UPDATE TO EQ-901

Rochester Gauges, LLC.
Equipment Registration Request
to the
Florida Department of Environmental Protection’s
Permitting and Compliance Assistance Program
Storage Tank Compliance
by
Rochester Gauges, LLC.
for
Aboveground Storage System Equipment
Submitted on March 19, 2020 by
Marshall T. Mott-Smith, President
Mott-Smith Consulting Group, LLC
111 North Calhoun Street
Tallahassee, FL 32301
marshall@mott-smithconsulting.com
850-391-9835 work
850-591-1434 cell
www.mott-smithconsulting.com
March 19, 2020

Amanda Dorsett,
Environmental Administrator
Florida Department of Environmental Protection
Division of Waste Management
Compliance Assistance Program
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Re: Equipment Registration Amendment Request for Rochester Gauges, Inc.

Dear Amanda,

Rochester Gauges, LLC. is submitting an amendment to their previously submitted (September 4, 2018) Equipment Registration (EQ 901). Most of the previously submitted documentation for Rochester Gauges liquid level gauge models for aboveground storage tank system systems has not changed, so we are only submitting documents for the amended Equipment Registration. The Equipment Registration Forms are included in this submittal.

The main intent of the Amendment is to make it clear that any of the dials for the registered gauges will work accurately on any registered gauge. The dials have been improved and made to be interchangeable and replaceable. A fuel tank system technician could easily replace a dial as a service part by simply removing two screws. The tank owner could choose to replace the original dial with a new dial or a different dial more suited to his needs. In that case, it would not normally be necessary to remove or replace the gauge. There are also some updates to the previously approved gauge models.

The liquid level gauges are listed by UL, and therefore provides the third-party certification as a Nationally Recognized Laboratory in accordance with Rule 62-761.200(36), F.A.C. Rochester Gauges, LLC. appreciates your consideration in this matter, and please feel free to contact me if you have any questions or if we need to provide additional information.

Best Regards,

Marshall Mott-Smith, President
Mott-Smith Consulting Group, LLC

111 North Calhoun Street
Tallahassee, FL 32301
850.391.9835
www.mott-smithconsulting.com
Rochester Gauges, LLC. is submitting an amendment to their previously submitted (September 4, 2018) Equipment Registration (EQ 901). The intent of this submittal is to amend EQ 901 by allowing the installation or replacement of any of the Interchangeable Replaceable Dials manufactured by Rochester Gauges with any of the previously approved Model Numbers. Any registered dial will work accurately on any registered gauge.

The dials have been improved and made to be interchangeable and replaceable. A fuel tank system technician can easily replace a dial by simply removing two screws. The tank owner can choose to replace the original dial with a new dial or a different dial more suited to his needs, and it would not normally be necessary to remove or replace the gauge. Secondly, there are also some updates to the previously approved gauge models that are included in this submittal.

Gauges or tanks with gauges could be shipped to the owner with any of these dials depending upon which dials the tank fabricator or distributor had in stock at the time. Several alternative, interchangeable, replaceable dials are available. Any dial shown in this section will fit any Rochester gauge models 6560, 6580, 8660 and 8680. The dials furnished with these gauges may be replaced on-site by simply removing two #6-32 screws using #1 Phillips screwdriver. With the two screws removed, the old dial can be removed, and the new dial can be installed. There is no need to unscrew the gauge or to disturb any of the four bolts that secure the gauge to the tank.

Shaped locating tabs on the dials fit into similarly shaped slots in the gauge heads assuring that the dials will fit only if correctly oriented. Because the dials are magnetically driven, the new dial will function interchangeably and accurately without further adjustments. However, it is prudent to note the dial reading before and after dial replacement. Normally, the dial readings should be the same on both the old and the new dial.

All compatible dials have pointer stops. Therefore, it is recommended that the installer move the screwdriver behind the dial before installing to make sure that the new dial reads about the same as the old dial.
Dials are service items and are easily replaced if damaged or weather worn. A new dial will be easier to see and read compared to one that has become weather worn. Also, a different type dial may be easier to see or read. Because these dials are interchangeable, replacing a dial with a different type may be preferable to replacing the entire gauge.

As provided in the Equipment Registration request for EQ 901, the liquid level gauges are listed by UL, and therefore satisfies the requirement for the third-party certification as a Nationally Recognized Laboratory in accordance with Rule 62-761.201(47), F.A.C.

The following dial part numbers are included in this submittal:

- 5ACRS02898 Senior, R3D, direct reading dial for R3D Hall Effect module
- 5AWGS03247 Senior, R3D, direct reading dial for GEN 3, R3D module
- 5AWLS03239 Senior, direct reading replacement dial, polycarbonate
- 5AWMS03239 Senior, direct reading replacement dial, polyamide
- 5025S00570 Senior, side view, direct reading dial
- 5002S00062 Senior direct reading replacement dial, acrylic/aluminum (old style)
- 5844S01793 Senior direct reading replacement dial, polycarbonate (old style)

The following Gauge updates are included in this submittal:

- Replacement Updates for the MS-516 Spiral Gauge
- Replacement of the 6500 SERIES data sheet with 6500 SERIES-FL
- Replacement of the 8600 SERIES data sheet with 8600-FL
Replacement Updates for the MS-516 Spiral Gauge
Threaded Spiral Gauge Installation Instructions

READ COMPLETELY BEFORE ATTEMPTING INSTALLATION*

**WARNING:** IMPROPER INSTALLATION OR USE OF THIS PRODUCT MAY CAUSE SERIOUS INJURY OR PROPERTY DAMAGE.

These instructions are prepared to assist tradesmen and others qualified to service liquid storage tank equipment. Consumers are not qualified to perform the installation or operation of the gauge, contact Rochester Gauges or one of our authorized distributors for assistance. This document is not instructions for tank filling.

BE SURE YOU HAVE THE PROPER GAUGE.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>HEAD</th>
<th>SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>8240</td>
<td>BRASS</td>
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<td>8680</td>
<td>ZINC</td>
<td>STEEL</td>
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**IS THE GAUGE RIGHT FOR YOUR APPLICATION?**

Gauges should only be installed in applications recommended by the manufacturer. Verify that the gauge is the proper gauge for your application prior to attempting installation.

The gauge, and coupling must be constructed of materials compatible with the liquid to be measured and the service environment. The float and head must be adequately rated for your specific pressure and temperature service. These gauges are not intended for use in pressurized vessels.

**IS THE GAUGE THE PROPER SIZE?**

As a general rule, the gauge should be sized to provide approximately 1/2" clearance between the bottom of the tank and the lowest portion of the gauge when the gauge head is fully tightened into the mounting coupling.

**NOTE:**

During shipping, the support or center shaft on this type of gauge may occasionally be slightly bent which may restrict free movement of the float throughout its travel. Before installation, raise and lower the float the entire length of the support. If any binding is encountered, it is a simple matter to correct. At the point on the support where the float binds, either the center shaft or one of the support wires will not be parallel to the other two. This can be corrected by bending the appropriate wire back into its proper position.

**CAUTION:** Improper gauge or dial selection or application may result in inaccurate readings. Release of tank contents as well as damage to equipment and safety hazard may result if tank is overfilled. Fuel exhaustion may occur if tank contents are less than indicated.

*Materials and specifications are subject to change without notice.

See reverse side for dimensional data, materials of construction, performance, and advice on how to order.

Always Innovating • Never Imitating
Threaded Spiral Gauge Installation Instructions

An American National Standard
Pipe Threads, General Purpose (INCH)

Ansi/asme B1.20.1-1983
(Vanish threads due to chamfer on rise)

Basic dimensions of American National Standard Taper Pipe Thread. NPT

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<tr>
<th>Nominal Pipe Size (NPT)</th>
<th>O.D. of Pipe (D)</th>
<th>Threads/in. (P)</th>
<th>Pitch of Thread (P)</th>
<th>Pitch dia. at beginning of External Thread (E5)</th>
<th>Handtight Engagement</th>
<th>Effective Thread, External</th>
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</thead>
<tbody>
<tr>
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<td></td>
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<td>Length 4 (E5)</td>
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<tr>
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<td></td>
<td></td>
<td></td>
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<td>inch Threads</td>
<td>inch Threads</td>
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<td>inch Threads</td>
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<td></td>
<td></td>
<td>inch Threads</td>
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</table>

Notes:
1. The basic dimensions of the American National Standard Taper Pipe Thread are given in inches to four or five decimal places. While this implies a greater degree of precision than is ordinarily attained, these dimensions are the basis of gauge dimensions and are so expressed for the purpose of eliminating errors in computations.
2. Also the length of a ring gauge and length from gauging notch to small end of plug gauge.
3. Also pitch diameter at gauging notch (handtight plane).
4. Also length of plug gauge.
5. The length L5 from the point of the thread determines the plane beyond to which the thread form is complete at the crest. The next two threads are complete at the root. At this plane one formed by the crest of the thread intersects the cylinder forming the external surface of the pipe. L5-L2-2P
6. Given as information for use in selecting tap drills.
7. Military Specification MIL-P-7105 gives the wrench make-up as three threads for sizes 3 and smaller.
8. Reference dimension.

Installation
A. Gauges are normally fastened to tank using a coupling which has previously been welded into the tank. Check coupling with certified thread plug gage for correct dimensions after welding.
B. Apply appropriate pipe thread compound to gauge mounting threads.
C. Carefully insert float into coupling and work gauge's gear housing and support through coupling being careful not to bend or damage them.
D. Torque head to range listed below.

<table>
<thead>
<tr>
<th>Gauge Thread</th>
<th>Dry Torque (ft. lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1/2 NPT</td>
<td>25-50</td>
</tr>
</tbody>
</table>

CAUTION: Do not over torque. Over tightening may cause damage to head and threads.

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11616 Harry Hines Blvd. • P.O. Box 29242 • Dallas, TX 75229 • (972) 241-2161 • FAX (972) 620-3374
Website http://www.rochestergages.com • E-mail info@rochestergages.com

WARNING: Acrylonitrile BPA Cancer and Reproductive Harm
www.P4SPratings.ca.gov
02/04/2020
Replacement of the 6500 SERIES data sheet with 6500 SERIES-FL
Magnetic Liquid-Level Gauge

Application
The 6500 Series Senior gauges are designed for use in low pressure fuel tanks 0-25 psig [0-1.7Bar].

Used in many applications such as stationary generators, farm tanks and home heating.

Gauge materials are intended for middle distillates such as diesel and for bio-diesel. Not intended for use in fuels containing more than 10% ethanol. These gauges may be sized to fit stationary fuel tanks up to eight feet deep.

Rochester gauge dials are magnetically driven. Fuel vapor cannot reach inside of the gauge lens and attack the UV rated lens material. Rochester gauges may be easily converted for remote output by simply installing the R3D Remote Ready dial and plug-in Hall Effect sender module.

General Information & Features
The 6500 Series Senior gauges are available in gear-action models for top mounting.

The standard float is nitrile rubber. Aluminum or stainless steel floats are available at extra cost. The gauge is mounted to a mating Senior flange 2 ½” bolt circle [63.5mm] using four ¼”-28 x ½” long bolts. The gasket is Buna-N.

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See reverse side for dimensional data, materials of construction, performance, and advice on how to order.

The Measure of Excellence
**6500 Series-FL**  
Non-Pressurized Fuel Tanks  

**Magnetic Liquid-Level Gauge**

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**Alternative Interchangeable Replaceable Dials**

# 5ACRS502898 or  
# 5AWGS63247  
Sr. R3D Remote Ready Dial

# 5AWLS033239 or  
# 5AWMS63239  
Sr. Direct-Reading Dial

# 5025500570  
Sr. Side-Reading Dial

---

**General Specifications**

**Accuracy**  
Accuracy depends upon proper gauge sizing. Senior dials ±6%, TwinSite® dials ±10%. Accuracy may be less depending upon tank shape. Accuracy may be less near full and empty. Accuracy may be less if tank is not level. All accuracy estimates are expressed as a percent of full scale.  

**CAUTION:** This gauge is not a substitute for an automatic over-fill prevention device, which may be required for filling. This gauge is not be used as an unattended means of determining tank overfilling. This document does not provide instructions for tank filling. Periodic annual operability checks may be required which are necessary to detect gauge malfunctions and/or inaccurate gauge readings. Gauge accuracy depends upon proper gauge sizing and installation. Release of tank contents as well as damage and safety hazard may result if tank is overfilled. Fuel exhaustion may occur if tank contents are less than indicated.  

**Temperature Range**  
-40°F to +158°F, -40°C to 70°C.

**Humidity**  
Paint exposed portions of gauge, less dial, for marine applications.

**Shock & Vibration**  
Suitable for mobile applications.

**Tank Pressure**  
Up to 25 psig [1.7Bar]

**Approvals**  
6560 and 6580 are UL listed for flammable liquids.

---

**Materials of Construction**

**Head**  
Die cast aluminum

**Centershaft, Support Tube & Float Rod**  
Tempered aluminum

**Gears, Cross Stud & Bearings**  
Stainless steel

**Drive Magnet**  
Alnico or Neo

**Gear Housing**  
Acetal plastic or aluminum

**Float**  
Nitrile rubber

**Gasket**  
Buna-N, 0015-00004

**Direct Reading Dial**  
Polycarbonate or polyamide ultrasonically sealed.

**Side Reading Dial**  
Aluminum with polycarbonate crystal, hermetically sealed.

**Mounting Bolts**  
Zinc-plated steel ¼"-28 x ¾" long. (Optional stainless steel)

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**When ordering, specify:**

1. Gauge model number.
2. Tank depth and riser height.
3. Any listed options or preferences.

---

**NOTE:** Materials and specifications are subject to change without notice. Pressure ratings subject to change due to temperature and other environmental considerations.

---

The Measure of Excellence

11616 Harry Hines Blvd. • P.O. Box 20242 • Dallas, TX 75229 • (972) 241-2161 • FAX (972) 620-3374  
**Website** http://www.rochestergauges.com • **E-mail** info@rochestergauges.com

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[Image of gauges and specifications]

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02/20/2020-FL
Replacement of the 8600 SERIES data sheet with 8600-FL
Magnetic Liquid-Level Gauge

Application
Models 8660 and 8680 are intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not intended for use in fuels containing more than 10% ethanol or more than 30% bio-diesel. These gauges are not intended for use in pressure vessels. Models with optional stainless steel supports may also be used for fuels containing ethanol, bio-diesel and interstitial applications. The 8600 Series is not recommended for off-road equipment.

General Information & Features
The 8660 spiral gauge is supplied with an easy to read, side-view fractional dial. The model 8680 spiral gauge is equipped with a standard top reading fractional dial.

All 8600 Series spiral gauges have a 1 ½" MNPT tank connection and are suitable for tank pressures up to 25 psig maximum. They are designed for top mounting in tanks up to 30" deep are UL listed for flammable liquids.

Rochester gauge dials are magnetically driven. Fuel vapor cannot reach inside of the gauge lens and attack the UV rated lens material. Rochester gauges may be easily converted for remote output by simply installing the RJD Remote Ready dial and plug-in Hall Effect sender module.

* Materials and specifications are subject to change without notice.
  Pressure ratings subject to change due to temperature and other environmental considerations.

See reverse side for dimensional data, materials of construction, performance, and advice on how to order.

Always Innovating • Never Imitating
Alternative Interchangeable Replaceable Dials

# 5ACR502898 or
# 5AWG503247
Sr. R3D Remote Ready Dial

# 5AWLS03239 or
# 5AWMS03239
Sr. Direct-Reading Dial

# 5025500570
Sr. Side-Reading Dial

General Specifications*

Mounting
Designed for top-mounting only.

Accuracy
Accuracy depends upon proper gauge sizing. Direct read
dials +/-8%, TwinSite dials +/-12%. Accuracy may be less
depending upon tank shape. Accuracy may be less near full
and empty. Accuracy may be less if tank is not level. All
accuracy estimates are expressed as a percent of full scale.

CAUTION: This gauge is not a substitute for an automatic
over-fill prevention device, which may be required for filling.
This gauge is not be used as an unattended means of
determining tank overfilling. This document does not pro-
vide instructions for tank filling. Periodic annual operability
checks may be required which are necessary to detect
gauge malfunctions and/or inaccurate gauge readings.
Gauge accuracy depends upon proper gauge sizing and
installation. Release of tank contents as well as damage
and safety hazard may result if tank is overfilled. Fuel
exhaustion may occur if tank contents are less than indicat-
ed.

Temperature
Standard operating range is -40°F to 158°F, -40°C to 70°C.

Humidity
Paint exposed portion of gauge, less dial, for marine appli-
cations.

Shock
Shorter sizes are suitable for some mobile application.

Vibration
Shorter sizes are suitable for some mobile application.

Tank Pressure
0 to 25 psg [0 - 1, 7 Bar] maximum.

Approval
8660 and 8680 are UL listed for flammable liquids.

Note: For gauge installation instructions see MS-516 Non-
pressurized Fuel Tanks.

Materials of Construction*

Head
Die-cast zinc.

Guide Rod
Zinc-plated steel, brass or stainless steel optional.

Centershaft
Brass. (Stainless steel optional.)

Tie Plate, Guide & Bearing Pin
Stainless steel.

Float
Nitrile rubber.

Drive Magnet
Neodymium.

Direct Reading Dial
Polycarbonate or polyamide ultrasonically sealed.

Side-View Dial
Aluminum with polycarbonate crystal, hermetically sealed.

When ordering, specify:

1. Gauge model number.
2. Tank depth.
3. Riser height, if any.
4. Any special requirements.

NOTE: Materials and specifications are subject to change without notice.
Engineering Drawing for the 8660 TM Spiral Gauge
Engineering Drawing for the 8660 TM Spiral Gauge
New Dial Appendix
### Dial SA SR Plastic

**5844S01793 Senior direct reading replacement dial, polycarbonate (old style)**

#### Notes:
1. Assembly to be leak free at 8 in.-Hg vacuum.
2. Print back of dial with P/N & date code per DS-977.

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**Scale:** Full

**Title:** DIAL SA SR, PLASTIC

**Part Number:** 5844S01793

**Rev:** A

**Size:** A

**Sheet:** 1 of 1
Polyamide Direct Read SR Dial SA

5AWMS03239 Senior, direct reading replacement dial, polyamide
Polycarbonate Direct R3G SR Dial SA

5AWGS03247 Senior, R3D, direct reading dial for GEN 3, R3D module

NOTES:
1. ASSEMBLY TO BE LEAK FREE AT 8 IN-HG VACUUM
2. STAMP BACK OF DIAL WITH DIAL S/A NUMBER AND WEEK-YEAR DATE CODE PER DS-977

MEDIDORES INTERNACIONALES
ROCHESTER S.A. DE C.V.

SCALE: WITHOUT
DATE: 09/04/17
PART NAME: POLYCARBONATE R3G SR DIAL S/A
DRAWING NUMBER 5AWGS03247
Polycarbonate Direct Read SR Dial SA

5AWLS03239 Senior, direct reading replacement dial, polycarbonate

1. ASSEMBLY TO BE LEAK FREE AT 8 IN-HG VACUUM
2. STAMP BACK OF DIAL WITH DIAL S/A NUMBER AND WEEK-YEAR DATE CODE PER DS-977
SR Hall Compatible Dial SA

5ACRS02898 Senior, R3D, direct reading dial for R3D Hall Effect module
SR Side Reading Dial

5025S00570 Senior, side view, direct reading dial

NOTES:
1. THIS ASSEMBLY MUST BE LEAK FREE AT 8" HG. VACUUM.
2. THIS RELATIVE ARRANGEMENT OF WINDOW TO BEZEL TABS IS TO BE USED ON ALL INDUSTRIAL GAUGES.
SEE 5068500000 FOR SIDE READING DIALS USED ON L.P.G. AND A.A.

APPLY ENOUGH DOW CORNING #200 DAMPENING FLUID (10,000 CENTISTOKES) INSIDE MAGNET HUB TO COVER WALLS.
SR Fractional Dial S/A-

5002S00062 Senior direct reading replacement dial, acrylic/aluminum (old style)

NOTES:
1. THIS ASSEMBLY MUST BE LEAK FREE AT 8" H.G. VACUUM.
DEP Form 62-761.900(9) F.A.C.

Storage Tank Equipment Registration Forms
Update to 9/11/2018 Submission of EQ-901

Department of Environmental Protection
2600 Blair Stone Road, Tallahassee, Florida 32399-2400

Storage Tank System Equipment Registration Form
Fill out completely

General Information
Company Name: Rochester Gauges, LLC
Company Address: P.O. Box 29242
E-mail: CustomerService@RochesterGauges.com
Product Name: Magnetic Liquid Level Gauge
Model Number(s): 6560
Rule(s) citation that registration is being requested within Chapter 62-761 (UST), and/or 62-762 (AST),
Contact Name: Customer Service
City, State: Dallas Zip: 75229
Contact Number: 972-241-2161
Product Type: Liquid Level Gauge

F.A.C.: Write a brief description of equipment registration request including product limitations:
The 6500 Series Senior Gauges are UL Listed and are designed for use in low pressure tanks. They are used in many applications such as construction equipment, stationary generators, boats, farm equipment, and home heating. The Gauge materials are intended for use with middle distillates such as diesel and are not fire retardant fluids. They are not intended for use with highly flammable fluids. These gauges may use any of the listed Rochester alternative, interchangeable, replaceable dials.

Information Checklist (Choose Yes, No, or N/A - Not Applicable):
1. Third-party Certification by a Nationally Recognized Testing Laboratory? (Required)
2. Documentation of third-party evaluation that the equipment meets DEP Rules?
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?
4. Technical information and drawings included?
5. Installation instructions included?
8. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?
9. Has the product been approved or registered in other countries or states? (If so provide list)
10. Any requirements for company-certified installers or trainers?
11. Was this product(s) previously approved or registered by the Department? If yes, EQ 901
12. Any changes or modifications to the equipment since the last submittal to DEP?

Document Information: Provide supporting documents indicated as “Yes” above including this form via email to TankNotify@florida-dep.gov, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:
These gauges are normally fastened to a tank using a mounting adapter that has previously been welded or otherwise installed into the tank or its fittings. Several alternative, interchangeable, replaceable dials are available and may be installed or replaced with any of the listed dials in the Equipment Registration submittal.

Equipment Registration Certification:
To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Marshall T. Mott-Smith
Printed Name and Title

Signature (press click to sign)

03/18/2020
Date

For Department Use Only:
Date Application Received: 3/19/2020
Application complete:
Yes: ☑ No: ☐
EQ: 901 Date of complete or incomplete letter sent: 4/9/2020
Date Equipment Requires Renewal: 4/9/2025

Storage tank system equipment requires renewal every 5 years in accordance with subsection 62-761.850(2), F.A.C.
Storage Tank System Equipment Registration Form

General Information
Company Name: Rochester Gauges, LLC
Company Address: P.O. Box 29242
E-mail: CustomerService@RochesterGauges.com
Model Number(s): 6580
Product Name: Magnetic Liquid Level Gauge
Product Type: Liquid Level Gauge
City: Dallas
State: Zip: 75229
Contact Name: Customer Service
Contact Number: 972-241-2161

Rule(s) citation that registration is being requested within Chapter 62-761 (UST), and/or 62-762 (AST), 62-762

F.A.C.: Write a brief description of equipment registration request including product limitations:
The 6500 Series Senior Gauges are UL Listed and are designed for use in low pressure tanks. They are used in many applications such as construction equipment, stationary generators, boats, farm equipment, and home heating. The Gauge materials are intended for use with middle distillates such as diesel in tanks up to eight feet deep and are not intended for fuels containing ethanol. These gauges may use any of the listed Rochester alternative, interchangeable, replaceable dials.

Information Checklist (Choose Yes, No, or N/A - Not Applicable):
1. Third-party Certification by a Nationally Recognized Testing Laboratory? (Required)
2. Documentation of third-party evaluation that the equipment meets DEP Rules?
3. Equipment included about the qualifications of the Nationally Recognized Testing Laboratory?
4. Technical information and drawings included?
5. Installation instructions included?
8. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?
9. Has the product been approved or registered in other countries or states? (If so provide list)
10. Any requirements for company-certified installers or trainers?
11. Was this product previously approved or registered by the Department? If yes, EQ- 901
12. Any changes or modifications to the equipment since the last submittal to DEP?

Write a brief description of equipment installation and performance in the U.S.:
These gauges are normally fastened to a tank using a mounting adapter that has previously been welded or otherwise installed into the tank or its fittings. Several alternative, interchangeable, replaceable dials are available and may be installed or replaced with any of the listed dials in the Equipment Registration submittal.

Equipment Registration Certification:
To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Marshall T. Mott-Smith
Printed Name and Title
03/18/2020
Signature

For Department Use Only:
Date Application Received: 3/19/2020
Application complete: Yes: X No: 
EQ: 901 Date of complete or incomplete letter sent: 4/9/2020
Date Equipment Requires Renewal: 4/9/2025

Storage tank system equipment requires renewal every 5 years in accordance with subsection 62-761.850(2), F.A.C.
Update to 9/11/2018 Submission of EQ-901
Update to 9/11/2018 Submission of EQ-901

Storage Tank System Equipment Registration Form

Fill out completely

General Information
Company Name: Rochester Gauges, LLC
Company Address: P.O. Box 29242
E-mail: CustomerService@RochesterGauges.com
Product Name: Magnetic Liquid Level Gauge
Model Number(s): 8680
Rule(s) citation that registration is being requested within Chapter 62-761 (UST), and/or 62-762 (AST), 62-762

F.A.C.: Write a brief description of equipment registration request including product limitations:
Model 8680 Gauges are intended for stationary or mobile fuel tank applications containing middle distillates such as diesel. These gauges are not intended for use in pressure vessels or off-road equipment. However, models equipped with stainless steel support rods may also be used for fuels containing ethanol or with intermittent applications. These gauges may use any of the listed Rochester alternative, interchangeable, replaceable dials.

Information Checklist (Choose Yes, No, or N/A - Not Applicable):
1. Third-party Certification by a Nationally Recognized Testing Laboratory? (Required) Y N N/A
2. Documentation of third-party evaluation that the equipment meets DEP Rules? Y N N/A
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory? Y N N/A
4. Technical information and drawings included? Y N N/A
5. Installation instructions included? Y N N/A
6. Annual Operability Testing Requirements (Rules 62-761.500, 62-762.501, & 62-762.502 F.A.C.)? Y N N/A
7. Integrity Testing Requirements (Rules 62-761.700, 62-762.701, & 62-762.702, F.A.C.)? Y N N/A
8. Compatible with fuel blends containing >10% ethanol or >20% biodiesel? Y N N/A
9. Has the product been approved or registered in other countries or states? (If so provide list) Y N N/A
10. Any requirements for company-certified installers or trainers? Y N N/A
11. Was this product(s) previously approved or registered by the Department? If yes, EQ-901 Y N N/A
12. Any changes or modifications to the equipment since the last submittal to DEP? Y N N/A

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to Tanknotify@floridadep.gov, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:
Several alternative, interchangeable, replaceable dials are available and may be installed or replaced with any of the listed dials in the Equipment Registration submittal.

Equipment Registration Certification:
To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Marshall T. Mott-Smith
Printed Name and Title
03/18/2020
Date

For Department Use Only:
Date Application Received: 3/19/2020
Application complete: Yes: X No: 
EQ-901 Date of complete or incomplete letter sent: 4/9/2020
Date Equipment Requires Renewal: 4/9/2025

Storage tank system equipment requires renewal every 5 years in accordance with subsection 62-761.850(2), F.A.C.
EQ-901 UPDATE: Contact Information Change

Storage Tank Equipment Registration Form

Fill out completely

General Information
Company Name: Rochester Gauges, LLC
Contact Name: Customer Service
Company Address: PO Box 29242
City: Dallas
Contact Number: 972 241-2161
E-mail: CustomerService@RochesterGauges.com
Zip: 75229
Product Name: Magnetic Liquid-Level Gauge
Model Number(s): 6560
Product Type: Gauge
Rule(s) citation within Chapter 62-761, or 62-762, F.A.C. that registration is being requested:

Write a brief description of equipment registration request including product limitations:
The 6500 Series Senior gauges are UL Listed and are designed for use in low pressure tanks. They are used in many applications such as construction equipment, stationary generators, boats, farm equipment and home heating. The gauge materials are intended for middle distillates such as diesel and are not intended for use with fuels containing ethanol. These gauges may be used in tanks up to eight feet deep.

Information Checklist

1. Third-party Certification by a Nationally Recognized Testing Laboratory? Yes □ No □ N/A □
2. Documentation of third-party evaluation that the equipment meets DEP Rules? Yes □ No □ N/A □
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory? Yes □ No □ N/A □
4. Installation instructions included? Yes □ No □ N/A □
5. Technical information and drawings included? Yes □ No □ N/A □
6. Annual Operability Testing Requirements (Rules 62-761.700, 62-762.701, & 62-762.702 F.A.C.)? Yes □ No □ N/A □
7. Compatible with fuel blends containing >10% ethanol or >20% biodiesel? Yes □ No □ N/A □
8. Has the product been approved or registered in other countries or states? (If so provide list) Yes □ No □ N/A □
9. Any requirements for company-certified installers or trainers? Yes □ No □ N/A □
10. Was this product(s) previously approved or registered by the Department? Yes □ No □ N/A □
    If yes, please specify the Equipment Number: EQ-901
11. Any changes or modifications to the equipment since the last submittal to DEP? Yes □ No □ N/A □

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to TankNotify@dep.state.fl.us, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:
Gauges are normally fastened to tank using a mounting adapter which has previously been welded or otherwise installed into the tank or its fittings.

Equipment Registration Certification:

To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Carl Taylor, Consultant
Printed Name and Title

Signature

Date 10/19/2018

For Department Use Only:
Date Application Received: __________________________ Application complete: Yes: [ ] No: [ ]

EQ- ______ Date of complete or incomplete letter sent: __________________ Date of entry to the DEP Equipment Registration List: __________________
Department of Environmental Protection
2600 Blair Stone Road, Tallahassee, Florida 32399-2400

Storage Tank Equipment Registration Form
Fill out completely

General Information
Company Name: Rochester Gauges, LLC
Company Address: PO Box 29242
E-mail: CustomerService@RochesterGauges.com
Product Name: Magnetic Liquid-Level Gauge
Model Number(s): 6580

Contact Name: Customer Service
City: Dallas
Contact Number: 972 241-2161
Zip: 75229

Product Type: Gauge
Rule(s) citation within Chapter 62-761, or 62-762, F.A.C. that registration is being requested:

Write a brief description of equipment registration request including product limitations:
The 6500 Series Senior gauges are UL Listed and are designed for use in low pressure tanks. They are used in many applications such as construction equipment, stationary generators, boats, farm equipment and home heating. The gauge materials are intended for middle distillates such as diesel and are not intended for use with fuels containing ethanol. These gauges may be used in tanks up to eight feet deep.

Information Checklist
1. Third-party Certification by a Nationally Recognized Testing Laboratory?
   Yes ☐ No ☐ N/A ☐
2. Documentation of third-party evaluation that the equipment meets DEP Rules?
   Yes ☐ No ☐ N/A ☐
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?
   Yes ☐ No ☐ N/A ☐
4. Installation instructions included?
   Yes ☐ No ☐ N/A ☐
5. Technical information and drawings included?
   Yes ☐ No ☐ N/A ☐
   Yes ☐ No ☐ N/A ☐
7. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?
   Yes ☐ No ☐ N/A ☐
8. Has the product been approved or registered in other countries or states? (If so provide list)
   Yes ☐ No ☐ N/A ☐
9. Any requirements for company-certified installers or trainers?
   Yes ☐ No ☐ N/A ☐
10. Was this product(s) previously approved or registered by the Department?
    If yes, please specify the Equipment Number: EQ-901
    Yes ☐ No ☐ N/A ☐
11. Any changes or modifications to the equipment since the last submittal to DEP?
    Yes ☐ No ☐ N/A ☐

Information: Provide supporting documents indicated as "Yes" above including this form via email to TankNotify@dep.state.fl.us, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:
Gauges are normally fastened to tank using a mounting adapter which has previously been welded or otherwise installed into the tank or its fittings.

Equipment Registration Certification:
To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Carl Taylor, Consultant
Printed Name and Title
Signature
10/19/2018
Date

For Department Use Only:
Application Received: __________________________ Application complete: Yes: ☐ No: ☐
EQ- __________ Date of complete or incomplete letter sent: __________ Date of entry to the DEP Equipment Registration List: __________
Storage Tank Equipment Registration Form

Fill out completely

General Information
Company Name: Rochester Gauges, LLC  Contact Name: Customer Service
Company Address: PO Box 29242  City: Dallas  Zip: 75229
E-mail: CustomerService@RochesterGauges.com  Contact Number: 972 241-2161
Product Name: Magnetic Liquid-Level Gauge  Product Type: Gauge
Model Number(s): 8660  Rule(s) citation within Chapter 62-761, or 62-762, F.A.C. that registration is being requested:

Write a brief description of equipment registration request including product limitations:
Model 8660 is intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not recommended for use in fuels containing ethanol. These gauges are not intended for use in pressure vessels. Models equipped with stainless steel supports may also be used for fuels containing ethanol and interstitial applications. The 8660 series is not recommended for off-road equipment.

Information Checklist

1. Third-party Certification by a Nationally Recognized Testing Laboratory? [ ] Yes  [ ] No  [ ] N/A
2. Documentation of third-party evaluation that the equipment meets DEP Rules? [ ] Yes  [ ] No  [ ] N/A
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory? [ ] Yes  [ ] No  [ ] N/A
4. Installation instructions included? [ ] Yes  [ ] No  [ ] N/A
5. Technical information and drawings included? [ ] Yes  [ ] No  [ ] N/A
6. Annual Operability Testing Requirements (Rules 62-761.700, 62-762.701, & 62-762.702 F.A.C.)? [ ] Yes  [ ] No  [ ] N/A
7. Compatible with fuel blends containing >10% ethanol or >20% biodiesel? [ ] Yes  [ ] No  [ ] N/A
8. Has the product been approved or registered in other countries or states? (If so provide list) [ ] Yes  [ ] No  [ ] N/A
9. Any requirements for company-certified installers or trainers? [ ] Yes  [ ] No  [ ] N/A
10. Was this product(s) previously approved or registered by the Department? [ ] Yes  [ ] No  [ ] N/A
   If yes, please specify the Equipment Number: EQ-901
11. Any changes or modifications to the equipment since the last submittal to DEP? [ ] Yes  [ ] No  [ ] N/A

Document Information: Provide supporting documents indicated as “Yes” above including this form via email to TankInfo@dep.state.fl.us, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:
Model 8660 is intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not recommended for use in fuels containing ethanol. These gauges are not intended for use in pressure vessels. Models equipped with stainless steel supports may also be used for fuels containing ethanol and interstitial applications.

Equipment Registration Certification:
To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Carl Taylor, Consultant  [Signature]  10/19/2018
Printed Name and Title  Date

For Department Use Only:

EQ- [ ] Date Application Received: Application complete: Yes [ ] No: [ ]
[ ] Date of complete or incomplete letter sent: Date of entry to the DEP Equipment Registration List:
Department of Environmental Protection
2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Storage Tank Equipment Registration Form
Fill out completely

General Information
Company Name: Rochester Gauges, LLC
Company Address: PO Box 29242
E-mail: CustomerService@RochesterGauges.com
Product Name: Magnetic Liquid-Level Gauge
Model Number(s): 8680
Rule(s) citation within Chapter 62-761, or 62-762, F.A.C. that registration is being requested:

Contact Name: Customer Service
City: Dallas
Contact Number: 972 241-2161
Zip: 75229

Write a brief description of equipment registration request including product limitations:
Model 8680 is intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not recommended for use in fuels containing ethanol. These gauges are not intended for use in pressure vessels. Models equipped with stainless steel supports may also be used for fuels containing ethanol and interstitial applications. The 8600 series is not recommended for off-road equipment.

Information Checklist

1. Third-party Certification by a Nationally Recognized Testing Laboratory?
2. Documentation of third-party evaluation that the equipment meets DEP Rules?
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?
4. Installation instructions included?
5. Technical information and drawings included?
7. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?
8. Has the product been approved or registered in other countries or states? (If so provide list)
9. Any requirements for company-certified installers or trainers?
10. Was this product(s) previously approved or registered by the Department?
   If yes, please specify the Equipment Number: EQ-901
11. Any changes or modifications to the equipment since the last submittal to DEP?

Yes No N/A

Document Information: Provide supporting documents indicated as “Yes” above including this form via email to Tanknotify@dep.state.fl.us, or documents can be sent to DEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:
Model 8680 is intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not recommended for use in fuels containing ethanol. These gauges are not intended for use in pressure vessels. Models equipped with stainless steel supports may also be used for fuels containing ethanol and interstitial applications.

Equipment Registration Certification:

To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Carl Taylor, Consultant
Printed Name and Title

Signature

10/19/2018

Date

For Department Use Only:

Date Application Received: __________________________ Application complete: Yes: No:

EQ- __________________ Date of complete or incomplete letter sent: __________________________ Date of entry to the DEP Equipment Registration List: __________________________
Storage Tank Equipment Registration Form

Fill out completely

General Information
Company Name: Rochester Gauges, LLC
Company Address: PO Box 29242
E-mail: ctaylor@rochestergauges.com
Product Name: Magnetic Liquid-Level Gauge
Model Number(s): 6560
Product Type: Gauge
Rule(s) citation within Chapter 62-761, or 62-762, F.A.C. that registration is being requested:

Write a brief description of equipment registration request including product limitations:
The 6500 Series Senior gauges are UL listed and are designed for use in low pressure tanks. They are used in many applications such as construction equipment, stationary generators, boats, farm equipment and home heating. The gauge materials are intended for middle distillates such as diesel and are not intended for use in fuels containing ethanol. These gauges may be sized to fit stationary fuel tanks up to eight feet deep.

Information Checklist

1. Third-party Certification by a Nationally Recognized Testing Laboratory? [ ] Yes [ ] No [ ] N/A
2. Documentation of third-party evaluation that the equipment meets DEP Rules? [ ] Yes [ ] No
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory? [ ] Yes [ ] No
4. Installation instructions included? [ ] Yes [ ] No
5. Technical information and drawings included? [ ] Yes [ ] No
7. Compatible with fuel blends containing >10% ethanol or >20% biodiesel? [ ] Yes [ ] No
8. Has the product been approved or registered in other countries or states? (If so provide list) [ ] Yes [ ] No
9. Any requirements for company-certified installers or trainers? [ ] Yes [ ] No
10. Was this product(s) previously approved or registered by the Department? [ ] Yes [ ] No
   If yes, please specify the Equipment Number: EQ-
11. Any changes or modifications to the equipment since the last submittal to DEP? [ ] Yes [ ] No [ ] N/A

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to Tanknotify@dep.state.fl.us, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:
Gauges are normally fastened to tank using a mounting adapter which has previously been welded or otherwise installed into the tank or it's fittings.

Equipment Registration Certification:
To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Marshall T. Mott-Smith, President
Printed Name and Title
Signature
Date

For Department Use Only:
Date Application Received: 9/11/2018
Application complete: Yes: [ ] No: [ ]
EQ-961
Date of complete or incomplete letter sent: 9/11/2018
Date of entry to the DEP Equipment Registration List: 9/11/2018

CONTACT: CUSTOMERSERVICE@RochesterGauges.com
972-241-2161
Storage Tank Equipment Registration Form

Fill out completely

General Information
Company Name: Rochester Gauges, LLC
Contact Name: Carl Taylor
Company Address: PO Box 29242
City: Dallas
E-mail: ctaylor@rochestergauges.com
Contact Number: 972-280-8438
Product Name: Magnetic Liquid-Level Gauge
Model Number(s): 6580
Product Type: Gauge
Rule(s) citation within Chapter 62-761, or 62-762, F.A.C. that registration is being requested:

Write a brief description of equipment registration request including product limitations:
The 6500 Series Senior gauges are designed for use in low pressure tanks. Used in many applications such as construction equipment, stationary generators, boats, farm equipment and home heating. Gauge materials are intended for middle distillates such as diesel and are not intended for use in fuels containing ethanol. These gauges may be sized to fit stationary fuel tanks up to eight feet deep.

Information Checklist

1. Third-party Certification by a Nationally Recognized Testing Laboratory?  Yes  No  N/A
2. Documentation of third-party evaluation that the equipment meets DEP Rules?  Yes  No  N/A
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?  Yes  No  N/A
4. Installation instructions included?  Yes  No  N/A
5. Technical information and drawings included?  Yes  No  N/A
6. Annual Operability Testing Requirements (Rules 62-761.700, 62-762.701, & 62-762.702 F.A.C.)?  Yes  No  N/A
7. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?  Yes  No  N/A
8. Has the product been approved or registered in other countries or states? (If so provide list)  Yes  No  N/A
9. Any requirements for company-certified installers or trainers?  Yes  No  N/A
10. Was this product(s) previously approved or registered by the Department?
    if yes, please specify the Equipment Number: EQ-  
    Yes  No  N/A
11. Any changes or modifications to the equipment since the last submittal to DEP?  Yes  No  N/A

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to TankNotify@dep.state.fl.us, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:
Gauges are normally fastened to tank using a mounting adapter which has previously been welded or otherwise installed into the tank or it's fittings.

Equipment Registration Certification:

To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Marshall T. Mott-Smith, President
Printed Name and Title
Signature
Date

For Department Use Only:
Date Application Received: 9/1/2018
Application complete: Yes:  No: 
EQ-  Date of complete or incomplete letter sent: 9/11/2018
Date of entry to the DEP Equipment Registration List: 9/4/2018
Renew by 9/11/2023

CONTACT: CUSTOMERSERVICE@RochesterGauges.com
972-241-2161
### General Information

<table>
<thead>
<tr>
<th>Company Name: Rochester Gauges, LLC</th>
<th>Contact Name: Carl Taylor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Address: PO Box 29242</td>
<td>City: Dallas</td>
</tr>
<tr>
<td>E-mail: <a href="mailto:ctaylor@rochestergauges.com">ctaylor@rochestergauges.com</a></td>
<td>Zip: 75229</td>
</tr>
<tr>
<td>Product Name: Magnetic Liquid-Level Gauge</td>
<td>Contact Number: 972-280-8438</td>
</tr>
<tr>
<td>Model Number(s): 8660</td>
<td></td>
</tr>
<tr>
<td>Product Type: Gauge</td>
<td></td>
</tr>
</tbody>
</table>

#### Rule(s) citation within Chapter 62-761, or 62-762, F.A.C. that registration is being requested:

Write a brief description of equipment registration request including product limitations:

- **Model 8660** is intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not intended for use in fuels containing ethanol. These gauges are not intended for use in pressure vessels. Models with optional stainless steel supports may also be used for fuels containing ethanol and interstitial applications. The 8600 Series is not recommended for off-road equipment.

### Information Checklist

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Third-party Certification by a Nationally Recognized Testing Laboratory?</td>
<td>✔️</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>2. Documentation of third-party evaluation that the equipment meets DEP Rules?</td>
<td>✔️</td>
<td>❌</td>
<td>❌</td>
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<tr>
<td>3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?</td>
<td>✔️</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>4. Installation instructions included?</td>
<td>✔️</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>5. Technical information and drawings included?</td>
<td>✔️</td>
<td>❌</td>
<td>❌</td>
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<tr>
<td>7. Compatible with fuel blends containing &gt;10% ethanol or &gt;20% biodiesel?</td>
<td>✔️</td>
<td>❌</td>
<td>❌</td>
</tr>
<tr>
<td>8. Has the product been approved or registered in other countries or states? (If so provide list)</td>
<td>❌</td>
<td>✔️</td>
<td>❌</td>
</tr>
<tr>
<td>9. Any requirements for company-certified installers or trainers?</td>
<td>❌</td>
<td>✔️</td>
<td>❌</td>
</tr>
<tr>
<td>10. Was this product(s) previously approved or registered by the Department?</td>
<td>❌</td>
<td>✔️</td>
<td>❌</td>
</tr>
<tr>
<td>If yes, please specify the Equipment Number: EQ:</td>
<td>❌</td>
<td>✔️</td>
<td>❌</td>
</tr>
<tr>
<td>11. Any changes or modifications to the equipment since the last submittal to DEP?</td>
<td>❌</td>
<td>✔️</td>
<td>❌</td>
</tr>
</tbody>
</table>

---

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to Tanknotify@dep.state.fl.us, or documents can be sent to FDEP, Division of Waste Management, 2500 Blair Stone Road, MS 4560, Tallahassee, FL 32339.

Write a brief description of equipment installation and performance in the U.S.:

Models 8660 is intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not intended for use in fuels containing ethanol. Models with optional stainless steel supports may also be used for fuels containing ethanol and interstitial applications.

### Equipment Registration Certification:

To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Marshall T. Mott-Smith, President

Signature  

Date  

---

For Department Use Only:

<table>
<thead>
<tr>
<th>Date Application Received: 9/7/2018</th>
<th>Application complete: Yes</th>
<th>No:</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQ-901 Date of complete or incomplete letter sent: 9/11/2018</td>
<td>Date of entry to the DEP Equipment Registration List: 9/11/2018</td>
<td></td>
</tr>
<tr>
<td>Renew by 9/11/2023</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Storage Tank Equipment Registration Form

General Information
Company Name: Rochester Gauges, LLC
Company Address: PO Box 29242
E-mail: ctaylor@rochestergauges.com
Product Name: Magnetic Liquid-Level Gauge
Model Number(s): 8680
Product Type: Gauge
Rule(s) citation within Chapter 62-761, or 62-762, F.A.C. that registration is being requested:

Write a brief description of equipment registration request including product limitations:
Model 8680 is intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not intended for use in fuels containing ethanol. These gauges are not intended for use in pressure vessels. Models with optional stainless steel supports may also be used for fuels containing ethanol and interstitial applications. The 8600 Series is not recommended for off-road equipment.

Information Checklist

1. Third-party Certification by a Nationally Recognized Testing Laboratory?  Yes No N/A
   [ ]
2. Documentation of third-party evaluation that the equipment meets DEP Rules?  Yes No N/A
   [ ]
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?  Yes No N/A
   [ ]
4. Installation instructions included?  Yes No N/A
   [ ]
5. Technical information and drawings included?  Yes No N/A
   [ ]
6. Annual Operability Testing Requirements (Rules 62-761.700, 62-762.701, & 62-762.702 F.A.C.)?  Yes No N/A
   [ ]
7. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?  Yes No N/A
   [ ]
8. Has the product been approved or registered in other countries or states? (If so provide list)  Yes No N/A
   [ ]
9. Any requirements for company-certified installers or trainers?  Yes No N/A
   [ ]
10. Was this product(s) previously approved or registered by the Department?  Yes No N/A
    If yes, please specify the Equipment Number: EQ:_____  Yes No N/A
    [ ]
11. Any changes or modifications to the equipment since the last submittal to DEP?  Yes No N/A
    [ ]

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to Tanknotify@dep.state.fl.us, or documents can be sent to FDEP, Division of Waste Management, 2500 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:
Models 8680 is intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not intended for use in fuels containing ethanol. Models with optional stainless steel supports may also be used for fuels containing ethanol and interstitial applications.

Equipment Registration Certification:
To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Marshall T. Mott-Smith, President
Signed ___________________________  Date ___/___/___

For Department Use Only:
Date Application Received: 9/7/2018  Application complete: Yes[ ] No: [ ]
EQ: 901 Date of complete or incomplete letter sent: 9/11/2018 Date of entry to the DEP Equipment Registration List: 9/11/2018
Renew by 9/11/2023
Rochester Gauges, LLC.

Equipment Registration Request

to the

Florida Department of Environmental Protection's Permitting and Compliance Assistance Program
Storage Tank Compliance

by
Rochester Gauges, LLC.

for

Aboveground Storage System Equipment

Submitted by
Marshall T. Mott-Smith, President
Mott-Smith Consulting Group, LLC
111 North Calhoun Street
Tallahassee, FL 32301
marshall@mott-smithconsulting.com
850-391-9835 work
850-591-1434 cell
www.mott-smithconsulting.com
September 5, 2018

William Burns, Administrator  
Permitting and Compliance Assistance Program  
Florida Department of  
Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Re: Equipment Registration Request for Rochester Gauges, Inc.

Dear Bill,

Rochester Gauges, LLC. is submitting an Equipment Registration Form with supporting documentation to the Florida Department of Environmental Protection for all of its liquid level gauge models that can be used with regulated aboveground storage tank system systems.

The liquid level gauges are listed by UL, and therefore provides the third-party certification as a Nationally Recognized Laboratory in accordance with Rule 62-761.200(36), F.A.C.

Rochester Gauges, LLC. appreciates your consideration in this matter, and please feel free to contact me if you have any questions or if we need to provide additional information.

Best Regards,

Marshall Mott-Smith, President  
Mott-Smith Consulting Group, LLC
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</tr>
</tbody>
</table>
1. **Introduction (All Models)**

This Equipment Registration is sought in accordance with Florida Administrative Code Rule 62-762.851(2).

The request is sought by Rochester Gauges, LLC. for models UL Listed for flammable liquids in stationary tanks including: 6560, 6580, 8660, and 8680. The model number may be prefixed and suffixed.

The Rochester Gauges, LLC. models noted above are liquid-level gauges designed to accurately determine the liquid product level in the tank and the percentage of total tank volume for most liquids in stationary-storage applications. They are constructed of materials that are compatible with petroleum products and can be easily installed at new or existing sites.

The models identified are designed to be installed in the field by experienced installers and contractors for shop-fabricated aboveground storage tanks and tank components. The installation instructions are model-specific. The post-installation integrity of these systems can be verified using the testing procedures provided by Rochester Gauges, LLC in their product installation instruction documents. Strict quality control is provided during the manufacturing of these systems.

All of the Rochester Gauges, LLC. models are designed for either monthly visual inspection or electronic notification as required by Florida Underground Storage Tank Systems rules. The gauges will be mounted in a location near the tank fill where they will be visible to the person filling the tank in accordance with Department rules.

All Equipment Registration Forms for each model are attached in Appendix 6.
2. **Third Party Certifications (All Models)**

All of the Rochester Gauges models are UL Listed. The Third-Party Certification confirms that the products meet the Department rules contained in Chapter 62-762.501, Chapter 62-762.601, and Chapter 62-762.701, F.A.C. All of the Rochester Gauges, LLC. models are compatible with applicable industry reference standards for shop-fabricated aboveground storage tanks. Mott-Smith Consulting Group, LLC, certifies that the systems provide an equivalent protection to the existing rules.

The Third-Party Certification is provided in Appendix 1 of this Request.
3. **The Installation Process (All Models)**

The basic information needed to properly install each Rochester Gauge model is provided in the installation instructions for each model in Appendix 3. The installation procedures contain prescribed instructions to assist equipment installers and others qualified to service liquid storage tank equipment. Training and experience is necessary to perform the installation described within the installation instructions.

Questions regarding installation or operation of the gauges, gaskets, or other components should be directed to Rochester Gauges, LLC. or one of their authorized distributors for assistance.

Models 6560 and 6580 should follow the MS-501/502 (non-pressurized) instructions listed in Appendix 3.A.

Models 8660 and 8680 should follow the MS-516 (Fuel Tanks) instructions listed in Appendix 3.B.

Gauges should only be installed in applications recommended by the manufacturer. The installer must verify that the gauge is the proper gauge for the correct application prior to attempting installation. The float may or may not have a counterbalance depending on the intended application. Applications for light specific gravity liquids or large tanks normally require counterbalancing of the float. The gauge, mounting gasket and mounting adapter (if applicable) are constructed of materials compatible with the liquid to be measured and the service environment. The float, mounting bolts and head are adequately rated for the specific pressure and temperature service.

Tank owners and operators have several choices between models for tank size and orientation, system power sources, product being measured, and the display of the product being measured. As previously mentioned, the gauges should be installed in a location on the tank that is visible to the person filling the tank.

The operability testing procedures are described in Appendix 5 and will be performed after installation is completed to ensure initial performance of the system before it is put into operation. The system instructions recommend monthly maintenance/operability testing, but the same tests can be performed annually to meet the Department’s requirements for annual operability testing in accordance with Rule 62-762.501(2)(e)2. a., F.A.C.
4. **Operability Testing**

The Rochester Gauges, LLC. liquid-level gauges must be tested annually for operation as required by Florida Department of Environmental Protection AST System Rule 62-762.501(2)(e)2. a., F.A.C. The procedures for testing are provided in Appendix 5.
5. Compatibility (All models)

The only portions of the Rochester Gauges, LLC. models in this submittal that are in contact with petroleum products are the floats and the float support mechanisms. These systems are constructed with corrosion resistant metals such as stainless steel and aluminum, and other materials like Nitrile rubber and Buna that are compatible with the middle and heavy distillate products they are designed to be in contact with for the designed application of the storage tank system gauge or gauge component.

All models are suitable for refined hydrocarbons including E10 and bio-diesel. Not all models are suitable for E85 and B100.

These models are UL Listed for Flammable Liquids in Hazardous Locations and outdoor service applications. Gauge materials are selected according to the fuel being measured.

Fuel types that are compatible include:
- Gasoline
- E10
- E85 (use model 8660 or 8680 with optional stainless steel wetted parts)
- Diesel
- B20 to B100 (use model 8660 or 8680 with optional stainless steel wetted parts)
- Jet fuel
- AV gas
- Kerosene
- Refined oil
- Waste oil
- Bunker oil
- Fuel oil

No plated internal gauge parts are used except magnets which may be nickel plated for some applications. Gauge mounting screws may be plated carbon steel or stainless steel.

Additional compatibility and product specifications can be found in Appendix 2.
6. **Operation and Maintenance (All Models)**

Rochester Gauges, LLC. gauges can be easily cleaned and maintained, and the daily and monthly maintenance instructions are specified for each system in the installation procedures in Appendix 3.
7. **Technical Drawings and Information**

The technical drawings, general technical data, wiring instructions, warranty information, and trouble-shooting guides for all models are provided in Appendix 4.
Appendix 1 – Third Party Certifications
UL Listings and Bureau Veritas Certifications

Control, Monitoring and Auxiliary Equipment

See General Information for Control, Monitoring and Auxiliary Equipment

ROCHESTER GAUGES INC OF TEXAS
11616 HARRY HINES BLVD
PO BOX 29242
DALLAS, TX 75229-0242 USA

Liquid-level gauges. Nos. 6280, 6261, 6263, 6280, 6284, 6281, 6282, 6290, 6293, 6440, 6443, 6490, 6493, 6560, 6571, 6580, 6590, 6701, 6990, 7090, 7095, 7163, 7190, 7283, 7285, 8280, 8290, 8490, 8690.

No. 6200 Series are prefixed C-, F-, K-, L-, Lc-, W- or Wc-; For other tested Prefixes accepted, Number designation may be suffixed.

Last Updated on 2014-02-18

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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Evaluation by Bureau Veritas Certification Holding SAS – UK Branch

ROCHESTER GAUGES, INC.

11616 HARRY HINES BOULEVARD
DALLAS, TX 75229 USA

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standards detailed below.

ISO 9001:2015

Scope of certification

DESIGN AND MANUFACTURE OF LIQUID LEVEL SENDERS AND SENSORS, LIQUID LEVEL GAUGES, AND AIRCRAFT ENGINE INSTRUMENTS

Original cycle start date: May 21 2001
Certification / Recertification cycle start date: May 20 2018
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: May 19 2021
Certificate No. US511642 Version: 1

Signed on behalf BURET SAS – UK Branch:

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by contacting the organization. To check this certificate validity please call +44 (0) 937 931 111

Page 1 of 1
Appendix 2 – Compatibility and Product Specifications
A. **Model 6560 and 6580** - Model numbers may be prefixed and suffixed.
Magnetic Liquid-Level Gauge

Application
The 6500 Series Senior gauges are designed for use in low pressure fuel tanks 0-25 psig [0-1.7 Bar].

Used in many applications such as stationary generators, farm tanks and home heating.

Gauge materials are intended for middle distillates such as diesel and for bio-diesel. Not intended for use in fuels containing more than 10% ethanol. These gauges may be sized to fit stationary fuel tanks up to eight feet deep.

Rochester gauge dials are magnetically driven. Fuel vapor cannot reach inside of the gauge lens and attack the UV rated lens material. Rochester gauges may be easily converted for remote output by simply installing the R3D Remote Ready dial and plug-in Hall Effect sender module.

General Information & Features
The 6500 Series Senior gauges are available in gear-action models for top mounting.

The standard float is nitrile rubber. Aluminum or stainless steel floats are available at extra cost. The gauge is mounted to a mating Senior flange 2 ¼" bolt circle [63.5mm] using four ¼"-28 x ¾" long bolts. The gasket is Buna-N.

<table>
<thead>
<tr>
<th>Model #</th>
<th>Action</th>
<th>Mounting</th>
<th>Dial</th>
<th>R3D Remote Ready Dial</th>
</tr>
</thead>
<tbody>
<tr>
<td>6560</td>
<td>Gear</td>
<td>Top</td>
<td>#5025S00570 Senior side-reading fractional</td>
<td>SACR022898</td>
</tr>
<tr>
<td>6580</td>
<td>Gear</td>
<td>Top</td>
<td>#5002S00062 Senior direct-reading fractional</td>
<td>SACR022898</td>
</tr>
</tbody>
</table>

See reverse side for dimensional data, materials of construction, performance, and advice on how to order.

The Measure of Excellence
General Specifications*

Accuracy
Accuracy depends upon proper gauge sizing. Senior dials ±6%, TwinSite® dials ±10%. Accuracy may be less depending upon tank shape. Accuracy may be less near full and empty. Accuracy may be less if tank is not level. All accuracy estimates are expressed as a percent of full scale.

CAUTION: This gauge is not a substitute for an automatic over-fill prevention device, which may be required for filling. This gauge is not be used as an unattended means of determining tank overfilling. This document does not provide instructions for tank filling. Periodic annual operability checks may be required which are necessary to detect gauge malfunctions and/or inaccurate gauge readings. Gauge accuracy depends upon proper gauge sizing and installation. Release of tank contents as well as damage and safety hazard may result if tank is overfilled. Fuel exhaustion may occur if tank contents are less than indicated.

Temperature Range
-40°F to +158°F, -40°C to 70°C.

Humidity
Paint exposed portions of gauge, less dial, for marine applications.

Shock & Vibration
Suitable for mobile applications.

Tank Pressure
Up to 25 psig [1,7Bar]

Approvals
6560 and 6580 are UL listed for flammable liquids.

Materials of Construction*

Head
Die cast aluminum

Centershaft, Support Tube & Float Rod
Tempered aluminum

Gears, Cross Stud & Bearings
Stainless steel

Drive Magnet
Alnico or Neo

Gear Housing
Acetal plastic or aluminum

Float
Nitrile rubber

Gasket
Buna-N, 0015-00004

Direct Reading Dial
Aluminum with acrylic crystal, hermetically sealed or ultrasonically sealed polycarbonate.

Side Reading Dial
Aluminum with polycarbonate crystal, hermetically sealed.

Mounting Bolts
Zinc-plated steel ¼"-28 x ¾" long. (Optional stainless steel.)

When ordering, specify:
1. Gauge model number.
2. Tank depth and riser height.
3. Any listed options or preferences.

Note: For installation instructions see MS-501/502 (Non-Pressurized Fuel Tanks).

NOTE: Materials and specifications are subject to change without notice. Pressure ratings subject to change due to temperature and other environmental considerations.

Rochester Gauges, LLC
11616 Harry Hines Blvd. • P.O. Box 29242 • Dallas, TX 75229 • (972) 241-2161 • FAX (972) 620-3374
Website http://www.rochestergauges.com • E-mail info@rochestergauges.com

The Measure of Excellence 08/22/2018-FL
B. Model 8660 and 8680 - Model numbers may be prefixed and suffixed.
Magnetic Liquid-Level Gauge

Application
Models 8660 and 8680 are intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not intended for use in fuels containing more than 10% ethanol or more than 30% bio-diesel. These gauges are not intended for use in pressure vessels. Models with optional stainless steel supports may also be used for fuels containing ethanol, bio-diesel and interstitial applications. The 8600 Series is not recommended for off-road equipment.

General Information & Features
The 8660 spiral gauge is supplied with an easy to read, side-view fractional dial. The model 8680 spiral gauge is equipped with a standard top reading fractional dial.

All 8600 Series spiral gauges have a 1 1/2" MNPT tank connection and are suitable for tank pressures up to 25 psig maximum. They are designed for top mounting in tanks up to 30" deep are UL listed for flammable liquids.

Rochester gauge dials are magnetically driven. Fuel vapor cannot reach inside of the gauge lens and attack the UV rated lens material. Rochester gauges may be easily converted for remote output by simply installing the R3D Remote Ready dial and plug-in Hall Effect sender module.

<table>
<thead>
<tr>
<th>Model #</th>
<th>Dial</th>
<th>R3D Remote Ready Dial</th>
</tr>
</thead>
<tbody>
<tr>
<td>8660</td>
<td>#5025S00570 Senior side-reading fractional dial.</td>
<td>5ACRS02898</td>
</tr>
<tr>
<td>8680</td>
<td>#5844S01793 Senior direct-reading fractional dial.</td>
<td>5ACRS02898</td>
</tr>
</tbody>
</table>

See reverse side for dimensional data, materials of construction, performance, and advice on how to order.

Always Innovating • Never Imitating
General Specifications*

Mounting
Designed for top-mounting only.

Accuracy
Accuracy depends upon proper gauge sizing. Direct read 
dials +/-8%, TwinSite dials +/-12%. Accuracy may be less 
depending upon tank shape. Accuracy may be less near full 
and empty. Accuracy may be less if tank is not level. 
CAUTION: This gauge is not a substitute for an automatic 
over-fill prevention device, which may be required for filling. 
This gauge is not be used as an unattended means of 
determining tank overfilling. This document does not pro-
vide instructions for tank filling. Periodic annual operability 
checks may be required which are necessary to detect 
gauge malfunctions and/or inaccurate gauge readings. 
Gauge accuracy depends upon proper gauge sizing and 
installation. Release of tank contents as well as damage 
and safety hazard may result if tank is overfilled. Fuel 
exhaustion may occur if tank contents are less than indicat-
ed.

Temperature
Standard operating range is -40°F to 158°F, -40°C to 70°C.

Humidity
Paint exposed portion of gauge, less dial, for marine appli-
cations.

Shock
Shorter sizes are suitable for some mobile application.

Vibration
Shorter sizes are suitable for some mobile application.

Tank Pressure
0 to 25 psig [0 - 1, 7 Bar] maximum.

Approval
8660 and 8680 are UL listed for flammable liquids.

Materials of Construction*

Head
Die-cast zinc.

Guide Rod
Zinc-plated steel, brass or stainless steel optional.

Centershaft
Brass. (Stainless steel optional.)

Tie Plate, Guide & Bearing Pin
Stainless steel.

Float
Nitrile rubber.

Drive Magnet
Neo.

Standard Dial
Polycarbonate, hermetically sealed. Optional aluminum and 
acrylic.

Side-View Dial
Aluminum with polycarbonate crystal, hermetically sealed.

When ordering, specify:
1. Gauge model number.
2. Tank depth.
3. Riser height, if any.
4. Any special requirements.

Note: Materials and specifications are subject to change without notice.

WARNING:
Acrylonitrile, BPA 
Cancer and Reproductive Harm 
www.P65Warnings.ca.gov

09/22/2018-FL

ROCHESTER 
GAUGES, LLC

Always Innovating • Never Imitating
11516 Harry Hines Blvd. • P.O. Box 29242 • Dallas, TX 75229 • (972) 241-2161 • FAX (972) 620-3374
Website http://www.rochestergauges.com • E-mail info@rochestergauges.com
A. MS-501/502 Non-pressurized Fuel Tanks
Sr. Bolted Gauge Installation for Above Ground Fuel Tanks

READ COMPLETELY BEFORE ATTEMPTING INSTALLATION

WARNING: Improper installation or misuse of this product may cause serious injury or property damage.

THESE INSTRUCTIONS ARE PREPARED TO ASSIST TRADESMEN AND OTHERS QUALIFIED TO SERVICE LIQUID STORAGE TANK EQUIPMENT. CONSUMERS ARE NOT QUALIFIED TO PERFORM THE INSTALLATION DESCRIBED BELOW. IF YOU HAVE ANY QUESTIONS CONCERNING INSTALLATION OR OPERATION OF THE GAUGE OR GASKET, CONTACT ROCHESTER GAUGES, INC. OR ONE OF OUR AUTHORIZED DISTRIBUTORS FOR ASSISTANCE. CHECK SIDE OF GAUGE HEAD FOR MODEL NUMBER AND ASK FOR GAUGE INSTALLATION INSTRUCTIONS FOR YOUR MODEL.

IS THE GAUGE RIGHT FOR YOUR APPLICATION?
Gauge materials for models 6560 and 6580 are intended for middle distillates such as diesel and are not intended for use in fuels containing ethanol. Models 6560 and 6580 are not intended for use in pressure vessels. These gauges may be sized to fit stationary fuel tanks up to eight feet deep. Gauges should only be installed in applications recommended by the manufacturer. Verify that the gauge is the proper gauge for your application prior to attempting installation.

The float may or may not have a counterbalance depending on the intended application. Applications for light specific gravity liquids or large tanks normally require counterbalancing of the float.

The gauge, mounting gasket and mounting adapter (if applicable) must be constructed of materials compatible with the liquid to be measured and the service environment.

IS THE GAUGE THE PROPER SIZE?
As a general rule, the float pivot point should be on the horizontal centerline of the tank when installed. The float length dimension (measured from the float pivot point to the end of the float) should be proportional to the inside tank height and is usually slightly less than 3/4 of the vertical inside height of the tank.

Gauges are constructed for top mounting and must be installed in the position for which they are constructed. Hold the gauge by the support (see Figure A) in the intended mounting attitude and operate the float to see if it is correct for your application (see Figure B).

During shipment or rough handling this type gauge may occasionally become bent or distorted. In some cases damage may restrict free movement of the float arm. Before gauge is installed, check gauge for proper operation. With gauge upright, slowly raise and lower float supporting only the bottom of float. Raise and lower float several times over the entire length of the support. Also, observe the dial for smooth function from E to F and back. If any binding is found or float does not fall reliably under its own weight, do not install the gauge. If dial mechanism does not follow float smoothly, do not install gauge.

CAUTION: This gauge is not a substitute for an automatic over-fill prevention device, which may be required for filling. This gauge is not be used as an unattended means of determining tank overfilling. This document does not provide instructions for tank filling. Periodic annual operability checks may be required which are necessary to detect gauge malfunctions and/or inaccurate gauge readings. Gauge accuracy depends upon proper gauge sizing and installation. Release of tank contents as well as damage and safety hazard may result if tank is overfilled. Fuel exhaustion may occur if tank contents are less than indicated.

WARNING: This gauge is not a substitute for an automatic over-fill prevention device, which may be required for filling. This document is not instructions for tank filling.

GAUGE REMOVAL WARNING: Should it appear necessary, to remove the gauge from the tank, do not attempt removal unless under competent supervision with all due precautions taken against the hazards of released flammable liquid and/or flammable vapor.

HAZARDS: Even if a gauge registers empty, tank may contain flammable liquid and/or vapor. A hazard of fire or explosion may exist if proper methods are not used when removing or installing the gauge or gasket. Do not reuse gasket.

FIGURE A

FIGURE B

See reverse side for dimensional data, materials of construction, performance, and advice on how to order.

The Measure of Excellence
Installation*

A. Gauges are normally fastened to tank using a mounting adapter which has previously been welded or otherwise installed into the tank or it's fittings. Check adapter for correct dimensions and finish, see dimensions below. Check color stripe on O.D. of gasket for material.

RED STRIPE = BUNA-N. Order Senior part # 0015-00004, recommended for specific petroleum applications.

GREEN OR BROWN STRIPE = VITON. Order Senior part # 0015-00415.

B. Fit gasket onto gauge boss.
C. Carefully insert float into adapter or coupling and work gauge's gear housing and support through adapter being careful not to bend or damage them.
D. Check to see that gasket is properly seated in adapter gasket recess.
E. Align head for proper orientation of float inside of tank. Torque bolts evenly in several steps to the desired torque value.
F. Leak test.

CAUTION: Do not over torque. Over tightening may cause damage to head and gasket.

<table>
<thead>
<tr>
<th>BOLT SIZE</th>
<th>DRY TORQUE (MAX)</th>
<th>GASKET TYPE</th>
<th>(Models 6560 &amp; 6580)</th>
</tr>
</thead>
<tbody>
<tr>
<td>¼-28</td>
<td>50 In. Lb. [5.8 Nm]</td>
<td>BUNA, VITON</td>
<td></td>
</tr>
</tbody>
</table>

* Materials and specifications are subject to change without notice.

---

**WARNING:** Acrylonitrile, BPA Cancer and Reproductive Harm. www.P65Warnings.ca.gov

08/22/2018-FL
B. MS-516 Non-pressurized Fuel Tanks
Threaded Spiral Gauge Installation Instructions

READ COMPLETELY BEFORE ATTEMPTING INSTALLATION*

WARNING: IMPROPER INSTALLATION OR USE OF THIS PRODUCT MAY CAUSE SERIOUS INJURY OR PROPERTY DAMAGE.

These instructions are prepared to assist tradesmen and others qualified to service liquid storage tank equipment. Consumers are not qualified to perform the installation described below. If you have any questions concerning installation or operation of the gauge, contact Rochester Gauges or one of our authorized distributors for assistance. This document is not instructions for tank filling.

IS THE GAUGE RIGHT FOR YOUR APPLICATION?
Gauges should only be installed in applications recommended by the manufacturer. Verify that the gauge is the proper gauge for your application prior to attempting installation.

Models 8660 and 8680 are intended for stationary or mobile fuel tank applications containing middle distillates such as diesel and unless equipped with optional stainless steel support rods are not intended for use in fuels containing more than 10% ethanol, or more than 20% bio-diesel. Models with optional stainless steel supports may also be used for fuels containing ethanol, bio-diesel, and interstitial applications.

IS THE GAUGE THE PROPER SIZE?
As a general rule, the gauge should be sized to provide minimum 1/2" clearance between the bottom of the tank and the lowest portion of the gauge when the gauge head is fully tightened into the mounting coupling.

NOTE: During shipment or rough handling the support rods or center-shaft on this type gauge may occasionally become bent or distorted. In some cases these distortions may restrict free movement of the float. Before gauge is installed, check gauge for proper operation. With gauge upright, slowly raise and lower float supporting only the bottom of float. Raise and lower float several times over the entire length of the support. Also, observe the dial for smooth function from E to F and back. If any binding is found or float does not fall reliably under its own weight, do not install the gauge. If dial mechanism does not follow float smoothly, do not install gauge.

CAUTION: This gauge is not a substitute for an automatic overfill prevention device, which may be required for filling. This gauge is not be used as an unattended means of determining tank overfilling. This document does not provide instructions for tank filling. Periodic annual operability checks may be required which are necessary to detect gauge malfunctions and/or inaccurate gauge readings. Gauge accuracy depends upon proper gauge sizing and installation. Release of tank contents as well as damage and safety hazard may result if tank is overfilled. Fuel exhaustion may occur if tank contents are less than indicated.

WARNING: Determine and install the appropriate gauge based on system requirements. The information contained herein is intended for guideline use only and the suitability of any part for a particular application must be determined by the user prior to installation. Improper application or installation may result in failure, subsequent release of tank contents and serious injury and or property damage.

GAUGE REMOVAL WARNING: Should it appear necessary, for any reason, to remove the gauge from the tank, do not attempt removal unless under competent supervision with all due precautions taken against the hazards of released flammable liquid or vapor.

*Materials and specifications are subject to change without notice.

See reverse side for dimensional data, materials of construction, performance, and advice on how to order.

The Measure of Excellence
An American National Standard Pipe Threads, General Purpose (INCH)

Basic dimensions of American National Standard Taper Pipe Thread. NPT

<table>
<thead>
<tr>
<th>Nominal Pipe Size (NPT)</th>
<th>O.D. of Pipe (D)</th>
<th>Threads/in. (n)</th>
<th>Pitch of Thread (P)</th>
<th>Pitch dia. at beginning of External Thread (Eg)</th>
<th>Handtight Engagement</th>
<th>Effective Thread, External</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Length 2 (E)</td>
<td>Dia. 3 (E)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inch (E)</td>
<td>Inch Threads (G)</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>1 1/2</td>
<td>1.900</td>
<td>11.5</td>
<td>0.08696</td>
<td>1.78669</td>
<td>0.420</td>
<td>4.83</td>
</tr>
</tbody>
</table>

Notes:
1. The basic dimensions of the American National Standard Taper Pipe Thread are given in inches to four or five decimal places. While this implies a greater degree of precision than is ordinarily attained, these dimensions are the basis of gauge dimensions and are so expressed for the purpose of eliminating errors in computations.
2. Also the length of thin ring gauge and length from gauging notch to small end of plug gauge.
3. Also pitch diameter at gauging notch (handtight plane).
4. Also length of plug gauge.
5. The length L5 from the end of the pipe determines the plane beyond which the thread form is incomplete at the crest. The next two threads are complete at the root. At this plane the cone formed by the crests of the thread intersects the cylinder forming the external surface of the pipe. L5=L2+2P
6. Given as information for use in selecting tap drills.
7. Military Specification MIL-P-7105 gives the wrench make-up as three threads for sizes 3 and smaller.
8. Reference dimension.

Installation
A. Gauges are normally fastened to the tank using a coupling which has previously been welded into the tank. Check coupling with certified thread plug gage for correct dimensions after welding.
B. Apply appropriate pipe thread compound to gauge mounting threads.
C. Carefully insert float into coupling and work gauge's gear housing and support through coupling being careful not to bend or damage them.
D. Torque head to range listed below.

<table>
<thead>
<tr>
<th>Gauge Thread</th>
<th>Dry Torque (ft. lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1/2 NPT</td>
<td>25-50</td>
</tr>
</tbody>
</table>

CAUTION: Do not over torque. Over tightening may cause damage to head and threads.
REPLACEABLE PARTS
- DIAL NO. 5025S00570
- DIAL SCREWS: 40–416,2 REQ'D.
- MOUNTING SCREWS: 40–419, 4 REQ'D.
- (1/4–28 X 5/8")
- GASKET: 15–4, BUNA "N"

GAUGE MATERIALS
- HEAD: DIE CAST ALUMINUM
- DRIVE MAGNET: ALNICO
- CENTER SHAFT: TEMPERED ALUMINUM
- SUPPORT TUBE: TEMPERED ALUMINUM
- GEARS: STAINLESS STEEL
- CROSS STUD: STAINLESS STEEL
- GEAR HOUSING: ACETAL
- BEARINGS: ALL STAINLESS STEEL
- FLOAT: NITRILE RUBBER
- FLOAT ROD: TEMPERED ALUMINUM

NOTES:
1. FLOATS 3–1/2" OR LESS TO BE BENT 90° RIGHT.
   FLOATS OVER 3–1/2" TO 8" TO BE BENT LEFT.
2. FOR SUPPORT LENGTH <\= 4" USE ZINC GEAR HOUSING
3. MARK PER DS–1039 IN LOCATION SHOWN.
REPLACEABLE PARTS
- DIAL S/A NO.: 5025S00570
- DIAL SCREWS: 0040-00416

GAUGE MATERIALS
- HEAD: DIECAST ZINC
- SUPPORT ROD: ZINC PLATED STEEL
- CENTER SHAFT: BRASS
- DRIVE MAGNET: NICKEL PLATED
- TIE PLATE & BEARING PIN: STAINLESS STEEL
- C-SHAFT HOLDER & MAGNET BUSHING: ACETAL
- FLOAT: NITRILE
- PACKAGING: Bulk Pack

PRODUCTION NOTES:
- MARK RG P/N AND DATE CODE IN LOCATION SHOWN.
Appendix 5 – Annual Operability
A. Model 6560

Read completely before attempting annual operability check

These instructions are prepared to assist technicians qualified to service fuel storage tank equipment.

These instructions are prepared for fuel gauges installed in the tops of above ground fuel storage tanks.

These instructions are prepared for storage tanks containing liquid fuels such as diesel or gasoline.

WARNING: These instructions are not intended for use with tanks containing LP-Gas, propane or any other liquefied gas. Tanks may contain high pressure and/or flammable gas. Make sure that fuel storage tank is vented and contains only non-pressurized fuel. Do not remove gauge or other fuel tank fitting unless precautions against the release of flammable vapor have been taken.

Make a note of tank level indication on float gauge. The recommended removal method may vary depending upon the model gauge.

The float gauge, or threaded adapter with gauge still attached may be un-screwed from the fuel storage tank. This should be done slowly while observing for any sign of escaping gas. If gauge removal is safe then continue until gauge is free from tank gauge fitting.

Square head gauges are bolted to threaded adapters. Square head gauges have a pivoting float. If tank is near full the gauge may not come straight up and out without a little extra care. After gauge is out, float should pivot up and down freely. Move float to “F” and support float with one finger. Supported float should fail to “E” under its own weight. If gauge function is correct, carefully feed float back into gauge opening and screw threaded adapter back into place.

If it is more convenient, square head gauges can be unbolted from threaded adapters by loosening four mounting bolts securing gauge to tank adapter fitting. This should be done slowly while observing for any sign of escaping gas. If gauge removal is safe then continue until gauge is free from tank adapter fitting. If tank is near full the gauge may not come straight up and out without a little extra care. After gauge is out, float should pivot up and down freely. Move float to “F” and support float with one finger. Supported float should fail to “E” under its own weight. If damaged, replace gasket with P/N 0015-00004 rubber gasket or other gasket appropriate for your gauge and application. Carefully feed float back into gauge opening and bolt gauge onto the threaded adapter. Do not over-torque bolts as over-torque could damage gasket.

MAINTENANCE

Periodic scheduled inspections for portions of the gauge located outside the tank:

- Inspect gauge for missing dial
- Inspect gauge for missing hardware
- Inspect gauge dial face for cracks or other damage
- Inspect gauge dial face for internal water, condensation or corrosion
- Replace broken, damaged leaking dial
- Periodically observe and record whether or not gauge dial pointer or readout responds and moves freely in response to changes in fuel level.
B. Model 6580

Read completely before attempting annual operability check.

These instructions are prepared to assist technicians qualified to service fuel storage tank equipment.

These instructions are prepared for fuel gauges installed in the tops of above ground fuel storage tanks.

These instructions are prepared for storage tanks containing liquid fuels such as diesel or gasoline.

WARNING: These instructions are not intended for use with tanks containing LP-Gas, propane or any other liquefied gas. Tanks may contain high pressure and/or flammable gas. Make sure that fuel storage tank is vented and contains only non-pressurized fuel. Do not remove gauge or other fuel tank fitting unless precautions against the release of flammable vapor have been taken.

Make a note of tank level indication on float gauge. The recommended removal method may vary depending upon the model gauge.

The float gauge, or threaded adapter with gauge still attached may be un-screwed from the fuel storage tank. This should be done slowly while observing for any sign of escaping gas. If gauge removal is safe then continue until gauge is free from tank gauge fitting.

Square head gauges are bolted to threaded adapters. Square head gauges have a pivoting float. If tank is near full the gauge may not come straight up and out without a little extra care. After gauge is out, float should pivot up and down freely. Move float to “F” and support float with one finger. Supported float should fall to “E” under its own weight. If gauge function is correct, carefully feed float back into gauge opening and screw threaded adapter back into place.

If it is more convenient, square head gauges can be unbolted from threaded adapters by loosening four mounting bolts securing gauge to tank adapter fitting. This should be done slowly while observing for any sign of escaping gas. If gauge removal is safe then continue until gauge is free from tank adapter fitting. If tank is near full the gauge may not come straight up and out without a little extra care. After gauge is out, float should pivot up and down freely. Move float to “F” and support float with one finger. Supported float should fall to “E” under its own weight. If damaged, replace gasket with P/N 0015-00004 rubber gasket or other gasket appropriate for your gauge and application. Carefully feed float back into gauge opening and bolt gauge onto the threaded adapter. Do not over-torque bolts as over-torque could damage gasket.

MAINTENANCE

Periodic scheduled inspections for portions of the gauge located outside the tank:

- Inspect gauge for missing dial
- Inspect gauge for missing hardware
- Inspect gauge dial face for cracks or other damage
- Inspect gauge dial face for internal water, condensation or corrosion
- Replace broken, damaged leaking dial
- Periodically observe and record whether or not gauge dial pointer or readout responds and moves freely in response to changes in fuel level.
C. Model 8660

Read completely before attempting annual operability check.

These instructions are prepared to assist technicians qualified to service fuel storage tank equipment.

These instructions are prepared for fuel gauges installed in the tops of above ground fuel storage tanks.

These instructions are prepared for storage tanks containing liquid fuels such as diesel or gasoline.

WARNING: These instructions are not intended for use with tanks containing LP-Gas, propane or any other liquefied gas. Tanks may contain high pressure and/or flammable gas. Make sure that fuel storage tank is vented and contains only non-pressurized fuel. Do not remove gauge or other fuel tank fitting unless precautions against the release of flammable vapor have been taken.

The float gauge may be un-screwed from the fuel storage tank. This should be done slowly while observing for any sign of escaping gas. If gauge removal is safe then continue until gauge is free from tank gauge fitting.

Hex head gauges may be carefully pulled straight up when removing from tank. After gauge is out, float should slide up and down freely. Move float to “F” and support float with one finger. Supported float should fall to “E” under its own weight. If gauge function is correct, carefully feed gauge back into tank opening and screw gauge back into place.

MAINTENANCE

Periodic scheduled inspections for portions of the gauge located outside the tank:

- Inspect gauge for missing dial
- Inspect gauge for missing hardware
- Inspect gauge dial face for cracks or other damage
- Inspect gauge dial face for internal water, condensation or corrosion
- Replace broken, damaged leaking dial
- Periodically observe and record whether or not gauge dial pointer or readout responds and moves freely in response to changes in fuel level.
D. Model 8680

Read completely before attempting annual operability check.

These instructions are prepared to assist technicians qualified to service fuel storage tank equipment.

These instructions are prepared for fuel gauges installed in the tops of above ground fuel storage tanks.

These instructions are prepared for storage tanks containing liquid fuels such as diesel or gasoline.

WARNING: These instructions are not intended for use with tanks containing LP-Gas, propane or any other liquefied gas. Tanks may contain high pressure and/or flammable gas. Make sure that fuel storage tank is vented and contains only non-pressurized fuel. Do not remove gauge or other fuel tank fitting unless precautions against the release of flammable vapor have been taken.

The float gauge may be un-screwed from the fuel storage tank. This should be done slowly while observing for any sign of escaping gas. If gauge removal is safe then continue until gauge is free from tank gauge fitting.

Hex head gauges may be carefully pulled straight up when removing from tank. After gauge is out, float should slide up and down freely. Move float to "F" and support float with one finger. Supported float should fall to "E" under its own weight. If gauge function is correct, carefully feed gauge back into tank opening and screw gauge back into place.

MAINTENANCE

Periodic scheduled inspections for portions of the gauge located outside the tank:

- Inspect gauge for missing dial
- Inspect gauge for missing hardware
- Inspect gauge dial face for cracks or other damage
- Inspect gauge dial face for internal water, condensation or corrosion
- Replace broken, damaged leaking dial
- Periodically observe and record whether or not gauge dial pointer or readout responds and moves freely in response to changes in fuel level.