

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV

Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the calibration laboratory

Hydrotechnik GmbH

Holzheimer Straße 94 - 96, 65549 Limburg a. d. Lahn

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out calibrations in the following fields:

Mechanical quantities

- Pressure

Fluid quantities

- Liquid flow rate

The accreditation certificate shall only apply in connection with the notice of accreditation of 10.07.2019 with the accreditation number D-K-15045-01. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 2 pages.

Registration number of the certificate: **D-K -15045-01**

Braunschweig,
10.07.2019

Dr. Heike Manke
Head of Division

Translation issued:
10.07.2019



Head of Division

The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.

<https://www.dakks.de/en/content/accredited-bodies-dakks>

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

See notes overleaf.

Deutsche Akkreditierungsstelle GmbH

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The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkKS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkKS.

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). DAkKS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:

EA: www.european-accreditation.org

ILAC: www.ilac.org

IAF: www.iaf.nu

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-K-15045-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 10.07.2019

Date of issue: 10.07.2019

Holder of certificate:

Hydrotechnik GmbH
Holzheimer Straße 94 - 96, 65549 Limburg a. d. Lahn

Calibration in the fields:

Mechanical quantities

- Pressure

Fluid quantities

- Liquid flow rate

Abbreviations used: see last page

Within the measurands/calibration items marked with with *, the calibration laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use calibration standards or equivalent calibration procedures listed here with different issue dates. The calibration laboratory maintains a current list of all calibration standards / equivalent calibration procedures within the flexible scope of accreditation.

Annex to the accreditation certificate D-K-15045-01-00
Permanent Laboratory
Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement ¹⁾	Remarks
Pressure * Negative and positive gauge pressure p_e	-1 bar to -0,015 bar	DKD-R 6-1:2014 DIN EN 837:1997	$6,0 \cdot 10^{-5} \cdot p_e$, but not lower than 0,03 mbar	Pressure medium: Gas
	0,015 bar to 1 bar			
	> 1 bar to 7 bar			
Gauge pressure p_e	3 bar to 60 bar	Volumetric measurement based on piston-type prover	$8,0 \cdot 10^{-5} \cdot p_e$, but not lower than 0,5 mbar	Pressure medium: Oil
	> 60 bar to 300 bar			
	> 300 bar to 1200 bar			
Liquid flow rate Volume flow rate	0,005 L/min to 40 L/min	Volumetric measurement based on piston-type prover	0,2 %	Calibration liquids on basis of mineral oil
	0,2 L/min to 600 L/min			

Abbreviations used:

CMC	Calibration and measurement capabilities (Kalibrier- und Messmöglichkeiten)
DIN	Deutsches Institut für Normung e.V.
DKD-R	Calibration Guideline of Deutsche Kalibrierdienst (DKD), published by Physikalisch-Technische Bundesanstalt (PTB)

¹⁾ The expanded uncertainties according to EA-4/02 M:2013 are part of CMC and are the best measurement uncertainties within accreditation. They have a coverage probability of approximately 95 % and have a coverage factor of $k = 2$ unless stated otherwise. Uncertainties without unit are relative uncertainties referring to the measurement value unless stated otherwise.