SyngasClean SAMPLING SYSTEM

The main difficulty of the analysis of synthetic gas "Syngas" is the presence of **tars**. Indeed, aerosols and tar deposits generate significant maintenance and can damage analysers or make them less reliable.

The **SyngasClean** system provides a turnkey solution for **sampling syngas from pyrolysis gasification.**

It allows the sample to be conditioned before passing through the analyzers, by cooling it to **condense the tars** or **oily residues**, and **separating** them from the gas phase using a cyclonic separator. The system also separates the **particles**.

Several formats are possible for indoor or outdoor use.

Example of realisation: syngas conditioning panel

Caracteristics

- Turnkey sampling system.
- Thermoelectric Peltier heat exchanger.
- Adjustable exchanger temperature and sampling flow rate.
- Cyclonic filtration for separation of liquids and gas particles.
- Second filtration level for analyser protection (2 µm).
- Sample suction and circulation pump.
- 316L stainless steel valves, fittings and tubing.
- Condensate recovery pot with optional level detection.

Applications

- Gas analysis resulting from pyrolysis and/or pyrogasification (performance monitoring).
- Mass balance of syngas produced.
- Crude syngas analysis.
- Wet gas analysis.

Benefits

- Processing of highly loaded samples.
- Modular for different types of analyzers.
- Few maintenance: no filter element in cyclonic filter.
- Available in fixed and mobile versions.

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Advanced Industrial Sampling

Overall plan of an industrial model installed on site

Technical specifications

Maximum operating pressure	1.5 barg
Operating ambient temperature	From 5 to 40°C
Sample maximum temperature	180°C
Sample flow rate range	From 0 to 5 L/min
Exchanger temperature range	From 0°C to -20°C
Wetted materials	316L stainless steel
Particle filtration level	< 2 µm
Power supply	230 V and 16A max

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