



# MTE - EXTREME PRESURE / LUBRICITY TESTER

## DESCRIPTION

The combination MTE EP (extreme pressure) and Lubricity Tester is a high quality instrument designed to permit the testing and evaluation of various types and qualities of drilling muds and lubricating additives by simulating the rotational speed of the drill pipe and and pressure it exerts against the borehole.

## INSTRUMENT SPECIFICATION

Dimensions:	123/4"Hx173/4"Wx13"D
Weight:	56 pounds
Power Requirement:	10 amperes @ 115 volts AC and 50/60 Hz. (For 230- volt operation, use 230-volt stepdown transformer with 5-ampere rating).

EP and Lubricity Test rings and blocks are also available.

## TESTS PERFORMED

### Lubricity (Surface-to-Surface Drag Test)

In this test, the fluid resistance of various lubricating additives can be readily measured. For the standard lubricity coefficient test, 150 in-pounds of force (the equivalent of 5,000 to 10,000 psi pressure on the intermediate fluid) is applied between two hardened steel surfaces, a block and a rotating ring, at 60 RPM. The wear rates of mechanical parts can be predicted by making either the block or both the block and ring of the same material as that of the part and running in the fluid expected to be used.

### EP (Extreme Pressure Lubricity/Film Strength Test)

This test is usually run at a higher shear rate (1,000 RPM) with fluid pressures ranging from 5,000 to 100,000 psi between surfaces. By applying a measured force to a torque-sensitive bearing cup with the torque arm, this operation produces an indication of the film strength of the fluid being tested.