

Steam Recovery



If allowed to be discharged into the atmosphere, the hydrocarbon vapor operating income will be reduced due to the reduction in volume, and it will cause fire hazards and pollution problems. A steam recovery unit (VRU) collects these steams from storage and loading facilities, reliquaries the steam, and returns liquid hydrocarbons to storage. The methods for recovering steam include absorption, condensation, adsorption and simple cooling.

Challenges

A steam recovery unit is a simple, economical process unit that meets EPA certification and improves operating income by recovering up to 95% of emissions. The key to the steam recovery unit is the flash tank for steam reliquefication. The level control of the flash tank is very important.

Products

- **UTK Displacer Level Controller**

UTK Displacer level controller takes float or displacer as measuring element. The measuring element is connected to the magnetic sensor. The magnetic control switch is sucked through the magnetic induction magnetic coupling to realize the control and alarm of the liquid level. UTK displacer level controller is highly stable, anti-vibration, and suitable for extreme temperature and pressure

Features

1. Stable output signal is not affected by surface fluctuation.
2. Process temperature range is from -40° to 300°C .
3. The product uses 304, 316 high-quality materials which make it more durable and reliable.
4. This product is suitable for the working condition of pressure vacuum $\sim 26\text{MPa}$, temperature $-40^{\circ}\text{C} \sim +300^{\circ}\text{C}$.
5. The product has passed SIL2 functional safety certification and explosion-proof certification, and can be used in a variety of working conditions to effectively avoid the occurrence of accidents.
6. The pressed part and the switch contact part are completely isolated by magnetic coupling, which has high reliability and safety.

● ZTD Displacer Level (Interface) Transmitter

ZTD displacer level (interface) transmitter is an intelligent level measuring instrument with international leading level independently developed by DDTOP after many years of technical research. The simple buoyancy principle is used to detect the change of level, and then the magnetic signal is converted into a stable 4-20mA current signal and output through the torque tube assembly and the hall sensor. The instrument has a variety of configurations and pressure levels, which are suitable for various applications.

Equipped with DLT9010 level controller, output 4~20mA current signal. At the same time, it has HART communication protocol, which can query, configure, calibrate or test level controller. It can also accept the information of a single measurement loop and transmit the information from site to the control system.

Features

1. SIL2 certification certified by both French Bureau Veritas and Shanghai SITIIS.
2. Verification is not needed, only configuration is needed.
3. The product provides 4-20 mA with HART, and can be configured, calibrated and diagnosed on site using the 475 Communicator.
4. Comprehensive fault diagnosis, warning and status history.
5. EU PED pressure vessel certification, the applicable pressure can be up to 42MPa
6. Maximum process temperature which is applicable in non-vapor condition can be up to 500°C .
7. Flame-proof and Intrinsic safety certified by CSA, ATEX and IEC.
8. Process parameters can be adjusted online.
9. The transmitter can be converted arbitrarily in 8 positions without affecting the on-site use.
10. It is suitable for interface measurement and density measurement.
11. EU EMC directive CE certification.

● **MLT Magnetostrictive Level Transmitter**

MLT type magnetostrictive level transmitter is a kind of high-precision level transmitter, and it is also mounted as an external binding transmitter on the local level gauge. The product can be used for level and interface measurement. Through the magnetostrictive wire, the core part of the sensor, the small changes in magnetic field vectors are transformed into mechanical waves. The sensor circuit transmits current pulses along the magnetostrictive wire inside the sensor tube, forming a ring magnetic field around the magnetostrictive wire. When a float is encountered, the magnetic field generated by the permanent magnetic steel inside the float magnetizes the magnetostrictive wire axially. When the two magnetic fields are superimposed, the pulse is transmitted along the magnetostrictive wire to the top and bottom ends of the sensor respectively, and the float position is accurately confirmed by measuring the time difference between the starting and returning pulses.

Features

1. 4 buttons operating interface and LCD graphical display will provide more efficient configuration, calibration, measurement, fault display and other functions.
2. The product determines the displacement by measuring the time difference between the transmitted pulse and the return pulse, the accuracy is very high, and can reach 0.5% or better.
3. The product can measure level or interface. It is a real multi-parameter measurement.
4. The product can be easily combined with magnetic level gauge.

● **UQK-400 Float Level Controller**

UQK400 float level controller is composed of float, connecting rod, magnetic sensor and magnetic switch and signal conversion mechanism. The change of the medium level in the container causes the relative displacement of the float, which drives the connecting rod and the iron core to move up and down to change the relative position of the magnetic sensor. Through the magnetic coupling, the micro switch or the reed switch is operated to achieve level control and alarm.

Features

1. The float is made of 304, 316, TA2 material. A heat insulation mechanism is designed between the wetted part and the output part, which can be used for a long time under 450 °C working conditions.
2. The wetted part is completely isolated from the magnetic coupling system. Compared with other mechanical seal types, the product has higher safety and durability.
3. The product has passed SIL2 functional safety certification and explosion-proof certification, and can be used in a variety of working conditions to effectively

avoid the occurrence of accidents.

4. The product has bi-stable memory function and it can continue to maintain the alarm signal when the liquid level is ultra-high or ultra-low.

● **UHC Magnetic Level Gauge**

UHC magnetic level gauge provides a safer, more reliable and more visible option than conventional glass level gauge. The float moves up and down with the change of level, and the float transmits the level signal through the coupling magnetic field, which divides into the local indication type and the remote transmission output type.

Chamber and float have a variety of materials and pressure-grade options and are suitable for complex process applications of current major operating devices.

Features

1. The float adopts 304,316 L, TA2 and TC4 material. It has good temperature resistance and can reach to 450°C.
2. The welding process meets the requirements of PED welding process. The chamber is made of 304,316 L. The maximum pressure can reach to 26 MPa.
3. Local indicator type and remote output type with level alarm are optional.
4. According to customer requirements, through a variety of production types, the products can be applied to a variety of working conditions.