

Section 1: Weldments

Thank you for purchasing the GEMS SureSite Magnetic Level Indicator. **Please read this document prior to installing your SureSite** and store it where it may be readily referred to for familiarization and maintenance purposes. If you require any additional information, you are welcome to call GEMS at the number shown below.

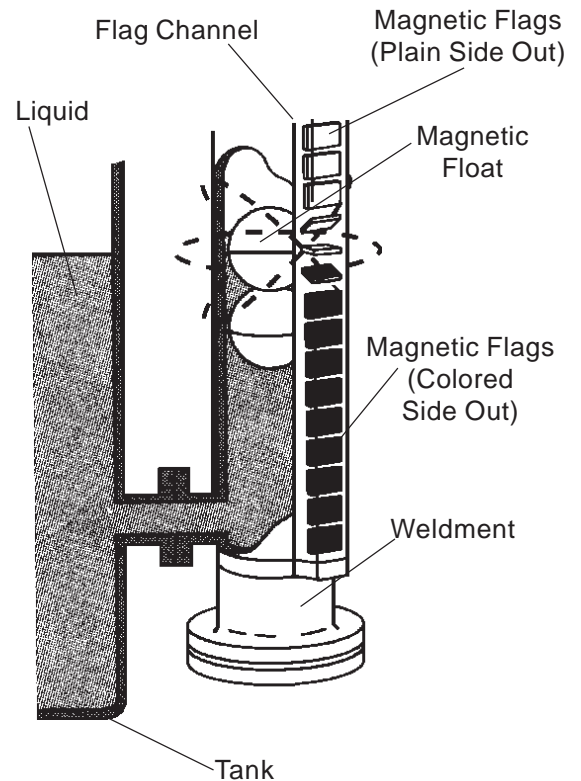
1-800-321-6070
(Outside of the Continental U.S., call 860-747-3000)

Record the Part Number of your SureSite here to use when ordering spare or replacement parts:
Part Number: _____

SureSite Operating Principle

The liquid level of a tank is made visible, **even at great distances**, through the use of a shock and vibration-proof magnetic level indicator that employs “flags” arranged within a specially constructed external housing: **the flag assembly**. The two sides of each pivoting flag are marked with contrasting colors. A permanent magnet is encapsulated inside each flag and forms a secure magnetic interlock with the adjacent flags. As the liquid level rises, a float equipped with a permanent magnet causes each of the flags to begin rotating in turn. This action exposes the contrasting (fluid level indicating) color on the other side of the flag. As the float and liquid level rise, each flag below the level of the float completes a 180 degree rotation, while remaining magnetically interlocked with the other lower flags. Together, the rotated flags display a band or column of color, the height of which corresponds with the liquid level within the tank. An exclusive feature of the SureSite is the magnetic guide that is integrated into the flag assembly. This magnetic attraction ensures that the float is always aligned for optimum performance and exactness, regardless of any shock, vibration, or rapid change to the level of fluid in the tank.

Standard and Mini-SureSites are supplied with the floats packed either separately, or securely strapped to the unit. Top-mounted SureSites are typically supplied with the floats installed and secured by a support tube. The float supplied with each unit has been designed to the specific gravity of the fluid being monitored, so that the permanent bar magnet will always seek and indicate the fluid surface. Because of the attraction of the permanent bar magnet in the float and the patented magnetic guide, the SureSite flag assembly can be rotated to a position which will allow for optimum viewing.



(See the Maintenance Section on page 5 for instructions on how to rotate your SureSite flag assembly.)

Important!

Read the following instructions completely - BEFORE installing the SureSite.

Installation Precautions and Preparation

Failure to observe these precautions could affect the operation of your unit.

1. When locating the tank ports for the SureSite, make sure that no strong magnetic fields or magnetic materials (such as railings, protective cages, I-beams, etc.) will be any closer than 6 inches (153 mm) from the SureSite.
2. Make necessary efforts to ensure that all tank-side modifications and equipment; i.e., the mating flanges, NPT ports or shut-off valves (if used) will align properly with the SureSite connections. Improper alignment could cause distortion and may damage welds and compromise the integrity of the SureSite and/or the tank.
3. After any necessary tank modifications are completed, the tank should be cleaned to remove contaminants. This will ensure that the installation is free of foreign particles; especially those which could be magnetic and which could impair the performance of the SureSite.
4. Do not begin the installation of the SureSite until all necessary tools and materials are obtained. (Such as mating flange gaskets, bolting hardware, etc.)
5. Gasket material typically supplied with the standard SureSite unit is either Viton or nitrile rubber, Garlock 3000 style. Higher pressure units are typically supplied with Flexitallic™ gaskets. For replacement gaskets, please consult GEMS Sensors for your specific material type.
6. All supplied flag assembly clamps are intended to be installed with a torque on the clamp screw not to exceed 5 lb.-inches.

Installation

Caution

Handle the SureSite with care to avoid damaging the threaded areas, flange surfaces, etc.

Note

If you have a top-mounted alloy or top-mounted plastic SureSite, skip to Page 4 for instructions.

For Standard SureSites (Alloy, Mini and Plastic)

1. Remove the protective packing materials from your SureSite.
2. Position the unit horizontally on a level surface.
3. Unpack the float assembly or, with the aid of a wire-cutter or similar device, remove the strapping that secures the float to the exterior of the SureSite Unit.