Pad printing technology
for the mint industry

MINT WORKSTATION I

with TPX 301 pad printing machine

Teca-Print
Pad Printing Equipment & Supplies swiss made

Although we live in the age of cashless payment most people are in contact with coins on a daily basis. Often these are „normal“ money coins but the amount of other coins is increasing. These are minted for special occasions, anniversaries or as collector items. The more important the event, the more precious the coin must look. The range goes from classic to topmodern, from simple to richly ornamented - coins are available in nearly every possible version.

Printing a coin is an extremely complex and challenging task. Even the smallest and most detailed photoprints must come out richly coloured and exact.

Usually the coins are minted with a relief which means that the printing is on fine structures instead of an even surface. Considering the quality of the workpiece misprints involve high costs.

The Teca-Print Mint Workstation is specially designed and built to meet the needs of the mint industry. The electromechanical machine with an integrated camera system fulfills the highest expectations.

First the plate and the individual colour positions are aligned, so that the positioning of the print on the coin can take place.
After all the adjustments have been made, a masterpicture of the coin position is taken.
The printing cycle starts with the manual insertion of the coin. After confirming via foot switch or alternatively by pressing the start button, the coin is clamped and moves via electromechanical shuttle table into the positioning station. Here the entire workpiece holder including the clamped coin can be rotated freely. A camera transmits the coin position onto the screen. In the background the black-and-white masterpicture is shown. The workpiece can then be turned until the position of the coin matches the masterpicture exactly (optional: electronic adjustment via camera system).
Thanks to the multiple magnification on the screen the finest discrepancy can be spotted. When the correct position is determined and adopted the actual printing process can take place by pressing the foot switch once more. The shuttle table transports the workpiece to each of the printing stations until every colour is printed. On return the shuttle table stops under the camera and a picture of the printed image is taken and shown on the screen. This enables the operator to check the printed image. Afterwards the shuttle table moves back into insertion/removing position.

TECHNICAL INFORMATION

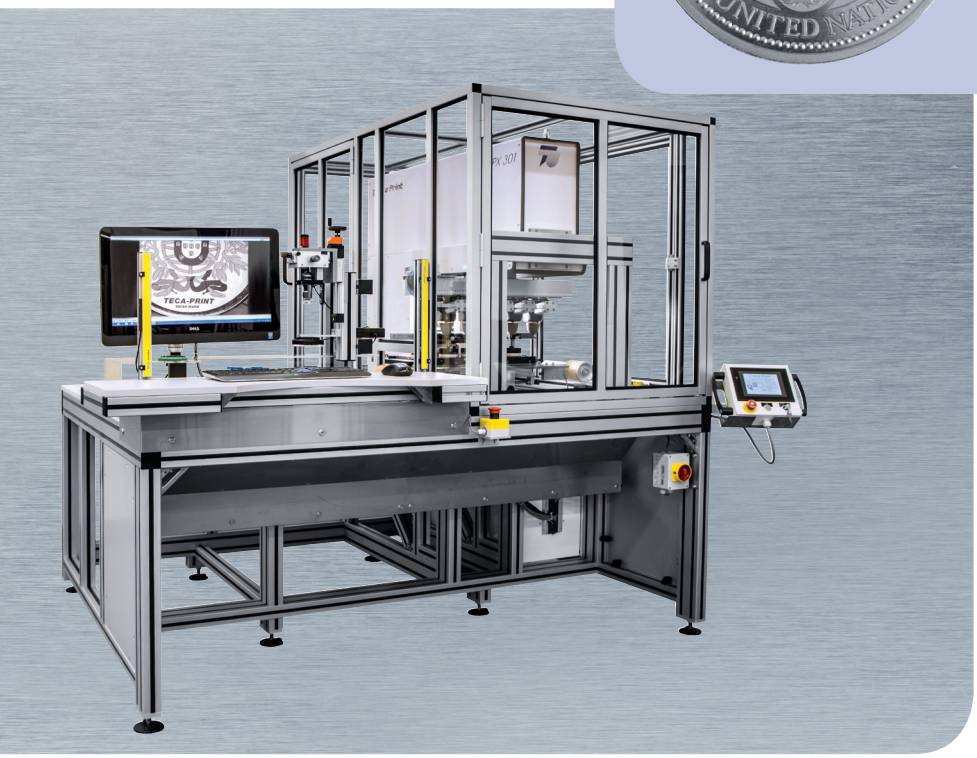
MACHINE
TPX 301

NUMBER OF COLOURS
up to 7 colours

DRIVE
electromechanical (servo drives)

CONTROL UNIT
modular PLC
touchscreen

TECHNICAL EQUIPMENT
- computer-based camera system
- fine adjustment in x-, y- and z-axes via machine control:
  in the y- and z-axes the printing pads are fine-tuned,
  in the x-axis the object to be printed
- pivotable pad height compensator



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