

The background of the entire page is a photograph of an industrial refinery or chemical plant. It features a complex network of blue steel structures, pipes, and yellow safety railings. Several tall, cylindrical distillation columns are visible against a clear blue sky with light, wispy clouds. A prominent red vertical band runs down the left side of the image. A white banner with a red border is positioned across the middle of the image, containing the company name and product summary text.

# Questtec

SOLUTIONS

## PRODUCT SUMMARY

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# GLASS-TRAC™

(FORMERLY DANIEL LEVEL GAGE & VALVE)

## ARMORED REFLEX GAGES

Glass-Trac (formerly Daniel Level Gage & Valve) Reflex Gages are supplied with specially molded glass having prisms on the process side. The purpose of the prisms are to reflect light in the vapor phase of the process. Where the liquid fills the prisms, the display will be nearly black, regardless of the actual color of the liquid.

This high contrast makes observation of the liquid/vapor interface very clear, even with clear liquids, and visible from a distance. Reflex Gages are made in:

- Three Pressure Series (Max. 4000 PSIG @ 100°F)
- Tapped for 1/2" or 3/4" NPT Connection
- Materials are Available to Meet your Specific Process Conditions
- Standard to Fully Engineered Designs



ARMORED REFLEX LIQUID LEVEL GAGE

ARMORED TRANSPARENT LIQUID LEVEL GAGE

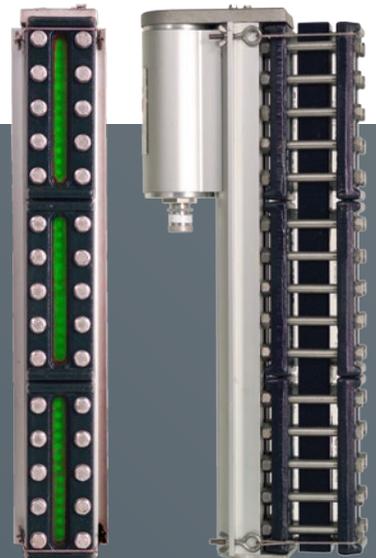
## ARMORED TRANSPARENT GAGES

Glass-Trac Transparent Gages use clear, flat glass on both sides of the chamber. Both the color and the interface of liquids can be viewed. Back lighting gage illuminators are available for use with transparent gages to provide enhanced viewing of liquid levels in dimly lit areas. Transparent Gages are made in:

- Three Pressure Series (Max. 3000 PSIG @ 100°F)
- Tapped for 1/2" or 3/4" NPT Connection
- Materials are Available to Meet your Specific Process Conditions
- Standard to Fully Engineered Designs

## TUBULAR GAGE GLASS ASSEMBLIES

Glass-Trac Tubular Glass Gages are available in any length desired and can be fitted with tubular style gage valves. These gages provide 360° of visibility of the liquid level through strong, clear glass or red line. Guard rods and plastic tubular protectors are available for protection.



## SEE-LEVEL LED ILLUMINATOR

Illuminator for Transparent Level Gages Certified For Class 1, Division 1, Group B, C, & D Hazardous Locations

- Long Lamp Life, Low Electrical Consumption
- Brilliant Green LED Illumination for Transparent Level Gages
- Easy Secure Mounting
- PCB Boards Tropicalized [Conformal Coated]
- NEMA 4X & 8 Power Supply Enclosure
- Watertight, Weather Proof, and Corrosion Resistant
- Durable & Rugged By Design

# STEAM-TRAC™

## MEETS ASME SECTION I

### ST-350 UP TO 350 PSI

Steam-Trac ST-350 is designed specifically for steam service to 350 PSI. The reflex borosilicate glass has prisms molded into the process side which will display black for water and white for steam. All connections and materials fully comply with ASME requirements. The gage may be used as a Direct Reading Sight Glass as required by ASME Section I, PG.60.

- Fully ASME compliant
- Multiple sections, continuous one-piece chamber
- Spring washers for consistent torque
- Custom built per specifications
- Nickel plated bolts, nuts, and washers
- High temperature coating
- Recessed gasket face in chamber and cover

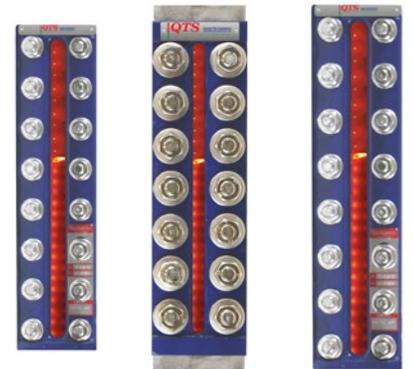


ST-350 WITH VALVES

### ST-450, ST-1000; & ST-1600 UP TO 1600 PSI

Steam-Trac ST-450, ST-1000, & ST-1600 steam gages are ruggedly built to set the industry standard for reliability in the difficult mid-pressure range from 450 to 1600 PSI working steam pressure. The gage may be used as a Direct Reading Sight Glass as required by ASME Section I, PG.60.

- Fully ASME compliant
- Multiple sections with minimum 1" overlap to ensure continuous visibility
- Spring washers for constant torque
- Recessed gasket face in chamber and cover
- Custom built per specifications
- Nickel plated bolts, nuts, and washers
- High temperature coating
- See-Level Illuminator with Amber lighting for easy viewing of levels of steam applications



ST450; ST-1000; & ST-1600 WITH SLI-A ILLUMINATOR

### STB-3000A UP TO 3000 PSI

The Steam-Trac STB-3000A Bi-Color Ported Gage must be used with a red/green filter illuminator. The gage chamber is constructed with opposing ports at an angle so that red light will pass unimpeded through the gage in the steam phase. When water is present, refraction will only allow green light to pass through, resulting in a clear visual indication of water level. The gage may be used as a Direct Reading Sight Glass as required by ASME Section I, PG.60.

The STBI-3000A Illuminator matches long lasting LED lamps to a rugged fabricated enclosure to set an unsurpassed standard of reliability for bi-color water gage illumination

- Fully ASME compliant
- Large, easy to read ports
- All lengths with continuous chamber
- Innovative Illuminator design
- Nickel plated fasteners
- High temperature coating



STB-3000A

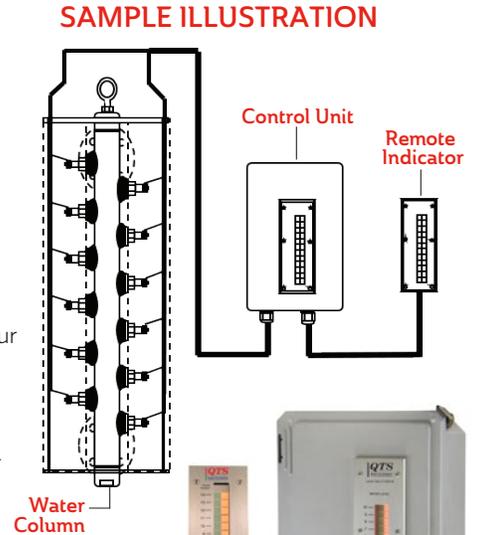
STBI-3000A

# PRODUCT SUMMARY

# LEVEL-TRAC

## PROBE MANIFOLDS/WATER COLUMNS

The **Questtec Solutions** Level-Trac product line includes a complete and versatile line of probe manifolds, control units, and remote displays. Control units are available based on three different core technologies. Our depth of experience allows us to custom tailor a system to replace and improve field installations, regardless of the brand, or to maximize value on new installations. The Questtec manufacturing facility is state of the art and is committed to supply custom fabricated products to meet your specifications.

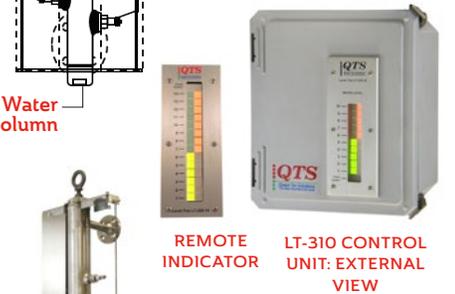


## CONTROL/DISPLAY UNIT

Level-Trac Control Units are available in four models:

- LT-100 Models use plug -in voltage relays
- LT-210, LT-220, LT-310 - solid state circuitry

All remote displays use bi-color LEDs for maximum life span and minimal power consumption. Most units ship out of stock and are pre-programmed per customer requirements.



## POINT LEVEL WATER INDICATOR

Questtec Level-Trac LT-40/41 probe fixtures are simple devices which provide a means of point level water indication to be used for alarms or trips. The fixture is designed to be piped into a vertical configuration to track the contents of a steam drum or other pressure vessel.

The LT-40/41 probe fixture has the following model numbers:

- LT-40-01 : One Type 800, TFE insulated probe, rated to 1000 PSI
- LT-40-02 : Two Type 800, TFE insulated probe, rated to 1000 PSI
- LT-41-01 : OneType 810, Zirconia insulated, brazed probe, rated to 2000 PSI
- LT-41-02 : Two Type 810, Zirconia insulated, brazed probe, rated to 2000 PSI



LT-502 HIGH PRESSURE WATER COLUMN



LT-310 CONTROL UNIT: INTERNAL VIEW



LT-40-02 POINT LEVEL

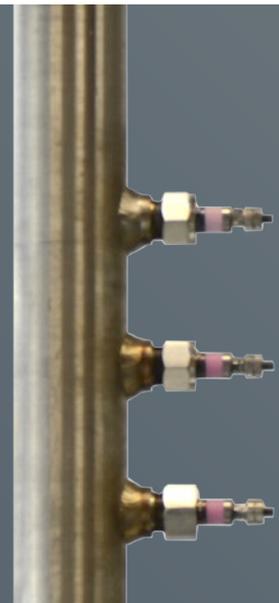


LT-40-02 POINT LEVEL TOP VIEW

## QTS TURBINE WATER INDUCTION PREVENTION SYSTEM

All normally operating steam turbines carry the inherent risk of water ingress. Small amounts of condensate can enter from any connection to the turbine, sometimes arising rapidly from the condensation of steam. This almost always results in catastrophic damage to the turbine, even in low pressure situations. On-site operators are rarely able to recognize and prevent these problems from occurring. Therefore, automatic turbine water induction prevention systems must be used to safeguard turbines from this danger. They save significant costs through quick detection and prevention of water ingress into the steam turbine.

The QTS Turbine Water Induction Prevention System improves these difficulties directly and proficiently. Including a number of standard features such as Alarms & Validated Tripping Relays, Normally Energized or De-energized Relays, Timed Delays, Sensitivities Settings, and LED Flash. All are easily set with solder pads in the field or by QTS before delivery. Products also include an electronics integrity test button that tests the entire system's operation.



# MAGNE-TRAC

The Magne-Trac product line provides one of the safest and most economical ways to meet your level measurement requirements. In applications for extreme pressure, temperature, vibration, and highly corrosive or hazardous material, Magne-Trac gages will perform where others struggle. Features include lower installation costs, easy to read liquid level indication, and low maintenance.

## MAGNE-TRAC INDICATORS

- Innovative design maximizing magnetic field
- Wide flag enhanced indicator view
- Impact-resistant polycarbonate indicator window
- Corrosion resistant moving parts
- Modular design with many options
- Available to ASME B31.1/31.3
- Non-mercury switches

## MTLT-5000 TRANSMITTERS

- Mounts externally to the Magne-Trac
- Requires no maintenance or recalibration
- Continuous level measurement
- FM approved Explosion Proof/ IS
- NEMA 4X/7 enclosure
- RFI/EMI protection
- Adjustable output damping

## GUIDED WAVE RADARS

- Mounts in bridle chamber to the Magne-Trac
- No wet calibration required
- Simultaneous acquisition of interface layer and total level of clear and emulsions interface
- Not affected by density of the medium
- Models available to meet applications up to 842°F at 5800 psi

## ACCESSORIES & OTHER OPTIONS

- Cryogenic Insulation & Non-Frost Extensions
- Insulation Jackets / Heat Blankets
- Electric & Steam Heat Tracing
- Wide variety of Scale Options
- Flashing Application Solutions
- Econo-Trac for Low Pressure Applications
- Reed Switches & Pneumatic Switches

## FLOAT OPTIONS

**Questtec Solutions** offers a wide variety of magnetic level gage float options. Customized to meet each individual application. Engineered according to the maximum operating pressure, maximum operating temperature, and specific gravity. QTS offers both oblong and spherical ball float designs. Float materials include, but are not limited to, the following: 316 SST, Titanium, CPVC, & Hastelloy C. Questtec uses an orbital welding machine to fusion-weld the two float halves together which only uses heat and no filler metal. This process produces a smooth weld, without bead which could interfere with the floats motion.



TITANIUM  
FLOAT



316 SST  
FLOAT



SPHERICAL  
BALL  
FLOAT



CPVC  
FLOAT



MAGNETIC GAGE  
WITH GUIDED  
WAVE RADAR



MAGNETIC GAGE  
WITH TRANSMITTER  
& SWITCHES

# PRODUCT SUMMARY

## INSTRUMENT BRIDLE SOLUTIONS

The QTS Bridle-Trac is an ideal means of utilizing the power of many technologies without mounting directly into the vessel.

The QTS Bridle-Trac external chamber is a self-contained cage designed for use with our top mounting level transmitters or switches. Quality construction and a wide selection of configurations make this cage an ideal means of utilizing the power of our many technologies without mounting directly into the process vessel. The chamber is suitable for use with Guided Wave Radar, RF Capacitance Transmitters, Electronic point sensors and top mounted displacer switches. In addition, mount Level Gages and Valves to your Instrument Bridle for ease of maintenance.

### FEATURES

Sealed or flanged-top chamber options

2" and 4" nominal chamber diameters to accommodate all sensing elements

Carbon steel or 316 stainless steel materials of construction

Rugged Questtec commercial construction available as well as ASME B31.3, ASME B31.1, NACE or combined NACE and ASME B31.3 construction options

Rated for pressures up to 5000 psi (345 bar)

For applications to 842°F (450°C)

Lengths for measuring ranges to twenty feet (6.1 m)

Broad selection of process connections sizes and types

Head flange bolting included with flange-top models

Suitable for use with RF capacitance transmitters, all electronic point sensors and top mounted displacer switches

Optimal design for use with Guided Wave Radar transmitter:

- Smallest possible chamber diameters
- Pressure rating to match High Temperature, High Pressure (HTHP) and High Pressure (HP) probes
- Temperature rating to match HTHP probe
- Space above and below measuring range to accommodate measurement transition zones

## ADVANTAGES

✓ SINGLE POINT RESPONSIBILITY INSTRUMENTS, BRIDLE, WELDING, TESTING, DOCUMENTATION

✓ REDUCES TURBULENCE & FOAM IMPROVES MEASUREMENT ACCURACY

✓ AVOID INTERFERENCE BETWEEN OTHER DEVICES

✓ ISOLATION EASE OF CALIBRATION AND MAINTENANCE



# ARMORED TUBULAR & SIGHT FLOW

**Questtec Solutions** new Armored Tubular product line provides customers a low pressure straight column alternative to traditional multi-section bridle assemblies. The straight column design offers the benefit of a light-weight lower complexity model with easy installation at a reduced cost. Armored Tubular models are virtually maintenance free and do not need to be disassembled for inspections or cleanings. QTS Armored Tubular line is a go to for low pressure applications that require ultimate visibility. Also available, QTS Sight Flow Indicators, based on your application.



# AFTER MARKET

Regardless of original equipment manufacturer, **Questtec Solutions** can supply replacement parts for nearly any system. All parts supplied by Questtec meet or exceed the original parts and are warranted for complete fit, form, and function.

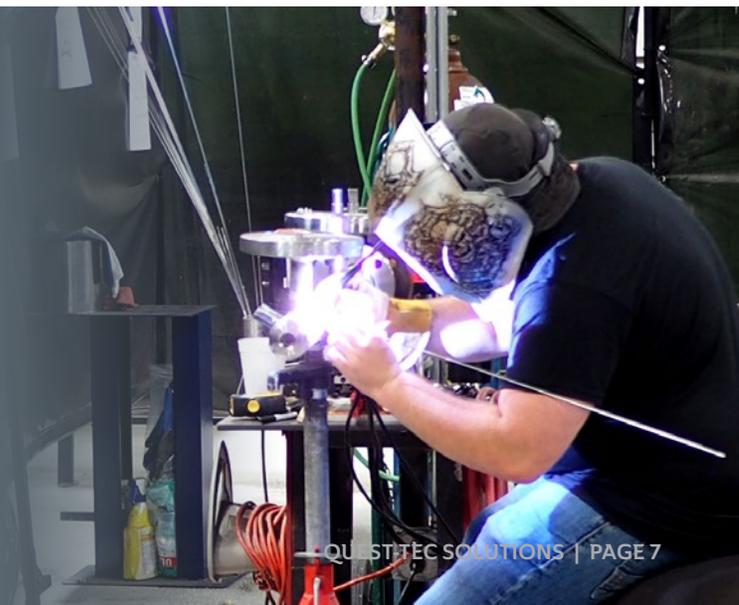


**Questtec** is an International Company with Representatives based throughout the world. Our Partners can assist with Commissioning, Start Up and Calibration, 24 Hour Service and Repair Support.

866.240.9906

## IMMEDIATE HELP VIA-REMOTE MAINTENANCE

Using the remote maintenance service TeamViewer, the QTS service technician can assist you immediately, check the instrument configuration and perform certain analysis.





40,000ft<sup>2</sup> climate controlled

Questtec Solutions Registration #0736



ASME "S" & "R"  
Stamp holder



ISO 9001:  
2008  
Registered



ASME Sec. VIII  
Div I BPVC  
Certified  
Manufacturing



CNC Precision  
Machining for all  
components

# Questtec

SOLUTIONS

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