

# GSI-2550 Gauge

## Magnetic Level Gauge

The GSI-2550 is a low cost mechanical tank gauge for tanks 24 feet in height or smaller. The gauge is a closed system and is not affected by exposure to vapors or product while the tank is in service. There are no guide wires, tapes, top or bottom anchors, thus, no in tank servicing required.

The GSI-2550 is designed for applications such as production tanks, chemical tanks, additive tanks, sumps, boilers, fuel oil tanks, small marketing tanks (jobbers), field / fleet tanks, etc. The only limitations to the GSI-2550 Gauge are tank heights in excess of 24 feet, product with metallic particles (some applications), or extremely viscous products (consult GSI).

- **Closed system, no product vapors within the gauge head**
- **50% fewer mechanical gauge parts**
- **No top anchors, bottom anchors, or guide wires**
- **Supports Limit Switches, Analog, and Digital Transmitters**

### Theory of Operation:

A donut shaped float rides on the product, held in linear vertical alignment by a 1”

guide tube. Inside both the float and the tube are magnets of opposite polarity, which couple the float with the magnet assembly within the tube.

The movement of the float drives the magnet assembly within the tube. The magnet assembly is coupled to a stainless steel wire pulley assembly which in turn drives the counter mechanism in the head of the gauge.



### Remote Data:

Limit Switches (See GSI-LSA), Analog Transmitters (See GSI-04-20), and Digital Transmitters (See GSI-2000/MACB-XXX) can be mounted to the GSI-2550 Gauge to provide electronic readout and/or control.

GSI can provide hardware and software systems for both local and remote data needs, utilizing hard wire, fiber optics, radio, cellular, modem (Internet / Intranet), and satellite connectivity. Examples: Monitoring of tanks for inventory, Monitoring of production tanks for unauthorized movement (theft), Monitoring of field tanks to schedule fuel deliveries, etc. GSI can also provide connectivity with most PLC, RTU, DCS, and SCADA systems.

**Gauging Systems Inc. (GSI™)**

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## Specifications:

**Tank Height:** Minimum height / length 2 Feet (0.60 Meter)  
 Maximum height / length 24 Feet (7.31 Meters)  
 (Tank bottom to the top of the mounting flange,  
 plus 6" (152 mm))

**Pressure:** Atmospheric (Standard)  
 150 psi (Optional, determined by Installation Kit)  
 300 psi (Optional, determined by Installation Kit)

**Accuracy:** 1/8" (3mm) full span

**Repeatability:** 1/16" (1.5 mm)

**Resolution:** 1/16" English counter assembly  
 .01' English - Decimal counter assembly  
 1mm Metric counter assembly

**Material:** Gauge Body Aluminum  
 Floats 304 SS (Standard), Others upon request  
 Guide Tube (1" or 25.4 mm) 304 SS (Standard), Others upon request

### Installation Kits

Bottom Weight / Cup	Carbon Steel
Roof Plate with Magnet	Carbon Steel
10" ANSI RF Flange, 150#	Carbon Steel, SS
6" ANSI RF Flange, 150#	Carbon Steel, SS
20" API Manhole Cover	Carbon Steel
24" API Manhole Cover	Carbon Steel

**Dimensions:** Gauge Body 10" diameter x 6-3/4" width  
 (254 mm diameter x 171.5 mm width)  
 18 lbs. (8.16 kilograms)

Float(s) 10" (254 mm) diameter (Standard)  
 3.2 lbs. (1.45 kilograms)  
 8" (203 mm) diameter Ball Float (Optional)  
 6" (152.4 mm) diameter (Optional)

Guide Tube 1" (25.4 mm) diameter

**Transmitter Mounting:** GSI Standard (Four Bolt)  
 Optional: Various manufacturers' gauge  
 mounting adapters are available



## Installation Kits:

### Installation Kit No. 0, Probe Only

Gauge Only; Gauge Head, Gauge Tube, and 10" Donut Pan Float (No mounting hardware)

### Installation Kit No. 1, 24" API Manway Kit

1" x 1" NPT Compression Fitting  
10" Donut Pan Float, 304 SS  
24" API Manhole Cover, Carbon Steel (Split cover with 1" NPT for probe entry)  
(Part No. GA-H005)

Bottom Weight / Cup, Carbon Steel (Used when tank is in excess of 10 feet in height or turbulent conditions) (Part No. GA-ABWC)

### Installation Kit No. 2, 20" API Manway Kit

1" x 1" NPT Compression Fitting  
10" Donut Pan Float, 304 SS  
20" API Manhole Cover, Carbon Steel (Split cover with 1" NPT for probe entry)  
(Part No. GA-H006)

Bottom Weight / Cup, Carbon Steel (Used when tank is in excess of 10 feet in height or turbulent conditions) (Part No. GA-ABWC)

### Installation Kit No. 3

#### 10" RF Flange, Carbon Steel

1" x 1" NPT Compression Fitting  
10" Donut Pan Float, 304 SS  
10" ANSI RF Flange, CS (With 1" NPT for probe entry)

Anchor Weight, 304 SS (Used when tank is in excess of 10 feet in height or turbulent conditions) (Part No. GA-RF001)

### Installation Kit No. 4, 10" RF Flange, 304 SS

1" x 1" NPT Compression Fitting  
10" Donut Pan Float, 304 SS  
10" ANSI RF Flange, 304 SS (With 1" NPT for probe entry)

Anchor Weight, 304 SS (Used when tank is in excess of 10 feet in height or turbulent conditions) (Part No. GA-RF001)



### Installation Kit No. 5, 6" RF Flange, Carbon Steel

1" x 1" NPT Compression Fitting  
6" Donut Canister Float  
6" ANSI RF Flange, CS (With 1" NPT for probe entry)

Anchor Weight, 304 SS (Used when tank is in excess of 10 feet in height or turbulent conditions) (Part No. GA-RF001)

### Installation Kit No. 6, 6" RF Flange, 304 SS

1" x 1" NPT Compression Fitting  
6" Donut Canister Float  
6" ANSI RF Flange, 304 SS (With 1" NPT for probe entry)

Anchor Weight, 304 SS (Used when tank is in excess of 10 feet in height or turbulent conditions) (Part No. GA-RF001)

### Installation Kit No. 7, Floating roof cover kit

1" x 1" NPT Compression Fitting  
Pan roof or Internal floating roof tank with a magnetic coupled donut attached to the float roof cover. (Specify float roof cover size)

### Installation Kit No. 8, 150 psi service kit (Consult GSI for configuration)

### Installation Kit No. 9, 300 psi service kit (Consult GSI for configuration)

## GSI-2550 Ordering Information

### Model Number Specification: 255A - B - C - D (Options)

**(A) = Installation Kit No. (See Kits below)**

- (0) Installation Kit No. 0, Probe Only
- (1) Installation Kit No. 1, 24" API manway kit
- (2) Installation Kit No. 2, 20" API manway kit
- (3) Installation Kit No. 3, 10" RF Flange, Carbon Steel
- (4) Installation Kit No. 4, 10" RF Flange, 304 SS
- (5) Installation Kit No. 5, 6" RF Flange, Carbon Steel
- (6) Installation Kit No. 6, 6" RF Flange, 304 SS
- (7) Installation Kit No. 7, Floating roof cover kit
- (8) Installation Kit No. 8, 150 psi service kit
- (9) Installation Kit No. 9, 300 psi service kit

**(B) = Length in inches: 24 - 288**

Tank bottom to the top of the mounting flange, plus 6"

**(C) = Unit of Measure:**

- (EI) English-Fractional, Innage
- (DI) Feet-Decimal, Innage
- (MI) Metric, Innage
- (EO) English-Fractional, Outage
- (DO) Feet-Decimal, Outage
- (MO) Metric, Outage

**(D) = Options: (NOTE: Standard Installation Kits do not require the selection of options)**

- (A) Float - 316 SS
- (B) Float - Polyurethane
- (C) Float, 8" Ball - 316 SS
- (F) Guide Tube - 316 SS
- (G) Guide Tube Material - Other (Consult GSI)
- (J) 6" RF Flange, 316 SS, 150 psi
- (K) 6" RF Flange, 316 SS, 300 psi
- (L) 10" RF Flange, 316 SS, 150 psi
- (N) 10" RF Flange, 316 SS, 300 psi
- (P) Special or Custom

**Example:**

**Model No.: 2553-3-144-EI**

**3 = Installation Kit No. 3, 10" RF Flange, Carbon Steel**

**144 = Length in Inches 144 (12 Feet)**

**EI = (EI) English-Fractional, Innage**

**(D) = No Options selected**

To order call Gauging Systems Inc. (GSI) at **1-800-444-1327** or your local GSI sales representative.