

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV

Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

PLR Prüftechnik Linke & Rühle GmbH
Altenhäuser Straße 6, 39126 Magdeburg

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out tests in the following fields:

manual non-destructive testings (radiographic-, ultrasonic-, penetration-, magnetic particle-, visual-, eddy current testing) and mechanized non-destructive testing (ultrasonic- and eddy current testing) at metallic materials of the metal production and metal-working industry as well as of plant engineering and plant construction; verification of equipment for non destructive testing

The accreditation certificate shall only apply in connection with the notice of accreditation of 12.05.2021 with the accreditation number D-PL-17234-01. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 8 pages.

Registration number of the certificate: **D-PL-17234-01-00**

Frankfurt am Main,
12.05.2021

Dipl.-Ing. (FH) Ralf Egnér
Head of Division

Translation issued:
07.03.2022


Head of Division

The certificate together with the annex 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/en/accredited-bodies-search.html>.

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

See notes overleaf.

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-17234-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 12.05.2021

Date of issue: 07.03.2022

Holder of certificate:

PLR Prüftechnik Linke & Rühle GmbH
Altenhäuser Straße 6, 39126 Magdeburg

Tests in the fields:

manual non-destructive testings (radiographic-, ultrasonic-, penetration-, magnetic particle-, visual-, eddy current testing) and mechanized non-destructive testing (ultrasonic- and eddy current testing) at metallic materials of the metal production and metal-working industry as well as of plant engineering and plant construction; verification of equipment for non destructive testing

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 test-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 management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.

*The certificate together with the annex 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/en/content/accredited-bodies-dakks>.*

Abbreviations used: see last page

Page 1 of 8

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1 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 (here: <i>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 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

1.2 Ultrasonic testing ***

DIN EN ISO 16810 2014-07	Non-destructive testing - Ultrasonic testing - General principles (here: <i>chapter 9</i>)
DIN EN ISO 16811 2014-06	Non-destructive testing - Ultrasonic testing - Sensitivity and range setting
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 17640 2019-02	Non-destructive testing of welds - Ultrasonic testing - Techniques, testing levels, and assessment (here: <i>chapters 8 to 11 and Annex A</i>)

Annex to the accreditation certificate D-PL-17234-01-00

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 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 10306 2002-04	Iron and steel - Ultrasonic testing of H beams with parallel flanges and IPE beams
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
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 EN 16729-1 2016-11	Railway applications - Infrastructure - Non-destructive testing on rails in track - Part 1: Requirements for ultrasonic inspection and evaluation principles

Annex to the accreditation certificate D-PL-17234-01-00

DIN EN ISO 22825 2018-02	Non-destructive testing of welds - Ultrasonic testing - Testing of welds in austenitic steels and nickel-based alloys
DIN ISO 4386-1 2015-12	Plain bearings; metallic multilayer plain bearings; non-destructive ultrasonic testing of bond
DIN 22261-3 2015-11	Excavators, spreaders and auxiliary equipment in opencast lignite mine - Part 3: Execution of steel structures (here: <i>chapter 12</i>)
AD 2000 HP 5/3 Annex 1 2015-04	Non-destructive testing of welded joints - Minimum requirements for non-destructive testing methods (here: <i>chapter 3, Ultrasonic testing</i>)
SEL 072 and Supplement 1977-12	Ultrasonically tested heavy plate; technical delivery specifications (<i>withdrawn document</i>)
SEP 1915 1994-09	Ultrasonic test of steel pipes for aberration (<i>withdrawn document</i>)
SEP 1918 1992-01	Ultrasonic test of steel pipes for 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>)
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	Ultrasonic testing of castings made of cast iron with spheroidal graphite (<i>withdrawn document</i>)

1.3 Magnetic particle testing ***

DIN EN ISO 9934-1 2017-03	Non-destructive testing - Magnetic particle testing - Part 1: General principles (here: <i>chapters 7-14</i>)
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

1.4 Penetrant testing ***

DIN EN ISO 3452-1 2014-09	Non-destructive testing - Penetrant testing - Part 1: General principles (here: <i>chapter 8</i>)
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 testing - Part 2: Investment castings
DIN EN 10228-2 2016-10	Non-destructive testing of steel forgings - Part 2: Penetrant testing

1.5 Eddy current testing ***

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 base metals - Measurement of coating thickness - Amplitude-sensitive eddy-current method
DIN EN ISO 17643 2015-12	Non-destructive testing of welds - Eddy current examination of welds by complex plane analysis

Annex to the accreditation certificate D-PL-17234-01-00

DIN EN 10893-1 2020-10	Non-destructive testing of steel tubes - Part 1: Automated electromagnetic testing of seamless and welded (except submerged arc-welded) steel tubes for the verification of hydraulic leaktightness
DIN EN 10893-2 2020-10	Non-destructive testing of steel tubes - Part 2: Automated eddy current testing of seamless and welded (except submerged arc-welded) steel tubes for the detection of imperfections
DIN EN ISO 15549 2019-10	Non-destructive testing - Eddy current testing - General principles (here: <i>chapter 12</i>)
DIN 54141-3 1987-02	Non-destructive testing; eddy current testing of pipes and tubes; procedure (<i>withdrawn standard</i>)
DIN EN 16729-2 2020-05	Railway applications - Infrastructure - Non-destructive testing on rails in track - Part 2: Eddy current testing of rails in track

1.6 Visual testing ***

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>chapters 5 and 6</i>)

**2 Cross-procedure standards
(here for RT, UT, MT, PT, ET and VT) *****

DVGW GW 350 2015-06	Welded joints on pipelines of steel within gas and water supply - Production, testing and evaluation (here: <i>only chapter 9</i>)
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3 Verification of equipment for non destructive testing ***

DIN EN ISO 9934-3 2015-12	<p>Non-destructive testing - Magnetic particle testing - Part 3: Equipment (here: <i>chapter 4.1, Portable electromagnets</i> <i>chapter 4.2, Current generators</i> <i>chapter 4.3, Magnetic benches</i> <i>chapter 5, UV-A sources</i> <i>chapter 6, Detection media system</i> <i>chapter 7, Inspection booth</i> <i>chapter 8, Demagnetization</i> <i>chapter 9.5, Verification and calibration of instruments)</i></p>
DIN EN 12668-1 2010-05	<p>Non-destructive testing - Characterization and verification of ultrasonic examination equipment - Part 1: Instruments (here: <i>Group 2 tests</i> <i>chapter 9.2, Physical state and external aspects</i> <i>chapter 9.3.2, Stability after warm-up time</i> <i>chapter 9.3.3, Display jitter</i> <i>chapter 9.3.4, Stability against voltage variations</i> <i>chapter 9.4.2, Transmitter voltage, rise time, reverberation and duration</i> <i>chapter 9.5.2, Amplifier frequency response</i> <i>chapter 9.5.3, Equivalent input noise</i> <i>chapter 9.5.4, Accuracy of calibrated attenuator</i> <i>chapter 9.5.5, Linearity of vertical display</i> <i>chapter 9.6, Linearity of time-base)</i></p>
DIN EN ISO 15548-1 2014-03	<p>Non-destructive testing - Equipment for eddy current examination - Part 1: Instrument characteristics and verification (here: <i>Group 2 tests</i> <i>chapter 5, Verification</i> <i>chapter 6.1, Measuring requirements</i> <i>chapter 6.2.1, Excitation frequency</i> <i>chapter 6.2.4, Maximum output voltage</i> <i>chapter 6.2.5, Maximum output current</i> <i>chapter 6.4.3, Balance</i> <i>chapter 6.4.9, Gain-setting accuracy</i> <i>chapter 6.4.10, Phase-setting accuracy)</i></p>

Annex to the accreditation certificate D-PL-17234-01-00

DIN EN 15317
2014-02

Non-destructive testing - Ultrasonic testing - Characterization and verification of ultrasonic thickness measuring equipment

(here:

Group 2 tests

chapter 9.4, Low battery warning

chapter 9.6, Operational voltage range

chapter 9.7, Operational current range

chapter 9.9, Pulse repetition frequency

chapter 9.10, Transmitter pulse shape, rise-time and peak voltage

chapter 9.12, Minimum and maximum measurable thicknesses

chapter 9.13, Accuracy and resolution

chapter 9.16, Calibration setting storage

chapter 9.19, Display and recall

chapter 10.4, General mechanical state and external aspects)

Abbreviations used:

AD-HP	Arbeitsgemeinschaft Druckbehälter; Herstellung und Prüfung von Druckbehältern
DIN	German Institute for Standardization
DVGW	Deutscher Verein des Gas- und Wasserfaches e. V.
EN	European Standard
ET	Eddy Current testing
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
MT	Magnetic particle testing
PT	Penetration testing
RT	Radiographic Testing
SEL	Stahl-Eisen-Lieferbedingungen
SEP	Stahl-Eisen-Prüfblatt of Verein Deutscher Eisenhüttenleute
UT	Ultrasonic testing
VT	Visual testing