Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-18631-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: **19.10.2021**

Date of issue: 07.12.2021

Holder of certificate:

Ingenieurbüro F. Braun GbR
Gewerbestraße 4, 57258 Freudenberg

at the locations:

Gewerbestraße 4, 57258 Freudenberg
Werner-von-Siemens-Straße 16, 76694 Forst

Tests in the fields:

manual non-destructive testing (radiographic testing, ultrasonic testing, penetrant testing, magnetic particle testing, leak testing and visual testing) of metallic components in plant engineering and construction

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 procedures are marked with the following symbols of the sites where they are carried out:

Fr = Freudenberg Fo = Forst

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.

1 Radiographic testing

ISO 4993 2009-03	Steel and iron castings - Radiographic testing *(withdrawn document)*	Fr, Fo
DIN EN ISO 17636-1 2013-05	Non-destructive testing of welds - Radiographic testing - Part 1: X- and gamma-ray techniques with film	Fr, Fo
DIN EN 12681 2018-02	Founding - Radiographic testing - Part 1: Film techniques	Fr, Fo
DIN EN ISO 5579 2014-04	Non-destructive testing - Radiographic testing of metallic materials using film and X- or gamma rays - Basic rules	Fr, Fo
ASTM E 94 / E 94M 2017	Standard Guide for Radiographic Examination Using Industrial Radiographic Film	Fr, Fo
ASTM E 1030 / E 1030M 2015	Standard Practice for Radiographic Examination of Metallic Castings	Fr, Fo

2 Ultrasonic testing

DIN EN ISO 10893-8 2011-07	Non-destructive testing of steel tubes - Part 8: Automated ultrasonic testing of seamless and welded steel tubes for the detection of laminar imperfections	Fr
DIN EN ISO 10893-10 2011-07	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	Fr
DIN EN ISO 17640 2018-03	Non-destructive testing of welds - Ultrasonic testing - Techniques, testing levels, and assessment (here: *chapter 7-10 and Annex A*)	Fr
DIN EN 10228-3 2016-10	Non-destructive testing of steel forgings - Part 3: Ultrasonic testing of ferritic or martensitic steel forgings	Fr

DIN EN 10228-4 2016-10	Non-destructive testing of steel forgings - Part 4: Ultrasonic testing of austenitic and austenitic-ferritic stainless steel forgings	Fr
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)	Fr
DIN EN 10308 2002-03	Non-destructive testing - Ultrasonic testing of steel bars	Fr
DIN EN 12680-1 2003-06	Founding - Ultrasonic examination - Part 1: Steel castings for general purposes	Fr
DIN EN 12680-2 2003-06	Founding - Ultrasonic examination - Part 2: Steel castings for highly stressed components	Fr
DIN EN 12680-3 2012-02	Founding - Ultrasonic testing - Part 3: Spheroidal graphite cast iron castings	Fr
DIN EN ISO 17405 2014-10	Non-destructive testing - Ultrasonic testing - Technique of testing claddings produced by welding, rolling and explosion	Fr
DIN EN 10160 1999-09	Ultrasonic testing of steel flat product of thickness equal to or greater than 6 mm (reflection method)	Fr

3 Penetrant testing

DIN EN ISO 3452-1 2014-09	Non-destructive testing - Penetrant testing - Part 1: General principles (here: *chapter 8*)	Fr
ISO 4987 2010-03	Steel castings - penetrant testing	Fr
DIN EN 1371-1 2012-02	Founding - Liquid penetrant testing - Part 1: Sand, gravity die and low pressure die castings	Fr

DIN EN 1371-2 2015-04	Founding - Liquid penetrant testing - Part 2: Investment castings	Fr
DIN EN 10228-2 2016-10	Non-destructive testing of steel forgings - Part 2: Penetrant testing	Fr
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	Fr

4 Magnetic particle testing

ISO 4986 2010-03	Steel and iron castings - Magnetic particle testing	Fr
DIN EN ISO 17638 2017-03	Non-destructive testing of welds - Magnetic particle testing	Fr
DIN EN ISO 9934-1 2017-03	Non-destructive testing - Magnetic particle testing - Part 1: General principles (here: *chapter 7-14*)	Fr
DIN EN 10228-1 2016-10	Non-destructive testing of steel forgings - Part 1: Magnetic particle inspection	Fr
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	Fr
DIN EN 1369 2013-01	Founding - Magnetic particle testing	Fr

5 Leak testing

DIN EN 1593 1999-11	Non-destructive testing - Leak testing - Bubble emission techniques	Fr
DIN EN 1779 1999-10 Amendment 2005-02	Non-destructive testing - Leak testing - Criteria for the method and technique selection (here: *chapter 7*)	Fr

6 Visual testing

DIN EN ISO 17637 2017-04	Non-destructive testing of welds - Visual testing of fusion-welded joints (here: *chapter 5 nnd 6*)	Fr
DIN EN 13018 2016-06	Non-destructive testing - Visual testing - General principles (here: *chapter 5 and 6*)	Fr

7 Cross standards for NDT

DIN EN 13445-5 2017-12	Unfired pressure vessels - Part 5: Inspection and testing	Fr, Fo
ASME Latest Edition	Boiler and Pressure Vessel Code - Section I Rules for Construction of Power Boilers Section I Power Boilers Section V Nondestructive Examination Section VIII Pressure Vessels, Division 1 and 2 Section IX Welding and Brazing Qualifications	Fr, Fo
DVGW-GW 350 2015-06	Welding Joints of Steel Pipelines for Gas and Water Supply - Manufacturing, Testing and Evaluation (here: *chapters 9.3.2, 9.3.3, 9.3.4 and 9.3.5*)	Fr, Fo

Abbreviations used:

ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
DIN	German Institute for Standardization
DVGW	German association of gas- and water industry
EN	European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization