

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-11144-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 14.12.2020

Date of issue: 14.12.2020

Holder of certificate:

Althaus Engineering GmbH
Oberer Westring 34, 33142 Büren

Tests in the fields:

manual non-destructive testing (radioscopy, ultrasonic testing, magnetic particle testing, penetrant testing and leak testing) on metallic components within installation and plant engineering

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

*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>*

1 Radioscopy

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: *radiographic testing: only radioscopy, screening; no film technique, no mobile operation*)

2 Manual ultrasonic testing

DIN EN ISO 17640
2011-04

Non-destructive testing of welds - Ultrasonic testing - Techniques, testing levels, and assessment

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 12680-1
2003-06

Founding - Ultrasonic examination - Part 1: Steel castings for general purposes

DIN EN 14127
2011-04

Non-destructive testing - Ultrasonic thickness measurement

DIN EN ISO 16809
2020-02

Non-destructive testing - Ultrasonic thickness measurement

3 Magnetic particle testing

DIN EN ISO 9934-1
2017-03

Non-destructive testing - Magnetic particle testing - Part 1: General principles

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

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

4 Penetrant testing

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|------------------------------|---|
| DIN EN ISO 3452-1 2014-09 | Non-destructive testing - Penetrant testing - Part 1: General principles |
| DIN EN 571-1 1997-03 | Non-destructive testing - Penetrant testing - Part 1: General principles (<i>withdrawn standard</i>) |
| 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 |

5 Leak testing

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| DIN EN 1593 1999-11 | Non-destructive testing - Leak testing - Bubble emission techniques |
| DIN EN 13184 2001-07 | Non-destructive testing - Leak test - Pressure change method |
| DIN EN 13185 2001-07 | Non-destructive testing - Leak testing - Tracer gas method |
| DIN EN ISO 20485 2018-05 | Non-destructive testing - Leak testing - Tracer gas method |

6 General standards

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| AD 2000-Merkblatt HP 5/3 Annex 1 2015-04 | Non-destructive testing of welded joints - Minimum requirements for non-destructive testing methods |
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Abbreviations used:

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| AD | Arbeitsgemeinschaft Druckbehälter |
| DIN | Deutsches Institut für Normung e.V. |
| EN | European Standard |
| ISO | International Organization for Standardization |
| IEC | International Electrotechnical Commission |