

DESCRIPTION

Built in a compact and elegant structure of steel painted with epoxy paints fired at 180°C.

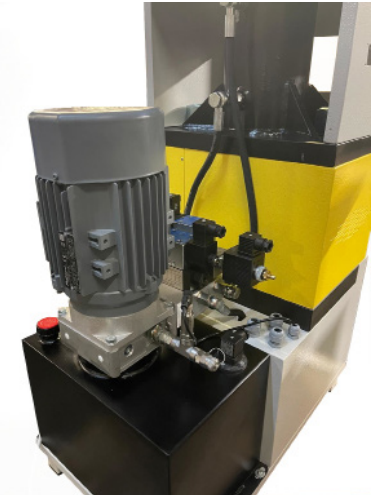
Operation is entirely hydraulic and is fully automatic except for loading the material to be pressed.

It is an instrument, **designed for intermittent use**, suitable for making samples in the laboratory.

The pressing force is exerted through an hydraulic cylinder placed on the upper part of the press and on which the appropriate pad is mounted.

The mold, placed on the work surface, is manually filled with the powder to be pressed and after pressing, the sample obtained is extracted by means of a piston placed in the lower part.

MAX THICKNESS OF THE SOFT : 27 mm



Hydraulic control unit detail

TECHNICAL FEATURES

- Hydraulically operated pressing cylinder (40 tons)
- Hydraulically operated extraction cylinder
- Hydraulic power unit with automatic working pressure regulation using a **proportional valve (30–350 bar)**
- Electronic control unit that enables the press to operate automatically
- Lexan front guard with safety microswitch
- 20 L hydraulic oil tank
- Fixed-setpoint bimetallic safety thermostat (70°C)
- 0–400 bar pressure transducer
- Dual hydraulic circuit for independent adjustment of the specimen extraction force (factory setting)

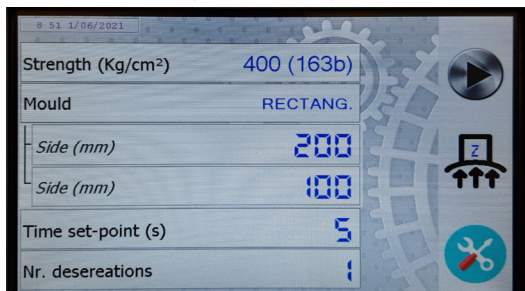


Hydraulic tank detail

On the same side, there are:

- oil level indicator / sight glass
- oil filler cap for the tank
- drain plug for emptying used oil or draining the tank

CONTROL PANEL (touch screen)



Functions:

- Display of pressure on display
- Programming of up to three thicknesses of soft¹
- Manual programming of working pressure
- Programming of the dwell time at the set maximum pressure
- Deaeration scheduling
- **Mold size storage**
- **Programming of the Kg/cm² desired in the press²**
- **Display of Kg/cm² of force and relative working pressure on the display, depending on the format**
- Starting the automatic pressing cycle
- **preparation with Ethernet and USB port for industry 4.0 “ready”**

¹ possibility of being able to press three types of powder at the same time and therefore electronically adjust the thickness of the powders in the mold
² the control unit will automatically adjust the working pressure

Included:

- screed
- allen keys for mold assembly/disassembly

Not included:

- mold:
 - supplied in a choice of various standard formats
 - “custom”, with characteristics compatible with the press

TECHNICAL FEATURES

Model	Width	Depth	Height	Tension	Frequency	Force	Alexing preemp- tively cylinder	Max circuit pressure	Weight
	mm	mm	mm	V+N+T	Hz	[ton]	[Ø mm]	[bar]	[kg]
MIGNON MAX 40 E	440	660	930	400	50/60	40	140	270	230

(All data are non-binding; the manufacturer reserves the right to modify them.)

On these models of laboratory press the molds are interchangeable and can be supplied in the following standard dimension:



Mold available on request:

**Special Ø 40 mm mould with
sintered Zirconium Ox swab**

NOTE

The molds currently supplied are suitable for
use with a maximum shape pressure of
1700 kg/cm²

**STANDARD FORMAT
MOULDS**

Shape size	Mould thickness	MIN on the shape	MAX on the shape
mm	mm	kg/cm ²	
Ø 40	30	368	1700
Ø 50		235	1700
30x80		192	1700
40x60		192	1700
50x50		185	1662
50x100		92	831
55x110		76	687
100x100		46	415
Other shapes, on request, according compatibility			

IMPORTANT

For proper press operation, the pressure
range of the circuit at wich you can
operate must be within between 30 bars
and 270 bars

Calculation example:

Cylinder alexing = 140 mm

Cylinder area = 153,93 cm²

Shape area (ex. 50x100 mm) = 50 cm²

Desired pressure on the shape = 400 Kg/cm²

Circuit pressure: $(400 \times 50) / 153,93 = 130$ bar (pressure value to be set)