

AIRPORT RUNWAY SURFACE FRICTION TESTER TPMC-3

This trailer mounted Airport Runway Surface Friction Tester TPMC-3 is suitable for measuring the longitudinal force coefficient of asphalt pavement or cement concrete pavement. The test results can be used as the basis for completion acceptance or assessment of the pavement's anti-skid ability.

It consists of towing chassis, trailer frame, water tank, laptop and software, watering system, electrical control system, friction test wheel system with sensors, 12-15% slip rate guarantee system, alarm and safety warning system, etc.



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FEATURE

- ⊙ It can provide two speeds of 65 km/h and 96 km/h for friction test.
- ⊙ It can perform dry and wet friction test and can test continuously.
- ⊙ An industrial touch screen laptop is used, which can realize the communication function with PLC and store more than 20,000 runway and taxiway test data.
- ⊙ Data sampling points ≥ 3 points/m to ensure data accuracy.
- ⊙ It comes with a water tank with a capacity of 600L. Under the condition of a water film thickness of 1mm, it can test ≥ 7000 meters at a full load. The test distance is adjustable, and the measurement distance can be longer in the non-sprinkling state.
- ⊙ The measuring tire is special tire that comply with ICAO and FAA regulations. The tire is replaceable and the working pressure is 0.207MPa.
- ⊙ The watering device is composed of water pump, valve and regulating system. The water flow rate per minute is set by the control valve to achieve different water film thicknesses.
- ⊙ The software can save, analyze and print the measured data, and can export the coefficient value of each meter of the runway surface and display the test results of the round-trip runway.

SINCE 2006

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KEY PARTS



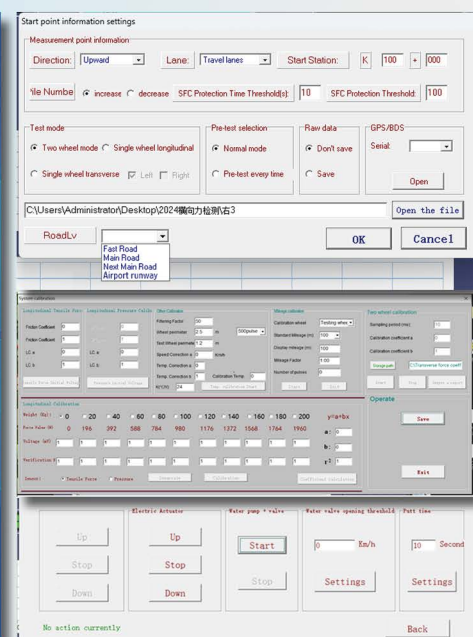
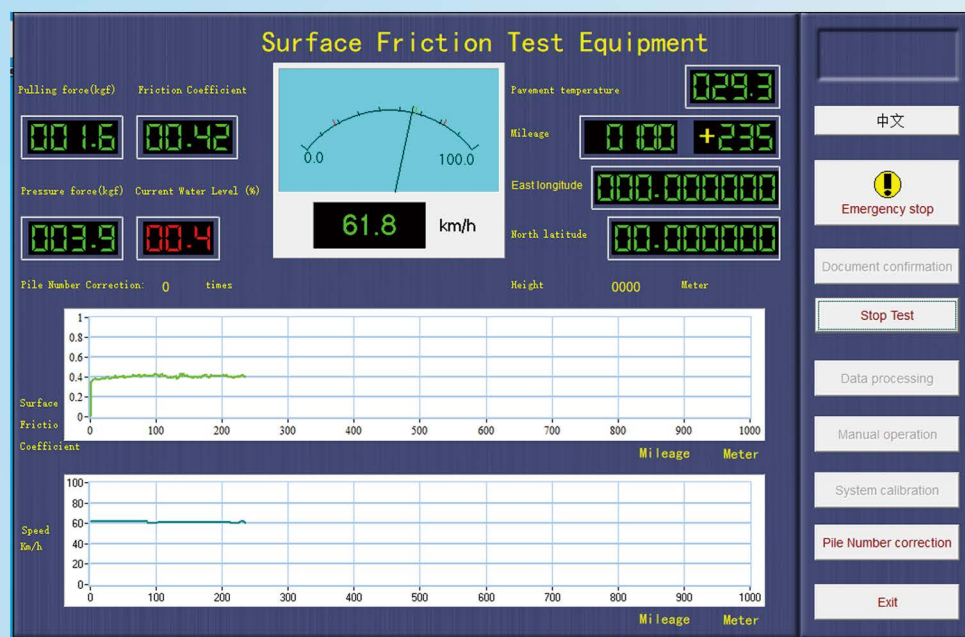
This longitudinal force, as a characteristic value representing the coefficient of friction of the road surface, is measured by a high-precision force sensor and input to the computer for processing. At the same time, the road mileage is measured by a high-resolution encoder.

Due to the speed difference between the test wheel and the road wheel, the test wheel generates a slip rate of 12-17%, which will generate a longitudinal force perpendicular to the driving direction.



SOFTWARE

The software matches the measurement results of the longitudinal force friction coefficient with the road pile number and gives the longitudinal force coefficient for each section (5 meters, 10 meters, 20 meters, 100 meters, 1 kilometer can be selected).



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TECHNICAL SPECIFICATIONS

Working temperature	-35~+60 °C
Maximum driving speed (full load)	130km/h
Minimum ground clearance	100mm
Curb weight	About 500kg
Total weight (full load)	About 560kg
Dimensions	3300×1600×1200mm
Relative error	≤2%
Repeatability error	≤±0.02
Micro texture test speed	96km/h
Macro texture test speed	65km/h
Minimum test speed	20km/h
Force sensor accuracy	≤0.02%
Water tank	Built-in 600L stainless steel water tank
Continuous test distance	≥7km
Measuring tire lifting	12V electric cylinder
Measuring tire pressure	0.207Mpa
Test slip rate	15%
Measuring tire	4.00-8"
Insulation to ground	≥1.5MΩ
Electronic calibration device	External electronic calibration device
Braking system	The chassis is equipped with an autonomous braking device to avoid insufficient braking or failure of the tractor due to the huge speed inertia during the test (relevant certification materials must be provided), which is safe.
	The chassis should be equipped with an emergency brake device for unhooking to prevent the risk of rollover and high-speed collision caused by accidental uncoupling of the test equipment during testing.

