

FALLING WEIGHT DEFLECTOMETER

Pave[®]FWD
Pave[®]HWD
Pave[®]SHWD



FOR ALL YOUR PAVEMENT TESTING NEEDS



OVERVIEW

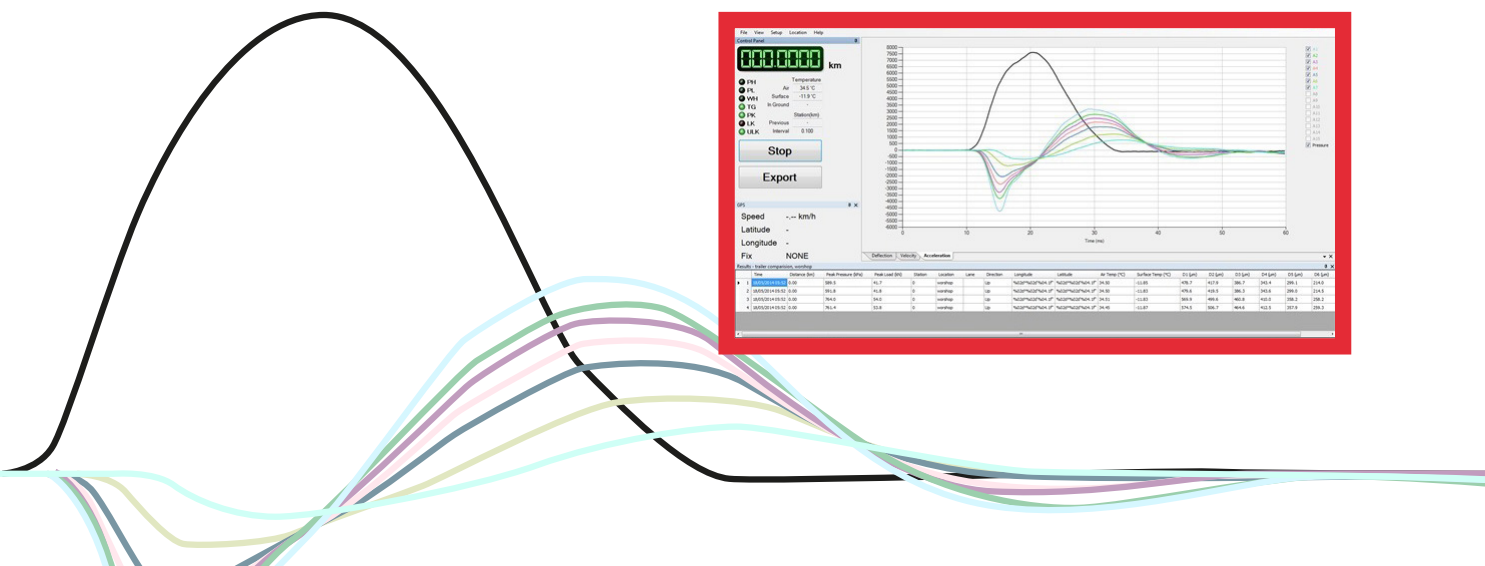
A Falling Weight Deflectometer (FWD) is used to measure the vertical deflection response of a surface to an impulse load.

Precision load measurement and deflection sensors record the pavement surface characteristic, which is used to calculate pavement properties such as

- Bearing Capacity
- Layer Thickness
- E Moduli
- Expected Surface Life

A Pave®FWD can also be used in determining the actual material used and in what combination to build the pavement surface. It also identifies voids underneath the surface or how two surfaces, typically concrete slabs, are in contact with each other.

PaveView is user-friendly with an automatic self-check of results – data is easily transferred to PC via the USB memory key or by a direct connection.



BENEFITS

A standard Pave®FWD system uses 7 deflection sensors that measure the load pulse over 60ms (0.06 of a second). The PaveTesting® Ltd Pave®FWD is capable of measuring up to 23 deflection sensors over 240ms (0.2 of a second), giving greater resolution and increased measuring capability.

A standard test takes less than 30 seconds to perform, starting from when the Pave®FWD is stationary and finishing when the load plate is raised in to the locked and secured position. This makes the PaveTesting® Ltd Pave®FWD the fastest deployable Pave®FWD available.

In addition to the basic configuration of the PaveTesting® Ltd Pave®FWD, all machines are fitted as standard with Ambient, Ground and Sub Ground (Asphalt) temperature sensors.

The Pave®FWD can also be fitted with the following optional features:

- Up to 3 Camera System, for monitoring the Load Plate and to assist with vehicle positioning.
- Ground Penetrating Radar system
- Global Positioning System.

APPLICATIONS



The Pave®FWD is used on highways, local roads, car parks and airport runways. Sensors are placed at preset distances from the load plate axis, measuring the deflection of the surface at high resolution.

Complies with ASTM D4694 "Standard Test Method for Deflections with a Falling Weight Type Impulse Load Devices".

A Deflectometer is used for the following applications :

- Pavement rehabilitation and overlay
- PCC joint sealing evaluation
- Pavement management systems
- Load transfer efficiency
- Void detection
- Spring load restrictions
- Utility cuts
- Experimental paving materials
- Project acceptance and evaluation

STANDARDS



- **D 4694 – 96**
(Re-approved 2003): Standard Test Method for Deflections with a Falling Weight-Type Impulse Load.
- **D 4695 – 03**
(Re-approved 2008): Standard Guide for General Pavement Deflection Measurements D 5858 – 96 (Re-approved 2008): Standard Guide for Calculating In Situ Equivalent Elastic Moduli of Pavement Materials Using Layered Elastic Theory.
- **D 7228 – 06a**
Standard Test Method for: Prediction of Asphalt-Bound Pavement Layer Temperatures.
- **E 1777 – 96**
(Re-approved 2002): Standard Guide for Prioritization of Data Needs for Pavement Management.
- **ASTM (for LWD): E2835-II** - Measuring Deflections using a Portable Impulse Plate Load Test Device



CREDENTIALS

PaveTesting® Limited has been at the forefront of developing new technologies for over 10 years. Based in the UK, we design and manufacture pavement testing equipment to meet the safety standard requirements of regulators and the commercial requirements of paved surface operators worldwide.

PAVETESTING® ACADEMY

The PaveTesting® Academy offers on-site, multi-language training, conducted by our team of highly qualified engineers and technicians.


Courses include practical training on how to use equipment and software as well as relevant local testing standards. We also offer service and maintenance training to ensure optimum performance and reliability.

PaveTesting® have a team of technically trained, skilled staff always on hand to offer aftersales service and support - as and when you need it.

Simply call 01462 681 699 today to find out more the range of training courses available.



 Surface Friction Tester
Pave®CFT

 Falling Weight Deflectometer
Pave®FWD
Pave®HWD
Pave®SHWD
Pave®LWD

 Surface Profilometer
Pave®Prof

 Accelerated Pavement Tester
Pave®MLS

 Pavement Imaging
Pave®CAM



CONTACT



Telephone:
+44(0) 1462 681 699

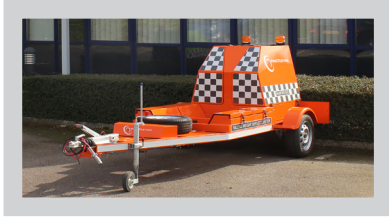
Email:
sales@pavetesting.com

Website:
www.pavetesting.com

Address:
PaveTesting® Ltd. Head Office
Unit 2, Icen Court
Letchworth Garden City
Hertfordshire, SG6 1TN
United Kingdom

Distributor:





Pave®FWD, Trailer Mounted, 7-150kN

A standard Falling Weight Deflectometer (Pave®FWD-TM) is a trailer mounted non-destructive testing device used to determine the stress/strain parameters of pavements and sub-grades.



Pave®FWD, Vehicle Mounted, 7-150kN

A Falling Weight Deflectometer (Pave®FWD-VM) is a vehicle mounted non-destructive testing device used to determine the stress/strain parameters of pavements and sub-grades.



Pave®HWD / Pave®SHWD, Heavy and Super Heavy Trailer Mounted, 7-250 + 7-350kN

A Heavy Falling Weight Deflectometer, Pave®HWD and the Super Heavy, Pave®SHWD are twin axle trailers used for non-destructive testing of stiff bound material as found on Airport Runways and truck car parks.



Pave®LWD, Light Weight, 7.07kN

The Pave®LWD Light Weight Falling Deflectometer provides a time and cost saving alternative to expensive static plate loading tests. It measures unbound material to quickly determine soil bearing capacity and compaction quality; and it enables the measurement of dynamic deformation modulus (Evd value) for soils, stone or other non cohesive material - information vital to the construction of buildings, railways and pavements.

