

# Laboratory Platen Presses

LabPro series: for customer specific applications



## APPLICATION

For more than 75 years the Fontijne hydraulic laboratory platen presses are being used in the plastics-, rubber-, laminating/wood and aircraft industry. The presses are mostly utilized for research & development and quality control.

## DESIGN

- Compact and simple to operate
- Ergonomic
- Stable
- Reliable construction
- Electrical heating and water cooling integrated
- Low noise level in operation
- High safety level
- Custom build, to meet specific requirements

## Press frame

The press consists of:

- a steel 2 columns press frame. These two columns are precision machined in such a way that they serve as guides for the press-table. The accurate prism guidance construction guarantees a high parallelism of the platens at all temperatures.
- a lower platen with connected to the hydraulic cylinder
- an upper platen

## Hydraulic unit

The unit is located in the electrical cabinet connected to the press frame. The hydraulic cylinder is a double-acting type. The two integrated pumps are for fast closing and accurate pressing. The hydraulic unit will automatically adjust increase or decrease in pressure, so that the pressure on your product is kept constant.

## Cassette cooling system

Optional the press can be equipped with a cassette cooling system. The cooling platens are located behind the press frame, by moving the cooling platens into the press fast cooling under pressure can be achieved.

## Press platens

The platens are designed as a combined heating- cooling plate and provided with inlets/outlets to connect external temperature regulation systems. In the basic version the platens are equipped with electrical cartridge heating elements and provided with cooling channels. The steel platens are designed in such way that an equal temperature-distribution over the platen surface is ensured. Heating rates can vary between 1° - 30 °C/ min, depending on the type of heating system. The cooling channels are specially designed for high cooling rates.



fig.1 external cassette cooling system

**The Fontijne Presses LabPro 50 – 1000 are compact and designed for laboratory use and small production.**

## Control

Temperature, time and pressure controllers are mounted on the front of the control panel. The standard platen press is equipped with a digital pressforce controller and a timer. With these controls one press force during a certain time can be set. Depending on the desired accuracy and the possibility to programm, temperature- or pressure steps, PLC or PC control systems can be furnished upon request.

## Technical data

| LabPro                   |                   | 50        | 200       | 400       | 600       | 1000      |
|--------------------------|-------------------|-----------|-----------|-----------|-----------|-----------|
| Closing Force            | kN                | 50        | 200       | 400       | 600       | 1000      |
| Platen size              | mm                | 225 x 225 | 225 x 320 | 320 x 320 | 400 x 400 | 500 x 500 |
| Cylinder stroke          | mm                | 200       | 200       | 200       | 200       | 200       |
| Specific platen pressure | N/cm <sup>2</sup> | 99        | 277       | 390       | 375       | 400       |
| Capacity per platen      | kW                | 1.5       | 2.2       | 3.2       | 5.0       | 7.5       |
| Max. temperature         | °C                | 300       | 300       | 300       | 300       | 300       |
| Closing speed            | mm/sec            | 23        | 15        | 15        | 15        | 11        |
| Press speed              | mm/sec            | 0.9       | 0.38      | 0.38      | 0.38      | 0.25      |
| Weight nett/gross        | kg                | 225/255   | 335/365   | 450/480   | 725/755   | 1275/1325 |
| Lenght                   | mm                | 850       | 860       | 950       | 1050      | 1160      |
| Width                    | mm                | 555       | 555       | 570       | 650       | 750       |
| Height                   | mm                | 925       | 925       | 975       | 1000      | 1085      |

**FONTIJNE  
PRESSES**  
Manufactured by Fontijne Grotnes

CE

ISO 9001-2000

Represented by:

**FONTIJNE PRESSES - PRECISION IN PRESSING**

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