FLANDERS MAKE

Test novel cooling/sealing & lubrication concepts in powertrains and components

NEW COOLING & LUBRICATION CONCEPTS

TECHNICAL SPECIFICATIONS

With this infrastructure we can test and evaluate several novel cooling/sealing and lubrication concepts in powertrains. Furthermore, we offer flexible oil and water & glycol circuits which can be used to test and evaluate several novel cooling and lubrication architectures for your powertrains or components (motor(s), gearbox, inverter, etc.).

Scope

- Feasibility studies, prototyping & HiL validation testing of novel thermal and lubrication systems and architectures (battery, inverter, motor & gearbox) Can be coupled with validated SimScape library for feasibility studies

Specifications

- Temperature conditioning via cooling (2x60kW) & heating power (2x16kW)
- Several thermal/lubrication architectural liquid circuit choices (parallel/serial)
- Several fluid circuits (Oil & Water&Glycol circuits)
- Several circuit measurements (temperature; flow rate; pressure; density; air bubble detection)
- Rapid prototype platform for temperature conditioning; thermal load emulation & active cooling & lubrication control strategies (Simulink; Speedgoat)
- 24/7 test capability

Compatible equipment

- Multi-load modular drivetrain setup for emulating powertrain loads
- Validated custom SimScape library (HYPERTHERM) for the validation of thermal concepts & architectures
- New 24/7 Hardware-in-the-loop high power drivetrain setup up to 540kW / 1.5kV
- Climate Chambers

For more information, please contact
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