

# Deutsche Akkreditierungsstelle GmbH

## Annex to the Accreditation Certificate D-PL-11065-01-00 according to DIN EN ISO/IEC 17025:2005

Period of validity: 25.03.2014 to 07.12.2015

Date of issue: 25.03.2014

Holder of certificate:

**Actemium Cegelec GmbH**  
**Colmarer Straße 11, 60528 Frankfurt am Main**

for the testing laboratory

**Actemium Cegelec GmbH**  
**Business Unit Actemium NDS Nürnberg**  
**Gutenstetter Straße 14a, 90449 Nürnberg**

Tests in the fields:

**manual non-destructive testing (ultrasonic-, penetration-, magnetic particle-, eddy current- and visual testing) and mechanized ultrasonic-, eddy current- and visual testing at metallic materials in the metal producing and metal processing industry as well as in the plant engineering and plant construction**

Abbreviations used: see last page

### **1 Ultrasonic testing**

DIN ISO 4386-1 1992-11	Plain bearings - Metallic multilayer plain bearings - Part 1: Non-destructive ultrasonic testing of bond
DIN ISO 4386-2 1982-10	Plain bearings - Metallic multilayer plain bearings - Part 2: Destructive testing of bond for bearing metal layer thicknesses $\geq 2$ mm
DIN EN 583-1 1998-12	Non-destructive testing - Ultrasonic examination - Part 1: General principles

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DIN EN 583-3 1997-06	Non-destructive testing - Ultrasonic testing - Part 3: Transmission technique
DIN EN 583-4 2002-12	Non-destructive testing - Ultrasonic examination - Part 4: Examination for discontinuities perpendicular to the surface
DIN EN 583-5 2001-02	Non-destructive testing - Ultrasonic examination - Part 5: Characterization and sizing of discontinuities
DIN V ENV 583-6 2000-03	Non-destructive testing - Ultrasonic examination - Part 6: Time-of-flight diffraction technique as a method for detection and sizing of discontinuities
DIN EN 1714 2002-09	Non-destructive testing of welds - Ultrasonic testing of welded joints
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 1998-07	Non-destructive testing of steel forgings - Part 3: Ultrasonic testing of ferritic or martensitic steel forgings
DIN EN 10228-4 1999-10	Non-destructive testing of steel forgings - Part 4: Ultrasonic testing of austenitic and austenitic-ferritic stainless steel forgings
DIN EN 10246-6 2000-03	Non-destructive testing of steel tubes - Part 6: Automatic full peripheral ultrasonic testing of seamless steel tubes for the detection of transverse imperfections
DIN EN 10246-7 2005-12	Non-destructive testing of steel tubes - Part 7: Automatic full peripheral ultrasonic testing of seamless and welded (except submerged arc welded) tubes for the detection of longitudinal imperfections
DIN EN 10246-8 2000-03	Non-destructive testing of steel tubes - Part 8: Automatic ultrasonic testing of the weld seam of electric welded steel tubes for the detection of longitudinal imperfections
DIN EN 10246-9 2000-06	Non-destructive testing of steel tubes - Part 9: Automatic ultrasonic testing of the weld seam of submerged arc-welded steel tubes for the detection of longitudinal and/or transverse imperfections

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DIN EN 10246-13 2000-07	Non-destructive testing of steel tubes - Part 13: Automatic full peripheral ultrasonic thickness testing of seamless and welded (except submerged arc welded) steel tubes
DIN EN 10246-14 2000-03	Non-destructive testing of steel tubes - Part 14: Automatic ultrasonic testing of seamless and welded (except submerged arc-welded) steel tubes for the detection of laminar imperfections
DIN EN 10246-15 2000-07	Non-destructive testing of steel tubes - Part 15: Automatic ultrasonic testing of strip/plate used in the manufacture of welded steel tubes for the detection of laminar imperfections
DIN EN 10246-16 2000-07	Non-destructive testing of steel tubes - Part 16: Automatic ultrasonic testing of the area adjacent to the weld seam of welded steel tubes for the detection of laminar imperfections
DIN EN 10246-17 2000-07	Non-destructive testing of steel tubes - Part 17: Ultrasonic testing of tube ends of seamless and welded steel tubes for the detection of laminar imperfections
DIN EN 12680-1 2003-06	Founding - Ultrasonic examination - Part 1: Steel castings for general purposes
DIN EN 12680-2 2003-06	Founding - Ultrasonic examination - Part 2: Steel castings for highly stressed components
DIN EN 12680-3 2003-06	Founding - Ultrasonic testing - Part 3: Spheroidal graphite cast iron castings
DIN 25435-1 2005-09	In-service inspections for primary coolant circuit components of light water reactors - Part 1: Automated ultrasonic testing
DIN 54123 1980-10	Non-destructive Test - Ultrasonic Method of Testing Claddings, Produced by Welding, Rolling and Explosion
SEP 1914 1983-08	Non-destructive testing of fusion-welded seams in pipes of stainless steels
SEP 1915 <sup>1)</sup> 1994-09	Ultrasonic testing of steel tubes for longitudinal defects

<sup>1)</sup> From steel institute VDEh withdrawn, but as normative document continue used.

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SEP 1916 1989-12	Non-destructive testing fusion welded ferritic steel pipes
SEP 1919 <sup>1)</sup> 1977-06	Ultrasonic testing for laminations of pipes of creep-resistant steels
SEP 1920 1984-12	Ultrasonic testing of rolled semi-finished products on internal material discontinuities
SEP 1921 <sup>1)</sup> 1984-12	Ultrasonic testing of forgings and forged steel bars with diameters or edge lengths of ~ 100 mm and above
SEP 1922 <sup>1)</sup> 1985-07	Ultrasonic testing of forgings of ferritic steel
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

**2 Magnetic particle testing**

ISO 4986 1992-06	Steel castings - Magnetic particle inspection (Stahlguss - Magnetpulverprüfung)
DIN EN ISO 9934-1 2002-03	Non-destructive testing - Magnetic particle testing - Part 1: General principles
DIN EN 1290 <sup>2)</sup> 2002-09	Non-destructive testing of welds - Magnetic particle testing of welds
DIN EN 10228-1 1999-07	Non-destructive testing of steel forgings - Part 1: Magnetic particle inspection
DIN EN 10246-18 2000-07	Non-destructive testing of steel tubes - Part 18: Magnetic particle inspection of the tube ends of seamless and welded ferromagnetic steel tubes for the detection of laminar imperfections
SEP 1935 <sup>1)</sup> 1982-06	Seam testing of castings of steel - Magnetic powder test

<sup>1)</sup> From steel institute VDEh withdrawn, but as normative document continue used.

<sup>2)</sup> From DIN withdrawn, but as normative document continue used.

### 3 Penetrant testing

ISO 3452-1 2008-09	Non-destructive testing - Penetrant testing - Part 1: General principles
DIN ISO 4386-3 1992-11	Plain bearings - Metallic multilayer plain bearings - Part 3: Non-destructive penetrant testing
DIN EN 571-1 1997-03	Non-destructive testing - Penetrant testing - Part 1: General principles
DIN EN 1371-2 1998-07	Founding - Liquid penetrant inspection - Part 2: Investment castings
DIN EN 10228-2 1998-06	Non-destructive testing of steel forgings - Part 2: Penetrant testing
DIN EN 10246-11 2000-06	Non-destructive testing of steel tubes - Part 11: Liquid penetrant testing of seamless and welded steel tubes for the detection of surface imperfections
SEP 1936 <sup>1)</sup> 1982-06	Seam testing of castings of steel - Penetration testing

### 4 Eddy current testing

DIN EN 10246-2 2000-06	Non-destructive testing of steel tubes - Part 2: Automatic eddy current testing of seamless and welded (except submerged arc-welded) austenitic and ferritic-austenitic steel tubes for verification of hydraulic leak-tightness
DIN EN 10246-3 2000-03	Non-destructive testing of steel tubes - Part 3: Automatic eddy current testing of seamless and welded (except submerged arc-welded) steel tubes for the detection of imperfections
DIN 54141-3 1987-02	Non-destructive testing - eddy current testing of pipes and tubes - Procedure
SEP 1925 1980-01	Electromagnetic testing of pipes for the proof of impermeability

<sup>1)</sup> From steel institute VDEh withdrawn, but as normative document continue used.

## 5 Visual testing

DIN EN 970 1997-03	Non-destructive examination of fusion welds - Visual examination
DIN EN 13018 2001-07	Non-destructive testing - Visual testing - General principles

## 6 General rules on several test methods

DIN 25435 2003-05	In-service inspections for primary coolant circuit components of light water reactors
KTA 3201.4 2009-11	Components of the reactor coolant pressure boundary of light water reactors - Part 4: Inservice inspections and operational monitoring
KTA 3401.4 1991-06	Reactor containments of steel - Part 4: Inservice inspections
SEP 1917 1994-09	Nondestructive testing of resistance welded pipes of ferritic steels
AD HP 5/5 Anlage 1 2002-01	Non-destructive testing of welded joints - Minimum requirements for non-destructive testing methods
ASME BPVC Section V 2005	ASME Boiler and Pressure Vessel Code - Section V: Non-destructive examination
ASME BPVC Section XI 2005	ASME Boiler and Pressure Vessel Code - Section XI: Rules for inservice inspection of nuclear power plant components

### abbreviations used:

AD-HP	Working group pressure vessels - Production and testing
ASME	American Society of Mechanical Engineering
	ASME Boiler and Pressure Vessel Code
KTA	Nuclear Safety Standards Commission
SEP	Steel and iron test sheet of the Association of German Steel Institute