

## Document personalization and security integration devices

As an official representative and partner of leading companies, specializing in the manufacturing of personalization machines, Cappelen Bulgaria offers state-of-the-art concepts in accordance with the specific requirements of the client. The unique machines and installations for the production, processing, personalization and protection of passport booklets, ID cards, driving licences, banknotes, visas, cheques, vital records etc. are certified in accordance with the highest security and quality requirements and standards.

Cappelen Bulgaria offers state-of-the-art machines that reach the highest quality standards combining

precision, innovation and security. Innovative design combined with the latest technologies lead to flexible machine configurations in accordance with clients' requirements. The fully automated supply, management, processing and sorting of the products allow machine operation by a single person.

Depending on the scale of production, the company offers personalization systems suitable for centralized and decentralized personalization. Whatever the production volumes, the machines ensure consistently high quality, precision in the accomplishment of the assigned operations and high speed processing.

In decentralized personalization or smaller production projects, individual operations in the personalization process can also be completed on desktop machines:

- Laser engraving and chip encoding machines
- Laser perforation machines
- Quality control and evaluation machines
- Laminating machines
- First level security integration machines
- o (visas, cheques, vehicles talons, vital records, certificates and etc.)

Centralized personalization of passports with a polycarbonate or paper data page, composed of separate modules, according to the specific client's requirements:

- o Passport booklet identification
- Chip verification
- o Chip encoding
- Ink-jet printing on paper data page
- o Lamination
- Laser perforation (owner photo and numeration)
- Laser engraving
- Barcode stamping
- Verification
- Classification



Card personalization systems: for polycarbonate, PVC, contact and contactless

- Card identification
- o Chip examination
- Chip programming
- o Laser engraving
- o MLI/CLI
- Laser perforation
- Integrated quality control

Inlay and RFID solutions applied in the manufacture of different kinds of smart cards: contact, contactless, hybrid and dual interface, used for ID cards, driving licences, civil cards with integrated digital signature, health cards, all kinds of SIM cards, bank cards etc.

- Antenna integration
- o Chip-module integration
- o Component connection through soldering and thermal pressure
- o Integrated RFID verification station
- o Quality control and verification
- o Marking and separation of rejected inlays

To complete the manufacturing process, the company also offers document endurance test equipment, in accordance with international quality standards.