

Your exclusive provider for (e-)Passport processing solutions worldwide.



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(e-) Passport solutions



ruhlat – LP 2000 Pre-personalisation

- High speed passport and e-passport perforation and personalisation

“ Different character sizes.

- Basically unlimited character set (alphabetic letters, digits, symbols, limited by size only)
- Mixed height and width of characters possible in different positions
- ruhlat PERFLEX font creator software for the creation of individual fonts



laser perforation RFID chip encoding number printing

“ Different hole shapes.

- Laser perforated characters from any visa page through all remaining pages including back cover
- Holes cut in conical shape from large holes on first page to small holes on last page of perforation
- Extraordinary laser quality in comparison to off-the-shelf components due to ruhlat's sophisticated laser software

“ Difficult to counterfeit.

PERFLEX – the new security feature in passport perforation

PERFLEX – The innovative laser perforation method.

PERFLEX allows passport perforation with different character sizes using holes in different geometric shapes like squares and triangles. ▶ ■ ● ◆

Benefits and features:

- Flexible, scalable modular production design according to special requirements
- e-passport according to the ICAO format
- Patented laser perforation method
- Patented chip encoding tower
- Fully automatic e-passport handling

- Integration of customer specific technologies
- Process solution integration into existing manufacturing setup
- Inline quality control
- Multiple UID control

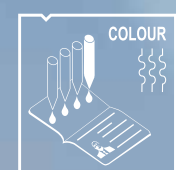
LP 2100 Personalisation

The ruhlat LP 2100 is a highly efficient passport personalisation machine with automatic passport handling. This machine is the revolutionary solution for centralised high security personalisation of passports and e-passports.

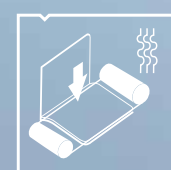


Advantages:

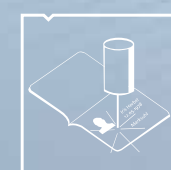
- Customised configuration according to the detailed project needs
- High Definition Drop-on-demand (HD DOD) industrial printing of passports with throughputs up to 1000 per hour in brightest perfection
- High speed inline security lamination unit
- Printing of UV reflecting elements
- Extraordinary laser quality for personalisation of polycarbonate holder page due to sophisticated ruhlat software
- Patented ruhlat RFID encoding tower for simultaneous chip encoding in case of longer personalisation times
- Universal personalisation platform – Data Mastery as open interface
- Precise quality control (visual/electronic)
- High professional consulting, maintenance and service
- Production Data Management System (PDMS) optionally available



HD DOD industrial colour printing



inline security lamination



laser engraving



optical inspection/alignment



RFID chip encoding

ruhlat – the definite choice to maximise security

Decades of experience and constant high class development result in reputation and proven machinery without any need of 3rd party involvement.

RFID / INLAY

More than 14 years of experience in assembly and personalisation of contactless applications.

PERFORATION

First project 1999 for German passport. PERFLEX – the innovative security feature in passport perforation.

PERSONALISATION

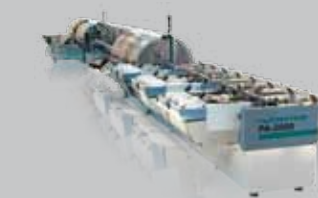
Laser personalisation application since 1996. Own development since 2001 for card and ID projects.

PROCESS ENGINEERING

Individual, flexible, in-house-process-engineering.

SOFTWARE

Software solutions since 1997. Highest security for ID and passport applications. Universal personalisation platform – open interface.



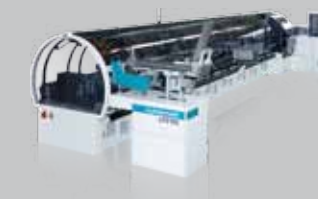
Passport Manufacturing

- Sheet feeding / collating
- Sewing
- eCover glue apply
- eCover lamination



Passport Pre-personalisation

- Laser perforation
- e-passport numbering
- RFID chip encoding



Passport Personalisation

- HD DOD industrial colour printing
- Lamination
- Laser engraving
- Optical inspection
- RFID chip encoding



Passport Testing

- Bending
- Torsion
- Impact