SGS Polska Sp z o.o. Certificate of Laboratory Approval

No: Lab-WT-01/2020

SGS Polska Sp. z o.o Certifies that

LABORATORIUM BADAWCZE ULTRA NDT S.C. Str. Przemysłowa 15, 89-600 Chojnice

Meeting the requirements of PN-EN ISO / IEC 17025: 2005, it has been recognized by the **SGS Polska Sp z o.o.** for performing laboratory tests.

The detailed scope of the recognized testing methods is set out in the Annex to this certificate.

Date of validity: 21.07.2022

SGS Polska Sp. z o.o. Dyrektor Industrial Services

Sergiusz Berendt

INDIV Director By authority: Sergiusz Berendt

Annex to the Laboratory Recognition Certificate No. Lab-WT-01/2020 Warsaw, 21.07.2020

The scope of research methods covered by recognition

LABORATORIUM BADAWCZE ULTRA NDT S.C. Str. Przemysłowa 15, 89-600 Chojnice

NDT Methods

	ND1 Methods							
On	Test method / Measurement	Tested objects / group of objects	Tested features	Standard or documented procedure / instruction				
1.	Visual examination	Technical devices, metallurgical materials, inseparable connections	Shape imperfections and surface discontinuities of welded joints	PN-EN 13018:2016-04 PN-EN ISO 17637:2017-02				
2.	Penetration testing	Technical devices, metallurgical materials, inseparable connections	Discontinuities: - welded joints - steel pipes - forgings - castings open to the tested surface	PN-EN ISO 3452-1:2013-08 PN-EN ISO 10893-4:2011 PN-EN 10228-2:2016-07 PN-EN 1371-1:2012				
3.	Magnetic particle testing	Technical devices, metallurgical materials, inseparable connections	Surface and subsurface discontinuities: - welded joints - steel pipes - forgings - castings lying at a depth of not more than 2 mm	PN-EN ISO 9934-1:2017-02 PN-EN ISO 17638:2017-01 PN-EN ISO 10893-5:2011 PN-EN 10228-1:2016-07 PN-EN 1369:2013-04				
4.	Ultrasonic testing	Technical devices, metallurgical materials, inseparable connections	Discontinuities: 1. welded joints between 2 mm and 8 mm thick 2. welded joints from 8 mm thick 3. flat steel products from 6 mm thick 4. thickness measurements in the range from 0.6 mm to 300 mm 5. Phased Array (UT- PA) with set of ultrasonic testing probes. 6. Automatic UT-PA (use of (semi) automated phased array technology 7. Austenitic welded joints, austenitic- ferritic welded joints and nickel based materials	PN-EN ISO 16810:2014-06 IBUS-TD 07 version 07/16 PN-EN ISO 17640:2018-01 PN-EN 10160:2001 PN-EN ISO 19285:2017-11 PN-EN ISO 13588:2014 PN-EN ISO 22825:2017 PN-EN 14127:2011				
5.	Radiographic testing	Technical devices, metallurgical materials, inseparable connections	Discontinuities in welds up to 75 mm thick. Radiographic examination of castings	PN-EN ISO 5579:2014-02 PN-EN ISO 17636-1:2013-06 PN-EN 12681-1:2018-01				



On	Test method / Measurement	Tested objects / group of objects	Tested features	Standard or documented procedure / instruction
6.	Leak testing. Bubble test	Technical devices, metallurgical materials, inseparable connections	Leakage in welded joints	PN-EN 1593:2004 PN-EN 1779:2002 PN-EN 1779:2002/A1:2006

DT Methods

ř .	D1 Methods							
On	Test method / Measurement	Tested objects / group of objects	Tested features	Standard or documented procedure / instruction				
1.	Tensile test	Metallurgical materials, inseparable connections	Properties that are directly measured via a tensile test are ultimate tensile strength, breaking strength, maximum elongation and reduction in area. (200kN max)	PN-EN ISO 4136:2013 PN-EN ISO 6892-1:2016-09E PN-EN 876:1999				
2.	Flexural test	Metallurgical materials, inseparable connections	provides values for the modulus of elasticity in bending, flexural stress and the flexural stress-strain response of the material	PN-EN ISO 7438:2016 PN-EN5173:2010/A1:2012				
3.	Fracture test	Welded joints	Discontinuities in welds after breaking the joints	PN-EN ISO 9017:2014-01E				
4.	Charpy pendulum impact test	Metallurgical materials, inseparable connections	Material impact (max 300J) with temperature: - Normal temperature - Reduced temperature (- 50°C)	PN-EN ISO 148-1:2010 PN-EN ISO 9016:2013-05E				
5.	Macroscopic examination	Welded joints	Macroscopic of welded joints	PN-EN ISO 17639:2013				

