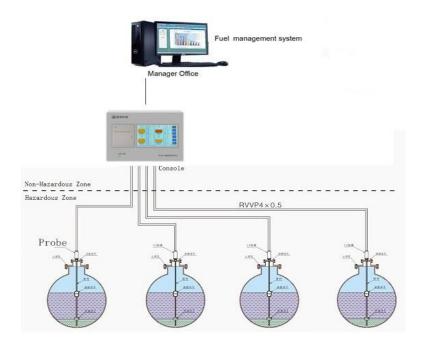


Automatic Tank Gauging System

Automatic Tank Gauge (ATG) system consists of Magnetostrictive Probe and Smart Console, it is an electronic device, whose basic function is to monitor the fuel level in the tank. It can also tell the operator what is going on inside the tank. In other words, it gives us very important information like fuel level, volume and temperature, water level and volume, high and low fuel level warnings etc. There are different plans to satisfy different customers according to their effective demands.



Solution:

- 1. SP300 Probe + TCM-1 Control Console
- 2. SP300 Probe + TCM-1 Control Console+Internet Remote Query(APP/WEB)
- 3. SP300 Probe + TCM-1 Control Console + Central Control System(other brands)
- 4. SP300 Probe (Modbus protocol)+ Other brands Controller



Magnetostrictive Probe

●The probe consist of:

Fully enclosed magnetostrictive probe.

Electronic Pod using for data measuring and transforming.

Floater made according to the product.



Features:

Safety: ExialIBT4 (Intrinsically safe) issued by PCEC

Accuracy: level accuracy is ±0.3mm

Stability: strong anti-jamming ability

Efficiency: less than 1 second to test one tank.

Probe Performance

ltem	SP300			
Purpose	To measure product level, water level and temperature			
Titles of medium	Gasoline, diesel, kerosene, ethanol , water etc.			
State of medium	Liquid			
Explosion-proof grade	ExialIBT4 (Intrinsically safe)			
Pressure range	-0.02Mpa~0.6Mpa			
Certificate	PCEC Conformity Certificate of Explosion-proof			
Temperature	-40°C ~ 70°C			



Product Level Accuracy	±0.3mm			
Water Level Accuracy	±0.3mm			
Temperature Accuracy	±0.2℃			
Height Resolution	0.023mm			
Repeatability	±0.1mm			
Temperature Effect	Error<0.2mm			
Vibration Effect	Error<0.5mm			
Lowest Product Inactive Zone	2.5" floater-180mm			
Lowest Water Inactive Zone	2.5" floater-25mm			
Measured Variable	Product level, interface level and temperature of			
	sensors and average temperature			
Measure Range	600~4000mm			
Method of Communication	RS-485			
Probe Material	1Cr18Ni9Ti			
Power Supply	+24 ~ 26VDC			
Protection Class of Probe Canister	IP67			
Max Communication Distance	1200m			



Touch Control Console (TCM-1)



- •It can monitor up to 1-10 tanks and monitor the delivery conditions, it also enjoys a static leak test function.
- •It can display product level, water level, temperature, volume, ullage.
- •It can display dynamically the change of product level and water level with graphics in proportion, it features a 7 inch colored touch-screen console panel, and each interface displays 4 graphics.
- It features an audible and visual alarm function with front panel.
- ●It comes with two RS-232 serial interface communication ports to connect with different brand Center Console.
- It enjoys a record function, all information are stored in memory for future queries
- There is an embedded printer in it to print inventory reports, delivery reports, leak reports and shift reports.
- It can calculate volume of product by multipoint, which can fully ensure the accuracy of volume of the product.
- After connected with Center Console though internet, it can provide information in long-distance for manager to arrange the inventory.
- It can monitor the oil pump according to the product level, which can avoid the product



spilled and pumpdown..

•It can connect with flow-meter to display delivery information constantly.

TCM-1 Touch Control Console					
Power Supply Voltage	AC120~265V 50HZ/60HZ				
Environmental Temperature	-20°C~60°C				
Environmental Humidity	20%~85%				
Display Screen	7 inch real colorful touch screen				
Processor / Memory	High-speed embedded /				
Printer (Optional)	Embedded minitype printer				
Safety Barrier	Power safety barrier, communication safety barrier				
Size	310x220x80 (mm)				
Functions					
Display	English, Graph, Colored				
System Language	English				
Monitoring Capability	10 tanks				
Relay	With 2 relays				
Method of Communication	RS-485				
Tank Inventory Report	Users can inquire and print inventory information at any				
User-defined product type supported	Available				
Auto Delivery	Auto delivery monitoring, and reports are generated after				

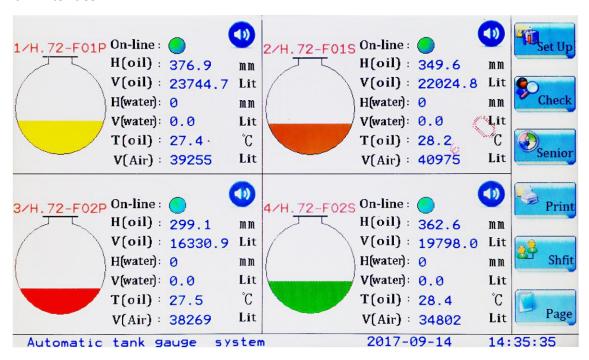


	delivery. Users can inquire and print reports.				
Manual delivery	Click the "start delivery", it will create delivery report				
Product Mass Calculation					
Print Function	User can print all kinds of reports				
Network Function	Inquiring data in long-distance through internet.				
Outside Explosion-proof Ringer	Avoiding the product spilled.				
System Update	It's convenient to update the software and hardware.				
Control the Oil Pump	Avoiding the product spilled and pumpdown				
Setup/Inquiry Parameter	Users can setup and inquiry the parameter about the tank,				
	hardware, product type, alarm, date, tank volume table				
Automatic Gauge	Display product level, water level, temperature, volume,				
	ullage				
Volume Table Edit	Data input via touch screen, enjoy the import and export				
	function.				
Volume Table Calibration	Use the method of Guihe Volume Table Calibration to				
	calibrate it.				
Static Leak Detection Function	During the idle time of the gas station, user can do the leak				
	detection for the thank.(Detection rate :0.38 L/H)				
Dynamic Leak Detection Function					
Alarm	Audible and visual alarm and inquiry function				
Shift Exchange	Shift exchange function and create the report.				
Interface	With RS-232 serial interface communication ports				

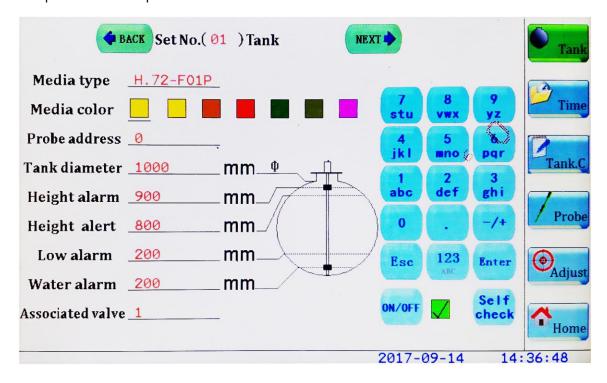


Console Function Show

Main interface

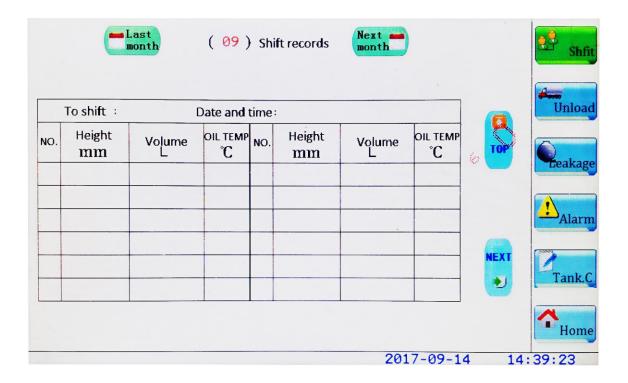


Tank parameter setup



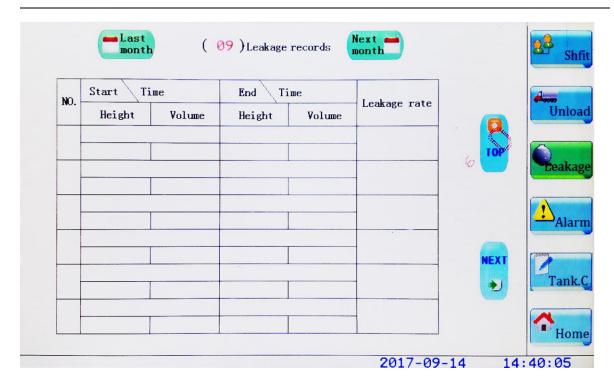


Check shift/ unloading/ leakage/ alarm records













Print reports



2017-08-08 09:39:03

********Delivery Report******

Tank: 1 #
Product: Diesel
Start Height: 10152.8 mm
Start Volume: 10152.8 L
End Height: 10152.8 mm
End Volume: 10152.8 L
Total Deliver Volume: 1781.1 L

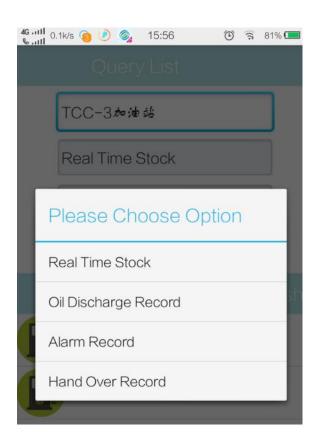


Internet Function

1. APP check for Android phone.

Users can check petrol station tank gauge information on Mobile phone .





2. Web check.

Users can logon our remote inquiry website, enter their petrol station name and password





Preparation Before Installation

The following preparation should be down before the liquid level meter installation.

- 1. Vertical-pipe
- 2. Blind plate
- 3. Wiring RVVP-4*0.75 shied cable from tank farm to control room, galvanized pipe on the outside of the shied cable. The cable from tank farm to control room can not have a connector.
- 4. The part of the galvanized pipe exposed from the wall of manhole length about 100mm, its outer thread (G3/4) length of 25mm, using for connection with explosion-proof box.



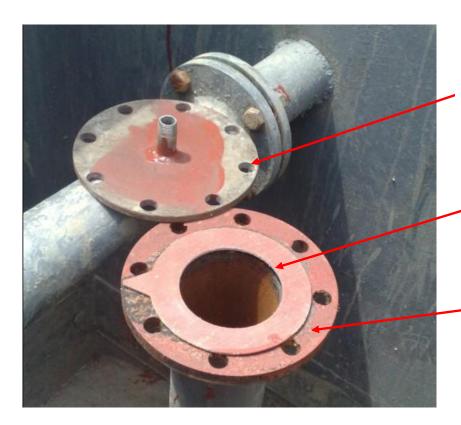
After Level gauge installation



Make a hole on the center of the blind plate, welding vertical-pipe which inner diameter is 20mm, length of 50mm, galvanized pipe threaded at one end.

Vertical-pipe use for level meter installation, length of 400mm, inner diameter is 100mm.



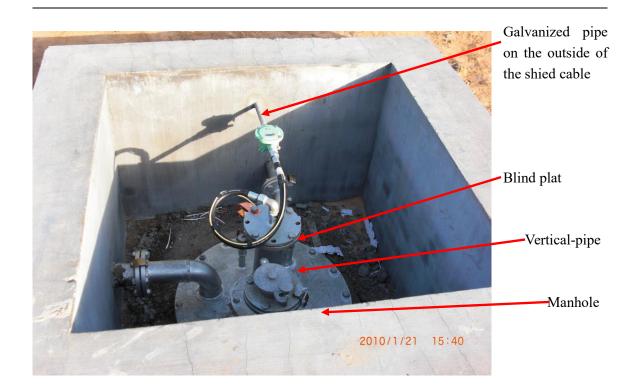


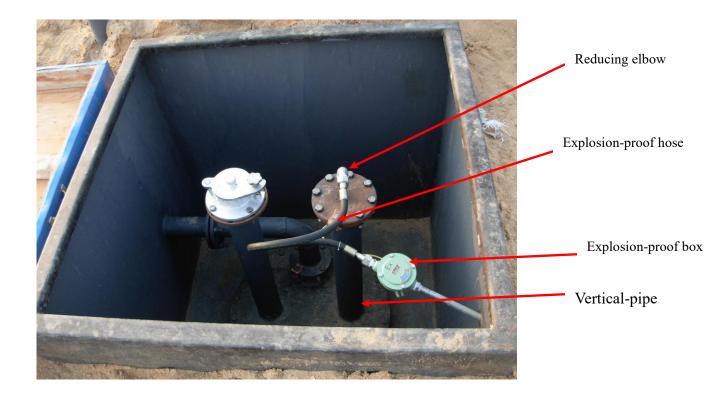
The diameter of the screw hole on the blind plate should be consistent with the hole on the top flange of the vertical-pipe.

Asbestos pad

Top flange of vertical-pipe.





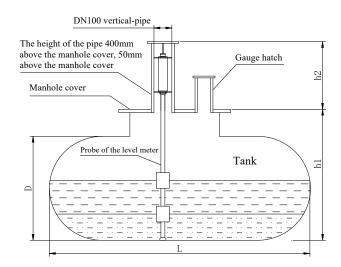




Measuring mothed before order

- 1. h1: it's the height from the top surface of the manhole cover to the bottom of the tank
- 2. h2: it's the height of vertical-pipe from the top surface of the vertical-pipe flange to the top surface of the manhole cove. Here is the size of vertical-pipe we recommended: 400mm above the manhole cover, 50mm under the cover.
- 3. D (diameter of the tank): it's the valid max inside diameter of the tank.
- 4. L (length of the tank): it's the valid max inside length of the tank.

Notes: If install the probe from the gauge hatch, you need to add a vertical-pipe at the top of the gauge hatch, and it's total height of the vertical-pipe and the gauge hatch is more than 400mm.



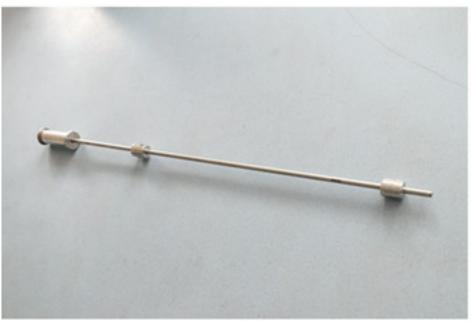
Tank No.	h1(mm)	h2(mm)	D (mm)	L (mm)	Fuel	Inside Diameter of
1 [#] Tank						
2 [#] Tank						
User Name	:	Linkman:		Tel:	Fax:	Email:

Please fill in a form and sent to us before order.



Products Pictures







Package Show





