

## FBT-3-p

# Four Ball Tester

The four-ball test is a fast, repeatable and an accurate way to test lubricants for their wear preventive, extreme pressure and frictional properties. With high levels of automation, the FBT-3-p makes this test easy to run. Its simple interface hides powerful features and technologies.

A patented friction measurement system, automated scar prediction system and other features make four-ball testing more accurate and convenient than ever.

### Features

- Robust, tabletop instrument
- Touch Screen Interface & Data Acquisition
- State of art patented friction force
- Digital Image Acquisition system
- Automatic scar prediction
- Extreme Pressure (EP) Tests
- Wear Preventive (WP) Tests
- Coefficient of Friction (COF) Tests
- Add-on modules for shear stability (KRL SST) and high temperature (HT)
- Automated loading with programmable profiles
- Preset international test standards
- Custom test program mode
- Proven compliance with test standards



### Standards

- ASTM D2266
- ASTM D2596
- ASTM D2783
- ASTM D4172
- ASTM D5183
- DIN 51350-2
- DIN 51350-3
- DIN 51350-4
- DIN 51350-5
- IP 239
- ISO 20623

with KRL SST-p Module

- CEC L-45-99
- DIN 51350-6

# FBT-3-p

## Technical Specifications



- Speed: 100 to 3000 rpm
- Load: 50 to 10,000 N
- Friction Force: 0 to 200 N
- Friction Torque: 0 to 16 Nm
- Temperature: Up to 90 deg C (200 deg C optional)
- Shearing: KRL taper roller bearing module (add-on)

### Options

- Image Acquisition system: IAS houses the entire ball pot and consists of an integrated camera, optics, lighting and software. With the IAS, the ball pot can be directly placed (without removing the balls) for wear scar examination. This makes scar detection very convenient.
- Metallurgical microscope
- KRL Shear Stability Test Module (CEC L-45-A-99, DIN 51350-6)
- High Temperature Test (ambient to 200 °C)



### Power

- 230V, Single phase, 50/60 Hz 

### Weight & Dimensions

FBT-3-p:

- Net Dimensions: 410 x 610 x 790 mm
- Net Weight: 75 Kg

IAS:

- Net Dimensions: 180 x 100 x 370 mm
- Net Weight: 9 kg

*Continuing R&D may result in specifications, appearance changes*