

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Testing laboratory locations:

1	Physical-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 applies a flexible approach to the scope of accreditation.

The current list of activities carried out within the flexible scope is available at the Laboratory from the Head of Physico-Chemical Testing Laboratory and the Director of Quality and Management Systems in the form "List of activities within the flexible scope of accreditation".

Detailed information on activities within the scope of accreditation (subject of testing) is given in the section „Specification of the scope of accreditation“

1 Physical-chemical Laboratory

Tests:

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
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, CEV by calculation from measured values	QI-VTC.10 GEN-0001 cl. 6.1.1 (ASTM E415; ASTM E1086; ASTM E1999; SPECTRO manual); ČSN EN 10025-1	Technical iron	A, B, D
2*	Determination of Mn, Cu, Ni, Cr, Mo, V, Ti, W, Nb by X-ray fluorescence spectrometry	QI-VTC.10 GEN-0001, cl. 6.1.2 (Thermo manual)	Technical iron	A, B, D
3	Determination of C, S by an IR analyzer after combustion in induction furnace	QI-VTC.10 GEN-0002 (ASTM E1019; LECO manual)	Technical iron	-
4	Determination of N by an analyzer with thermal conductivity detection after melting in inert gas	QI-VTC.10 GEN-0003 (ASTM E1019; ČSN EN ISO 10720; LECO manual)	Technical iron	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories

Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
5	Determination of O by an analyzer with IR detection after melting in inert gas	QI-VTC.10 GEN-0004 (ASTM E1019; 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, cl. 7.3, 7.4, 7.5 (ASTM E350, cl. 172-179; ASTM E351, cl. 160-167)	Technical iron	-
9	Determination of Cr by titration	QD-VTC.10 CHEM-0001 cl. 7.7 (ČSN EN 24937)	Technical iron	-
10	Determination of V by titration	QD-VTC.10 CHEM-0001 cl. 7.7 (ČSN ISO 4947)	Technical iron	-
11	Determination of Ni by photometry	QD-VTC.10 CHEM-0001 cl. 7.6 (ČSN 420516:1981)	Technical iron	-
12	Determination of Mo by photometry	QD-VTC.10 CHEM-0001 cl. 7.8 (ČSN ISO 4941:1993)	Technical iron	-
13	Reserved			-
14	Determination of Si by gravimetry	QD-VTC.10 CHEM-0001 cl. 7.2 (ASTM E350, cl. 46-52; ČSN EN ISO 439)	Technical iron	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories

Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
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 ISO 4943; ČSN EN 10136; ČSN EN 10188; ČSN EN 29658; ČSN EN ISO 10700; ČSN 420528; ČSN 420521; ČSN 420518:1982; ČSN EN ISO 9647; ČSN EN 10181)	Technical iron	A, B, D
16	Reserved			
17	Measurement of mass activity of samples by gamma-ray spectrometry	QI-VTC.10 GEN-0019 (Georadis manual)	Technical iron,	A, B, D
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 E1031-96; SPECTRO XRF Report- 49)	Slags	A, B, D
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	A, B, D
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	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
24	Determination of Al ₂ O ₃ by titration, Al by calculation from measured values	QD-VTC.10 CHEM-0010, cl. 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, cl. 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, cl. 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, cl. 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, cl. 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, cl. 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, cl. 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, cl. 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, cl. 6.22 (ČSN 722038:1977)	Refractory materials, oxide materials	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories

Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
33	Determination of SiO ₂ by gravimetry, Si by calculation from measured values	QD-VTC.10 CHEM-0010, cl. 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, cl. 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, cl. 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	A, B, D
37-40	Reserved			
41	Determination of Si, Cr, Mn, P, Al by X-ray fluorescence spectrometry	QD-VTC.10 RTG-0010 (JIS G 1351)	Ferrosilicomanganese, ferrosilicon	A, B, D
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, cl. 6.6.1 (ČSN 420550-2)	Ferrochromium	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
44	Determination of P by titration	QD-VTC.10 CHEM-0011, cl. 6.6.3, cl. 6.3.3, cl. 6.1.3, cl. 6.8.3, cl. 6.9.6, cl. 6.4.3 (ČSN 420513:1978)	Ferrochromium, ferromanganese, ferrosilicon, ferromolybdenum, ferrovanadium, ferrosilicomanganese	-
45	Determination of Mn by titration	QD-VTC.10 CHEM-0011, cl. 6.3.1, cl. 6.4.2 (ČSN 420511)	Ferromanganese, ferrosilicon	-
46	Determination of V by titration	QD-VTC.10 CHEM-0011, cl. 6.9.1 (ČSN 420553-1)	Ferrovanadium	
47	Reserved			
48	Determination of Si by gravimetry	QD-VTC.10 CHEM-0011, cl. 6.6.2, cl. 6.3.2, cl. 6.1.1, cl. 6.9.2, cl. 6.8.2, cl. 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	A, B, D
49	Determination of Mo by gravimetry	QD-VTC.10 CHEM-0011, cl. 6.8.1 (ČSN 420554-2)	Ferromolybdenum	-
50-51	Reserved			

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories

Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
52	Determination of Cr, Mn, Al by flame atomic absorption spectrometry method	QD-VTC.10 AAS-0004, cl. 6.2 (ČSN 42 0552-3; ČSN 42 0552-2; ČSN 42 0552-6)	Ferrosilicon	A, B, D
53	Determination of Al, Cu by flame atomic absorption spectrometry method	QD-VTC.10 AAS-0004 cl. 6.3 (ČSN 42 0553-2; ČSN 42 0553-5)	Ferrovandium	A, B, D
54-63	Reserved			
64	Determination of Si by gravimetry	QD-VTC.10 CHEM-0013 cl. 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	A, B, D
66-70	Reserved			
71	Determination of total water and water in analytical sample by gravimetry	QD-VTC.10 CHEM-0012, cl. 7.1.6, cl. 7.1.7 (ČSN 44 1377)	Solid fuels	-
72	Determination of ash content by gravimetry	QD-VTC.10 CHEM-0012, cl. 7.1.8 (ČSN ISO 1171)	Solid fuels	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
73	Determination of volatile combustible matter by gravimetry	QD-VTC.10 CHEM-0012, cl. 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, cl. 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, cl. 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, cl. 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, cl. 7.3, cl. 7.2 (DIN 51577-4; ASTM D6481)	Oils, lubricants	A, B, D
82	Determination of S by X-ray fluorescence spectrometry method	QD-VTC.10-RTG-0006 cl. 7.1 (ČSN EN ISO 20847)	Engine fuels	A, B, D
83-199	Reserved			

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 valid edition of the specified procedure is used (including any changes)

³ degrees of freedom: A – Flexibility concerning materials/products (subject of the test), B – Flexibility concerning components/parameters/characteristics, C – Flexibility concerning the performance of the method, D – Flexibility concerning the method

The laboratory can modify the test procedures with the specified degree(s) of freedom in the scope of accreditation while maintaining the principle of measurement. If no degree of freedom is specified, the laboratory cannot apply a flexible approach to the scope of accreditation for the test.

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.
CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Specification of the scope of accreditation:

Ordinal test number	Detailed information on activities within the scope of accreditation (subject of testing)
1-6, 8-12, 14, 15, 17	materials with iron matrix, e.g. steel, cast iron, pig iron
21	steel-furnace slag, blast-furnace slag and materials with non-ferrous matrix similar to slag
22-36	high aluminium content materials (e.g. mullite, corundum, bauxite), aluminosilicate (e.g. shale, clay, fire clay), siliceous, aluminium-zirconium silicons, zircon, chromite sands
23-36	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), slag, slag-forming materials (e.g. lime, limestone, dolomite, magnesite)
42	ferrochromium, ferromanganese, ferrosilicon, ferrosiliconmanganese, ferrovanadium, ferromolybdenum, ferrotungsten
71-77	e.g. black coal, anthracite, lignite, coke, solid biofuels, solid alternative fuels and other solid carbon substances, e.g. electrode material
81	liquid samples based on oils and lubricants, e.g. hydraulic fluids, additives

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.
CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

2 Metallographic Testing Laboratory

Tests:

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
1-200	Reserved			
201*	Testing of microstructure	QI-VTC.20 GEN-0020; ČSN 420015; ČSN 421240; ČSN 420461:1975; 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 A247; ASTM E562; ASTM E1268; 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	ČSN EN ISO 643; ČSN EN ISO 2624; DIN 50601:1985; ASTM E1382; ASTM E112; GOST 5639	Metallurgical and engineering products based on alloys of iron and non-ferrous metals	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories

Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
203	Determination of the content of non-metallic inclusions	ČSN ISO 4967; ASTM E45, cl. 12 – method A, cl. 15 – method D; DIN 50 602:1985, cl. 8.2.1- method M, cl. 8.2.2 – method K; GOST 1778, cl. 6.1 – method Š1, Š4	Metallurgical and engineering products based on alloys of iron and non-ferrous metals	-
204	Determination of depth of layers	ČSN EN ISO 2639:2003; ČSN EN ISO 1463; ČSN EN ISO 3887; ČSN EN ISO 6507-1; ASTM E1077; DIN 50190-3:1979	Metallurgical and engineering products based on alloys of iron and non-ferrous metals	-
205	Reserved			
206*	Testing of microstructure using replicas	ISO 3057; ASTM E1351-01:2012; DIN 54150:1977	Metallurgical and engineering products based on alloys of iron and non-ferrous metals	-
207*	Testing of macrostructure by sulphur prints	ISO 4968; ASTM E1180; 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	ČSN 420467; ISO 4969; ASTM E340; ASTM E381; GOST 10243; DBS 918 002; QI-VTC.20 GEN-0027	Metallurgical and engineering products based on alloys of iron and non-ferrous metals	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
209	Detection of defects in weld joints	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, cl. QW 183, 184, 192, 193, 196, 197; ASME Code IX, ed. 2013, cl. QW 183, 184, 192, 193, 196, 197; ASME Code IX, ed. 2010, Add. 2011 cl. QW 183, 184, 192, 193, 196, 197); ASME Code IX, ed. 2017 cl. QW 183, 184, 192, 193, 196, 197); ASME Code IX, ed. 2019, cl. 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	ČSN EN ISO 3651-2 method A; ASTM A262 - method E; GOST 6032-75, method AM, AMU; GOST 6032-84, method AM, AMU; GOST 6032-89, method AM, AMU;	Metallurgical and engineering products based on alloys of iron	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
		GOST 6032 – 2003, method AMU; GOST 6032, method AM, AMU		
211	Testing by means of fractures	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 (HIC)	ČSN EN 10229 ; NACE TM 0284; API 5L; (QI-VTC.20 GEN-0031)	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)	NACE TM 0177-96; NACE TM 0177; API 5L; COVENIN 3226-1; (QI-VTC.20 GEN-0032; QI-VTC.20 GEN-0033)	Metallurgical and engineering products based on alloys of iron	-
214	Testing of corrosion resistance	ASTM G28 method A; ASTM G48 method A; ASTM A923 method C; (QI-VTC.20 GEN-0034)	Metallurgical and engineering products based on alloys of metals	-
215	Measurement of microhardness	ČSN EN ISO 14271; ČSN EN ISO 9015-2; ČSN EN ISO 6507-1; ASTM E384	Metallurgical and engineering products based on alloys of metals	-

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 valid edition of the specified procedure is used (including any changes)

³ degrees of freedom: A – Flexibility concerning materials/products (subject of the test), B – Flexibility concerning components/parameters/characteristics, C – Flexibility concerning the performance of the method, D – Flexibility concerning the method

The laboratory can modify the test procedures with the specified degree(s) of freedom in the scope of accreditation while maintaining the principle of measurement. If no degree of freedom is specified, the laboratory cannot apply a flexible approach to the scope of accreditation for the test.

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.
CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

3 Mechanical Properties Testing Laboratory

Tests:

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
1-300	Reserved			
301	Tensile test at ambient temperature	ČSN EN ISO 6892-1; ASTM A370; ASTM E8/E8M; ASME Code, Sect. II-SA 370; GOST 1497; GOST 10006; ČSN EN 10164 (QI-VTC.30 GEN-0004)	Metallic materials	-
302	Tensile test at elevated temperature	ČSN EN ISO 6892-2; ASTM E21; GOST 9651 (QI-VTC.30 GEN-0004)	Metallic materials	-
303	Impact bend test at ambient temperature	ČSN EN ISO 9016; ČSN EN ISO 148-1; ASTM E23; ASTM A370; GOST 9454 (QI-VTC.30 EVR-0005; QI-VTC.30 ASME-0005)	Metallic materials	-
304	Weld bending test	SEP 1390 (QI-VTC.30 GEN-0013)	Metallic materials	-
305	Impact bend test at reduced temperatures	ČSN EN ISO 9016; ČSN EN ISO 148-1; ASTM E23; ASTM A370; GOST 9454 (QI-VTC.30 EVR-0005; QI-VTC.30 ASME-0005)	Metallic materials	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
306	Impact bend test at elevated temperature	ČSN EN ISO 9016; ČSN EN ISO 148-1; ASTM E23; ASTM A370; GOST 9454 (QI-VTC.30 EVR-0005; QI-VTC.30 ASME-0005)	Metallic materials	-
307	Test of steel liability to ageing following cold plastic deformation	ČSN 420385; GOST 7268 (QI-VTC.30 EVR-0005; QI-VTC.30 ASME-0005)	Metallic materials	-
308	Hardness test - Brinell	ČSN EN ISO 6506-1; ASTM A370; ASTM E10 (QI-VTC.30 GEN-0006)	Metallic materials	-
309	Hardness test - Rockwell	ČSN EN ISO 6508-1; ASTM A370; ASTM E18 (QI-VTC.30 GEN-0006)	Metallic materials	-
310	Hardness test - Vickers	ČSN EN ISO 6507-1; ČSN EN 23878; ČSN EN ISO 9015-1; ASTM E92 (QI-VTC.30 GEN-0006)	Metallic materials	-
311	Bend test	ČSN EN ISO 7438; ČSN EN ISO 5173; ASTM A370; ASME Code, Sect. I and IX; GOST 14019; GOST 6996 (QI-VTC.30 GEN-0006)	Metallic materials	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
312	Tensile test of butt weld joints	ČSN EN ISO 5178; ČSN EN ISO 4136; ASME Code, Sect. I a IX; GOST 6996 (QI-VTC.30 GEN-0004)	Metallic materials	-
313	Shear test	DIN 50141:1982; ČSN 420342 (QI-VTC.30 GEN-0018)	Metallic materials	- -
314	Tube ring tensile test	ČSN EN ISO 8496 (QI-VTC.30 GEN-0015)	Metallic materials	-
315	Tube flattening test	ČSN EN ISO 8492; ASTM A530/A530M (QI-VTC.30 GEN-0016)	Metallic materials	-
316	Tube ring-expanding test	ČSN EN ISO 8495 (QI-VTC.30 GEN-0017)	Metallic materials	-
317	Drop weight tear test – determination of percentage of ductile fracture (DWTT)	ČSN EN 10274; ASTM E436; GOST 30456; API RP 5L3 (QI-VTC.30 GEN-0003)	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 valid edition of the specified procedure is used (including any changes)

³ degrees of freedom: A – Flexibility concerning materials/products (subject of the test), B – Flexibility concerning components/parameters/characteristics, C – Flexibility concerning the performance of the method, D – Flexibility concerning the method

The laboratory can modify the test procedures with the specified degree(s) of freedom in the scope of accreditation while maintaining the principle of measurement. If no degree of freedom is specified, the laboratory cannot apply a flexible approach to the scope of accreditation for the test.

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.

CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

4 Non-Destructive Testing

Tests:

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
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, ED. 2019); ASTM E94; ASTM E1030; ASTM E1032	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 22825; ČSN EN ISO 17640; ISO 5948; QP-ASME VTC-1301 (ASME Code, Ed. 2019); ASTM A388/A388M; ASTM A435/A435M; ASTM A577/A577M; ASTM A578/A578M; ASTM A609/A609M; ASTM A745/A745M; AD 2000 MERKBLATT HP 5/3; AD 2000 MERKBLATT	Basic materials, semi-finished and finished products on the basis of metals, weld joints	-

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.
CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
		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, Ed. 2019); ASTM E709; AD 2000 MERKBLATT HP 5/3; AD 2000 MERKBLATT HP 5/3 annex 1	Basic materials, semi-finished and finished products on the basis of metals, weld joints	-
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, Ed. 2019); ASTM E165/E165M; AD 2000 MERKBLATT HP 5/3; AD 2000 MERKBLATT HP 5/3 annex 1	Basic materials, semi-finished and finished products on the basis of metals, weld joints	-

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 valid edition of the specified procedure is used (including any changes)

³ degrees of freedom: A – Flexibility concerning materials/products (subject of the test), B – Flexibility concerning components/parameters/characteristics, C – Flexibility concerning the performance of the method, D – Flexibility concerning the method

**The Appendix is an integral part of
Certificate of Accreditation No. 701/2023 of 29/12/2023**

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

VÍTKOVICE TESTING CENTER s.r.o.
CAB number 1036, Testing Laboratories and Laboratories
Pohraniční 584/142, Hulváky, 703 00 Ostrava

The laboratory can modify the test procedures with the specified degree(s) of freedom in the scope of accreditation while maintaining the principle of measurement. If no degree of freedom is specified, the laboratory cannot apply a flexible approach to the scope of accreditation for the test.

Explanations:

AD MERKBLATT	German Technical Standards and Regulations
API RP	American Petroleum Institute Recommended Practice
ASME	American Society of Mechanical Engineers
AZL	Accredited Testing Laboratory
DBS	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
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 Instruction of the AZL management system
RT	Radiographic 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