

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

VÍTKOVICE TESTING CENTER s.r.o.

Testing Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Testing laboratory locations:

1	Chemical Laboratory	Pohraniční 584/142, Hulváky, 703 00 Ostrava
2	Metallographic Testing Laboratory	Pohraniční 584/142, Hulváky, 703 00 Ostrava
3	Mechanical Properties Testing Laboratory	Pohraniční 584/142, Hulváky, 703 00 Ostrava
4	Non-Destructive Testing	Pohraniční 584/142, Hulváky, 703 00 Ostrava

*The laboratory requires/applies a flexible scope of accreditation permitted as detailed in the Annex.
Updated list of activities provided within the flexible scope of accreditation is available at the
laboratory from the Quality Manager.*

The laboratory provides expert opinions and interprets test results.

1 Chemical Laboratory

Tests:

Ordinal number ¹	Test procedure/ method name	Test procedure/ method identification ²	Tested object
1	Determination of C, Mn, Si, P, S, Cu, Ni, Cr, Mo, V, Ti, W, Nb, Al total, Co, Zr, B, As, Sn, Pb, Sb, Ca, Zn, N, Mg, Ta, Bi, by optical emission spectrometry method,	QI-VTC.10 GEN-0001 p. 6.1.1 (ASTM E 415, ASTM E 1086, ASTM E 1999, SPECTRO manual) QI-VTC.10 ASME-0001	Technical iron
	CEV by calculation from measured values	ČSN EN 10025-1	
2*	Determination of Mn, Cu, Ni, Cr, Mo, V, Ti, W, Nb by X-ray fluorescence spectrometry	QI-VTC.10 GEN-0001 p. 6.1.2 (Thermo manual) QI-VTC.10 ASME-0001	Technical iron
3	Determination of C, S by an IR analyzer after combustion in induction furnace	QI-VTC.10 GEN-0002 (ASTM E 1019, LECO manual) QI-VTC.10 ASME-0001	Technical iron
4	Determination of N by an analyzer with thermal conductivity detection after melting in inert gas	QI-VTC.10 GEN-0003 (ASTM E 1019, ČSN EN ISO 10720, LECO manual) QI-VTC.10 ASME-0001	Technical iron

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Ordinal number ¹	Test procedure/ method name	Test procedure/ method identification ²	Tested object
5	Determination of O by an analyzer with IR detection after melting in inert gas	QI-VTC.10 GEN-0004 (ASTM E 1019, ČSN EN 10276-2)	Technical iron
6	Determination of H by an analyzer with thermal conductivity detection after heating in inert gas	QI-VTC.10 GEN-0010 (LECO 203-601-136 Application report, LECO manual)	Technical iron
7	Reserved		
8	Determination of P by titration	QD-VTC.10 CHEM-0001 p. 7.3, 7.4, 7.5 (ASTM E 350, p. 172-179, ASTM E 351, p. 160-167)	Technical iron
9	Determination of Cr by titration	QD-VTC.10 CHEM-0001 p. 7.7 (ČSN EN 24937)	Technical iron
10	Determination of V by titration	QD-VTC.10 CHEM-0001 p. 7.7 (ČSN ISO 4947)	Technical iron
11	Determination of Ni by photometry	QD-VTC.10 CHEM-0001 p. 7.6 (ČSN 420516:1981)	Technical iron
12	Determination of Mo by photometry	QD-VTC.10 CHEM-0001 p. 7.8 (ČSN ISO 4941:1993)	Technical iron
13	Reserved		
14	Determination of Si by gravimetry	QD-VTC.10 CHEM-0001 p. 7.2 (ASTM E 350, p. 46-52)	Technical iron



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Ordinal number ¹	Test procedure/ method name	Test procedure/ method identification ²	Tested object
15	Determination of Cu, Ni, Cr, Al _{total} , Mn, Mg, Co, Mo, V, Pb, Zn, Cd by flame atomic absorption spectrometry method	QD-VTC.10 AAS-0001 (ČSN EN 24943, ČSN EN 10136, ČSN EN 10188, ČSN EN 29658, ČSN EN ISO 10700, ČSN 420528, ČSN 420521, ČSN 420518:1982, ČSN ISO 9647, ČSN EN 10181)	Technical iron
16	Reserved		
17	Measurement of mass activity of samples by gamma-ray spectrometry	QI-VTC.10 GEN-0019 (Exploranium manual, Georadis manual)	Technical iron,
18-20	Reserved		
21	Determination of SiO ₂ , Cr ₂ O ₃ , MgO, MnO, Al ₂ O ₃ , CaO, P ₂ O ₅ , TiO ₂ , S, FeO, Fe _{total} by X-ray fluorescence spectrometry, Fe ₂ O ₃ by calculation from measured values	QD-VTC.10 RTG-0013 (ASTM E 1031-96, SPECTRO XRF Report-49)	Slags
22	Determination of SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , TiO ₂ , MgO, CaO, Cr ₂ O ₃ , K ₂ O, V ₂ O ₅ , MnO, ZrO ₂ , Fe _{total} by X-ray fluorescence spectrometry method, FeO by calculation from measured values	QD-VTC.10 RTG-0004 (ČSN EN ISO 12677)	Refractory materials
23	Determination of C, S by an analyzer with IR detection after combustion in induction furnace, CO, CO ₂ , SO ₂ , SO ₃ by calculation from measured values	QD-VTC.10 LECO CS-0002 (LECO 209-141-001 Application report)	Refractory materials, oxide materials

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24	Determination of Al ₂ O ₃ by titration, Al by calculation from measured values	QD-VTC.10 CHEM-0010 p. 6.8 (ČSN 720109-1)	Refractory materials, oxide materials
25	Determination of MgO by titration, Mg by calculation from measured values	QD-VTC.10 CHEM-0010 p. 6.15 (ČSN 720114-1)	Refractory materials, oxide materials
26	Determination of CaO by titration, Ca by calculation from measured values	QD-VTC.10 CHEM-0010 p. 6.11 (ČSN 720113-1)	Refractory materials, oxide materials
27	Determination of Cr ₂ O ₃ by titration, Cr by calculation from measured values	QD-VTC.10 CHEM-0010 p. 6.18 (ČSN 441606)	Refractory materials, oxide materials
28	Determination of P ₂ O ₅ by titration, P by calculation from measured values	QD-VTC.10 CHEM-0010 p. 6.21 (ČSN 722041-12:1976)	Refractory materials, oxide materials
29	Determination of Fe _{total} , Fe _{metal} , FeO by titration, Fe ₂ O ₃ by calculation from measured values	QD-VTC.10 CHEM-0010 p. 6.5, 6.4, 6.7, 6.6 (ČSN 722041-10:1992)	Refractory materials, oxide materials
30	Determination of Fe ₂ O ₃ by photometry, Fe _{total} by calculation from measured values	QD-VTC.10 CHEM-0010 p. 6.3 (ČSN 720110-5)	Refractory materials, oxide materials
31	Determination of TiO ₂ by photometry, Ti by calculation from measured values	QD-VTC.10 CHEM-0010 p. 6.9, 6.10 (ČSN 720112-1, ČSN 720112-3:1984)	Refractory materials, oxide materials
32	Determination of P ₂ O ₅ by photometry, P by calculation from measured values	QD-VTC.10 CHEM-0010 p. 6.22 (ČSN 722038:1977)	Refractory materials, oxide materials

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33	Determination of SiO ₂ by gravimetry, Si by calculation from measured values	QD-VTC.10 CHEM-0010 p. 6.2 (ČSN 720105-1)	Refractory materials, oxide materials
34	Determination of the loss on drying, moisture content by gravimetry	QD-VTC.10 CHEM-0010 p. 6.28 (ČSN 720102, ČSN ISO 3087)	Refractory materials, oxide materials
35	Determination of the loss on ignition by gravimetry	QD-VTC.10 CHEM-0010 p. 6.27 (ČSN EN ISO 26845)	Refractory materials, oxide materials
36	Determination of Na ₂ O, K ₂ O, MgO, CaO, Al ₂ O ₃ , MnO, FeO, Fe ₂ O ₃ , Cr ₂ O ₃ , Zn, Pb, Cd by flame atomic absorption spectrometry method, Na, K, Mg, Ca, Al, Mn, Fe _{total} , Cr by calculation from measured values	QD-VTC.10 AAS-0003 (ČSN EN ISO 21587-3, ČSN EN ISO 10058-3, ČSN 722030-12:1992)	Refractory materials, oxide materials
37-40	Reserved		
41	Determination of Si, Cr, Mn, P, Al by X-ray fluorescence spectrometry	QD-VTC.10 RTG-0010 (JIS G 1351, SPECTRO XRF Report-49)	Ferrosilicomanganese, ferrosilicon
42	Determination of C, S by an analyzer with IR detection after combustion in induction furnace	QD-VTC.10 LECO CS - 0001 (LECO 209-141-001 Application report)	Ferroalloys
43	Determination of Cr by titration	QD-VTC.10 CHEM-0011 p. 6.6.1 (ČSN 420550-2)	Ferrochromium
44	Determination of P by titration	QD-VTC.10 CHEM-0011 p. 6.6.3 p. 6.3.3 p. 6.1.3	Ferrochromium, ferromanganese, ferrosilicon,

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		p. 6.8.3 p. 6.9.6 p. 6.4.3 (ČSN 420513:1978)	ferromolybdenum, ferrovanadium, ferrosilicomanganese
45	Determination of Mn by titration	QD-VTC.10 CHEM-0011 p. 6.3.1 p. 6.4.2 (ČSN 420511)	Ferromanganese, ferrosilicon
46	Determination of V by titration	QD-VTC.10 CHEM-0011 p. 6.9.1 (ČSN 420553-1)	Ferrovanadium
47	Reserved		
48	Determination of Si by gravimetry	QD-VTC.10 CHEM-0011 p. 6.6.2 p. 6.3.2 p. 6.1.1 p. 6.9.2 p. 6.8.2 p. 6.4.1 (ČSN 420550-5, ČSN 420551-2, ČSN 420552-1, ČSN 420553-3, ČSN 420554-4, ČSN 420557-2)	Ferrochromium, ferromanganese, ferrosilicon, ferrovanadium, ferromolybdenum, ferrosilicomanganese
49	Determination of Mo by gravimetry	QD-VTC.10 CHEM-0011 p. 6.8.1 (ČSN 420554-2)	Ferromolybdenum
50-51	Reserved		
52	Determination of Cr, Mn, Al by flame atomic absorption spectrometry method	QD-VTC.10 AAS-0004 p. 6.2 (ČSN 42 0552-3, ČSN 42 0552-2, ČSN 42 0552-6)	Ferrosilicon

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53	Determination of Al, Cu by flame atomic absorption spectrometry method	QD-VTC.10 AAS-0004 p. 6.3 (ČSN 42 0553-2, ČSN 42 0553-5)	Ferrovanadium
54-60	Reserved		
61	Determination of Mn by photometry	QD-VTC.10 CHEM-0013 p. 6.4 (ČSN ISO 886)	Aluminium, aluminium alloys
62	Reserved		
63	Determination of Fe by photometry	QD-VTC.10 CHEM-0013 p. 6.3.2 (ČSN ISO 793)	Aluminium, aluminium alloys
64	Determination of Si by gravimetry	QD-VTC.10 CHEM-0013 p. 6.2 (ČSN ISO 797)	Aluminium, aluminium alloys
65	Determination of Mg, Cu, Zn, Pb, Sn, Cr, Mn, Ni, Fe by flame atomic absorption spectrometry method	QD-VTC.10 AAS-0005 (ČSN ISO 3256, ČSN ISO 3980, ČSN ISO 5194, ČSN ISO 4192, ČSN 420670-14:1982, ČSN ISO 4193, ČSN 420672-2:1989, ČSN ISO 3981, ČSN 420672-1:1989)	Aluminium, aluminium alloys
66-70	Reserved		
71	Determination of total water and water in analytical sample by gravimetry	QD-VTC.10 CHEM-0012 p. 7.1.6 p. 7.1.7 (ČSN 44 1377)	Solid fuels
72	Determination of ash content by gravimetry	QD-VTC.10 CHEM-0012 p. 7.1.8 (ČSN ISO 1171)	Solid fuels

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73	Determination of volatile combustible matter by gravimetry	QD-VTC.10 CHEM-0012 p. 7.1.1 (ČSN ISO 562)	Solid fuels
74	Determination of gross calorific value by calorimetry and net calorific value by calculation from measured values	QD-VTC.10 CHEM-0012 p. 7.1.3 (ČSN ISO 1928, LECO 200-519 manual)	Solid fuels
75	Determination of S by titration after combustion in Mars oven	QD-VTC.10 CHEM-0012 p. 7.1.2 (ČSN ISO 351:2001)	Solid fuels
76	Determination of H by gravimetry after combustion in an electric oven	QD-VTC.10 CHEM-0012 p. 7.1.5 (ČSN 441355)	Solid fuels
77	Determination of N by an analyzer with thermal conductivity detection after melting in inert gas	QD-VTC.10 LECO TC 436-0004 (LECO 203-821-037 Application report)	Solid fuels
78-80	Reserved		
81	Determination of Cl, S by X-ray fluorescence spectrometry	QD-VTC.10-RTG-0006 p. 7.3, p. 7.2 (DIN 51577-4, ASTM D6481)	Oils, lubricants
82	Determination of S by X-ray fluorescence spectrometry method	QD-VTC.10-RTG-0006 p. 7.1 (ČSN EN ISO 20847)	Engine fuels
83	Determination of pH by potentiometry	QD-VTC.10 CHEM-0014 (ČSN EN 12457-1, ČSN EN 12457-2, ČSN EN 12457-3, ČSN EN 12457-4, ČSN ISO 10523, ČSN 650313, Eutech Instruments manual)	Waste, surface, ground, service water, aqueous solutions, extracts

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- ¹ Asterisk at the ordinal number identifies the tests, which the Laboratory is qualified to carry out outside the permanent laboratory premises.
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technical iron	materials with iron matrix, e.g. steels, cast irons, pig irons
CEV	carbon equivalent
IR	Infrared
refractory materials	high alumina content materials (e.g. mullite, corundum, bauxite), aluminosilicate (e.g. shale, clay, fire clay), siliceous, aluminium-zirconium siliceous, zirconia materials, chromite sands
oxide materials	charge materials with iron matrix (e.g. iron ores and pellets, iron concentrates, ore mixtures, agglomerates), metallurgical waste with iron matrix (e.g. iron dust, scale), slags, slag-forming materials (e.g. lime, limestone, dolomite, magnesite)
slags	steel-furnace slags, blast-furnace slags and materials with non-ferrous matrix similar to slags
ferroalloys	ferrochromium, ferromanganese, ferrosilicon, ferrosiliconmanganese, ferrovandium, ferromolybdenum, ferrotungsten
solid fuels	e.g. black coal, anthracite, lignite, coke, solid biofuels, solid alternative fuels and other solid carbon substances, e.g. electrode materials
oils, lubricants	liquid oil-based or lubricant-based samples, e.g. hydraulic fluids, additives

Annex:

Flexible scope of accreditation

Ordinal numbers of tests
1, 2, 15, 17, 21, 22, 36, 41, 48, 52, 53, 65, 76, 81, 82, 83

The Laboratory is allowed to modify the test methods listed in the Annex within the specified scope of accreditation provided the measuring principle is observed. The flexible approach to the scope of accreditation cannot be applied to the tests not included in the Annex.



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2 Metallographic Testing Laboratory

Tests:

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Tested object
1-200	Reserved		
201*	Testing of microstructure	QI-VTC.20 GEN-0020 (ČSN 420015, ČSN 421240, ČSN 420461:1978 ČSN 420461, ČSN 420469, ČSN 038137, ČSN EN ISO 945-1, ČSN EN ISO 17639, ČSN EN ISO 15614-2, ČSN EN ISO 15614-7:2007, ČSN EN ISO 5832-3, ISO 9042, ISO 20160, ASTM A 247, ASTM E 562, ASTM E 1268, ASTM A923 method A, GOST 8233, GOST 5640, GOST 3443, VN 435230)	Metallurgical and engineering products based on alloys of iron and non-ferrous metals
202	Determination of grain size	QI-VTC.20 GEN-0021 (ČSN EN ISO 643, ČSN EN ISO 2624, DIN 50601:1985, ASTM E 1382, ASTM E 112, GOST 5639) QI-VTC.20 ASME-0002	Metallurgical and engineering products based on alloys of iron and non-ferrous metals

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Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Tested object
203	Determination of the content of non-metallic inclusions	QI-VTC.20 GEN-0022 (ČSN ISO 4967, ASTM E 45 p. 12 – method A, p. 15 – method D, DIN 50 602:1985 p. 8.2.1- method M, p. 8.2.2 – method K, GOST 1778 p. 3.1 – method Š1, Š4)	Metallurgical and engineering products based on alloys of iron and non-ferrous metals
204	Determination of depth of layers	QI-VTC.20 GEN-0023 (ČSN EN ISO 2639, ČSN EN ISO 1463, ČSN EN ISO 3887, ČSN EN ISO 6507-1, ASTM E 1077 DIN 50190-3)	Metallurgical and engineering products based on alloys of iron and non-ferrous metals
205	Reserved		
206*	Testing of microstructure using replicas	QI-VTC.20 GEN-0025 (ISO 3057, ASTM E 1351, DIN 54 150:1977)	Metallurgical and engineering products based on alloys of iron and non-ferrous metals
207*	Testing of macrostructure by sulphur prints	QI-VTC.20 GEN- 0026 (ISO 4968, ASTM E 1180, DBS 918 002, UIC 810-1, UIC 811-1)	Metallurgical and engineering products based on alloys of iron and non-ferrous metals
208*	Testing of macrostructure	QI-VTC.20 GEN- 0027 (ČSN 420467, ISO 4969, ASTM E 340, ASTM E 381, GOST 10243 DBS 918 002)	Metallurgical and engineering products based on alloys of iron and non-ferrous metals

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Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Tested object
209	Detection of defects in weld joints	QI-VTC.20 GEN-0028 (ČSN 070622, ČSN EN ISO 15614-1, ČSN EN ISO 15614-2, ČSN EN ISO 15614-7, ČSN EN ISO 15614-12, ČSN EN ISO 14555, ČSN EN 764-4, ČSN EN ISO 17639, ČSN EN 12797, ČSN EN 12952-5, ČSN EN 12952-6, ASME Code IX, ed. 2015 p. QW 183, 184, 192, 193, 196, 197 ASME Code IX, ed. 2013 p. QW 183, 184, 192, 193, 196, 197 ASME Code IX, ed. 2010, Add. 2011 p. QW 183, 184, 192, 193, 196, 197)	Metallurgical and engineering products based on alloys of iron and non-ferrous metals
210	Testing of resistance of corrosion-resistant steel to intergranular corrosion	QI-VTC.20 GEN-0029 (ČSN EN ISO 3651-2 method A, ASTM A 262 - method E, GOST 6032-84, method AM, AMU, GOST 6032-89, method AM, AMU , GOST 6032 – 2003, method AMU, GOST 6032, method AM, AMU) QI-VTC.20 ASME-0001	Metallurgical and engineering products based on alloys of iron

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211	Testing by means of fractures	QI-VTC.20 GEN-0030 (SEP 1584, PN-60/H-04509, TPZ-M22-71)	Metallurgical and engineering products based on alloys of iron
212	Testing of resistance to hydrogen-induced cracking	QI-VTC.20 GEN-0031 (ČSN EN 10229, NACE TM 0284, API 5L)	Metallurgical and engineering products based on alloys of iron
213	Testing of resistance of steel subjected to tensile or bending stresses to cracking in hydrogen sulphide environment (SSC-A, SSC-B)	QI-VTC.20 GEN-0032 QI-VTC.20 GEN-0033 (NACE TM 0177-96, NACE TM 0177, API 5L, COVENIN 3226-1)	Metallurgical and engineering products based on alloys of iron
214	Testing of corrosion resistance	QI-VTC.20 GEN-0034 (ASTM G28 method A, ASTM G48 method A, ASTM A923 method C)	Metallurgical and engineering products based on alloys of metals
215	Measurement of microhardness	QI-VTC.20 GEN-0035 (ČSN EN ISO 14271, ČSN EN ISO 9015-2, ČSN EN ISO 6507-1, ASTM E 384)	Metallurgical and engineering products based on alloys of metals

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3 Mechanical Properties Testing Laboratory

Tests:

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Tested object
1-300	Reserved		
301	Tensile test at ambient temperature	QI-VTC.30 GEN-0004 (ČSN EN ISO 6892-1, ASTM A 370, ASTM E8/E8M, ASME Code Sect. II - SA 370, GOST 1497, GOST 10006, ČSN EN 10164)	Metallic materials
302	Tensile test at elevated temperature	QI-VTC.30 GEN-0004 (ČSN EN ISO 6892-2, ASTM E 21, GOST 9651)	Metallic materials
303	Impact bend test at ambient temperature	QI-VTC.30 EVR-0005 QI-VTC.30 ASME-0005 (ČSN EN ISO 9016, ČSN EN ISO 148-1, ASTM E 23, ASTM A 370, GOST 9454)	Metallic materials
304	Weld bending test	QI-VTC.30 GEN-0013 (SEP 1390)	Metallic materials
305	Impact bend test at reduced temperatures	QI-VTC.30 EVR-0005 QI-VTC.30 ASME-0005 (ČSN EN ISO 9016, ČSN EN ISO 148-1, ASTM E 23, ASTM A 370, GOST 9454)	Metallic materials

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306	Impact bend test at elevated temperature	QI-VTC.30 EVR-0005 QI-VTC.30 ASME-0005 (ČSN EN ISO 9016, ČSN EN ISO 148-1, ASTM E 23, ASTM A 370, GOST 9454)	Metallic materials
307	Test of steel liability to ageing following cold plastic deformation	QI-VTC.30 EVR-0005 QI-VTC.30 ASME-0005 (ČSN 420385, GOST 7268)	Metallic materials
308	Hardness test - Brinell	QI-VTC.30 GEN-0006 (ČSN EN ISO 6506-1, ASTM A 370, ASTM E 10)	Metallic materials
309	Hardness test - Rockwell	QI-VTC.30 GEN-0006 (ČSN EN ISO 6508-1, ASTM A 370, ASTM E 18)	Metallic materials
310	Hardness test - Vickers	QI-VTC.30 GEN-0006 (ČSN EN ISO 6507-1, ČSN EN 23878, ČSN EN ISO 9015-1, ASTM E 92)	Metallic materials
311	Bend test	QI-VTC.30 GEN-0006 (ČSN EN ISO 7438, ČSN EN ISO 5173, ASTM A 370, ASME Code Sect. I and IX, GOST 14019, GOST 6996)	Metallic materials

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Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Tested object
312	Tensile test of butt weld joints	QI-VTC.30 GEN-0004 (ČSN EN ISO 5178, ČSN EN ISO 4136, ASME Code Sect. I and IX, GOST 6996)	Metallic materials
313	Shear test	QI-VTC.30 GEN-0018 (DIN 50 141:1982, ČSN 420342)	Metallic materials
314	Tube ring tensile test	QI-VTC.30 GEN-0015 (ČSN EN ISO 8496)	Metallic materials
315	Tube flattening test	QI-VTC.30 GEN-0016 (ČSN EN ISO 8492, ASTM A 530/A530M)	Metallic materials
316	Tube ring-expanding test	QI-VTC.30 GEN-0017 (ČSN EN ISO 8495)	Metallic materials
317	Drop weight tear test – determination of percentage of ductile fracture (DWTT)	QI-VTC.30 GEN-0003 (ČSN EN 10274, ASTM E 436, GOST 30456, API RP 5L3)	Metallic materials

¹ Asterisk at the ordinal number identifies the tests, which the Laboratory is qualified to carry out outside the permanent laboratory premises.

² If the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest edition of the specified procedure is used (including any changes).

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4 Non-Destructive Testing

Tests:

Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Tested object
1-400	Reserved		
401*	Radiographic testing	ČSN EN ISO 5579, ČSN EN ISO 17636-1, ČSN EN 12681-1, ČSN EN ISO 10893-6, ČSN ISO 9915:1994, QP-ASME VTC-1101 (ASME Code, Sect. V, Ed. 2013) QP-ASME VTC-1101 (ASME Code, Sect. V, Ed. 2015), ASTM E 94, ASTM E 1030, ASTM E 1032, PNAE G-7-010-89, PNAE G-7-017-89	Basic materials, semi-finished and finished products on the basis of metals, weld joints
402*	Ultrasonic testing	ČSN 015042, ČSN 015043, ČSN EN 10160, ČSN EN 10228-3, ČSN EN 10228-4, ČSN EN 10306, ČSN EN 10307, ČSN EN 10308, ČSN EN 12680-1, ČSN EN 12680-2, ČSN EN 12680-3, ČSN EN ISO 16809, ČSN EN ISO 22825, ČSN EN ISO 17640, ISO 5948,	Basic materials, semi-finished and finished products on the basis of metals, weld joints

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Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Tested object
		QP-ASME VTC-1301, (ASME Code, Sect. V, Ed. 2013), QP-ASME VTC-1301 (ASME Code, Sect. V, Ed. 2015), QP-ASME VTC.40-1302 (ASME Code, Sect. V, Ed. 2015), ASTM A 388/A 388M, ASTM A 435/A 435M, ASTM A 577/A 577M, ASTM A 578/A 578M, ASTM A 609/A 609M, ASTM A 745/A 745M, PNAE G-7-010-89, PNAE G-7-014-89, PNAE G-7-030-91, PNAE G-7-031-91, PNAE G-7-032-91, AD 2000 MERKBLATT HP, 5/3 annex 1, SEP 1920, SEP 1923	
403*	Magnetic particle testing	ČSN EN 1369, ČSN EN 10228-1, ČSN EN ISO 9934-1, ČSN EN ISO 17638, ČSN EN ISO 10893-5, ISO 6933, QP-ASME VTC-1201, (ASME Code, Sect. V, Ed. 2013), QP-ASME VTC-1201	Basic materials, semi-finished and finished products on the basis of metals, weld joints

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Ordinal number ¹	Test procedure/method name	Test procedure/method identification ²	Tested object
		(ASME Code, Sect. V, Ed. 2015), QP-ASME VTC.40-1202 (ASME Code, Sect. V, Ed. 2015), ASTM E 709, PNAE G-7-010-89, AD 2000 MERKBLATT, HP	
404*	Liquid penetrant testing	ČSN EN ISO 3452-1, ČSN EN ISO 3452-5, ČSN EN ISO 3452-6, ČSN EN 1371-1, ČSN EN 1371-2, ČSN EN 10228-2, ČSN EN ISO 10893-4, ČSN ISO 9916, QP-ASME VTC-1401, (ASME Code, Sect. V, Ed. 2013), QP-ASME VTC-1401, (ASME Code, Sect. V, Ed. 2015), ASTM E 165/E 165M, PNAE G-7-010-89, AD 2000 MERKBLATT HP, 5/3	Basic materials, semi-finished and finished products on the basis of metals, weld joints

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Explanations:

AD Merkblat	German Technical Standards and Regulations
API RP	American Petroleum Institute Recommended Practice
ASME	American Society of Mechanical Engineers
ASTM	U.S. Technical Standards
BN	Technical Standards of German Railways "Deutsche Bahn"
BS	British standard
CEV	Carbon Equivalent
COVENIN	Venezuelan Standard
DIN	German Standard
DWTT	Drop Weight Tear Test
GOST	Russian Technical Standard
HIC	Hydrogen-Induced Cracking
MT	Magnetic particle testing
NACE TM	U.S. Standard for Corrosion Testing
NF	French Technical Standard
PN	Polish Standard
PNAE G	Russian Nuclear Power Standard
PT	Liquid penetrant testing
QD VTC	Internal Directive of ATL management system
QI VTC	Internal Instruction of ATL management system
QP ASME VTC	Procedure for the assurance of quality within the ASME prepared by ATL
QP VTC	Internal procedure of ATL management system
RT	Radiographic Testing
SEL	Stahl Eisen Lieferbedingungen (German standard for steel testing)
SEP	Stahl Eisen Prüfungen (German standard for steel testing)
SSC-A	Sulfide Stress Cracking, method A
SSC-B	Sulfide Stress Cracking, method B
TPZ	Test Specification of the Ministry of National Defence
UT	Ultrasonic Testing

