

PM-09/160A Series

Heat press with air cooling



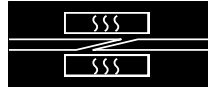


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0 Introduction

This manual contains instructions on how to handle, install, use and maintain the Heat press series

PM-09/160A

Available spare parts are also indicated.

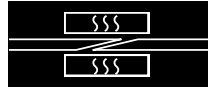
Habasis thanks you for purchasing the PM-09/160A series press.

If you handle your PM-09/160A series press with care, it will guarantee joint reliability and quality for many years to come.

PM-09/160A identifies the range of heat presses with water cooling to join thermoplastic conveyor belts (see list of models in the Fig. 1)



Observing the instructions in this manual lets you work during: handling, installation, use and maintenance phases in safe conditions while guaranteeing good machine working order and economies of scale. HABASIT Italiana S.p.A. is not liable for damages due to negligence or failure to observe these instructions.



1 Machine identification data

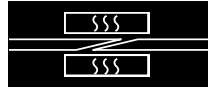
Machine	Heat press
Series	PM-09/160A
Serial number	See plate on press body
Year of construction	See plate on press body

1.1 PM-09/160 series press designation system

PM-09/160 series presses can be ordered in various combination according to required use. To correctly order, refer to the following designation table:

Press kit designation	
	Code explanation / choices
product group	P: pressing device (hot pressing devices)
operation	M: multi-system (Flexproof + Themofix)
interruption	
max effective belt width / 10 [mm]	45: 450 mm 100: 1.000 mm
model/series	4: series 04 6: series 06 9: series 09
interruption	
plate width [mm]	100 160
press type	W: water cooled A: air cooled F: fast heat (air cooled)
interruption	
kit version	M: mobile kit R: reduced S: stationary kit W: workshop kit B: press body only
interruption	
control unit type	C: compact control unit PMR-07 A: automated control unit PMR-06 X: none
cooling unit type	C: PMC-07 (suitable with PMR-07 only) A: PMC-06 (suitable with PMR-06 only) P: water pump + tank S: workshop support
accessories	L: light tower M: minicompressor X: none
interruption	
power supply	4: 3x230V 5: 3x400V 6: 1x120V 8: 1x230V 458: 1x230V or 3x230V or 3x400V depending upon the control unit
P M - 100 9 / 160 W - M - C P M / 4	

Fig. 1 –PM-09/160 series press designation table



2 General safety and accident prevention regulations

PAY THE UTMOST ATTENTION TO THE HAZARD SIGNALS INCLUDED IN THIS MANUAL.

THERE ARE 3 LEVELS OF HAZARD SIGNALS:



HAZARD!

This symbol warns that, if the described operations are not correctly performed, the operator is subject to risks that could cause damages or injury with even serious health consequences.



WARNING

This symbol warns that, if the described operations are not correctly performed, the operator is subject to potential, albeit limited risks.

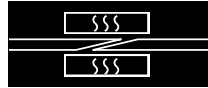


CAUTION!

This symbol warns that, if the described operations are not correctly performed, may cause machine damages.



Before using the machine, carefully read the instructions in this manual



2.1 Signal plates

The following plates are found on the machine with the following meanings:

2.2 Information plates

- Carefully read the instructions in this manual before operating



2.3 Prohibition, mandatory, hazard plates

- Prohibition

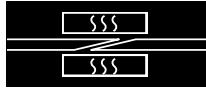
Do not remove safety devices	Do not work on moving parts

- Personal safety devices mandatory

Gloves	Shoes	Mask	Overalls	Goggles

- Hazard

Do not work on live parts	Hand crushing hazard	Burn hazard



3 Conditions of use

3.1 Machine use – intended use

The PM-09/160A heat press has been specifically developed for hot joining of Habasis drive and conveyor parts using the Flexproof process.

It was exclusively designed for the applications described hereto. Other or unsuitable applications are prohibited. Habasis shall not be liable for unintended application consequences. The PM-09/160A was professionally manufactured in accordance with EC safety instructions. All assembly, maintenance and repair work, as well as the operation of the equipment, is expected to be carried out by qualified personnel or staff under the supervision of responsible specialists and experts.

For space reasons, these instructions for use cannot cover all possible operating, maintenance and repair aspects. The indications provided concern normal machine use by qualified personnel. In the event of doubt or in need of further information, always contact the manufacturer.

3.2 Machine use – improper use

Improper yet reasonably foreseeable use includes: processing materials other than those foreseen by Habasis, processing belts and/or straps with unforeseen sections, use of non-original accessories, replacement of components or parts other than those specified.



WARNING

The **PM-09/160A** heat press series was designed, dimensioned and constructed for the sole previously described use. Any other use is not compliant and does not correspond to that indicated in this manual; it may damage the machine thus invalidating the technical conditions for which the machine was designed and constructed, potentially modifying production and safety features.

The manufacturer is not liable for damages to people and/or property due to unforeseen use.

3.3 Press operating principle

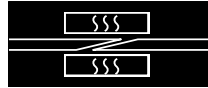
Heating plates are each heated by two ultra-flat electrical resistances. A temperature sensor is installed on each plate (thermocouple type J made of Fe-CuNi), that measure the current plate temperature transmitting it to the PMR regulator.

A special wire with a built in compensation line for precise reading transmission is used between the heat press and the regulator.

The rubber pad pressure system evenly distributes pressure along the entire press length.

The press is cooled by heat exchange with a dissipater, in turn cooled by fans located at the ends of the upper and lower beams.

3.4 References and Regulations



3.4.1 Applied EU Directives

- EU Directive 2006/42/EC known as the “Machines directive”.
- EU Directive 2006/95/EC known as “Low tension directive”.
- EU Directive 2004/108/EC for the convergence of Member State laws on electromagnetic compatibility.
- This machine has been constructed in a country that is part of the European Community and therefore meets the safety requirements of EU directive 2006/42/EC.

This conformity is certified and the machine bears the CE mark of compliance.

- EU Directives concerning Workman’s safety
- EU Directive N° 89/391 concerning the improvement of the safety and health of workers during work, in addition to the following particular directives EU N° 89/654 and N° 89/655.
- EU Directives 92/58/CEE concerning safety signs in the workplace.
- EU Directives concerning personal protection
- EU Directives 93/68/CEE, 93/95/CEE e 96/58/CEE concerning the use of personal protection devices.
- EU Directives concerning environmental protection
- EU Directive 91/56/CEE on the disposal of waste.
- EU Directive 91/689/CEE and 94/62/CEE on the disposal of toxic and harmful waste.

3.5 Warranty

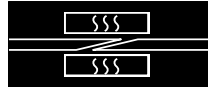


WARNING

The **PM-09/160A** series heat press is guaranteed against factory defect for a period of 12 months from the date of purchase.

The warranty is null and void in the event of non compliant use or use other than that foreseen or illustrated in this manual.

POOR USE, NEGLIGENCE, POWER SUPPLY AT DIFFERENT VOLTAGES OR ATTEMPTS TO REPAIR OR ALTER PARTS BY UNAUTHORISED PERSONNEL NULL AND VOID THE WARRANTY.



4 Safety information

4.1 Personnel training

The operator must have a basic education level and have previously worked on machine tools, better if similar to this one, to run this machine.

Habasit Italiana can provide operator training at its facilities.



ATTENTION!

The machine operator must be a worker with proven ability.

The factory owner and/or manager must provide the operator with all the information and assistance necessary to protect his physical health.

The operator must be provided with a copy of this manual and the user must verify that the operator has read it and understands how to safely run the machine.

4.2 Safety sticker positions on the machine



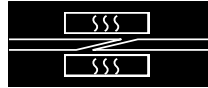
WARNING

Appropriate safety stickers have been affixed to the machine. Each operator must view them and know the meanings of the symbols (see also paragraph "Signal plates").



WARNING

SIGNAL STICKERS MUST NOT BE REMOVED, TAMPERED WITH OR DESTROYED. THE SYSTEM OWNER MUST REPLACE THEM IN THE EVENT THEY ARE DAMAGED OR ILLEGIBLE.



5 Residual risks

Despite the attentive design and measures adopted in construction, this machine has the following residual risks.

5.1 Electrical risk

The press is equipped with an electrical panel and wired electrical components: during assembly, use and maintenance, these devices may present electrocution hazards in the event of electrical part insulation or wiring faults.



HAZARD!

Electrical connections must be performed by specialised personnel.

5.2 Mechanical risk

Operator collision risks during machine transport, installation, maintenance and dismantling due to handled volumes.



HAZARD!

Be careful during transport, installation, maintenance and dismantling and use foreseen Personal Safety Devices (helmet, gloves, shoes).

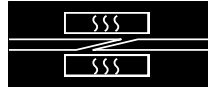
5.3 Crushing risk

During press installation, use, maintenance and dismantling, there is the risk of operator hand crushing between the upper and lower part of the press or foot crushing due to the press falling.



HAZARD!

Be careful during installation, use, maintenance and dismantling and use foreseen Personal Safety Devices (helmet, gloves, shoes).



5.4 Burn risk

During use, press surfaces in contact with the belt-pack and some external surfaces are hot and can burn the operator running the machine.

This hazard may also occur during maintenance.



HAZARD!

Be careful during installation, use, maintenance and dismantling and use foreseen Personal Safety Devices (gloves).

6 General press description

6.1 PM-09/160A series press overall view

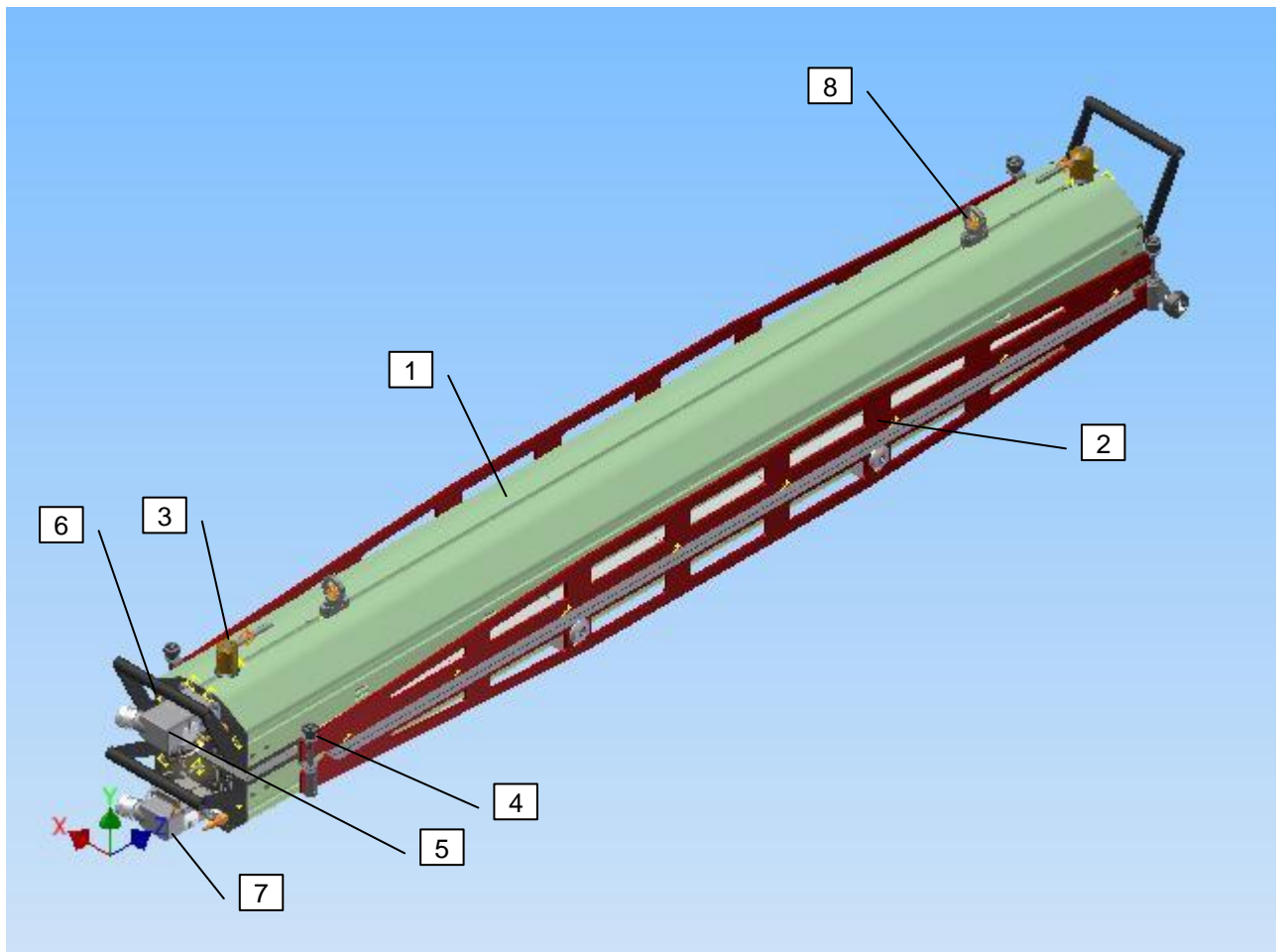
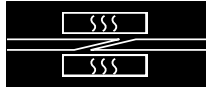


Fig. 2 –PM-09/160A series press overall view



Position	Description
1	Upper press beam
2	Belt locking bar
3	Press lock screws
4	Belt locking bar tightening knob
5	Upper sealing plate electrical connector
6	Handles
7	Lower sealing plate electrical connector
8	Press lifting and handling points

6.2 Conveyor belt hot joint operating kit configuration

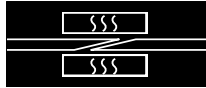
In order to operate, the PM-09/160A press series requires a series of accessories that are grouped in a work kit.

The press cannot work alone without these accessories.

Habasis Italiana SpA only guarantees correct press operations when equipped with original and recommended accessories. A list of available work kits is found in the following paragraph.

6.3 Material that must be included in the work kit

- n° 1 PM-09/160A heat press with user manual
- n° 1 PMR regulator with automatic process management functions
- N. 2 PMR regulation unit/press electrical and signal connection wires
- n° 1 electrical connection wire between the PMR regulator and cooling fan unit
- n° 1 flexible compressed air supply tube for press pads, equipped with 1/4" quick couplings and coupling for connections to a PMC series control unit.
- N°1 MC-04 portable compressor



7 PM-09/160A Press range

7.1 PM-09/160A series press range models

PMR-09A identifies the range of presses with air cooling listed in designation table (see fig.1). The table is periodically updated in the event new models are introduced. For more information on available models, please contact your dealer of Habasis Italiana S.p.A. Customer Care.

Habasis Italiana S.p.A.

Via del Lavoro, 50.

31016 CORDIGNANO (TV) - ITALY

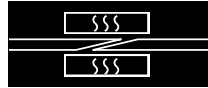
Phone: +39 0438 9113

Fax: + 39 0438 912374


E_mail : info@habasis.it

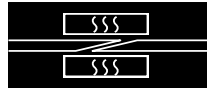
Internet : www.habasis.com

Habasis Italiana Customer Care will also provide you with all the information on available work kits.



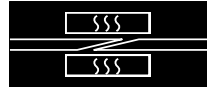
7.2 Technical specifications shared by all PM-09/160A presses

Characteristics	UM	Value
▪ PNEUMATIC		
Fluid characteristics	-	Filtered, non-lubricated air
Maximum working pressure	bar /psi	2.5 ±0.2 / 36.25 ±2.9
Min. supply diameter	"	Rapid connector of ¼
▪ PRODUCTION		
Max. working temperature	°C / °F	199 / 390
Temperature interval	°C / °F	+2 -4 / +3.6 -7.2
Maximum temperature deviation from nominal value	°C / °F	±3 / ±3.6
Mean heating time at 180°C	min	3 (230 V) 4 (400 V)
Cooling time from 180°C to 60°C	min	15
Admitted room temperature	°C / °F	15 ÷ 38 / 59 ÷ 100.4
Admitted level of relative humidity	%	45 ÷ 70
▪ NOISE		
 Leq (at 1 m) - empty	dB(A)	< 70



7.3 Table technical specifications PM-09/160A presses range

Press model	PM-309/160A-B/458	PM-609/160A-B/458	PM-1009/160A-B/458	PM-1359/160A-B/458	PM-1609/160A-B/458
Electrical heater technical specifications					
Total power	1400 W	2600 W	4000 W	5600W	6400 W
Single platen power	700 W	1300 W	2000 W	2800W	3200W
Supply voltage	230 V ~	230 V ~	230 V ~	230 V ~	230 V ~
Frequency	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz
Dimensional and functional characteristics					
Dimensions, including handles (L x W x H)	790 x 315 x 300 mm 31.1 x 12.4 x 11.8 inches	1080 x 315 x 300 mm 42.5 x 12.4 x 11.8 inches	1490 x 315 x 300 mm 58.6 x 12.4 x 11.8 inches	1850 x 315 x 300 mm 72.83 x 11.81 x 12.24 inches	2066 x 315 x 300 mm 81.33 x 11.81 x 12.24 inches
Total Weight	30.5 kg / 67 lbs	43.5 kg / 95 lbs	60.5 kg / 133 lbs	90 kg / 198.42 lbs.	100 kg / 220 lbs.
Upper part weight	12 kg / 26.5 lbs	18 kg / 39.7 lbs	25 kg / 55.2 lbs	45kg / 99.21 lbs.	50kg / 110 lbs.
Lower part weight	16 kg / 35.3 lbs	22.5 kg / 49.6 lbs	31.5 kg / 69.4 lbs	45 kg / 99.21 lbs.	50 kg / 110 lbs.
Technical specifications					
Max length of belt/tape	300 mm / 11.8 inches	600 mm / 23.2 inches	1000 mm / 39.4 inches	1350 mm / 53.15 inches	1600 mm / 17.7 inches
Max width of belt/tape	10 mm / 0.4 inches	10 mm / 0.4 inches	10 mm / 0.4 inches	10 mm / 0.4 inches	10 mm / 0.4 inches
Minimum length of belt/tape	940 mm / 37 inches	940 mm / 37 inches	940 mm / 37 inches	940 mm / 37 inches	940 mm / 37 inches
Heating plate width	160 mm / 6.3 inches	160 mm / 6.3 inches	160 mm / 6.3 inches	160 mm / 6.3 inches	160 mm / 6.3 inches




7.4 Optional press accessories

The PM-09/160A press must be connected to a few accessories to be used. In fact, the press cannot operate autonomously but requires connection to a control unit and some auxiliary devices.


7.4.1 The PMR

The PMR regulator power the press and guarantee automatic welding cycle operations. All connections necessary for PM-09/160A series press operations are found on the back of the unit. For further details, see chapter on page. .

Control power voltage sets press power voltage. The PM-09/160A series press is able to operate at different voltages, 1x230V, 3x230V and 3x400V according to the PMR regulator used.

	<p>PMR-07/4 3x230V – art. No. H080691070 PMR-07/5 3x400V – art. No. H080691071 PMR-07/6 1x120V – art. No. H080691072 PMR-07/8 1x230V – art. No. H080691073</p>
<p>PMR-07</p>	

The work kit includes the use of the PMR-07 regulator but model PMR-06 can also be used.

	<p>PMR-06/4 3x230V – art. No. H080691020 PMR-06/5 3x400V – art. No. H080691021 PMR-06/8 1x230V – art. No. H080691023</p>
<p>PMR-06</p>	

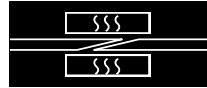
7.4.2 Equipment for use with PM-09/160A press series



MINI-COMPRESSOR

MC-04/6 1x120V – art. No. H080691018

MC-04/8 1x230V – art. No. H080691017



8 Handling

This chapter includes specific instructions for machine handling.

8.1 Packaging and transport

The machine is supplied assembled and packaged in a wooden crate.
The various internal parts are protected by plastic sheets.

8.2 Handling, lifting points

Two lifting rings lock are included to lift the press (Fig. 2 detail 8). Before handling the press, close the press and evenly tighten the locking screws on both ends (figure 2, detail 3).

Admitted lifting and handling means include fork lifts, bridge cranes and cranes with certified capacity over machine weight.



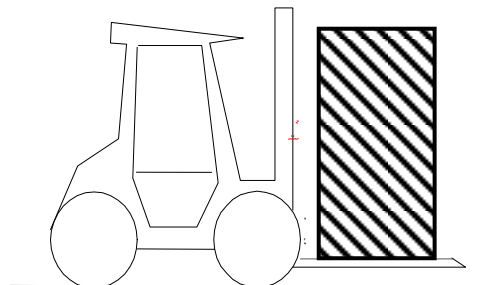
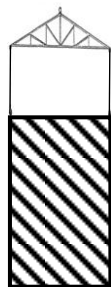
ATTENTION!

Never use lifting points (Fig. 2, detail 6) other than the two handles to lift the press.

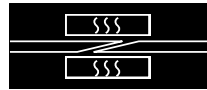


HAZARD!

Unloading and subsequent positioning must be performed with means with suitable capacity, ensuring that any lifting cords or ropes are in good conditions and with suitable capacity and after making sure no one is found on the transit route.



During work wear a HELMET, SHOES and GLOVES



9 Commissioning

9.1 Press receipt



ATTENTION!

The movement of the packaging and press should be carried out by authorized operators. Suitable equipment must be used to move the machinery, with adequate strength to deal with the weight and bulk of the press.

When unpacking, check that no small parts remain in the case, and carefully check the general conditions. In transit, or on being moved, the press must be disconnected from any control or regulating units.

Two handles are included to lift the press (see figure 2-1 detail 8) Before lifting, evenly close and tighten the fastening pins on both ends of the press. Never use lifting points other than the supplied two handles to lift the press. Closing screws must be correctly closed.

Packing materials (wood, nails, plastic, barrier bags, etc.) can be sources of danger and should be placed in specific collection points, especially if polluted or non-biodegradable.

The user must observe the waste disposal legislation in the country of installation or use when disposing of the packaging.



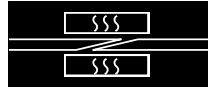
ATTENTION!

ALL HANDLING OPERATIONS OF THE PRESS MUST BE PERFORMED SLOWLY WITHOUT ANY SUDDEN MOVEMENTS, TO AVOID DAMAGING PERSONS AND THINGS.

Be careful during machine handling and dismantling. Avoid situations that could cause the handled machine to swing. Make sure any cords or chains used for lifting are not tangled and properly hooked to the handled load.



During work wear a HELMET, SHOES and GLOVES



9.2 Transport damages



IMPORTANT!

REPORT ANY DAMAGE NOTED ON THE MACHINE AT DELIVERY TO THE CARRIER AND PRESS SUPPLIER.

Habasit presses are shipped in packaging able to resist normal stress caused by transport. Upon receipt, the equipment must be inspected to check for damages that may have occurred during transport due to incorrect handling.

In the event of damages, the carrier that delivered the equipment and the Habasit dealer must be immediately informed.

Photographic damage documentation is always best.

9.3 Installation

9.3.1 Preliminary check

Visually check the press and supplied equipment to ensure there are no signs of damages or breaks that may have occurred during transport.

9.3.2 Positioning



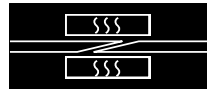
IMPORTANT!

This operation requires the involvement of a QUALIFIED TECHNICIAN able to carry out and check correct positioning and installation in observance of current safety regulations:

Make sure there is sufficient operational space for working on the press

Position the press so that it is stable

Check visually to make sure that no rags, work tools, etc remain on the machine.



10 Service connections

In order to operate, the machine requires the following connections:

CONNECTION TYPE
Electrical
Pneumatic

10.1.1 Pneumatic and supply connections and connection to the control unit

- Ensure that the whole system is not supplied by electrical, air and water sources.
- Make sure that upstream systems meet equipment specifications.
- Connect the wires between the PMR regulator and the press and make sure they correspond to the assigned upper and lower plates (Figure 3, detail 1 and 2)
- Connect the power connection wire to the cooling fans between the 4-pole connector on the PMR regulator control unit and two connectors – one per press beam (fig.3 detail 3 and 4)
- Make pneumatic connections between the press and compressor (Fig. 3, detail 5 and 6)

Running the system in its mobile operation requires the use of suitable instruments (such as a portable compressor).

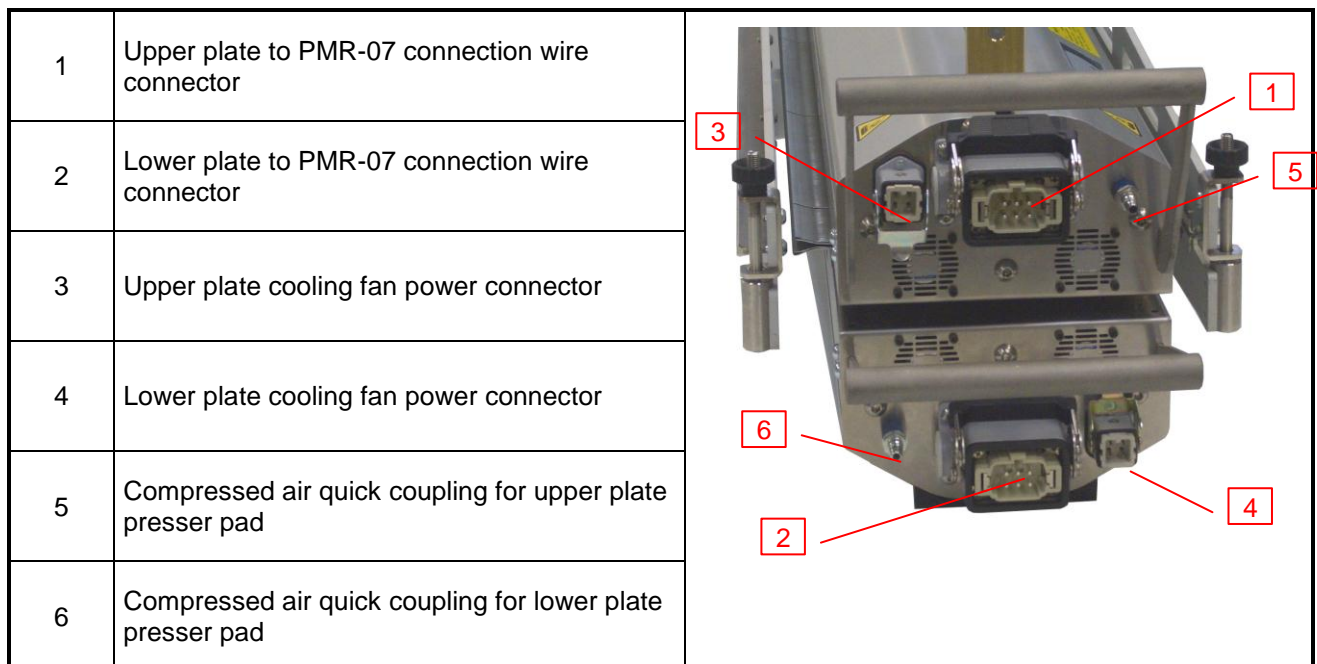
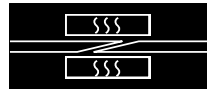


Figure 3 – Connector side view



10.1.2 Electrical connections



CAUTION!

Make sure the PMR regulator is correctly connected to the correct mains voltage. Make sure control-press connection wires are correctly connected and correspond to the assigned upper (Fig. 4, detail 2) and lower (Fig. 4, detail 1) plates.

For regulation equipment connections, consult the PMR regulator instruction manual.

Electrical power parts (and cooling fan control logic) is managed by the PMR regulator. Referring to fig. 4, perform the following operations:

- Connect the press's wires to the PMR regulator (Fig. 4 – detail 1 and 2)
- Connect the power connection wire between the cooling fans and the 4-pole connector on the PMR regulator (Fig. 4 - detail 3)
- Connect the PMR regulator to the electrical mains.



CAUTION!

PMR regulator must be correctly connected to the mains according to the enclosed wiring diagram. Correct mains voltage is indicated on the identification plate on the PMR regulator series.

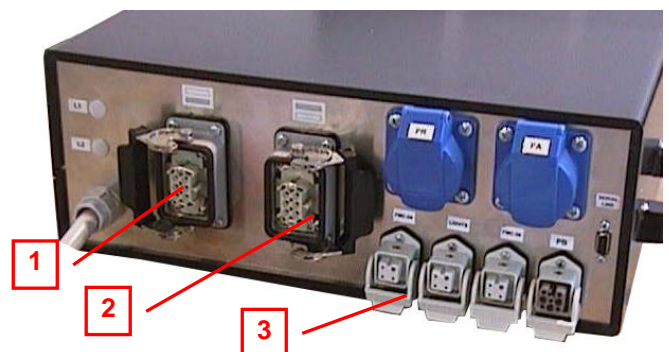
In the event use with other voltages are required, contact the manufacturer.

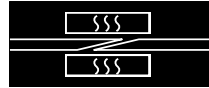
Selected press connection wires section must meet local regulations.

PMR-06

Press connection wire connections

Cooling fan connection wire connection





PMR-07

Press connection wire connections
Cooling fan connection wire connection

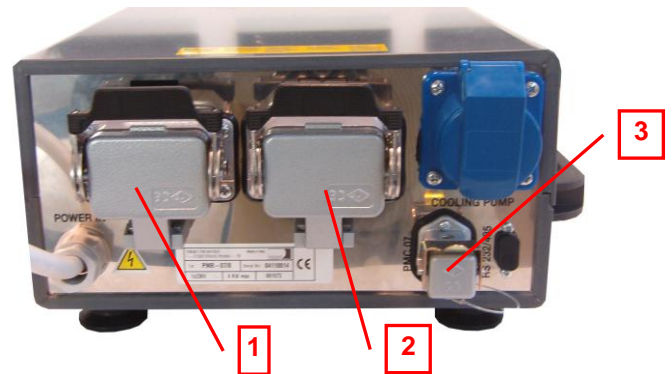
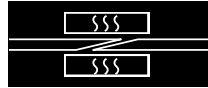


Figure 4 - Foreseen connections for PMR regulator models

Position	Description
1	Lower beam electrical power connector
2	Upper beam electrical power connector
3	PMC control unit connector



10.2 Start up

Start up is an extremely important phase in the press working life. It includes a series of preliminary and first start-up phase operations.



HAZARD!

QUALIFIED PERSONNEL WHO THOROUGHLY UNDERSTAND MACHINE OPERATIONS, WHO HAVE READ THIS DOCUMENT AND THUS PERFECTLY UNDERSTAND MACHINE USE AND THE SERIES OF OPERATIONS TO BE PERFORMED TO SAFELY COMMISSION THE MACHINE MUST COMMISSION THE MACHINE.

HABASIT ITALIANA S.p.A. IS NOT LIABLE FOR FAILURE TO OBSERVE THE SAFETY AND ACCIDENT PREVENTION REGULATIONS DESCRIBED IN THE VARIOUS CHAPTERS IN THIS MANUAL.

HABASIT ITALIANA S.p.A. IS NOT LIABLE FOR DAMAGES DUE TO IMPROPER MACHINE USE FOLLOWING MACHINE MODIFICATIONS NOT AUTHORISED IN WRITING BY THE MANUFACTURER.



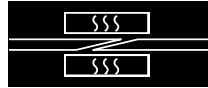
HAZARD!

The machine power cord features and layout must meet safety regulations. In any case, it should not obstruct free man and vehicle transit around the machine.



CAUTION

Before starting the machine, have qualified personnel run some trial work cycles in safety conditions.



11 Use

11.1 General notes

Heating plates are each heated by two ultra-flat electrical resistances. A temperature sensor is installed on each plate (thermocouple type J made of Fe-CuNi), that measure the current plate temperature transmitting it to the PMR regulator.

A special wire with a built in compensation line for precise reading transmission is used between the heat press and the regulator.

The rubber pad pressure system evenly distributes pressure along the entire press length.

The press is cooled by heat exchange with a dissipater, in turn cooled by fans located at the ends of the upper and lower beams.



CAUTION

Press use includes handling heavy pieces.

Prevent press parts from falling. When opening the press, do not let the closing screws fall (Fig. 2 detail 3).

11.2 Transport

Two lifting rings lock are included to lift the press (Fig. 2 detail 8). Before handling the press, close the press and evenly tighten the locking screws on both ends (Fig. 2 detail 3).



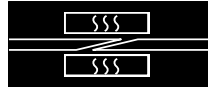
ATTENTION!

Never use lifting points other than the two lifting rings lock to lift the press (Fig. 2 detail 6).

11.3 Operation Handling

To make transportation of the press easier it can be dismantled as indicated:

- If connected, disconnect the various electrical, water and air connections in order
- Disassemble the upper part of the press (Fig. 2 detail 1) to facilitate the transport of the two upper and lower parts.
- Use suitable handling and transport equipment capable of dealing with the object's weight, while taking care during the transportation itself.
- Position the lower part of the press according to the belt joint to be completed; prepare the belt ends and couple them as described in paragraph 7.5.
- Reassemble the press with the upper beam and make sure the parts are correctly positioned.



- Reconnect the power while taking when handling electrical power sources.

The press can also be moved as a single unit, in which case the following must be carried out:

- If connected, disconnect the various electrical and air connections in order
- Use transportation equipment of the correct capacity for the weight of the object to be moved
- Verify that the press and all its mechanical parts have not been damaged in transit and that all are working correctly
- Reconnect the power while taking when handling electrical power sources.



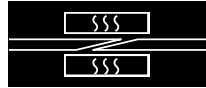
ATTENTION!

It is assumed that the various operations are performed by expert personnel, suitably trained.



ATTENTION!

ALL HANDLING OPERATIONS OF THE PRESS MUST BE PERFORMED SLOWLY WITHOUT ANY SUDDEN MOVEMENTS, TO AVOID DAMAGING PERSONS AND THINGS.



12 Work cycle

12.1 Heating

For rapid heating without energy wastage, heat the Heat press with it always closed.
For correct use, see the selected PMR regulator instruction manual.

12.2 Pressurizing the press

The compressed air inlet is located at the top of the press beams. Compressed air is supplied by a portable compressor or by the permanent compressed air mains **through a precision pressure regulator**.



ATTENTION!

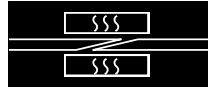
Never pressurize the presser pad if the press is not correctly closed.

Do not exceed maximum admitted 2.5 bar pressure.

The flexible tube that connects compressed air to the press is equipped with safety valves calibrated to 3 bar.

12.3 Heat pressing

- a. Loosen the two closure knobs (Fig. 2 detail 3), remove them from their housing and lift the upper part of the press.
- b. Position the belt as instructed on the plate surface that equalizes temperature and secure it so that it is flat, without excessively tightening the closure knobs (Fig. 2 detail 4) on the two bar pressers (Fig. 2 detail 2), so that the belt can be slightly moved.
Precisely couple the ends of the belt, pushing one end against the other.
- c. Tighten the closure knobs (Fig. 2 detail 4) on the locking bars.
- d. Position the silicon coated and/or other coated paper, and anything else required by product welding instructions, for the PM-09/160A series press model.
- e. Position the upper part of the press (fig. 2 detail 1) making sure not to move the belt package and accessories.
- f. Insert the two fastening pins (Fig. 2 detail 3) and evenly tighten at the two ends of the press.
- g. Bring the pressure pad to the required pressure using the supplied portable mini-compressor, or in-line precision pressure regulator.
- h. Loosen the presser bar locking knobs (Fig. 2 detail 4) and avoid marking the product surface.
- i. See the PMR-07 instruction manual for the following operations:
- j. Upper and lower press temperature selections as indicated in the belt coupling sheet.
- k. Set welding time.
- l. Turn on the control unit.
- m. Start the automatic heating, welding and cooling cycles.



- n. Once the stop cooling temperature is reached, detach the portable compressor hose from the coupling (Fig. 3, detail 5 and 6) to drain the pressure chamber.
- o. When completely cooled, open the press and carefully remove the belt. Let the belt cool at room temperature.

For mass production, let a certain period of time pass between one joint and the next to allow the internal press radiator to cool. This saves energy and time for the next cycle. Welding plate temperature drops to 40°C before restarting the welding cycle.

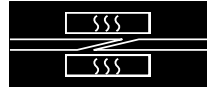


CAUTION

Press parts may be hot. Do not touch surfaces without gloves on.



During work wear GLOVES



13 Press cleaning

13.1 Preliminary operations: cutting off energy supplies



HAZARD!

Before starting any work on the machine make sure machine power is cut off. This not only concerns main circuits but also keep in mind auxiliary and supplementary circuits.

The above safety measures must be observed until all maintenance, regulation, registration and cleaning work, etc., is completed.

13.2 Cleaning instructions

To keep the machine in good working order, periodically clean it by removing work residue that can accumulate on the work surface with a vacuum.

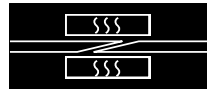
Use non corrosive detergents to clean metallic surfaces.



CAUTION!

Personnel assigned to this work must use suitable Personal Safety Devices: gloves and mask.





14 Maintenance

14.1 Routine maintenance

In addition to prolonging machine working life, routine maintenance provides higher safety conditions.



ATTENTION!

PERSONAL SAFETY DEVICES (DPI)

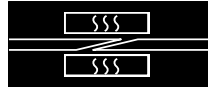
Before starting regulation, maintenance and repair operations, the operator must make sure that all residual electrical and pneumatic energy is dissipated and must have and use the Personal Safety Devices foreseen by safety regulations such as: overalls, gloves, goggles, protective shoes, mask.



HAZARD!

All regulation, maintenance and repair operations can only be performed if the press is put out of services, cut off from energy supplies and in the machine stopped position.

Operation	Frequency	Personnel	Procedure
Cleaning	Daily	Operator	Clean the press after use removing production residue.
Check compressed air connections	Monthly	Maintenance worker	Check for leaks.
Check press electrical wires	Monthly	Maintenance worker	Check for wire and connector defects.
Check heating plates temperature	Monthly	Maintenance worker	Procedure described in paragraph 14.2.



14.2 Measurement of heating plates temperature

Once a month, measure heating plate temperatures as follows:

- a. Place heat resistant silicon foam rubber on the lower heating plate
- b. Insert a precision thermometer sensor between the silicon foam rubber and the upper heating plate, in the center of the heating plate
- c. Close the press as usual
- d. Pressurize the pressure chamber with max. 1 bar
- e. Turn on the PMR regulator and set nominal value to 160° for both plates. See the PMR unit instruction manual
- f. 5 minutes after reaching the 160°C set point, read the temperature indicated on the precision thermometer
- g. Repeat the same process for the lower heating place (inserting the sensor under the silicon foam rubber, at the center of the heating plate).

The temperature read must be 160°C +/- 3°C (thermometer precision max. +/- 1°C included)



15 Troubleshooting

15.1 Troubleshooting

Malfunction	Possible fault
The temperature of a heating plate indicated on the PMR regulator display differs more than 3°C from the set nominal value.	PMR regulator fault Thermocouple wire fault Heating element fault
Troubleshooting	
Invert the connection wires between the PMR regulator and the press. If the display indicates a contradicting value for the same plate, the PMR unit is at fault. If the display indicates a faulty value on the other heating plate, a resistance or thermocouple wire is at fault.	
Solution	
For faults of this or other types, inform the manufacturer. Defective heating plates and PMR regulators can be repaired or replaced by the manufacturer. In the event of control/regulation PMR faults, always check automatic switches following the procedure indicated in the PMR unit manual. NOTE: In any case take a temperature reading of the heating plate if there is a discrepancy (see paragraph 14.2).	

15.2 Extraordinary maintenance

The correct use and observance of the maintenance instructions in this manual provide prolonged machine use in safety conditions.

However, if worn (such as pads, seals, etc.) or damaged parts require replacement, the user must request HABASIT Italiana S.p.A. technical service applying to:

Habasis Italiana S.p.A.

Via del Lavoro, 50.

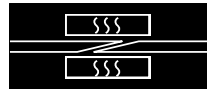
31016 CORDIGNANO (TV) - ITALY

Phone: +39 0438 9113

Fax: + 39 0438 912374

E_mail : info@habasit.it

Internet : www.habasit.com



16 Hazardous substance disposal

Produced scraps must be disposed according to current law.

Collect any oil leaks using inert absorbents (saw dust, etc.) and dispose according to current environmental regulations.

17 System dismantling and scrapping

The press must be uninstalled by HABASIT Assistance Service technicians or authorized HABASIT technicians with experience in:

- Machine assembly/disassembly
- Assembly/disassembly of the electrical, pneumatic and hydraulic plant, consulting the corresponding diagrams.

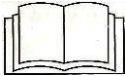
Generally the press is only decommissioned and dismantled when replaced.


This operation may be performed by specialised companies or the owner; in any case, current regulations must be observed.

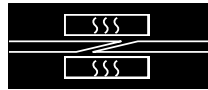
If demolished by the user's personnel, the various parts must be separated by type and specialised (and authorised) companies employed for the disposal of the various products.

We would like to remind you that the most important materials used in machine construction are:

- Steel
- Aluminium
- Electrical wires
- Plastic materials
- Rubber

	<p>Habasis Italiana Spa has adopted suitable measures to reduce the disposal of RAEE generated by the use of AEE incorporated in its machines in order to reduce RAEE as mixed solid waste to a minimum, to ensure the correct processing and high level of RAEE separate waste collection.</p> <p>Habasis collects the RAEE generated by its production, maintenance and customer service activities as per Directive 2012/19/EU article 13.</p> <p>In order to reduce the presence of hazardous substances when recycling new AEE, Habasis requests suppliers comply with Directive 2012/19/EU and accompany AEE with an explicit declaration of conformity to Directive 2002/95/EC (RoHS).</p>
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	<p>This machine was designed and constructed with recyclable materials and components.</p> <p>If demolished by the customer's staff, the various components must be separated by type.</p> <p>RAEE must be collected separately (art. 3-h) and discarded according to art. 6 in directive 2012/19/EU.</p>
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ATTENTION!

Before carrying out any kind of work on the machine it is essential to ensure that the plant (electrical, pneumatic and water) is disconnected from energy supplies, that the pneumatic and water plant is properly depressurized and that there is no remaining potential energy in the moving parts.



ATTENTION!

Follow the following disconnection procedure:

- Disconnect the electrical circuit
- Carry out mechanical disassembly.

If the press is stored for a certain period of time, prepare it as indicated in the following section. If it must be immediately move, refer to the specific section.

17.1 Storage



IMPORTANT!

Store in a dry place.



NOTE!

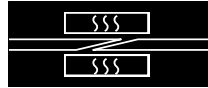
Do not store outdoors for any reason!
The following environmental conditions should be observed.

17.2 Storage conditions

Min/Max ambient temperature for storage	Between +5°C and +40°C
Relative humidity	Between 50% and 70%

If the press, its accessories and spares have to remain in storage for a prolonged period, they must be protected from dust and damp. We recommend the following:

- Clean the machine in general
- Apply PROTECTIVE SILICONE OIL to UN-painted or UN-treated parts.
- Cover the machine with a sheet to protect it from dust.



- Before being oiled or greased for good preservation, some parts can, if necessary, be cleaned with a specific, rust proofing detergent.



CAUTION!

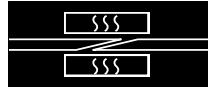
Please remember that polluting the environment with oil, grease and other products used on the machine is strictly prohibited.

If not immediately demolished when dismantled, store the machine and its parts in an area protected against the elements to avoid lubricants from being washed away.

Be careful during machine handling and dismantling. Avoid situations that could cause the handled machine to swing. Make sure any cords or chains used for lifting are not tangled and properly hooked to the handled load.



During work wear a HELMET, SHOES and GLOVES



18 Customer service

For any further clarifications, contact Habasis Italiana S.p.A. customer service at the following address:

Habasis Italiana S.p.A.

Via del Lavoro, 50.

31016 CORDIGNANO (TV) - ITALY

Phone: +39 0438 9113

Fax: + 39 0438 912374

E_mail : info@habasit.it

Internet : www.habasit.com

Product liability, application considerations

The proper selection and application of Habasis products, including the related area of product safety, is the responsibility of the customer.

All indications / information are recommendations and believed to be reliable, but no representations, guarantees, or warranties of any kind are made as to their accuracy or suitability for particular applications. The data provided herein is based on laboratory work with small-scale test equipment, running at standard conditions, and do not necessarily match product performance in industrial use. New knowledge and experiences can lead to modifications and changes within a short time without prior notice.

BECAUSE CONDITIONS OF USE ARE OUTSIDE OF HABASIT'S AND ITS AFFILIATED COMPANIES CONTROL, WE CANNOT ASSUME ANY LIABILITY CONCERNING THE SUITABILITY AND PROCESS ABILITY OF THE PRODUCTS MENTIONED HEREIN. THIS ALSO APPLIES TO PROCESS RESULTS / OUTPUT / MANUFACTURING GOODS AS WELL AS TO POSSIBLE DEFECTS, DAMAGES, CONSEQUENTIAL DAMAGES, AND FURTHER-REACHING CONSEQUENCES

This use and maintenance manual and its attachments are translated from original language (Italian).
