

# CERTIFICATE OF ACCREDITATION

**No. S-077**

dated 04.08.2023

The Slovak National Accreditation Service issues a Certificate of Accreditation to an accredited body pursuant to Section 26 par.6 of Act No. 53/2023 Coll. on Accreditation of Conformity Assessment Bodies (hereinafter referred to as the "Accreditation Act").

**KONŠTRUKTA – Defence, a.s.**

Lieskovec 575/25, 018 41 Dubnica nad Váhom

ID Number: 34 139 800

**Organizational unit performing the activity of the Accredited Body:**

Service of special testing Lieskovec

**Workplace of the Accredited Body:**

Testing laboratory, 018 41 Dubnica nad Váhom

Testing laboratory, workplace Moldava nad Bodvou, Obrancov Mieru 1147, 045 01 Moldava nad Bodvou

**Identification number of the Accredited Body:** 013/S-077**Area of accreditation:** Testing laboratory

The testing laboratory demonstrated its competence to perform the accredited activity fulfilling the accreditation requirements of **ISO/IEC 17025: 2017** when performing climatic and mechanic tests of technical products; tests of fire arms, silencers for weapons and ammunition for civil use; resistance tests of head and body protective equipment; resistance tests of protective materials; tests of explosives, explosive articles and pyrotechnic articles; resistance tests of fertilizers to detonation within the accreditation scope delineated in the Annex of this Certificate of Accreditation. The Annex shall form an integral part of the Certificate of Accreditation.

**Number and date of issue of the accreditation decision:** No. 013/10776/2023/1 dated 18.07.2023.**Validity of the accreditation decision:**

The accreditation decision No. 013/10776/2023/1 dated 18.07.2023 is valid from 04.08.2023 to 10.04.2025.

The validity of this Accreditation Certificate expires upon the expiry of the accreditation decision, the decision on withdrawal of the accreditation pursuant to Section 31 or the expiry of the accreditation pursuant to Section 32 of the Accreditation Act.



08. Paulen  
Štefan Král  
director



## Scope of Accreditation

**Accredited body:** KONŠTRUKTA – Defence, a.s.

Lieskovec 575/25, 018 41 Dubnica nad Váhom

**Organizational unit performing the activity of the accredited body:**

Service of special testing Lieskovec

**Place of performance of the accredited body:**

Testing laboratory, 018 41 Dubnica nad Váhom

Testing laboratory, workplace Moldava nad Bodvou, Obrancov Mieru 1147, 045 01 Moldava nad Bodvou

**Identification number of the accredited body:** 013/S-077

### Laboratory with fixed scope

Item	Test object		Method implemented		Other specifications (range, uncertainty, purpose, modification/validation, opinions/interpretations, etc.)
	Object / Matrix / Environment	Property / Parameter / Indicator / Analyte	Principle / Form / Type	Identification	
1.		Resistance to effects of external environment factors (climatic effects)	Functional tests (qualitative test)	STN 09 105 STN EN 60068-2-1 STN EN 60068-2-2 STN EN 60068-2-13 STN EN 60068-2-14 STN EN 60068-2-18 STN EN 60068-2-30 STN EN 60068-2-32 STN EN 60068-2-33 STN EN 60068-2-38 STN EN 50155 – Article 12.2.3; 12.2.4; 12.2.5; 12.2.14  AECTP-300: methods 302, 303, 304, 306, 307, 310, 311, 312, 313, 315 (MPSL 023)	
2.	Technical products: - defense equipment - electric equipment - transportation equipment	Mechanical resistance to vibrations	Functional tests (qualitative test)	STN 09 105 STN EN 60068-2-6 STN EN 60068-3-3 STN IEC 60980 STN EN 60068-2-64 STN EN 61373 STN EN 50155 – Article 12.2.11  AECTP-400 - Method 401 (MPSL 001)	
3.		Mechanical resistance to impacts	Functional tests (qualitative test)	STN 09 105 STN EN 60068-2-27 STN EN 60068-2-29 STN EN 61373 STN EN 50155 – Article 12.2.11 (MPSL 002)  AECTP-400 - Method 403	
4.		Resistance to mechanical stresses during transportation	Functional tests (qualitative test)	NO 3661-61 (MPSL 003)	
5.		Visual appearance and construction	Visual inspections (qualitative test)	STN 39 5003 STN 39 5004 STN 39 5005 STN 39 5006 STN 39 5008 STN 39 5009 STN 39 5011	



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6.	Arms	Barrel bore	Measurement with pin gauges	STN 39 5003 STN 39 5004 STN 39 5005 STN 39 5006	(2,0 ÷ 23,75) mm 0,01 mm **)
7.		Weight	Weight measurement	STN 39 5003 STN 39 5005 STN 39 5006	(0,1 ÷ 5) kg 0,01 kg **)
8.		Strength and durability	Action of pressure and forces (qualitative test)	STN 39 5045 STN 39 5004	
9.		Function of arms	Functional tests (qualitative tests – inspection before test fire, test fire, inspection after test fire)	STN 39 5003 STN 39 5004 STN 39 5005 STN 39 5006 STN 39 5007 STN 39 5008 STN 39 5009 (MPSL 34 – workplace Moldava nad Bodvou) (MPSL 65 – workplace Dubnica nad Váhom)	Law No. 64/2019 Coll. on accessing of firing arms and ammunition for civil use as amended by Law No. 376/2019 Col. As amended  Regulation of ÚNMS SR No. 72/2019 Coll. as amended by Regulation No. 279/2022 Coll.
10.		External ballistics	Measurement of projectile trajectory parameters in the space	STN 39 5003 STN 39 5005 STN 39 5105 STN 39 5006	(10÷1000) m.s <sup>-1</sup> 0,5 m.s <sup>-1</sup> **)
11.			Measurement dispersion of fire hits		(1 ÷ 250) mm 0,5 mm **)
12.		Internal ballistics	Velocity measurement	STN 39 5003 STN 39 5004 STN 39 5006 STN 39 5105	(10÷1 200) m.s <sup>-1</sup> 0,5 ms <sup>-1</sup> **)
13.	Unoccupied				
14.	Ammunition	Connection strength of projectile and cartridge	Measurement of extraction force	STN 39 5105	(20 ÷ 800) N 2 N **)
15.		Function	Functional tests Firing tests (qualitative test)	STN 39 5105 STN 39 5106	Law No. 64/2019 Coll. on accessing of firing arms and ammunition for civil use as amended by Law No. 376/2019 Col. As amended  Regulation of ÚNMS SR No. 72/2019 Coll. as amended by Regulation No. 279/2022 Coll.
16.		Visual appearance	Visual inspections (qualitative test)	STN 39 5105 STN 39 5106	
17.		Dimensions	Length measurement	STN 39 5105	STN 39 5121 STN 39 5122 STN 39 5123 STN 39 5124 STN 39 5125 (0,3 ÷ 100) mm 0,1 mm **)
18.		Weight	Weight measurement	STN 39 5105	(0,1 ÷ 2000) g 0,05 g **)



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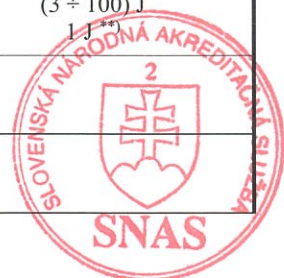
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19.	Ammunition	Ballistic properties: Pressure	Pressure measurement	STN 39 5105 STN 39 5106	STN 39 5111 (20 ÷ 600) MPa 0,5 MPa **)
20.		Velocity	Projectile velocity measurement	STN 39 5105 STN 39 5106	(10 ÷ 1000) m.s <sup>-1</sup> 0,5 m.s <sup>-1</sup> **)
21.		Dispersion of fire	Measurement dispersion of fire	STN 39 5105 STN 39 5106	(1 ÷ 250) mm 0,5 mm **)
22.	Personal protective equipment of body and head	Resistance to firing	Functional tests by firing (qualitative test)	ČSN 39 5360 (MPSL 31)	
23.		Resistance to stabbing arms	Stabbing tests (qualitative test)	ČSN 39 5360 (MPSL 31)	
24.	Other protective materials	Resistance to external impacts	Resistance tests to firing arms and mechanical stress (qualitative test)	STN EN 1523 STN EN 1063	
25.	Unoccupied				
26.	Explosives	Density	Volume and weight measurement	STN EN 13631-13	(700 ÷ 1800) kg.m <sup>-3</sup> 10 kg.m <sup>-3</sup> **)
27.		Flash temperature	Temperature measurement	STN 66 8063	(100 ÷ 400) °C 1 °C **)
28.		Detonation velocity	Time and length measurement	STN EN 13631-14	(1500 ÷ 9000) m.s <sup>-1</sup> 100 m.s <sup>-1</sup> **)
29.		Chemical stability after Abel	Time measurement	STN 66 8067	(3 ÷ 60) min 1 min **)
30.		Transmission of detonation	Length measurement	STN 66 8068 STN EN 13631-11	(3 ÷ 150) mm 1 mm **)
31.		Detonation capability, means of initiation	Functional tests (qualitative test)	STN EN 13631-10	
32.		Sensitiveness to hammer impact	Impact energy determination	STN EN 13631-4	(3 ÷ 100) J 1 J **)
33.		Resistance to water, pressure and temperature	Function of explosive (qualitative test)	STN EN 13631-5 STN EN 13631-6 STN EN 13631-7	
34.		Sensitiveness to friction	Compressive force determination	STN EN 13631-3	(2 ÷ 360) N 5 N **)
35.		Safety parameters	Functional tests of manipulation and transportation safety (qualitative test)	Recommendations on the transport of Dangerous Goods, Manual of the Test and Criteria, Part I	
36.		Chemical stability after Bergmann- Junk	Titration method	STN 66 8102 part 30	(1 ÷ 30) ml 0,5 ml **)
37.		Thermal stability	Thermal stress	STN 66 8102 part 31 STN EN 13631-2	(1 ÷ 6) days 1 hour **)
38.		Burning rate	Time measurement	STN EN 13938-4	(1 ÷ 600) s 0,1 s **)
39.	Detonators and relays	Thermal stability	Thermal stress	STN EN 13763-2	2 days 1 hour **)
40.		sensitiveness to hammer impact	Impact energy determination	STN EN 13763-3	(3 ÷ 100) J 1 J **)
41.		Resistance to abrasion	Time measurement Visual test Visual-acoustic test	STN EN 13763-4	(1 ÷ 600) s 0,1 s **)
42.		Resistance to cutting damage	Visual-acoustic test	STN EN 13763-5	
43.		Resistance to cracking	Visual test	STN EN 13763-6	
44.		Mechanical strength	Visual test Visual-acoustic test	STN EN 13763-7	



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45.	Detonators and relays	Resistance to vibrations	Weight measurement after vibration	STN EN 13763-8	(0,01 ÷ 1,00) g 0,001 g **)
46.		Resistance to bending	Visual-acoustic test	STN EN 13763-9	
47.		Resistance to dropping	Visual-acoustic test	STN EN 13763-11	
48.		Resistance to hydrostatic pressure	Time measurement Visual-acoustic test	STN EN 13763-12	(0,005 ÷ 10) s 0,0005 s **)
49.		Resistance to electrostatic discharge	Visual-acoustic test	STN EN 13763-13	
50.	Unoccupied				
51.	Detonators and relays	Delay accuracy	Time measurement Visual-acoustic test	STN EN 13763-16	(0,005 ÷ 10) s 0,0005 s **)
52.		No-fire current	Electric current measurement	STN EN 13763-17	(0,1 ÷ 10) A 0,01 A **)
53.		Series firing current	Time measurement	STN EN 13763-18	(0,001 ÷ 10) s 0,0001 s **)
54.		Firing impulse	Time measurement	STN EN 13763-19	(0,0001 ÷ 10) s 0,00001 s **)
55.		Total electrical resistance	Electrical resistance measurement	STN EN 13763-20	(0,1 ÷ 10) Ω 0,01 Ω **)
56.		Flash-over voltage	Voltage measurement	STN EN 13763-21	(1 ÷ 10) kV 50 V **)
57.		Capacitance, insulation resistance and insulation breakdown of leading wires	Capacitance, voltage and resistance measurement	STN EN 13763-22	(10 ÷ 10000) pF 1 pF **) (1 ÷ 10) kV 50 V **) (10 ÷ 500) MΩ 1 MΩ **)
58.		Shock-wave velocity	Time and length measurement	STN EN 13763-23	(1500 ÷ 9000) m.s <sup>-1</sup> 100 m.s <sup>-1</sup> **)
59.		Electrical non- conductivity of shock tube	Resistance measurement	STN EN 13763-24	(10 ÷ 500) MΩ 1 MΩ **)
60.		Transfer capability	Functional test Quantitative test,	STN EN 13763-25	1 to 10 pieces
61.		Functional and safety tests of initiation devices	Visual test Functional test	STN EN 13763-26	
62.	Detonating cords and safety fuses	Resistance to abrasion	Visual test	STN EN 13630-5	
63.		Transmission of detonation	Functional test Visual-acoustic test	STN EN 13630-9	
64.		Detonation velocity	Time and length measurement	STN EN 13630-11	(1500 ÷ 9000) m.s <sup>-1</sup> 100 m.s <sup>-1</sup> **)
65.		Burning duration	Time measurement	STN EN 13630-12	(1 ÷ 600) s 0,1 s **)
66.		Chemical stability	Thermal stress	STN EN 13630-2	2 days 1 hour **)
67.		Sensitiveness to friction	Compressive force determination	STN EN 13630-3	(2 ÷ 360) N 1 N **)
68.		Sensitiveness to hammer impact	Impact energy determination	STN EN 13630-4	(3 ÷ 100) J 1 J **)
69.		Resistance to tension	Visual test, Functional test	STN EN 13630-6	
70.		Determination of reliability	Visual test, Functional test	STN EN 13630-7	





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71.	Detonating cords and safety fuses	Resistance to water	Visual test (detonating cords, safety fuses)  Functional test (detonating cords, safety fuses)  Time measurement (safety fuses)	STN EN 13630-8	(1 ÷ 600) s 0,1 s **)
72.	Pyrotechnic articles	Construction and visual appearance	Visual inspections (qualitative test)	STN EN 15947-4 STN EN 16261-3 STN EN 16256-5 STN EN 16263-4 STN EN 14451-2 STN EN 16265	
73.		Dimensions	Measurement of dimensions		(1 ÷ 1000) mm 0,1 mm **)
74.		Weight	Weight measurement		(0,01 ÷ 250) g 0,001 g **)
75.					(1 ÷ 5000) g 0,1 g **)
76.		Function, safety and resistance to mechanical impacts	Functional tests (qualitative test)		
77.		Thermal stability	Thermic method (qualitative test)		
78.		Flight ascent	Height measurement		(20 ÷ 100) m 1 m **)
79.		Height of effect	Height measurement		(100 ÷ 1000) mm 0,1 mm **)
80.		Sound pressure Level A, impulse sound LAi	Direct measurement with sound level meter		Measurement of impulse sounds STN EN ISO 11202 (40 ÷ 130) dB Pressure reference value 2.10 <sup>-5</sup> Pa 2 dB **)
81.	Artificial fertilizers	Resistance to detonation	Safety parameter (qualitative test)	Government Act of the Slovak Republic No. 419/2003 Coll. Annex 4	
82.	Silencers <sup>1)</sup>	Appearance and execution	Visual inspections (qualitative test)	Piecemeal and subsequent piecemeal verification of suppressors in accordance to the Act no. 64/2019 Coll. on making firearms and ammunition available for civilian use on the market, as amended Decree of the ÚNMS SR No. 72/2019 as amended by Decree 279/2022 Coll.  MPSL 34 (workplace Moldava nad Bodvou) MPSL 65 (workplace Dubnica nad Váhom)	
83.		Dimensions	Measuring lengths		
84.		Inner Diameter/Caliber	Measuring with calibers		
85.		Weight	Weight measurement		
86.		Silencer function	Functional tests (qualitative tests – inspection before test firing, test firing, inspection after test firing)		

Notes:

<sup>1)</sup> The subject concerns shot silencers (removable silencers and non-removable silencers) as defined in § 4 par. 3 of Act No. 64/2019 Coll. as amended.

<sup>\*\*</sup>) expanded uncertainty of measurement U, k = 2

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