

Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-PL-19221-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: 18.10.2022

Date of issue: 15.02.2023

This annex is a part of the accreditation certificate D-PL-19221-01-00.

Holder of partial accreditation certificate:

DEKRA Incos GmbH
Bunsenstraße 29, 85053 Ingolstadt

with its testing laboratories

Bunsenstraße 29, 85053 Ingolstadt
Kesselbodenstraße 6, 85391 Allershausen
Fettweisstraße 2d, 76189 Karlsruhe
Mausegatt 12, 47228 Duisburg
Im Industriegelände 1, 33775 Versmold

The testing laboratory meets the minimum requirements of DIN EN ISO/IEC 17025:2018 and, if applicable, additional legal and normative requirements, including those in relevant sectoral schemes, in order to carry out the conformity assessment activities listed below.

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

manual non-destructive tests (radiographic testing, ultrasonic testing, liquid penetrant testing, visual testing, eddy current testing, leak testing and magnetic particle testing, magnet flux leakage testing and semi-automatic serial testing (radiographic, ultrasonic and surface testing) of metallic materials in the metal manufacturing and processing industry as well as in the installation engineering and plant construction and radiographic testing, ultrasonic testing, liquid penetrant testing and visual testing of plastics and concrete and coating thickness measurements

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>.

Abbreviations used: see last page

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Within the scope of accreditation marked with *), the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates.

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

The test methods are indicated with the following symbols of the locations at which they are carried out:

AL = Allershausen
KA = Karlsruhe

DU I = Duisburg I
IN = Ingolstadt

VE = Versmold

1 Radiographic testing *

AL, DU I, KA, IN, VE

ASME BPVC.V-2019 2019	ASME Boiler and Pressure Vessel Code Section V: Nondestructive Examination (here: <i>Article 2: Radiographic Examination</i>)
DIN EN ISO 10893-6 2019-06	Non-destructive testing of steel tubes - Part 6: Radiographic testing of the weld seam of welded steel tubes for the detection of imperfections
DIN EN ISO 17636-1 2013-05	Non-destructive testing of welds - Radiographic testing - Part 1: X- and gamma-ray techniques with film
DIN EN ISO 17636-2 2013-05	Non-destructive testing of welds - Radiographic testing - Part 2: X- and gamma-ray techniques with digital detectors
DIN EN ISO 20769-1 2018-12	Non-destructive testing - Radiographic inspection of corrosion and deposits in pipes by X- and gamma rays - Part 1: Tangential radiographic inspection
DIN EN ISO 20769-2 2018-12	Non-destructive testing - Radiographic inspection of corrosion and deposits in pipes by X- and gamma rays - Part 2: Double wall radiographic inspection
DIN EN 13068-3 2001-12	Non-destructive testing - Radioscopic testing - Part 3: General principles for the radioscopic testing of metallic materials by X- and gamma rays (here: <i>only chapter 6</i>)

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DIN EN ISO 16371-2 2019-04	Non-destructive testing - Industrial computed radiography with storage phosphor imaging plates - Part 2: General principles for testing of metallic materials using X-rays and gamma rays
DIN EN 444 1994-04	Non-destructive testing - general principles for the radiographic examination of metallic materials using X-rays and gamma-rays <i>(withdrawn standard)</i>
DIN EN ISO 5579 2014-04	Non-destructive testing - Radiographic testing of metallic materials using film and X- or gamma rays - Basic rules <i>(here: only chapter 6)</i>
DIN EN 12681-1 2018-02	Founding - Radiographic testing - Part 1: Film techniques
DIN EN 12681-2 2018-02	Founding - Radiographic testing - Part 2: Techniques with digital detectors
DIN EN 16407-1 2014-04	Non-destructive testing - Radiographic inspection of corrosion and deposits in pipes by X- and gamma rays - Part 1: Tangential radiographic inspection
DIN 25435-7 2021-06	In-service inspections for primary coolant circuit components of light water reactors - Part 7: Radiographic testing
ASTM E94/E94M-17 2017	Standard Guide for Radiographic Examination Using Industrial Radiographic Film
ASTM E1030/E1030M-21 2021	Standard Practice for Radiographic Examination of Metallic Castings
ASTM E1032-19 2019	Standard Practice for Radiographic Examination of Weldments Using Industrial X-Ray Film

The following test method is outside the scope of flexible accreditation:

Only at VE

0881-09-PA 2022-03	Durchstrahlungsprüfung von Kunststoffen
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2 Ultrasonic testing *

AL, DU I, KA, IN, VE

AD 2000-Merkblatt HP 5/3 2020-12	Manufacture and testing of joints - Non-destructive testing of welded joints (here: <i>chapter 3, Ultrasonic testing</i>)
ASME BPVC.V-2019 2019	ASME Boiler and Pressure Vessel Code Section V: Nondestructive Examination (here: <i>Article 4: Ultrasonic Examination Methods for Welds</i> <i>Article 5: Ultrasonic Examination Methods for Materials</i>)
DIN EN ISO 17640 2019-02	Non-destructive testing of welds - Ultrasonic testing - Techniques, testing levels, and assessment (<i>Chapter 8-11 und Annex A</i>)
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 discontinuities 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	Zerstörungsfreie Prüfung - Ultraschallprüfung - Beugungslaufzeit-technik, eine Technik zum Auffinden und Ausmessen von Inhomogenitäten
DIN EN 10160 1999-09	Ultrasonic testing of steel flat product of thickness equal to or greater than 6 mm (reflection method)
DIN EN 10228-3 2016-10	Non-destructive testing of steel forgings - Part 3: Ultrasonic testing of ferritic or martensitic steel forgings
DIN EN 10228-4 2016-10	Non-destructive testing of steel forgings - Part 4: Ultrasonic testing of austenitic and austenitic-ferritic stainless steel forgings
DIN EN 10308 2002-03	Non-destructive testing - Ultrasonic testing of steel bars

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DIN EN 12680-1 2003-06	Founding - Ultrasonic examination - Part 1: Steel castings for general purposes (here: <i>chapter 5</i>)
DIN EN 12680-2 2003-06	Founding - Ultrasonic examination - Part 2: Steel castings for highly stressed components (here: <i>chapter 5</i>)
DIN EN 12680-3 2012-02	Founding - Ultrasonic testing - Part 3: Spheroidal graphite cast iron castings (here: <i>chapter 5</i>)
DIN EN ISO 16809 2020-02	Non-destructive testing - Ultrasonic thickness measurement
DIN 25435-1 2014-01	In-service inspections for primary coolant circuit components of light-water reactors - Part 1: Automated ultrasonic testing
DIN 54123 1980-12	Non-destructive Test - Ultrasonic Method of Testing Claddings, Produced by Welding, Rolling and Explosion (<i>withdrawn standard</i>)
SEP 1914 1983-08	Non-destructive testing of fusion-welded seams in pipes of stainless steels
SEP 1915 1994-09	Non-destructive testing of steel tubes of longitudinal defects (<i>withdrawn document</i>)
SEP 1916 1989-12	Non-destructive testing of fusion-welded ferritic steel tubes
SEP 1918 1992-01	Non-destructive testing of steel tubes of transverse defects (<i>withdrawn document</i>)
SEP 1919 1977-06	Ultrasonic testing for laminations of pipes of creep-resistant steels (<i>withdrawn document</i>)
SEP 1920 1984-12	Ultrasonic testing of rolled semi-finished products on internal material discontinuities
SEP 1922 1985-07	Ultrasonic testing of forgings of ferritic steel (<i>withdrawn document</i>)

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SEP 1923 2009-02	Ultrasonic testing of steel forgings to stringent standards, in particular for components in turbine and generator systems
SEP 1924 1989-10	Founding - Ultrasonic examination - Spheroidal graphite cast iron castings <i>(withdrawn document)</i>
DIN EN ISO 16810 2014-07	Non-destructive testing - Ultrasonic testing - General principles <i>(here: chapter 9)</i>
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)
ASTM E164-19 2019	Standard Practice for Contact Ultrasonic Testing of Weldments
ASTM E213-20 2020	Standard Practice for Ultrasonic Testing of Metal Pipe and Tubing
ASTM E587-15 2015	Standard Practice for Ultrasonic Angle-Beam Contact Testing

only at VE

DIN EN ISO 10893-8 2020-10	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 10893-10 2011-07	Non-destructive testing of steel tubes - Part 10: Automated full peripheral ultrasonic testing of seamless and welded (except submerged arc-welded) steel tubes for the detection of longitudinal and/or transverse imperfections <i>(withdrawn standard)</i>
DIN EN ISO 10893-11 2020-10	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

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DIN EN ISO 10893-12
2011-07

Non-destructive testing of steel tubes - Part 12: Automated full peripheral ultrasonic thickness testing of seamless and welded (except submerged arc-welded) steel tubes
(withdrawn standard)

only at AL, IN, DU I, VE

DIN EN ISO 13588
2019-07

Non-destructive testing of welds - Ultrasonic testing - Use of automated phased array technology

only at IN and DU

DIN EN ISO 10863
2020-09

Non-destructive testing of welds - Ultrasonic testing - Use of time-of-flight diffraction technique (TOFD)

DIN EN ISO 20601
2019-04

Non-destructive testing of welds - Ultrasonic testing - Use of automated phased array technology for thin-walled steel components

The following test methods are outside the scope of flexible accreditation:

only at VE

0878-09-PA
2022-03

Ultrasonic testing of weld spots

0879-09-PA
2022-03

Ultrasonic testing of plastics

3 Magnetic particle testing *

AL, DU I, KA, IN, VE

ASME BPVC.V-2019
2019

ASME Boiler and Pressure Vessel Code
Section V: Nondestructive Examination
(here: Article 7: Magnetic Particle Examination)

DIN EN ISO 9934-1
2017-03

Non-destructive testing - Magnetic particle testing - Part 1: General principles
(here: chapters 7-14)

DIN EN ISO 10893-5
2011-07

Non-destructive testing of steel tubes - Part 5: Magnetic particle inspection of seamless and welded ferromagnetic steel tubes for the detection of surface imperfections

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DIN EN ISO 17638 2017-03	Non-destructive testing of welds - Magnetic particle testing
DIN EN 1369 2013-01	Founding - Magnetic particle testing
DIN EN 10228-1 2016-10	Non-destructive testing of steel forgings - Part 1: Magnetic particle inspection
DIN 25435-2 2014-01	In-service inspections for primary coolant circuit components of light water reactors - Part 2: Magnetic particle and penetrant inspection (<i>withdrawn standard</i>)
SEP 1935 1982-06	Seam testing of castings of steel - magnetic powder test (<i>withdrawn document</i>)
ASTM E709-15 2015	Standard Guide for Magnetic Particle Testing
ASTM E1444/E1444M-16 2016	Standard Practice for Magnetic Particle Testing

3.1 Magnetic flux leakage test *

AL, DU I, KA, IN, VE

ASME BPVC.V-2019 2019	ASME Boiler and Pressure Vessel Code Section V: Nondestructive Examination (here: <i>Article 16: Magnetic flux leakage (MFL) examination</i>)
ASTM B499-09(2014) 2014	Standard Test Method for Measurement of Coating Thickness by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals
ASTM E570-15 2015	Standard Practice for Flux Leakage Examination of Ferromagnetic Steel Tubular Products

The following test methods are outside the scope of flexible accreditation:

only at VE

0882-09-PA 2022-03	Measurement of fissure depth
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0880-09-PA
2022-03
Magnetic flux leak testing, pipe scan, hand scan

only at DU I, IN

0987-09-PA
2022-02
Test method for testing of tank bottom Magnetic Eddy Current (MEC)

4 Liquid penetrant testing * AL, DU I, KA, IN, VE

ASME BPVC.V-2019
2019
ASME Boiler and Pressure Vessel Code
Section V: Nondestructive Examination
(here: *Article 6: Liquid Penetrant Examination*)

DIN EN ISO 3452-1
2022-02
Non-destructive testing - Penetrant testing - Part 1: General principles
(here: *chapter 8*)

DIN EN 1371-1
2012-02
Founding - Liquid penetrant testing - Part 1: Sand, gravity die and low pressure die castings

DIN EN 1371-2
2015-04
Founding - Liquid penetrant inspection - Part 2: Investment castings

DIN EN 10228-2
2016-10
Non-destructive testing of steel forgings - Part 2: Penetrant testing

SEP 1936
1982-06
Seam testing of castings of steel - Penetration testing
(*withdrawn document*)

ASTM E165/E165M-18
2016
Standard Practice for Liquid Penetrant Testing for General Industry

ASTM E1417/E1417M-16
2016
Standard Practice for Liquid Penetrant Testing

5 Visual testing * AL, DU I, KA, IN, VE

ASME BPVC.V-2019
2019
ASME Boiler and Pressure Vessel Code
Section V: Nondestructive Examination
(here: *Article 9: Visual examination*)

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DIN EN ISO 17637 2017-04	Non-destructive testing of welds - Visual testing of fusion-welded joints
DIN EN 1370 2012-03	Founding - Examination of surface condition
DIN EN 13018 2016-06	Non-destructive testing - Visual testing - General principles (here: <i>chapter 5 and 6</i>)
DIN 25435-4 2014-01	In-service inspections for primary coolant circuit components of light water reactors - Part 4: Visual inspection (<i>withdrawn standard</i>)

6 Eddy current testing *

AL, DU I, KA, IN

DIN EN ISO 15549 2019-10	Non-destructive testing - Eddy current testing - General principles (here: <i>chapter 12</i>)
DIN EN ISO 10893-1 2020-10	Zerstörungsfreie Prüfung von Stahlrohren - Teil 1: Automatisierte elektromagnetische Prüfung nahtloser und geschweißter (ausgenommen unterpulvergeschweißter) Stahlrohre zum Nachweis der Dichtheit
DIN EN 1711 2000-03	Zerstörungsfreie Prüfung von Schweißverbindungen - Wirbelstromprüfung von Schweißverbindungen durch Vektorauswertung (<i>zurückgezogene Norm</i>)
DIN EN ISO 17643 2015-12	Zerstörungsfreie Prüfung von Schweißverbindungen - Wirbelstromprüfung von Schweißverbindungen durch Vektorauswertung
ASTM B244-09 2014	Standard Test Method for Measurement of Thickness of Anodic Coatings on Aluminum and of Other Nonconductive Coatings on Nonmagnetic Basis Metals with Eddy-Current Instruments

The following test method is outside of the scope of flexible accreditation:

only at IN

0084-09-PA 2014-02	Test method for testing of tank bottom Magnetic Eddy Current (MEC)
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7 Leak testing * **AL, DU I, KA, IN**

DIN EN 1593 1999-11	Non-destructive testing - Leak testing - Bubble emission techniques
DIN EN 1779 1999-10	Non-destructive testing - Leak testing - Criteria for the method and technique selection (here: <i>chapter 7</i>)
DIN EN 13184 2001-07	Non-destructive testing - Leak test - Pressure change method
DIN EN ISO 20485 2018-05	Non-destructive testing - Leak testing - Tracer gas method

8 Measurement of coating thickness * **DU I, IN, VE**

DIN EN ISO 2178 2016-11	Non-magnetic coatings on magnetic substrates - Measurement of coating thickness - Magnetic method
DIN EN ISO 2360 2017-12	Non-conductive coatings on non-magnetic electrically conductive basis materials - Measurement of coating thickness - Amplitude-sensitive eddy current method

9 Test standards with multiple NDT test methods * **AL, DU I, KA, IN, VE**

DIN EN ISO 17635 2017-04	Non-destructive testing of welds - General rules for metallic materials (here: <i>Selection of testing method</i>)
DIN 27201-7 2014-05	State of railway vehicles - Basic principles and production technology - Part 7: Non-destructive test
DVGW GW 350 2015-06	Welding Joints of Steel Pipelines for Gas and Water Supply - Manufacturing, Testing and Evaluation (hier: <i>Clause 9</i>)
DVS 2206 ¹ 2016-08	Non-destructive tests on tanks, apparatus and piping made of thermoplastics - Dimensional checking and visual inspection
KTA 3201.3 2017-11	Components of the Reactor Coolant Pressure Boundary of Light Water Reactors - Part 3: Manufacture (<i>Chapter 12: non-destructive testing and Annex C to D</i>)

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KTA 3201.4 2016-11	Components of the reactor coolant pressure boundary of light water reactors - Part 4: Inservice inspections and operational monitoring <i>(Chapters 4.2 and 7.3: non-destructive testing)</i>
KTA 3211.3 2017-11	Pressure- and activity-retaining components of systems outside the primary circuit - Part 3: Manufacture <i>(Chapter 11: non-destructive testing as well as Annex D and E)</i>
KTA 3211.4 2017-11	Pressure and Activity Retaining Components of Systems Outside the Primary Circuit - Part 4: Inservice Inspections and Operational Monitoring <i>(Chapter 4.2, 4.3 and 7.3: non-destructive testing)</i>
SEP 1917 1994-09	Non-destructive testing of resistance welded pipes of ferritic steels

¹ not within the scope of flexible accreditation

Abbreviations used:

AD	Working group pressure vessels
ASME BPVC	American Society for Metrological Engineering - Boiler & Pressure Vessel Code
ASTM	American Society for Testing Materials
DIN	German Institute for Standardization
DVGW	German association of gas- and water industry
DVS	German Association for Welding and Allied Processes
EN	European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
KTA	Nuclear Safety Standards Commission
PA	Test instruction for DEKRA Incos GmbH
SEP	Steel and iron test sheet of the Association of German Steel Institute

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