

CONTINUOUS FRICTION MEASURING EQUIPMENT



A continuous friction measuring equipment assembly drags a wetted test wheel along the runway while a series of subsystems condition the surface, record the drag force, and translate it into a friction coefficient logged against distance. Together they turn a single spot check into a continuous profile of the whole runway.



Chassis material class

Corrosion-resistant trailer or vehicle-mounted chassis rated for sustained test-speed operation

Ingress protection approach

Sealed sensor and electronics housings rated for wetted-surface test conditions

Power options

Vehicle-supplied power for the onboard computer and water delivery pump, or self-contained trailer battery

Control compatibility

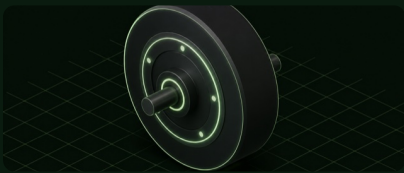
Onboard computer interfaces with GPS or odometer distance referencing for continuous profile logging

Mounting

Trailer-towed behind a vehicle, or fully vehicle-mounted as a dedicated test unit

Operating environment

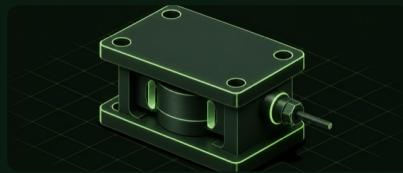
Runway surface at test speed, wetted-surface conditions simulated on demand



01

MEASURING WHEEL

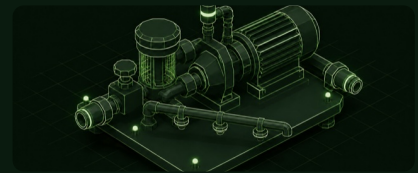
The test wheel, geared to the transport wheel so it runs at a fixed slip ratio against the wetted pavement, generating the drag force the whole system measures. Its tire specification and slip-ratio setting are what tie a reading to a recognized reference device.



02

FORCE SENSORS

Load cells mounted at the wheel assembly that capture the drag and vertical load forces in real time, the raw inputs the system converts into a friction coefficient. Sensor accuracy and calibration are what make a reading comparable across surveys.



03

WATER DELIVERY SYSTEM

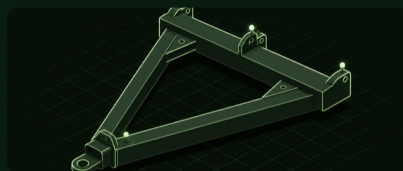
A nozzle array ahead of the measuring wheel that applies a controlled water film to simulate wet-runway conditions during the test run. Consistent water depth is what makes results repeatable across a survey and comparable against the reference device.



04

ONBOARD COMPUTER

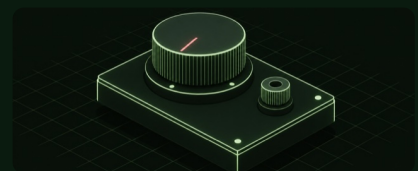
The data acquisition and processing unit that logs force sensor output continuously against GPS or odometer distance and renders it as a friction profile in the format the civil aviation authority requires. It is also where correlation factors against the accepted reference device are applied.



05

TOW FRAME

The structural chassis, either a towed trailer frame or the mounting subframe of a dedicated vehicle, that carries the wheel, sensors, and water system as a stable unit at test speed. Frame rigidity affects how cleanly the load cells isolate the true drag signal.



06

CALIBRATION KIT

The reference weights, verification surfaces, and check procedures used to confirm the sensor chain still reads accurately before a survey and to support correlation runs against the reference friction device. An out-of-calibration sensor chain is the first thing an authority challenges in a friction submission.