

# Deutsche Akkreditierungsstelle GmbH

## Annex to the Accreditation Certificate D-K-15154-01-00 according to DIN EN ISO/IEC 17025:2018

**Valid from:** 10.12.2020

Date of issue 10.12.2020

Holder of certificate:

**VACUUBRAND GmbH & CO KG**  
**Alfred-Zippe-Straße 4, 97877 Wertheim**

Calibration in the fields:

**Mechanical quantities**  
- Vacuum

Within the measurands / calibration items marked with <sup>\*</sup>), 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. In house calibration procedures are excluded from the flexible scope.

*The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of calibration laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.*

*The certificate together with the annex reflects the status as indicated by the date of issue.  
The current status of any given scope of accreditation may be found respectively in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH <https://www.dakks.de/en/content/accredited-bodies-dakks>.*

Abbreviations used: see last page

**Page 1 of 2**

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

**Annex to the accreditation certificate D-K-15154-01-00**

**Permanent Laboratory**

**Calibration and Measurement Capabilities (CMC)**

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement <sup>1)</sup>	Remarks
<b>Vacuum *</b> Absolute pressure p / vacuum gauges	1,0·10 <sup>-3</sup> mbar to < 2,0·10 <sup>-3</sup> mbar	DIN ISO 3567:2015 ISO 27893:2011 ISO 19685:2017 ISO 20146:2019	1,00 %	Pressure medium: Nitrogen (N <sub>2</sub> )
	2,0·10 <sup>-3</sup> mbar to < 1,0·10 <sup>-2</sup> mbar		0,80 %	
	1,0·10 <sup>-2</sup> mbar to < 2,0 mbar		0,75 %	
	2,0 mbar to < 3,0 mbar		0,50 %	
	3,0 mbar to < 6,0 mbar		0,40 %	
	6,0 mbar to < 20,0 mbar		0,35 %	
	20,0 mbar to < 1100 mbar		0,25 %	
	1100 mbar to ≤ 1300 mbar	VACUU CAL 1300 Vers. A:2020	0,25 %	

**Abbreviations used:**

CMC	Calibration and measurement capabilities
DIN	Deutsches Institut für Normung e.V.
ISO	International Organization for Standardization
VACUU CAL	In house calibration procedure of Vacuubrand

<sup>1)</sup> 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.