

T-15 ELEVATED TEMPERATURE RING-ON-DISK TESTING MACHINE FOR TRIBOTESTING OF ENGINEERING MATERIALS AND LUBRICANTS

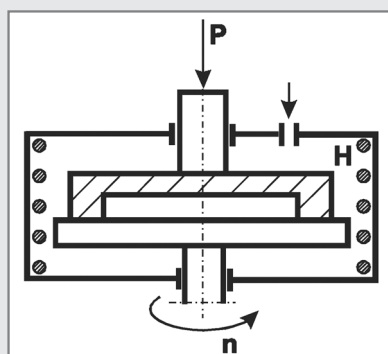


MAIN CHARACTERISTICS

T-15 Elevated Temperature Testing Machine is intended for determining the tribological properties of engineering materials used for sliding joints and lubricants. It is especially suitable for the evaluation of materials used for axial seals and metal-polymer friction pairs.

T-15 Machine makes it possible to determine the wear resistance and friction coefficient for a pair of materials, depending on the temperature in the test chamber, presence and kind of a lubricant, sliding velocity, applied load, kind of a gas in the test chamber, and other factors.

Experiments can be conducted in accordance with the Russian Standard **GOST 23.210-80**.



The tribosystem consists of the stationary ring pressed at the required load P against the disk rotating at the defined speed n . The friction couple is inserted in the insulated test chamber equipped with the heater H , which enables increasing the temperature and keeping it constant. It is possible to control the atmosphere by introducing a gas into the test chamber.

T-15 Testing Machine is equipped with a control-measuring system that consists of the following:

- A set of measuring transducers,
- Controller,
- Digital measuring amplifier, and
- PC and special software for measurements and data acquisition.

During the tests, the following quantities are measured:

- Friction force,
- The total linear wear of test specimens,
- Chamber temperature,
- Rotational speed, and
- Time and the number of disk revolutions (sliding distance).

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

TECHNICAL SPECIFICATIONS

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| • Type of movement | sliding |
| • Contact geometry | conformal |
| • Nominal outer ring diameter | 31.75 mm |
| • Nominal disk diameter | 36 mm |
| • Sliding velocity | up to 4 m/s |
| • Normal load | up to 200 N |
| • Test chamber temperature | up to 300°C |
| • Tribotester dimensions (W x H x D) | 670 x 630 x 290 mm |
| • Tribotester weight | 53 kg |
| • Power supply | 230 V / 50 Hz (optionally 110 V / 60 Hz) |
| • Max. power consumption | 1.7 kW |

