

GripTester MK2 - Airports



Features & Benefits

- Continuous Friction Measuring Equipment
- ICAO, UK CAA, EUSA, FAA compliant
- Designed for all seasons
- Computer controlled system
- Easy to use, robust, reliable
- Flexible deployment
- Automatic water delivery system
- Accurate data collection system
- Full maintenance & support service offered

Application

GripTester MK2 is the world's number one trailer-based continuous friction measuring device. The GripTester is a three-wheeled trailer with a weight of 85 kilos. It works on a principle of measuring the skid resistance of a surface using a measuring wheel that slips or skids compared to two drive wheels. The single measuring wheel is braked by 15% and the load and drag on this wheel are continuously measured. The friction coefficient (load/drag), known as the GripNumber, is transmitted to a data collection computer held in the cab of the towing vehicle.

Designed for all Seasons

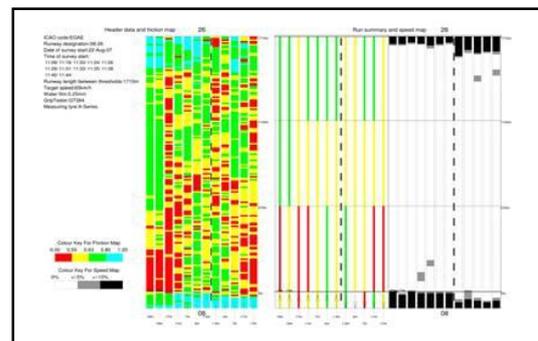
GripTester MK2 currently operates in all regions of the world; arctic, equatorial and temperate. The GripTester MK2's light towbar pull and low centre of gravity ensure safe, stable operation on winter and summer runways. The unique automatic water delivery system (AWS) provides a fully automated controlled delivery of water minimising water usage and safeguarding the accuracy of results.

Ease of Use

GripTester MK2's light weight, robust construction and reliable performance make it the most deployable runway friction tester in the world.

Airbase Software

The Airbase software is designed specifically for use on Airports. Designed by and with Airport Operations in mind, the software quickly and easily guides users through all classifications of surveys including maintenance, ICAO and CAP683. Airbase generates easy to read reports as well as giving real time data displays to the operator during surveys.



GripTester MK2 Accessories

Tanker Trailer

The Tanker Trailer offers users the ability to carry enough water for 20km of friction testing. It can be customised to suit individual user needs and contains all GripTester MK2 electronics, automatic watering system, winch and GripTester storage area. The main benefit is it is a combined, "plug and play" GripTester MK2 Airport solution



Runway Alignment System (RAS)

The Runway Alignment System (RAS) is a GPS based guidance system that makes runway friction surveys completely automated. The RAS guides users through each pre-set run using GPS to guide the driver to the start point and through each run in sequence. It also ensures driver accuracy by using visual and audio cues to keep the driver on a straight, consistent line. This improves the quality of the friction data generated as it ensures that every survey covers the same area, resulting in easier comparisons



Technical Specification

GripTester MK2

Overall Length:	1010mm (excluding removable towbar)
Overall Width:	790mm
Overall Height:	510mm
Weight:	85kg
Measuring Tyre:	10" diameter slick tread ASTM Specification 1844
Drive Tyre:	10" diameter patterned tread Tread KT3-W Compound K8-CIK

Helideck micro GripTester



Features & Benefits

- Continuous Friction Measuring Equipment
- UKCAA CAP 437 compliant
- Designed for all seasons
- Computer controlled system
- Easy to use, robust, reliable
- Flexible deployment
- Automatic water delivery system
- Tests entire deck, at resolution of 1m²
- Full maintenance & support service offered

Application

Helideck micro GripTester is the world's first purpose built continuous friction measuring device designed specifically for testing Helidecks and Helicopter Landing Zones. It has been purpose built to cope with harsh offshore environments and for transportation too hard to reach facilities. Using the same braked wheel system as GripTester MK2 it provides Helideck Operators with an accurate friction map to focus maintenance and remove the need for nets.

Ease of Use

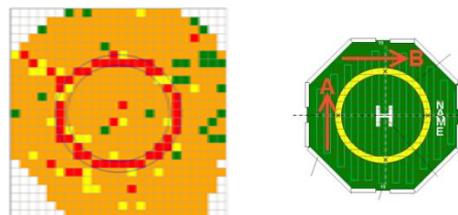
Helideck micro GripTester's light weight, robust construction and reliable performance make it the most deployable push friction tester in the world.

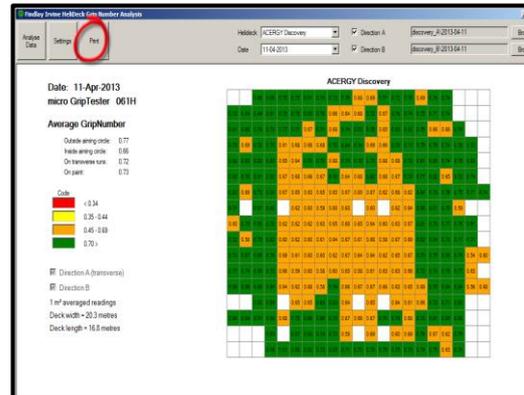
The inbuilt display unit simply guides users through the testing process and allows the whole of the Helideck surface to be covered to a resolution of not less than 1m². It measures the surface friction values across the helideck area, inside the touchdown/positioning marking and paint markings.

Software

The inbuilt software and touchscreen display are designed to help guide the user through the testing process. The data is stored on the display unit and easily transferred via USB in CSV and MDB formats.

The free analysis software allows Helideck Operators to easily view the data as it is converted to illustrate the friction levels in an easy to read colour coded system with the parameters as defined in UKCAA CAP 437. This makes it quick and easy to see friction deficient areas on the Helideck and program maintenance to rectify the exact individual area.





Technical Specification

GripTester MK2

- Overall Length:** 960mm
- Overall Width:** 510mm
- Overall Height:** 1020mm

- Transport Dimensions Case 1:** 260mm (h) x 960mm (l) x 270mm (w)
- Transport Dimensions Case 2:** 300mm (h) x 590mm (l) x 410mm (w)

- Weight:** 20kg (packs into 2 x 12kg carry cases)
- Measuring Tyre:** 10" diameter slick tread
 ASTM Specification 1844
- Drive Tyre:** 10" diameter patterned tread
 Tread KT3-W
 Compound K8-CIK



Findlay Irvine Ltd
 42 -44 Bog Road,
 Penicuik,
 EH26 9BU,
 Scotland, UK

T +44 1968 671 200
f +44 1968 671 237

e-mail sales@findlayirvine.com
web www.findlayirvine.com

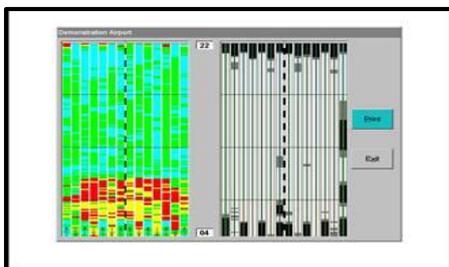
Findlay Irvine is a world leading expert in the measurement of skid resistance for airports having been manufacturing Continuous Friction Measuring Equipment (CFME) for over 20 years. Currently in use in over 550 airports worldwide, GripTester MK2 is the world's most versatile, robust and deployable continuous friction measuring device. Also now available is the micro GripTester for Helidecks.

With the ever reducing budgets available to airport operators, it is now more important than ever that savings are made wherever possible while still maintaining the highest safety standards. Efficient management of continued regular scheduled runway surface maintenance, to ensure consistent optimum performance levels without compromising safety, can be one area where such savings can be realised, and can extend the life of the surface.

From a maintenance perspective, the management of skid resistance is important to ensure that rubber build-up is kept to acceptable levels, as well as ensuring the quality of the overall surface. Regular skid resistance measurements allow rubber build-up to be monitored so that rubber removal is undertaken only when necessary. This in turn ensures that rubber removal costs are minimised therefore reducing the overall maintenance budget.

Unfortunately, skid resistance is variable due to a number of factors such as:

- Contamination
- Wear
- Seasonal variation





friction**info**

By employing a regular monitoring schedule, airport operators can better understand these variations and take them into account when trying to predict wear levels as well as the condition of the surface. Through regular testing, the data gathered can be analysed to better focus maintenance budgets, targeting individual areas for improvement, reducing costs and increasing the life of the runway.

The GripTester MK2 from Findlay Irvine is a fast deployable solution for continuous skid resistance measurement allowing easy regular testing and helping to provide the data needed for regular monitoring.

In addition, the recently developed runway alignment system developed for GripTester MK2 is an add on for existing equipment which helps to ensure that the same sections of the runway are measured each time offering better repeatability and increasing the accuracy of the data. When using the runway alignment system, all data is recorded using differential GPS to sub 1m accuracy. This provides a further level of confidence in the data as the operator can prove where each data measurement was taken helping to better focus maintenance regimes.

The GripTester MK2 also has the ability to survey turn-offs and taxiways which are not normally taken into account when measuring skid resistance levels. This is because most continuous measurement devices are either too bulky to measure around non-runway areas or, more importantly, cannot measure around bends reliably due to their testing methodology. However, GripTester MK2 is versatile enough to measure these areas, and can measure accurately round bends.

The GripTester MK2 is therefore the ideal tool for managing the whole airside pavement area, helping operators to implement a cost effective maintenance regime. Airport operators also have a duty of care (and possibly regulatory requirements) to ensure that non airside roads are maintained to an acceptable skid resistance level. The GripTester MK2, because of its ability to measure round bends, can be used for these areas – potentially saving on the employment of specialised survey teams.

For those areas where it is not practical to measure using the GripTester MK2, Findlay Irvine has launched the micro GripTester, a small pushable device, for quick investigations on pavement surfaces and for monitoring helidecks. This is the next in a long line of world leading Continuous Friction Measuring Equipment developed and manufactured by Findlay Irvine to help make transportation safer.