

Liquid hydrocarbon sampling

0.025% - measurement uncertainty*

ISO, EI (IP), API and ASTM compliant

Provable to standards by water injection

Low inter-batch sample contamination risk

Operator friendly & simple to maintain

Low installation cost

Cojetix[®]

sampling system



A Cojetix system is the highest accuracy liquid hydrocarbon sampling system available. It has the lowest measurement uncertainty (-0.025%)* and delivers the best return on investment for high value transactions.

A Cojetix is the system of choice for custody-transfer, allocation and quality measurement where mixing is required.**

The Cojetix system is a combined Fast loop sampling and JetMix system. The sampling system is integrated as part of the JetMix loop which provides optimal pipeline mixing without inducing a pressure drop in the main process. It is suitable for applications with a wide turndown of flow rates or where a pressure drop could cause a bottleneck in the process.



Applications

Crude oil

Condensate

Low temp liquid hydrocarbons

Refined products

Hazardous liquids

Mixing energy is added to the flow by jets in the nozzle, ensuring the mixing is suitable for sampling at all flow rates.

Flow is extracted into a sampling loop through a large take-off 'quill' inserted into the centre of the main pipeline. The quill has a large inlet, which further reduces the sampling system uncertainty. The sampling loop is designed to have

Fixed nozzle & quill take-off



no water traps and sufficient fluid velocity to maintain sample representivity and homogeneity through the system. The loop passes through a sample receiver enclosure which can be located in a convenient position for the operator. The enclosure can be fully isolated so that any maintenance work can be carried out with no impact on the main process.

The enclosure contains a flow-through Cell sampler which discharges 1cc samples directly into a sample receiver. The short distance travelled by the sample minimises the risk of cross-contamination between batches.

The enclosure, which can be heated to maintain an even temperature to avoid solid or wax formation, also houses the sample receivers. These can be fixed volume (PR-103, PR-53, PR-23) or constant pressure sample receivers (CPC) with manual or automatic changeover.

Dynamic performance measurement can be achieved by fitting a CanWeigh system for PR receivers or a level-sensor system for CPC receivers. A sampler controller can be installed providing configuration, monitoring and control functions with DCS integration capability.

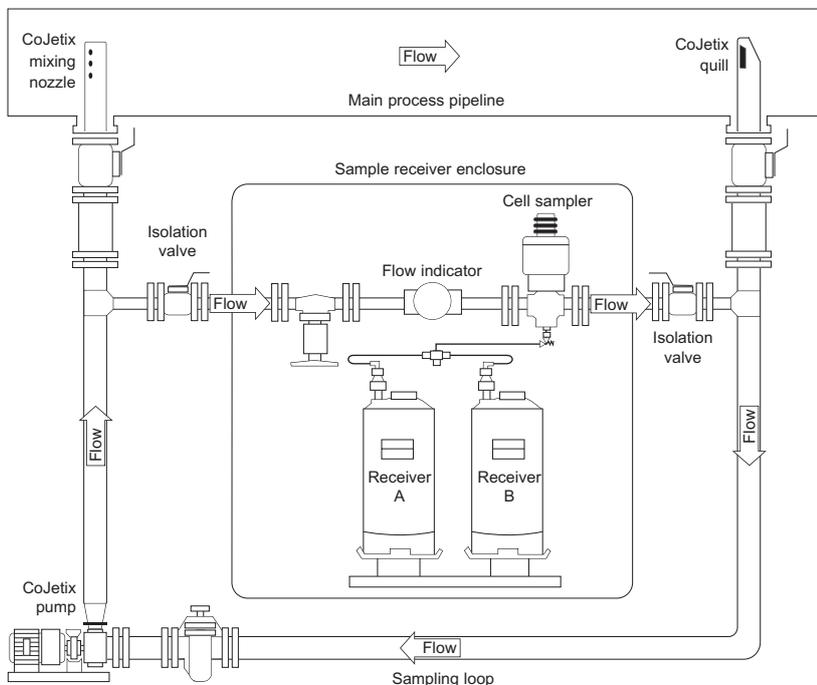
System components are selected for maximum reliability. Crucial items are mounted outside the main pipeline allowing the system to be easily isolated for maintenance without access to the main line.

The withdrawable nozzle and quill can be installed by 'hot-tap' into either the top or the bottom of the pipeline.

On-line analysers such as water-in-oil monitors and densitometers can be integrated as part of the sampling loop ensuring optimum representivity, accuracy and direct comparison of results.

* Based on data from over 200 water injection proving tests.

** An on-line assessment of pipeline mixing can be performed at www.jiskoot.com.



Not to scale



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