

# ACCELERATED PAVEMENT TESTER

Pave<sup>®</sup>MLS 66

Pave<sup>®</sup>MLS 30

Pave<sup>®</sup>MLS II



FOR ALL YOUR PAVEMENT TESTING NEEDS



## OVERVIEW

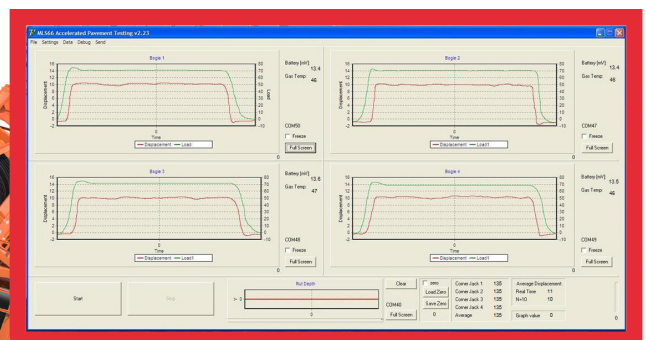
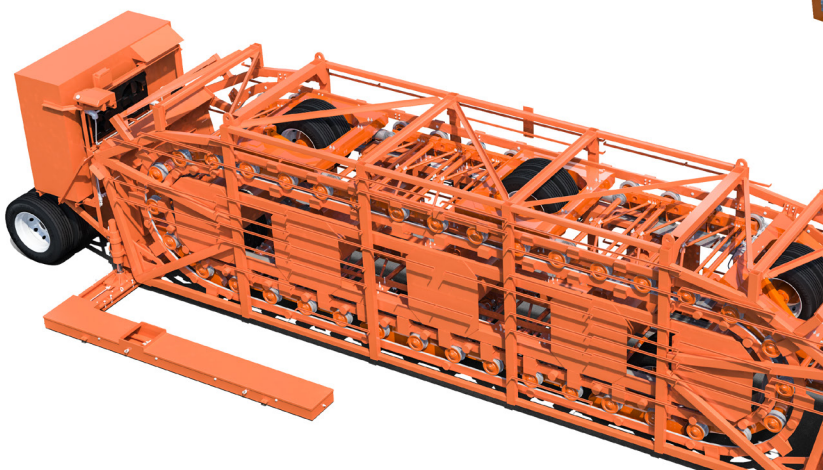
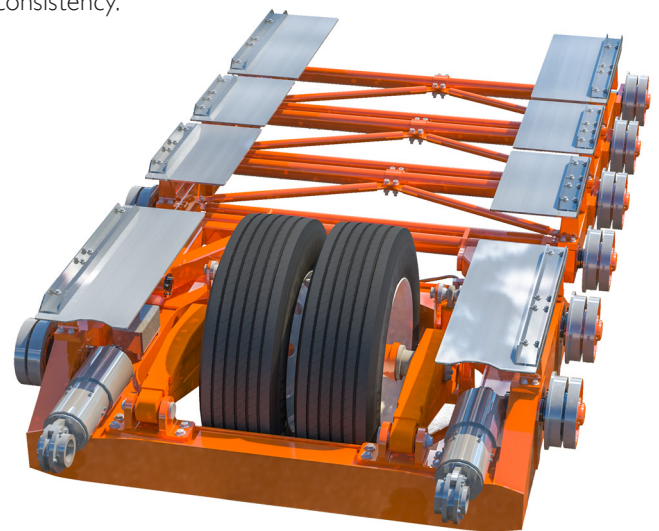
The Pave<sup>®</sup>MLS range of Accelerated Pavement Testing machines (APTs) is used to verify the quality of newly constructed roads and to determine the remaining life of existing roads or design of new pavements.

Pave<sup>®</sup>MLS equipment stimulates heavy traffic; up to 144,000 fifteen-ton truck axles per 24 hour day. The machines comprise a structural shell and guide rails carrying bogies with trafficking wheels linked by mechanical linkage.

Various parameters are recorded in real time to enable detailed analysis of the road's performance. These include the test wheel load, test wheel speed, vertical wheel movement, number of applied axles, lateral wander position and elapsed time.

The wheel load is recorded and plotted in graphical form.

The tyre pressure, temperature and the pressure of suspension are also monitored throughout the testing process to ensure optimum safety, reliability and consistency.



# BENEFITS

The key feature of the Pave<sup>®</sup>MLS range of machines is the very high number of axle loads that it applies in a given time. This allows more projects to be completed per year, leading to significant time and manpower cost savings for any given experiment.

With full scale units Pave<sup>®</sup>MLS 30 and Pave<sup>®</sup>MLS 66, the maximum load on each set of dual wheels is 7.5tons (75kN) at maximum speed. The bogies travel at up to a maximum speed of 6m/s (nominally 22kph), therefore 6,000 axle loads are being applied per hour, equivalent to 1 million axle loads per week. When speed is reduced, the maximum load can be increased. To simulate realistic road trafficking, lateral movement of the tyres can also be applied.

A Full scale MLS is driven by contactless linear induction motors, LIMs, requiring no gearbox thus no wear or fatigue of the drive system. This is unique in the world for this type of device.

The full-scale MLS also offers the following advantages:

- Designed to test the full depth of in-service pavements
- Narrow design
- Versatile and manoeuvrable
- Can be transported on a trailer

# APPLICATIONS

The Pave<sup>®</sup>MLS range is used on highways, local roads, car parks and airport runways. Measurements are taken to determine a wide range of performance factors including:

- Structural performance of specific pavement compositions using third scale pavement structures
- Rutting performance of asphalt under high temperature trafficking
- Rutting performance of asphalt under wet trafficking
- The impact of speed on performance of asphalt
- Fatigue of asphalt and other pavement materials
- Performance of surface treatment layers
- Pavement reinforcement and highway furniture such as bridge expansion joints and pavement surfaces
- Environmental impact

# STANDARDS



In November 2008 a method for evaluation of permanent deformation and susceptibility to moisture damage of bituminous road paving mixtures using the Model Mobile Load Simulator (MLS II) - test DPGI, was adopted by the South African Roads Pavement Forum (RPF). The aim was towards development of an International Standard Test.



## 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**

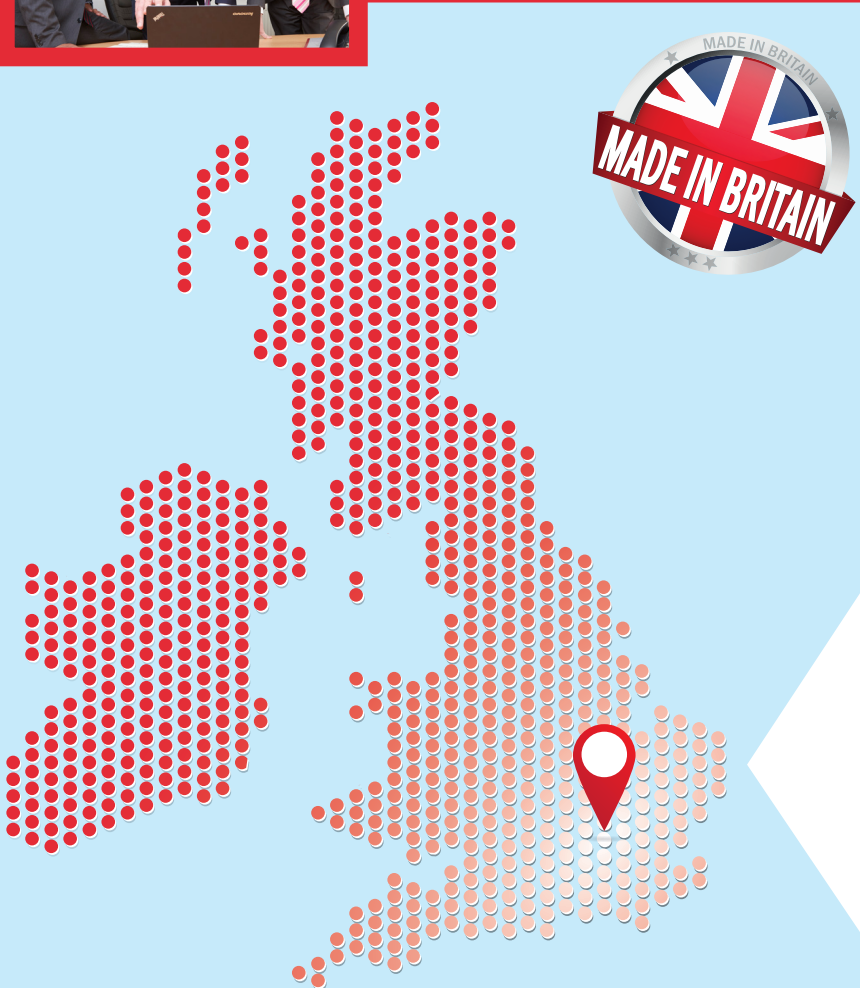
 Surface Profilometer  
**Pave®Prof**

 Accelerated Pavement Tester  
**Pave®MLS**

 Pavement Imaging  
**Pave®CAM**



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Distributor:



# PRODUCT RANGE



## Pave®MLS 30

The Pave®MLS 30 has a full load test section length of 3.3m. It contains four wheel bogies with 950mm diameter wheels and fits onto a standard low-bed trailer. Operating speed is 6000 wheel load applications per hour, equivalent to the operating speed of the Pave®MLS 66.



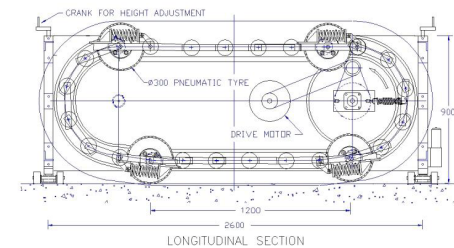
## Pave®MLS 66

The Pave®MLS 66 has a full load test section length of 6.9m. It contains six wheel bogies with 950mm diameter wheels and fits onto a standard low-bed trailer. Operating speed is 6000 wheel load applications per hour.



## Pave®MLS 11

The Pave®MLS 11 is a 1:3 scale Accelerated Pavement Testing machine, used to explore performance of asphalt pavements in the laboratory and in the field. The road is scaled but tyre pressures are at the same level as in full scale trucks. Results are therefore transferrable to real life trafficking. Operating speed is 7200 wheel loads per hour. Maximum wheel load is 2.7kN on the 300mm diameter tyre wheels.



# PAVETESTING RANGE



Pave®CFT



Pave®FWD



Pave®Prof