downward until resting on the A0028 riser lock.

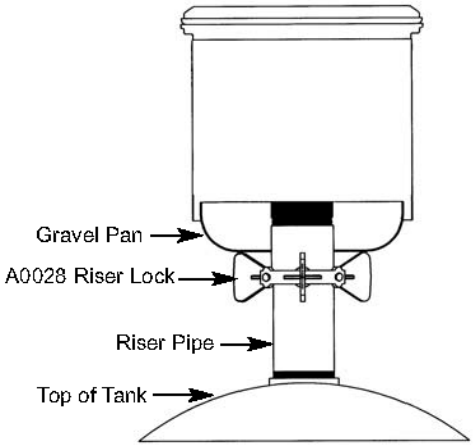
Figure B-4 (Continued)

Spill Containment to Riser Pipe



1. Before installing the A1004EVR spill containment, the top edge of the riser pipe must be filed flat and square to insure a proper sealing surface between the riser pipe and base of the 1004EVR spill containment.
2. Apply a non-hardening gasoline resistant pipe thread sealant compound to the threads of the riser pipe. Manually tighten the A1004EVR spill containment onto the riser pipe to avoid cross threading. Use the EMCO Spill Containment Wrench p/n A1004-001H to tighten and torque the A1004EVR spill containment between 100 and 150 ft-lbs.

Riser Lock Installation for Single Wall Configurations



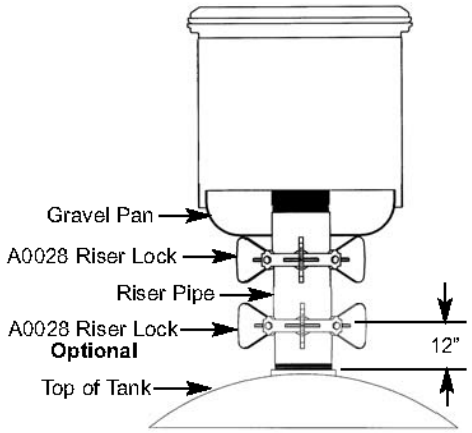
3. Slide the gravel pan and A0028 riser lock upward against the bottom of the A1004EVR spill containment. Using a ½" socket and torque wrench tighten and torque all mounting bolts to 15 ft-lbs. Using a ½" crows foot and torque wrench tighten and torque all lock nuts to 10 ft-lbs.

IMPORTANT: When installing a second A0028 riser lock continue to Step 4.

4

Figure B-4 (Continued)

Riser Lock Installation for Double Wall Configurations



4. Slide the second A0028 riser lock upward keeping a distance of 12 inches from top of tank. Using a ½" socket and torque wrench tighten and torque all mounting bolts to 15 ft-lbs. Using a ½" crows foot and torque wrench tighten and torque all lock nuts to 10 ft-lbs.

A1004EVR Spill Containment Backfill and Concrete Finish

1. Complete the backfill over the tank and around the gravel guard of the A1004EVR spill containment. Be sure the height of the backfill meets the depth requirements for the concrete pad.
2. Concrete must completely fill around and under the A1004EVR spill containment rim to insure proper anchoring.
3. Before the concrete sets remove all excess concrete from the top of A1004EVR spill containment rim and water run-off channels.

IMPORTANT: Crown height must be a minimum of 1 inch for proper water run-off.

Figure B-4 (Continued)

Spill Containment with Overfill Prevention Valve or Straight Drop Tube, Riser Seal, Swivel Fill Adapter and Fill Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton overfill prevention valve, please refer to the A1100EVR installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton straight drop tube, please refer to the A0020EVR and A0020EVRC installation instructions.

IMPORTANT: The tank fill riser installation will only allow for one type of EVR drop tube configuration.

3. When installing the A1004EVR spill containment with an Emco Wheaton riser seal, please refer to the 494096 installation instructions.
4. When installing the A1004EVR spill containment with an Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.
5. When installing the A1004EVR spill containment with an Emco Wheaton fill adapter cap, please refer to the A0097 installation instructions.

Figure B-4 (Continued)

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment using soapy water and disposable towels.
2. After each delivery, the station operator must remove any standing fuel from the inside of the A1004EVR spill containment. If gasoline does not drain, refer to the #494118 drain valve preventive maintenance instructions.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits

Part Number	Description
• 494118	Drain Valve Kit
• 494554	Lid and Seal
• 494550EVR	-215S Primary Repair Kit
• 494602EVR	-215A Primary Repair Kit

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

IMPORTANT: Tank Operator Responsibilities

- Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.
- All operators must be familiar with proper filling procedures.
- The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.
- The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.
- When tank vehicles are being unloaded, the vehicle operators must remain:
  (a) in constant view of the transfer nozzle and fill pipe; and
  (b) in constant attendance at the discharge control valve.

Figure B-4 (Continued)

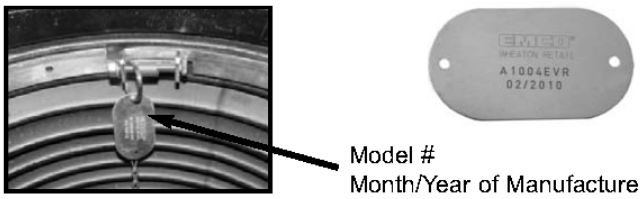
Figure B-5
Installation Instructions for 15 Gallon Direct Burial Containment -216 Configuration

EMCO® WHEATON RETAIL

A1004EVR
Spill Containment
Direct Burial Application

INSTALLATION INSTRUCTIONS

Permanent Identification:



Model Numbers	Description
A1004EVR-216A	Single Wall, No Drain, NPT
A1004EVR-216AB	Single Wall, No Drain, BSPT
A1004EVR-216S	Double Wall, No Drain, NPT
A1004EVR-216SB	Double Wall, No Drain, BSPT

Required Service Tools:

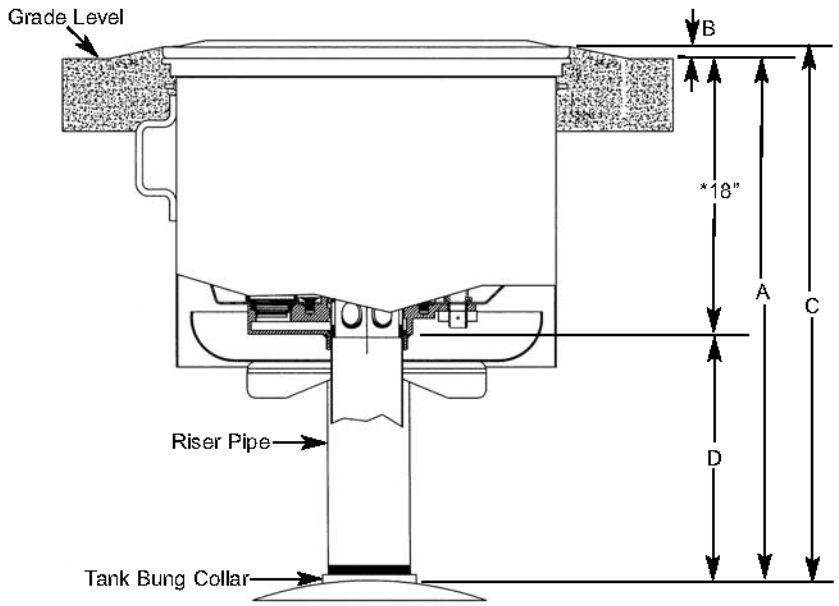
- Tape Measure
- Torque Wrench w/ 15 ft-lbs. Setting
- Pipe Thread Sealant Compound
- EMCO Spill Containment Wrench p/n A0081-001H Wrench
- Torque Wrench w/ 100 to 150 ft-lbs. Setting
- Ratchet
- ½" Socket
- ½" Crows Foot
- ¾" Socket
- ½" Hand Wrench

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure B-5 (Continued)

Sizing the Riser Pipe



1. Find measurement A, the distance between grade level to the top of the tank bung collar.
2. Find measurement C, by adding measurement A to measurement B, the crown height.

EXAMPLE: Measurement C equals Measurement A, plus Measurement B, the crown height.

IMPORTANT: Crown height must be a minimum of 1 inch for proper water run-off.

3. *The height of the A1004EVR spill containment varies between single wall and double wall configurations, refer below for proper height specifications.

Model Number	Spill Containment	Height (inches)
A1004EVR-216A	Single Wall	18.0
A1004EVR-216S	Double Wall	17.5

4. Find measurement D, by subtracting the height of the A1004EVR spill containment from measurement C, then add 2.0 inches for the riser pipe threads.
5. After properly sizing the 4-inch diameter riser pipe, cut threads to ether NPT or BSPT standards. Use a non-hardening gasoline resistant pipe thread sealant compound before installing the 4-inch diameter riser pipe to the tank bung collar.

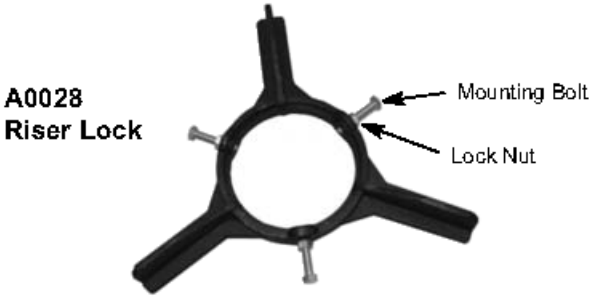
IMPORTANT: Do not use hacksaw to cut riser pipe.

Figure B-5 (Continued)

Installation Example for the A1004EVR-216A Spill Containment

1. The tank burial is 36 inches from grade level to the top of the tank bung collar. Measurement A equals 36 inches.
2. The site installation requires a 1-inch crown height for proper water run-off. Measurement B is 1 inch. Add measurement A 36 inches, to measurement B, 1 inch, equals measurement C, 37 inches.
3. The height of the **A1004EVR-216A single wall spill containment** is 18 inches. Subtract the height of 18 inches from measurement C, 37 inches, then add 2 inches for the riser pipe threads.
4. The required length for the 4-inch diameter riser pipe is measurement D, 21 inches.

Riser Lock to Riser Pipe



IMPORTANT: All <u>single wall configurations</u> come standard from the factory with one A0028 riser lock. The purpose of the A0028 riser lock is to prevent the riser pipe from turning during removal and installation of the primary liner.

IMPORTANT: All <u>double wall configurations</u> come standard from the factory with one A0028 riser lock. The purpose of the A0028 riser lock is to prevent the bottom flange and riser pipe from turning during the removal and installation of the primary and secondary liners. A second A0028 riser lock is highly recommended but optional.

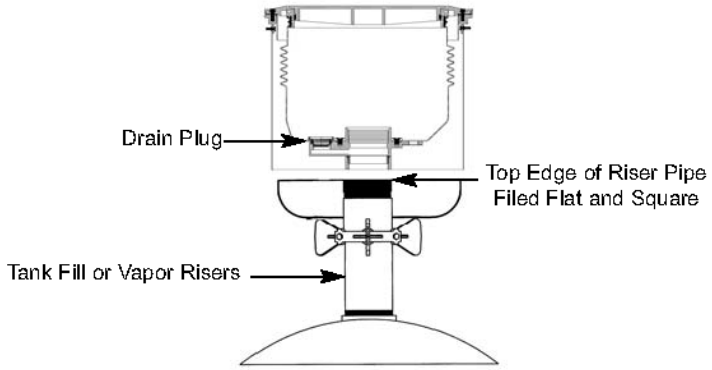
1. Before attempting to install the A0028 riser lock onto the riser pipe, loosen all mounting bolts and lock nuts using a ½" hand wrench.
2. Install the A0028 riser lock onto the top of the riser pipe. Slide the A0028 riser lock downward until resting on the backfill or top of tank.

IMPORTANT: When installing a second A0028 riser lock, repeat Steps 1 and 2.

3. Install the gravel pan onto the top of the riser pipe. Slide the gravel pan downward until resting on the A0028 riser lock.

Figure B-5 (Continued)

Spill Containment to Riser Pipe

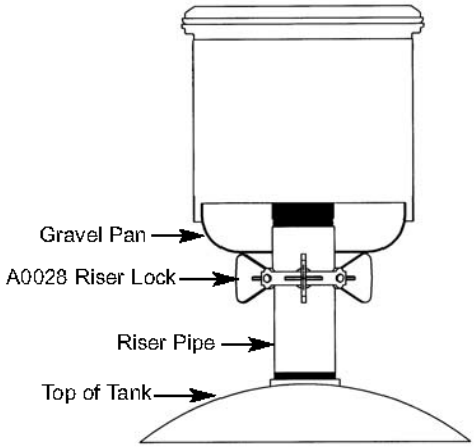


1. Before installing the A1004EVR spill containment, the top edge of the riser pipe must be filed flat and square to insure a proper sealing surface between the riser pipe and base of the 1004EVR spill containment.

IMPORTANT: The A1004EVR spill containment comes with a factory installed non-removal drain plug, and is CARB EVR approved for use on tank fill or vapor risers.

2. Apply a non-hardening gasoline resistant pipe thread sealant compound to the threads of the riser pipe. Manually tighten the A1004EVR spill containment onto the riser pipe to avoid cross threading. Use the EMCO Spill Containment Wrench p/n A0081-001H to tighten and torque the A1004EVR spill containment between 100 and 150 ft-lbs.

Riser Lock Installation for Single Wall Configurations

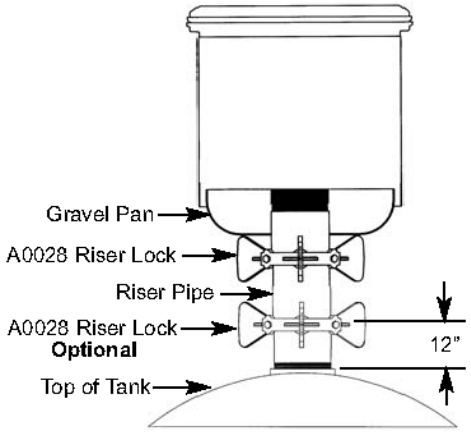


3. Slide the gravel pan and A0028 riser lock upward against the bottom of the A1004EVR spill containment. Using a ½" socket and torque wrench tighten and torque all mounting bolts to 15 ft-lbs. Using a ½" crows foot and torque wrench tighten and torque all lock nuts to 10 ft-lbs.

IMPORTANT: When installing a second A0028 riser lock continue to Step 4.

Figure B-5 (Continued)

Riser Lock Installation for Double Wall Configurations



4. Slide the second A0028 riser lock upward keeping a distance of 12 inches from top of tank. Using a ½" socket and torque wrench tighten and torque all mounting bolts to 15 ft-lbs. Using a ½" crows foot and torque wrench tighten and torque all lock nuts to 10 ft-lbs.

A1004EVR Spill Containment Backfill and Concrete Finish

1. Complete the backfill over the tank and around the gravel guard of the A1004EVR spill containment. Be sure the height of the backfill meets the depth requirements for the concrete pad.
2. Concrete must completely fill around and under the A1004EVR spill containment rim to insure proper anchoring.
3. Before the concrete sets remove all excess concrete from the top of A1004EVR spill containment rim and water run-off channels.

IMPORTANT: Crown height must be a minimum of 1 inch for proper water run-off.

Figure B-5 (Continued)

Spill Containment with Swivel Vapor Adapter and Vapor Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton swivel vapor adapter, please refer to the A0076-124S installation instructions.

2. When installing the A1004EVR spill containment with an Emco Wheaton vapor adapter cap, please refer to the A0099 installation instructions.

Figure B-5 (Continued)

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment using soapy water and disposable towels.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits

Part Number	Description
• 494554	Lid and Seal
• 494660EVR	-216S Primary Repair Kit
• 494661EVR	-216A Primary Repair Kit

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

IMPORTANT: Tank Operator Responsibilities

- Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.
- All operators must be familiar with proper filling procedures.
- The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.
- The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.
- When tank vehicles are being unloaded, the vehicle operators must remain:
  (a) in constant view of the transfer nozzle and fill pipe; and
  (b) in constant attendance at the discharge control valve.

Figure B-5 (Continued)

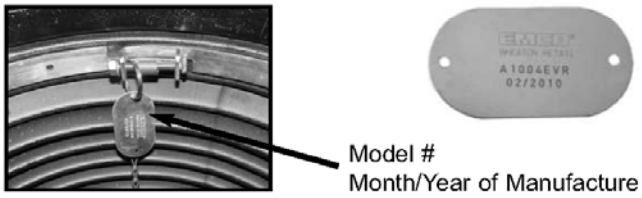
Figure B-6
494360EVR and 494466EVR Primary Spill Container Replacement Kit

EMCO® WHEATON RETAIL

494360EVR
494466EVR
Primary Replacement Kits

INSTALLATION INSTRUCTIONS

Permanent Identification:



Model Numbers	Description
494360EVR	Primary Replacement Kit for A1004EVR-210A
494466EVR	Primary Replacement Kit for A1004EVR-211A

Service Tools Required:

- Needle Nose Pliers
- 3/8" Socket
- Socket with 1/4" Allen Wrench
- EMCO Adapter Wrench A0081-001C
- 5/32" Allen Hex Wrench
- 1/2" Drive 12" Extension
- EMCO Primary Wrench A0081-001H
- Torque Wrench w/ 40 ft-lbs. Setting
- 1/2" Drive 5" Extension
- EMCO Riser Seal Wrench 494120
- Torque Wrench w/ 200 ft-lbs. Setting
- Chain Wrench
- Non-hardening Gasoline Resistant Pipe Thread Sealant Compound
- Standard 1/2" Drive Ratchet

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure B-6 (Continued)

Fill Application/Primary Liner Removal

Step 1: Remove the A1004EVR spill containment lid.

Step 2: Remove the A0097-005 fill adapter cap.

Step 3: Locate the 494118 drain valve. Begin by disassembling the pull chain and linkage. Use a pair of needle nose pliers to remove both cotter pins from the top, then lift and remove the filter.

Step 4: Use a 5/32" allen wrench to loosen and remove both set screws from the base of the A0030-124S swivel fill adapter

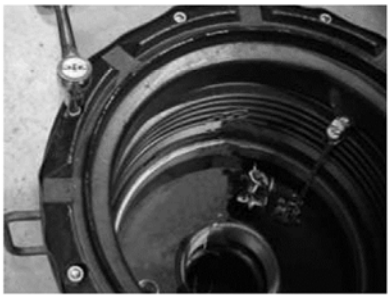
Step 5: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the A0030-124S swivel fill adapter.

Step 6: Use the EMCO Riser Seal Wrench p/n 494120 to loosen and remove the center insert located inside the 494096 riser seal.

Figure B-6 (Continued)

Step 7: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the 494096 riser seal.

Step 8: Remove the drop tube from the fill riser by pulling upward.



Step 9: Use a ratchet with a 3/8" socket or 1/4" allen wrench to remove and discard all eight 3/8" stainless steel bolts located along the top of the rim of the A1004EVR spill containment.

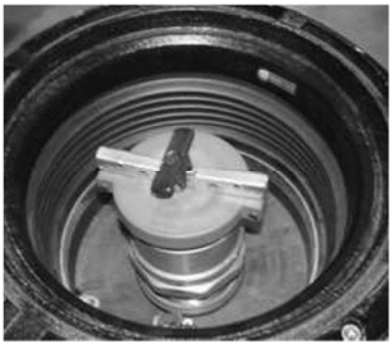
Step 10: Use the EMCO Spill Containment Wrench p/n A0081-001H to loosen and remove the primary liner from the fill riser pipe.

Step 11: Remove the primary liner from inside the A1004EVR spill containment by pulling upwards. Once the primary liner is completely out, please discard.

Figure B-6 (Continued)

Vapor Application/Primary Liner Removal

Step 1: Remove the A1004EVR spill containment lid.



Step 2: Remove the A0099-002, -003 vapor adapter cap.

Step 3: Use a 5/32" allen wrench to loosen and remove both set screws from the base of the A0076-124S swivel vapor adapter.

Step 4: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the A0076-124S swivel vapor adapter.

Figure B-6 (Continued)

Step 5: Use a standard 1/2" drive ratchet and chain wrench to loosen and remove the containment nipple.

Step 6: Use a ratchet with a 3/8" socket or 1/4" allen wrench to remove and discard all eight 3/8" stainless steel bolts located along the top of the rim of the A1004EVR spill containment.

Step 7: Use the EMCO Spill Containment Wrench p/n A0081-001H to loosen and remove the primary liner from the vapor riser pipe.

Step 8: Remove the primary liner from inside the A1004EVR spill containment by pulling upwards. Once the primary liner is completely out, please discard.

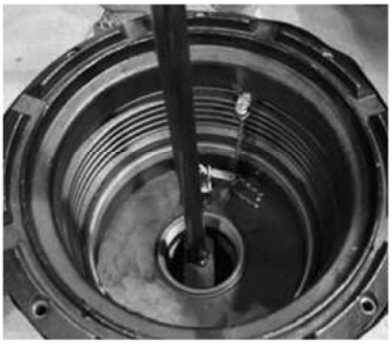
Figure B-6 (Continued)

Fill & Vapor Application/Primary Liner Installation

Step 1: All eight bolt holes must be clean and free of all debris before attempting to install the new primary liner.

IMPORTANT: Failure to do so may result in possible cross threading and permanent damage voiding warranty.

Step 2: Apply a non-hardening, gasoline resistant pipe thread sealant compound to the threads of the riser pipe.



Step 3: Manually tighten the new primary liner onto the riser pipe to avoid cross threading. Use the EMCO Spill Containment Wrench p/n A0081-001H to tighten and torque between 100 and 150 ft-lbs.

IMPORTANT: As the primary liner is being torqued verify the A1004EVR spill containment bolt holes line up with the rim bolt holes.

Step 4: Manually install the eight new 3/8" stainless steel bolts. Use a ratchet and 3/8" socket to tighten and torque to 40 ft-lbs.

IMPORTANT: Tighten each bolt two complete turns at a time in a cross over pattern before applying final torque.

Re-install the drain valve filter.

6

Figure B-6 (Continued)

Spill Containment with Overfill Prevention Valve or Straight Drop Tube, Riser Seal, Swivel Fill Adapter and Fill Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton overfill prevention valve, please refer to the A1100EVR installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton straight drop tube, please refer to the A0020EVR and A0020EVRC installation instructions.

IMPORTANT: The fill riser installation will only allow for one type of EVR drop tube configuration.

3. When installing the A1004EVR spill containment with an Emco Wheaton riser seal, please refer to the 494096 installation instructions.
4. When installing the A1004EVR spill containment with an Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.
5. When installing the A1004EVR spill containment with an Emco Wheaton fill adapter cap, please refer to the A0097-005 installation instructions.

Spill Containment with Swivel Vapor Adapter and Vapor Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton swivel vapor adapter, please refer to the A0076-124S installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton vapor adapter cap, please refer to the A0099-002, -003 installation instructions.

Clean-up and Finish

1. Clean and remove all debris from the inside of the A1004EVR spill containment, drain valve and filter assembly.
2. Paint the new A1004EVR spill containment rim to match the color of the lid.
3. Once the paint on the rim has dried, re-install the A1004EVR spill containment Lid.

Figure B-6 (Continued)

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment using soapy water and a disposable towel.
2. After each delivery, the station operator must remove any standing fuel from the inside of the A1004EVR spill containment. If gasoline does not drain, refer to the #494118 drain valve preventive maintenance instructions.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits

Part Number	Description
494118	Drain Valve Kit
A1004-210LID	Lid and Seal
494360EVR	-210A Primary Replacement Kit
494466EVR	-211A Primary Replacement Kit

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

IMPORTANT: Tank Operator Responsibilities

- Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.
- All operators must be familiar with proper filling procedures.
- The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.
- The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.
- When tank vehicles are being unloaded, the vehicle operators must remain:
  (a) in constant view of the transfer nozzle and fill pipe; and
  (b) in constant attendance at the discharge control valve.

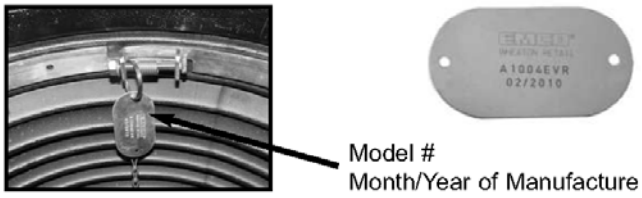
Figure B-7
494350EVR and 494467EVR Primary Spill Container Replacement Kit

EMCO® WHEATON RETAIL

494350EVR
494467EVR
Primary Replacement Kits

INSTALLATION INSTRUCTIONS

Permanent Identification:



Model Numbers	Description
494350EVR	Primary Replacement Kit for A1004EVR-210S
494467EVR	Primary Replacement Kit for A1004EVR-211S

Service Tools Required:

- Needle Nose Pliers
- 3/8" Socket
- Socket with 1/4" Allen Wrench
- EMCO Adapter Wrench A0081-001C
- 5/32" Allen Wrench
- 1/2" Drive 12" Extension
- EMCO Primary Wrench A0081-001H
- Torque Wrench w/ 40 ft-lbs. Setting
- 1/2" Drive 5" Extension
- EMCO Riser Seal Wrench 494120
- Torque Wrench w/ 200 ft-lbs. Setting
- Chain Wrench
- Non-hardening Gasoline Resistant Pipe Thread Sealant Compound
- Standard 1/2" Drive Ratchet

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure B-7 (Continued)

Fill Application/Primary Liner Removal

Step 1: Remove the A1004EVR spill containment lid.

Step 2: Remove the A0097-005 fill adapter cap and dipstick.

Step 3: Locate the 494118 drain valve. Begin by disassembling the pull chain and linkage. Use a pair of needle nose pliers to remove both cotter pins from the top, then lift and remove the filter.

Step 4: Use a 5/32" allen wrench to loosen and remove both set screws from the base of the A0030-124S swivel fill adapter.

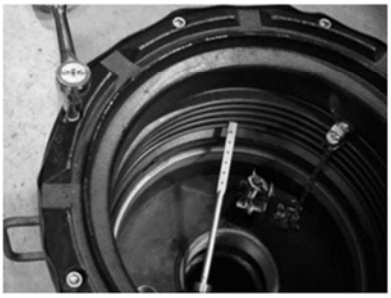
Step 5: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the A0030-124S swivel fill adapter.

Step 6: Use the EMCO Riser Seal Wrench p/n 494120 to loosen and remove the center insert located inside the 494096 riser seal.

Figure B-7 (Continued)

Step 7: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the 494096 riser seal.

Step 8: Remove the drop tube from the fill riser by pulling upward.



Step 9: Use a ratchet with a 3/8" socket or 1/4" allen wrench to remove and discard all eight 3/8" stainless steel bolts located along the top of the rim of the A1004EVR spill containment.

Step 10: Use the EMCO Spill Containment Wrench p/n A0081-001H to loosen and remove the primary liner from the fill riser pipe.

Step 11: Remove the primary liner from inside the A1004EVR spill containment by pulling upwards. Once the primary liner is completely out, please discard.

Figure B-7 (Continued)

Vapor Application/Primary Liner Removal

Step 1: Remove the A1004EVR spill containment lid.

Step 2: Remove the A0099-002, -003 vapor adapter cap.

Step 3: Use a 5/32" allen wrench to loosen and remove both set screws from the base of the A0076-124S swivel vapor adapter.

Step 4: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the A0076-124S swivel vapor adapter.

Step 5: Use a standard 1/2" drive ratchet and chain wrench to loosen and remove the containment nipple.

Step 6: Use a ratchet with a 3/8" socket or 1/4" allen wrench to remove and discard all eight 3/8" stainless steel bolts located along the top of the rim of the A1004EVR spill containment.

Figure B-7 (Continued)

Step 7: Use the EMCO Spill Containment Wrench p/n A0081-001H to loosen and remove the primary liner from the vapor riser pipe.

Step 8: Remove the primary liner from inside the A1004EVR spill containment by pulling upwards. Once the primary liner is completely out, please discard.

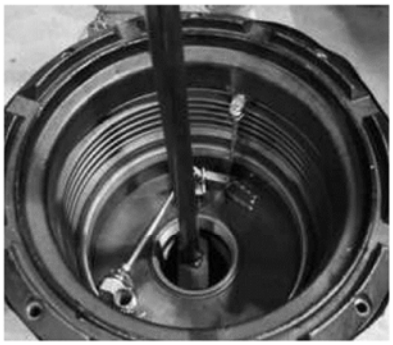
Fill & Vapor Application/Primary Liner Installation

Step 1: All eight bolt holes must be clean and free of all debris before attempting to install the new primary liner.

IMPORTANT: Failure to do so may result in possible cross threading and permanent damage voiding warranty.

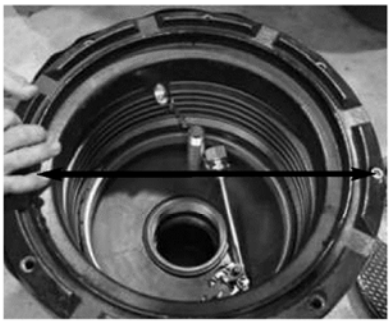
Step 2: Apply a non-hardening, gasoline resistant pipe thread sealant compound to the threads of the secondary unit.

Figure B-7 (Continued)



Step 3: Manually tighten the new primary liner onto the riser pipe to avoid cross threading. Use the EMCO Spill Containment Wrench p/n A0081-001H to tighten and torque between 100 and 150 ft-lbs.

IMPORTANT: As the primary liner is being torqued verify the A1004EVR spill containment bolt holes line up with the rim bolt holes.



Step 4: Manually install the eight new 3/8" stainless steel bolts. Use a ratchet with a 3/8" socket or 1/4" allen wrench to tighten and torque to 40 ft-lbs.

IMPORTANT: Tighten each bolt two complete turns at a time in a cross over pattern before applying final torque.

Re-install the dipstick and drain valve filter.

Spill Containment with Overfill Prevention Valve or Straight Drop Tube, Riser Seal, Swivel Fill Adapter and Fill Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton overfill prevention valve, please refer to the A1100EVR installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton straight drop tube, please refer to the A0020EVR and A0020EVRC installation instructions.

IMPORTANT: The fill riser installation will only allow for one type of EVR drop tube configuration.

3. When installing the A1004EVR spill containment with an Emco Wheaton riser seal, please refer to the 494096 installation instructions.
4. When installing the A1004EVR spill containment with an Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.
5. When installing the A1004EVR spill containment with an Emco Wheaton fill adapter cap, please refer to the A0097-005 installation instructions.

Figure B-7 (Continued)

Spill Containment with Swivel Vapor Adapter and Vapor Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton swivel vapor adapter, please refer to the A0076-124S installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton vapor adapter cap, please refer to the A0099-002, -003 installation instructions.

Clean-up and Finish

1. Clean and remove all debris from the inside of the A1004EVR spill containment, drain valve and filter assembly.
2. Paint the new A1004EVR spill containment rim to match the color of the lid.
3. Once the paint on the rim has dried, re-install the A1004EVR spill containment lid.

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment using soapy water and a disposable towel.
2. After each delivery, the station operator must remove any standing fuel from the inside of the A1004EVR spill containment. If gasoline does not drain, refer to the #494118 drain valve preventive maintenance instructions.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits

Part Number	Description
• 494118	Drain Valve Kit
• A1004-210LID	Lid and Seal
• 494350EVR	-210S Primary Replacement Kit
• 494467EVR	-211S Primary Replacement Kit

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

Figure B-7 (Continued)

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

IMPORTANT: Tank Operator Responsibilities

- Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.
- All operators must be familiar with proper filling procedures.
- The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.
- The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.
- When tank vehicles are being unloaded, the vehicle operators must remain:
  (a) in constant view of the transfer nozzle and fill pipe; and
  (b) in constant attendance at the discharge control valve.

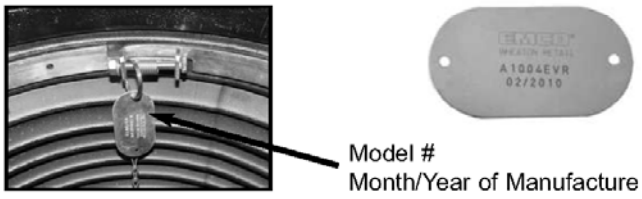
Figure B-8
494602EVR and 494661EVR Primary Spill Container Replacement Kit

EMCO® WHEATON RETAIL

494602EVR
494661EVR
Primary Replacement Kits

INSTALLATION INSTRUCTIONS

Permanent Identification:



Model Number	Description
494602EVR	Primary Replacement Kit for A1004EVR-215A
494661EVR	Primary Replacement Kit for A1004EVR-216A

Service Tools Required:

- Needle Nose Pliers
- 9/16" Socket
- EMCO Adapter Wrench A0081-001C
- 5/32" Allen Wrench
- 1/2" Drive 12" Extension
- EMCO Primary Wrench A0081-001H
- Lubricant
- Torque Wrench w/ 40 ft-lbs. Setting
- 1/2" Drive 5" Extension
- EMCO Riser Seal Wrench 494120
- Torque Wrench w/ 200 ft-lbs. Setting
- Chain Wrench
- Non-hardening Gasoline Resistant Pipe Thread Sealant Compound
- Standard 1/2" Drive Ratchet

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure B-8 (Continued)

Fill Application/Primary Liner Removal

Step 1: Remove the A1004EVR spill containment lid.

Step 2: Remove the A0097-005 fill adapter cap.

Step 3: Locate the 494118 drain valve. Begin by disassembling the pull chain and linkage. Use a pair of needle nose pliers to remove both cotter pins from the top, then lift and remove the filter.

Step 4: Use a 5/32" allen wrench to loosen and remove both set screws from the base of the A0030-124S swivel fill adapter.

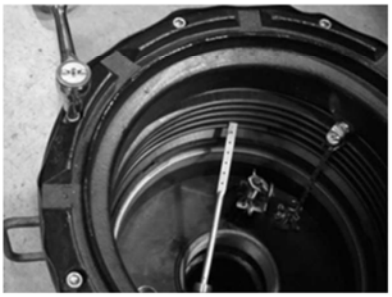
Step 5: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the A0030-124S swivel fill adapter.

Step 6: Use the EMCO Riser Seal Wrench p/n 494120 to loosen and remove the center insert located inside the 494096 riser seal.

Figure B-8 (Continued)

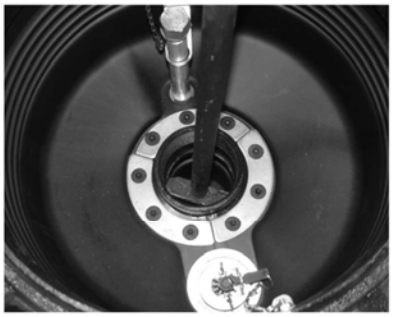
Step 7: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the 494096 riser seal.

Step 8: Remove the drop tube from the fill riser by pulling upward.



Step 9: Use a ratchet with a 9/16" socket to remove and discard all eight 3/8" stainless steel bolts located along the top of the rim of the A1004EVR spill containment.

Step 10: Use the EMCO Spill Containment Wrench p/n A0081-001H to loosen and remove the primary liner from the fill riser pipe.



Step 11: Place long tang of the EMCO Spill Containment Wrench p/n A0081-001A into drain path of primary liner.

Step 12: Remove the primary liner from inside the A1004EVR spill containment by pulling upwards. Once the primary liner is completely out, please discard.

Figure B-8 (Continued)

Vapor Application/Primary Liner Removal

Step 1: Remove the A1004EVR spill containment lid.

Step 2: Remove the A0099-002, -003 vapor adapter cap.

Step 3: Use a 5/32" allen wrench to loosen and remove both set screws from the base of the A0076-124S swivel vapor adapter.

Step 4: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the A0076-124S swivel vapor adapter.

Step 5: Use a standard 1/2" drive ratchet and chain wrench to loosen and remove the containment nipple.

Step 6: Use a ratchet with a 9/16" socket to remove and discard all eight 3/8" stainless steel bolts located along the top of the rim of the A1004EVR spill containment.

Figure B-8 (Continued)

Step 7: Use the EMCO Spill Containment Wrench p/n A0081-001H to loosen and remove the primary liner from the vapor riser pipe.

Step 8: Remove the primary liner from inside the A1004EVR spill containment by pulling upwards. Once the primary liner is completely out, please discard.

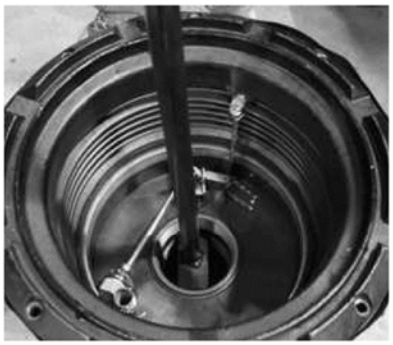
Fill & Vapor Application/Primary Liner Installation

Step 1: All eight bolt holes must be clean and free of all debris before attempting to install the new primary liner.

IMPORTANT: Failure to do so may result in possible cross threading and permanent damage voiding warranty.

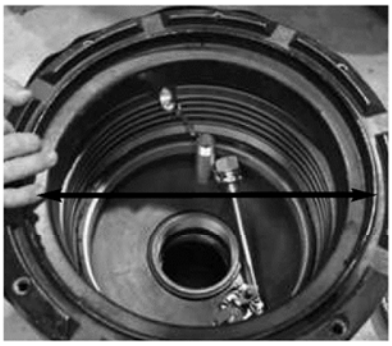
Step 2: Lubricate the sealing o-ring with a little coat of grease.

Figure B-8 (Continued)



Step 3: Manually tighten the new primary liner onto the riser pipe to avoid cross threading. Use the EMCO Spill Containment Wrench p/n A0081-001H to tighten and torque between 100 and 150 ft-lbs.

IMPORTANT: As the primary liner is being torqued verify the A1004EVR spill containment bolt holes line up with the rim bolt holes.



Step 4: Manually install eight new 3/8" stainless steel bolts. Use a ratchet with a 9/16" socket to tighten and torque to 40 ft-lbs.

IMPORTANT: Tighten each bolt two complete turns at a time in a cross over pattern before applying final torque.

Re-install the drain valve filter.

Spill Containment with Overfill Prevention Valve or Straight Drop Tube, Riser Seal, Swivel Fill Adapter and Fill Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton overfill prevention valve, please refer to the A1100EVR installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton straight drop tube, please refer to the A0020EVR and A0020EVRC installation instructions.

IMPORTANT: The fill riser installation will only allow for one type of EVR drop tube configuration.

3. When installing the A1004EVR spill containment with an Emco Wheaton riser seal, please refer to the 494096 installation instructions.
4. When installing the A1004EVR spill sontainment with an Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.
5. When installing the A1004EVR spill containment with an Emco Wheaton fill adapter cap, please refer to the A0097-005 installation instructions.

Figure B-8 (Continued)

Spill Containment with Swivel Vapor Adapter and Vapor Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton swivel vapor adapter, please refer to the A0076-124S installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton vapor adapter cap, please refer to the A0099-002, -003 installation instructions.

Clean-up and Finish

1. Clean and remove all debris from the inside of the A1004EVR spill containment, drain valve and filter assembly.
2. Paint the new A1004EVR spill containment rim to match the color of the lid.
3. Once the paint on the rim has dried, re-install the A1004EVR spill containment lid.

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment using soapy water and a disposable towel.
2. After each delivery, the station operator must remove any standing fuel from the inside of the A1004EVR spill containment. If gasoline does not drain, refer to the #494118 drain valve preventive maintenance instructions.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits

Part Number	Description
• 494118	Drain Valve Kit
• 494554	Lid and Seal
• 494602EVR	-215A Primary Replacement Kit
• 494661EVR	-216A Primary Replacement Kit

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

Figure B-8 (Continued)

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

Tank Operator Responsibilities

Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.

All operators must be familiar with proper filling procedures.

The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.

The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.

When tank vehicles are being unloaded, the vehicle operators must remain

(a) in constant view of the transfer nozzle and fill pipe; and

(b) in constant attendance at the discharge control valve.

Figure B-9
494550EVR and 494660EVR Primary and Secondary Spill Container Replacement Kit

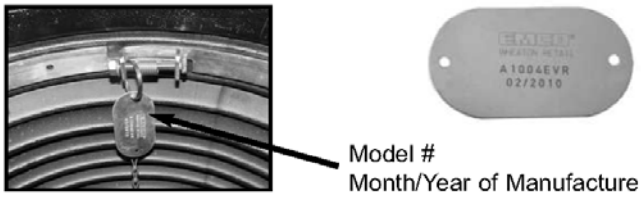
EMCO® WHEATON RETAIL

494550EVR
494660EVR

Primary & Secondary Replacement Kits

INSTALLATION INSTRUCTIONS

Permanent Identification:



Model Number	Description
494550EVR	Primary & Secondary Replacement Kit for A1004EVR-215S
494660EVR	Primary & Secondary Replacement Kit for A1004EVR-216S

Service Tools Required:

- Needle Nose Pliers
- 9/16" Socket
- EMCO Adapter Wrench A0081-001C
- 5/32" Allen Wrench
- 1/2" Drive 12" Extension
- EMCO Primary Wrench A0081-001H
- Lubricant
- Torque Wrench w/ 40 ft-lbs. Setting
- Flathead Screw Driver
- 1/2" Drive 5" Extension
- 5/16" Allen Wrench
- EMCO Riser Seal Wrench 494120
- Torque Wrench w/ 200 ft-lbs. Setting
- Chain Wrench
- Non-hardening Gasoline Resistant Pipe Thread Sealant Compound
- Standard 1/2" Drive Ratchet
- Tube of Urethane Sealant

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure B-9 (Continued)

Fill Application/Primary Liner Removal

Step 1: Remove the A1004EVR spill containment lid.

Step 2: Remove the A0097-005 fill adapter cap.

Step 3: Locate the 494118 drain valve. Begin by disassembling the pull chain and linkage. Use a pair of needle nose pliers to remove both cotter pins from the top, then lift and remove the filter.

Step 4: Use a 5/32" allen wrench to loosen and remove both set screws from the base of the A0030-124S swivel fill adapter.

Figure B-9 (Continued)

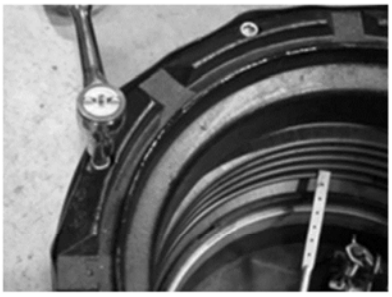
Step 5: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the A0030-124S swivel fill adapter.

Step 6: Use the EMCO Riser Seal Wrench p/n 494120 to loosen and remove the center insert located inside the 494096 riser seal.

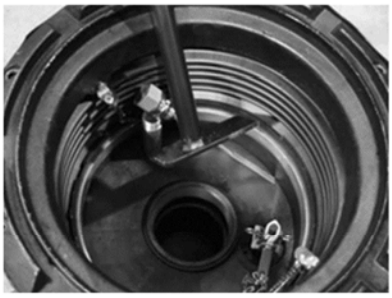
Step 7: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the 494096 riser seal.

Step 8: Remove the drop tube from the fill riser by pulling upward.

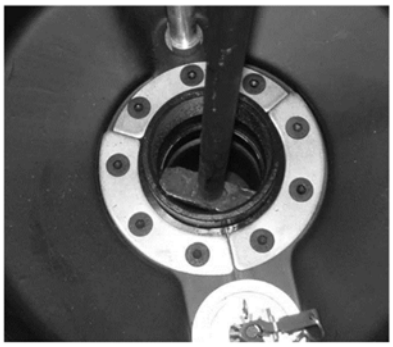
Figure B-9 (Continued)



Step 9: Use a ratchet with a 9/16" socket to remove and discard all eight 3/8" stainless steel bolts located along the top of the rim of the A1004EVR spill containment.



Step 10: Use the EMCO Spill Containment Wrench p/n A0081-001H to loosen and remove the primary liner from the fill riser pipe.



Step 11: Place long tang of the EMCO Spill Containment Wrench p/n A0081-001A into drain path of primary liner.

Step 12: Remove the primary liner from inside the A1004EVR spill containment by pulling upwards. Once the primary liner is completely out, please discard.

Figure B-9 (Continued)

Vapor Application/Primary Liner Removal

Step 1: Remove the A1004EVR spill containment lid.

Step 2: Remove the A0099-002, -003 vapor adapter cap.

Step 3: Use a 5/32" allen wrench to loosen and remove both set screws from the base of the A0076-124S swivel vapor adapter.

Step 4: Use the EMCO Adapter Wrench p/n A0081-001C to loosen and remove the A0076-124S swivel vapor adapter.

Figure B-9 (Continued)

Step 5: Use a standard 1/2" drive ratchet and chain wrench to loosen and remove the containment nipple.

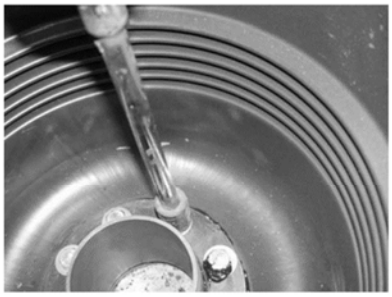
Step 6: Use a ratchet with a 9/16" socket to remove and discard all eight 3/8" stainless steel bolts located along the top of the rim of the A1004EVR spill containment.

Step 7: Use the EMCO Spill Containment Wrench p/n A0081-001H to loosen and remove the primary liner from the vapor riser pipe.

Step 8: Remove the primary liner from inside the A1004EVR spill containment by pulling upwards. Once the primary liner is completely out, please discard.

Figure B-9 (Continued)

Secondary Liner Removal



Step 1: Use a ratchet with a 5/16" allen wrench socket to remove the bolts and washers from the bottom of the secondary liner. Use a flat-head screwdriver to pry the flange away. Set the flange aside and discard the bolts and washers. Remove secondary liner from the inside of the A1004EVR spill containment and discard.

Step 2: Remove the existing two o-rings from the adapter flange and discard. Be sure to clean both o-ring grooves before proceeding with the installation of the new secondary liner.

Secondary Liner Installation

Step 1: Apply a thin bead of urethane sealant to each of the two o-ring grooves, then install the two new o-rings.

Step 2: Install the new secondary liner inside the A1004EVR spill containment.

Figure B-9 (Continued)

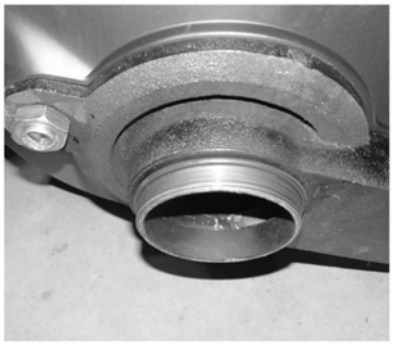
Step 3: Re-install the existing flange. Be sure to align the bolt holes

Step 4: Install the new bolts and washers to the bottom of the new secondary liner. Use a ratchet with a 5/16" allen wrench socket to tighten and torque to 40 ft-lbs.

Fill & Vapor Application/Primary Liner Installation

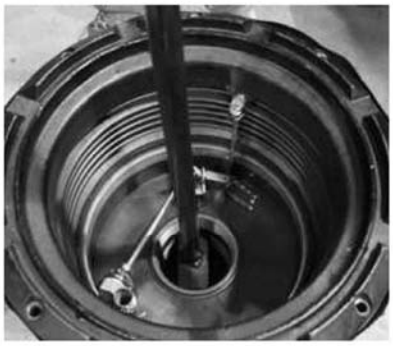
Step 1: All eight bolt holes must be clean and free of all debris before attempting to install the new primary liner.

IMPORTANT: Failure to do so may result in possible cross threading and permanent damage voiding warranty.



Step 2: Lubricate the sealing o-ring with a amount of grease.

Figure B-9 (Continued)



Step 3: Manually tighten the new primary liner onto the riser pipe to avoid cross threading. Use the EMCO Spill Containment Wrench p/n A0081-001H to tighten and torque between 100 and 150 ft-lbs.

IMPORTANT: As the primary liner is being torqued verify the A1004EVR spill containment bolt holes line up with the rim bolt holes.

Step 4: With flat side of gasket facing down, install the gasket between the primary rim and the secondary liner. Place a screw driver through the primary rim, gasket and secondary liner to hold gasket in place while installing.

Step 5: Manually install eight new 3/8" stainless steel bolts. Use a ratchet with a 9/16" socket to tighten and torque to 40 ft-lbs.

IMPORTANT: Tighten each bolt two complete turns at a time in a cross over pattern before applying final torque.

Re-install the dipstick and drain valve filter.

Figure B-9 (Continued)

Spill Containment with Overfill Prevention Valve or Straight Drop Tube, Riser Seal, Swivel Fill Adapter and Fill Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton overfill prevention valve, please refer to the A1100EVR installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton straight drop tube, please refer to the A0020EVR and A0020EVRC installation instructions.

IMPORTANT: The fill riser installation will only allow for one type of EVR drop tube configuration.

3. When installing the A1004EVR spill containment with an Emco Wheaton riser seal, please refer to the 494096 installation instructions.
4. When installing the A1004EVR spill containment with an Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.
5. When installing the A1004EVR spill containment with an Emco Wheaton fill adapter cap, please refer to the A0097-005 installation instructions.

Spill Containment with Swivel Vapor Adapter and Vapor Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton swivel vapor adapter, please refer to the A0076-124S installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton vapor adapter cap, please refer to the A0099-002, -003 installation instructions.

Clean-up and Finish

1. Clean and remove all debris from the inside of the A1004EVR spill containment, drain valve and filter assembly.
2. Paint the new A1004EVR spill containment rim to match the color of the lid.
3. Once the paint on the rim has dried, re-install the A1004EVR spill containment lid.

Figure B-9 (Continued)

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment using soapy water and a disposable towel.
2. After each delivery, the station operator must remove any standing fuel from the inside of the A1004EVR spill containment. If gasoline does not drain, refer to the #494118 drain valve preventive maintenance instructions.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits

Part Number	Description
• 494118	Drain Valve Kit
• 494554	Lid and Seal
• 494550EVR	-215S Primary & Secondary Replacement Kit
• 494660EVR	-216S Primary & Secondary Replacement Kit

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

Figure B-9 (Continued)

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

IMPORTANT: Tank Operator Responsibilities

- Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.
- All operators must be familiar with proper filling procedures.
- The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.
- The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.
- When tank vehicles are being unloaded, the vehicle operators must remain:
  (a) in constant view of the transfer nozzle and fill pipe; and
  (b) in constant attendance at the discharge control valve.

Figure B-10
495394EVR Primary Replacement Kit

EMCO® WHEATON RETAIL

495394EVR
Primary Replacement Kit

Packing List:

(1) Stainless Steel Primary Insert
(1) Triple Wiper Seal
(4) 3/8" Studs
(2) Split Flanges
(1) Grounding Clip
(8) 3/8" Bolts
(1) O-ring
(8) 9/16" Flange Bolts
(1) Grounding Clip Washer

Permanent Identification:

Month/Year of Manufacture

Model #

Model Numbers	Description
495394EVR	Primary Replacement Kit for A1004EVR-317AS

INSTALLATION INSTRUCTIONS

Service Tools Required:

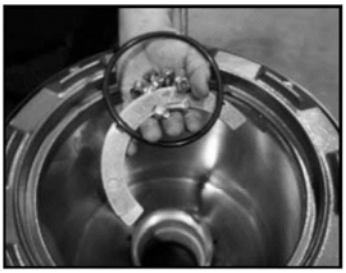
- 9/16" Socket
- 3/8" Socket
- Model 494120 Riser Seal Wrench
- 12" Extension and Ratchet
- Heavy Grease
- Torque Wrench w/ 15 to 20 ft-lbs. Settings
- Model A0081-001 Adapter Wrench
- Flat Head Screwdriver

CAUTION:

Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Step 1: Remove the spill containment lid, cap, adapter, riser seal and drop tube. Do not discard.

Step 2: Remove and discard every other bolt (total of four) from the spill containment plow ring. Install the four studs (provided with the kit) in the open bolts holes for alignment. Remove and discard the remaining four bolts.



Step 3: Remove the flange bolts, grounding clip, washer, split flange and o-ring from inside the primary insert and discard.

Figure B-10 (Continued)

EMCO® WHEATON RETAIL

495394EVR
Primary Replacement Kit

Step 4: Remove the spill containment plow ring and the primary insert by slowly pulling upward.

Step 5: Use a flat head screwdriver to gently pry and separate the spill containment plow ring alway from the primary insert.

Step 6: Use a flat head screwdriver to remove the triple wiper seal from the bottom side of the spill containment plow ring. Install the new triple wiper seal and lubricate the outer wipers using heavy grease.

Step 7: Install the new primary insert into the existing spill containment. Use the studs to assist with alignment

Step 8: Loosely install four of the eight 3/8" bolts into the open holes on the spill containment plow ring.

Step 9: Remove the four studs and discard. Install the four remaining 3/8" bolts. In a star pattern tighten and torque all eight 3/8" bolts to 20 ft-lbs.

Step 10: Install the new o-ring over the female coupling. Push downward until the o-ring is properly seated in the o-ring groove of the flange assembly.

Step 11: Install the split flanges using seven of the eight 9/16" flange bolts.

Step 12: Use the eighth 9/16" flange bolt and washer to install the new grounding clip. Be sure the grounding clip touches the female coupling.

Figure B-10 (Continued)

EMCO® WHEATON RETAIL

495394EVR
Primary Replacement Kit

Step 13: In a star pattern tighten and torque all eight 9/16" flange bolts to 15 ft-lbs.

Spill Containment with Overfill Prevention Valve or Straight Drop Tube, Riser Seal, Swivel Fill Adapter and Fill Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton overfill prevention valve, please refer to the A1100EVR installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton straight drop tube, please refer to the A0020EVR and A0020EVRC installation instructions.

IMPORTANT: The fill riser installation will only allow for one type of EVR drop tube configuration.

3. When installing the A1004EVR spill containment with an Emco Wheaton riser seal, please refer to the 494096 installation instructions.
4. When installing the A1004EVR spill containment with an Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.
5. When installing the A1004EVR spill containment with an Emco Wheaton fill adapter cap, please refer to the A0097-005 installation instructions.
6. When installing the A1004EVR spill containment with an Emco Wheaton low profile fill adapter cap, please refer to the A0097-004LP installation instructions.

Spill Containment with Swivel Vapor Adapter and Vapor Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton swivel vapor adapter, please refer to the A0076-124S installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton vapor adapter cap, please refer to the A0099-002, -003 installation instructions.
3. When installing the A1004EVR spill containment with an Emco Wheaton low profile vapor adapter cap, please refer to the A0099-004LP installation instructions.

Clean-up and Finish

1. Clean and remove all debris from the inside of the A1004EVR spill containment, drain valve and filter assembly.
2. Paint the new A1004EVR spill containment rim to match the color of the lid.
3. Once the paint on the rim has dried, re-install the A1004EVR spill containment lid.

Figure B-10 (Continued)

EMCO® WHEATON RETAIL

495394EVR
Primary Replacement Kit

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment using soapy water and a disposable towel.
2. After each delivery, the station operator must remove any standing fuel from the inside of the A1004EVR spill containment. If gasoline does not drain, refer to the #494118 drain valve preventive maintenance instructions.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits

Part Number	Description
• A1004-316LID	Lid and Seal, Composite
• A1004-316CLID	Lid and Seal, Cast Iron
• 495395EVR	-317SS Primary Replacement Kit

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

Tank Operator Responsibilities

Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.
All operators must be familiar with proper filling procedures.
The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.
The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.
When tank vehicles are being unloaded, the vehicle operators must remain
(a) in constant view of the transfer nozzle and fill pipe; and
(b) in constant attendance at the discharge control valve.

Figure B-11
495395EVR Primary Replacement Kit

EMCO® WHEATON RETAIL

495395EVR
Primary Replacement Kit

Packing List:

(1) Stainless Steel Primary Insert
(1) Triple Wiper Seal
(4) 3/8" Studs
(2) Split Flanges
(1) Grounding Clip
(8) 3/8" Bolts
(1) O-ring
(8) 9/16" Flange Bolts
(1) Grounding Clip Washer
(1) Plow Ring Gasket

Permanent Identification:

Month/Year of Manufacture

Model #

Model Numbers	Description
495395EVR	Primary Replacement Kit for A1004EVR-317SS

INSTALLATION INSTRUCTIONS

Service Tools Required:

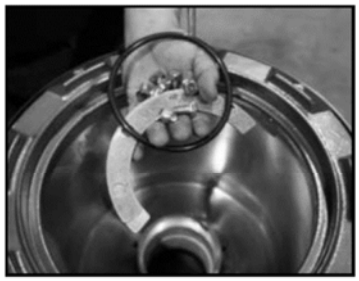
- 9/16" Socket
- 3/8" Socket
- Model 494120 Riser Seal Wrench
- 12" Extension and Ratchet
- Heavy Grease
- Torque Wrench w/ 15 to 20 ft-lbs. Settings
- Model A0081-001 Adapter Wrench
- Flat Head Screwdriver

CAUTION:

Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Step 1: Remove the spill containment lid, EZ-Gage, cap, adapter, riser seal and drop tube. Save, do not discard.

Step 2: Remove and discard every other bolt (total of four) from the spill containment plow ring. Install the four studs (provided with the kit) in the open bolts holes for alignment. Remove and discard the remaining four bolts.



Step 3: Remove the flange bolts, grounding clip, washer, split flange and o-ring from inside the primary insert and discard.

Figure B-11 (Continued)

EMCO® WHEATON RETAIL

495395EVR
Primary Replacement Kit

Step 4: Remove the spill containment plow ring and the primary insert by slowly pulling upward.

Step 5: Use a flat head screwdriver to gently pry and separate the spill containment plow ring alway from the primary insert.

Step 6: Use a flat head screwdriver to remove the triple wiper seal from the bottom side of the spill containment plow ring. Install the new triple wiper seal and lubricate the outer wipers using heavy grease.

Step 7: Remove and discard the existing plow ring gasket. Install the new plow ring gasket, use the studs for alignment.

Step 8: Install the new primary insert into the existing spill containment. Use the studs to assist with alignment.

Step 9: Loosely install four of the eight 3/8" bolts into the open holes on the spill containment plow ring.

Step 10: Remove the four studs and discard. Install the four remaining 3/8" bolts. In a star pattern tighten and torque all eight 3/8" bolts to 20 ft-lbs.

Step 11: Install the new o-ring over the female coupling. Push downward until the o-ring is properly seated in the o-ring groove of the flange assembly.

Step 12: Install the split flanges using seven of the eight 9/16" flange bolts.

Figure B-11 (Continued)

EMCO® WHEATON RETAIL

495395EVR
Primary Replacement Kit

Step 13: Use the eighth 9/16" flange bolt and washer to install the new grounding clip. Be sure the grounding clip touches the female coupling.

Step 14: In a star pattern tighten and torque all eight 9/16" flange bolts to 15 ft-lbs., and re-install EZ-Gage.

Spill Containment with Overfill Prevention Valve or Straight Drop Tube, Riser Seal, Swivel Fill Adapter and Fill Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton overfill prevention valve, please refer to the A1100EVR installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton straight drop tube, please refer to the A0020EVR and A0020EVRC installation instructions.

IMPORTANT: The fill riser installation will only allow for one type of EVR drop tube configuration.

3. When installing the A1004EVR spill containment with an Emco Wheaton riser seal, please refer to the 494096 installation instructions.
4. When installing the A1004EVR spill containment with an Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.
5. When installing the A1004EVR spill containment with an Emco Wheaton fill adapter cap, please refer to the A0097-005 installation instructions.
6. When installing the A1004EVR spill containment with an Emco Wheaton low profile fill adapter cap, please refer to the A0097-004LP installation instructions.

Spill Containment with Swivel Vapor Adapter and Vapor Adapter Cap

1. When installing the A1004EVR spill containment with an Emco Wheaton swivel vapor adapter, please refer to the A0076-124S installation instructions.
2. When installing the A1004EVR spill containment with an Emco Wheaton vapor adapter cap, please refer to the A0099-002, -003 installation instructions.
3. When installing the A1004EVR spill containment with an Emco Wheaton low profile vapor adapter cap, please refer to the A0099-004LP installation instructions.

Clean-up and Finish

1. Clean and remove all debris from the inside of the A1004EVR spill containment, drain valve and filter assembly.
2. Paint the new A1004EVR spill containment rim to match the color of the lid.
3. Once the paint on the rim has dried, re-install the A1004EVR spill containment lid.

Figure B-11 (Continued)

EMCO® WHEATON RETAIL

495395EVR
Primary Replacement Kit

PREVENTIVE MAINTENANCE

1. Quarterly verify that the inside of the A1004EVR spill containment is free of all dirt, gravel, debris, etc. Should cleaning be required, wipe the inside wall and bottom of the A1004EVR spill containment using soapy water and a disposable towel.
2. After each delivery, the station operator must remove any standing fuel from the inside of the A1004EVR spill containment. If gasoline does not drain, refer to the #494118 drain valve preventive maintenance instructions.

IMPORTANT: During routine preventive maintenance all damaged components must be replaced with factory authorized service kits.

Service Repair Kits

Part Number	Description
• A1004-316LID	Lid and Seal, Composite
• A1004-316CLID	Lid and Seal, Cast Iron
• 495395EVR	-317SS Primary Replacement Kit

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

TP-201.1D - Complies with the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

Tank Operator Responsibilities

Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.
All operators must be familiar with proper filling procedures.
The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.
The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.
When tank vehicles are being unloaded, the vehicle operators must remain
(a) in constant view of the transfer nozzle and fill pipe; and
(b) in constant attendance at the discharge control valve.

Figure C-1
494118 Drain Valve Installation Instructions

EMCO® WHEATON RETAIL

494118
Drain Valve Kit

A1004EVR Spill Containment Drain Valve Replacement

INSTALLATION INSTRUCTIONS

Packing List:

(1) Drain Valve w/ Flat Gasket
(1) Filter
(2) Cotter Pins
(1) Linkage and Pull Chain

Permanent Identification:

Model #
Month/Year of Manufacture

Service Tools Required:

- EMCO Drain Wrench p/n 493820
- Socket Extension
- Torque Wrench w/ 13 to 15 ft-lbs. Setting
- Needle Nose Pliers
- 15/16" Socket
- Ratchet Wrench

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.
2. Remove standing fuel or water from the A1004EVR spill containment before attempting to service the drain valve. Be sure to comply with all local regulatory requirements.

Figure C-1 (continued)

Pre-Inspection:

1. Remove all kitted parts from the shipping container and inspect for damage. Verify no parts are missing from the packing list before proceeding with the installation.

Installation:

Removing the Existing Drain Valve


2. Begin by removing the lid from the A1004EVR spill containment and fill adapter cap. Use a pair of needle nose pliers to remove both cotter pins and disassemble the linkage from the top of the drain valve. Remove the drain valve pull chain from the top of the A1004EVR spill containment rim and discard.


3. Remove the filter from the top of the drain valve. Use the EMCO Drain Wrench p/n 493820 to unscrew the drain valve from the base of the A1004EVR spill containment.

Installing the New Drain Valve

4. Before attempting to install the new drain valve, thoroughly clean and remove all debris from around the drain path opening and sealing threads.

Figure C-1 (continued)

5. Remove both cotter pins, linkage, and filter from the new drain valve. Verify the flat gasket is properly secured to the bottom.
6. Screw the new drain valve by hand to avoid cross threading. Use the EMCO Drain Wrench p/n 493820 to tighten and torque between 13 to 15 ft-lbs.

IMPORTANT: Do not use pipe thread sealant compound when installing the drain valve.

7. Re-install the filter, linkage and cotter pins. Verify the new drain valve opens and closes when pulling and releasing the chain. Re-install the fill adapter cap and the A1004EVR spill containment lid.

PREVENTIVE MAINTENANCE

1. Quarterly test the operation of the drain valve by pulling up on the chain located inside the A1004EVR spill containment.
2. If gasoline does not drain when actuating the drain valve perform steps (a) through (d). Refer below.
   a) Remove the filter from the drain valve. Use a pair of needle nose pliers to remove both cotter pins and disassemble the linkage from the top of the drain valve. Soak the filter in soapy water and use high pressure air to clean and remove all debris. Replace the filter p/n 569131 only if the screen is damaged.
   b) Use the EMCO Drain Wrench p/n 493820 to unscrew the drain valve from the base fo the A1004EVR spill containment. Soak the drain valve in soapy water and use high pressure air to clean and remove all debris. Replace the flat gasket p/n 567108 before re-installing.
   c) Re-install the drain valve by referring to installation steps 4 through 6. Verify the leak tightness integrity of the drain valve by performing ARB test procedure TP-201.1D.
   d) If the drain valve fails to pass ARB test procedure TP-201.1D, replace with new by referring to installation steps 4 through 6.

Figure D-1
A1100EVR Overfill Prevention Device Installation Instructions

EMCO® WHEATON RETAIL

A1100EVR GUARDIAN

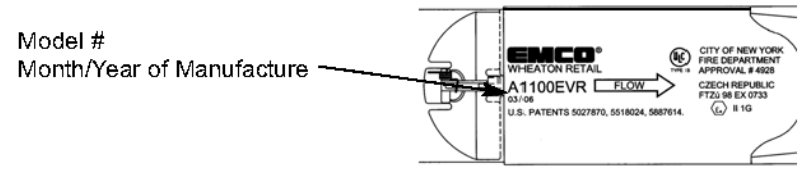
OVERFILL PREVENTION VALVE WITH THREADED BOTTOM

INSTALLATION INSTRUCTIONS

Packing List:

(1) Drop Tube O-ring #569461
(4) Collar #566679 w/ O-ring #480049
(1) Tube of Seals-All Sealant #566726
(1) Counter Sink Indenter #564416
(4) Rivets #569461

Permanent Identification:



Valve Sleeve

Service Tool Required:

- 13/64" Drill Bit
- Rivet Gun
- Power Drill
- Tape Measure
- Hacksaw w/ fine tooth
- Hand file w/ fine blade
- Marker
- Hammer
- Pipe Thread Sealant Compound
- 150 Grit Size Emery Cloth
- De-burring Tool w/ #10 Blade
- Fabric Strap Wrench (2)
- EMCO Drill Fixture p/n 566675

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

2. If the underground storage tank is equipped with a ball float vent valve, make sure it does not extend below the positive shut-off point of the A1100EVR overfill prevention valve. If so, the ball float valve must be removed to allow proper operation of the A1100EVR overfill prevention valve.

3. Never disconnect the delivery elbow from the fill adapter when the A1100EVR overfill prevention valve has reached the positive shut-off point of 95% total capacity. Note the tank delivery hose is full and must not be disconnected until enough fuel has been evacuated from the underground storage tank. This will allow the tank delivery hose to drain, and to safely disconnect from the fill adapter. Premature disconnection will result in a hazardous spill and/or a potential for personal injury and property damage.

4. Once the A1100EVR overfill prevention valve is completely assembled, **the Seals-All Sealant must cure for a minimum of 24 hours before installing into the underground storage tank.**

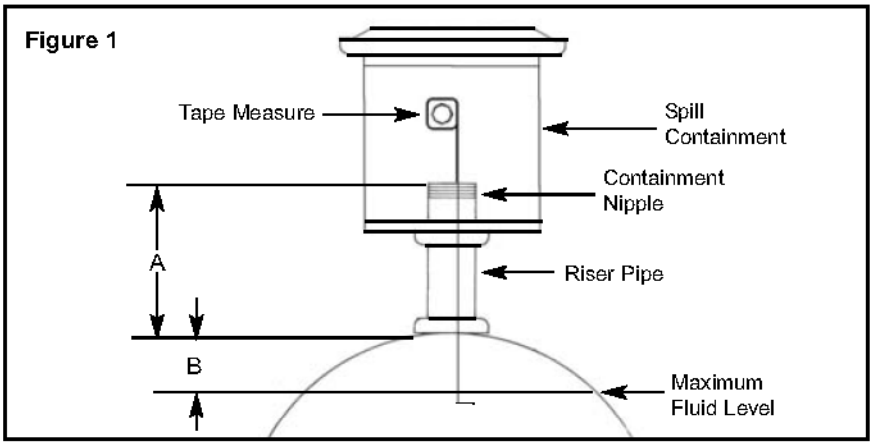
Figure D-1 (continued)

A1100EVR Overfill Prevention Valve Top Drop Tube Cut Length

1. Find measurement A, the distance from the inside top of the tank to the top edge of the riser pipe as shown in Figure 1.

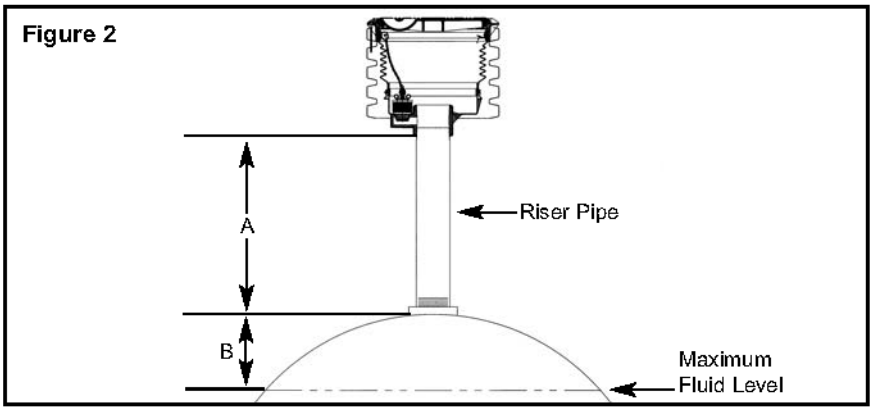
   When installing the A1100EVR overfill prevention valve below the spill containment drain valve, measurement A is the distance between the inside top of the tank to the top edge of the riser pipe as shown in Figure 2.

Figure 1



A1100EVR Overfill Prevention Valve Installed Above Drain Valve

Figure 2



A1100EVR Overfill Prevention Valve Installed Below Drain Valve

2

Figure D-1 (continued)

2. Find measurement B from the chart below, the distance from the maximum fluid level allowed to the inside top of the tank. The calculations are based on cylindrical tanks with flat ends. For exact dimensions, consult the manufacturer's tank charts. Local requirements may limit fill capacity to 95%.

Tank Diameter		95% Shut-off B Dimension	
Feet	Meters	Inches	mm
6.5'	1.98	7.5"	190
7.0'	2.13	8.0"	203
7.6'	2.29	9.0"	229
8.0'	2.44	9.5"	241
8.2'	2.50	9.5"	241
8.5'	2.59	10.0"	254
9.0'	2.74	10.5"	267
9.5'	2.90	11.0"	279
10.0'	3.05	11.5"	292
12.0'	3.66	14.0"	336

IMPORTANT: The A1100EVR overfill prevention valve is not recommended for tanks under 6.5 inches or 1.98 meters in diameter.

3. Find measurement C, add measurements A and B minus 7.5 inches. Measure and cut the top drop tube to the required length.

Example: Top drop tube cut length, C = A + B - 7.5"

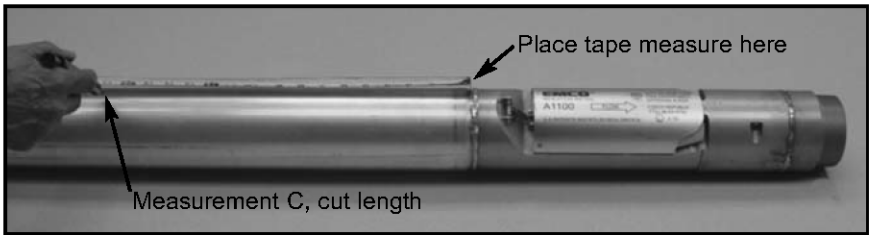
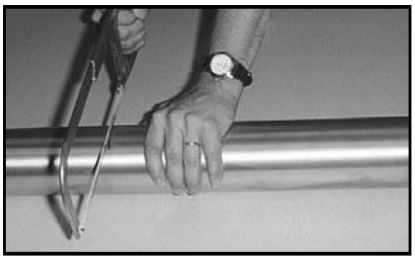
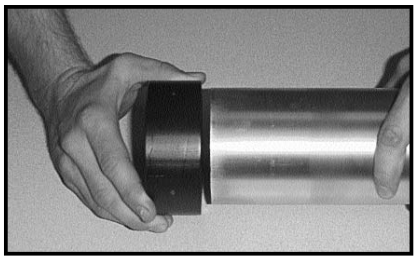


Figure D-1 (continued)

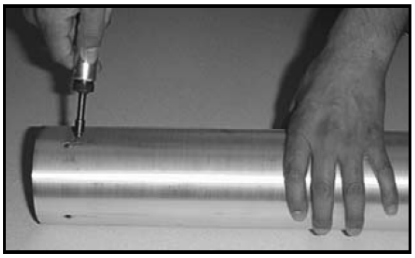


4. Carefully cut the top drop tube to the required length. Use a hacksaw equipped with a fine tooth blade to ensure a straight 90-degree cut.

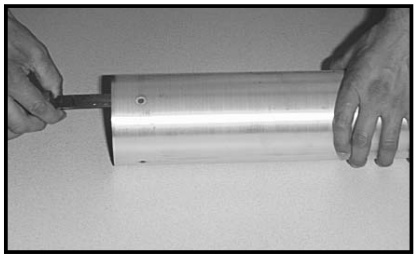
IMPORTANT: Do not use a power saw, pipe or tubing cutter as this may result in damage to the top drop tube, voiding warranty.



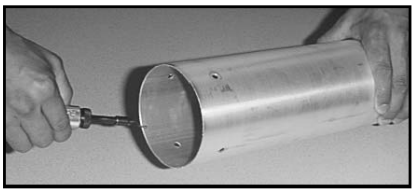
5. Slide the EMCO Drill Fixture p/n 566675 onto the end of the top drop tube until the edge bottoms out against the inside ridge.

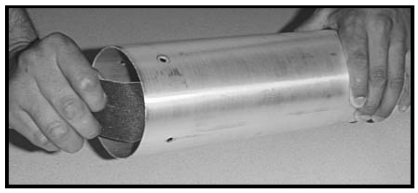


6. Drill four 13/64 diameter holes through the top drop tube. Remove the drill fixture from the top drop tube. Using a de-burring tool equipped with a #10 blade, remove any sharp burrs around the inside area of the mounting holes.



7. Using a fine blade hand file, remove all burrs from the inside and outside edge of the top drop tube. File the edge of the top drop tube square. File the inside surface of the holes. Remove all rough edges.



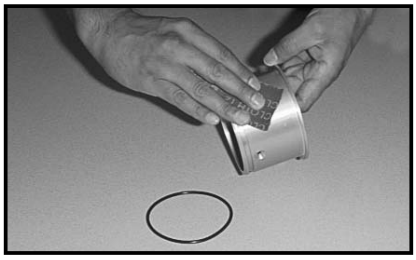


8. Using a de-burring tool equipped with a #10 blade, remove the sharp cutting ring from the inside edge of the top drop tube. Lightly sand the inside area of the top drop tube and mounting holes using 150-grit size emery cloth. Clean and remove any sanding debris.

IMPORTANT: Failure to perform this procedure will damage the o-ring seal during the installation of the A1100EVR collar, voiding warranty.

Figure D-1 (continued)

A1100EVR Collar to Top Drop Tube



9. Remove the o-ring from the A1100EVR collar. Lightly sand the outside area using 150-grit size emery cloth. Clean and remove any sanding debris and re-install o-ring.

10. Apply a 1/2 inch bead of Seals-All sealant around the o-ring and outside area of the A1100EVR collar. Verify the o-ring is properly secured inside the machined groove.

11. Slide the A1100EVR collar inside the top end of the drop tube and align the four holes.

12. Using the indenter tool and a hammer, apply a sharp blow to counter sink each individual hole before attempting to install the mounting rivets.

13. Using only the factory supplied rivets, apply a good amount of the Seals-All Sealant around the base of each rivet before installing into each of the four holes. Using the rivet gun, permanently fasten the A1100EVR collar to the top of the drop tube.

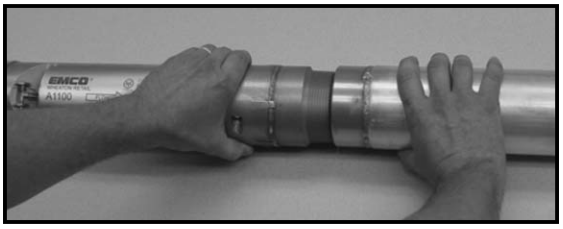
14. Once finished with steps 11 through 13, clean and remove all excess sealant around the top of the A1100EVR collar and rivets.

IMPORTANT: The Seal-All sealant must cure for a minimum of 24 hours before installing into the underground storage tank.

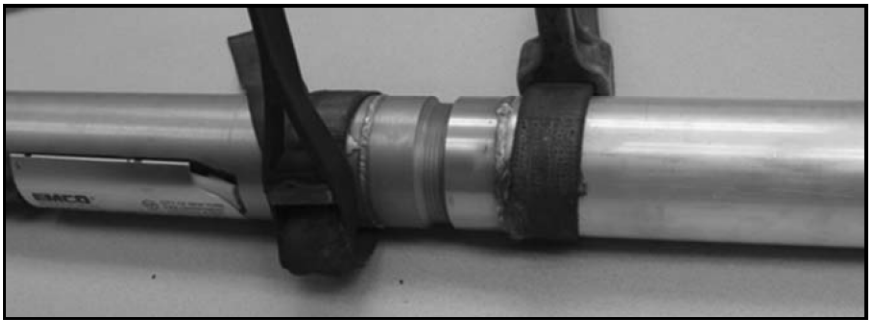
Figure D-1 (continued)

A1100EVR Overfill Prevention Valve to Lower Drop Tube

15. Apply pipe thread sealant compound to the male threads of the A1100EVR base.



16. Manually tighten both top and bottom drop tubes to avoid cross threading.



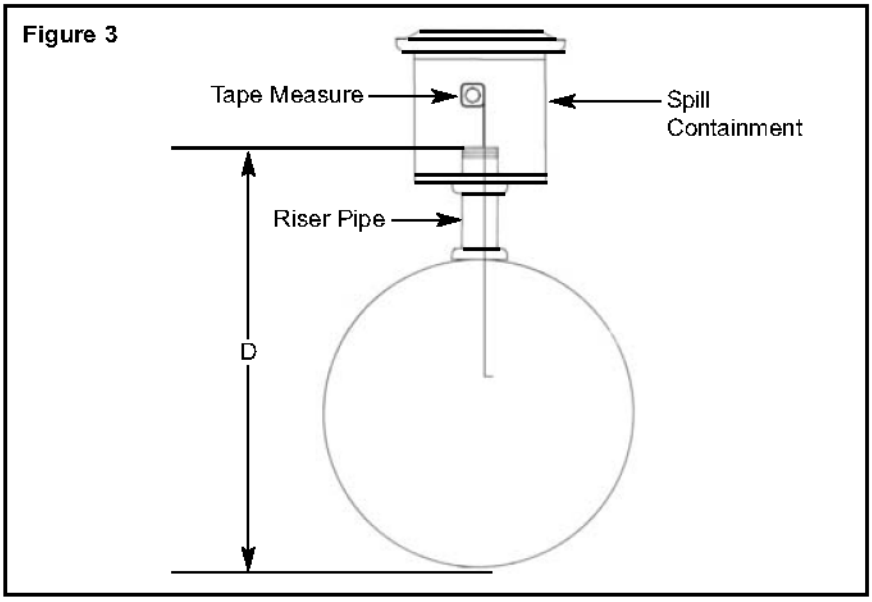
17. Use two fabric strap wrenches to permanently tighten.

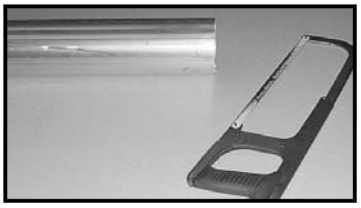
IMPORTANT: Once the Seals-All sealant has cured for a minimum of 24 hours and before installing the A1100EVR overfill prevention valve into the underground storage tank, a leak tightness integrity test must be performed.

18. Test the A1100EVR overfill prevention valve by sealing both ends with inflatable plumber's plugs. Apply a maximum pressure of 2 inches of water column. Should the leak rate exceed the allowable limit of 0.17 CFH, locate the leak point by spraying soap solution along the outside of the A1100EVR overfill prevention valve.

IMPORTANT: Do not exceed the maximum presssure of 2 inches of water column. This will damage the A1100 overfill prevention valve and result in voiding the warranty.

Figure D-1 (continued)





19. Find measurement D, the distance between the top of the riser pipe and the bottom of the tank minus 6 inches as shown in Figure 3.

20. Carefully cut the drop tube to the required length. Use a hacksaw equipped with a fine tooth blade to ensure a straight 90-degree cut.

IMPORTANT: Do not use a power saw, pipe or tubing cutter as this may result in damage to the bottom of the lower drop tube, voiding warranty.

IMPORTANT: Do not apply a 45 degree miter cut to the bottom of the lower drop tube.

A1100EVR Overfill Prevention Valve to Tank Fill Riser

21. Remove all metal chips or debris left from cutting or drilling. Shake the A1100EVR overfill prevention valve in a vertical position. Locate the A1100EVR overfill prevention valve over the tank fill riser opening with the A1100EVR collar pointing upward. Carefully lower the A1100EVR overfill prevention valve into the tank until the A1100EVR collar is resting on the riser pipe. Verify that the A1100EVR drop tube o-ring is installed and properly secured

Figure D-1 (continued)

PREVENTIVE MAINTENANCE

1. Annually, conduct a visual inspection of the flapper valve located inside the A1100EVR overfill prevention valve. Begin by removing the spill containment lid and fill adapter cap. Looking down over the tank fill riser opening, verify that the flapper valve is open and free of any foreign objects that can block or restrict the flow of gasoline into the underground storage tank during a fuel delivery.

2. Annually, verify leak tightness integrity of the A1100EVR overfill prevention valve by performing ARB test procedure TP-201.1D.

3. If the A1100EVR overfill prevention valve fails to pass the leak tightness integrity test, replace the drop tube o-ring with the EMCO o-ring kit p/n 569461.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.
1. TP-201.1D - Meets or exceeds the allowable maximum leakrate of 0.17 CFH @ 2.00 inches of water.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

Emco Wheaton Retail Corp.
2300 Industrial Park Dr. • Wilson, NC 27893
252-243-0150 • 252-243-4759 (fax)

p/n 568415
Rev. S, 06/13

Figure D-2
A0020EVR or A0020EVRC Straight Drop Tube Installation Instructions

EMCO® WHEATON RETAIL

A0020EVR & A0020EVRC
Straight Drop Tube

INSTALLATION INSTRUCTIONS

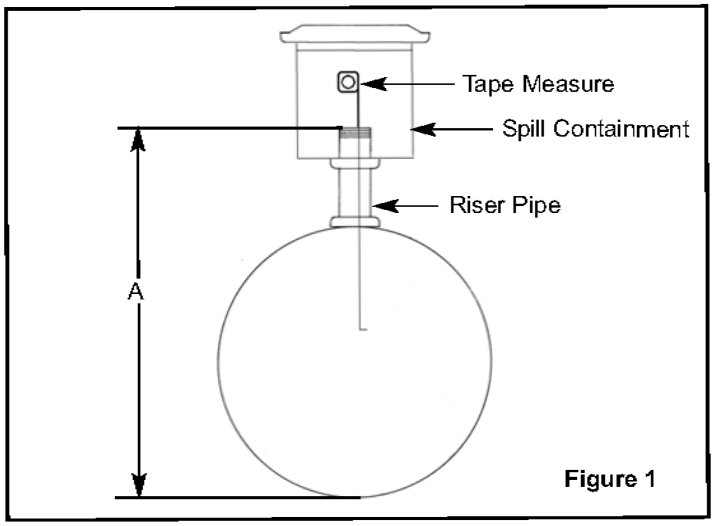


Figure 1

Service Tools Required:

- Tape Measure
- De-burring Tool w/ #10 Blade
- Hand File
- Hacksaw (fine tooth blade)

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

1. Find measurement A, the distance between the top of the riser pipe and the bottom of the tank minus 6 inches as shown in Figure 1.
2. Carefully cut the A0020EVR or A0020EVRC straight drop tube to the required length. Use a hacksaw equipped with a fine tooth blade to ensure a straight 90-degree cut.

IMPORTANT: Do not use a power saw or pipe cutter as this may result in damage to the A0020EVR or A0020EVRC straight drop tube, voiding the warranty.

IMPORTANT: Do not apply a 45-degree miter cut to the bottom of the A0020EVR or A0020EVRC straight drop tube.

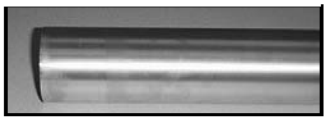


Figure D-2 (Continued)

3. Remove all cutting burrs using a de-burring tool with a #10 blade. File the bottom edge of the A0020EVR or A0020EVRC straight drop tube flat.

A0020EVR or A0020EVRC Straight Drop Tube to Riser Pipe

4. Before installing the A0020EVR or A0020EVRC straight drop tube into the riser pipe, verify the drop tube o-ring is installed and secured in place.
5. Locate the bottom of the A0020EVR or A0020EVRC straight drop tube over the opening of the A1004EVR spill containment. Carefully lower the A0020EVR or A0020EVRC straight drop tube into the riser pipe until the collar rests on the top edge.
6. Before installing the A0020EVR or A0020EVRC straight drop tube below the A1004EVR spill containment drain valve, please refer to the 494096 riser seal installation instructions.

Swivel Fill Adapter to Riser Seal

7. Before installing the Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.

PREVENTIVE MAINTENANCE

1. Annually, verify leak tightness integrity of the A0020EVR or A0020EVRC straight drop tube by performing ARB test procedure TP-201.1D.
2. If the A0020EVR or A0020EVRC straight drop tube fails to pass the leak tightness integrity test, replace the drop tube o-ring with EMCO o-ring kit p/n 569461.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1C - Meets or exceeds the allowable maximum leakrate of 0.00 CFH @ 2.00 inches of water.

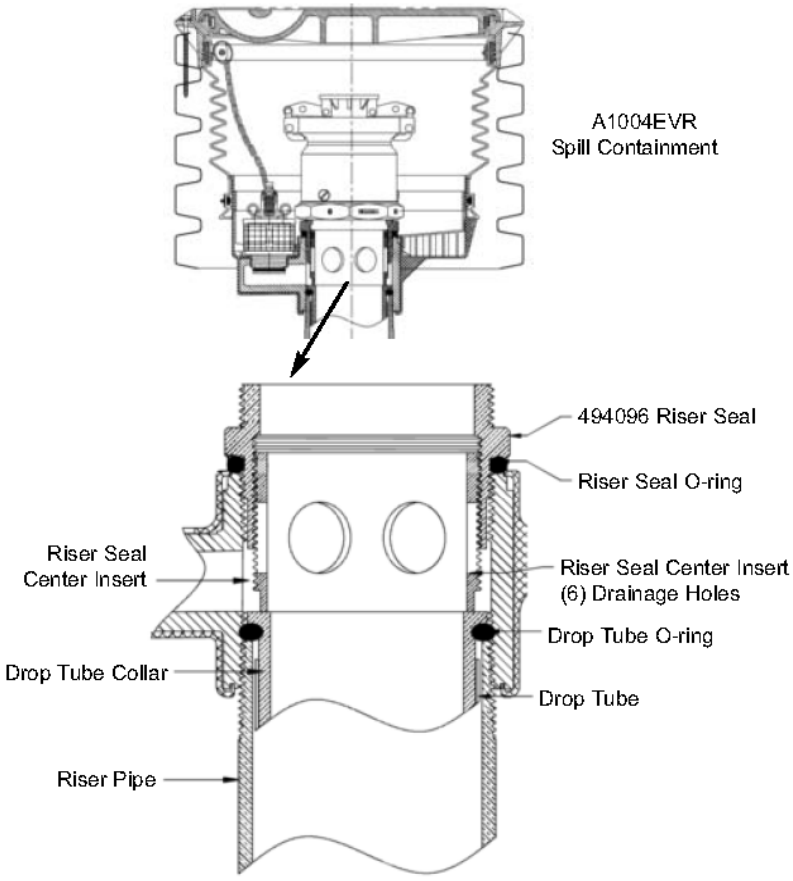
IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

Figure E-1
494096 Riser Seal Installation Instructions

EMCO® WHEATON RETAIL

494096
Riser Seal

INSTALLATION INSTRUCTIONS



Service Tools Required:

- Ratchet Wrench
- 5/32 " Allen Wrench
- 15/16" Socket
- EMCO Adapter Wrench p/n A0081-001C
- Torque Wrench w/ 35 to 80 ft-lbs Setting
- EMCO Riser Seal Wrench p/n 494120

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure E-1 (continued)

ARB EVR Approved Drop Tube Configurations

	Model Number	Description
A.	A1100EVR	Drop Tube with Overfill Prevention Valve
B.	A0020EVR	Straight Drop Tube
C.	A0020EVRC	Straight Drop Tube with Collar

The 494096 riser seal is used when installing the top of the drop tube below the drain path of the spill containment drain valve. This allows standing gasoline and/ or water to drain directly into the tank fill riser.

1. Before installing any of the three CARB EVR approved drop tube configurations A, B or C, verify that the drop tube o-ring is installed and properly secured.

2. Locate the bottom of the drop tube over the opening of the A1004EVR spill containment. Lower the drop tube into the tank fill riser below the drain path until the drop tube is resting on the top edge of the riser pipe.

3. Before installing the 494096 riser seal, verify that the riser seal o-ring is installed and properly secured. Manually tighten the 494096 riser seal onto the top threads of the A1004EVR spill containment to avoid cross threading. Use the EMCO Adapter Wrench A0081-001C to tighten and torque the 494096 riser seal to 80 ft-lbs.

IMPORTANT: Do not use pipe thread sealant compound when installing the 494096 riser seal.

4. Use the EMCO Riser Seal Wrench p/n 494120 to tighten and torque the riser seal center insert located inside the 494120 riser seal between 35 to 45 ft-lbs.

5. When installing the Emco Wheaton swivel fill adapter, please refer to the A0030-124S installation instructions.

PREVENTIVE MAINTENANCE

1. Annually verify leak tightness integrity of the 494096 riser seal by performing ARB test procedure TP-201.1D.

2. If the 494096 riser seal fails to pass the leak tightness integrity test, replace the riser seal o-ring with EMCO o-ring kit p/n 494252.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. CP-201 - Complies with the allowable maximum performance standards and all applicable ARB test procedures.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

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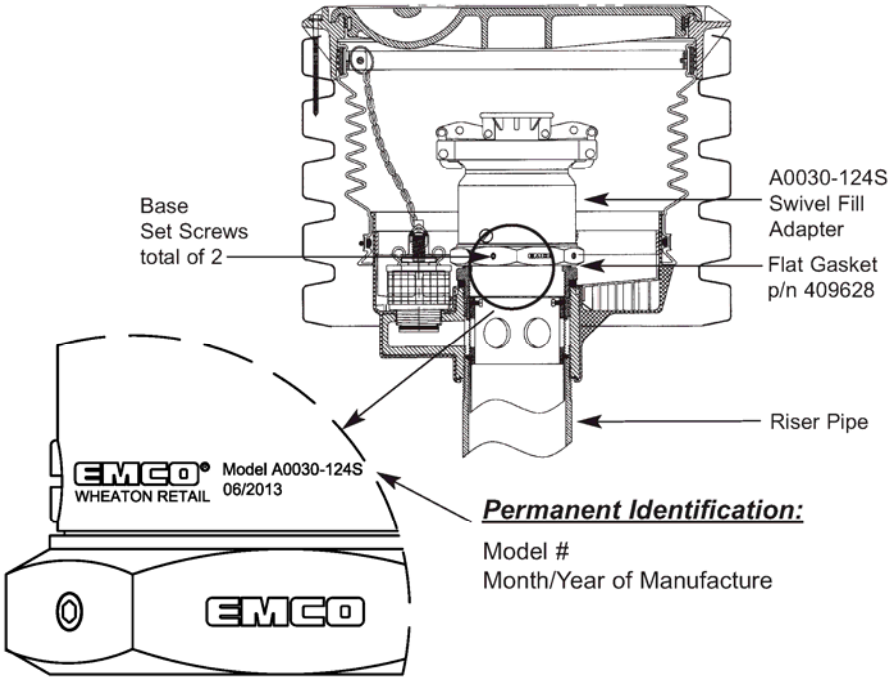
p/n 568398
Rev. H, 06/13

Figure F-1
A0030-124S Product Adaptor Installation Instructions

EMCO® WHEATON RETAIL

A0030-124S
Swivel Fill Adapter

INSTALLATION INSTRUCTIONS



Service Tools Required:

- Ratchet Wrench
- 15/16" Socket
- 5/32 " Allen Wrench
- Torque Wrench w/ 60 to 75 ft-lbs Setting
- EMCO Adapter Wrench p/n A0081-001C
- EMCO Swivel Adapter Torque Wrench p/n 494240

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure F-1 (continued)

1. Using a 5/32" allen wrench, remove both set screws from the base of the A0030-124S swivel fill adapter.
2. Before installing the A0030-124S swivel fill adapter verify the flat gasket is secured in place. Manually tighten the A0030-124S swivel fill adapter onto the 494096 riser seal to avoid cross threading. Using the EMCO Adapter Wrench p/n A0081-001C, tighten and torque between 60 to 75 ft-lbs.

IMPORTANT: Do not use pipe thread sealant compound when installing the A0030-124S swivel fill adapter onto the 494096 riser seal.

3. Re-install both set screws to the base of the A0030-124S swivel fill adapter and tighten.

PREVENTIVE MAINTENANCE

Static Torque Test:

1. Using the EMCO Swivel Adapter Torque Wrench p/n 494240, annually verify the static torque of the A0030-124S swivel fill adapter by performing ARB test procedure TP-201.1B.
2. If the A0030-124S swivel fill adapter fails to pass the static torque test, replace both o-rings with EMCO o-ring kit p/n 494301.

Leak Tightness Integrity Test:

1. Annually verify leak tightness integrity of the A0030-124S swivel fill adapter by performing ARB test procedure TP-201.1D.
2. If the A0030-124S swivel fill adapter fails to pass the leak tightness integrity test, replace both o-rings with EMCO o-ring kit p/n 494301 or flat gasket kit p/n 409628.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1B - Complies with the allowable maximum: 108 in-lbs. average static torque and 360 degrees rotation.
2. Meets ARB Cam and Groove Specifications.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

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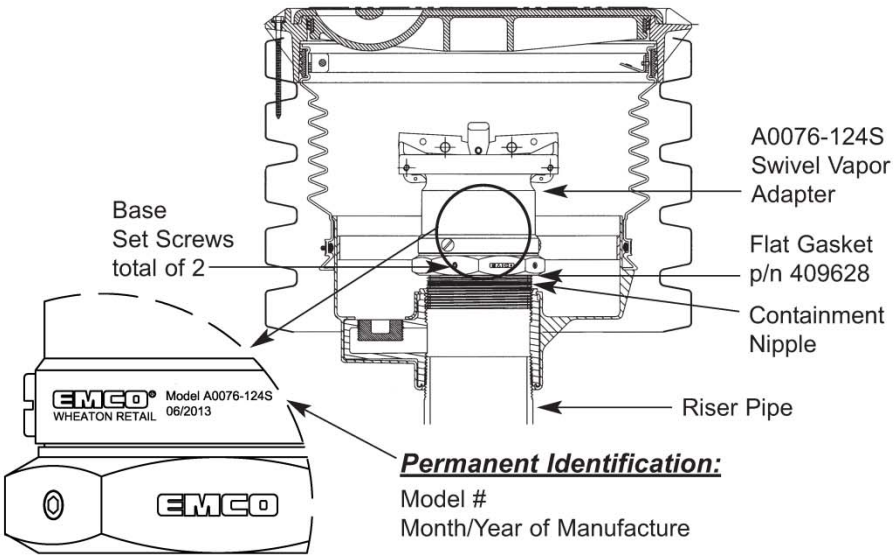
Rev. K, 06/13

Figure F-2
A0076-124S Vapor Adaptor Installation Instructions

EMCO® WHEATON RETAIL

A0076-124S
Swivel Vapor Adapter

INSTALLATION INSTRUCTIONS



Permanent Identification:
Model #
Month/Year of Manufacture

Service Tools Required:

- Ratchet Wrench
- 15/16" Socket
- 5/32 " Allen Wrench
- Torque Wrench w/ 60 to 75 ft-lbs Setting
- EMCO Adapter Wrench p/n A0081-001C
- EMCO Swivel Adapter Torque Wrench p/n 494240

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Containment Nipple Pre-Installation Requirements

1. The containment nipple must be properly sized to the required height to avoid clearance limitations between the top of the vapor adapter cap and the bottom of the A1004EVR spill containment lid.
2. The top edge of the containment nipple must be filed flat and square to insure a proper sealing surface between the containment nipple and the base of the A0076-124S swivel vapor adapter.
3. Apply a non-hardening gasoline resistant pipe thread sealant compound to the bottom threads of the containment nipple. Manually tighten the containment nipple onto the A1004EVR spill containment to avoid cross threading.

Figure F-2 (continued)

1. Using a 5/32" allen wrench, remove both set screws from the base of the A0076-124S swivel vapor adapter.
2. Before installing the A0076-124S swivel vapor adapter verify the flat gasket is secured in place. Manually tighten the A0076-124S swivel vapor adapter onto the containment nipple to avoid cross threading. Using the EMCO Adapter Wrench p/n A0081-001C, tighten and torque between 60 to 75 ft-lbs.

IMPORTANT: Do not use pipe thread sealant compound when installing the A0076-124S swivel vapor adapter onto the containment nipple.

3. Re-install both set screws to the base of the A0076-124S swivel vapor adapter and tighten.

PREVENTIVE MAINTENANCE

Static Torque Test:

1. Using the EMCO Swivel Adapter Torque Wrench p/n 494240, annually verify the static torque of the A0076-124S swivel vapor adapter by performing ARB test procedure TP-201.1B.
2. If the A0076-124S swivel vapor adapter fails to pass the static torque test, replace both o-rings with EMCO o-ring kit p/n 494301.

Leak Tightness Integrity Test:

1. Annually verify leak tightness integrity of the A0076-124S swivel vapor adapter by performing ARB test procedure TP-201.1D.
2. If the A0076-124S swivel vapor adapter fails to pass the leak tightness integrity test, replace both o-rings with EMCO o-ring kit p/n 494301 or flat gasket kit p/n 409628.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. TP-201.1B - Complies with the allowable maximum: 108 in-lbs. average static torque and 360 degrees rotation.
2. Meets ARB Cam and Groove Specifications CID A-A-59326.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

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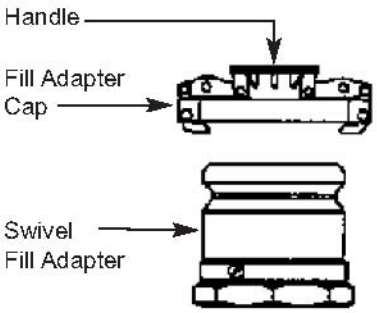
p/n 568397
Rev. K, 06/13

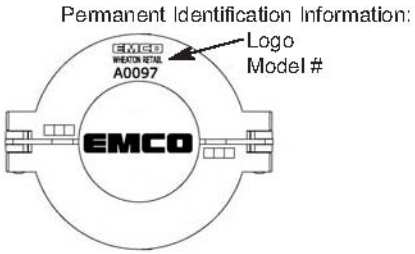
Figure G-1
A0097-005 Product Dust Cap Installation Instructions

EMCO® WHEATON RETAIL

A0097-005
Fill Adapter Cap

INSTALLATION INSTRUCTIONS





1. Locate the fill adapter cap over the swivel fill adapter and lock into place by pressing down on the handle.

PREVENTIVE MAINTENANCE

1. Annually verify that the gasket seal is properly secured and free of tears. If the fill adapter cap fails to comply, replace with new.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.
1. Meets ARB Cam and Groove Specifications.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

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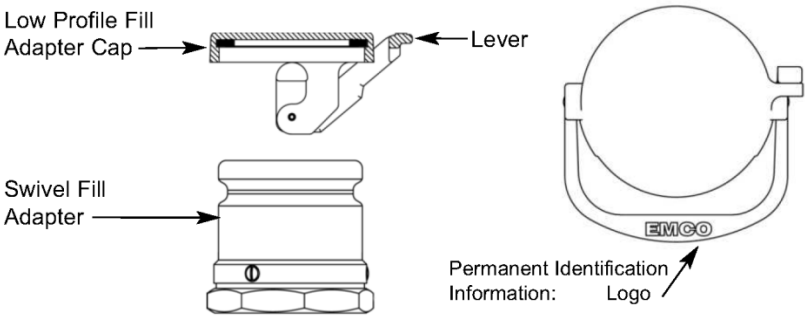
Rev. J, 06/13

Figure G-2
A0097-004LP Product Dust Cap Installation Instructions

EMCO® WHEATON RETAIL

A0097-004LP
Low Profile Fill Adapter Cap

INSTALLATION INSTRUCTIONS



1. Locate the low profile fill adapter cap over the swivel fill adapter and lock into place by pressing down on the lever.

PREVENTIVE MAINTENANCE

1. Annually verify that the gasket seal is properly secured and free of tears. If the low profile fill adapter cap fails to comply, replace with new.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.
1. Meets ARB Cam and Groove Specifications.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

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p/n 571869
Rev. A, 08/15

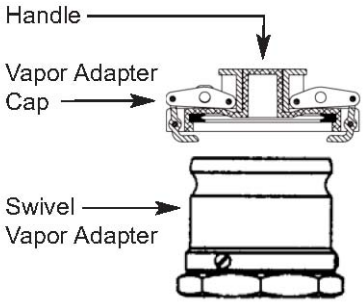
Figure G-3
A0099-002, -003 Vapor Dust Cap Installation Instructions

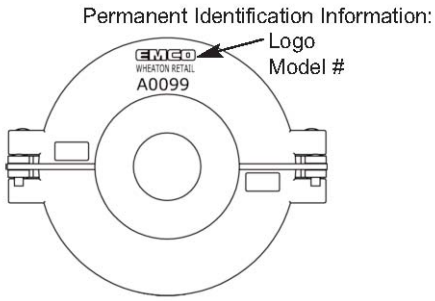
EMCO® WHEATON RETAIL

A0099-002,-003

Vapor Adapter Cap

INSTALLATION INSTRUCTIONS





1. Locate the vapor adapter cap over the swivel vapor adapter and lock into place by pressing down on the handle.

PREVENTIVE MAINTENANCE

1. Annually verify that the gasket seal is properly secured and free of tears. If the vapor adapter cap fails to comply, replace with new.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.
1. Meets ARB Cam and Groove Specifications CID A-A-59326.

IMPORTANT: Leave these <u>installation instructions, product warranty registration card</u> and the <u>warranty tag</u> with the station owner and/or operator.

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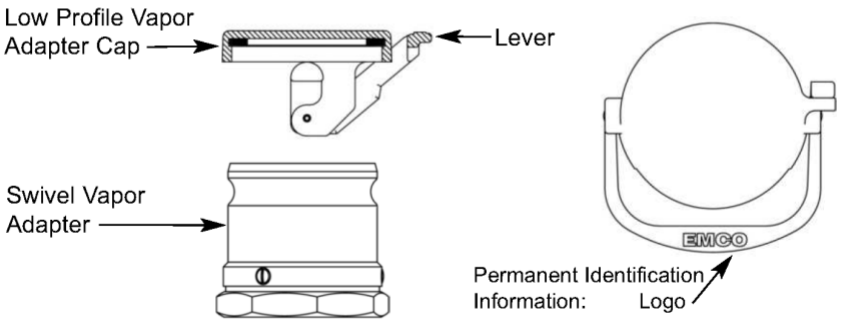
p/n 568392
Rev. J, 06/13

Figure G-4
A0099-004LP Vapor Dust Cap Installation Instructions

EMCO® WHEATON RETAIL

A0099-004LP
Low Profile Vapor Adapter Cap

INSTALLATION INSTRUCTIONS



1. Locate the low profile vapor adapter cap over the swivel vapor adapter and lock into place by pressing down on the lever.

PREVENTIVE MAINTENANCE

1. Annually verify that the gasket seal is properly secured and free of tears. If the low profile vapor adapter cap fails to comply, replace with new.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.
1. Meets ARB Cam and Groove Specifications.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

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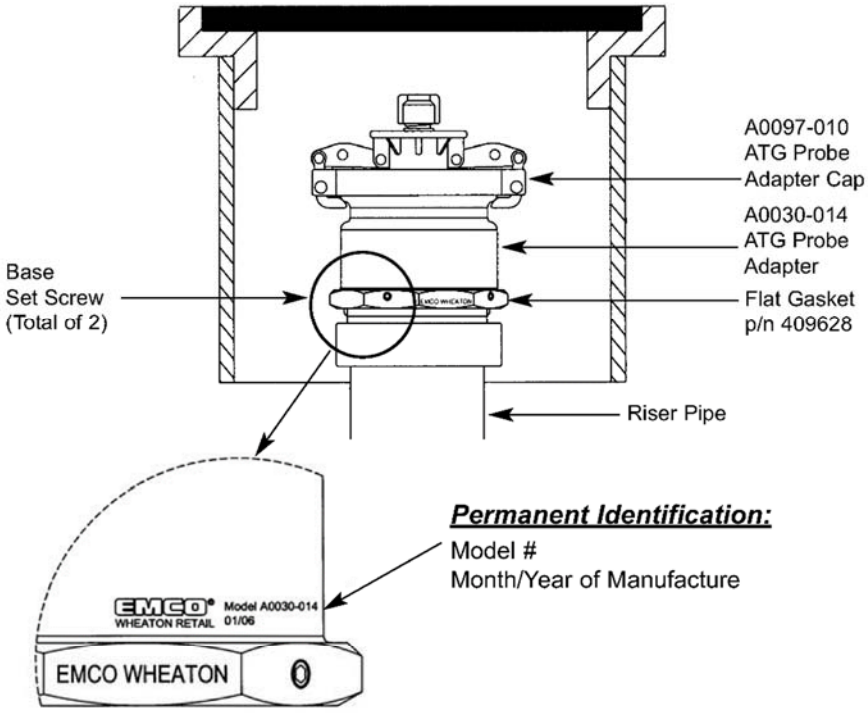
p/n 571870
Rev. A, 08/15

Figure H-1
A0030-014 Tank Gauge Port Adaptor Installation Instructions

EMCO® WHEATON RETAIL

A0030-014
ATG Probe Adapter

INSTALLATION INSTRUCTIONS



Service Tools Required:

- Ratchet Wrench
- 15/16" Socket
- 5/32 " Allen Wrench
- Torque Wrench w/ 60 to 75 ft-lbs Setting
- EMCO Adapter Wrench p/n A0081-001C

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure H-1 (continued)

1. Using a 5/32” allen wrench, remove both set screws from the base of the A0030-014 ATG probe adapter.

2. The top edge of the riser pipe must be filed flat and square to insure a proper sealing surface between the riser pipe and the base of the A0030-014 ATG probe adapter.

3. Before installing the A0030-014 ATG probe adapter verify the flat gasket is secured in place. Manually tighten the A0030-014 ATG probe adapter onto the riser pipe to avoid cross threading. Using the EMCO Adapter Wrench p/n A0081-001C, tighten and torque between 60 to 75 ft-lbs.

IMPORTANT: Do not use pipe thread sealant compound when installing the A0030-014 ATG probe adapter onto the riser pipe.

4. Re-install both set screws to the base of the A0030-014 ATG probe adapter and tighten.

PREVENTIVE MAINTENANCE

Leak Tightness Integrity Test:

1. Annually verify leak tightness integrity of the A0030-014 ATG probe adapter by performing ARB test procedure TP-201.3.
2. If the A0030-014 ATG probe adapter fails to pass the leak tightness integrity test, replace the EMCO flat gasket kit p/n 409628.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.

1. Meets ARB Cam and Groove Specifications.

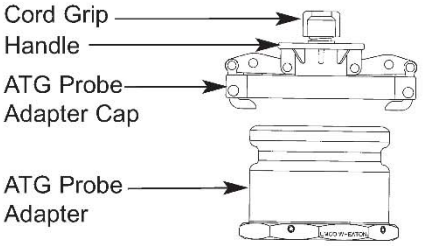
IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

Figure H-2
A0097-010 Tank Gauge Port Cap Installation Instructions

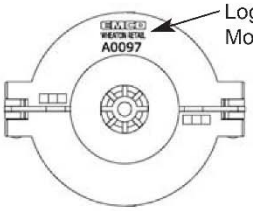
EMCO® WHEATON RETAIL

A0097-010
ATG Probe Adapter Cap

INSTALLATION INSTRUCTIONS



Permanent Identification Information:



1. Two sizes of cord grip fittings are supplied. One size is .125"-.375" and the other size is .190"-.250". Choose the appropriate cord grip and screw into the top of the ATG probe adapter cap.
2. Feed the signal cable of the ATG probe through the bottom of the ATG probe adapter cap. Secure the signal cable by tightening the cord grip.
3. Locate the ATG probe adapter cap over the ATG probe adapter and lock into place by pressing down on the handle.

PREVENTIVE MAINTENANCE

1. Annually verify that the gasket seal is properly secured and free of tears. If the ATG probe adapter cap fails to comply, replace with new.

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.
1. Meets ARB Cam and Groove Specifications.

IMPORTANT: Leave these <u>installation instructions, product warranty registration card</u> and the <u>warranty tag</u> with the station owner and/or operator.

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p/n 568598
Rev. J 06/13

Figure I-1
A0079 Extractor Assembly Installation Instructions

EMCO WHEATON RETAI

A0079
Extractor Assembly

INSTALLATION INSTRUCTIONS

Permanent Identification:

Service Tools Required:

- Standard Chain Wrench
- Torque Wrench w/ 100 to 150 ft-lbs. Setting

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

Figure I-1 (continued)

1. Using a non-hardening, gasoline resistant pipe thread seal compound fasten the A0079 extractor assembly to the tank bung collar or riser pipe.

2. Manually fasten the A0079 extractor assembly to the tank bung collar or riser pipe to avoid cross threading.

3. Use a standard chain wrench to tighten and torque the A0079 extractor assembly between 100 and 150 ft-lbs.

PREVENTIVE MAINTENANCE

1. None required

PERFORMANCE SPECIFICATIONS

This component was factory tested to, and met, the following specifications.
1. TP-201.3 - Complies with leakrate of 0.00 CFH @ 2.00 inches of water.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.

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p/n 569264
Rev. E, 06/13

Figure J-1
494301 Adaptor O-Ring Kit Installation Instructions

EMCO® WHEATON RETAIL

494301
O-RING KIT

Replacement O-ring Kit for A0030-124S Swivel Fill Adapter and A0076-12S Swivel Vapor Adapter

INSTALLATION INSTRUCTIONS

Service Tools Required:

- Flathead Screwdriver
- Ratchet Wrench
- 15/16" Socket
- Torque Wrench w/ 60 to 75 ft-lbs Setting
- Torque Wrench w/ 20 in-lbs Setting
- Petroleum Jelly or Gun Grease
- EMCO Adapter Wrench p/n A0081-001C

CAUTION:

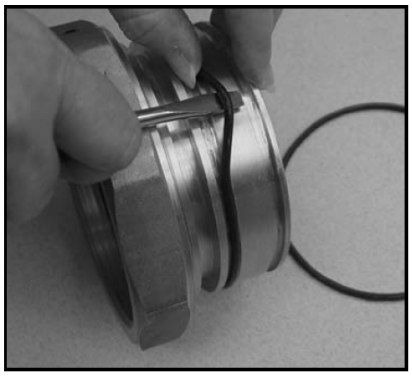
1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

A0030-124S Swivel Fill Adapter

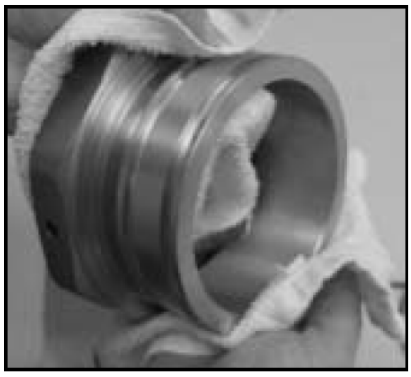
1. Using a flathead screwdriver, remove all three stainless steel screws for the base of the swivel adapter.

2. Separate the fill top from the base of the swivel adapter by slowly rotating and pulling upward.

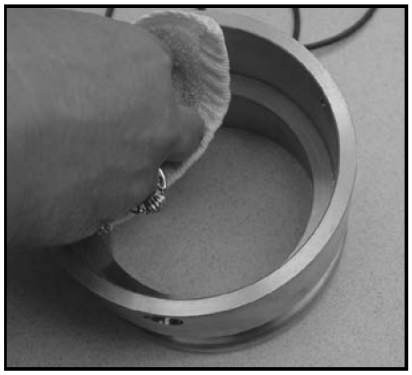
Figure J-1 (Continued)



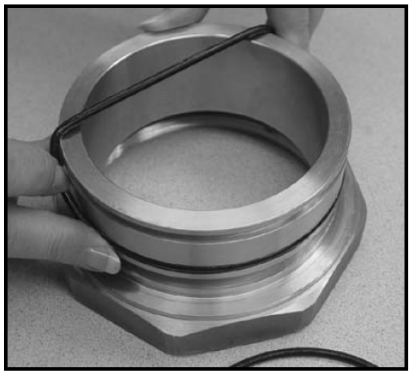
3. Remove both of the existing o-rings from the base of the swivel adapter.



4. Clean and remove all existing grease, dirt, debris, etc. from the outside of the base.



5. Clean and remove all existing grease, dirt, debris, etc. from the inside of the fill top.



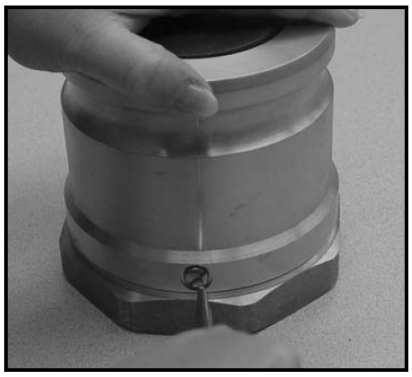
6. Carefully reinstall a new set of o-rings onto the base and lubricate with petroleum jelly or gun grease.

7. Reassemble the swivel adapter by placing the fill top over the base. Rotate and push downward slowly until both pieces bottom out.

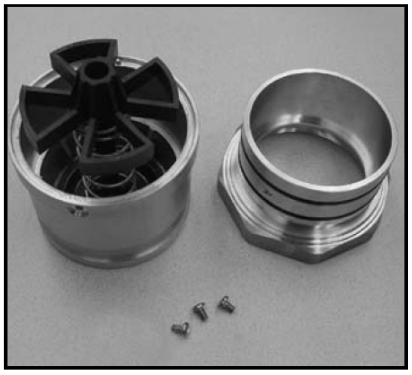
8. Re-install all three stainless steel screws to the base of the swivel adapter.

Figure J-1 (Continued)

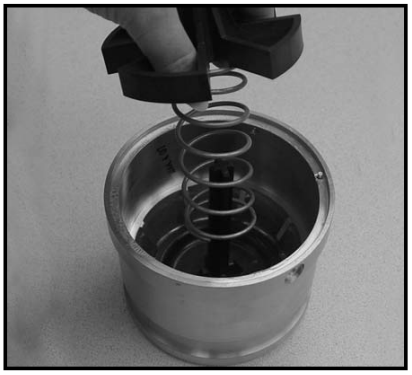
A0076-124S Swivel Vapor Adapter



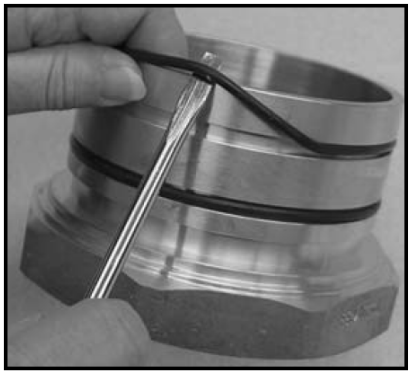
1. Using a flathead screwdriver, remove all three stainless steel screws for the base of the swivel adapter.



2. Separate the vapor top from the base of the swivel adapter by slowly rotating and pulling upward.



3. Remove the poppet guide and poppet spring from within the vapor top of the swivel adapter.

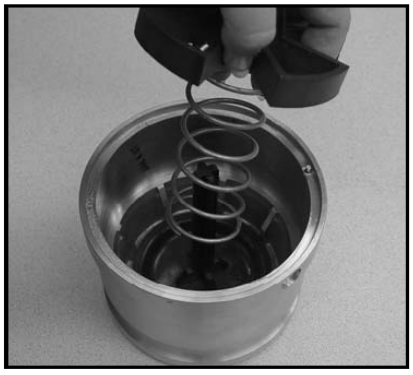


4. Remove both of the existing o-rings from the base of the swivel adapter.

Figure J-1 (Continued)

5. Clean and remove all existing grease, dirt, debris, etc. from the inside of the fill top and the outside of the base.

6. Carefully re-install a new set of o-rings onto the base and lubricate with petroleum jelly or gun grease.



7. Re-install the poppet guide and poppet spring onto the stem of the vapor poppet which is located inside the vapor top of the swivel adapter.

8. Reassemble by placing the vapor base over the vapor top. Re-install all three stainless steel screws to the base of the swivel adapter.

IMPORTANT: Leave these <u>installation instructions, product warranty registration card</u> and the <u>warranty tag</u> with the station owner and/or operator.

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p/n 568903
Rev. C 06/13

Figure J-2
409628 Adaptor Gasket Kit Installation Instructions

EMCO® WHEATON RETAIL

409628
Flat Gasket Kit

INSTALLATION INSTRUCTIONS

Replacement Flat Gasket for A0030-124S Swivel Fill Adapter, A0076-12S Swivel Vapor Adapter, and A0030-014 ATG Probe

Service Tools Required:

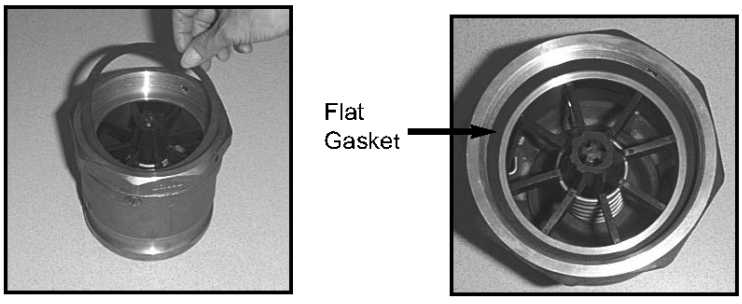
- Ratchet Wrench
- 5/32 " Allen Wrench
- EMCO Adapter Wrench p/n A0081-001C
- 15/16" Socket
- Torque Wrench w/ 60 to 75 ft-lbs Setting

CAUTION:

1. Always barricade to keep pedestrians and vehicles from accessing the storage tank area during preventive maintenance and/ or compliance testing of the EMCO phase I EVR system.

1. Begin by removing the lid from the A1004EVR spill containment and vapor adapter cap. Using a 5/32" allen wrench, remove both set screws from the base of the A0076-124S swivel vapor adapter.

2. Use the EMCO Adapter Wrench p/n A0081-001C to unscrew the A0076-124S swivel vapor adapter from the top of the containment nipple.



3. Remove the existing flat gasket and replace with new.

Figure J-2 (Continued)

4. Before installing the A0076-124S swivel vapor adapter verify the flat gasket is secured in place. Manually tighten the A0076-124S swivel vapor adapter onto the containment nipple to avoid cross threading. Using the EMCO Adapter Wrench p/n A0081-001C, tighten and torque between 60 to 75 ft-lbs.

IMPORTANT: Do not use pipe thread sealant compound when installing the A0076-124S swivel vapor adapter onto the containment nipple

5. Re-install both set screws to the base of the A0076-124S swivel vapor adapter and tighten.

IMPORTANT: Leave these installation instructions, product warranty registration card and the warranty tag with the station owner and/or operator.