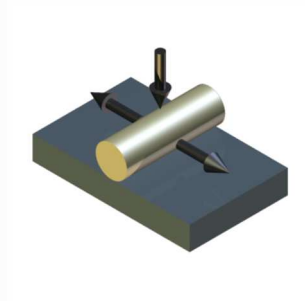
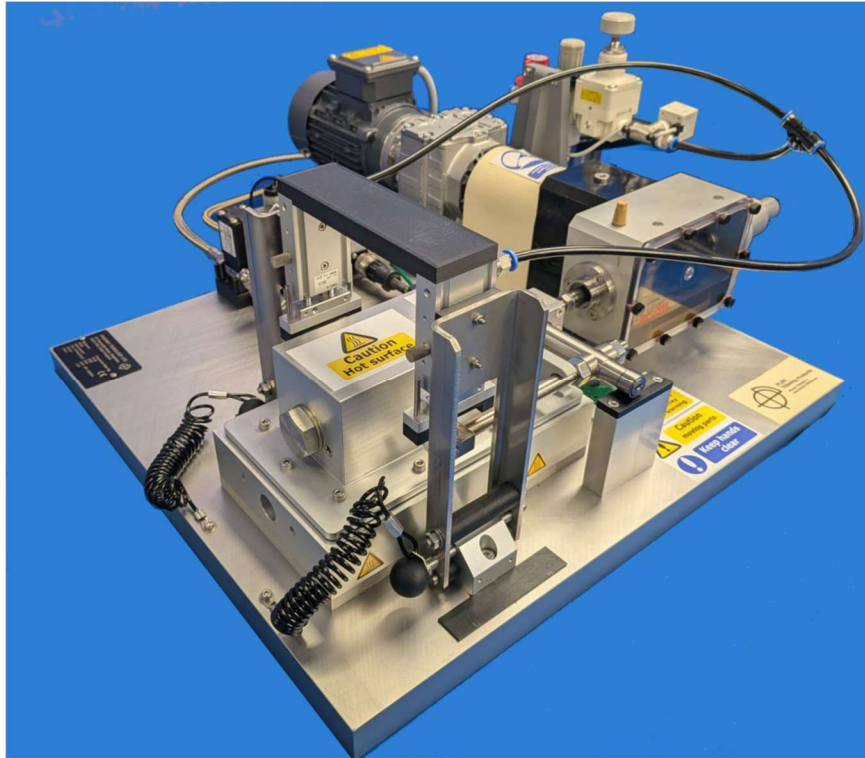
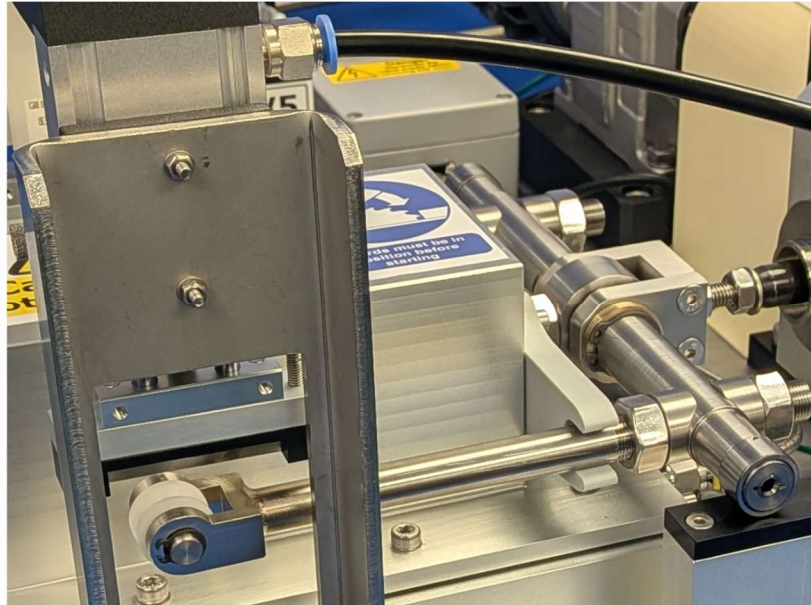


TE 50 PRESSURISED WEAR RIG

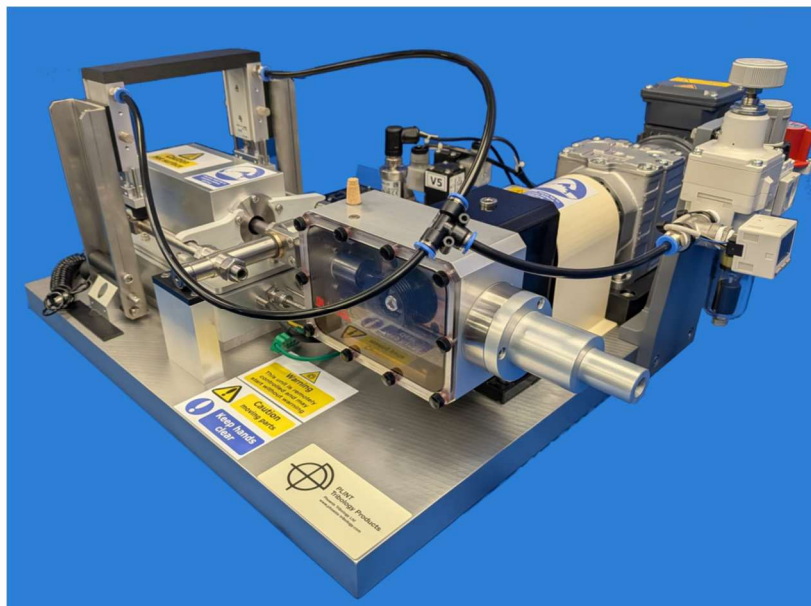


Description

The TE 50 is a sealed and pressurised reciprocating wear generator. The standard test configuration is line contact with a 6 mm diameter cylinder in contact with a flat surface. A pressurised chamber fits over the moving specimen, rated to 3 bar, under either liquid or gas pressure. The base of the test assembly includes locations for cartridge heaters and an optional refrigerant probe.



The moving specimen carrier is an arm that projects into the chamber through a stainless-steel bellows and a sliding seal. The arm is connected via a bearing to a pivoted shaft, with outriggers and support bearings at either end. A pneumatic cylinder at the end of each outrigger is used to generate a moment of the pivoted shaft, which is reacted by the force between the moving specimen and the counter-surface. The stainless-steel bellows provides the necessary freedom of movement to allow effective transmission of load.



Reciprocating motion is generated using a scotch yoke drive from a standard TE 77 machine, driven by a gear-motor.



For access to the specimens, the pneumatic cylinders are folded to the side and the chamber fixing screws removed. The moving specimen arm and the chamber lid are then rotated together, out of contact with the chamber base.

Technical Specifications

Contact Configurations:	Cylinder on Plate (Line Contact)
Maximum Pressure:	3 bar
Load Range:	15 to 150 N
Temperature Range:	Ambient to 150°C
Heating Power:	400 W
Temperature Sensor:	K-type thermocouple
Frequency Range:	0.5 to 5
Stroke Range:	0 - 25 mm
Maximum Stroke:	25 mm
Interface:	Touch Screen PLC
Motor:	0.18 kW with inline gearbox
Plate Specimen:	72 x 23 x 3
Line Contact:	6 mm dia. X 16 mm length

PLC Controlled Parameters

Frequency
Temperature
Test Duration

Manually Controlled Parameters

Load

Measured Parameters

Load
Temperature
Frequency
Number of Cycles

Services

Electricity:	220/240 V, single phase, 50/60 Hz, 1.5 kW
Air:	Clean Dry air, min. 5 BAR/ 0.5 MPa

Installation

Benchtop machine:	700 mm x 550 mm x 250 mm high, 50 kg
Packing Specifications:	1000 x 700 x 500, 80 kg