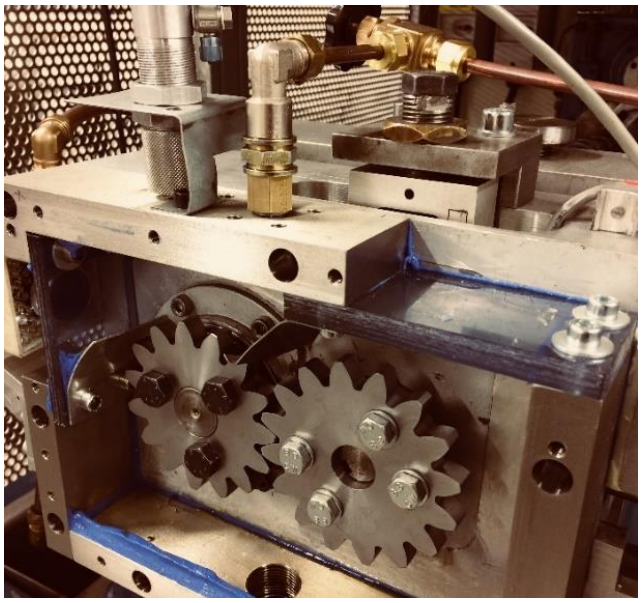
GHENT UNIVERSITY

SOETE LABORATORY

# Small scale tribotester type twin disk

**Modified FZG**: The FZG apparatus can perform two tribotest configurations: Pin-on-ring and Ring-on-ring. The pin-on-ring configuration uses a stationary pin that is pushed with a constant load against a rotating disk. The loading of the pin is perpendicular to the axis of rotation. The ring-on-ring configuration uses two discs rotating against each other on their outer surfaces. The discs rotate at different sliding speeds to produce relative sliding slip at their interface. Wear (displacement), friction force, friction torque and rotational speed are measured during tests.



## TEST RIG CHARACTERISTICS

| Property | Modified FZG |
|---|---|
| **Geometry**<br>Pin-on-ring<br>Ring-on-ring (twin-disc)<br>Gear-on-gear | <br>✓<br>✓<br>✓ |
| Torque | Max. 100 N/m |
| Rotational speed | Max. 1200 rpm |
| Slip velocity | Pin-on-disk max 7.5 m/s<br>Disk-on-disk max 2.5 m/s |
| Load | 20N to 750N |
| Oil temperature | Max. 100 °C |
| Wear | Max. 2.5 mm |
| Specimens pin-on-disk | Min. Ø 70 mm, max. Ø 120 mm<br>Thickness: 22 mm |
| Specimens disk-on-disk | Min. Ø 65 mm, max. Ø 96 mm<br>Thickness: 22 mm |



Soete Laboratory
Technologiepark 903
9052 Zwijnaarde – België

services.soete@ugent.be
www.ugent.be/soete
+32 9 331 04 73