Faure Herman
ULTRAFLUX

APPLICATION SHEET

Tank drainage

Customer requirements

The main players in the oil industry use large volume storage tanks for crude or refined products. When these products are stored, depending on their origin, they are mixed in large quantities with water.

When unloading these products, our customers need to know as precisely as possible the interface (change) of product, the transition from water to hydrocarbon. This detection is often carried out using a manual valve and a visual check, which requires the presence of personnel dedicated to this surveillance, with the risk of discharging more oil than expected into the treatment tanks.

As a result, our customers asked us to create an automatic interface change detection system.

Description of the application

Water, which has a higher density than hydrocarbons, settles at the bottom of the tank. Our equipment is capable of measuring the change in interface between the water and the oil using an ultrasound probe adapted to the products and a dedicated converter. The speed at which ultrasound waves propagate differs between water and the various hydrocarbons.

It is this difference in speed of sound that enables us to detect this change in interface.

Equipment used

Minisonic II Ex

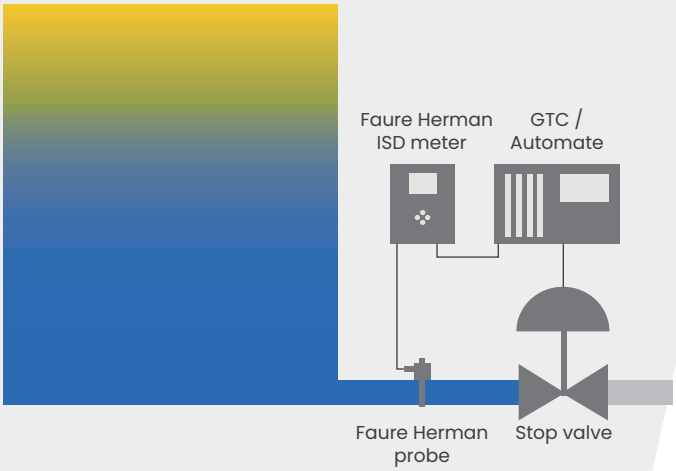
Minisonic

Activity sector

Oil industry

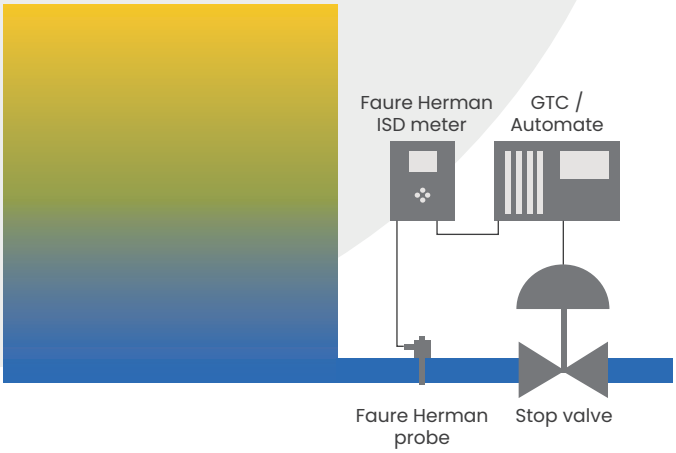
Starting situation

- Shut-off valve closed
- Large quantity of water at the bottom of the tank
- Detection by Faure Herman device: WATER



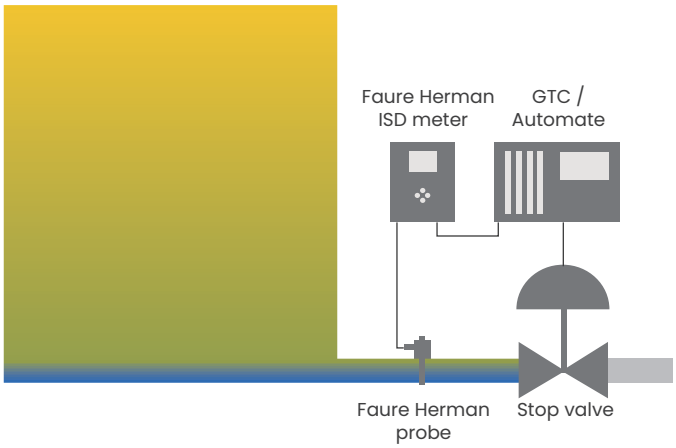
Drainage

- Valve opening
- Detection by Faure Herman device: WATER
- Drainage of tank in progress



Stopping drainage

- Detection by Faure Herman device:
  WATER + Hydrocarbons
- Shut-off valve closed
- End of drainage



Customer benefits

- Simplification of drainage procedures
- Minimizes hydrocarbon discharge errors
- Analysis and field tests if necessary
- Can be adapted to almost all preexisting installations
- External probes require no pipework modifications
- Operates from 1' to 20' (please consult us for more)
- Works on crude and refined products
- Time saving-System repeatability
- Possibility of supplying a turnkey system
- This system can be fully automated by adding a clamp-on flow meter for counting and allocating contaminates to dedicated tanks.

Available options

- Possibility of managing 1 to 4 tanks per converter
- Converters and probes available for ATEX zones
- Cabinet supplied, including solar panel if required
- Alarm transmission via GSM Data
- Valve bypass depending on the fluid detected
- Commissioning

Faure Herman
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2, Lieu-dit l'Archette
72400 La Ferté Bernard
FRANCE
+33 2 43 60 28 60

faureherman.com