Technical requirements for the Specialized equipment for personalizing polycarbonate cards

Equipment and accessories – non-refurbished, produced after 01.01.2023. **All requirements are minimum and mandatory.**	

Field of use: Personalization of polycarbonate cards, ID-1 format

General technical requirements for the Specialized equipment for personalizing polycarbonate cards:

I. The main components of the specialized personalization equipment:

1.		**Built-in computer with hard disk, licensed operating system on which software from the manufacturer will run for operating the personalizing system and the integrated equipment**
	1.1	Integrated digital control panel (touchscreen) min.7"(inch)
	1.2	TCP/IP system connection via Ethernet, LAN (1Gbit)
	1.3	Licensed operating system: min. Windows 10
	1.4	External connectivity: min.
	1.5	The parameters of the computer (computing unit) CPU/RAM/Storage must correspond, and have sufficient redundancy, to the minimum cumulative operating requirements of the Windows operating system and the integrated software system set by the manufacturer.
2.		**Card feeding component of the input unit:** with capacity of minimum 100 to maximum 250 cards
3.		**Component for the primary verification of the cards:** *optical character (text and numerical data) verification and recognition, barcode(EAN, CODE39, CODE128), verification and preprint auto-correction and positioning.* *Alphanumeric data will be stored in various formats (for example: blank number, card number)*
4.		**Contactless chip encoding component** *NOTE* ** There are no restrictions related to the manufacture of the chip encoding component exclusively by the equipment supplier. This component can be made either by the equipment vendor or by using a third-party integrated component.* *** Regardless of who is the manufacturer of the chip encoding component used in the specialized equipment delivered for the personalization of polycarbonate cards, they must be accompanied by all necessary licenses, if applicable, related to the Intellectual Property Rights throughout the stated lifetime and without any limitations of the number of documents produced (type ID-1) through this equipment.*
5.		**Basic technology unit laser engraving component capable of personalizing the front and back of ID-1 cards, automatically applying MLI or CLI security features as needed.** *NOTE* ** There are no restrictions of engineering design and fabrication during manufacturing of the laser engraving component to apply the security features.This component can be made either by the equipment vendor or by using a third-party integrated component.* *** Regardless of who is the manufacturer of the laser engraving components used in the specialized equipment supplied for the personalization of polycarbonate cards, they must be accompanied by all necessary licenses, if applicable, relating to Intellectual Property Rights for the entire stated life period and without limitation of the number of documents produced (type ID-1) through this equipment.*
6.		**The automated quality control component for the personalization:** *optical character (text and numerical data) verification and recognition, barcode(EAN, CODE39, CODE 128, PDF417) and QR-code verification and recognition, optical personalization quality verification and electrical personalization quality verification through the contact of the chip. Alphanumeric data will be stored in various formats (for example: document number, name, surname, date of birth, date of issue, date of expiry, issuing authority, etc.).*

7.	Storage component for the personalized cards, and separate rejected card storage container

II. Functional technical requirements of personalization equipment:

- Personalization of ID-1 polycarbonate cards: card dimensions: 85.60 mm x 53.98 mm; Thickness of 0.76 mm ± 0.08 mm, according to ISO/IEC 7810
- Markup of textual data (TTF fonts), vector, raster graphics (images, signatures), as well as one- and two-dimensional barcodes (including PDF417 and QR codes)
- Standard laser personalization features such as: transparent window, ghost image, tactile elements; advanced security features such as MLI / CLI
- Double-sided personalization of polycarbonate cards, ID-1 format
- Coding system for contactless microcircuits according to ISO 14443, ISO 18092 (NFC)
- Data transfer rate: up to 424 kbit/sec
- Production capacity: minimum 100 cards per hour.
- The data format regarding the personalization and reporting works will be in XML format (min. UTF-8(mandatory), Unicode(optional)).
- Power supply: 230VAC± 10%, protection min. 10A, frequency 50/60 Hz
- Noise level: maximum 70 dB(A)

III. Technical requirements for the Laser system:

- Fiber laser with a minimum power of 20W
- Impulse width and/or power: adjustable
- Resolution: minimum 600 dpi
- Cooling: air - air
- Lifetime: min. 60 000 hours of operation
- Compliance with environmental conditions: room temperature min. 15 °C to 30 °C; humidity: min. 40% to a maximum of 60%.

IV. Included amenities:

1. Mandatory - Table (work desk) support for each specialized equipment for personalizing polycarbonate cards, according to the manufacturer's recommendations including:

- **Work desk with integrated slots for cable management,**
- **Free access to the shelves (drawers) arranged laterally,**
- **Integrated strip of multiple sockets (the number of sockets must correspond to the total number of equipment placed on the table + min. 1 spare) for power supply with power surge protection,**
- **Mounted on castors with locking brakes.**

2. Optional: Integrated indicator (traffic light) - 3 colors to display the operating status of the personalization equipment:
1) Green - Correct operation;
2) Yellow – Waiting;

3) Red - Not working/fault/etc..
Placement of the indicator - with mounting on the personalization equipment.

V. Commissioning services and support:

Support services at the Beneficiary's premises and/or remotely (as applicable) for the adjustment and integration of the integrated operating system during the period of equipment preparation for commissioning according to the Beneficiary's requirements, including:

• adaptation support with the national document production system at the Buyer's headquarters and remotely (if applicable) at the equipment commissioning stage;

• supply of spare parts kit (both tools and spare parts) which will enable the Buyer's technical team to perform level 1 and 2 interventions to replace any defective items that could stop the equipment from working.

• training on the operation of new equipment and interventions for the primary remediation of level 1 and level 2 technical deficiencies, as well as the replacement of spare parts by the technical specialists of the Buyer.

• providing accompanying documentation:
- The technical passport, including the manual(s) for the use and maintenance of the equipment in English;
- Technical documentation related to the software product used, including equipment interfaces with examples of integration into the personalization system

• configuration of sample document models and personalization on polycarbonate cards based on data provided by the Buyer (personalized document model on polycarbonate card for each type of document).

• The Bidder shall include in its bid SDK (software development kit), proper integration documentation and support services for integration with a third-party software developer of the customization system contracted by the contracting authority.

VI. Warranty

Warranty: min. 36 months (after delivery, commissioning and signing of the act of receiving and handing over the goods).
All costs of resolving warranty cases including spare parts are borne by the manufacturer.
For the resolution of warranty cases as well as in the case of receiving technical assistance requests, the following reaction times will be observed*:*
- Telephone response time – up to 2 business hours;
Reaction time for diagnosing the equipment and determining the cause of the malfunction, including remotely (if applicable) - up to 8 working hours;
- Reaction time for restoring the functionality of the equipment including remotely (if applicable) with the use of spare parts available in stock - up to 5 working days;
- Reaction time for restoring the functionality of the equipment with the use of spare parts not available in stock - up to 15 working days, except for the time used for customs procedures;
Working hours - from 8.00 a.m. to 5.00 p.m., according to the time zone of the Republic of Moldova.
Working days - according to the calendar of the Republic of Moldova.

The supplier will present a statement that the equipment can be maintained and repaired for a period of at least 10 years with the assurance of the availability of parts during this period.