



10 SMILANSKY STREET.
NETANYA 42432 – ISRAEL.
Tel. / Fax: + 972 98825473

www.perflexltd.com

Email: info@perflexltd.com

Technical support and training: perla@perflexltd.com



PERFLEX®

Innovative Dental Technologies

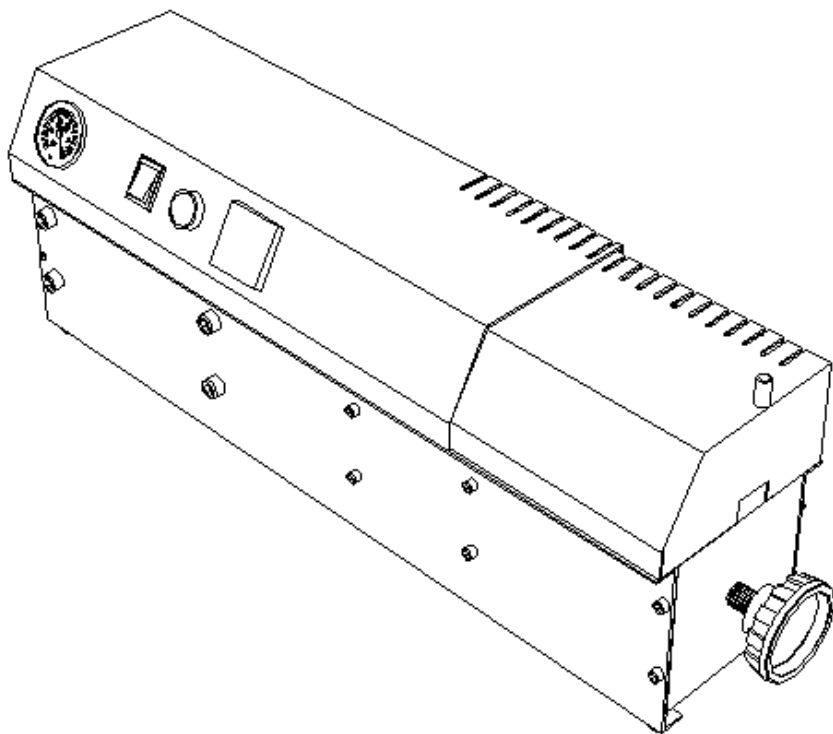
PERFLEX Ltd.

10 SMILANSKY STREET.

NETANYA 42432 - ISRAEL

TEL/FAX: +972 98825473 / +972 98614474

www.perflexltd.com - E-mail: info@perflexltd.com



SMART 101 INJECTION MOULDING MACHINE

OPERATING INSTRUCTIONS AND MAINTENANCE MANUAL

PERFLEX Ltd.
10 SMILANSKY STREET.
NETANYA 42432 - ISRAEL
TEL/FAX: +972 98825473 / +972 98614474
www.perflexltd.com - E-mail: info@perflexltd.com

SMART 101 INJECTION MOULDING MACHINE

TABLE OF CONTENTS:

PERFLEX Ltd.
10 SMILANSKY STREET.
NETANYA 42432 - ISRAEL
TEL/FAX: +972 98825473 / +972 98614474
www.perflexltd.com - E-mail: info@perflexltd.com

1 GENERAL INFORMATION	Page 3
2 INTRODUCTION	Page 3
3 PACKING DESCRIPTION	Page 4
4 SAFETY PRECAUTIONS	Page 4
5 DESCRIPTION	Page 5
6 INSTALLATION	Page 6
7 USE AND MAINTENANCE	Page 7-8-9
8 TECHNICAL SPECIFICATIONS	Page 9-10
9 VIEW OF CONNECTIONS	Page 11-12

SMART 101 INJECTION MOULDING MACHINE

1- GENERAL INFORMATION

This manual has been made by PERFLEX Ltd. with the purpose of making easier the use and maintenance of the equipment. 2

PERFLEX Ltd.
10 SMILANSKY STREET.
NETANYA 42432 - ISRAEL
TEL/FAX: +972 98825473 / +972 98614474
www.perflexltd.com - E-mail: info@perflexltd.com

PERFLEX Ltd. is free from any responsibility arising from damages or changes produced by the misuse of the equipment.

All the equipment contain a copy of this manual, therefore all the instructions included in the technical information should be carefully carried out so as to guarantee a correct performance.

Disregard the instructions included herein should imply the breakup of the warranty.

In case of any claim, please quote type of the equipment, model and number of series (Follow the warranty instructions).

2- INTRODUCTION

This manual belongs to:

SMART 101 INJECTION MOULDING MACHINE

Complete the certificate of warranty and send it to PERFLEX Ltd. that implies an important step.

The equipment should be immediately sent to the dealer if you find damages produced by the transportation when putting aside the packing.

SMART 101 INJECTION MOULDING MACHINE

Please follow the instructions included herein to install it.

SIDE AND BACK VIEW

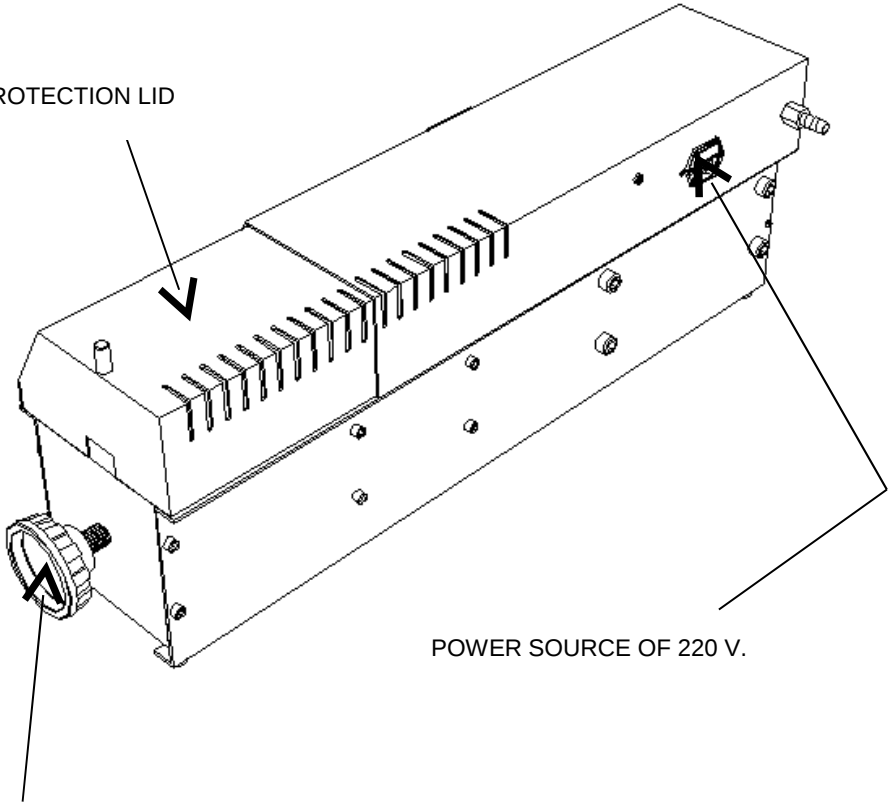
CONNECTOR 3/8"
ENTRANCE OF AIR

3



PERFLEX Ltd.
10 SMILANSKY STREET.
NETANYA 42432 - ISRAEL
TEL/FAX: +972 98825473 / +972 98614474
www.perflexltd.com - E-mail: info@perflexltd.com

PROTECTION LID



POWER SOURCE OF 220 V.

ADJUSTMENT OF THE MUFFLE

SMART 101 INJECTION MOULDING MACHINE

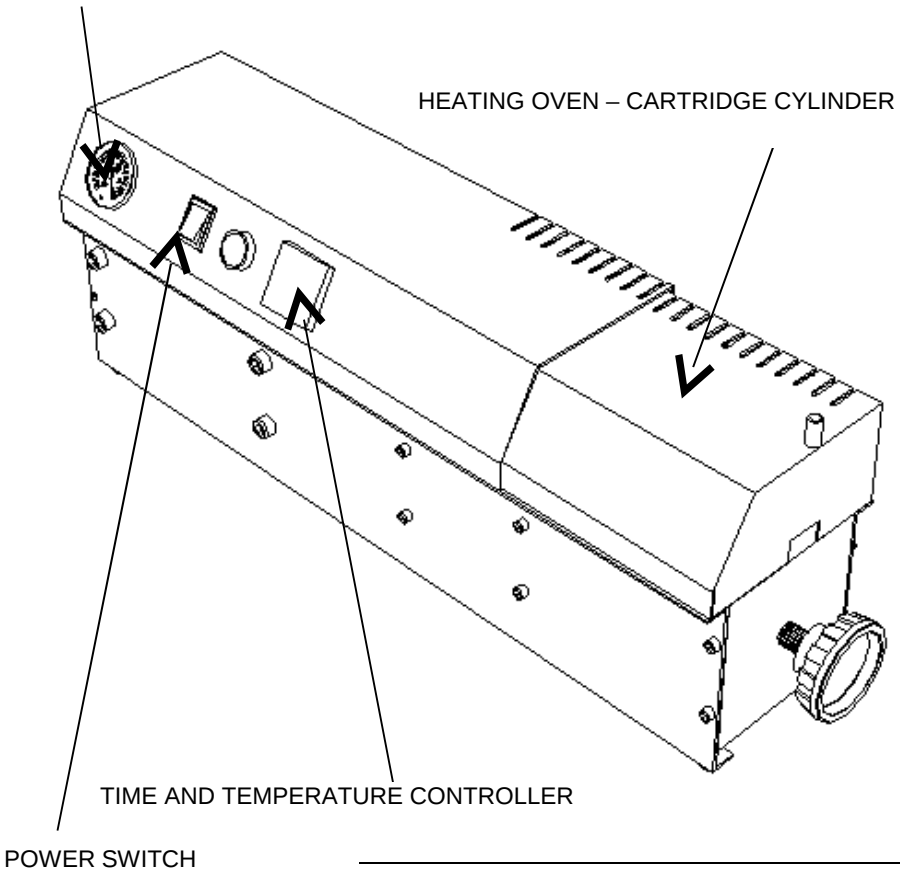
11- VIEW OF CONNECTIONS

SIDE AND FRONT VIEW

WORKING BOTTON

MANOMETER

PERFLEX Ltd.
10 SMILANSKY STREET.
NETANYA 42432 - ISRAEL
TEL/FAX: +972 98825473 / +972 98614474
www.perflexltd.com - E-mail: info@perflexltd.com



SMART 101 INJECTION MOULDING MACHINE

3- PACKING DESCRIPTION

- **SMART 101 MOULDING** 11 **INJECTION MACHINE.**
- Power cord.
- Certificate of warranty.

PERFLEX Ltd.
10 SMILANSKY STREET.
NETANYA 42432 - ISRAEL
TEL/FAX: +972 98825473 / +972 98614474
www.perflexltd.com - E-mail: info@perflexltd.com

- Use and maintenance manual.

4- **SAFETY PRECAUTIONS**

Important: The **SMART 101 INJECTION MOULDING MACHINE** must be used by trained people ONLY.

It must be used by people trained in the materials pressure technique.

Be sure to heed all the warnings to work with this equipment.

Warning: To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

The equipment is connected to a 220 V. power source.

Keep electrical current with ground connection.

Turn on the injector furnace by pressing the green switch and set program: temperature and time desired for the type of material then press arrow up 1 "run" will appears on the panel its means the program is: ON
To stop the program press the arrow down 0 will appears its means: OFF

When the value of the programmed temperature arrived to the set point put the lubricated cartridge with it's cap facing outwards into the oven.

Set the timer at 3-5min before injection time is set, when the timer alarm, place the flask into the furnace chamber.

When the machine alarms inject by pressing 2 seconds the green round

SMART 101 INJECTION MOULDING MACHINE

button "inject" button

Stop alarm by pressing the lateral arrow, and set the timer at 3 min to cool the flask, release/open the handle to the end and press backwards and forwards,(green inject button) to release the flask

Please remove flask with protection gloves to avoid burns.

Lubricate the cartridge ALWAYS with U-tube GEL LUBRICANT – High resistance temperature lubricant, before insertion into the machine.

5- DESCRIPTION

The **SMART 101 INJECTION MOULDING MACHINE** is the result from the conscious work together with the modern dental laboratories and a detailed study regarding the technological innovation within produced in the pneumatic and the electronic field. This equipment is engineered to inject thermoplastic materials by molding injection system flexible prosthetics, partials, total dentures and appliances.

This equipment is constructed by a pneumatic system of thrust, and suitable for 25mm.diam. cylinder.

Contains a lid protection where is located the port cartridge to avoid different accidents during the work process.

In the left lateral is located the connector for the entrance of air pressure (Connector 3/8") and the power source.

SEE VIEW OF CONNECTIONS IN PAGE 11-12

SMART 101 INJECTION MOULDING MACHINE

Connect the power cord to a 220 V. power source.

EXTERNAL DIMENSIONS OF THE EQUIPMENT:

Height: 225 mm.

5

Width: 900 mm.

Depth: 260 mm.

Weight: 25 Kg.

PERFLEX Ltd.
10 SMILANSKY STREET.
NETANYA 42432 - ISRAEL
TEL/FAX: +972 98825473 / +972 98614474
www.perflexltd.com - E-mail: info@perflexltd.com

EXTERNAL DIMENSIONS OF THE CARTRIDGE PORT:

Diameter: 25 mm.

Depth: 140 mm.

SMART 101 INJECTION MOULDING MACHINE

TABLE OF POSSIBLE FAILURES

FAILURES	CAUSES
It does not start	* F 10 inected power cord. * Deceive Fuse
Poor pressure	* See the feed of the tablet air. * Bad working of the compressor.
Poor temperature	* Resistance is broken. * Verify the temperature selected in the controller.

Maintenance:

Effectuate the cleaning of the injection machine after each process to verify that any rests of plastic material were remaining in the equipment. (They can damage the normal conditions of the injection).

8- TECHNICAL SPECIFICATIONS

Power Source: 220 V (Optional 110 V)

Frequency: 50 Hz

Power: 660 W

Fuse: 3 Amp. (Measures: diameter 5 x 20 mm)

Maximum Pressure: 10 bar.

SMART 101 INJECTION MOULDING MACHINE

6- INSTALLATION

Though during packing and preparation for shipment, all precautions have been taken to prevent damage during transport, it is important to check the condition of the machine after removing it from the packing. In the event of any damage, immediately notify the supplier.

It is best not to throw away the packaging as this may be useful if the machine has to be sent back for checking or overhauling.

Place the equipment on the work area and then carry out the connections.

Connect the line of the compress air with the hose of 3/8".

PERFLEX Ltd.

10 SMILANSKY STREET.

NETANYA 42432 - ISRAEL

TEL/FAX: +972 98825473 / +972 98614474

www.perflexltd.com - E-mail: info@perflexltd.com

Connect the power cord to the equipment and to the 220 V. power source.

ENVIRONMENT CONDITIONS:

Operating temperature: 5 °C a 40 °C



Operating humidity: 30 % a 95 %

Pressure: 500 hPa a 1060 hPa

SMART 101 INJECTION MOULDING MACHINE

7- USE AND MAINTENANCE

THE OPERATION OF 6 THE TEMPERATURE CONTROLLER:

- Turn on the equipment with the switch that is located in the left lateral. The temperature controller indicates in the display the value of the process temperature, and can be fit using these keys  .

With these keys you can change all the parameters that were selected.

PERFLEX Ltd.
10 SMILANSKY STREET.
NETANYA 42432 - ISRAEL
TEL/FAX: +972 98825473 / +972 98614474
www.perflexltd.com - E-mail: info@perflexltd.com

THE OPERATION LEVEL:

SP Set Point	<u>Temperature indicator:</u> When you turn on, the control indicates in the display the value of the temperature of process. The value of the temperature that you wish can be adjusted with switches for increase or decrease temperature: To enter in the next parameter you have to pressure the P switch. This allows you to change rAtE .
rAtE	<u>Speed of temperature increment:</u> Allows the user to define the characteristics of the temperature increment of the process, from the actual value to the programmable in SP value. The define value in °C / minutes . WE RECOMMEND VALUE = 100 To enter in the next parameter you have to pressure the P switch. This allows you to change t SP .

SMART 101 INJECTION MOULDING MACHINE

t SP	<u>Time of maintenance of the select temperature:</u> Time in minutes that the process has to be in the temperature selected in SP . In relation with the material that you use, we recommend the value from 10 to 15 minutes. To enter in the next parameter you have to pressure the P switch. This allows you to change run .
run	run shade that allows activating or deactivating the performance of the control of the process. 0- DOES NOT ACTIVATE THE EXIT. 1- ACTIVATE TE PROGRAM.

PERFLEX FN- FLEXI NYLON

Temperature: 260°C.

PERFLEX Ltd.
10 SMILANSKY STREET.
NETANYA 42432 - ISRAEL
TEL/FAX: +972 98825473 / +972 98614474
www.perflexltd.com - E-mail: info@perflexltd.com

Time: 11 Min.
Pressure: 9.5 Bar.
PERFLEX T CRYSTAL
Temperature: 280°C.
Time: 11 Min.
Pressure: 9.5 Bar.
PERFLEX AF ACRY-FREE
Temperature: 270°C.
Time: 20 Min.
Pressure: 9.5 Bar.
PERFLEX AC-ACETAL
Temperature: 250°C.
Time: 20 Min.
Pressure: 9.5 Bar.