

T-05 BLOCK-ON RING TRIBOTESTER

TECHNICAL CHARACTERISTIC

T-05 Block-on Ring Tribotester is intended for determining wear preventive properties of solid film lubricants, lubricating fluids, greases, as well as engineering materials used for sliding joints. Experiments can be carried out in accordance with the ASTM D 2981, ASTM D 3704, ASTM G 77 and ASTM D 2714 standards. The tribosystem consists of the stationary specimen (block), made of the tested material, pressed at the required load against the ring rotating at the defined speed in one direction or oscillating (reversibly) at the defined frequency and amplitude. Two test configurations can be used - either with non-conformal (line) or conformal contact. The friction couple is inserted in the reservoir equipped with the heater which enables to raise the temperature of the tested lubricating fluid before the run. The temperature of the test block can be measured using the thermocouple inserted in the special hole of the block.

T-05 Block-on Ring Tribotester is equipped with a control-measuring system which consists of:

- ▶ a set of measuring transducers,
- ▶ controller,
- ▶ digital measuring amplifier,
- ▶ PC and special software for measurements and data acquisition.

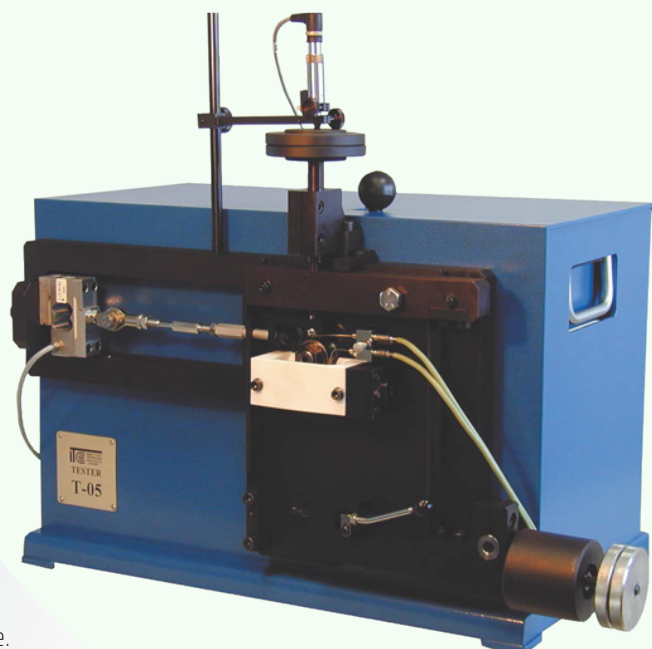
During the research the following quantities are measured:

- ▶ friction force,
- ▶ total linear wear of test specimens,
- ▶ test block temperature,
- ▶ oil temperature in the reservoir,
- ▶ rotational speed,
- ▶ time or number of ring revolutions (sliding distance).

The measured values are displayed on the monitor screen and saved on the computer disk after the completed run. The motor of the tribotester is automatically stopped when the preset sliding distance (number of ring revolutions) is reached. After test completion one can print a report presenting curves of changes in the particular quantities versus time.

TECHNICAL SPECIFICATIONS

▶ type of movement	sliding or oscillating
▶ contact geometry	non-conformal (line) or conformal
▶ nominal outer ring diameter	35 mm
▶ nominal block width	6.35 mm
▶ sliding velocity	up to 1 m/s
▶ oscillating frequency	up to 8 Hz
▶ oscillating angle	up to 90°
▶ normal load	up to 3150 N
▶ lubricating fluid temp.	up to 150°C
▶ tribotester dimensions(W x H x D)	700 x 500 x 350 mm
▶ tribotester weight	110 kg
▶ power supply	230 V / 50 Hz
▶ max. power consumption	1.7 kVA



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