

Tauro[®] Tribometer

Tribological Test System

Tribological test system to Detect Friction and Wear Values

Especially developed for the cold lubricants industry in collaboration with the Department Industrial Lubricants of Daimler AG.

Quality evaluation of cold lubricants by measurement of torque during a thread tapping process

Efficiency of coolants, lube oils, and also thread cutting tools is easily and reliably determined with the **Tauro[®] Tribometer**. Due to the practical application in cutting and forming thread machining, reproducible friction values can be recorded and evaluated. Multiple test series are visually compared directly beside each other, and statistical values calculated and graphically displayed to show even the smallest differences.



MEASURE • COMPARE • ANALYZE • EVALUATE

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Tribological Test System

Survey of Test-System Components:

Thread tapping machine T120

- Torque calibration with +/-1% accuracy of full scale with rotating spindle
- Cutting and forming thread machining
- Operation with torque control
- AC servo motor
- Thread range M2 - M12
- Torque range 0.3 - 10 Nm
- Speed range 50 - 2400 U/min
- Thread depth 80 mm
- Automatic feed

XY-Table

- Reproducible test series
- Movement range: X 300 mm / Y 250 mm
- Reference switch and limit switch
- Table surface with T-grooves
- AC servo motor
- Backlash-free spindle with ball bearings
- Positioning accuracy of 0.01 mm

Software **Tauro[®] Link**

- Recording of forward and reverse
- Tool management
- Test board management
- Control of the XY-table
- Automatic execution of test series
- Collection of operation parameters
- Display of measurements as torque/depth charts
- Statistical evaluation - standard deviation, maximum, mean
- Export of measurements in CSV format
- Mean curve creation of test series

Cleaning station

- Tool cleaning with brushes, detergents and circular discharge unit
- Automatic cleaning process
- Removal of chips and abrasion

Lubricant station

- Automatic dipping process
- Lubricant position selectable

Your Advantages in a Snapshot:

Practical test conditions by varying the processing parameters:

Cooling lubricant, tool geometry, type of machining (cutting or forming), material, cutting speed, depth and torque.

In contrast to conventional test systems, **Tauro[®] Tribometer** offers the following advantages:

- Calibration of torque with rotating spindle
- AC servo motor for smooth and steady movements
- Reproducible measurement results thanks to automatic test run
- **Tauro[®] Link** as multi user license for every test system
- Automatic XY-table with cleaning and coolant station
- Tool and test board management
- Maintenance free system
- Immediate test start after reference run
- Up to 1000 measurement points
- Data transmission via Ethernet 100 Mbit/s
- Creation of a mean curve of test series
- Export available in CSV format

Arrange a non-binding consultation or demonstration appointment with us.

Test our **Tauro[®] Tribometer** and let the results convince you!

Discover the Difference!

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