

# x-cal

## THE TEST SYSTEM FOR ROLL/BRAKE/ABS TEST STANDS

### Innovation

The regular check of measuring systems is absolutely necessary. This also applies to roll/brake/ABS-test stands in the end of line area. The test of these test stands comprises the verification of the detected measuring values as well as the adjustment of the existing parameter set-ups.

x-cal offers the possibility to increase the accuracy of the dynamic brake force measurement on roll/brake/ABS test stands and offers the utmost security when detecting the measuring results.

With x-cal each roller unit of a test stand is checked individually. Therefore, the application of x-cal is largely independent on the test stand version and it may be used on various double roller and single roller test stands (not depending on the manufacturer).

### Tasks

- » Test of dynamic brake force measurement (accredited)
- » Test of velocity acquisition with manual speedometer (accredited)
- » Detection of the reduced mass of a roller unit incl. toothed belt, tension roller and motor (not included in accreditation)

### Flexibility

The test is executed at your facility, of course. In case of shortcomings, which may be detected as a result of the test, our qualified specialist may give you an advice for remedy. The elimination of these shortcomings may then be executed by your own or by our specialists.



### » Accreditation Certificate



Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleG-UV  
Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

#### Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

**Dürr Assembly Products GmbH**  
Köllner Str. 122-128, 66346 Püttlingen

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the following fields:

**Roll, brake and ABS tests within the scope of vehicle testing technology including on-site-tests**

The accreditation certificate shall only apply in connection with the notice of accreditation of 2015-01-15 with the accreditation number D-PL-12009-01 and is valid until 2020-01-14. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 01 page.

Registration number of the certificate: D-PL-12009-01-00

Frankfurt, 2015-01-15

Dipl.-Ing. (FH)  
Ralf Bernd  
Head of Division

This document is a translation. The definitive version is the original German accreditation certificate.

x-cal	
Roller diameter: min. 400 mm, max. 1,250 mm	
<b>Force measurement</b> <u>accredited</u>	Measurement with x-cal from -300N to +500N extended measuring uncertainty (k=2) during the force measurement: 5N
<b>Reduced mass</b> <u>not accredited</u>	x-cal is applicable from 100 kg to 1000 kg reduced mass Repeat accuracy of the measuring values during the determination of the reduced mass: 4.5 kg

Manual speedometer	
<b>Manual speedometer</b> <u>accredited</u>	The manual speedometer is applicable from 1 km/h to 300 km/h extended measuring uncertainty (k=2) at the handtacho: 0.3 km/h Roller diameter: 300 mm to 1100 mm

## Certification Accreditation

Our system has already been approved as test system by the competence of our official accreditation body (incl. test method with x-cal) by „Deutsche Akkreditierungsstelle GmbH (DAkkS, ruled by the agreement of mutual recognition of EA and ILAC.

## Flexibility

» As an autonomously working system x-cal is suitable for universal use.

## Quality

- » Possibility of test and adaptation of test stands, for third party systems as well.
- » Increased accuracy of the test stand with dynamic brake force measurement due to identification of the roller unit's reduced mass.
- » Test of roll/brake/ ABS test stands when they are completely assembled.
- » Repeatable measurement results
- » Measuring error minimization on test rig side  
--> therefore quality increase and reduce of rework.

\* The photos resp. images of the assembly- and test systems in our flyer do not show the complete system. The requirements of the machine guideline (2006/42/EG) are only fulfilled by further ancillary scope of supply resp. have to be fulfilled on the delivery of uncomplete machines by the manufacturer of the (complete) machine. Flyer x-cal, Version H

