T-01M PIN-ON-DISK TRIBOTESTER

TECHNICAL CHARACTERISTIC

Tribotester T-01M with pin-on-disk (or ball-on-disk) friction contact is intended for determination of tribological properties of engineering materials used for sliding joints of machines. Tribotester makes it possible to determine the wear resistance and friction coefficient for a pair of materials sliding against each other, depending on sliding velocity and applied load. Experiments can be carried out in accordance with the ASTM G 99 and DIN 50324 standards.

The tribosystem consists of the stationary pin (ball) pressed at the required load against the disk rotating at the defined speed.

Tribotester T-01M 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 tests the following quantities are measured:

- friction force,
- total linear wear of test specimens,
- ambient temperature of test specimens,
- rotational speed,
- time and number of disk revolutions (sliding distance).

During the run 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 sliding distance (number of disk 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
contact geometry	conformal: pin-on-disk, or non-conformal: ball-on-disk
nominal pin diameter	3 mm
nominal ball diameter	10 mm
nominal disk diameter	42 mm
sliding velocity	up to 1 m/s
normal load	up to 100 N (equipment for higher loads is optionally available)
wear track radius	up to 18 mm
tribotester dimensions (W x H x D)	450 x 750 x 300 mm
tribotester weight	47 kg
power supply	230 V / 50 Hz
max. power consumption	0.7 kVA

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