

TAR PROTOCOL SAMPLING SYSTEM

SOCLEMA provides a turnkey solution for sampling of synthetic gases (syngas) produced by pyrolysis gasification.

This solution allows the identification of tar-type organic contaminants (BTX, PAH, phenol and derivatives, thiophene, etc...) produced during this process.

This is a laboratory protocol that has been industrialized for process measurements.

The successive passage between warmed and cooled bottles allows the isolation of these contaminants for analysis.


Characteristics

- Automated sampling system.
- Peltier module for cooling to -20°C (depending on outside t°).
- Possible temperature regulation (hot and cold).
- Circulation pump for pressure <0.5 bar.
- Reinforced tank insulation to limit the influence of ambient temperature.
- Quick Connect In/Out connections.

Applications


- Characterization of tar in syngas according to TAR PROTOCOL.
- Removal of tar in syngas.

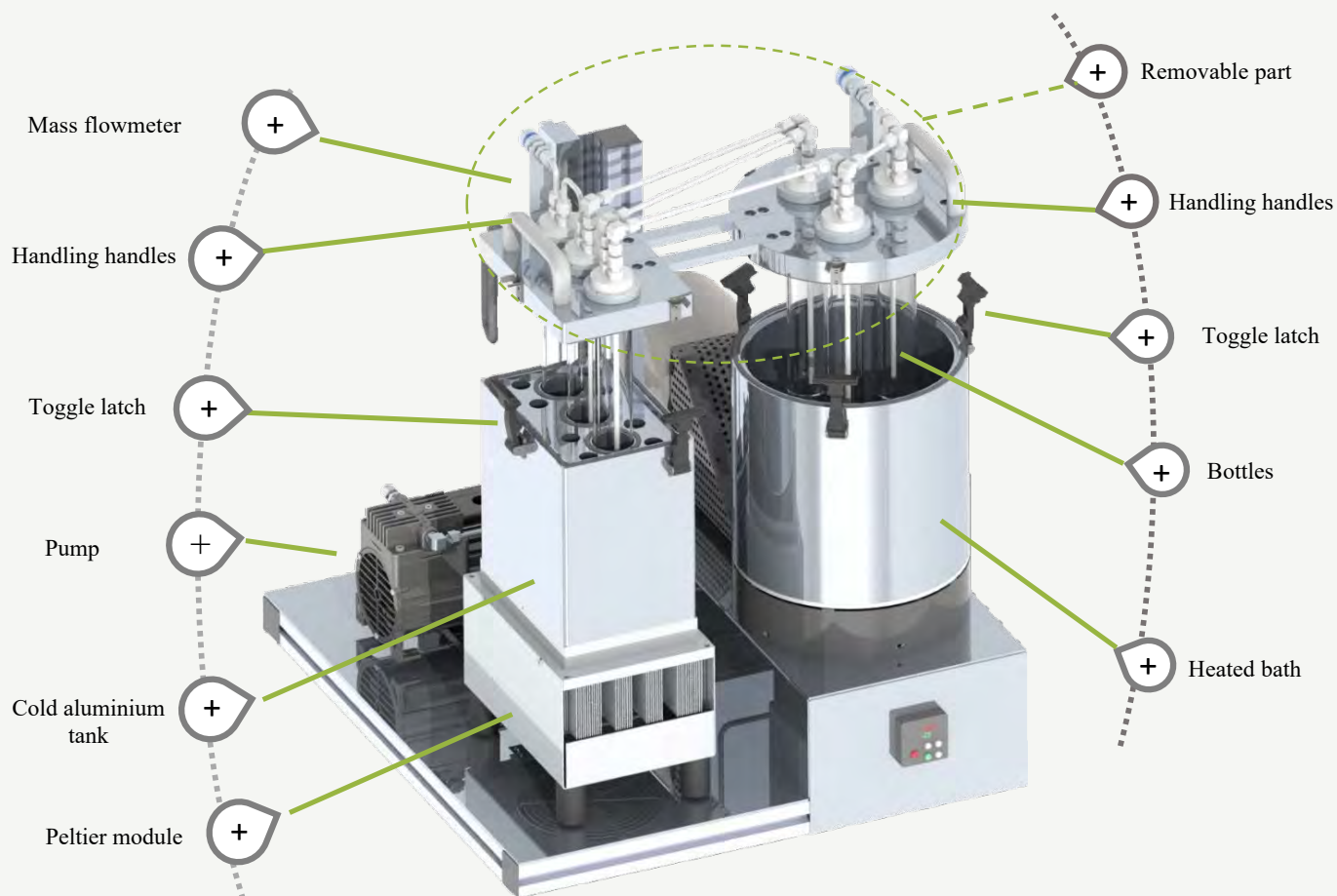


 Achievement example: mobile trolley for ATEX area

Advantages

- Easy use without dry ice.
- Accurate flow rate adjustment and volume transfer calculation using the mass flow meter.
- Improved thermal conductivity due to tanks machined from single aluminum block.
- Smart bubbling and gas exchange in isopropanol optimized due to elongated shape of bottle.
- Sample bottles integrated into cover for easy transport to the measurement unit.
- Different size and assembly available depending on installation requirements.

 Laboratory model drawing



Technical specifications

Ambient operating temperature	0°C to 40°C
Service temperature	-25°C to 180°C
Maximum service pressure	1,5 barg
Power supply	220 V
Power consumption	± 1000 W
Cold bath temperature regulation	-20°C at ambient t°
Heated bath temperature regulation	+40°C at ambient t°
Sampling flow rate	0,5 - 5 NI / min
Bottle capacity	240 ml