

TLS-MAG-XL AST SYSTEM

FOR ABOVEGROUND STORAGE TANKS (AST'S) UP TO 54' HIGH

Whether your business serves industrial plants, aviation facilities, tank farms or other commercial fueling sites, Veeder-Root has the right solution for you. Our solution benefits small or large operations with single and multiple tanks.

The TLS-MAG-XL AST System is versatile, affordable and backed by the same reliable service and support network Veeder-Root retail petroleum customers have come to trust.

Bring Veeder-Root quality, reliability and service to your AST operations

Supported by the same reliable and trusted coverage by Veeder-Root Customer Service and Technical Support, the TLS-MAG-XL AST System gives site owners peace of mind when it comes to monitoring ASTs.

- > The TLS-MAG-XL AST System combines Veeder-Root's proven
- > Automatic Tank Gauge (ATG) and new TLS-RF Wireless 2 Technology.

The following inventory reports and alarms are available but not limited to:

- > Standard Inventory
- > Shift Inventory
- > Standard Delivery
- > Tanker Load (Optional)
- > Low Level Alarm
- > Delivery Needed Alarm
- > High Level Alarm
- > Overfill Alarm

Achieve a single point of monitoring for both UST and AST sites

Site owners can now monitor both their underground storage tanks (USTs) and ASTs on a single TLS Console. The MAG-XL Flex Probe, which is part of the TLS-Mag-XL AST System, can be easily retrofitted to any Veeder-Root Tank Gauge through the TLS-RF Wireless 2 Interface.

Optimize site conf gurations with a scalable TLS portfolio

Veeder-Root offers a wide range of consoles to best suit the various AST site configurations. Choose the ideal ATG for your site.

Console	Monitors up to
> TLS-450	32 probes
> TLS-350R/Plus	16 probes
> TLS-300i	4 probes
> TLS-300C	2 probes

Save installation time and cost with wireless technology

The TLS-RF Wireless 2 Kit reduces installation time and eliminates costly wiring from the tank to the TLS Console.



TLS-RF Wireless 2 System: TLS-RF Unit, Receiver, Repeater, Mag-XL Battery Powered Transmitter



Rely on f eld-proven digital magnetostrictive technology, now in a f exible probe design

The flexible probe design makes transportation and installation easy.

- The Probe has the accuracy of 0.01% of full insertion length, and has sensors that provide fuel temperature and temperature compensated volume readings.
- > The Probe electronics are integrated into a 5/8" diameter sensing tube made of polyvinylidene fluoride (PVDF).

To configure the right Veeder-Root AST monitoring system for your sites, contact a Veeder-Root Distributor or visit www.veeder.com.



Scalable TLS portfolio: TLS-300, TLS-350, TLS-450



TLS-Mag-XL Flex Probe

Technology with a human touch.

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SYSTEM COMPONENTS

Part Description	Part Number			
TLS3xx or TLS-450 Console:	Refer to Price Book			
TLS-RF Wireless 2 Kit with RF Unit, Receiver, Repeater (up to 8 tanks per RF Unit):	858090-204			
TLS-RF Wireless 2 Expansion Unit (up to 8 tanks per RF unit):	330020-668			
MAG-XL Flex Probe Assembly with Probe, Transmitter and Weight:	MAGXL-xxx ¹			
MAG-XL Flex Probe Float:	889001-001			

¹Refer to the following table for the Probe Assembly Part Numbers. "xxx" represents the last three digits of the Probe Assembly Part Number.

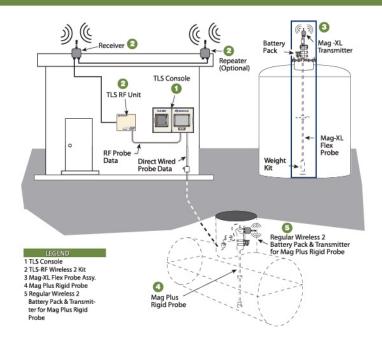
XXX	Insertion Length	XXX	Insertion Length	XXX	Insertion Length
024	12'	060	30'	079	39 1/2'
026	13'	061	30 1/2"	080	40'
028	14'	062	31'	081	40 1/2"
030	15'	063	31 1/2"	082	41'
032	16'	064	32'	083	41 1/2"
034	17'	065	32 1/2"	084	42'
036	18'	066	33'	085	42 1/2"
038	19'	067	33 1/2'	086	43'
040	20'	068	34'	088	44'
042	21'	069	34 1/2'	090	45'
044	22'	070	35'	092	46'
046	23'	071	35 1/2"	094	47'
048	24'	072	36'	096	48'
050	25'	073	36 1/2"	098	49'
052	26'	074	37'	100	50'
054	27'	075	37 1/2'	102	51'
056	28'	076	38'	104	52'
058	29'	077	38 1/2"	106	53'
050	20.16	070	20'	100	EA!

MAG-XL PROBE SPECIFICATIONS

Description	
Power Requirement:	5.4 V Maximum, Lithium Ion Batteries
Probe Length:	Up to 54'
Probe Material:	Flexible PVDF
Enclosure Rating:	PVDF Probe: IP68, Transmitter: IP54
Level Resolution:	0.001"
Accuracy:	0.01% of full insertion length ²
Temperature Resolution:	0.1°F
Temperature Accuracy:	1°F
Operating Temperature:	-40°F to +140°F
Temperature Measuring:	-40°F to +122°F
Null Zone:	12"
Dead Band:	6"-15" (varies per probe length ³)
Hazardous Area Approvals:	FM, ATEX
Transmitter Type⁴:	Frequency Hopping
Transmitter Frequency Range:	900 MHz
Minimal Fuel Height:	7"-19" (varies per probe length ³)
Fluid Compatibility	Gasoline, Alcohols, Ethanol, Aviation Gas, Kerosene, Jet Fuel, Motor and Lubricating Oils, Transmission Fluid, Diesel, Used Water, Glycol

² Insertion Length = Tank Height (distance from tank bottom to probe entry) + Riser Height

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- > The MAG-XL Flex Probe can be easily retrofitted to any Veeder-Root TLS Console through the TLS-RF Wireless 2 Interface.
- > The MAG Plus Rigid Probe (up to 12') can be used in both USTs and ASTs through either wireless (TLS-RF Wireless 2, see legend 5) or wired (see the dotted line) interfaces to the same Veeder-Root TLS Console on a single site.

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³ Please refer to Manual (P/N 5770173-972) for details.

⁴The average Transmitter Battery life is two years. The distance between transmitter and receiver varies per application.