

# Multiform low-pressure overmolding

Automatic "Smartmelt H+111" machine for low pressure overmolding of components, with the following main features:

The machine has a work station with a simple injection gun in horizontal position, where the operator only carries out the loading and unloading of the part and presses the beginning of the cycle. All other operations are performed automatically by the machine.

## Structure

Welded and oven painted steel tube frame (RAL 7016) with removable sheet steel panels also painted in the oven (RAL 7016).

## Press

Self-supporting steel plate structure with double hydraulic cylinder actuated locking system from Ø50 with closed circuit pneumatic pressure multiplier (without hydraulic unit), with closing force increased to 31.410N at 5 bar.

The top and bottom plates are made of hard anodized 7075 aluminum and feature independent cooling circuits. The plates come machined with centering housings and a mesh of M6 holes for quick change of moulds. The lower platform includes an ejection system driven by a pneumatic cylinder of Ø32mm.



## Cooling

The equipment has an SMC cooling unit of 1.7Kw with independent circuits for the upper and lower plate, with their respective temperature probes for better temperature control of the molds.



## Fuser

The fuser is a "Meler Micron 5+" with variable speed gear pump and tank modified to increase the melting capacity to T=230°C. The load of the fuser is carried out automatically through an automatic feeder from a connected 30-liter pellet dryer in line. The injection is performed through a heated hose, of Ø8mm with gun with pressure sensor and a single nozzle.

## Documentation

- Technical dossier on safety and CE marking in compliance with Royal Decree 1215.
- Instruction manual in Spanish.
- List of references and cutting plans for maintenance.

## General dimensions and supplies

**SMARTMELT H111 (WIDTH X BACKGROUND X HEIGHT):**  
 1,500 x 800 x 2,000mm\*

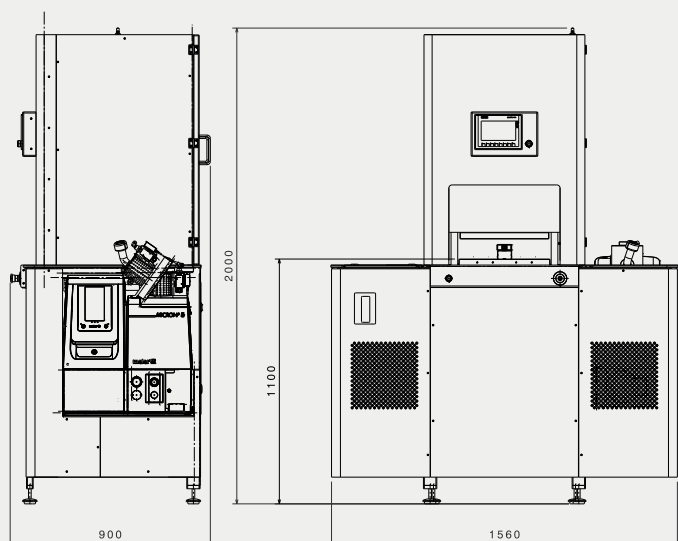
**HAIL DRYER (WIDTH X BOTTOM X HEIGHT):**  
 800 x 650 x 1.300mm

**WORKING PLANE HEIGHT:**  
 1.050mm

**USEFUL DIMENSIONS PRESS TABLE**  
 360 x 190mm

**POWER SUPPLY:**  
 230V or 380V

**COMPRESSED AIR INLET PRESSURE:**  
 6 bar



## Controls

Siemens safety PLC with 7" color touch screen. All machine parameters (temperatures, times, pressures) and all functions are controlled via the touch screen. The new software always controls the injection pressure for better finishes and a greater working range. The control has a warehouse of 25 recipes protected by security code (Supervisor / Maintenance).

Each recipe has the following parameters:

MELTING TEMPERATURE

HOSE TEMPERATURE

NOZZLE TEMPERATURE

PUMP RPM

INJECTION PRESSURE

OVERPRESSURE TIME

COOLING TIME

TEMPERATURE TOP MOULD HOLDER PLATE

TEMPERATURE BOTTOM MOULD HOLDER PLATE

SLIDING DRIVE ON / OFF

BLOWING EJECTION ON / OFF

VACUUM DURING INJECTION ON / OFF

