

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-15178-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 02.09.2020

Date of issue: 17.09.2020

Holder of certificate:

Baker Hughes Digital Solutions GmbH Robert-Bosch-Straße 3, 50354 Hürth

Tests in the fields:

manual, mechanized and partly automated non-destructive testing (ultrasonic testing) on selected metallic and non-metallic materials of components of the aeronautics and space industry, of plant engineering, automotive industry and mechanical engineering, railway technology as well as on semi-finished products

Within the given testing field the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the modification, development and refinement of testing methods.

The listed testing methods are exemplary. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

Non-destructive tests of metallic and non-metallic materials of components from the aerospace industry, plant, vehicle and mechanical engineering, the railway industry and semi-finished productss

Ultrasonic testing

553-106_AV 2016-09	testing of welded joints according to AD 2000-Merkblatt HP 5/3
553-105_AV 2016-09	testing of welded joints according to DIN EN ISO 22825 and evaluation to DIN EN ISO 11666

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

Abbreviations used: see last page

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

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553-104_AV 2016-09	testing of welded joints according to DIN EN ISO 10893-11
AD 2000-Merkblatt HP 5/3 Anlage 1 2015-04	Non-destructive testing of welded joints - Minimum requirements for non-destructive testing methods (here: Ultrasonic testing)
DIN EN 10307 2002-03	Non-destructive testing - Ultrasonic testing of austenitic and austenitic- ferritic stainless steels flat products of thickness equal to or greater than 6 mm (reflection method)
DIN EN ISO 16810 2014-07	Non-destructive testing - Ultrasonic testing - General principles
DIN EN ISO 16823 2014-07	Non-destructive testing - Ultrasonic testing - Transmission technique
DIN EN ISO 16826 2014-06	Non-destructive testing - Ultrasonic testing - Examination for discon- tinuities perpendicular to the surface
DIN EN ISO 16827 2014-06	Non-destructive testing - Ultrasonic testing - Characterization and sizing of discontinuities
DIN EN ISO 16828 2014-06	Non-destructive testing - Ultrasonic testing - Time-of-flight diffraction technique as a method for detection and sizing of discontinuities
DIN EN ISO 16809 2020-02	Non-destructive testing - Ultrasonic thickness measurement
DIN EN ISO 10863 2011-12	Non-destructive testing of welds - Ultrasonic testing - Use of time-of- flight diffraction technique (TOFD)
DIN EN ISO 10893-8 2011-07	Non-destructive testing of steel tubes - Part 8: Automated ultrasonic testing of seamless and welded steel tubes for the detection of laminar imperfections
DIN EN ISO 10893-9 2011-07	Non-destructive testing of steel tubes - Part 9: Automated ultrasonic testing for the detection of laminar imperfections in strip/plate used for the manufacture of welded steel tubes
DIN EN ISO 10893-10 2011-07	Non-destructive testing of steel tubes - Part 10: Automated full peri- pheral ultrasonic testing of seamless and welded (except submerged arc-welded) steel tubes for the detection of longitudinal and/or transverse imperfections

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DIN EN ISO 10893-11 2011-07	Non-destructive testing of steel tubes - Part 11: Automated ultrasonic testing of the weld seam of welded steel tubes for the detection of longitudinal and/or transverse imperfections
DIN EN 12680-1 2003-06	Founding - Ultrasonic examination - Part 1: Steel castings for general purposes
DIN EN 12680-2 2003-06	Founding - Ultrasonic examination - Part 2: Steel castings for highly stressed components
DIN EN 12680-3 2012-02	Founding - Ultrasonic testing - Part 3: Spheroidal graphite cast iron castings
DIN EN ISO 13588 2013-11	Non-destructive testing of welds - Ultrasonic testing - Use of automated phased array technology (withdrawn standard)
DIN EN ISO 17640 2011-04	Non-destructive testing of welds - Ultrasonic testing - Techniques, testing levels, and assessment (withdrawn standard)
DIN EN ISO 22825 2012-08	Non-destructive testing of welds - Ultrasonic testing - Testing of welds in austenitic steels and nickel-based alloys (withdrawn standard)
DIN EN 10228-3 2012-12	Non-destructive testing of steel forgings - Part 3: Ultrasonic testing of ferritic or martensitic steel forgings (withdrawn standard)
DIN EN 10228-4 2012-12	Non-destructive testing of steel forgings - Part 4: Ultrasonic testing of austenitic and austenitic-ferritic stainless steel forgings (withdrawn standard)
SEP 1921 1984-12	Ultrasonic testing of forged and hot-rolled, raw or processed steel bars up to $\sim 100 \text{ mm}$ diameter or edge length (withdrawn document)
SEP 1926 2010-11	Automated ultrasonic inspection of rotation symmetrical steel forgings with computer controlled data acquisation and processing

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abbreviations used:

553-xxx-AV AD HP BS In-house method of Baker Hughes Digital Solutions GmbH Working group pressure vessel, production and testing British Standard

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