



Wet Friction Test Stand

Model 3050 (Refurbished Equipment)

The LINK Model 3050 SAE No. 2 Test Stand has been replaced by the new Model 3100; however several Model 3050 machines have been refurbished and are available as a cost effective alternative to a new machine.

The Model 3050 is an inertia dynamometer in which the kinetic energy of a rotating mass is dissipated by the clutch or band being tested. Inertia discs mounted to the rear motor drive shaft provide up to 1.01 kg-m² system inertia at 3600 rpm. Torque is measured with a load cell mounted on a torque arm attached to the test head. Clutch pack apply force is generated by pneumatic pressure with a standard SAE piston in the test head. Test fluid is supplied to the test head with either fixed fill or a recirculating hydraulic system capable of 3.0 lpm flow rates. Fluid temperature is controlled with head and tank heaters as well as water jackets in the head for cooling.

The Model 3050 is designed with a 22 kw variable speed, 3600/6000 rpm, AC main drive motor. The static drive motor and gear box are coupled to the main drive and are used for static breakaway friction testing. The test head is mounted to the main drive motor with a precision machined shaft adapter supported by back-to-back precision angular contact bearings to maintain accurate alignment and reduce high speed vibration.

The Model 3050 system controls are designed to provide flexible test programmability, which enables close correlation with existing R & D and standard SAE test protocols. Advanced features of ProLink[®] controls offer operator dependent or fully



Machine Capabilities

- Friction material & ATF friction characterization
- Friction Material Durability Testing
- Automatic transmission clutches
- Automatic transmission bands

automatic unattended operation. All primary operating machine functions are performed at the console, including selection of test parameters, control modes, display of pertinent data, and monitoring of all test functions.

For more information on the Model 3050 contact LINK at 734-453-0800 or sales@linkeng.com.

Disclaimer:

Information presented in this brochure is for informational purposes only. Link Engineering Company reserves the right to make changes, alterations and substitutions to the machines, components or other information presented in this brochure without prior notice. For the latest information contact Link Engineering Company.

Equipment pictured in this brochure may be shown with safety equipment removed or disabled for purposes of illustration. Equipment must never be operated with safety equipment removed or disabled. 290218

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Link Engineering Company

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Typical Specifications

Test Head	
Maximum Friction Plate Diameter	241 mm (9.50")
Maximum Pack Thickness	22 mm (0.88")
Inertia	
Maximum	1.01 kg-m ² (0.75 slug-ft ²) @ 3600 rpm
Minimum	0.142 kg-m ² (0.105 slug-ft ²)
Main Drive Motor	
Power	22 kw (30 hp)
Speed	3600 / 6000 rpm
Static Drive	
Power	18.6 kw (25 hp)
Speed Range	0-300 rpm
Torque	
Range	0-850 Nm (0-627 lb-ft)
Accuracy	±0.25% FS
Method	Load cell on torque arm
Test Fluid	
Temperature Range	30-150°C (86-302°F)
Capacity	19 L (5 gallons)
Flow Rate	0.1-3.0 lpm (0.03-0.8 gpm)
Air Servo/Pressure Control Mode	
Maximum Pressure	8.2 bar (120 psi)
Maximum Ramp Rate	100 bar/sec (1500 psi/sec)
Apply Piston Area	15110 mm ² (23.42 in ²)



Typical Data Output

- Static Breakaway Coefficient of Friction
- Endpoint Dynamic Coefficient of Friction
- Midpoint Dynamic Coefficient of Friction
- Fluid Temperature
- Clutch Interface Temperature
- Initial & Engagement Speeds
- Cumulative Wear
- Test Energy Level
- Torque
- Total Cycles

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