



# Mag-FLEX Tall Tank Monitoring System

Accurate Measurement  
and Real-time Monitoring  
for Tanks up to 50 ft



# The Mag-FLEX flexible magnetostrictive probe – a practical and cost effective solution for accurately monitoring above ground fuel storage tanks

Used together with any of the world-leading TLS Tank Gauge Consoles, all wet stock management and inventory control requirements can be automated, allowing efficient management both on site and at central office locations. Mag-FLEX is an ideal solution for fuel distribution depots, marine terminals, aviation fuelling installations and many other facilities where fuels are stored in bulk. The Mag-FLEX is immune from the problems that other popular technologies can experience; it can reliably measure low dielectric petroleum products and accurately determine the product/water levels.

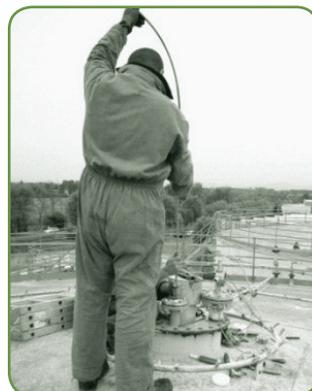
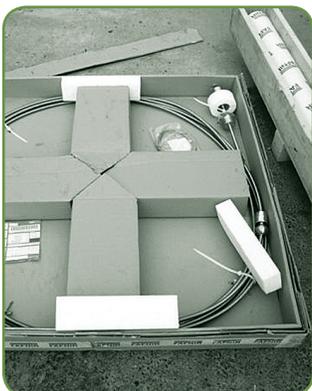
## Features and Benefits

- > Digital magnetostrictive measurement technology
- > Consistently accurate fuel level monitoring
- > Temperature compensated volumes
- > Automatic delivery detection
- > User programmable in-tank alarms
- > Water detection option
- > Probe length up to 50ft
- > Weight/magnet assembly at the end of sensor ensures vertical installation
- > Flexible, lightweight construction for easy installation and transportation
- > Simplified ordering through single part number for Mag-FLEX assembly including tank adaptor, floats and weight/magnet
- > Adjustable tank adaptor for exact height positioning

## Flexible and Easy Installation

After the Mag-FLEX probe has been installed, the corrugated steel shaft is oriented vertically and held in its operating position by the integral weight and magnet. The probe floats will precisely follow the level changes in the tank and report the presence of any water. The Mag-FLEX probe utilizes magnetostrictive measuring technology to provide consistently accurate and repeatable data.

The flexible design allows the probe to be coiled, ensuring it can be packed compactly for low cost shipping and conveniently transported to the tank top, quickly ready for an easy installation.

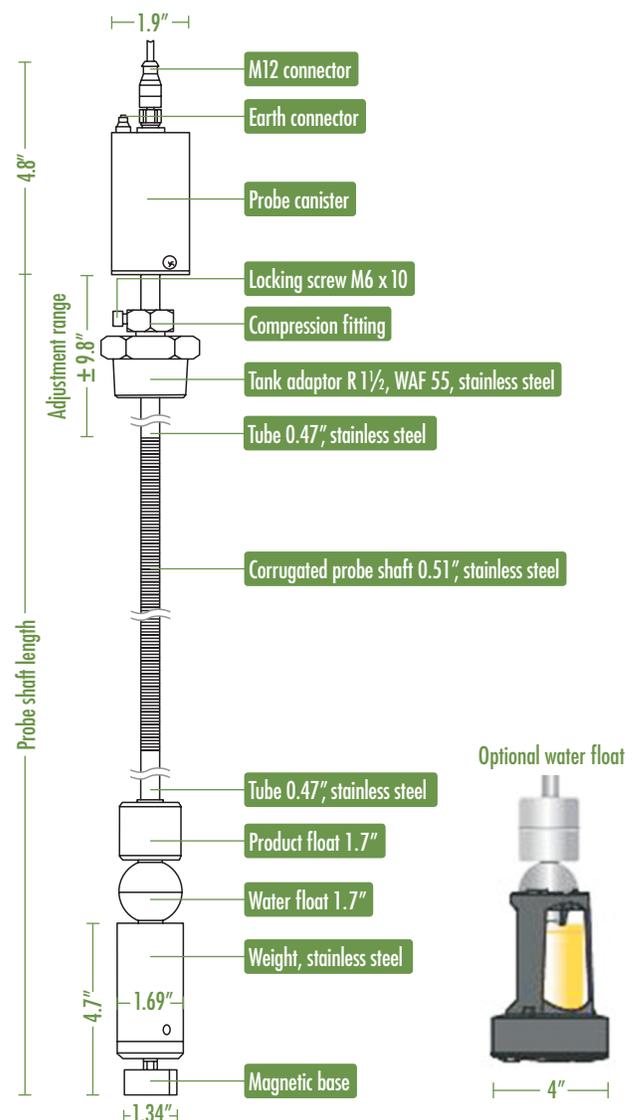


## Advantages

- > Proven quality and reliability from Veeder-Root, the market leader in fuel level measurement systems
- > Simple to install, no stilling well or crane hire
- > Low cost transportation
- > Just one tank entry required for Level, Temperature and Water measurement, no need for additional sensor entry points
- > Avoids the Health and Safety risk associated with climbing tall tanks to manually dip
- > One monitoring system for above and below ground tanks
- > Serial connectivity to other on-site devices for improved data management
- > Volt-free relay outputs allow control of external overflow alarms or other devices

## Mag-FLEX Technical Specifications

Product Measurement		
Height accuracy	± 0.08"	
Repeatability	± 0.02"	
Minimum product level reading	7.3"	
Float size	1½"	
Water measurement	Standard	Optional
Height accuracy	± 0.12"	± 0.12"
Repeatability	± 0.02"	± 0.02"
Minimum water level reading	5.5"	1.9"
Float size	1½"	4"
Temperature measurement		
Measuring range	- 40° F to 140° F	
Accuracy	1.° F	
Repeatability	± 0.5 °C	
Resolution	0.1° F	
Installation details		
Measurement lengths	Up to 50ft tank height	
Tank adaptor/tank entry	R 1½" screw-in unit	
Height adjustment range	± 9.8"	
Electrical connection	M12 plug-in connection	
Protection class	IP68	
Sensor materials		
Probe canister	Stainless steel 303	
Rigid shaft sections	Stainless steel 304	
Corrugated flexible shaft and floats	Stainless steel 316 Ti	
Weight	Stainless steel 303	
Magnet casing	Conductive plastic	
General Information		
Options	Tank adapter made of stainless steel Weight made of stainless steel	
Certifications	ATEX, IECEx, UL, CUL	



## TLS Tank Gauge Console System – Specifications

### Maximum measurable liquid height

- > TLS 2: 32.5 ft
- > TLS-3xx & TLS-450: >50 ft

### Maximum volume capability

- > TLS 2 & TLS-3xx: 260,000 gal
- > TLS-450: 7 digit volume reporting

### Probe maximum capacity per TLS Console

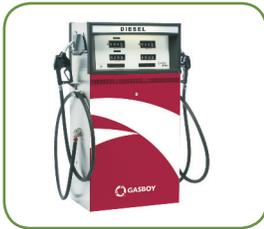
- > TLS 2: 6
- > TLS-300: 2, 4 or 8 depending on TLS-300 Console type
- > TLS-350R & TLS-350 Plus: 16
- > TLS-450: 32

# Commercial and Industrial Solutions

## Behind every successful tank operation

Veeder-Root is the largest supplier in the world representing leading brands and providing convenience, control and environmental integrity to retail fueling, commercial and industrial markets. Veeder-Root is the only manufacturer that can provide solutions to every tank operation.

## Product Range



### Pumps and Dispensers

Gasboy and Veeder-Root's broad portfolio of pumps and dispensers are proven to deliver profitability for our customers today and tomorrow.



### Automatic Tank Gauging

Innovative tank monitoring and loss detection to automate wet stock management, environmental control and risk management across the network and allows centralized data management to optimise operational profitability.



### Submersible Turbine Pumps

Red Jacket is the world's leader in submersible pressure technology with a diverse product portfolio that pumps motor fuel, diesel jet fuel, aviation gasoline, LPG, ethanol/methanol and kerosene.



### Meter Registers

Our meter registers have been used successfully throughout a wide range of industries and are the most cost effective register solutions available in today's market.



To learn more, contact us at **888.561.7942**, or visit [www.veeder.com](http://www.veeder.com)  
125 Powder Forest Drive, P.O. Box 2003, Simsbury, CT 06070 USA  
©2013 Veeder-Root P/N 576047-196 Rev A. Printed in USA

