



SINTEF

Status update on SINTEF activities

Overview of Pilot Activities at Tiller

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Recently finished piloting activities

☐ Long term pilot test campaign of RTI NAS

- DOE/Climit-demo funded activity
- Plant rebuild for water lean solvents
- Long term test campaign

☐ Test campaign for demonstration of model predicted control

- Climit-demo project DOCPCC with TCM and Cybernetica as partners
- Developed NMPC also tested at TCM
- DOCPCC1 and DOCPCC2
- MEA solvent

☐ Pilot testing with absorber aerosol formation

- Climit-demo funded project AEROSOLVE
- NTNU, TCM, TNO, Uniper, Engie & Road as partners
- Measurement equipment for aerosol measurement and characterization established
- Aerosol dosing and measurements as inputs to model validation
- Testing of emission reducing technologies

☐ Novel solvent test campaign

- As part of confidential industry project

☐ ALIGN CCUS project test campaign

- As part of the ALIGN CCUS project
- Dynamic operation and model predicted control
- Emission reduction
- Demonstration of new concept for online monitoring of amines and nitrosamines in gas, solvent and water wash
- CESAR1 solvent

Ongoing piloting activities

☐ RTI NAS testing

- As part of RTI activity
- Water lean solvent

☐ Biomass burner test

- Biomass burning test
- Testing of biomass burning
- Flue gas characterisation

☐ Bioenergy CO₂ capture

- Demonstration of negative emission
- Flue gas characterisation
- Emission monitoring, solvent ageing

☐ Pilot testing with novel solvent and process system

- Direct industry project with a client
- Water-lean transformational non-amine solvent
- Various flue gas test

Upcoming piloting activities

☐ Novel contactor for CO₂ capture

- SINTEF designed contactor for a client
- Building and Testing commencing in fall

☐ Pilot testing with novel solvent system

- Climit-demo funded project Capsin
- C-Capture, Biobe and CCP as partners

☐ Pilot testing with novel gas-liquid contactor

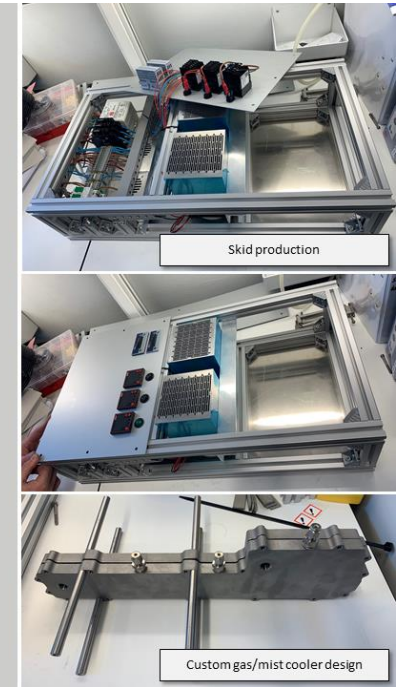
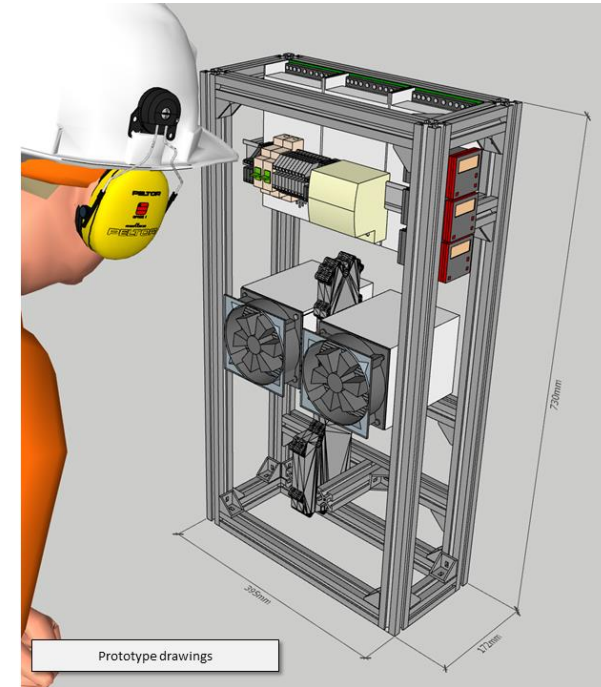
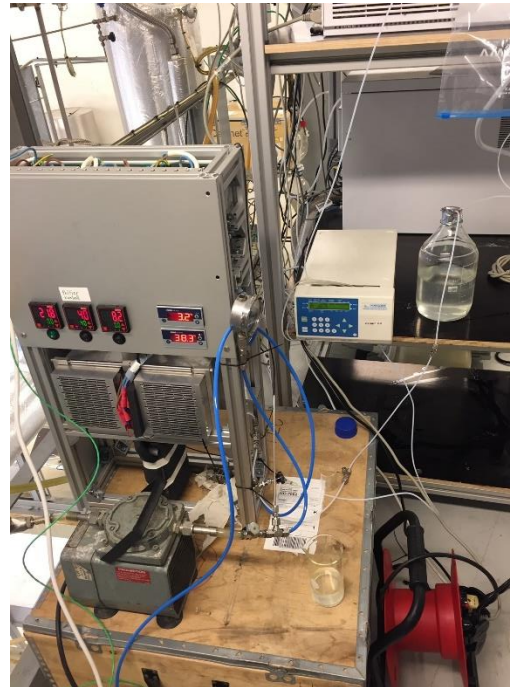
- Climit-demo funded project Inspire
- ICS and ?? as partners
- SINTEF patented solvent in combination with novel RFC contactor

Emission measurements

Recent SINTEF demonstration of novel instrumentation for online monitoring of emissions to air and process liquids at Tiller

**TILLER CO2LAB
BREAKING NEWS**

- Successful demo of SINTEF prototype for online measurements of amines, degradation products and nitrosamines.
- Monitoring of solvent, water wash and emissions to air.
- Based on SINTEF patent.
- Simplifies emission monitoring activities at Tiller (replaces manual iso-kinetic measurements).
- SINTEF looking for partners for continued work involving the technology.



ACEMS: Absorber Continuos Emission Monitoring System



Technology for a better society