



ERL COMMERCIAL MARINE, INC.
AMERICA'S LEADING TANK BARGE EQUIPMENT PROVIDER



BLUEWATER PRODUCTS



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6" High Velocity PV Valve

▶ QUIET AUTOMATIC OPERATION

The PV-6 II valve has all of the proven design characteristics that have made the original PV-6 valve so reliable. In addition to quiet automatic operation, the vacuum side of the PV-6 II valve has 30% fewer parts, increase flow rate and a 16° angled housing to allow positive drainage of any cargo condensation.

▶ SIMPLE WEIGHT OPERATED DESIGN

Our weight operated design doesn't suffer from the performance variations caused by spring deterioration or the increased friction between internal guide stems and bushings common with friction-type designs. All operating mechanisms are located outside of the vapor stream eliminates the possibility of valve sticking due to product or contaminant build-up. Also the vacuum side of the valve is angled for positive drainage of cargo condensation back into the vapor header.



▶ SET POINT REPEATABILITY 3%

Unique low friction design utilizes sealed stainless steel roller bearings outside of the vapor exhaust stream allowing the valve to open repeatedly within 3% of factory stated set opening point. Two easily reached test handles, as required by law, allow for easy testing.

▶ 100% STAINLESS STEEL

The main valve body is made of 1/2" thick stainless steel, with 1/4" pipe. Even the bearings and the full weather covers are stainless steel.

▶ HIGH VELOCITY DISCHARGE

The minimum discharge velocity rate of 40 meters/second is achieved at even the lowest flow rates. The unique pressure focusing nozzle creates a columnar exhaust flow path allowing vapors to disburse well above the deck level.

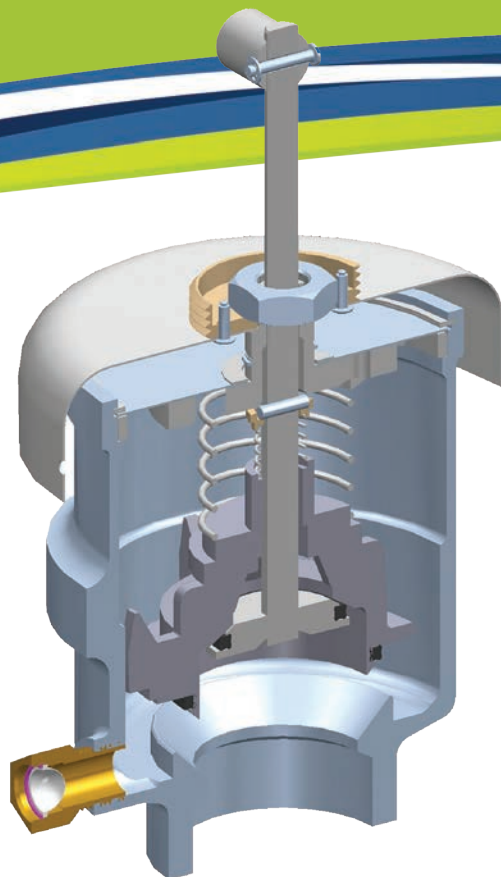
2.5" Equate Valve

▶ AUTOMATIC OPERATION

The Equate PV-2.5, 2.5" P-V Valve is designed to automatically maintain safe design working pressure and vacuum levels within your barge. Your barge remains closed vapor tight until set point pressure or vacuum overcomes the force of each respective set point spring, allowing vapor flow out or air flow in, at a rate sufficient to maintain safe levels within your barge.

▶ SIMPLER DESIGN

Having very few parts, the Equate P-V valve is spring operated with one spring to determine the pressure set opening point and the second spring to determine the vacuum set opening point. A manual test handle allows the tankerman to check operation of both the pressure and vacuum sides of the valve. Both the test handle and valve weather covers are easily removed allowing complete valve inspection in minutes. Easy to replace elastomer seals, one pressure and one vacuum seal, insure vapor tightness.



▶ 100% STAINLESS STEEL

All components are 300 series stainless steel for extended service life and reduce need for maintenance. The resilient pressure and vacuum seals are the only parts that are not stainless steel.

▶ CERTIFIED TO MEET ALL USCG REQUIREMENTS

Every Equate P-V Valve is 100% factory tested prior to shipment and is USCG Approved.



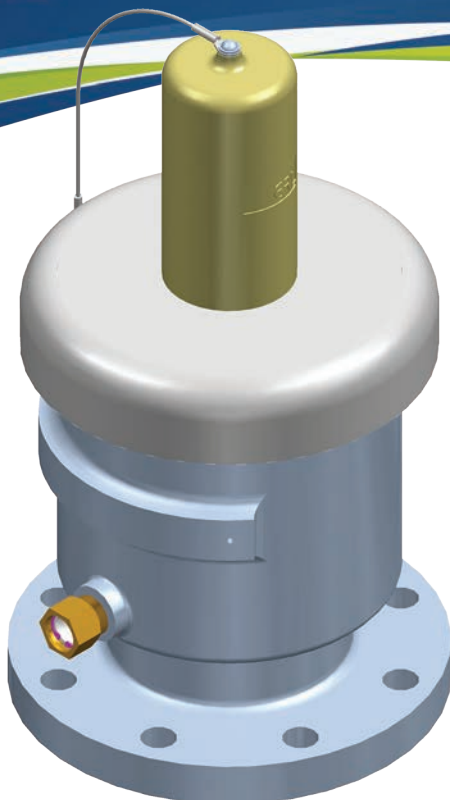
4" Equate Valve

▶ QUIET AUTOMATIC OPERATION

The Equate PV-4, 4" P-V Valve is designed to automatically maintain safe design working pressure and vacuum levels within your barge. Your barge remains closed vapor tight until set point pressure or vacuum overcomes the force of each respective set point spring, allowing vapor flow out or air flow in, at a rate sufficient to maintain safe levels within your barge.

▶ SIMPLE DESIGN

Having very few parts, the Equate P-V valve is spring operated with one spring to determine the pressure set opening point and the second spring to determine the vacuum set opening point. A manual test handle allows the tankerman to check operation of both the pressure and vacuum sides of the valve. Both the test handle and valve weather covers are easily removed allowing complete valve inspection in minutes. Easy to replace elastomer seals, one pressure and one vacuum seal, insure vapor tightness.



▶ 100% STAINLESS STEEL

All components are 300 series stainless steel for extended service life and reduce need for maintenance. The resilient pressure and vacuum seals are the only parts that are not stainless steel.

▶ CERTIFIED TO MEET ALL USCG REQUIREMENTS

Every Equate P-V Valve is 100% factory tested prior to shipment and is USCG Approved.

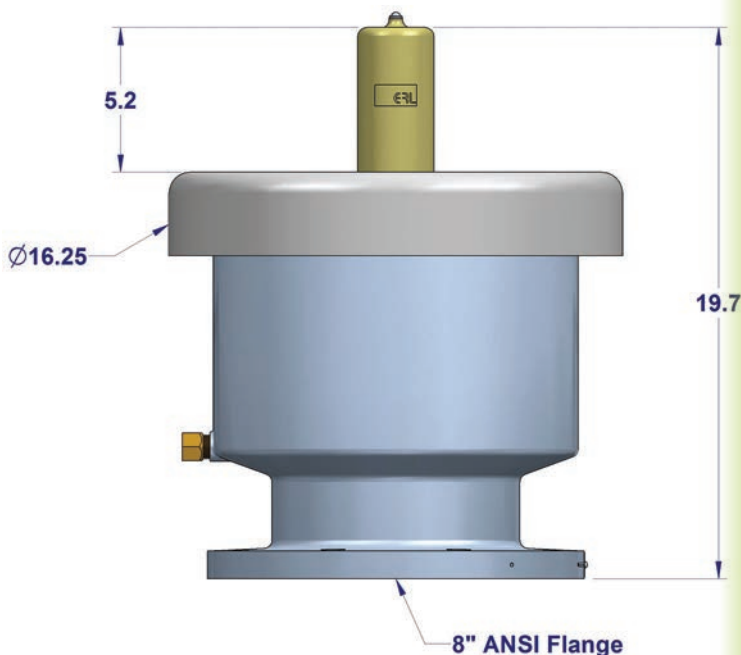
8" Equate Valve

▶ AUTOMATIC OPERATION

The Equate PV-8, 8" P-V Valve is designed to automatically maintain safe design working pressure and vacuum levels within your barge. Your barge remains closed vapor tight until set point pressure or vacuum overcomes the force of each respective set point spring, allowing vapor flow out or air flow in, at a rate sufficient to maintain safe levels within your barge.

▶ SIMPLE DESIGN

Having very few parts, the Equate P-V valve is spring operated with one spring to determine the pressure set opening point and the second spring to determine the vacuum set opening point. A manual test handle allows the tankerman to check operation of both the pressure and vacuum sides of the valve. Both the test handle and valve weather covers are easily removed allowing complete valve inspection in minutes. Easy to replace elastomer seals, one pressure and one vacuum seal insure vapor tightness.



▶ 100% STAINLESS STEEL

All components are 300 series stainless steel for extended service life and reduce need for maintenance. The resilient pressure and vacuum seals are the only parts that are not stainless steel.

▶ CERTIFIED TO MEET ALL USCG REQUIREMENTS

Every Equate P-V Valve is 100% factory tested prior to shipment and is USCG Approved.



SGM-1 Sight Glass

▶ **FULL COMPLIANCE WITH 46 CFR PART 39, PARA. 39-20-3(A)**

The FULL VIEW MODEL SGM-1 Marine Sight Glass is the tank barge industry standard for vessel operators complying with U.S. Coast Guard Regulations 46 CFR PART 39, Paragraph 39.20-3(a) and is suitable for use on ABS classed vessels.

▶ **FULL 59 SQ. IN. OF VIEWING AREA**

Mounted adjacent to each cargo compartment control valve, the FULL VIEW MODEL SGM-1 provides the largest and clearest view into your cargo compartment available with a full 59 square inches of viewing area, without exposing personnel to hazardous vapors.

▶ **EASILY REPLACED WIPER BLADES**

Dual wipers clean the cargo side of the BOROFLOAT™ glass. The wiper blades are easily replaced in the field, and are available in a variety of materials for maximum cargo compatibility. The FULL VIEW MODEL SGM-1 is available with Teflon™, EPDM and Viton wiper blade refills.



▶ **3/4" THICK GROUND AND POLISHED BOROFLOAT™ GLASS**

Each glass is fully stress relieved with ground edges and radiused corners. Four built-in drain ports in the top glass flange prevent water pooling on the glass when the full weather cover is open.

▶ **SOLID CONSTRUCTION AND EASY MOUNTING**

The upper and lower glass flanges are made of 1-1/2" thick stainless steel. The weather cover is made of cast aluminum and the standard deck mounting flange is made of stainless steel for easy weld-down to your deck.

8" Round Sightglass

▶ **DO YOU HAVE ISSUES WITH VAPOR LEAKS AROUND THE WIPER STEM IN YOUR SIGHT GLASS?**

Our wiper has been designed to be vapor tight to 10psi and allows for the seal to be tightened from above deck to ensure that it is vapor free.

▶ **FULL REGULATORY COMPLIANCE WITH 46 CFR PART 39 PARAGRAPH 39-20-3(A)**

The ERL Model SGMRD-8, 8" round marine sight glass complies with U.S. Coast Guard regulations and is suitable for use on all liquid cargo vessels.

▶ **ROUND 56 SQUARE INCH VIEWING AREA**

Mounted adjacent to each cargo valve control handwheel, the ERL Model SGMRD-8 gives the tankerman a 56 square inch round viewing port into the compartment without exposure to potentially hazardous vapors.



▶ **RADIAL GLASS WIPER**

Radial wiper cleans the bottom of the BOROFLOAT™ glass for an unobstructed view into the cargo compartment. The easily replaced wiper blades are available in Viton, Teflon, EPDM or Butyl.

▶ **1/2 INCH THICK GROUND AND POLISHED BOROFLOAT™ GLASS**

Each 8.5" diameter BOROFLOAT™ glass is fully stress relieved with ground edges. The top face of the glass is above the stainless steel frame to prevent water pooling when used during rain.

▶ **SOLID CONSTRUCTION AND EASY MOUNTING**

The ERL Model SGMRD-8 is constructed from 300 series stainless steel and mounts to any standard 8" 150 lb. class mounting flange, having (8) 0.88" diameter holes on a 11.75" diameter bolt circle.





8" Round Sightglass with Scraper

▶ DO YOU HAVE ISSUES WITH WIPING CRUDE OIL OR STYRENE?

The ERL Model SGMRD-8 Scraper model uses an innovative 17-4PH Stainless Steel Hardened and Coated Scraper to remove even the toughest of grit on your Sight Glass.

▶ FULL REGULATORY COMPLIANCE WITH 46 CFR PART 39 PARAGRAPH 39-20-3(A)

The ERL Model SGMRD-8, 8" round marine sight glass complies with U.S. Coast Guard regulations and is suitable for use on all liquid cargo vessels.

▶ ROUND 56 SQUARE INCH VIEWING AREA

Mounted adjacent to each cargo valve control handwheel, the ERL Model SGMRD-8 gives the tankerman a 56 square inch round viewing port into the compartment without exposure to potentially hazardous vapors.



▶ 1/2 INCH THICK GROUND AND POLISHED BOROFLOAT™ GLASS

Each 8.5" diameter BOROFLOAT™ glass is fully stress relieved with ground edges. The top face of the glass is above the stainless steel frame to prevent water pooling when used during rain.

▶ SOLID CONSTRUCTION AND EASY MOUNTING

The ERL Model SGMRD-8 is constructed from 300 series stainless steel and mounts to any standard 8" 150 lb. class mounting flange, having (8) 0.88" diameter holes on a 11.75" diameter bolt circle.

8" Bluewater Sightglass

▶ **FULL REGULATORY COMPLIANCE WITH 46 CFR PART 39 PARAGRAPH 39-20-3(A)**

The ERL Model SGMRD-8, 8" round marine sight glass complies with U.S. Coast Guard regulations and is suitable for use on all liquid cargo vessels.

▶ **ROUND 56 SQUARE INCH VIEWING AREA**

Mounted adjacent to each cargo valve control handwheel, the ERL Model SGMRD-8 gives the tankerman a 56 square inch round viewing port into the compartment without exposure to potentially hazardous vapors.

▶ **RADIAL GLASS WIPER**

Radial wiper cleans the bottom of the BOROFLOAT™ glass for an unobstructed view into the cargo compartment. The easily replaced wiper blades are available in Viton, Teflon, EPDM or Butyl.

▶ **1/2 INCH THICK GROUND AND POLISHED BOROFLOAT™ GLASS**

Each 8.5" diameter BOROFLOAT™ glass is fully stress relieved with ground edges. The top face of the glass is above the stainless steel frame to prevent water pooling when used during rain.



▶ **SOLID CONSTRUCTION AND EASY MOUNTING**

The ERL Model SGMRD-8 is constructed from 300 series stainless steel and mounts to any standard 10" 150 lb. class mounting flange, having (8) 0.88" diameter holes on a 11.75" diameter bolt circle.

▶ **A FULL 9" DIAMETER OPENING FOR ACCESS**

▶ **AVAILABLE WITH FLAME SCREEN OPTION**

▶ **TWO SPINDLES PROVIDE AN EASY MEANS TO SEAL TANK PRESSURE AND QUICK ACCESS WHEN NEEDED.**



4" Round Sightglass

▶ **FULL REGULATORY COMPLIANCE WITH 46 CFR PART 39 PARAGRAPH 39-20-3(A)**

The ERL Model SGMRD-4, 4" round marine sight glass complies with U.S. Coast Guard regulations and is suitable for use on all liquid cargo vessels.

▶ **ROUND 13 SQUARE INCH VIEWING AREA**

Mounted directly on top the vapor header, the ERL Model SGMRD-4 gives the tankerman a 13 square inch round viewing port into the compartment without exposure to potentially hazardous vapors.



▶ **1/2 INCH THICK GROUND AND POLISHED BOROFLOAT™ GLASS**

Each 4.5" diameter BOROFLOAT™ glass is fully stress relieved with ground edges. The top face of the glass is above the stainless steel frame to prevent water pooling when used during rain.

▶ **SOLID CONSTRUCTION AND EASY MOUNTING**

The ERL Model SGMRD-4 is constructed from 300 series stainless steel and mounts to any standard 4" 150 lb. class mounting flange, having (8) 0.750" diameter holes on a 7.50" diameter bolt circle.

12LS Deepwell Vertical Turbine Tank Barge Pump

▶ IMPELLER TRIMS FOR EVERY APPLICATION

The ERL 12LS Pump can accommodate Power Levels from 170HP to 300HP. This is accomplished by trimming the impellers to suit your application. We will customize your pump to suit your needs.

▶ 11LS AND 12LS PUMP HEADS AVAILABLE

The ERL 12LS can also accommodate 8" (11LS) and 10" (12LS) Discharge flanges. This allows customers to utilize a 12LS Pump with an 11LS head. This gives you the ability to increase your pump capacity without installing new piping.

▶ 2 TIMES THE STRENGTH

We utilize ductile iron on all of our castings. This gives you 2X the strength of the typical cast iron pumps. The result is longer life and better value for you. Stainless steel housings and impellers are also available.



▶ DESIGNED USING COMPUTATION FLUID DYNAMICS (CFD) TO ENSURE THE HIGHEST EFFICIENCY

This software allowed us to optimize every component prior to testing to give our customers the best 12LS in the industry. The result is less fuel and time is needed to discharge a barge. This adds up to value for you.

▶ TESTED AT AN ACCREDITED 3RD PARTY LABORATORY

The testing validated the design calculations and CFD Modeling results. It also ensured our customers get the performance they desire for their application.

▶ VERTICAL ASSEMBLY OF ALL PUMPS

To give our customers the highest quality pump we build each pump vertically to ensure each component is aligned concentrically with the next. Why would anyone build a vertical pump horizontally?



Level Alert II High Level Overfill Alarm Sensor

▶ FULL REGULATORY COMPLIANCE

ERL's Level Alert Model II High Level/Overfill Liquid Level Sensor is U.S. Coast Guard accepted and satisfies the requirements of 46 CFR 39.20 - 9 (b). Level Alert sensors are suitable for use on A.B.C. classed vessels.

▶ SIMPLE, RELIABLE OPERATION

Stainless steel linear slide floats actuate the liquid level switches. The high level and overfill alarm levels are set to the desired setpoints. The high level and overfill protection levels should be set in accordance with 46CFR 39.20-7 – Tankship liquid overfill protection. With the Level Alert Model II Liquid Level Sensor connected to the loading dock's alarm/shutdown system and/or to barge mounted alarm annunciator panel, the risk of overfill spills are significantly reduced.



▶ QUALITY CONSTRUCTION

All stainless steel heavy duty construction insures extended service in harsh marine applications. Premium ALNICO magnets are tested and matched to ERL's UL approved reed switches for long term reliable operation. Each sensor is 100% operationally tested prior to shipment.

▶ EASY INSTALLATION

Level Alert sensors easily bolt to standard 8" 150 lb. class mounting flanges which are 13.5" diameter with 8-bolt holes 0.88" diameter on a 11.75" diameter bolt circle. The floats can pass through a 7" diameter, or greater, deck opening. The 8" mounting nozzle is typically 6" high and is located at, or near, the geometric center of the cargo compartment. ERL can provide, as optional extras, pre-fabricated mounting nozzles, gaskets and stainless steel bolt sets.

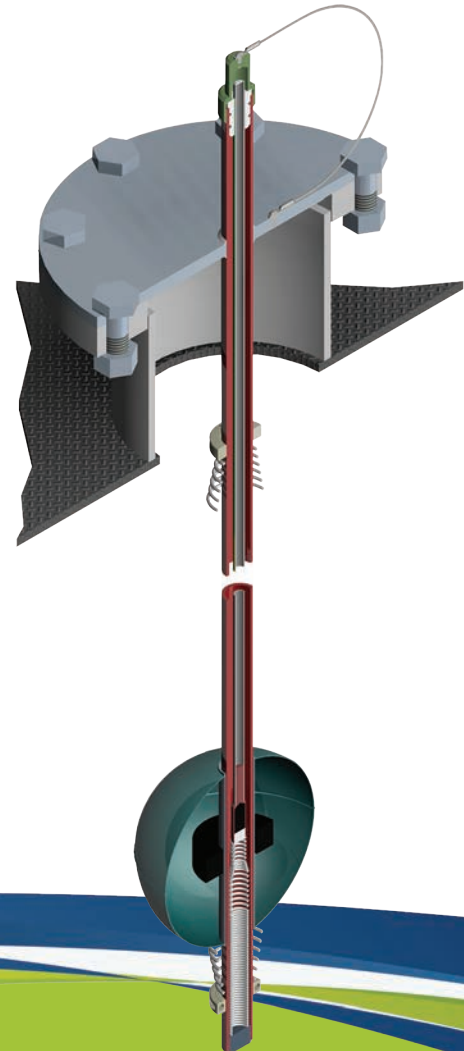
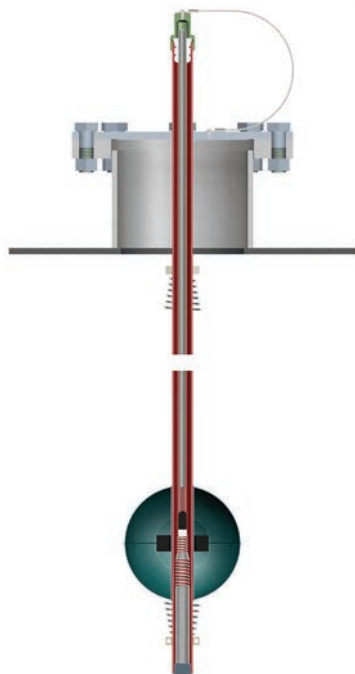
DS-39 Rising Stick Gauge

▶ FULL REGULATORY COMPLIANCE

The Model DS-39 is U.S. Coast Guard accepted. It satisfies 46 CFR 39.20 3(b) as well as OPA 90 regulations for overfill devices and is suitable for use on ABS classed vessels.

▶ SAFETY

ERL's Rising Stick Gauge provides a visual indication above deck of the liquid level in the cargo tank when the cargo level is within 1.0 meter (3.28 feet) of the tank top. Personnel are not exposed to hazardous cargo vapors on the tank top when using the reliable Model DS-39 Liquid Level Gauge. The hazard of overfill spills is greatly reduced when properly using the DS-39.



▶ EASY INSTALLATION

Simply bolt the DS-39 to an 8" flanged pipe stand located at or near the geometric center of the cargo compartment. The deck opening must be large enough for the 7" dia. float to pass through. ERL can provide optional prefabricated mounting standpipes, flange gaskets and mounting hardware upon request.

▶ HEAVY DUTY CONSTRUCTION

All welded components are 300 series stainless steel. Powerful NEODYMIUM #38 rod magnets are used to insure superior coupling strength between the CERAMIN #8 float magnet and the tri colored gauge rod. The tri-colored gauge rod, color coded to industry standards, is hermetically sealed by design, to provide extended service life.



Rising Stick Alarm RISING STICK GAUGE & LIQUID LEVEL ALARM

▶ FULL REGULATORY COMPLIANCE

The Rising Stick Alarm (RSA) is U.S. Coast Guard accepted. It satisfies 46 CFR 39.20 3(b), 39.20-(b), as well as OPA 90 regulations for overfill devices and is suitable for use on ABS classed vessels. The RSA utilizes the ERL L-40 alarm Reed switch which carries a UL approval for use in hazardous cargo locations.

▶ SAFETY

Personnel are not exposed to hazardous cargo vapors on the tank top when using the reliable RSA Liquid Level Gauge. The hazard of overfill spills is greatly reduced when properly using the RSA. The RSA alarm operation can be checked by removing the weather cap, and lifting the stick until the High Level and Overfill alarms annunciate.

▶ EASY INSTALLATION

Simply bolt the RSA to an 8" Class 150 flanged pipe stand located at or near the geometric center of the cargo compartment. The deck opening must be large enough for the 7" dia. float to pass through.



▶ HEAVY DUTY CONSTRUCTION

All welded components are 300 series stainless steel. Powerful NEODYMIUM #38 rod magnets are used to insure superior coupling strength between the CERAMIN #8 float magnet and the tri-colored gauge rod. The tri-colored gauge rod, color coded to industry standards, is hermetically sealed by design, to provide extended service life.

▶ SIMPLE, RELIABLE OPERATION

Stainless steel linear slide floats actuate the liquid level switches. The high level switch actuates (opens) when the cargo compartment is 95% full. Subsequently the overfill switch actuates (opens) when the cargo compartment is 98% full. With the Rising Stick Alarm connected to the loading dock's alarm/shutdown system and/or to barge mounted alarm annunciator panel, the risk of overfill spills are significantly reduced.

▶ ADJUSTABLE SETPOINTS

Setpoints are set at the factory, and feature an adjustable High Level to Overfill range of 7.5".

APM 1B Lite

▶ PORTABLE AND COMPLETELY SELF CONTAINED

ERL's APM-1B Lite is very portable, weighing 18 lbs. The unit is battery powered with a self-contained panel and the handle makes for easy portability. A voltmeter lets you monitor battery condition when the switch is in the "ON" position.

▶ SELF RELIABLE OPERATION

The APM-1B Lite is housed in a weather proof enclosure rated for outdoor use. The output of the APM-1B Lite is intrinsically safe for connection in Class I, II, and III, Division 1 and 2, Groups A-G Hazardous Locations.

▶ EASY TO OPERATE

With a long cable attached to a Hubbell 516C-1W receptacle, the APM-1B Lite allows for easy connection to the vessel liquid level sensor system with the panel positioned outside for the hazardous area. Brilliant indicator lights and a loud audible alarm warns the tankerman of a high level/overflow condition over the entire barge.





APM 2 and Light Tree

FULL REGULATORY COMPLIANCE

ERL's APM-2 vessel mounted High Level/Overfill Alarm Annunciator Panel satisfies 46 CFR 39.20 9 (a) when connected to an ERL Liquid Level Sensor System. The installation must conform to 46 CFR 111.105 and API Recommended Practice 1125. The APM-2 Alarm Panel is U.S. Coast Guard accepted and satisfies OPA-90 requirements for overfill protection devices and is suitable for ABS classed vessels.

QUALITY CONSTRUCTION

The APM-2's weatherproof cabinet is 100% heavy gauge stainless steel. All electrical components are UL, FM and CSA approved. Each APM-2 Alarm Panel undergoes complete operational testing and final inspection before shipment.

SAFE AND RELIABLE OPERATION

The annunciator lights on the APM-2 Alarm Panel are displayed in the same layout configuration as the barge's cargo compartments for quick and easy recognition. Amber lights are used to represent a high level alarm and red lights annunciate an overfill warning. Additionally, an alternating 105 decibel tone indicates a high level alarm while a steady 105 decibel tone signal indicates an overfill warning. The audible signals can be easily heard from any location on the deck.



▶ **REMOTE MOUNTING APM-2 LIGHT TREE** is designed to mount the panel and control box indoors. Panel has the ability to be mounted on deck if desired.

▶ **ALARM PANEL BYPASS** The panel is equipped with an automatic bypass when the panel is switch off, if there is a need to bypass the panel.

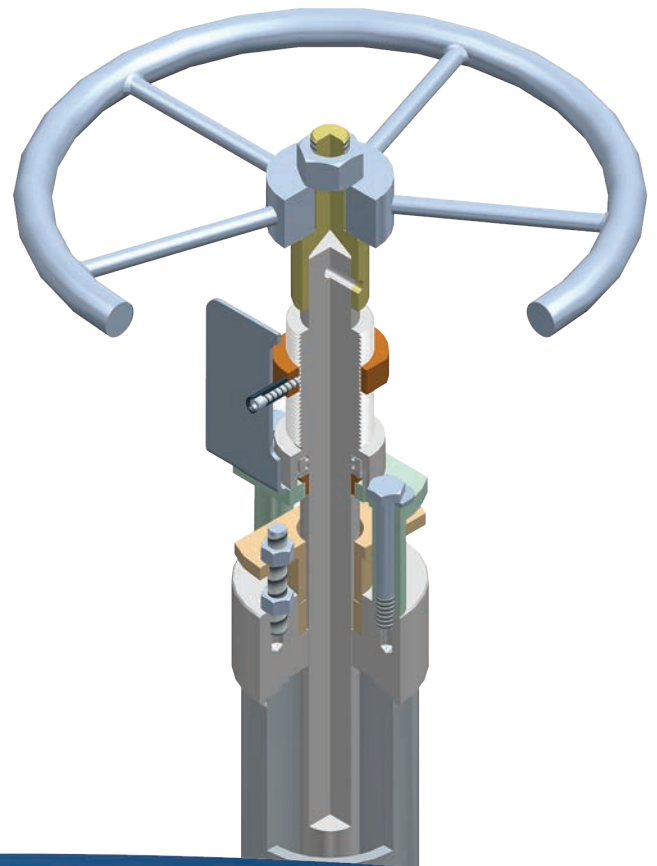
▶ **LOW BATTERY POWER WARNING** The panel is equipped with a low battery warning light and cycles the alarm horn which requires a manual reset to clear.

▶ **REMOTE LIGHT TREE** The Light Tree provides an audio and visual notification of an alarm occurrence, mounted on the deck of the barge, which is visible and heard from any location on the deck of the barge. The Light Tree is fabricated from 304SS and lights are provided with guards for protection.



Deckstands

- ▶ **TWO MOUNTING CONFIGURATIONS**
Mounting Configurations include weld-down to deck or flanged mount.
- ▶ **DRIVE OPTIONS**
The Deck stand and reach rod can be driven by either an ERL fabricated 100% Stainless Steel Construction Handwheel or by Actuator mounted to the deck stand.
- ▶ **COMPLETE ASSEMBLY AVAILABLE**
Deck stand can be provided complete with 100% Stainless Steel Handwheel, Valve Position Indicator, Stuffing Box, Reach Rod, and Yoke Connection for a complete assembly from the deck to the valve.
- ▶ **CONSTRUCTION:**
The Deck stand can be fabricated from 100% Stainless Steel or Carbon Steel.

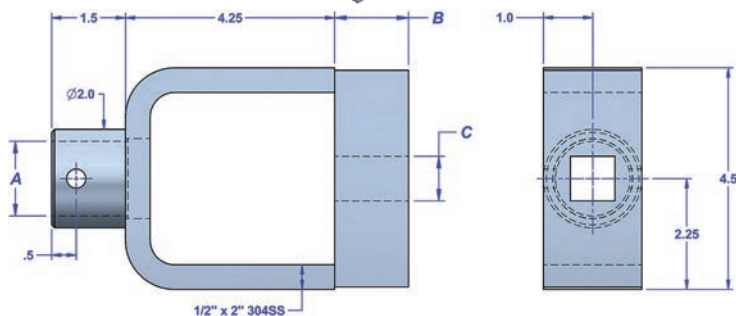
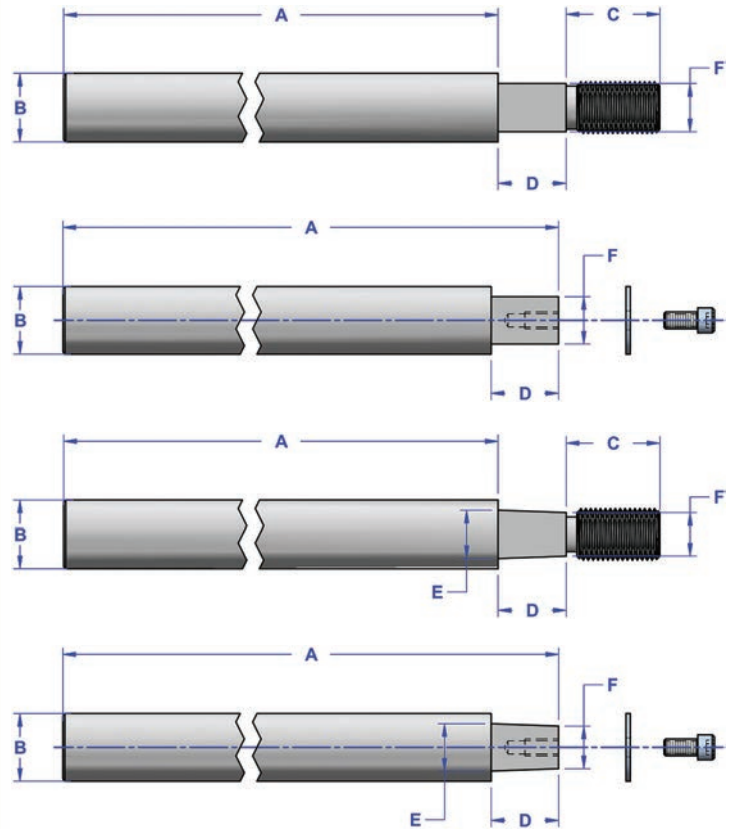


- ▶ **SIZES:**
Available for reach rod sizes $\frac{3}{4}$ " thru $1 \frac{3}{4}$ "
- ▶ **VALVE CONNECTION:**
Yoke utilizes a slip joint connection available for the Reach Rod to allow for vertical relief at the valve connection.
- ▶ **AVAILABLE WITH ERL SUPERSEAL STUFFING BOX WITH THE FOLLOWING OPTIONS:**
 - Flanged Mounting provides 2 bearing locations at deck stand
 - Bronze Thrust Washer for Reach Rod Support
 - Optional Roller Bearing upgrade for Reach Rod Support



Reach Rods

- ▶ **ERL REACH RODS** are all 300 series, corrosion resistant, 100% stainless steel for extended service life. Full length Reach Rods can be provided as well as 2 part Reach Rods with coupling. One end can be machined to fit the Handwheel, but in many cases a Stem Adapter reduces the installed cost of the reach assembly. Brass, Stainless Steel, or Mild Steel shaft hangers are available for long reach rods.



Yokes

- ▶ **ERL'S STAINLESS STEEL ROD-TO-VALVE YOKE**, represents the most simple, economical way to connect the lower end of the Reach Rod to the liquid control valve. Bolted or welded to the lower end of the Reach Rod the bottom of the Yoke bolts to the valve stem.

Stuffing Box - Laser Alignment Tool Kit

▶ SIMPLE DESIGN

The ERL Laser Alignment tool for stuffing box gives the shipyard a simple yet sophisticated tool to make stuffing box installation a breeze.

▶ MARINE GRADE MATERIALS

ERL utilizes 300 series stainless and pyrex glass for the housing and sight glass. The laser is inside a bronze housing for durability.

▶ EFFECTIVE TOOL

The most common valve actuation issue is misalignment during the installation. The ERL laser alignment tool ensures that the stuffing box is welded in exactly the right location the first time.



▶ INSTRUCTIONS

Detailed instructions and drawings are included with the kit. Assembly drawings and instructions are also available below in PDF format.



Lip Seal Stuffing Box

- ▶ **100% STAINLESS STEEL CONSTRUCTION**
ERL's SUPER SEAL™ Reach Rod Stuffing Box is completely constructed of 300 series stainless steel. Produced on computer controlled machines to accurately control dimensional quality, the body of the stuffing box is a massive 5" diameter to prevent deformation of the bore from the heat of welding during installation.
- ▶ **VAPOR TIGHT PERFORMANCE**
Teflon™ lip seals are designed to fit perfectly in each size Stuffing Box forming an effective vapor tight seal preventing fugitive emissions. The "V" shaped Teflon™ seals are compressed with a stainless steel compression spring. A bronze bushing with impregnated PTFE provides support for the shaft while minimizing friction and wear. For best long term performance the reach rod should be turned, ground and polished stainless steel.



- ▶ **EASY INSTALLATION**
ERL stocks the most popular size stuffing boxes, as listed below, other sizes are produced as requested. Standard Stuffing Boxes can be flush mounted, a counterbore also permits mounting on a 2.5", 3", or 4" pipe. Other size counterbores, including threaded counterbores, are produced as requested.
- ▶ **AVAILABLE VALVE POSITION INDICATOR**
All size Stuffing Boxes are designed to easily accommodate the ERL Valve Position Indicator. Save time and money by installing the Valve Position Indicator and Stuffing Box at the same time. Additionally ERL can provide Handwheels, Stem Adapters, Reach Rods, Couplings and Yokes.

Pressure-Vacuum Gauges

▶ HEAVY DUTY STAINLESS STEEL CONSTRUCTION

The heavy gauge 316SS housing is intended for rugged outdoor use. ERL Pressure Gauges have all stainless steel cases and safety glass lens. Available in 1/4" or 1/2" NPT attachment fittings and 4" Dial Standard.

▶ ±0.5% ACCURACY

A large easy-to-read dial is calibrated to ±0.5% full scale accuracy. ERL can prepare a Certificate of Accuracy, should you require one, for a nominal fee. Recertification, calibration and repair services are also available. For accuracy and proper operation, all Pressure Gauges must be mounted in the vertical position and the gasket under the vent cap must be removed to allow the gauge to breathe.



▶ DRY GAUGE

The gauge needle is dampened heavy duty movement mechanism to extend the service life of the gauge and eliminates pointer flutter. Gauge features a white painted aluminum dial, black printed figures and black anodized aluminum pointer.

▶ STANDARD RANGES

- -4 to 4 PSI
- -3 to 7 PSI
- 0-200 PSI
- Other Ranges Available



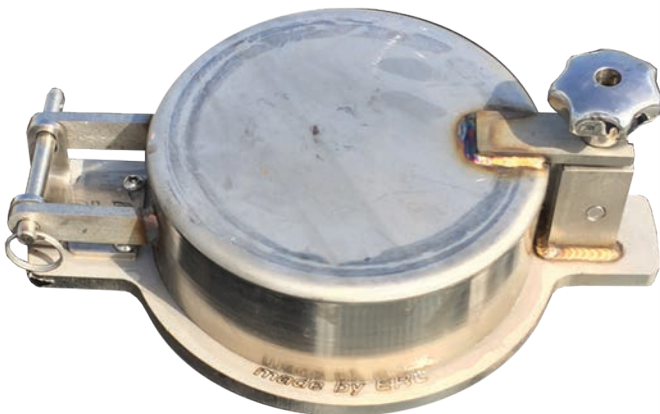
Temperature Gauge

▶ HEAVY DUTY STAINLESS STEEL CONSTRUCTION

The heavy gauge 316SS housing is intended for rugged outdoor use. ERL Temperature Gauge has an all stainless steel case, mounting bushing, and stem. 1/2" NPT Back Connection and 4" Dial Standard.

▶ +/-1% ACCURACY

A large easy-to-read dial is calibrated to $\pm 1.0\%$ full scale accuracy.



▶ STANDARD RANGE AND LENGTHS

The Temperature Gauge Range is 50 Degrees F to 450 Degrees F. Lengths are available from 2" to 80" and 84.5"

▶ EASY TO READ, RELIABLE OPERATION

Easy to see eye-level temperature readings for cargo temperature. No electricity, wiring, or other equipment required.

Fabrication Items

- ▶ AIR BOX DRAIN CANISTER
- ▶ BARGE FUEL TANKS
- ▶ BARGE LADDERS
- ▶ BARGE SPILL KIT RACKS
- ▶ CARGO CLEANING DIFFUSER
- ▶ CARGO PUMP CATCH CAN
- ▶ DOCUMENT BOXES
- ▶ DRIP PANS
- ▶ DRY BOX
- ▶ DRY BOX - PIPE MOUNT



- ▶ FIRE EXTINGUISHER HOLDERS
- ▶ HOSE RACKS
- ▶ MARINE SCUPPER PLUG
- ▶ OVERFLOW TANK - DIESEL ENGINE
- ▶ RADIATOR
- ▶ THROTTLE CONTROL HANDLE
- ▶ VENT STACKS



Training Tank Barge

▶ PARTNER TO YOUR SUCCESS THROUGH SUPPORT & TRAINING

Our goal at ERL Commercial Marine is to partner with you to maintain and maximize your tank barge investment. Wouldn't it be great to have all of your deckhands and tankerman trained properly on using your equipment? By partnering with ERL that can become a reality. We offer free tank barge training with our Rolling Tank Barge Trailer anywhere in the U.S. We invite you to schedule training at your location. When you choose ERL, you receive more than a product, you receive a partner.

▶ ERL CAN PROVIDE on site practical hands-on equipment training, which covers all tank barge equipment that relates to:

- Gauging
- Overfill Protection
- Venting
- Pumping



▶ THE ERL TRAINING TANK BARGE HAS THE FOLLOWING EQUIPMENT:

- Vapor Header
- Alarm Panel
- High Velocity P-V Valve
- Barge to Shore Connections
- Equate P-V Valve
- Spill Valves
- P-V Gauges
- Reach Rod Assemblies with Stuffing Box
- Expansion Dome with Sight Glasses and Gauge Trees
- Vvalve Position Indicators
- Rising Stick Gauge
- Pump Head with Mechanical Seal
- High Level and Overfill Alarms

Our Heritage

- ▶ Since the founding of ERL, Inc. in 1970, by Dr. Larry Wilkins, our company has been guided by old fashioned values and today's leading technology. We maintain our old fashion values producing quality products, service, and integrity in customer relations along with high tech design regarding engineering, testing and manufacturing methods. Our 46,000 square foot manufacturing facility produces equipment ready for the demanding marine workplace environment. It all adds up to VALUE for you.
- ▶ Everyone at ERL, Inc. appreciates your business. We thank you for allowing us to install ERL marine equipment on over 10,000 of your liquid cargo compartments! The positive evolution of our equipment is a continuing effort. We want to know what we can do to service you better. If you have comments or questions concerning this book or any of the products listed, please do not hesitate to call.

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Bill Swartz
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Dale Popp
Production/Quality Assurance



MISSION STATEMENT

Electromechanical Research Laboratories was founded in 1970 with a simple Mission; **TO FOLLOW THE GOLDEN RULE.** Simply stated, it is to treat others in the way we want to be treated. This simple rule continuously guides our behavior towards our customers, our employees, and our vendors.

⁷ "Ask and it will be given to you; seek and you will find; knock and the door will be opened to you. ⁸ For everyone who asks receives; the one who seeks finds; and to the one who knocks, the door will be opened. ⁹ "Which of you, if your son asks for bread, will give him a stone? ¹⁰ Or if he asks for a fish, will give him a snake? ¹¹ If you, then, though you are evil, know how to give good gifts to your children, how much more will your Father in heaven give good gifts to those who ask him! ¹² So in everything, do to others what you would have them do to you, for this sums up the Law and the Prophets.

Matthew 7:7-12



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