

Section	Testing
Mechanical and technological testing	Tensile test at room temperature with a high-precision strain gauge up to 600 kN
	Tensile test at elevated temperature with a high-temperature strain gauge up to 1,000 °C
	Tensile test at low temperature (-196 °C) with a high-precision strain gauge
	Notched impact bending test, 2 pendulum impact devices: energy 450 J in accordance with ISO standards, 750 J in accordance with ASTM standards (from room temperature to -196 °C)
	Compression tests up to 600 kN
	Shear tests
	2 fully automatic hardness testing systems
	Vickers hardness testing: HV0.3 to HV30
	Rockwell hardness testing (HRC, HRB)
	Vickers hardness mapping in 2D and 3D
	Mobile hardness testing using the UCI method
	Test equipment for technical testing of pipes with welded seams (e.g. bending, flaring, ring tensile and ring folding tests)
	Fracture testing
Metallography	Sample preparation for metallographic section preparation, both automated and manual
	Digital image processing and archiving
	Microscopes and imaging stations for micro- and macroscopic examinations
	Microstructural analysis
	Grain size determination
	Phase analysis
	Delta ferrite determination
	Coating and surface layer characteristics
	Portable metallography
Scanning electron microscopy (SEM)	Secondary and backscattered electron imaging
	Energy-dispersive X-ray microanalysis (EDX)
	Elemental distribution images

List of test methods

Field	Testing
Corrosion testing	Fully equipped corrosion laboratory for all standard corrosion tests on stainless steels in accordance with ASTM and ISO standards
	Testing for intergranular corrosion
	Pitting corrosion testing
Analysis of chemical composition	Stationary optical emission spectroscopy
	Portable X-ray fluorescence analysers
	Mobile optical emission spectroscopy
Other tests	Test equipment for measuring permeability and residual magnetism
	Surface roughness measurement using the indentation method
	Delta ferrite measuring devices (Fischer probe)
	Ferrite indicator test
	Laboratory chamber furnaces for heat treatment (temperature: max. 1,280 °C)
	Strain gauge measurement technology
	Temperature measurement using thermocouples

June 2025