

T-18 TAPPING TORQUE TESTER

FOR EVALUATION
OF CUTTING FLUIDS



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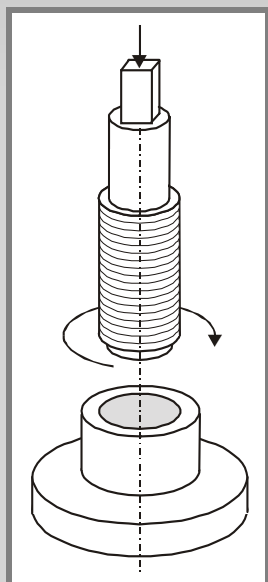
CHARACTERISTIC OF T-18 TESTER

T-18 Tapping Torque Tester is intended for tribological comparison of cutting fluids. The torque required to tap a thread in a blank specimen nut lubricated with a tested cutting fluid is measured and related to the torque required to tap a thread in a blank specimen nut lubricated with a reference fluid.

By using T-18 Tester it is also possible to compare an effect of thin hard coatings, deposited on cutting taps, on the tapping torque.

Additional, optional equipment makes it possible to determine the friction coefficient of screw joints.

Testing can be carried out according to **ASTM D 5619**.



The tribosystem consists of the cutting tap and the blank specimen nut made of the material for which the tested cutting fluid is intended. Prior to the run the tested cutting fluid is poured into the hole in the specimen nut, so that dip lubrication of the tap takes place.

T-18 Tapping Torque Tester is equipped with a measuring system which consists of:

- precise tapping torque transducer,
- digital measuring amplifier,
- PC and special software for measurements and data acquisition,
- motor speed controller (option).

During the test the tapping torque value is measured, displayed on the monitor screen and saved on the computer disk. After test completion one can print a report presenting the curve of changes in the tapping torque versus time.

The cutting tap is mounted in a special threading head, which protects it from overloading and enables the operator - through a fast reversion of rotational direction - to easily remove the tap from the threaded specimen nut. Optionally, the tribotester may be equipped with a motor speed controller to continuously change the rotating speed. By mounting additional, optional equipment, determination of the friction coefficient of screw joints is also possible.

TECHNICAL SPECIFICATIONS

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|--------------------------------------|---|
| – tribosystem | cutting tap - nut blank |
| – nominal cutting tap size | M10 x 1.5 |
| – nut blank material | dependent on application of a tested cutting fluid |
| – cutting speed | dependent on nut blank material, changed in the range between 240 and 4000 rpm (optionally this range may be increased) |
| – tribotester dimensions (W x H x D) | 250 x 1050 x 650 mm |
| – tribotester weight | 90 kg |
| – power supply | 380 V / 50 Hz (optionally 230 V / 50 Hz) |
| – max. power consumption | 0.8 kW |

