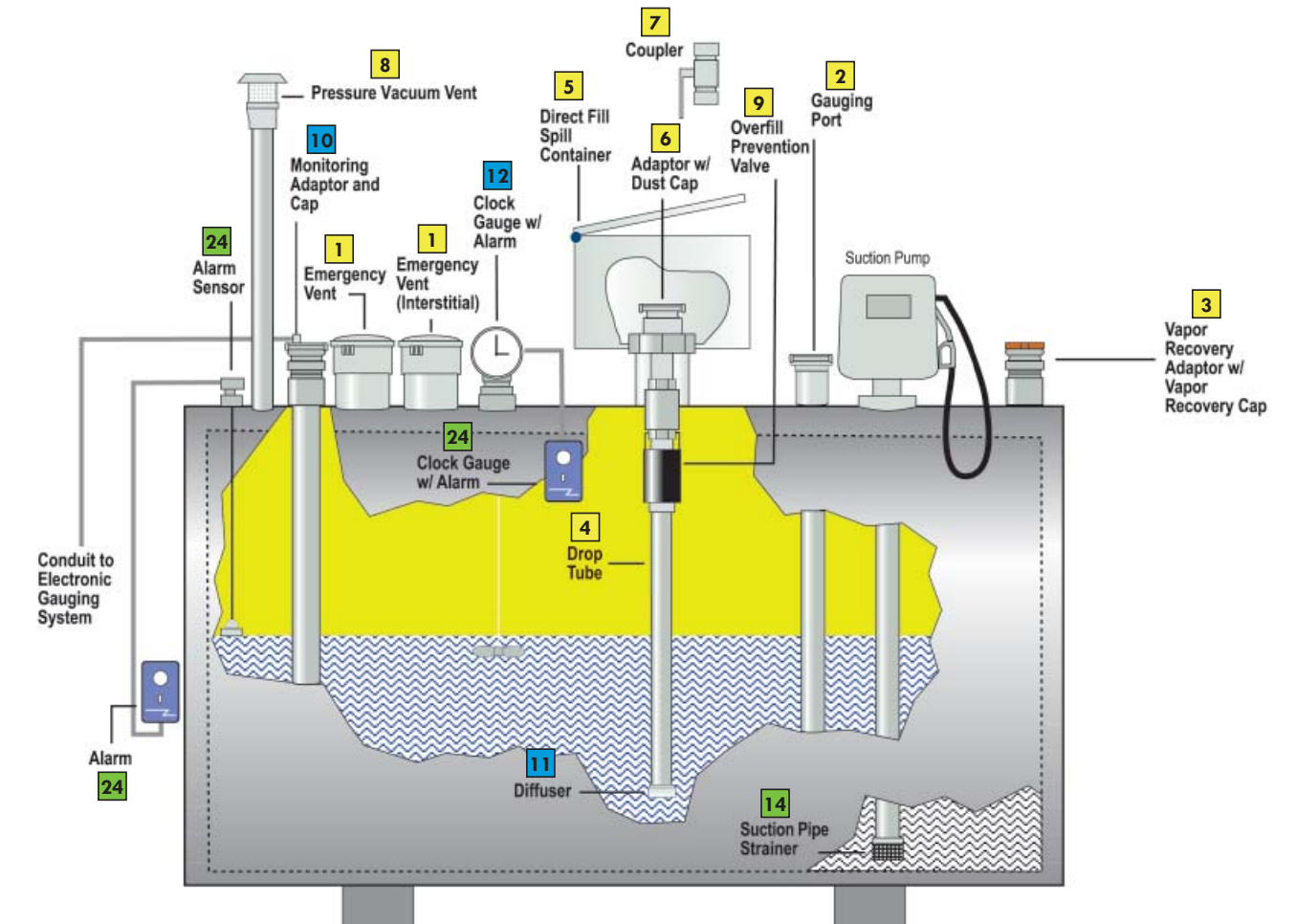


# CARB PHASE I EVR AST CERTIFIED PRODUCTS

Product Guide



Morrison Bros. Co. has been a leading provider and manufacturer of AST Equipment longer than anyone in the industry. With the new rules enacted by the California Air Resources Board (CARB), who better to offer certified products than the company you've always relied on for AST products?

Nearly all of our CARB Certified Products are engineered, developed, and manufactured at our Dubuque, Iowa, USA location. They have been tested and meet all conditions of the PHASE I AST EVR System.

As always, our products are backed by our one year warranty and supported by our on-location Customer Service Department. With Morrison Bros. Co. products, you can be sure you are getting a quality product backed by a company that understands AST equipment.

For information on installer certification, visit [www.morbros.com](http://www.morbros.com) or contact our Customer Service Department.

1	244 Emergency Vents	
2440--0170AVEVR	4" 16oz./sq.in.; Female NPT	
2440--0900AVEVR	5" 16 oz./sq.in.; Female NPT	
2440--0200AVEVR	6" 8oz./sq.in.; Female NPT	
2440--0400AVEVR	6" 16oz./sq.in.; Female NPT	
2440--0600AVEVR	8" 8oz./sq.in.; Female NPT	
2440--0700AVEVR	8" 16oz./sq.in.; Female NPT	
2440MA0030AVEVR	2" 16oz./sq.in.; Male NPT	
2440M-0060AVEVR	3" 16oz./sq.in.; Male NPT	
2440M-0170AVEVR	4" 16oz./sq.in.; Male NPT	
2440M-0900AVEVR	5" 16oz./sq.in.; Male NPT	
2440M-0200AVEVR	6" 8oz./sq.in.; Male NPT	
2440M-0400AVEVR	6" 16oz./sq.in.; Male NPT	
2440M-0600AVEVR	8" 8oz./sq.in.; Male NPT	
2440M-0700AVEVR	8" 16oz./sq.in.; Male NPT	
<i>All the above available with stainless steel screens except for the 8"</i>		

2	305 Gauging Port Adaptor & Cap	
305--0000AAEVR	2" Tight Fill Adaptor	
305C--2000ACEVR	2" Top Seal Cap	
305GSP2000AKEVR	2" Gauge Stick Cap/Adaptor	
<i>This requires a 419 drop tube.</i>		

3	323 Vapor Recovery Adaptor & Cap	
323--0300AAEVR	4" x 3" Vapor Recovery Adaptor	
323--0400AAEVR	4" x 4" Vapor Recovery Adaptor	
323C--0100ACEVR	4" Vapor Recovery Cap	

4	419 Drop Tube	
419--02041TEVR	2" x 4' Aluminum Drop Tube	
419--02061TEVR	2" x 6' Aluminum Drop Tube	
419--02121TEVR	2" x 12' Aluminum Drop Tube	
419--03101TEVR	3" x 10' Aluminum Drop Tube	
419--03121TEVR	3" x 12' Aluminum Drop Tube	
<i>All the above available in an anodized version.</i>		

5	516 Direct Fill Spill Container	
516--0400ACEVR	4" Female, Centered	
516M--0400ACEVR	4" Male, Centered	
516MO-0400ACEVR	4" Male, Offset	
516O--0400ACEVR	4" Female, Offset	

6	927/735 Dry Disconnect Adaptor & Cap	
927--0200AAEVR	2" Adaptor	
927--0300AAEVR	3" Adaptor	
927--0400AAEVR	4" Adaptor	
735DC-2000ACEVR	2" Dust Cap	

735DC-2500ACEVR	2 1/2" Dust Cap for 2" 927 Adaptors
735DC-3000ACEVR	3" Dust Cap
735DC-4000ACEVR	4" Dust Cap for 3" & 4" 927 Adaptors
<i>All the above available in an anodized version.</i>	

7	928 Dry Disconnect Coupler	
928--0150ACEVR	1 1/2" Coupler	
928--0200ACEVR	2" Coupler	
928--0300ACEVR	3" Coupler	

8	5885 Husky Pressure Vacuum Vent	
5885--0100 1V	2" P/V Vent 2.5" WC	

9	9095A Overfill Prevention Valve	
9095A-3200AVEVR	2"x4" Female NPT x Female NPT	
9095A-3300AVEVR	3"x6" Female NPT x Female NPT	
9095A-4200AVEVR	3"x4" Female NPT x Female NPT	
9095A-5200AVEVR	2"x4" Dry disconnect x Female NPT	
9095A-9200AVEVR	2" Less Top Connection	
9095A-9300AVEVR	3" Less Top Connection	
<i>Nickel plated options available (aviation series) for all of the above.</i>		

10	305 Tank Monitor Adaptor & Cap	
305--0200AAEVR	4" Top Seal Adaptor	
305XP-1200ACEVR	4" Monitoring Cap	
305XPA1200AKEVR	4" Monitoring Cap & Adaptor	

11	539 Drop Tube Diffuser	
539AS-0200ADEVR	2" Aluminum, Slip-on	
539AS-0300ADEVR	3" Aluminum, Slip-on	
539ATA0200ADEVR	2" Aluminum Thd.	
539ATA0300ADEVR	3" Aluminum Thd.	
<i>All the above available in an anodized version.</i>		

12	818 Mechanical Tank Gauge	
818--0100AGEVR	2" w/Standard Float	
818--0400AGEVR	2" w/Drop Tube Float	
818F-0100AGEVR	2" Female Thd. w/Standard Float	
818F-0400AGEVR	2" Female Thd. w/Drop Tube Float	
<i>Metric readout option available.</i>		

918 Clock Gauge Less Alarm		
918--0000AGEVR	2" Male Thd., Standard Float	
918--2000AGEVR	2" Male Thd., Drop Tube Float	
918F-0000AGEVR	2" Female Thd., Standard Float	
918F-2000AGEVR	2" Female Thd., Drop Tube Float	
<i>Metric readout option available.</i>		
<i>These gauges connect to alarm box assembly 918--1000 AA.</i>		

13	078DI Expansion Relief Valve	
078DI-0100 AV	1/2" w/25 PSI Expansion Relief Valve	
078DI-0200 AV	1/2" w/40 PSI Expansion Relief Valve	
078DI-0300 AV	1/2" w/100 PSI Expansion Relief Valve	

14	157 Suction Pipe Strainer	
157--0100 AS	1 1/2" Suction Strainer	
157--0200 AS	2" Suction Strainer	

15	158A Vertical Check Valve	
158A--2100 AV	3/4" Vertical Check Valve (Viton)	
158A--2200 AV	1" Vertical Check Valve (Viton)	
158A--2400 AV	2" Vertical Check Valve (Viton)	
158A--2600 AV	3" Vertical Check Valve (Viton)	
158A--2700 AV	4" Vertical Check Valve (Viton)	
<i>Expansion relief available.</i>		

16	246A Swing Check Valve	
246A--0100 AV	1 1/2" Threaded-Brass	
246A--0200 AV	2" Threaded-Brass	
246A--0400 AV	3" Threaded-Brass	
246ADI0500 AV	2" Threaded-Ductile Iron	
246ADI0600 AV	3" Threaded-Ductile Iron	
246DRF0100 AV	3" Flanged, Ductile Iron	
246DRF0400 AV	4" Flanged, Ductile Iron	
<i>25 or 50 PSI expansion relief available.</i>		

17	284S Stainless Steel Bottom Clean-Out Line Strainer	
284S--1000 1S	1/2" w/20 Mesh Line Strainer-SS	
284S--1100 1S	3/4" w/20 Mesh Line Strainer-SS	
284S--1200 1S	1" w/20 Mesh Line Strainer-SS	
284S--3000 1S	1 1/2" w/20 Mesh Line Strainer-SS	
284S--3100 1S	2" w/20 Mesh Line Strainer-SS	
284S--3200 1S	3" w/20 Mesh Line Strainer-SS	
<i>40 &amp; 100 mesh screens are available.</i>		
284B Brass Bottom Clean-Out Line Strainer		
284B--1000 1S	1/2" w/20 Mesh Line Strainer-Brass	
284B--1100 1S	3/4" w/20 Mesh Line Strainer-Brass	
284B--1200 1S	1" w/20 Mesh Line Strainer-Brass	
<i>40 &amp; 100 mesh screens are available.</i>		

18	305 Interstitial Adaptor & Cap	
305XPA2400 AK	2" with 1/2" hole	

19	346 External Emergency Valve	
346DI-0400 AV	1 1/2" Female Thd., Ductile Iron	
346DI-0500 AV	2" Female Thd., Ductile Iron	
346DI-0600 AV	3" Female Thd., Ductile Iron	
346FDI0200 AV	2" Flanged, Ductile Iron	
346FDI0300 AV	3" Flanged, Ductile Iron	
346FDI0400 AV	4" Flanged, Ductile Iron	
346SS-0100 AV	1 1/2" Female Thd., SS	
346SS-0200 AV	2" Female Thd., SS	

20	515 15-Gallon Remote Fill Spill Container	
515--0200 AC	2", Pedestal, Female Thd.	
515--0300 AC	3", Pedestal, Female Thd.	
515--0400 AC	4", Pedestal, Female Thd.	
515--2200 AC	2" & 2", Pedestal, Female Thd.	
515--2300 AC	3" & 3", Pedestal, Female Thd.	
515--3200 AC	3" & 2", Pedestal, Female Thd.	
515OEM0200 AC	2" Top Mount, Female Thd.	
515OEM0300 AC	3" Top Mount, Female Thd.	
515OEM2200 AC	2" & 2" Top Mount, Female Thd.	
515OEM2300 AC	3" & 3" Top Mount, Female Thd.	
515SD-0200 AC	2", Pedestal, Female Thd., SS	
515SD-0300 AC	3", Pedestal, Female Thd., SS	
515SD-0400 AC	4", Pedestal, Female Thd., SS	
515SD-2200 AC	2" & 2", Pedestal, Female Thd., SS	
515SD-2300 AC	3" & 3", Pedestal, Female Thd., SS	

21	691 Locking and Non-locking Full Port Ball Brass Valve	
691B--0100 1V	1/4" Brass, Locking	
691B--0200 1V	3/8" Brass, Locking	
691B--0300 1V	1/2" Brass, Locking	
691B--0400 1V	3/4" Brass, Locking	
691B--0500 1V	1" Brass, Locking	
691B--0600 1V	1 1/4" Brass, Locking	
691B--0700 1V	1 1/2" Brass, Locking	
691B--0800 1V	2" Brass, Locking	
691B--0900 1V	2 1/2" Brass, Locking	
691B--1000 1V	3" Brass, Locking	
691B--1100 1V	4" Brass, Locking	
<i>Stainless steel and non-locking available.</i>		

22	710 Normally Closed Solenoid Valve w/120/60 Volt	
710--0150 1V	1 1/2" Brass (Viton) AC Coil	

710--0200 1V	2" Brass (Viton) AC Coil
710--0300 1V	3" Brass (Viton) AC Coil
710MO-0150 1V	1 1/2" Brass (Viton) AC Coil & Mech. Override
710MO-0200 1V	2" Brass (Viton) AC Coil & Mech. Override
710F--0200 1V	2" Flanged Brass (Viton) AC Coil
710F--0300 1V	3" Flanged Brass (Viton) AC Coil
710FMO0200 1V	2" Flanged Brass (Viton) AC Coil & Mech. Override
710SS-2150 1V	1 1/2" SS (Teflon), AC Coil
710SS-2200 1V	2" SS (Teflon), AC Coil
710SS-0300 1V	3" SS (Alum.Piston) (Viton Seat), AC Coil
710SS-3300 1V	3" SS (Teflon Piston & Seat), AC Coil
710FSS2200 1V	2" Flanged SS (Teflon), AC Coil
710FSS3300 1V	3" Flanged SS (Teflon Piston & Seat), AC
710FSM2200 1V	2" Flanged SS (Teflon), AC Coil, Mech. Override
<i>Other coil options available.</i>	

23	912 Anti-Syphon Valve With Expansion Relief	
912--070500 AV	3/4" SS, 0 to 5' of W.C.	
912--071000 AV	3/4" SS, 5 to 10' of W.C.	
912--071500 AV	3/4" SS, 10 to 15' of W.C.	
912--072000 AV	3/4" SS, 15 to 20' of W.C.	
912--100500 AV	1" SS, 0 to 5' of W.C.	
912--101000 AV	1" SS, 5 to 10' of W.C.	
912--101500 AV	1" SS, 10 to 15' of W.C.	
912--102000 AV	1" SS, 15 to 20' of W.C.	

24	918 Alarm & Sensor	
918TCP0400 AA	2" Overfill Alarm Box With 5' Sensor	
918TCP0500 AA	2" Overfill Alarm Box With 9.5' Sensor	
918--1000 AA	Alarm Box Assembly	
918TCP5400 AS	2" x 5' Sensor Assembly	
918TCP5500 AS	2" x 9.5' Sensor Assembly	

25	958 Check Valve	
958--0700 AV	3/4" SS	
958--1000 AV	1" SS	
958--10700 AV	3/4" SS, With Expansion Relief	
958--11000 AV	1" SS, With Expansion Relief	

570 East 7th Street  
Dubuque, Iowa 52001  
563-583-5701 (PHONE) • 563-583-5028 (FAX)  
custserv@morbros.com • www.morbros.com

**LEGEND**

**REQUIRED CERTIFIED PRODUCTS**

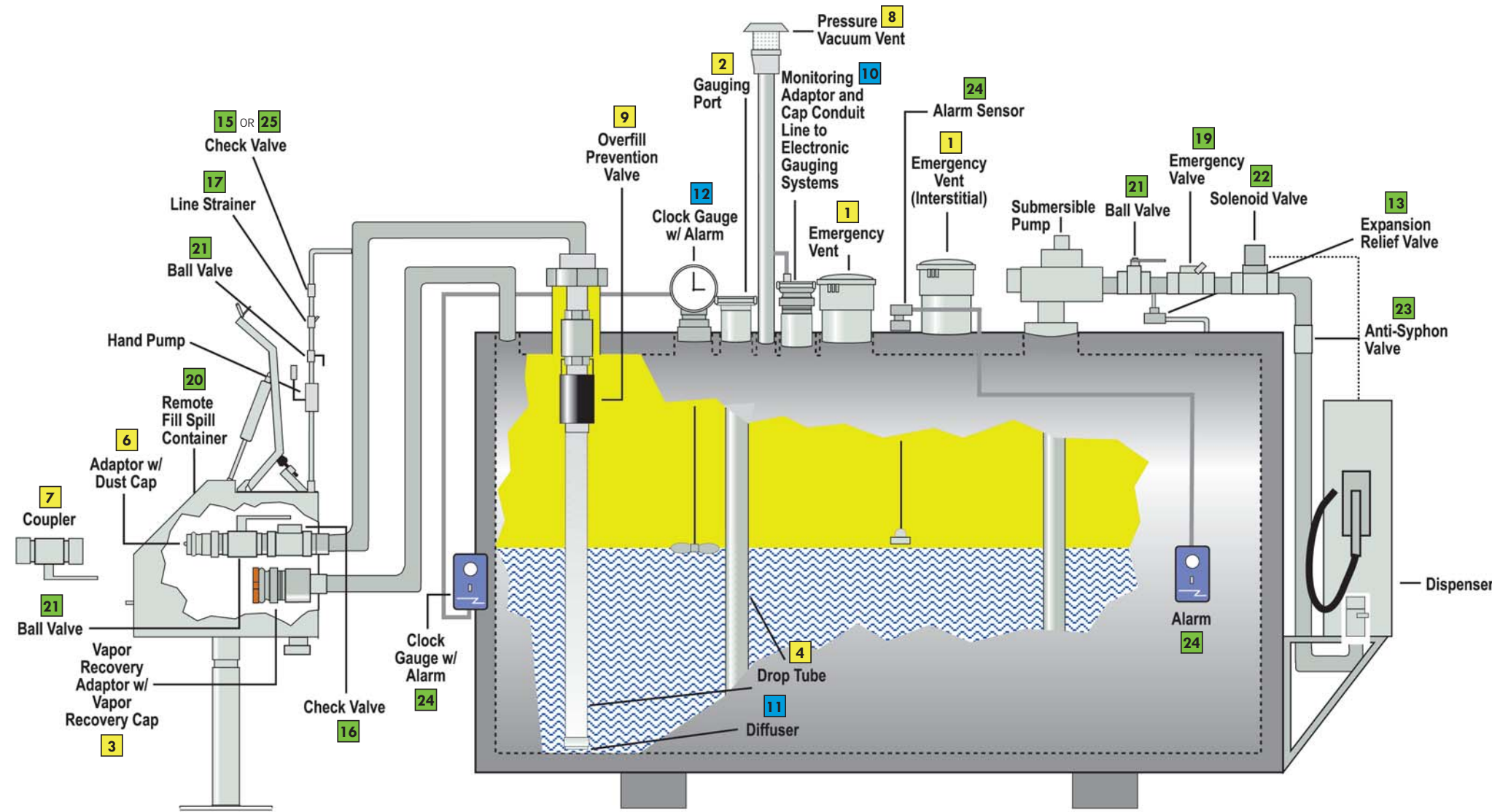
These products are required on gasoline Phase 1 EVR above ground storage tank systems.

**OPTIONAL CERTIFIED PRODUCTS**

These products are not required for EVR compliance; however, if a monitoring cap and adaptor, a drop tube diffuser, and/or a mechanical tank gauge are needed for a tank system, then these Morrison Bros. Co. CARB AST EVR products are required on the tank system.

**RECOMMENDED PRODUCTS**

These products are not considered part of the Phase 1 EVR AST system certified by CARB but may be needed to complete a tank system.



**1** Fig. 244 Series Emergency Vent



Emergency vents are used on aboveground storage tanks to prevent tanks from becoming over-pressurized and rupturing if exposed to fire. Each CARB-approved vent is factory tested.

**2** Fig. 305 Series Gauging Port Adaptor & Cap



This adaptor and locking cap serves as a dedicated port for manual tank gauging. The gauging port also requires a 419 drop tube. The Fig. 305GSP includes an identification ring to permanently identify the tank opening.

**3** Fig. 323/323C Series Vapor Adaptor & Cap



The popped adaptor is mounted on the tank vapor return line. It has a cam and groove connection to mate with the delivery truck vapor return hose during the tank-filling process.

**4** Fig. 419 Series Drop Tube



Drop tubes are installed in the fill port of a storage tank and are designed to transfer fuel from the top of the tank to the bottom. They stabilize the flow into the tank to reduce splashing. Tubes are attached to the bottom of the overfill prevention valve. They are also required in the gauging port.

**5** Fig. 516 Series Direct Fill Spill Container



(Shown on Front Page Drawing)  
This direct fill spill container is installed on AST's for the purpose of containing small spills and drips from the fill nozzle. This 5-gallon capacity container is made of steel, is lockable, and powder coated.

**6** Fig. 927/735DC Series Dry Disconnect Adaptor & Cap



The dry disconnect adaptor is designed to mate with a dry disconnect coupler providing a minimal loss of fuel when connecting or disconnecting hoses between the delivery vehicle and the tank. The cap provides protection for the adaptor when not in use.

**7** Fig. 928 Series Dry Disconnect Coupler



The dry disconnect coupler is installed on the fuel truck delivery hose. It couples with a dry disconnect cam and groove style connection to the fill adaptor. The coupler can be opened and closed to start or stop fuel flow.

**8** Fig. 5885 Husky Series Pressure Vacuum Vent



This vent is certified by CARB for Phase 1 AST EVR storage tanks. It is designed to meet the required pressure/vacuum relief settings and leakage rates. The vent has 2" NPT female threads.

**9** Fig. 9095 Series Overfill Prevention Valve



The overfill prevention device is designed to restrict the flow (down to 1.5 gpm or less) of fuel delivered to the AST when liquid levels exceed a specified capacity.

**OPTIONAL CERTIFIED PRODUCTS**

**10** Fig. 305 Series Monitoring Adaptor & Cap



This adaptor and cap provides a vapor- and water-tight access port for the tank monitor probe.

**11** Fig. 539 Series Drop Tube Diffuser



The diffuser is attached to the bottom end of the fill drop tube to reduce turbulence and vapor loss during tank-filling process.

**12** Fig. 818 & 918 Series Mechanical Tank Gauge



The Clock Gauge measures liquid levels in AST's. The gauge mounts on the top of the tank and is activated by a float connected to a cable.  
**NOTE:** The alarm box is not included with the 918 gauge, but can be purchased separately.

**RECOMMENDED PRODUCTS**

**13** Fig. 78 Expansion Relief Valve

**14** Fig. 157 Suction Pipe Strainer

**15** Fig. 158 Series Vertical Check Valve

**16** Fig. 246A Series Swing Check Valve

**17** Fig. 284 Series Line Strainer

**18** Fig. 305 Interstitial Cap & Adaptor

**19** Fig. 346 Series External Emergency Valve

**20** Fig. 515 Series Remote Fill Spill Container

**21** Fig. 691 Series Ball Valve

**22** Fig. 710 Series Solenoid Valve

**23** Fig. 912 Series Anti-Syphon Valve

**24** Fig. 918 Alarm & Sensor

**25** Fig. 958 Series Check Valve