Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-K-17447-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **05.10.2023**

Date of issue: 05.10.2023

This annex is a part of the accreditation certificate D-K-17447-01-00.

Holder of partial accreditation certificate:

Atlas Copco Tools Central Europe GmbH

with its calibration laboratory

Atlas Copco Tools Central Europe GmbH
Langemarckstraße 35, 45141 Essen

and with further locations

Bayernwerkstraße 112, 84130 Dingolfing

and

Atlas Copco Polska Sp. Z o.o.
Rozyniec 83C, 59-709 Gromadka, Polska

The calibration laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The calibration laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

This certificate annex is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at https://www.dakks.de.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of calibration laboratories and confirm generally with the principles of DIN EN ISO 9001.

Calibration in the fields:

Mechanical quantities

- **Force**
- **Torque** [a)]

[a)] also on-site-calibrations

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 calibra-tion standards or equivalent calibration procedures listed here with different issue dates.
The calibration laboratory maintains a current list of all calibration standards / equivalent calibra-tion procedures within the flexible scope of accreditation.

DAkkS Deutsche Akkreditierungsstelle

Permanent Laboratory location Essen

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range			Measurement conditions / procedure	Expanded uncertainty of measurement	Remarks
force *	10 N	to	30 N	DIN EN ISO 376: 2011 DKD-R 3-3: 2018	$3 \cdot 10^{-3}$	
force measurement for pull- and compression force direction	30 N	to	10 kN		$5 \cdot 10^{-4}$	10-kN-force-standard measuring device
	5 kN	to	250 kN	DKD-R 3-3: 2018	$5 \cdot 10^{-3}$	250-kN- force-standard measuring device
torque	0.01 N·m	to	< 0.04 N·m	DIN 51309:2005 EURAMET cg-14 version 2.0:2011 VDI/VDE 2646:2006	$1 \cdot 10^{-3}$	
torque transducer * torque gauge *	0.04 N·m	to	2 kN·m		$1 \cdot 10^{-3}$	
	> 2 kN·m	to	3 kN·m		$2 \cdot 10^{-3}$	
hydraulic torque multiplier	300 N·m	to	70 kN·m	AC_HiT_2019	$1 \cdot 10^{-2}$	
hand-operated torque wrench *	0,01 N·m	to	1 kN·m	DIN EN ISO 6789-2:2017	$1 \cdot 10^{-3}$	torque wrench as of 0.1 N·m
displaying torque wrench *	1 N·m	to	1 kN·m	DKD-R 3-7:2018	$1 \cdot 10^{-3}$	
calibration devices for torque wrench *	3 N·m	to	< 50 N·m	DKD-R 3-8:2018	$2 \cdot 10^{-3}$	
	50 N·m	to	1 kN·m		$1 \cdot 10^{-3}$	
spindel-fall-simulator for test of continuously rotating tools *	1 N·m	to	3 kN·m	DIN 51309:2005	$2 \cdot 10^{-3}$	
spindel-fall-simulator for test of continuously rotating tools	1 N·m	to	3 kN·m	AC MMFU Drehmoment R1 2023	$2 \cdot 10^{-3}$	

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On-site Calibration location Essen

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement	Remarks
torque				
hydraulic wrench torque multiplier	300 N·m to 70 kN·m	AC_HiT_2019	$1 \cdot 10^{-2}$	
calibration devices for torque wrench *	3 N·m to < 50 N·m	DKD-R 3-8:2018	$2 \cdot 10^{-3}$	
	50 N·m to 1 kN·m		$1 \cdot 10^{-3}$	
displaying torque wrench *	3 N·m to 1 kN·m	DKD-R 3-7:2018	$2 \cdot 10^{-3}$	
hand-operated torque wrench *	1 N·m to 1 kN·m	DIN EN ISO 6789-2:2017	$5 \cdot 10^{-3}$	
torque transducer torque gauge *	0.1 N·m to 3 kN·m	DIN 51309:2005 EURAMET cg-14 version 2.0:2011 VDI/VDE 2646:2006	$2 \cdot 10^{-3}$	
spindel-fall-simulator for test of continuously rotating tools *	1 N·m to 3 kN·m	DIN 51309:2005	$2 \cdot 10^{-3}$	
spindel-fall-simulator for test of continuously rotating tools	1 N·m to 3 kN·m	AC MMFU Drehmoment R1 2023	$2 \cdot 10^{-3}$	

DAkkS Deutsche Akkreditierungsstelle

Permanent Laboratory location Dingolfing

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range			Measurement conditions / procedure	Expanded uncertainty of measurement	Remarks
torque *						
torque transducer torque gauge	0.01 N·m	to	< 0.5 N·m	DIN 51309:2005 EURAMET cg-14 version 2.0:2011 VDI/VDE 2646:2006	$1 \cdot 10^{-3}$	
	0,5 N·m	to	1 kN·m		$2 \cdot 10^{-4}$	
	≥ 1 kN·m	to	2 kN·m		$1 \cdot 10^{-3}$	
	≥ 2 kN·m	to	20 kN·m		$5 \cdot 10^{-4}$	
displaying torque wrench	0.5 N·m	to	1 kN·m	DKD-R 3-7:2018	$2 \cdot 10^{-4}$	
	≥ 1 kN·m	to	2 kN·m		$1 \cdot 10^{-3}$	
calibration devices for torque wrench	0,2 N·m	to	1 N·m	DKD-R 3-8:2018	$2 \cdot 10^{-3}$	
	≥ 1 N·m	to	1 kN·m		$1 \cdot 10^{-3}$	
	≥ 1 kN·m	to	3 kN·m		$2 \cdot 10^{-3}$	
hand-operated torque wrench	0.01 N·m	to	1 kN·m	DIN EN ISO 6789-2:2017	$1 \cdot 10^{-3}$	torque wrench as of 0.1 N·m
	≥ 1 kN	to	2 kN·m		$2 \cdot 10^{-3}$	
spindel-fall-simulator for test of continuously rotating tools *	1 N·m	to	3 kN·m	DIN 51309:2005	$2 \cdot 10^{-3}$	
spindel-fall-simulator for test of continuously rotating tools	1 N·m	to	3 kN·m	AC MMFU Drehmoment R1 2023	$2 \cdot 10^{-3}$	

On-site Calibration location Dingolfing

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range			Measurement conditions / procedure	Expanded uncertainty of measurement	Remarks
torque *						
torque transducer torque gauge	0.1 N·m	to	2 kN·m	DIN 51309:2005 EURAMET cg-14 version 2.0:2011 VDI/VDE 2646:2006	$1 \cdot 10^{-3}$	
displaying torque wrench	0.5 N·m	to	1 kN·m	DKD-R 3-7:2018	$1 \cdot 10^{-3}$	
	≥ 1 kN·m	to	2 kN·m		$2 \cdot 10^{-3}$	
calibration devices for torque wrench	0.2 N·m	to	1 N·m	DKD-R 3-8:2018	$2 \cdot 10^{-3}$	
	≥ 1 N·m	to	1 kN·m		$1 \cdot 10^{-3}$	
	≥ 1 kN·m	to	3 kN·m		$2 \cdot 10^{-3}$	
hand-operated torque wrench	0.5 N·m	to	1 kN·m	DIN EN ISO 6789-2:2017	$1 \cdot 10^{-3}$	
	≥ 1 kN·m	to	2 kN·m		$2 \cdot 10^{-3}$	
spindel-fall-simulator for test of continuously rotating tools *	1 N·m	to	3 kN·m	DIN 51309:2005	$2 \cdot 10^{-3}$	
spindel-fall-simulator for test of continuously rotating tools	1 N·m	to	3 kN·m	AC MMFU Drehmoment R1 2023	$2 \cdot 10^{-3}$	

DAkkS Deutsche Akkreditierungsstelle

Permanent Laboratory location Gromadka (Polska)

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement	Remarks
torque * torque transducer	0.2 N·m to 1 N·m	DIN 51309:2005 EURAMET cg-14 Version 2.0:2011 VDI/VDE 2646:2006	$2 \cdot 10^{-3}$	
	1 N·m to 300 N·m		$1 \cdot 10^{-3}$	
	0.3 kN·m to 3 kN·m		$2 \cdot 10^{-3}$	
hand operated torque wrenches	1 N·m to 1 kN·m	DIN EN ISO 6789-2:2017	$1 \cdot 10^{-3}$	
	1 kN·m to 2 kN·m		$2 \cdot 10^{-3}$	

On-site Calibration location Gromadka (Polska)

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement	Remarks
torque * torque transducer	0.2 N·m to 1 N·m	DIN 51309:2005 EURAMET cg-14 Version 2.0:2011 VDI/VDE 2646:2006	$2 \cdot 10^{-3}$	
	1 N·m to 300 N·m		$1 \cdot 10^{-3}$	
	0.3 kN·m to 3 kN·m		$2 \cdot 10^{-3}$	
hand operated torque wrenches	1 N·m to 1 kN·m	DIN EN ISO 6789-2:2017	$1 \cdot 10^{-3}$	
	1 kN·m to 2 kN·m		$2 \cdot 10^{-3}$	

Abbreviations used:

AC-HIT…	internal calibration procedure of Atlas Copco Tools Central Europe GmbH
CMC	Calibration and measurement capabilities (Kalibrier- und Messmöglichkeiten)
DKD-R	Richtlinie des Deutschen Kalibrierdienstes (DKD), herausgegeben von der Physikalisch-Technischen Bundesanstalt
EURAMET	European Association of National Metrology Institutes
VDE	Verband der Elektrotechnik, Elektronik und Informationstechnik e.V.
VDI	Verein Deutscher Ingenieure e.V.