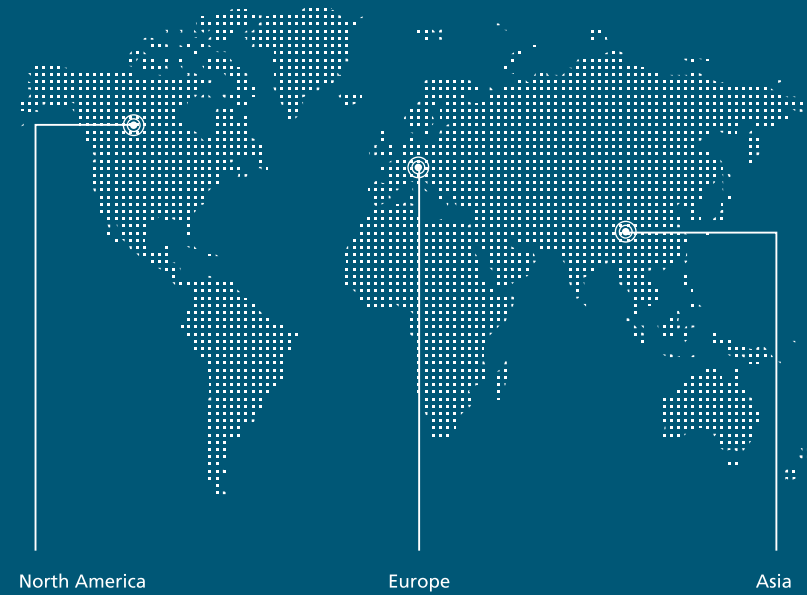


Smart card processing solutions
MS350-2 GSM personalization



ruhlamat has developed a state-of-the-art Modular machine System (MS) to produce chip modules and smart cards for smart card machinery. This advancement has made a major impact on the market and combines the highest level of standardization with individualized machine configurations.

SPEED	PERSONALIZATION	SECURITY	FLEXIBILITY
Reference conditions: 6,000 cards/hour at a laser time of 0.5 sec and a loading time of 40 sec with 80 contact heads.	Laser engraving of: · ICCID · PIN1 / PIN2 · PUK1 / PUK2 · bar code	Extremely fast optical inspection of the ICCID to check if the data corresponds to pre-defined characteristics. Automatic separation of reject cards.	Card flip over stations provide the possibility of personalization on the reverse side.



North America Europe Asia



MS350-2 GSM personalization smart card processing solutions



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PIN 1: 0000 PIN 2: 0000
PUK 1: 12345678 PUK 2: 12345678

00493
69259
29307
00001

Ruhlamat
high level customization

MODULAR SYSTEM MS350-2 GSM

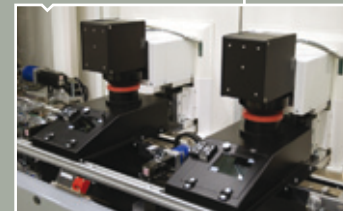
ruhlamat MS350-2 GSM personalization

Complete smart card processing solutions

The MS350-2 GSM personalization machine is one part of the MS350-2 family. The MS 350-2 family is used for the personalization of chip modules, magnetic stripes, contactless chips and the card body. The card bodies will be laser engraved, printed by using an ink-jet or thermal dye sublimation process (text, barcode, logo, photo etc.). The configuration of the MS350-2 GSM personalization machine is chosen for the high volume GSM card production.



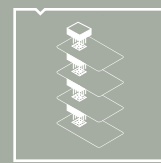
Multiple personalization unit
80 contact heads in one station to contact and personalize 80 modules simultaneously. The MPU handles the cards in a patented flow (Patent Application No. DE102007046141.2)



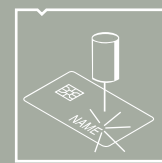
Laser engraving – marking
Personalization of GSM-cards (ICCID, PIN1, PIN2, PUK1, PUK2, bar code) by 2 high speed 20W fibre lasers.



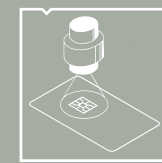
Optical inspection – symbol
Optical inspection of the ICCID to check if the data correspond to pre-defined characteristics. Automatic separation of reject cards.



multiple personalization unit



laser engraving



optical inspection – symbol

Short introduction

- MS350-2 GSM is a sophisticated modular personalization system especially designed for high throughput requirements and long loading times
- patented multiple loading tower with automatic replacement function for electrical rejects
- 2 high speed fibre lasers for engraving of numbers and barcode
- electrical pre-test station, flexible camera system, scratch-off label unit and reject separation are optionally available

Application

- high speed system for the personalization of chip cards in a correct sequence
- GSM cards, UMTS cards, Pay TV cards

Benefits and features

- modular system for very high throughputs up to 7,000 cph
- automatic reproduction of reject cards guarantees a correct sequence via 80+1 contact heads
- advanced laser technology (2 fibre lasers)
- 80 head chip encoding tower
- data management system assures secure data handling
- card orientation control
- flip over units for flexible card handling
- cards sorting control
- software tools
- personalization of front and rear side



laser engraving

multiple personalization unit

