

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

Report No: 0119/ACZ 3268 Issue 11

**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 **11 March 2020** 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" document<sup>1</sup> 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 24 March 2020 for and on behalf of TRL Limited



Patrick Werro

Valid From: 11 March 2020

Date of expiry: 11 April 2021

<sup>1</sup>This 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
<b>Axle Weight Limits:</b>	
Front Axle (recommended weight 4275-4725kg):	<b>4910kg</b>
Nearside Rear Wheel (permitted weight 2857-3493kg):	<b>3440kg</b>
Offside Rear Wheel(permitted weight 2857-3493kg):	<b>3315kg</b>
<b>Main Deflection Tests:</b>	
Standard Deviation from the fleet mean	<b>Pass</b>
<b>Distance Measurement:</b>	
Distance Measurement	<b>Pass</b>
<b>Comments:</b>	
Outside of the weight range for the Front Axle weight. However, research to date has found that exceeding the front axle target by less than 15% does not significantly affect deflection measurements. Therefore the performance is deemed acceptable.	

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

Parameter	Performance
<b>Temperature Measurement:</b>	
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:	
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
40mm Pavement Temperature Measurement	<b>High</b>
Air Temperature measurement	<b>No Data Supplied</b>
Surface Temperature measurement	<b>No Data Supplied</b>
<b>Comments:</b>	