

Asphalt and Aggregate Testing

Asphalt is known by many names; hot mix asphalt, blacktop, tarmac, macadam, plant mix, asphalt concrete, or bituminous concrete. The word asphalt comes from the Greek "asphaltos", meaning "secure." The Romans changed the word to "asphaltus," and used the substance to seal their baths, reservoirs, and aqueducts. Durability, safety, and smoothness are all important factors affecting today's asphalt. All of these are taken into account when designing the asphalt mix and all of them can be tested at different stages, from design through to the finished product in-situ on the roadway or runway.

In this section you will find products to test asphalt at various stages. Many more are available on request. Please do not hesitate to contact VJ Tech with your requirements.

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Asphalt Binder Analyser

The Asphalt Binder Analyser (ABA) determines the asphalt binder content of hot mix asphalt/bituminous mixtures by the loss on ignition method. This method replaces the traditional solvent procedure, avoiding the health and environmental concerns and the related expense of chlorinated solvents.



The ABA consists of a combustion chamber and weighing system with software, which continuously monitors the rate of weight loss of a bituminous mixture during combustion and automatically calculates its binder content at the end of the test.

Features:

- Cost effective and space saving
- Quick results - 30 minute heat up time, average test times from 20 to 45 minutes
- Safer than solvent methods
- Sample size up to 45kg
- Precise measurement to 0.1g

The test:

Once the test has commenced, the door is automatically locked for the entire period of the test and the extraction fan is automatically started. Average test times range from 20 minutes for 6mm samples, to 45 minutes for a 40mm sample. During the test, the integral dot matrix display shows the asphalt sample weight to a display accuracy of 0.1g, the present weight loss (both in grams and as a %), the rate of change of sample weight and also the duration of the test. This unique display gives an immediate indication of the progress of the test. The binder content, percentage weight loss and calibration factor are measured to 0.01%.

At the end of the test, which is signalled by an audible alarm, the display changes to clearly show the binder content of the sample, the door is unlocked and the results are printed. A choice of printouts is available; either as a final end of test analysis or as a continuous print-out showing results every minute including a final end of test analysis. Additional print outs can be requested at the end of the test for permanent records of test documentation.

The final printed test results include the furnace set temperature, sample weight, final weight, weight loss in grams and percentage weight loss, calibration factor; test run time, the time and date.

ORDERING INFORMATION AND SPECIFICATIONS

VJT6600	Asphalt Binder Analyser complete with integral balance, two sets of sample trays, loading handle, cooling cage and printer paper
Power rating:	8kW for operation on 208/240 volts, 50/60Hz, 3ph or 1ph
Dimensions (L x W x H):	750 x 600 x 980mm (without chimney), Height with chimney 1160mm
Weight:	130kg total

Marshall Testing

V J Tech has developed two tried and proven systems for the Marshall test. We offer a lower cost manual one, and a data logging system, capable of taking up to 4 readings per second. Please refer to the Marshall Testing Equipment Lists on page 86.

TriPLEX Universal Load Frame

The TriPLEX is a low cost 50kN load frame specifically designed for the soil-testing laboratory. It is built to a very high standard and is extremely simple to use.



Features:

- Microprocessor based design
- Accurate stepper motor speed control
- Large LED display with adjustable brightness (VJT5011)
- Large keys for UP, DOWN, STOP, FAST UP and FAST DOWN controls
- Emergency stop button
- Fully adjustable speed range of 0 - 50.8mm/min (VJT5011)
- Fixed speed settings of 1.2, 1.27 and 50.8mm/min (VJT5012)
- Can be used for:
 - Triaxial testing (VJT5011)
 - CBR testing
 - Marshall testing

ORDERING INFORMATION

VJT5011-RS	TriPLEX Multitester with RS232 port
VJT5012	TriPLEX CBR (BS/ASTM) Marshall without RS232 port

VJT5011-RS/VJT5012 SPECIFICATIONS

Vertical Clearance:	1000mm
Horizontal Clearance :	380mm
Platen Travel:	100mm
Platen Diameter:	158mm
Power Supply:	110 - 240V AC
Dimensions (L x W x H):	430 x 480 x 1510mm
Weight:	100kg

Load Measurement

LOAD MEASUREMENT OPTIONS

VJT5564	30kN Load Ring with brake attachment for Marshall testing, with mechanical dial gauge 0 - 12mm x 0.002mm, works calibration certificate and case
VJTS0365	50kN S-Beam External Load Cell, stainless steel
VJTS0366	100kN S-Beam External Load Cell, stainless steel
VJT0288B	Adaptor set to use 50kN S-Beam load cell for Marshall test
VJT0281M	Adaptor set to use 100kN S-Beam load cell for Marshall test
VJTZ0364	5000lb (25kN) Z-Beam External Load Cell, alloy steel, calibrated in lbs
VJTZ0365	10000lb (50kN) Z-Beam External Load Cell, alloy steel, calibrated in lbs
VJTZ0366	20000lb (100kN) Z-Beam External Load Cell, alloy steel, calibrated in lbs
VJT0288D	Adaptor set to use 5000/10000lb Z-Beam load cells for Marshall test
VJT0288E	Adaptor set to use 20000lb Z-Beam load cell for Marshall test

For load cell technical specifications, please refer to pages 22 and 23 in the soil and rock section.

Mould



MARSHALL MOULD

VJT5561	Breaking Head Stability Mould
VJT5563	Stability Mould Base Plate, required to locate the breaking head mould on the load frame

Flow Measurement

FLOW MEASUREMENT OPTIONS

VJT5562	Marshall Flow Indicator Mechanical Dial Gauge, 25mm x 0.01mm with mechanical brake to hold at peak flow
VJT0271	Displacement Transducer (LSCT), 25mm travel
VJT0281A	Bracket to use 25mm LSCT for Marshall test

For the LSCT technical specification, please refer to page 20 in the soil and rock section.

Marshall Test Data Acquisition

The use of a purpose built 2 channel logger, together with a load cell and linear displacement transducer (LSCT), automates the acquisition of data with readings being taken up to 4 times per second. Automatic data acquisition lessens operator error and frees resources within the laboratory.

Data Logger

MiniSCANNER 2 Channel Data Logger for CBR/Marshall. This is designed as a dedicated CBR/Marshall Data Logger. Two analogue input channels are provided for stability and flow, with display features of peak hold and auto tare functions. Configuring the system is made easy by using the 4x4 membrane keypad and a 4x20 character LCD display.

Features:

- On-board battery backed memory for data storage and calibration
- Real Time clock with battery backup
- Up to 500 readings per channel with time stamp
- Logging mode includes:
 - Linear; configurable from 1 seconds to HH:MM:SS
 - Logarithmic times
 - Square root times
- Automatic triggering of logging process:
 - Delay, configurable from 1 second to HH:MM:SS
 - Greater than a reference channel value
- View logged data
- Password protected configuration and calibration
- Transducer excitation supply of +/- 5V DC
- RS232 serial interface for computer or printer
- 2 analogue output signals for X/YT recorder
- Printout of logged data
- Optional Windows™ based WinMAR PC software



ORDERING INFORMATION

VJT1300	MiniSCANNER 2 Channel Data Logger for CBR/Marshall
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For Marshall Test Data Acquisition software see overleaf.

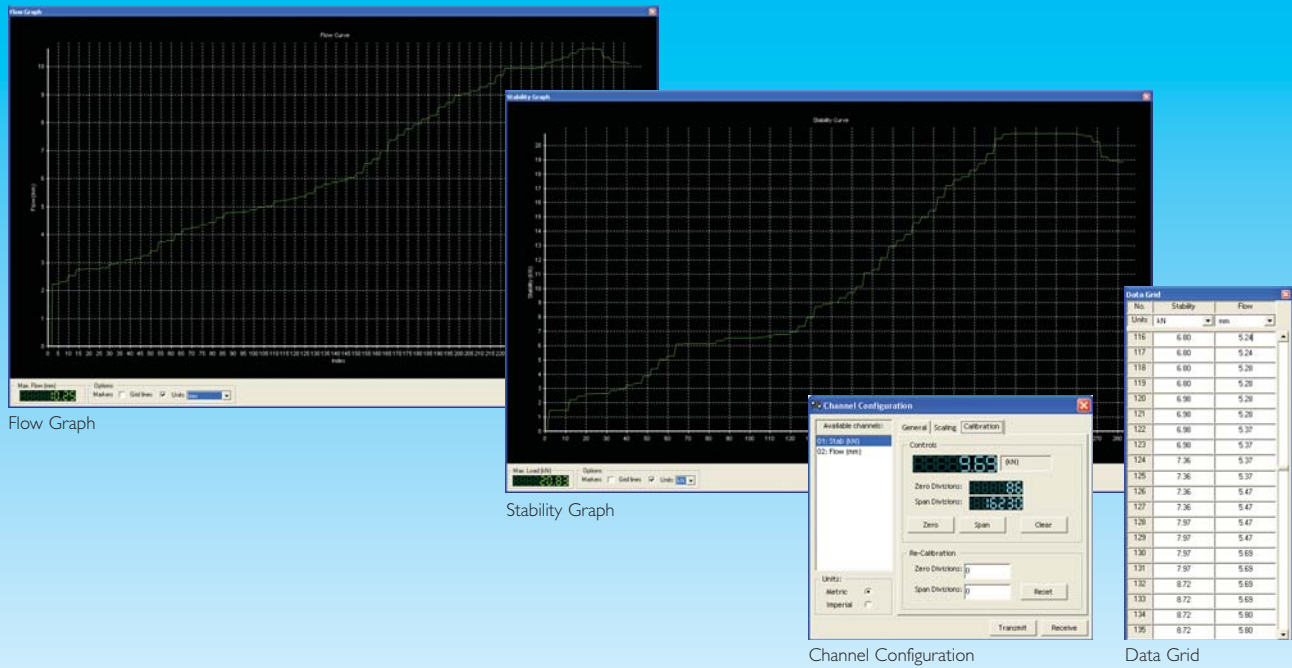
Software

The WinMARS software has been designed to work in conjunction with VJ Tech's MiniSCANNER 2 channel data logger and our TriPLEX load frame for the automated control, retrieval and viewing of Marshall test data.

Features:

- Automatically log and store test results
- View graphs of stability and flow data
- Create printable reports

Screenshots from VJ Tech's WinMARS software



ORDERING INFORMATION

VJT-WINMARS Windows™ based WinMAR PC software

Marshall Testing Equipment Lists

To follow are two typical Marshall test equipment lists, one being a manual system and the other a fully automated data acquisition system.

MARSHALL TEST WITH MANUAL DATA ACQUISITION

Part Number	Product	Quantity
Load Frame		
VJT5012	TriPLEX CBR (BS/ASTM) Marshall Load Frame	1
Load Measurement		
VJT5564	30kN Load Ring with brake attachment for Marshall testing, with mechanical dial gauge 0 - 12mm x 0.002mm, works calibration certificate and case	1
Flow Measurement		
VJT5562	Marshall Flow Indicator Mechanical Dial Gauge, 25mm x 0.01mm with mechanical brake to hold at peak flow	1
Mould		
VJT5561	Breaking Head Stability Mould	1
VJT5563	Stability Mould Base Plate, required to locate the breaking head mould on the load frame	1

MARSHALL TEST WITH AUTOMATIC DATA ACQUISITION

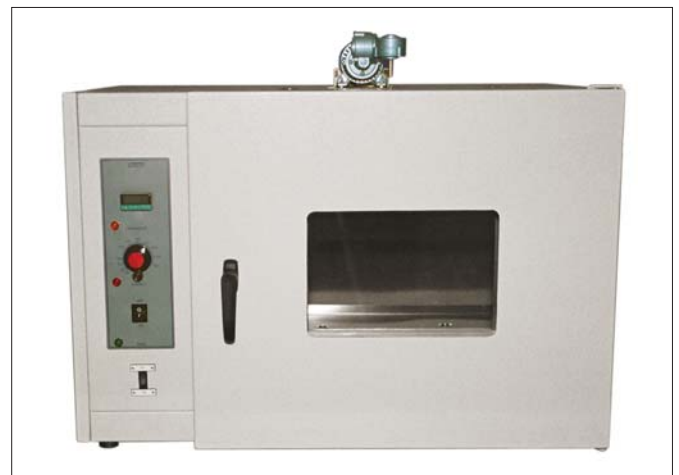
Part Number	Product	Quantity
Load Frame		
VJT5011-RS	TriPLEX Multitester Load Frame with RS232 port	1
Load Measurement		
VJTS0365	50kN S-Beam External Load Cell, stainless steel	1
VJT0288B	Adaptor set to use 50kN S-Beam load cell for Marshall test	1
Flow Measurement		
VJT0271	Displacement Transducer (LSCT), 25mm travel	1
VJT0281A	Bracket to use 25mm LSCT for Marshall test	1
Data Acquisition		
VJT1300	MiniSCANNER 2 Channel Data Logger for CBR/Marshall	1
VJT-WINMARS	Windows™ based WinMAR PC software	1
Mould		
VJT5561	Breaking Head Stability Mould	1
VJT5563	Stability Mould Base Plate, required to locate the breaking head mould on the load frame	1

Loss on Heating Thin Film Oven

This dual purpose oven is designed to perform the loss-on-heat test and thin film test for bitumen and asphaltic materials and conforms to BS 2000 ASTM D6, D1754 and AASHTO T47, T179.

The oven is well insulated with a double glazed window for viewing the test chamber. The exterior is constructed from sheet steel finished in powder coated paint and the interior chamber is made from stainless steel. The temperature is controlled and pre-set at 163°C +/- 1°C and the control system comprises of a microprocessor digital controller and overheat thermostat with calibrated scale and tamper proof lock.

Two 13.5 inch diameter rotating platforms are supplied to perform both the loss-on-heat and the thin film test. The platform is rotated by an external motor.



POWER SUPPLY AND HEATER RATING

VJT1707	240V 50Hz 1ph	1000W
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ORDERING INFORMATION AND SPECIFICATIONS

Part no	Temperature	External Dimensions (excluding motor and handle)	Chamber Dimensions	Weight
VJT1707	Pre-set at 163°C +/- 1°C	630 x 870 x 570mm	350 x 350 x 350mm	44kg

Portable Core Drills

VJ Tech offers two portable core drills for taking asphalt samples. Please refer to page 70 in the concrete section for full details.

The following diamond core barrels are 450mm long and fitted with a 1 1/4 inch UNC thread.

ORDERING INFORMATION AND SPECIFICATIONS

VJT6066	Portable Petrol Core Drill complete with stand, motor and water swivel
Drilling range:	Up to 150mm diameter
Application:	Wet drilling - vertical down only
Motor:	1.5 hp 2-stroke petrol engine
Height:	1200mm
Weight:	22kg
VJT6067	Portable Electric Core Drill complete with stand, motor and water supply unit
Drilling range:	20mm - 130mm diameter
Application:	Wet drilling - vertical down only
Motor:	1600W
Height:	960mm
Weight:	19kg

ACCESSORIES

VJT6068	Core Barrel to cut 50mm diameter samples (57mm hole diameter)
VJT6069	Core Barrel to cut 75mm diameter samples (82mm hole diameter)
VJT6070	Core Barrel to cut 100mm diameter samples (107mm hole diameter)
VJT6071	Core Barrel to cut 150mm diameter samples (159mm hole diameter)

Larger Coring Trailers for taking core samples in roads etc. are also available from VJ Tech. Please contact us with your requirements.

Rolling Straight Edge

The rolling straight edge is used for the assessment of road and pavement regularity, measuring any depressions in the surface on an analogue scale of 0 - 12mm, over distance measured in metres.

The unit consists of a 3 metre long rigid frame supported on two parallel rows of rubber tyred wheels. In the centre of the parallel rows of wheels, and at the mid point of the straight edge itself, is a freely moveable sensing wheel. The vertical movements of the sensing wheel are transmitted to the pointer and scale on the central display unit. Distance travelled is measured by an odometer in metres.

Features:

- Developed in conjunction with TRL
- Easily assembled, supplied packed into 3 cases
- UKAS calibration facilities available

ORDERING INFORMATION AND SPECIFICATIONS

VJT6500	3 Metre Rolling Straight Edge, supplied in 3 cases for on site assembly
Range:	0 - 12mm vertical movement ± 0.25 mm
Dimensions (L x W x H): As supplied in 3 cases	Case 1 - 1100 x 510 x 400mm, Cases 2 and 3 - 1230 x 370 x 400mm
Weight:	112kg



Benkelman Beam

The Benkelman Beam is a compact, convenient, accurate device for measuring the deflection of flexible pavements under moving wheel loads. It is a balanced beam, which is used in conjunction with a suitable vehicle to measure road flexure and therefore help to evaluate its structural condition. Operating on a simple lever arm principle, the unit consists of a reference beam, body, two part probe beam and rear zero adjust. The beam can be easily calibrated by using spacer blocks. It is supplied complete with a carrying case and dial gauge measuring up to 25mm travel in 0.01mm divisions.

Features:

- Lightweight aluminium construction
- Compact telescopic design, simplifying field set up

ORDERING INFORMATION AND SPECIFICATIONS

VJT6503	Benkelman Beam complete with carrying case and dial gauge
Dimensions:	1660 x 290 x 320mm (in case)
Weight:	55kg

Bump Integrator

The TRL Bump Integrator is a Response Type Road Roughness Measurement System. This records the cumulative displacement of an axle relative to the body of the vehicle induced by the roughness of the road. The system consists of a vehicle with a solid, transverse back axle, fitted with a bump integrator and counter, which, together, are able to integrate and record the movement of the back axle as the vehicle passes along the road.

The bump integrator unit, developed by the UK Transport Research Laboratory (TRL) is in use throughout the world to provide effective means of monitoring road roughness over great distances.



Bump Integrator and Control Unit

ORDERING INFORMATION AND SPECIFICATIONS

VJT6502	Bump Integrator unit with fitting instructions, counter and fitting kit available separately
Dimensions (L x W x H):	130mm x 110mm x 90mm
Weight:	1.5kg
VJT6502C	Counter Unit for bump integrator
Dimensions (L x W x H):	190mm x 110mm x 60mm
Weight:	0.75kg
VJT6502F	Fitting Kit for bump integrator
Weight:	1.5kg

ACCESSORIES AND SPARES

VJT6502M	Bump Integrator calibration unit, based on TRL design for the measurement of roughness of calibration sections. Easy to use and maintain, supplied in kit form
Dimensions (L x W x H):	1160mm x 1070mm x 360mm (packed in kit form)
Weight:	34kg
VJT6502W	Spare Wire and fittings for bump integrator

Aggregate Impact Value Apparatus

to BS 812

The Aggregate Impact Value Apparatus consists of a rigid frame with a trip-action hammer release, blow counter and a built-in operator safety device. Manufactured with hardened steel surfaces for minimum wear, the complete assembly is cadmium plated for corrosion protection.

Supplied complete with a cylindrical mould 102mm diameter x 50mm deep, cylindrical measure 75mm diameter x 50mm deep and a 16mm diameter x 600mm long tamping rod.

Features:

- Plated for corrosion protection
- Trip-action hammer release
- Blow counter

ORDERING INFORMATION AND SPECIFICATIONS

VJT6810	Aggregate Impact Value Apparatus complete with mould, measure and tamping rod
Dimensions (L x W x H):	445 x 300 x 880mm
Weight:	60kg

Aggregate Crushing Value Apparatus

to BS812:110

The 75mm Aggregate Crushing Value Apparatus is used for aggregate smaller than 9.5mm. The apparatus consists of 75mm nominal diameter steel cylinder; plunger; base-plate, tamping rod and a 57mm diameter x 90mm deep measure.

The 150mm Aggregate Crushing Value Apparatus is used for aggregate passing 12.7mm and retained by 9.52mm sieve. It consists of 150mm nominal diameter steel cylinder; plunger; base plate, tamping rod and a 115mm diameter x 180mm deep measure.

Both sizes of apparatus are cadmium plated for corrosion protection.

ORDERING INFORMATION AND SPECIFICATIONS

VJT6811	75mm Aggregate Crushing Value Apparatus complete with 75mm cylinder; plunger; base plate, tamping rod and measure
Weight:	8kg
VJT6812	150mm Aggregate Crushing Value Apparatus complete with 150mm cylinder; plunger; base plate, tamping rod and measure
Weight:	20kg

Los Angeles Abrasion Machine

to **ASTM C131, EN1097-2 and AASHTO T96**

The Los Angeles Abrasion Machine is used to determine the abrasion resistance of aggregates by rotating a sample of aggregate material with steel charges for a specified period of time. It consists of a heavy steel cylinder, mounted on a base frame, which rotates at 31 - 33rpm about its horizontal axis. The machine is fitted with a digital revolution counter, which can be preset to the required number of drum revolutions.

Abrasive charges are ordered separately, according to the relevant standard.



Los Angeles Abrasion Machine shown with optional guards and abrasive charges

ORDERING INFORMATION AND SPECIFICATIONS

VJT6808	Los Angeles Abrasion Machine, supplied without charges
Cylinder size:	711mm diameter x 508mm long (internal dimensions)
Power supply:	220 - 240V 50Hz 1ph 750W
Dimensions (L x W x H):	1000 x 800 x 1000mm
Weight:	370kg
VJT6808A	Abrasive Charges to ASTM C131 and AASHTO T96, set of 12
VJT6808E	Abrasive Charges to EN 1097-2, set of 12

A separate cabinet and soundproofing are available as additional options.

Aggregate Abrasion Machine

to **BS 812 : Part 3 : 1990 and BS EN 1097/8 : 2000**

The Aggregate Abrasion Value (AAV) test gives a measure of the resistance of aggregate to surface wear by abrasion. Inadequate abrasion resistance of road-surfacing aggregates means an early loss of the texture depth required to maintain high-speed skidding resistance. The AAV test replaces the Dorry Abrasion test from an earlier version of BS 812..

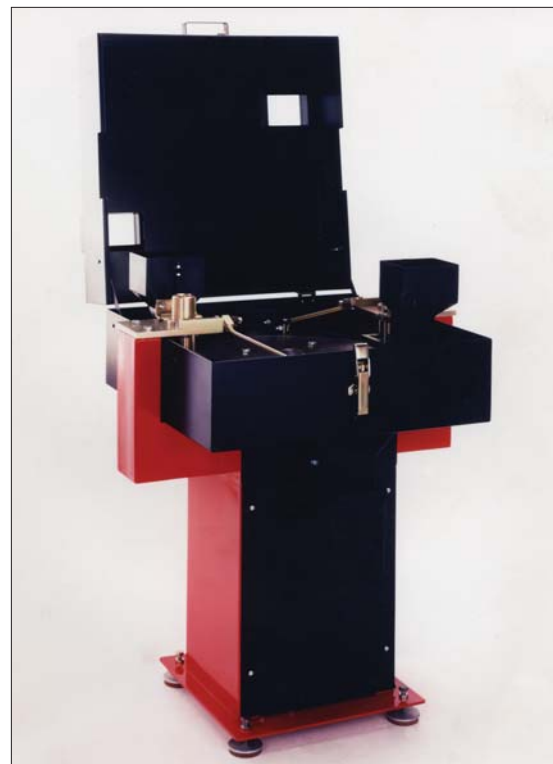
Test procedure:

Two specimens are pressed against the surface of a steel disc rotating in a horizontal plane, with a force of 0.365 newtons per square centimetre. Sand, fed by hoppers, is used as an abrasive. After 500 disc revolutions the amount of material abraded is measured by calculation of the weight loss of the aggregate.

The percentage loss in mass of chippings is known as the 'Aggregate Abrasion Value' (AAV), and ranges from about 1 for hard flints to over 16 for aggregates normally considered too soft for use in road surfacing.

Features:

- Heavy-duty mainframe on adjustable anti-vibration pads
- 610mm diameter steel lap wheel
- Precision machined steel shaft and sealed bearings.
- Resilient mounted electric motor
- Totally enclosed, grease filled gearbox
- Scraper blades for sand removal
- Predetermined revolution counter



ORDERING INFORMATION AND SPECIFICATIONS

VJT6800	Aggregate Abrasion Apparatus, complete with 2 specimen moulds, 2 plates and 2 trays
Power supply:	230V 50Hz 1ph
Dimensions (L x W x H):	700 x 800 x 1100mm
Weight:	170kg

Accelerated Polishing Machine

to BS 812 Pt 114: 1989, BS EN 1097-8 and ASTM E303

The PSV test calculates a Polished Stone Value for aggregates used in road surfaces, which gives a measure of the resistance to skidding. The test is carried out by using two machines, the Accelerated Polishing Machine and the Skid Tester. Use of the PSVs in road construction has had a major influence in reduction of accidents.



This improved model has been designed to allow precise setting of the road wheel rpm and to be user friendly.

Test procedure:

The Accelerated Polishing Machine polishes samples of aggregates, simulating actual road conditions. Fourteen specimens are clamped around the 'road wheel' of the PSV machine, and subjected to two stages of polishing by a loaded rubber tyre. The first stage uses corn emery and the second flour emery. Water is gravity fed from high-level tank through calibrated flow meter and the used abrasive and water is collected in removable tray.

Features:

- Heavy welded steel mainframe, standing in adjustable pads
- Adjustable motor speed control with adjustable timing belt drive
- Digital display with pre-set timer and revolution display
- Specimens manufactured and easily removed from accurately machined moulds
- Specimens located on 'road wheel' by rubber rings and held by simple side fixing
- Tyred wheel easily removed for replacing tyres
- Loaded tyre raised and lowered to the running surface by mechanical lifting device
- Electrical supply protected by 'no volt' release
- 24V feeder and control circuits for safety
- Protection by easily removed covers and guards
- Safety switch to ensure removable safety covers are in place

ORDERING INFORMATION AND SPECIFICATIONS

VJT6802	Accelerated Polishing Machine complete with operating instructions
Power supply:	230/110V 60/50Hz 1ph
Dimensions (L x W x H):	Frame 630 x 730 x 790mm, Water tank 1550mm high, Packed 790 x 810 x 1230mm
Weight:	175kg unpacked, 205kg packed

ACCESSORIES

VJT6802C	Corn Emery 25kg
VJT6802F	Flour Emery 25kg
VJT6802Q	Quartz Dolerite, Control Stone 25kg
VJT6802B	Olivine Basalt Aggregate, Criggion 25kg

This machine is also available with an ASTM weight if required.

Skid Resistance Tester

to BS 812 Pt. 114, ASTM E303 and many more standards

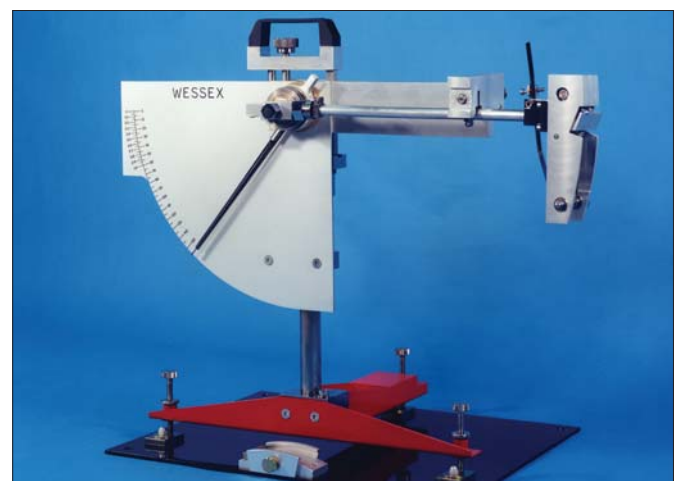
Originally developed by the Transport Research Laboratory (TRL) to study the problems in design and maintenance of public highways. The Skid Tester is used to test the skid resistance (SRV) of existing road surfaces and in conjunction with the Accelerated Polishing Machine to determine a PSV for aggregates used in road surfacing. It is also used in many other applications to test the slip resistance on pedestrian walkways and flooring, within offices, hospitals, shopping malls and factories, both at the design stage and also in the investigation of accidents.

Test procedure:

The Skid Tester measures the frictional resistance between a rubber slider mounted on the end of a pendulum arm and the test surface. This provides highway and flooring engineers with a routine method of checking the resistance of wet and dry surfaces to slipping and skidding. The Skid Tester is based on the Izod principle. A pendulum consisting of a tubular arm rotates about a spindle attached to a vertical pillar. At the end of the tubular arm a head of constant mass is fitted with a rubber slider. The pendulum is released from a horizontal position so that it strikes the sample surface with a constant velocity. The friction of the sample surface determines the distance travelled by the head after striking the sample. A reading of Skid Resistance Values is obtained.

The system comprises of:

- Sturdy case with dense foam inserts for protection
- 'F' Scale - built in, for use with small slider set for 76mm slide length. (PSV test)
- Set of 6 large or small sliders (certificate included)
- 125 - 127mm setting gauge - used to set slide length for road/floor testing
- Thermometer - for recording the air and surface temperature
- Brush, C spanner, 17mm spanner and allen keys
- Water spray bottle and levelling pads
- Operating instructions - a guide to road, floor and PSV testing
- Calibration Certificate - despatched calibrated to BS EN1097-8 : 2000



ORDERING INFORMATION AND SPECIFICATIONS

VJT6804	Skid Resistance Tester complete as specified above, in case please specify whether large or small sliders required
Dimensions (L x W x H):	300 x 700 x 700mm in carrying case
Weight:	30kg

Wheel Tracker

Wheel Tracking Tests determine plastic deformation of asphalt based road surface wearing courses under temperature and pressures similar to those experienced under road use. Such tests are carried out during road construction and also in material design. The use of Wheel Tracking Tests will prevent road surfaces being laid, which will rut in hot weather and need to be re-laid.

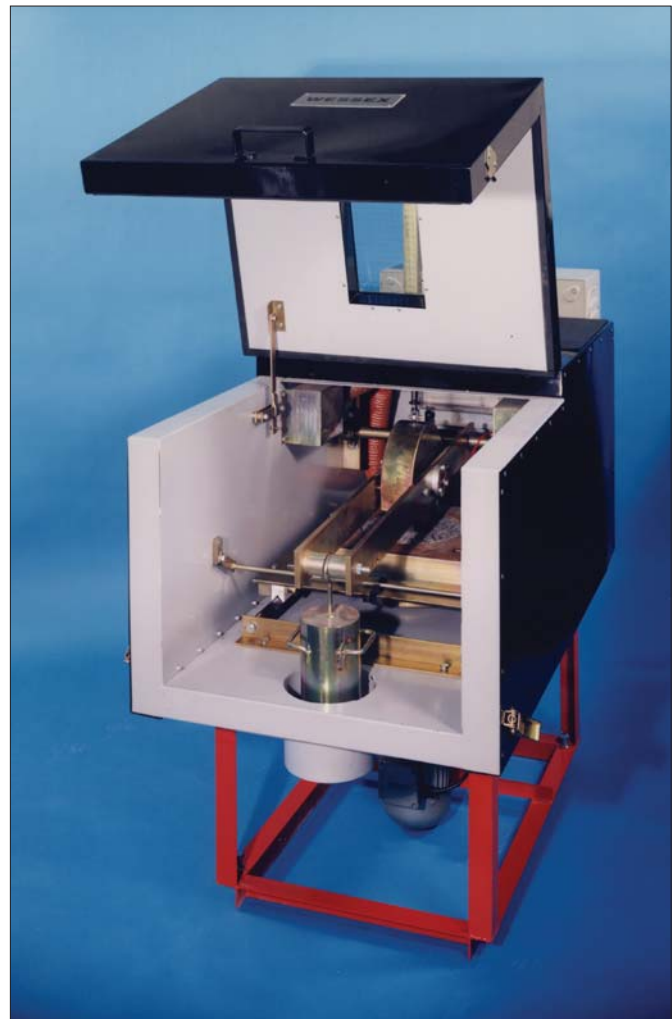
The computerised Wheel Tracker machine meets the requirements of BS 598 and prEN 12697-22, in full, and provides a fully automated test with automatic calculation of tracking rates. The equipment is housed in an insulated heated cabinet. A sample travels horizontally on a reciprocating table under a loaded wheel. Penetration of the wheel produces a rut, the depth of which is measured and recorded by a purpose built computer program.

Features:

- Housed in a compact insulated cabinet
- Used in conjunction with standard sample conditioning ovens
- Cabinet regains set point, when opened to change sample, in 3 minutes
- 45 minute test time
- Cabinet temperature can be set to any temperature between 20°C and 75°C
- PID Temperature Control to +/- 0.2°C
- Displacement transducer is externally mounted, rigidly supported and vibration damped
- Rubber tyred wheel conforming to BS 598

Computer Control:

- Software controls operation of machine and recording of results
- Runs under Windows NT, 98, or 95
- Machine starts and stops under computer control
- Rut depth and temperature displayed during test
- Results recorded at 1 minute intervals (adjustable)
- Print out of full details at conclusion of test
- Automatic calculation of tracking rate, both for test and series data
- Software calibration of temperature
- Test stops after 45 minutes or rut depth of 15 mm (adjustable)
- Cycle count is displayed
- Help file on screen contains full instructions
- IBM compatible PC is required, minimum Pentium chip with 16MB memory



ORDERING INFORMATION AND SPECIFICATIONS

VJT6806	Computer Controlled Wheel Tracker complete with heated cabinet, software and instructions
Power supply:	230V 50Hz 1ph
Dimensions (L x W x H):	1600 x 800 x 1800mm (packed)
Weight:	490kg (packed)

Surface Texture Meter

Pavement texture is an extremely important consideration in the control of surface friction and hence road safety. It is also an important parameter for the determination of factors such as noise emission. The Surface Texture Meter is a portable and lightweight instrument, which will quickly and accurately measure surface textures for trafficked and pedestrian surfaces. The Surface Texture Meter measures and stores surface texture information, incorporating the latest high speed digital signal processor and laser measurement techniques.

A narrow beam of laser light is projected from the unit onto the road surface. The receiving optics focus the returned light onto a position sensitive detector and the recording electronics compare these returns. The profile depth is calculated from a number of very fast laser scanned samples.

Measures and records:

- Survey distance in metres
- Survey speed in kph
- Texture depth (mm units) in two ways:
Mean Profile Depth (MPD) and also Root Mean Square Profile Depth (RMSTD)
- 50 metre averages of MPD and RMSTD
- Return signal integrity from the laser in the form of drop out %.

The system comprises of:

- Portable Laser Texture Meter:
- Pen Tablet PC with 16MB internal flash disc
- Battery charger and AC mains timer
- Pen Tablet PC battery charger.
- Software CD
- Data download cable
- Tool roll containing allen keys, screwdriver; tyre pressure gauge, hand pump

Features:

- Stable 3-wheel design allows accurate surveying without wander
- Colour touch screen provides easy, friendly and straightforward control
- High accuracy and eye-safe laser measurement resolves to 0.01 mm complying to ISO 13473
- Chassis movement during the survey is effectively eliminated using inertial referencing techniques
- Texture depth is stored onto 16MB of flash disk giving up to 330km survey capacity (An additional 16MB external flash memory can be supplied as an optional extra)
- Data stored in easy comma delimited format – read by many packages
- Operates from rechargeable Lithium Ion batteries



ORDERING INFORMATION AND SPECIFICATIONS

VJT6814	Surface Texture Meter complete with Pen Tablet PC, accessories and operating instructions
Dimensions (L x W x H):	1150 x 660 x 580mm
Weight:	70kg packed