

**UNITED KINGDOM
DEFLECTOGRAPH
ACCREDITATION TRIAL SUMMARY TEST CERTIFICATE**

Report No: 0119/ACZ 3268 Issue 10

**DEFLECTOGRAPH
REGISTRATION NUMBER: ACZ 3268
TRL Reference No: 15**

Operated by **DoE Northern Ireland** of **Road Services Laboratory,
17 Ballynahonemore Road,
Armagh**

has participated in a United Kingdom Deflectograph Accreditation trial on **6 March 2019** at MIRA Proving Ground, Watling Street, Nuneaton, Warwickshire, CV10 0TU under the supervision of TRL.

The above machine has been tested against the accreditation requirements as provided in "Accreditation and Quality Assurance of Deflectograph Survey Devices" document¹ dated July 2016.

This machine **has successfully met** the mandatory criteria for carrying out surveys on the Highways England Strategic Road Network. Its performance in each test is summarised in the Annex to this test report.

This certificate supersedes any previous certificates issued by TRL.

Signed on 19 March 2019 for and on behalf of TRL Limited



Patrick Werro

Valid From: 6 March 2019
Date of expiry: 6 April 2020

¹This document is available from TRL or from the following website
<http://www.ukroadsliaisongroup.org/en/asset-condition/road-condition-information/data-collection/deflectograph/index.cfm>.

Test Report Annex

The following parameters must be passed to successfully meet the requirements of the accreditation trial.

Tested Parameter	Performance
Axle Weight Limits:	
Front Axle (recommended weight 4275-4725kg):	4965kg
Nearside Rear Wheel (permitted weight 2857-3493kg):	3415kg
Offside Rear Wheel(permitted weight 2857-3493kg):	3375kg
Main Deflection Tests:	
Standard Deviation from the fleet mean	Pass
Distance Measurement:	
Distance Measurement	Pass
Comments:	
<p>Outside of the weight range for the Front Axle weight. However, research to date has found that exceeding the front axle limits to a moderate level does not significantly affect deflection measurements. Therefore the performance is deemed acceptable.</p> <p>System did not meet the distance requirement against the reference. However it met the requirements when assessed against the fleet average. Therefore it is deemed satisfactory, but the contractor must ensure that the system is calibrated at all times.</p>	

The following parameters were also tested. However, they are not currently a mandatory requirement of the accreditation trial.

Parameter	Performance
Temperature Measurement:	
<p>The operator is required to measure the temperature of the pavement at a 40mm deep pre-drilled hole. Some Deflectographs also have air and surface temperature sensors fitted. Performance is assessed as follows:</p> <p>HIGH: 80% of measurements within 1°C of reference MEDIUM: 50% of measurements within 1°C of reference LOW: 15% of measurements within 1°C of reference Very Low: Otherwise</p>	
40mm Pavement Temperature Measurement	High
Air Temperature measurement	No Data Supplied
Surface Temperature measurement	No Data Supplied
Comments:	