

MODUL

2000



AUTOMATED SYSTEMS



Flexible, modularly expandable semi-automatic machine

Up to 4 printing or marking units with additional interfaces

Trouble-free set-up and conversion

ORIGINAL

TAMPOPRINT

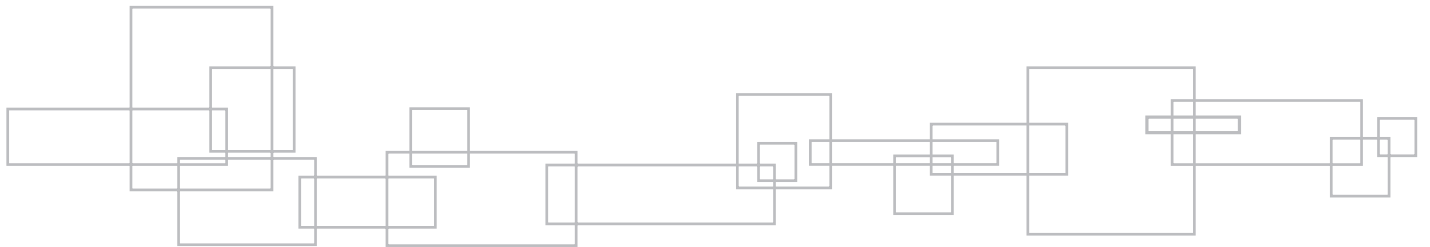
Tampon printing machine
Laser systems
Automated systems
Digital Ink-Jet systems

MODUL 2000

PORTRAIT



Modul 2000 with 4 Hermetic 6-11 and rotary jigs



Thinking of the future

Flexibility means efficiency – for many years to come. Who knows today what the printing jobs of tomorrow will be. Thanks to the modular construction of this flexible TAMPOPRINT semi-automated machine, this system can be expanded or retooled after many years of operation according to customer specifications. And what is of particular significance: the customer can rely on TAMPOPRINT in the long term to guarantee availability of spare parts and accessories. These are incentives that only a world market leader can offer.



Hermetic 6-11

It's your choice

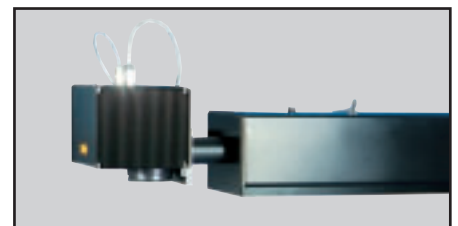
The Modul 2000 in its base configuration is optionally available with 2 printing units of the Hermetic, Rapid, SIC series or others (all with sealed ink/docting system). You can select between a 60 or 90 mm diameter docting cup. For 4-colour printing, 2 additional printing or marking machines can be easily integrated around the rotary table (support for component holders). Interface cable and power supply have been already installed in the factory. Other peripheral units can be added (e.g. pre-treatment, drying or laser). For further information, please refer to "Control" or "Options".



V 60 / 90 Duo



Rapid 2000 / 90



Laser component





Modul 2000

Convincing details

Whether base configuration or expansion module, all materials and assemblies meet the recognized high quality and safety standards at TAMPOPRINT (CE standard).

Base frame

The base frame features the proven, robust aluminium profile carrying the aluminium base plate. The holes for the installation of additional printing machines are indicated on the templates and can be ordered and installed afterwards (including installation work).

Rotary plate

The rotary plate has a diameter of 900 mm and serves as a support for a maximum of 12 jigs. 12 or also 6 jig carriers can be mounted on this standard spacing of 12 (simply select number in the switch cabinet). Position accuracy in normal standard print position is very high. A tolerance of only ± 0.07 mm guarantees impeccable print results even in multicolour printing.

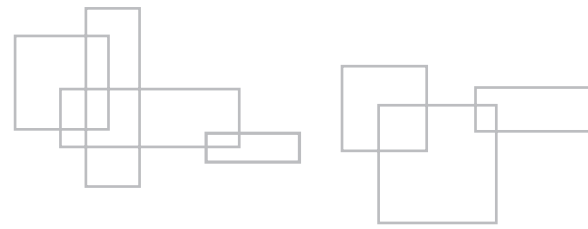
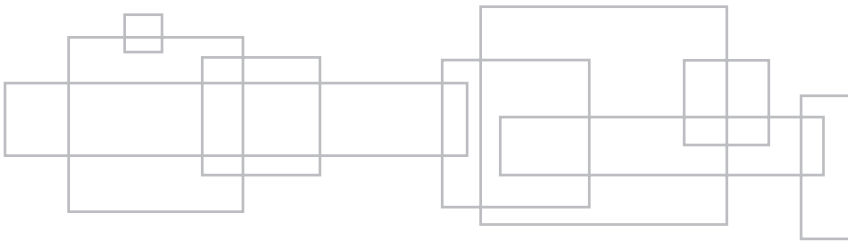
Swinging machine table

The individual printing machine units are installed on a plate cross table (without cliché adjustment in the cliché holder). Each machine can easily be unlocked and turned aside by means of clamping screws which makes changing the cliché and ink quick and easy. In addition, the plate cross tables are serially equipped with indicators to ensure extremely precise adjustment of the ink registration.



Module with 3 Hermetic 6-11 and rotary jigs





Protection devices

The Modul 2000 is completely covered with plexiglass (CE standard). There are one or two doors on each side, all protected electrically. If the doors are opened, the system will immediately come to a stop. The protection doors can be deactivated for adjustment work. The protection is designed for the size of the system, but it can be easily adapted if the system is equipped with further modules. Another protection device is located in or at the "interface" between the human being and machine. A plexiglas protection on a smooth running lineal guide is mounted in the component in-feed/out-feed area. An extremely sensitive deflection mechanism stops the system immediately if hands or bodies come into contact with the rotary plate. Alternatively, the semi-automated system can be protected by a light barrier (option).

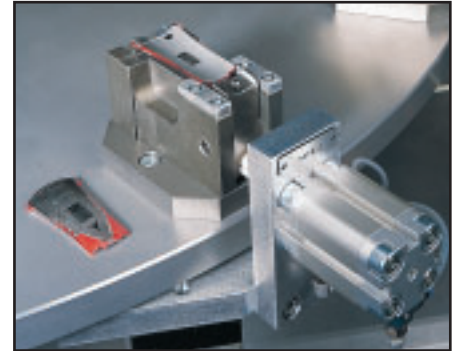
Operation

A serially integrated foot switch connection is located on the front side of the system. The foot switch itself is also included in the delivery. The control panel is located to the right of the operator and offers the following functions:

- Emergency Stop
- "On/Off" control
- Single cycle, continuous run
- Automatic "On/Off"
- Inch rotary table
- Acknowledge malfunctions
- "Active/inactive" protection doors

Output

The Modul 2000 leaves the factory with a cycle rate of up to 1,400 cycles/hour (when using electromechanical machines). If slower running components are used at the same time, the rotary plate cycling rate is limited to the speed of the slowest component. Maximum loading is 1.6 kg per station.



jig

Control

The control is designed to operate 4 tampon printing machines and an additional I/O (e.g. parts scanning). The control used is compatible with the Siemens S5 / S7 units and can be expanded at any time if more than the standard five components are used. (Sufficient space is provided in the switch cabinet with 1,200 x 600 x 210 mm). By modularly expanding the control unit, additional components such as the "pre-treatment unit" (gas, HF or LF-Corona), "cold air drying", "hot air final drying" or "IR final drying" can be controlled separately.

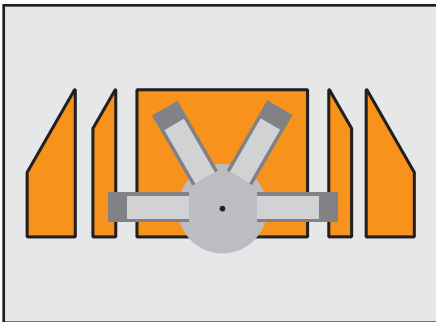


Drehbare Werkstückaufnahme



Plate cross tables

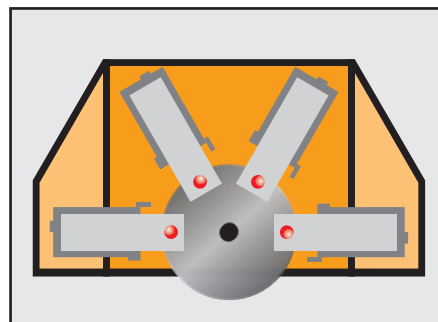
- ... for Hermetic 6-11 universal, Rapid 60 or others
- ... for Hermetic 9-11 universal, Rapid 90 or others
- ... for Hermetic 6-11 and Hermetic 9-11 universal, Rapid 60 and 90 or others
Including machine rotation around the print image centre (radial).
All operating elements are fitted on the rear machine side.



Upgrade options/expansion modules

Drying

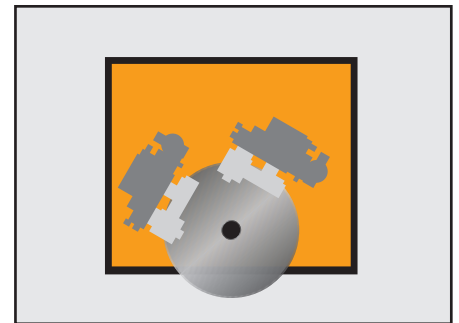
- **Cold air intermediate drying**
 - Cold air is blown between the machines by means of blowers
- **Hot air final drying**
 - Including electronic and mechanical assembly, switch cabinet connection, switch cabinet, blower tail piece with nozzles (adapted to component), ON/OFF selector switch, regulator on control panel
- **IR final drying**
 - Particularly for print images with dark colours on clear print components
 - Synchronized with tampon printing machine control according to the printing cycles
 - IR lamp is operated at base load (10-30 %) during down times
Advantage: the lamp's service life increases considerably, being able to switch to full load within a very short period.



Ex. with expansion module for 3 / 4 tampon printing machines

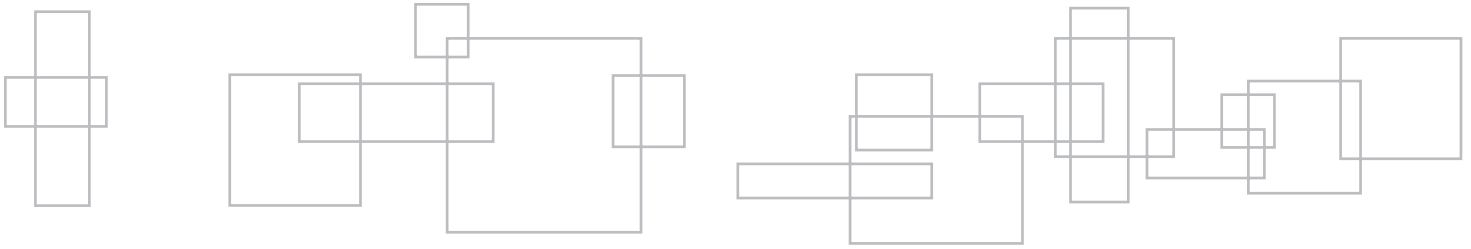
Pre-treatment

- **Gas pre-treatment**
Including electronic and mechanical assembly, switch cabinet connection, ON/OFF selector switch on control panel
- **Corona pre-treatment**
Including electronic and mechanical assembly, switch cabinet connection, ON/OFF selector switch on control panel
- **Traversing unit for pre-treatment**
Including electronic and mechanical assembly, pneumatic cylinders, guide, switch cabinet connection



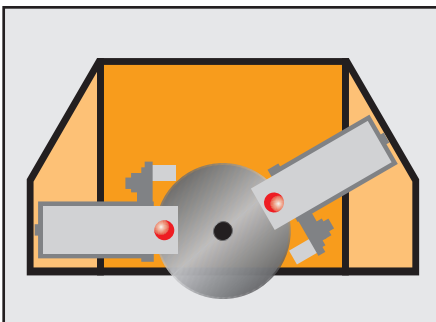
Rotary printing units (special model)





Equipment options

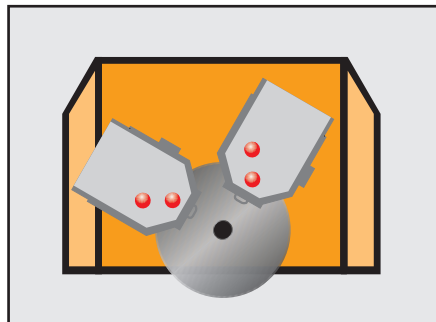
- **Expansion module 3C / 4C**
Expands the system by adding a 3rd or 4th machine
- **Interface (2x)**
Electro-pneumatic for use of pneumatically driven machines
- **Interior system lighting**
- **Cover of the machine surface**
Plexiglass
- **Panelling for the external surfaces**
Anodized aluminium plates



Example: Machines with integrated tampon cleaning

LASER - Options

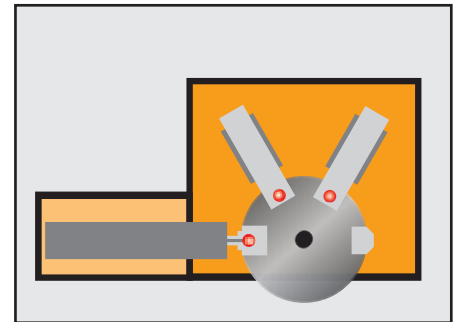
- Expansion module LASER
- Z-axis LASER



Example: 2 V60/90 DUO tampon printing machines

Handling

- **Pneumatic ejection**
Including electronic and mechanical assembly, pneumatic cylinders, guide, switch cabinet connection
- **Pneumatic delivery handling**
Including electronic and mechanical assembly, pneumatic cylinders, guide, switch cabinet connection



Example: Laser unit combined with tampon printing



TECHNICAL

DATA

Modul 2000

Drive	electro-mechanical-pneumatic
Cycles/hour	1,400
Indexing table Rd 900	6 x 60° or 12 x 30° pitch
Position accuracy with d=800	± 0.07 mm
Number of printing machines	maximum 4 units
Printing machines which can be used	Hermetic 6-11 / 9-11 SIC 60 / 90 (further machines on request) Rapid 60 / 90
X-Y adjustment	± 5 mm
Control	PLC
Connected load of indexing table	0.12 kW
Supply voltage (special voltage possible)	3 x 400 V, 50 Hz V / 1-phase
Control voltage	V / DC 24
Air consumption/cycle	depending on the machine used
Pneumatic supply	6 bar
Depth	1,480 mm
Width	1,720 - 2,690 mm
CE mark approved	

Available accessories:

- Plate cross table for tampon printing machine including indicators
- Expansion module 3C / 4C
- Electro-pneumatic interface
- Pneumatic supply with modular construction
- Cold air intermediate drying
- Hot air final drying
- IR final drying
- Cover of machine surface (plexiglass)
- Panelling of external frame surface (anodized aluminium plates)
- Gas pre-treatment
- Corona pre-treatment
- Traversing unit for pre-treatment
- Pneumatic ejection
- Pneumatic delivery handling
- Interior system lighting
- Light barrier
- LASER options
- LASER expansion module
- LASER Z axis

Further options on request!

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