Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-PL-18478-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **11.10.2023**

Date of issue: 09.01.2024

This annex is a part of the accreditation certificate D-PL-18478-01-00.

Holder of partial accreditation certificate:

MT Laboratories GmbH
Am Eisenbrand 24a, 40667 Meerbusch

at the locations:

Am Eisenbrand 24a, 40667 Meerbusch
Bliersheimer Straße 27, 47229 Duisburg

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 confirm generally with the principles of DIN EN ISO 9001.

manual non-destructive testing (radiographic-, ultrasonic-, magnetic particle- and penetration testing); automated ultrasonic testing

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 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 procedures within the flexible scope of accreditation.

The testing methods are marked with the following symbols for the sites at which they are performed:

M = Meerbusch D = Duisburg

1 Non-destructive testing

1.1 Radiographic testing (M)

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 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
ASTM E 94/E 94M-22 2022-12	Standard Guide for Radiographic Examination Using Industrial Radiographic Film

1.2 Ultrasonic testing (D)

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
ASTM E 213-22 2022-02	Standard practice for ultrasonic testing of metal pipe and tubing
ASTM A 577/A 577M-17 2017-11	Standard specification for ultrasonic angle-beam examination of Steel Plates
DIN EN 10308 2002-03	Non-destructive testing - Ultrasonic testing of steel bars

DIN EN ISO 17640 2019-02	Non-destructive testing of welds - Ultrasonic testing - Techniques, testing levels, and assessment (here: *Sections 8 to 11 and 13, Annex A 11*)
DIN EN 10160 1999-09	Ultrasonic testing of steel flat product of thickness equal to or greater than 6 mm (reflection method)
ASTM A 745/A 745M-20 2020-05	Standard Practice for Ultrasonic Examination of Austenitic Steel Forgings
ASTM E 114-20 2020-12	Standard Practice for Ultrasonic Pulse-Echo Straight-Beam Contact Testing
ASTM E 164-19 2019-02	Standard Practice for Contact Ultrasonic Testing of Weldments
ASTM E 273-20 2020-12	Standard Practice for Ultrasonic Testing of the Weld Zone of Welded Pipe and Tubing
ASTM E 127-20 2020-12	Standard Practice for Fabrication and Control of Flat Bottomed Hole Ultrasonic Standard Reference Blocks
ASTM E 587-15(2020) 2020-06	Standard Practice for Ultrasonic Angle-Beam Contact Testing
ASTM E 797/E797M-21 2021-06	Standard Practice for Measuring Thickness by Manual Ultrasonic Pulse-Echo Contact Method
DIN EN ISO 16809 2020-02	Non-destructive testing - Ultrasonic thickness measurement

1.4 Automated ultrasonic testing (D)

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 10893-9 2020-10	Welded steel tubes for pressure purposes - Technical delivery conditions - Part 5: Submerged arc welded non-alloy and alloy steel tubes with specified elevated temperature properties

DIN EN ISO 10893-10 2020-10	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
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
DIN EN ISO 10893-12 2020-10	Non-destructive testing of steel tubes - Part 12: Automated full peripheral ultrasonic thickness testing of seamless and welded (except submerged arc-welded) steel tubes

1.5 Magnetic particle testing (D)

DIN EN ISO 9934-1 2017-03	Non-destructive testing - Magnetic particle testing - Part 1: General principles (here: *Section 7-14*)
DIN EN ISO 17638 2017-03	Non-destructive testing of welds - Magnetic particle testing
DIN EN 10228-1 2016-10	Non-destructive testing of steel forgings - Part 1: Magnetic particle inspection
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
ASTM E 709-21 2021-06	Standard Guide for Magnetic Particle Testing

1.6 Penetrant testing (D)

DIN EN 10228-2 2016-10	Non-destructive testing of steel forgings - Part 2: Penetrant testing
DIN EN ISO 10893-4 2011-07	Non-destructive testing of steel tubes - Part 4: Liquid penetrant inspection of seamless and welded steel tubes for the detection of surface imperfections
DIN EN ISO 3452-1 2022-02	Non-destructive testing - Penetrant testing - Part 1: General principles (here: *Section 8*)

ASTM E 165/E 165M-18 2018-11	Standard Practice for Liquid Penetrant Testing for General Industry

1.7 Cross-process standard for NDT (here for RT, UT, MT, PT)

RCC-M 2012	Design and construction rules for mechanical components of PWR nuclear islands - Section III - Examination Methods

Abbreviations used:

ASTM	American Society for Testing and Materials
DIN	German Institute for Standardization
EN	European standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
MT	Magnetic particle testing
PT	Penetrant testing
RCC-M	Guidelines of the French society for design and construction and in-service inspection rules for nuclear islands (afcen)
RT	Radiographic testing
UT	Ultrasonic testing