

TESTING INSTRUMENTS FOR  
*A MEASURABLE DIFFERENCE...*

**iDM**  
instruments

# LABORATORY HEATED PRESS

LHP SERIES



**IDM-LHP002-M1**

**IDM-LHP001-M3**

## INTRODUCTION

International Standard IDM Laboratory Heated Presses are used by laboratories around the world for pressing, forming, molding, laminating, embossing and bonding of various material samples between two heated platens.

The current IDM, LHP Series has been expanded and improved with more sizes, options, features, and quality performance than others.

Standard choices also now include two-column and four-column, bench top and floor standing, and manual, Hydraulic Power Unit, or automatic plc presses with clamping capacities from 10 to 60 tons. Automatic "Auto Series" presses include user-friendly PLC control system and integral safety enclosures. Accessories include new self-contained, electrically operated AutoPak hydraulic power unit for Two digital temperature controllers enable the platens to be heated or cooled and even set process times for heating and cooling. One the control panel a digital panel meter connected to a pressure transducer is used to display the compression force in (kgf) enabling fast and accurate control of pressure application.

These Presses are widely used in

- **Quality and Performance Testing of Physical Properties:** compression strength, flexural strength, shear strength, flow and color dispersion.
- **Lab Testing:** ASTM test plaque or bar molds for polyethylene and polypropylene.
- **Laminating:** Other applications: composite molding, compression molding, crushing, encapsulation, extrusion, forming, insert pressing, producing KBr pellets for infrared spectroscopy, metal forming (dimpling), insert molding, oil extraction, pelletizing, specimen preparation, splice molding, splitting chilled oils, transfer molding, and vulcanizing rubber stamps.

### Custom Presses

In addition to the model shown on this web site, IDM designs and manufactures a wide variety of custom-made presses and accessories to suit your specific application. Please consult the factory for any equipment not specifically listed on this site.

## FEATURES

- Temperature range up to 400°C
- Digital Temperature Controllers
- Digital Pressure Gauges
- Auto-Zero Function
- Sample Rate: 5 to 100 per second (selectable)

## APPLICATIONS

- Ceramics
- Composites
- Construction Materials
- Cosmetics
- Drugs & Pharmaceuticals
- Powder Metals
- Printed Circuit Boards
- Rubber

- Polypropylene Composites
- Polypropylene
- Credit Cards
- ID cards
- Plaques
- Silicone
- Elastomers
- Soil, thermoplastic resins and thermosets

## LHP SERIES M3 MODELS – PLC CONTROL

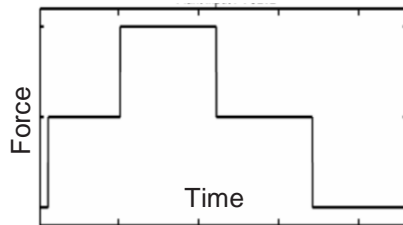
The M3 Models comes with the latest design featuring a PLC touch-screen to control various functions of the instrument. This feature allows easy operation like changing the force (kgf) or lowering the platen and eliminates manual operation. It also comes with two temperature controllers to control the temperatures of the upper & lower platens.

### PLC Touch-screen

The PLC Touch-screen ensures digital control of the instrument ensuring efficiency. By the click of a button, the platen position & force can be altered before or during the test. It displays in real-time the current force being applied, time remaining for each cycle and the total time remaining. Using the Test Setting function, 5 test cycles can be set by inputting the required force and time for each cycle. The instrument automatically stops after the cycles have been completed.

IDM Instruments		TEST MONITORING	
S/N: 21-08-2439 11/35 - 17/08/2021		CYCLE 1	
<b>SETTING</b>		<b>ACTUAL FORCE</b>	ZERO
REQUIRED FORCE	2000 kgf	2101 kgf	
CURRENT CYCLE TIME	0 hrs : 1 min	CURRENT CYCLE TIME REMAINING	0 hrs : 1 min
TOTAL CYCLE TIME	0 hrs : 5 min	TOTAL TIME REMAINING	0 hrs : 5 min
<b>START CYCLE</b>	<b>STOP</b>	<b>LOWER PLATEN</b>	
TEST SETTINGS	ALARMS	PARAMETERS	

Sample Test Screen



Force Ramp Effect Demonstration



## LHP SERIES M2 MODELS – ELECTRIC PUMP

The M2 models come with an Electric Operated Hydraulic Pump which is used to raise and lower the compression platens on the Laboratory Heated Press. The electric pump has a flow-control valve to increase or decrease speed of the platens. It also has Advance valve which holds pressure with motor shut off and Return valve which advances cylinder with motor running and returns cylinder with motor shut off. The model has a control panel displaying the real-time force applied along with temperature controllers displaying the temperature of the upper and lower platens.



## LHP SERIES M1 MODELS – HAND PUMP

The M1 models have been upgraded with a robust design to ensure durability of the instrument. A control panel is fitted with a digital display that specifies in kgf to give you an indication of how much force you are applying. Two temperature controllers for the upper and lower platens are also fitted and display the set point and the actual temperature when running. When the water-cooling option is selected, a timer is also supplied for turning on the water to cool the platens to ambient after a pre-set heating time.



## MODELS & SPECIFICATIONS

Model	IDM-LHP0001	IDM-LHP002	IDM-LHP0003
<b>Options</b>	IDM-LHP0001-M1 ( <i>Hand Pump</i> ) IDM-LHP0001-M2 ( <i>Electric Pump</i> ) IDM-LHP0001-M3 ( <i>PLC Control</i> )	IDM-LHP0002-M1 ( <i>Hand Pump</i> ) IDM-LHP0002-M2 ( <i>Electric Pump</i> ) IDM-LHP0002-M3 ( <i>PLC Control</i> )	IDM-LHP0003-M1 ( <i>Hand Pump</i> ) IDM-LHP0003-M2 ( <i>Electric Pump</i> ) IDM-LHP0003-M3 ( <i>PLC Control</i> )
<b>Control</b>	2-20 Tonne	3-30 Tonne	5-50 Tonne
<b>Readability</b>	20,000 x 10 kgf	30,000 x 10kgf	50,000 x 10 kgf
<b>Platen Size</b>	300 mm	300 mm	300 mm
<b>Temperature Range</b>	300°C ± 1% FS		
<b>Daylight</b>	150 mm		
<b>Connections</b>	415 VAC @ 50 HZ, 3 Phase		

## OPTIONAL ITEMS

Option	IDM-LHP0001	IDM-LHP002	IDM-LHP0003
<b>Temperature Range - 400°C</b>	IDM-HP0001-OP1	IDM-HP0002-OP1	IDM-HP0003-OP1
<b>Daylight – 200 mm</b>	IDM-HP0001-OP2	IDM-HP0002-OP2	IDM-HP0003-OP2
<b>Platen Size – 400 mm</b>	--	IDM-HP0002-OP3	IDM-HP0003-OP3
	IDM-HP0001-OP3	<ul style="list-style-type: none"> <li>IDM-HP0002-OP4-1 (Platen Size 300 mm)</li> <li>IDM-HP0002-OP4-2 (Platen Size 400 mm)</li> </ul>	<ul style="list-style-type: none"> <li>IDM-HP0003-OP4-1 (Platen Size 300 mm)</li> <li>IDM-HP0003-OP4-2 (Platen Size 400 mm)</li> </ul>
The water-cooled platens are fitted onto the instrument at time of manufacture, and allow the platens to cool at a faster rate also comes with Water Solenoid Valve			
<b>Safety Enclosure</b>	IDM-HP0001-OP4	IDM-HP0002-OP5	IDM-HP0003-OP5
	Safety Enclosure is an outer cover to ensure maximum safety and auto-stop function when the enclosure is open.		
<b>Heat Ramp Temperature Controller</b>	Consult with IDM for this option		

## STANDARDS

- ASTM D 4703

## WORKING ENVIRONMENT

- Temperature: -10°C to 40°C
- Humidity: 25% to 85%

## DIMENSIONS

### IDM-LHP0001 Series

#### Packaged:

- H: 1580 mm
- W: 1120 mm
- D: 860 mm
- Weight: 525 kg

### IDM-LHP0002 Series

#### Packaged

- H: 1580 mm
- W: 1270 mm
- D: 1010 mm
- Weight: 655 kg

### IDM-LHP0003 Series

#### Packaged

- H: 1580 mm
- W: 1420 mm
- D: 1160 mm
- Weight: 790 kg

## WARRANTY AND CALIBRATION SERVICES

- **1 year Warranty**
- Our **Preventive Maintenance and Calibration (PM&C) program** has been designed to make the maintenance and calibration of your valuable testing equipment more cost effective by preventing breakdowns and downtime by regular calibration, service and replacement of defective parts. Talk to us about this today.

## RELATED ITEMS

### Cavity Sample moulds

- IDM-D0005-2 – 2 Cavities
- IDM-D0005-4 – 4 Cavities

