

INSTITUTE FOR SUSTAINABLE TECHNOLOGIES NATIONAL RESEARCH INSTITUTE – RADOM

PW-004 Multi-Year Programme -

DEVELOPMENT OF INNOVATIVE SYSTEMS OF MANUFACTURING AND MAINTENANCE 2004–2008



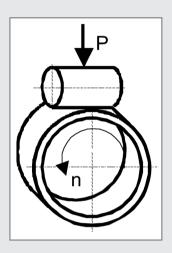
T-13 CROSSED-CYLINDER WEAR TESTER FOR EVALUATION OF LUBRICANTS BY BRUGGER TEST



MAIN CHARACTERISTICS

T-13 Wear Tester is intended for determining wear preventive properties of lubricants. The tested lubricants can be ranked with respect to their load-carrying capacity expressed by the Brugger pressure. The advantage of the test is a very short-run duration (30 s) and the low cost of the Tester. So. it can be used for the purposes of, for example, a quick demonstration of the effectiveness of lubricants.

Experiments can be carried out in accordance with the **DIN 51347** standard.





EN ISO 9001

RWTUV

The tribosystem consists of 2 cylinders crossed at the angle of 90°. The stationary, top cylinder is pressed at the required load P against the bottom cylinder (ring) rotating at the defined speed n.

After the test, the Brugger pressure is calculated on the basis of the applied load and area of the wear scar produced on the top cylinder.

T-13 Wear Tester is equipped with the controller automatically shutting off the motor of the tribotester when the preset run duration elapses or when the preset sliding distance (number of ring revolutions) is reached. Optionally, the tribotester may be equipped with a motor speed controller to continuously change the rotating speed.

TECHNICAL SPECIFICATIONS

sliding

Type of movement

 Contact geometry non-conformal (point)

• Nominal top cylinder diameter 18 mm

• Nominal outer ring diameter 25 mm

 Rotating speed 960 rpm (sliding velocity 1.3 m/s)

Normal load

400 N (possible to be continuously changed up to 650 N) Run duration

Tribotester dimensions (WxHxD) 350 x 250 x 450 mm

Tribotester weight

 Power supply 380 V / 50 Hz (optionally 230 V / 50 Hz)

Max. power consumption 0.6 kW