HYDROCARBON FLOW MEASUREMENT FOR CUSTODY TRANSFER

The purpose of these systems is to precisely and repeatedly measure the flow of hydrocarbons in accordance with OIML R117 international recommendations, OSI and API standards.

The implementation of a measurement system for custody transfer provides benefits from the first day of operation as it ensures maximum reliability of the measured product, reducing the number of losses due to unreliable measurements or a lack of measurements.

For this, SICE has supplied more than 100 certified skids for custody transfer with different technologies in the past 5 years: ultrasonic, turbine, coriolis type mass flow meters, etc. For these projects, SICE usually supplies and installs bidirectional testers for subsequent on-site calibration.

CONSULTANCY AND ENGINEERING

Part of the SICE platform is to provide its current and future clients with all the necessary consultancy services to handle any issues and provide all its experience to be able to meet its objectives.

SICE has highly qualified staff for the development of conceptual and detailed engineering which will comply with all national and international regulations.

For the development of these systems' engineering, SICE considers all legal and contractual regulations in every country of origin, ensuring that all equipment and instruments associated with the measurement system comply with security, quality, accuracy and reliability standards.

SELECTION OF TECHNOLOGIES

There are currently different meter technologies on the market. In accordance with the individual conditions of each system, SICE selects the best meter technology that is adapted to the genuine needs of the client without excesses which could lead to unnecessary financial investments.

The selection of appropriate technology depends on several factors, which are analysed to obtain different alternatives with their respective advantages and disadvantages as well as their cost/benefit analysis.

The technologies that are currently accepted for custody transfer are as follows:

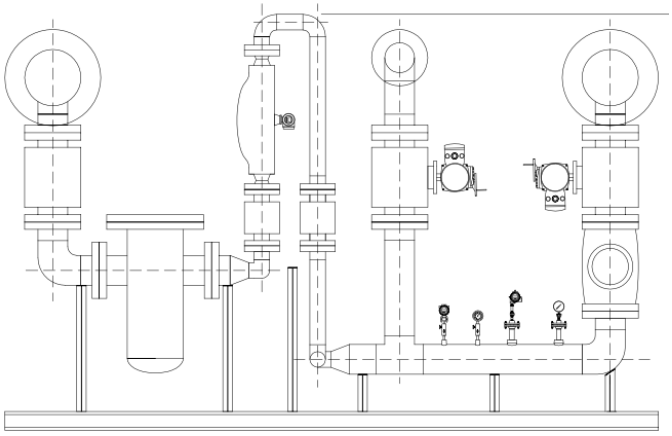
- Coriolis.
- Turbine.
- Positive Displacement.
- Ultrasonic.
- Differential pressure.

Each one of these technologies provide very specific solutions depending on the client needs and particular nature of the facility. As SICE integrates these technologies, it has the freedom to choose any type of brand or technology to benefit the final user.

DESIGN

SICE can develop measurement systems, either integrated into the process, or provide it as a structural skid, which will be fully assembled with all instruments and even with the flow computer installed at the foot of the skid.

Measurement systems designed by SICE are shaped by the appropriate instrumentation depending on the hydrocarbon phase.



Furthermore, in some cases, it is necessary to use systems which have the ability to calibrate measurement systems. For this, SICE uses unidirectional or bidirectional testers, master meters and/or mechanical devices required for the calibration by accredited metrology entities regulated by each country of origin.

EFFICIENCY

Clients often have concerns about the cost and/or benefit of measurement systems.

For this, SICE always considers best practice when designing hydrocarbon flow measurement systems to minimise the system's effect on the process, considering minor pressure drops, maintenance times in accordance with use, the broadest calibration frequencies and all other criteria which make the system more efficient.

With these considerations, SICE is able to achieve lower payback times for the initial financial investment.

BASIC DIAGRAM OF A MEASUREMENT SYSTEM