Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-PL-18991-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **26.09.2023**

Date of issue: 30.04.2025

This annex is a part of the accreditation certificate D-PL-18991-01-00.

Holder of partial accreditation certificate:

GWQ GmbH & Co. KG
Am Schürmannshütt 30s, 47441 Moers

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

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

Tests in the areas:

manual non-destructive test methods (radiography, ultrasonic, penetrant, leak, visual testing and magnetic testing) on metallic materials in plant engineering and construction, as well as in power plant technology and the petrochemical industry

The testing laboratory is permitted to use standardised or equivalent test methods listed here with different issue dates without being required to prior inform and obtain approval from DAkkS. The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation.

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.

1 Manual non-destructive testing

1.1 Radiographic testing

DIN EN ISO 5579 2014-04	Non-destructive testing - Radiographic testing of metallic materials using film and X- or gamma rays - Basic rules
DIN EN ISO 17636-1 2022-10	Non destructive testing of welds - Radiographic testing - Part 1: X- and gamma-ray techniques with film
DIN EN 12681-1 2018-02	Founding - Radiographic testing - Part 1: Film techniques

1.2 Ultrasonic testing

DIN EN ISO 16810 2014-07	Non-destructive testing - Ultrasonic testing - General principles
DIN EN ISO 16823 2014-07	Non-destructive testing - Ultrasonic testing - Through-transmission technique
DIN EN ISO 16826 2014-06	Non-destructive testing - Ultrasonic testing - Testing 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 17640 2019-02	Non-destructive testing of welds - Ultrasonic testing - Techniques, testing levels, and assessment
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 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 10308 2002-03	Non-destructive testing - Ultrasonic testing of steel bars
SEL 072 1977-12	Ultrasound-tested heavy plate - Technical delivery conditions
SEP 1915 1994-09	Ultrasonic testing of steel pipes for longitudinal defects
SEP 1918 1992-01	Ultrasonic testing of steel pipes for transverse defect
SEP 1919 1977-06	Ultrasonic testing for doubling of pipes made of head-resistant steels
SEP 1920 1984-12	Ultrasonic testing of rolled semi-finished products for internal material defects
SEP 1921 1984-12	Ultrasonic testing of forgings ans forged bars with a diameter or edge length of 100 mm or more
SEP 1923 2009-02	Ultrasonic testing of forgings with higher requirements, especially for components in turbines and generator systems

1.3 Magnetic testing

DIN EN ISO 9934-1 2017-03	Non-destructive testing - Magnetic particle testing - Part 1: General principles
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
SEP 1935 1982-06	Surface crack detection of steel castings - magnetic particle testing

1.4 Penetrant testing

DIN EN ISO 3452-1 2022-02	Non-destructive testing - Penetrant testing - Part 1: General principles
DIN EN 1371-2 2015-04	Founding - Liquid penetrant testing - Part 2: Investment castings
DIN EN 10228-2 2016-10	Non-destructive testing of steel forgings - Part 2: Penetrant testing
SEP 1936 1982-06	Surface crack detection of steel castings - Penetrant testing

1.5 Leak testing

DIN EN 1593 1999-11	Non-destructive testing - Leak testing - Bubble emission techniques
DIN EN 1779 1999-10 + Corr. 1 2005-02	Non-destructive testing - Leak testing - Criteria for the method and technique selection
DIN EN 13184 2001-07	Non-destructive testing - Leak test - Pressure change metho

1.6 Visual testing

DIN EN ISO 17637 2017-04	Non-destructive testing of welds - Visual testing of fusion-welded joints
DIN EN 13018 2016-06	Non-destructive testing - Visual testing - General principles

1.7 Cross-procedure standards for NDT (here for: RT, UT, MT, PT, LT, VT)

DIN EN ISO 17635 2017-04	Non-destructive testing of welds - General rules for metallic materials
AD 2000-Merkblatt HP 5/3 Annex 1 2020-12	Manufacture and testing of pressure vessels - Non-destructive testing of welded joints - Minimum requirements for non-destructive testing methods
ASME BPVC.V-2021 2021-07	ASME Boiler & Pressure Vessel Code Section V: Nondestructive Testing: Article 2: Radiographic Examination Article 4: Ultrasonic Examination Methods for Welds Article 5: Ultrasonic Examination Methods for Materials Article 6: Liquid-Penetrant Examination Article 7: Magnetic Particle Examination Article 9: Visual Examination Article 10: Leak Testing Section VIII: Rules for Construction of Pressure Vessels
ASME B 31.3-2018 2019-08	Process Piping: Radiographic Examination K 344.5

Abbreviations used:

AD-HP	Working Group on Pressure Vessels - Manufacturing and Testing
ASME	American Society of Mechanical Engineers
DIN	German Institute für Standardization
EN	European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
LT	Leak testing
MT	Magnetic particle testing
PT	Penetrant testing
RT	Radiographic testing
SEL	Steel and iron delivery conditions of the Association of German ironworkers
SEP	Steel-iron test sheets of the Association of German ironworkers
UT	Ultraschallprüfung
VT	Visual testing