

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-19010-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 18.11.2019

Date of issue: 18.11.2019

Holder of certificate:

**SWS Werkstoffprüfung GmbH
Plauener Straße 36 b, 08491 Netzschkau**

Tests in the fields:

manual non-destructive testing (radiographic-, ultrasonic-, magnetic particle-, penetration- and visual testing) and mechanical-technological tests (charpy impact test; tensile test; bending test; hardness test; X-ray fluorescence analysis; macroscopic and microscopic analysis) at metallic materials of the metal production and -processing industry as well as within plant engineering and construction

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.

1 Manual non-destructive testing

1.1 Radiographic testing *

DIN EN ISO 5579 Non-destructive testing - Radiographic testing of metallic materials
2014-04 using film and X- or gamma rays - Basic rules

DIN EN ISO 17636-1 Non-destructive testing of welds - Radiographic testing - Part 1: X- and
2013-05 gamma-ray techniques with film

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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DIN EN 12681-1 Founding - Radiographic testing - Part 1: Film techniques
2018-02

1.2 Ultrasonic testing *

DIN EN ISO 17640 Non-destructive testing of welds - Ultrasonic testing - Techniques,
2019-02 testing levels, and assessment

DIN EN ISO 16810 Non-destructive testing - Ultrasonic testing - General principles
2014-07

DIN EN 10308 Non-destructive testing - Ultrasonic testing of steel bars
2002-03

DIN EN 10160 Ultrasonic testing of steel flat product of thickness equal to or greater
1999-09 than 6 mm (reflection method)

DIN EN 10307 Non-destructive testing - Ultrasonic testing of austenitic and austenitic-
2002-03 ferritic stainless steels flat products of thickness equal to or greater
than 6 mm (reflection method)

DIN EN 10228-3 Non-destructive testing of steel forgings - Part 3: Ultrasonic testing of
2016-10 ferritic or martensitic steel forgings

DIN EN 10228-4 Non-destructive testing of steel forgings - Part 4: Ultrasonic testing of
2016-10 austenitic and austenitic-ferritic stainless steel forgings

AD 2000-Data sheet HP 5/3 Non-destructive testing of welded joints - Minimum requirements for
Attachment 1 non-destructive testing methods
2015-04 (here: *Chapter 3*)

1.3 Magnetic particle testing *

DIN EN ISO 9934-1 Non-destructive testing - Magnetic particle testing - Part 1: General
2017-03 principles

DIN EN ISO 17638 Non-destructive testing of welds - Magnetic particle testing
2017-03

DIN EN 1369 Founding - Magnetic particle testing
2013-01

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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

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

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

1.5 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

DIN EN 1370
2012-03 Founding - Examination of surface condition

1.6 Cross-procedural and co-applicable standards *

DIN EN ISO 17635
2017-04 Non-destructive testing of welds - General rules for metallic materials

2 Mechanical-technological tests

2.1 Charpy impact test *

DIN EN ISO 148-1
2017-05 Metallic materials - Charpy pendulum impact test - Part 1: Test method

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2.2 Tensile test *

DIN EN ISO 6892-1 2017-02	Metallic materials - Tensile testing - Part 1: Method of test at room temperature
DIN EN ISO 4136 2013-02	Destructive tests on welds in metallic materials - Transverse tensile test

2.3 Bend test *

DIN EN ISO 7438 2016-07	Metallic materials - Bend test
DIN EN ISO 5173 2012-02	Destructive tests on welds in metallic materials - Bend tests

2.4 Hardness test *

DIN EN ISO 9015-1 2011-05	Destructive tests on welds in metallic materials - Hardness testing - Part 1: Hardness test on arc welded joints
DIN EN ISO 6507-1 2018-07	Metallic materials - Vickers hardness test - Part 1: Test method

2.5 X-ray fluorescence analysis - RFA (Test for mixed-up components)

SOP 14 Rev. 01-02	X-ray fluorescence analysis (Test for mixed-up components)
DIN 51418-2 * 2015-03	X-ray spectrometry - X-ray emission and X-ray fluorescence analysis (XRF) - Part 2: Definitions and basic principles for measurements, calibration and evaluation of results

2.6 Macroscopic and microscopic analysis *

DIN EN ISO 17639 2013-12	Destructive tests on welds in metallic materials - Macroscopic and microscopic examination of welds
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abbreviations used:

AD-HP	Working group pressure vessel; Production and testing of pressure vessels
DIN	German Institute for Standardization
EN	European standard
ISO	International Organization for Standardization
SOP	In-house method of SWS Werkstoffprüfung GmbH

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