



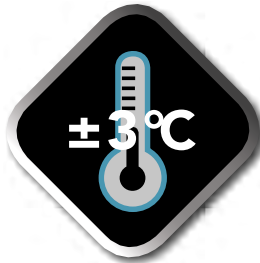
Duplex-Digit
Heating kiln
+
Forming press



Duplex-Digit
Heating kiln + forming press
(machine equipped with sublimation kit)

Solid Surface

The advantages



TEMPERATURE HOMOGENEITY: $\pm 3\text{ }^{\circ}\text{C}$

It is ensured by a double manifold with electric resistances and grids (two levels). For the air flow forced recirculation control.



OPERATOR CONTROL BOARD

Siemens ktp700 touch screen colour display, recipe managing, controls and alarms.



LITTLE SPACE NEEDED

Two machines in one heating kiln and forming press possibility to fit the machine with the sublimation kit.



LESS OPERATING COSTS

The Duplex heating installed power is 18 kW. While a kiln with electric platens needs at least 41 kW.



NO CONTACT WITH THE HEAT SOURCE

The material is suspended over a grid in the center of the two air recirculation manifolds. For this reason we are less bound to the heating time and less subject to the material yellowing.

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Working examples

MATERIALS

Avonite[®], Corian[®], Creanit[®], Hanex[®], Harmony[®], Hi-Macs[®], Krion[®],
Polifen[®], Plexicor[®], Staron[®], Wilsonart[®], Pral[®]

APPLICATION FIELDS

- Kitchen equipments
- Bathroom equipments
- Interior design



MEMBRANE THERMOFORMING

Vacuum: 0,85 Kg/cm²

temperature: 160/180 °C

Working cycle time: according to the material thickness

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General features

Heating chamber

- Useful working dimension:
 - 3000 x 1300 mm x height 100 mm
 - 3500 x 1300 mm x height 100 mm
 - 4000 x 1300 mm x height 100 mm
- Loading of the press from 3000/3500/4000 mm single side
- Kiln drawer: sliding height: 550 mm – stroke: 900mm
- Structure in welded tubulars and iron sheets
- Kiln drawer with manual movement through wheels and guides, made of tubular, shaped iron sheets and composite bearing surface in iron net.
- Drawer locking system with tightening seal.
- Thermal insulation of the heating chamber mad in rock wool (between the kiln and the forming press it is provided an hollow space in order to avoid the heat transfer).
- Heating system made by 2 finned electric resistances with big radiant surface. One of them is jacketed by a special holed metallic crown for the hot air exit in order to grant the air distribution and its forced recirculation.
- Electric resistances installed power: 18 kW
- Electric motor for air circulation: 0,55x2 kW
- Max. temperature of the heating chamber: 200 °C

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Forming press

- Fix working platen structure made of a special phenol sheet with vacuum channelling and vacuumeter for vacuum value display.
- Forming membrane press mounted over the kiln.
Inner flange dimension: 2900x1250 mm
3400x1250 mm
3900x1250 mm
- Loading of the press from 3000/3500/4000 mm single side
- Working height: 1100 mm
- Max. Height of the piece to be processed, including the supporting jig: 500 mm (for higher pieces, foresee the “bag shaped” membrane).
- Closing frame made in tubular steel, hinged to the bench structure with 45° book opening assisted by gas springs, equipped with a hooking device (dovetail type) allowing the membrane positioning without pricking the membrane itself
- High capacity vacuum pump (25 m³/h)
- Max. vacuum: 0,5 mbar equal to 99.95%
- Max thrust on the working platen: from 38 T up to 50 T
- Heat resistant silicon membrane
- Vacuum pump installed power: 0,75 kW

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Electric plant

- Operator control board with **Siemens Ktp700 Basic Color (Touch Screen)** for set and control of the different functions such as:
 - 1) Digital thermal adjustment for the independent control of the electric resistances
 - 2) Kiln temperature visualization and setting.
 - 3) Digital setting of the automatic switching on of the heating plant
 - 4) Possibility to store up to 100 working recipes with customizable parameters:
 - THERMOFORMING/SUBLIMATION RECIPE NAME**
 - HEATING TEMPERATURE**
 - 5) Possibility to program the following audible and visible alarms:
 - MATERIAL WARM UP TIME**
 - MATERIAL COOLING DOWN TIME**
 - SECOND SHEET LOADING TIME**
 - 6) Only for machine equipped with sublimation kit:
 - SHEET SUBLIMATION TIME**
 - INK STABILIZATION TEMPERATURE**
 - SHEET COOLING DOWN TEMPERATURE**
 - 7) Functioning failure signalling diagnostics

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Option available upon request



1 Vacuum manual adjustment by mechanical valves from -0,2 to -0,85 bar

2 “bag shaped” membrane suitable to process up to 900 mm height complete with supporting frame to make easier its use. Available dimensions:

- 3000x1300x H 500 mm
- 3500x1300x H 500 mm
- 4000x1300x H 500 mm

3 Sublimation kit to be positioned inside a DUPLEX heating kiln. The image transfer, from the pre-printed paper film using sublimation inks to the panel is made by the heat, combined with the pressure exerted by the vacuum membrane. Once the sublimation process is over, it is also possible to thermoform the sheet (using the forming press).



2



3

Available dimensions:

- working dimension 2380x980 mm
- working dimension 2880x980 mm
- working dimension 3380x980 mm



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You  <http://www.youtube.com/ormamacchine>

Duplex demo clip
<http://www.youtube.com/watch?v=O0Is4YwEjfl>

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