



The Real Thing!

SCRIM

Sideway-force Coefficient Routine Investigation Machine

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The UN Decade of Action on Road Safety has put the road surface back at the heart of the debate, emphasising the need for regular checking of skid resistance.

For more than 40 years W.D.M. Limited has led the world in the development of equipment to measure the road surface. It is the only licensed manufacturer of the Sideway Force Coefficient Routine Investigation Machine (SCRIM) and has successfully developed and introduced both high speed and hand operated texture depth measuring equipment. The use of SCRIM with a skid policy has reduced wet road accident rates by over 40% in both the UK and in NZ. WDM® has always placed engineering

expertise and the development of high quality products at its core. In the 1970s it began developing and manufacturing the first SCRIM for the Transport and Road Research Laboratory. Since then Highways Agencies have used SCRIM vehicles to identify lengths of roads where low skid resistance should be investigated. The introduction of regular SCRIM surveys offers local authorities a very cost effective solution to reduce their road casualties.



Worldwide Operation

There are 49 SCRIM operating worldwide, covering the UK, Italy, Spain, Belgium, France, Portugal, Slovenia, New Zealand, China, Chile and Argentina. SCRIM are often sold to National Governments or their agencies, but are also operated by WDM® on a contract

REDUCING

Test wheels are mounted mid vehicle in both the nearside and offside wheel-paths at an angle of 20 degrees to the direction of travel. The test wheel, which is fitted with a smooth pneumatic tyre of standardised hardness, freely rotates and is applied to the road surface under the known load. A controlled flow of water wets the road surface



ACCIDENTS

immediately in front of the test wheel for the sideways force co-efficient to be calculated as it slides forward.

With knowledge of the skid resistance values across a network investigation of deficient sites can be undertaken, which will provide continuous reduction of the accident rate.

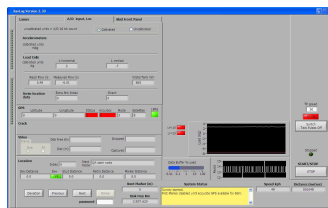
Provider of Choice

Maintaining roads in a safe condition is no accident. The strength of WDM® lies in recognising and providing an integrated approach within the changing environments in which its clients operate.

Standards have been created for investigatory levels based on over 30 years of research and these correlate strongly with the excessive risk of wet road skidding accidents.

Recent studies in England, Scotland, Wales and New Zealand confirm the current standards, published in 2004, are highly cost effective as well as appropriate to current traffic flows, road conditions and materials.

WDM® has gone through several evolutions over the past 60 years, but by listening and responding to its client's needs WDM® has become the expert provider of choice.



SKIDDING RESISTANCE

SCRIM is used to measure the wet skidding resistance of a road surface and identify lengths of road and depending on road type has a daily survey capacity of between 200 and 300kms.

A SCRIM survey in the UK can be undertaken at two different target test speeds of 50 and 80 km/hr.

The SCRIM requires an operator to control the survey and records and stores skidding resistance data as an average for each five, 10 and 20m section of road.



Specifications:



Entry level mini SCRIM

Includes: chassis (Mitsubishi Canter), subframe, single sided SCRIM mechanism, 1900 litre tank, water supply and infill systems. Facilities for recording/controlling/presenting the measured data, calibration software and hardware.

All necessary power supplies, batteries and wiring

Level 1 (Full Size) SCRIM

Includes: chassis (Iveco), subframe, single sided SCRIM mechanism, 5,500 litre stainless steel tank, water supply and infill systems. Facilities for recording/controlling/presenting measured data, including calibration software and hardware.

All necessary power supplies, batteries and wiring

Level 2 (Full Size) SCRIM

Includes: As per Level 1 but with Volvo Chassis

Level 3 (Full Size) SCRIM

Includes: As per Levels 1 & 2 but with full bodywork

Additional Options:-

Macro Texture: Includes a 62.5 kHz laser sensor, providing 0.22 mm sampling at 50 kph. Texture reported as MPD and SMTD simultaneously.

Air + Surface temperature: Used for temperature correction formulae

Inertial GPS System: Consists of a tightly coupled differential GPS receiver and a 3-axis Inertial Navigation System (INS) unit to provide GPS, gradient, crossfall, and horizontal curvature.

Video System: Includes digital camera with 1024 x 2048 resolution, camera mount with auto iris control, laptop, image collection triggered by distance to obtain one frame every 5m.

GPS location logged with each frame provided that the Inertial GPS system is incorporated.

Dynamic vertical load: This facility provides real time measurement of the vertical load on the test wheel.

Dynamic water flow control: Promotes economic water use by reducing flow at slower speeds, whilst maintaining water film thickness.

Full WDM bodywork:

Double sided machine (i.e. additional SCRIM mechanism):

Required to measure both wheel tracks.

Inertial longitudinal profile: Calculates and records longitudinal roughness expressed as IRI and Variance (3,10 and 30m wavelengths) simultaneously. Note that this mode is only available if the macro texture option is selected.

Additional mini operator screen: This is a 7-inch touch panel operator screen, which displays all essential parameters and facilitates ease of use.



Sole Licensed Manufacturer

WDM® is the sole licensed manufacturer worldwide and the SCRIM is manufactured under license to the UK Transport Research Laboratory (TRL) in full compliance with the current British Standard BS 7941-1:2006.

The WDM® SCRIM is a completely self-contained system consisting of a commercial vehicle chassis fitted with a large water tank, one or two measuring wheel assemblies and data recording electronics.

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