



Three techniques for your stamps

Rubber stamp

Natural rubber is used in stamp making.

The structure of rubber provides good surface absorption when ink is picked up then good release when print is made.

Besides rubber elasticity provides excellent resistance to important and repetitive efforts, as well as longer life expectancy.

Also, rubber shows good compatibility with all kinds of inks, and specially alcohol based ones.



Photopolymer stamp

Photopolymer resin is a liquid material that hardens and creates relief (letters) when exposed to UV light. Advantages of photopolymer technique are easy and fast processing combined with low production cost. It is specially suitable for the production of small quantities of stamps.

Photopolymer structure provides quality prints with water based inks.

Pre-inked stamp

Pre inked stamp is the 3rd kind of stamp available on the market. It is made of micro porous material containing ink in required color and placed in a special mount equipped with proper setting system to provide even pressure. A precise amount of ink is released, leaving a sharp print. About 20 000 prints can be made before porous structure should be filled again with ink



Our 40 year old experience in stamp making allowed us to develop and manufacture a complete range of reliable and easy to operate machines.

Thermogravor



Photopolymer machine size A 4, made of 3 parts :

EXPOSURE UNIT

- to make a negative film from a laser printed positive
- to expose a hard photopolymer plate through a negative and get a master plate.
- to expose photopolymer liquid resin through a negative and get photopolymer stamps.

WASH-OUT UNIT

- for hard photopolymer plates : exposed areas are

left and create relief when uncured parts are washed away (depth)

 for photopolymer liquid resin: exposed areas are left and create letters when uncured parts are washed away (depth)

DRYING UNIT

- for negative film
- for hard photopolymer plate after washing-out
- for photopolymer resin after washing-out.







EXPOSURE UNIT:

- UV tubes with on/off digital timer with memory and
- vacuum pump to keep positive and negative films or negative film and photopolymer material in close contact
- glasses with closing /calibrating system to process liquid photoplymer
- plastic tray with holding system to post expose photo polymer resin
- compressor to pierce air bubbles in photopolymer resin

WASH-OUT UNIT :

- parts are in stainless steel
- thermostat for water temperature control
- timer to start the engraving unit
- the engraving mechanism is outside water to avoid dirt and jamming problems of the moving part

DRYING UNIT:

- 3 drying compartments
- thermostat for temperature control
- on/off timer

OPTION: table with shelves

Automatic press

Motorized moulding and vulcanizing press , size 350×300 mm, for rubber and pre-inked stamp making.

All manufacturing steps are automatically performed. It is just necessary to set parameters (temperatures, preheating and cooking times, cooking pressure)

Then, pushing a single key will automatically start the procedure: platen rising, contact during preheating time, degassing, pressure and cooking, opening when programmed time is over.



- Pressure by motorized hydraulic pump, with separate jack to avoid heat transmission to hydraulic parts.
- automatic control of manufacturing
- preheating and curing time are controlled by a digital timer
- switch for additional degassing
- emergency stop
- manometer for pressure control
- 2 PID electronic controllers securing perfect accuracy and distribution of temperature for pre-inked and rubber stamp making
- platen sizes : standard : 350 x 300 mm or GF : 420 x 350 mm

PEVP Presses

Moulding and vulcanizing presses used to press types or photopolymer plate in a matrix board and get a mold in which rubber is molded

Size A5 (270 x 230 mm) or Size A4 (350 x 300 mm)



- pressure is provided by separate pump and jack on the A4 model, by coupled pump and jack on the A5 one.
- 2 PID electronic controllers secure perfect accuracy and distribution of temperature for pre-inked and rubber stamp making
 Manual digital timer for cycle control
- Manometer for pressure control on A 4 model



Manufacturing chart *: This chart was made with the aim: - to provide a basic view to choose the best equipment meeting your actual needs Typesetting on computer. - to show the flexibility of our equipment Required software: Illustrator, Xpress, Freehand, Coreldraw. Required equipment: Macintosh, PC Positive film printing. Colored backgrounds correspond to specific machines Required products: tracing paper see below" advised equipment " Required equipment: 600 to 1200 dpi laser printer Negative film making. Required products: film, developer, fixer Required equipment: UV unit or photographic bench PHOTOPOLYMER = RUBBER & PRE INKED STAMPS hard photopolymer is exposed to UV Arrangement of products light through a negative film Required products : coverfilm, damming tape, photopolymer resin, substrate sheets. Required products: hard photopolymer plate Back exposure : solid base The photopolymer plate is washed-out Drying: to remove excess of water. Main exposure (through the negative film) relief Post exposure final hardening Wash-out PRE INKED & CHASE BOARD Required products: wash-out solution The photopolymer plate is pressed into the The photopolymer plate is pressed into the Post exposure: final hardening, matrix board to get a mold chase board to get a mold. unsticky treatment. Required products: matrix board, release spray Required products: chase board, release spray Required products: post exposure salt. hard photopolymer plate hard photopolymer plate **RUBBER** PRE-INKED I Rubber is pressed into the mold. The mold is placed inside a metallic Required products: rubber, French chalk casting chase. Premix is poured inside the mold, vacuum Premix is poured inside the mold, vacuum is made then a felt is placed on top. Required products: premix, felt is made then a felt is placed on top. Required products: premix, felt Premix is gelled inside the press. Premix is gelled inside the press Chase cooling Chase board cooling (possible at room temperature). When cold, the pre-inked slab is removed Stamps are cut and placed in a mount Stamps are cut and placed in a mount from the mold. Stamps are cut then place Required products : adhesive foam Required products : adhesive foam in a mount wooden or automatic mount wooden or automatic mount Required products :mounts for preinked stamps. PHOTOPOLYMER STAMP PRÉ-INKED STAME

Advised Equipment



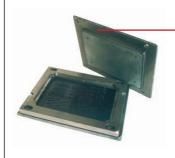








MISCELLANEOUS MATERIALS



Aluminium casting chase

used to fasten the mold $\,$ and calibrate premix material for gelling in the press.

Available in several sizes: (A4, A5, A6, A7).

Cooling unit

Providing fast cooling, necessary once premix is cured. Flow of water is controlled by timer and penstock. Size: A5 (270 x 230 mm) or A 4 (350 x 300 mm).

APPOSITION OF THE PARTY OF THE

Stamp cutter

To cut each stamp from rubber or pre-inked slab



Vacuum chamber in which casting chase or chase board with premix is placed. A vacuum pump allows to release air bubbles thay may be trapped in letters and that would cause non printing areas in the finish stamp.

Depression is controlled by a vacuometer. Size: 420 x 350 mm



PRODUCTS



- 1 Positive film
- 2 Day light film
- 3 Developer
- 4 Fixer
- 5 Teflon
- 6 Hard photopolymer
- 7 Release agent
- 8 Matrix board
- **9** Rubber
- 10 Coverfilm
- 11 Damming tape
- 12 Photopolymer resin
- 13 Substrate sheet
- 14 Chase board
- 15 Premix
- 16 Felt
- 17 Adhesive foam
- 18 Adhesive tape
- **19** Mounts

It is also possible to make rubber stamps by laser engraving. See our range of ILS laser engravers.

259 Chemin de la Côte 30120 MOLIERES CAVAILLAC(FRANCE)

Tél. +33 (0)4 67 81 14 41 Fax. +33 (0)4 67 81 09 80



E-mail. info@thermoflan.com www.thermoflan.com

S.A. au capital de 300 000 euros SIRET 720 201 961 00011 RCS 72B196 NIMES