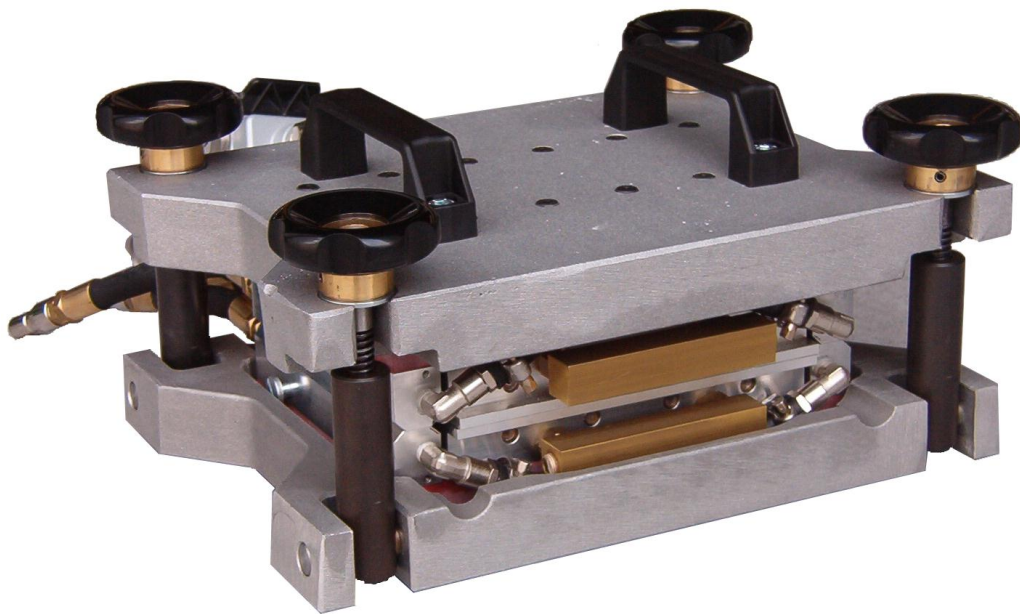


# Heat press **PF-150C Series**



## Use and maintenance manual

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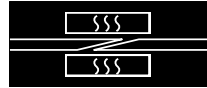


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## 0 Introduction

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

### PF-150C

Available spare parts are also indicated.

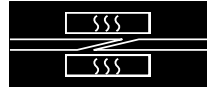
Habasis thanks you for purchasing the PF-150C series press.

If you handle your PF-150C series press with care, it will guarantee joint reliability and quality for many years to come.

PF-150C identifies the range of heat presses to join thermoplastic toothed 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.



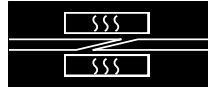
## 1 Machine identification data

<b>Machine</b>	Heat press
<b>Series</b>	PF-150C
<b>Serial number</b>	See plate on press body
<b>Year of construction</b>	See plate on press body

### 1.1 PF-150C Series press designation table

Code	Abbreviation	configuration	Power
H088000115	PF-150C Workshop kit	<ul style="list-style-type: none"> <li>- PF-150C press</li> <li>- Pneumatic unit PF-150CW</li> <li>- PMR-07/8 Control unit</li> <li>- PFC-07 Cooling unit</li> <li>- Connection wires and hoses</li> </ul>	1 x 230 V
H088000116	PF-150C Workshop kit	<ul style="list-style-type: none"> <li>- PF-150C press</li> <li>- Pneumatic unit PF-150CW</li> <li>- PMR-07/6 Control unit</li> <li>- PFC-07 Cooling unit</li> <li>- Connection wires and hoses</li> </ul>	1 x 120 V
H088000470	PF-150C-W-AFP/8 Workshop kit	<ul style="list-style-type: none"> <li>- PF-150C press</li> <li>- Pneumatic unit PF-150CW</li> <li>- PMR-06/8 Control unit</li> <li>- PFC-07 Cooling unit</li> <li>- Connection wires and hoses</li> </ul>	1 x 230 V
H080693030	PF-150C Stationary kit	<ul style="list-style-type: none"> <li>- PF-150C press</li> <li>- PMR-07/8 Control unit</li> <li>- PFC-07 Cooling unit</li> <li>- Torque wrench</li> <li>- Connection wires and hoses</li> </ul>	1 x 230 V
H080693020	PF-150C Stationary kit	<ul style="list-style-type: none"> <li>- PF-150C press</li> <li>- PMR-07/6 Control unit</li> <li>- PFC-07 Cooling unit</li> <li>- Torque wrench</li> <li>- Connection wires and hoses</li> </ul>	1 x 120 V
H088000001	PF-150CW Pneumatic Press Stand	-	Pneumatic

Figure. 1 – PF-150C 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.

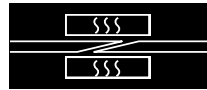


### **CAUTION!**

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

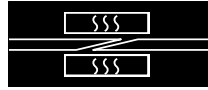
Do not remove safety devices	Do not work on moving parts

- 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 PF-150C press is a robust water-cooled hot press device that joins Habasis Flexproof toothed belts up to 150 mm wide and 11 mm thick. Press temperature is individually controlled on the upper and lower heating plates by an electronic temperature regulator; the maximum temperature is 200 C. The toothed belt is joined with the assistance of specific Teflon coated welding templates to promote detachment. A positioning system ensures correct template positioning on the press. 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 PF-150C 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 **PF-150C** 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

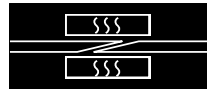
The PF-150C hot press device is a hot joining press with two water-cooled heating plates. There are four continuously cooled blocks next to the joining plates whose purpose is to lower the temperature of the ends of the joining guide. The toothed belt is inserted in the joining guide, the prepared ends must be perfectly centred. The press is equipped with 7 pairs of centring plates, one per each guide width. They are used to centre the joining guide on the lower heating plate according to the guide width.

The press is closed by placing the upper part over the lower one. Pressure is supplied by four hand wheels. Heating plate temperature is independently regulated by an electronic circuit in the PMR-xx regulator unit. Each heating plate is equipped with four electrical cartridge resistances and temperature probe.

The external PMR-xx regulator unit is connected to the upper and lower press parts by two electrical wires, each with electrical conductors for the resistances and thermocouple.

The external PFC-07 cooling unit drives water circulation in the cooling system and drains it with a jet of air.





The joining cycle is fully automatic, heating at the set temperature, keeping the temperature for the time required for joining and cooling at the set temperature.

The press is suited for use in a workshop with the possibility of creating a battery of bench presses.

### 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

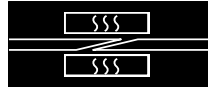


#### **WARNING**

The **PF-150C** 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



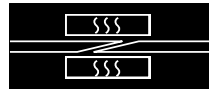
#### **WARNING!**

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 contains electrical resistances and is equipped with a PMR-xx regulator unit.

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.



**HAZARD!**

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

### 5.4 Burn risk

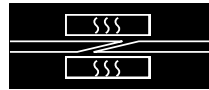
During use, press surfaces in contact with the belt-pack and some external surfaces are hot and can burn the operator running the machine.

This hazard may also occur during maintenance.



**HAZARD!**

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



## 6 General press description

### 6.1 PF-150C series press overall view

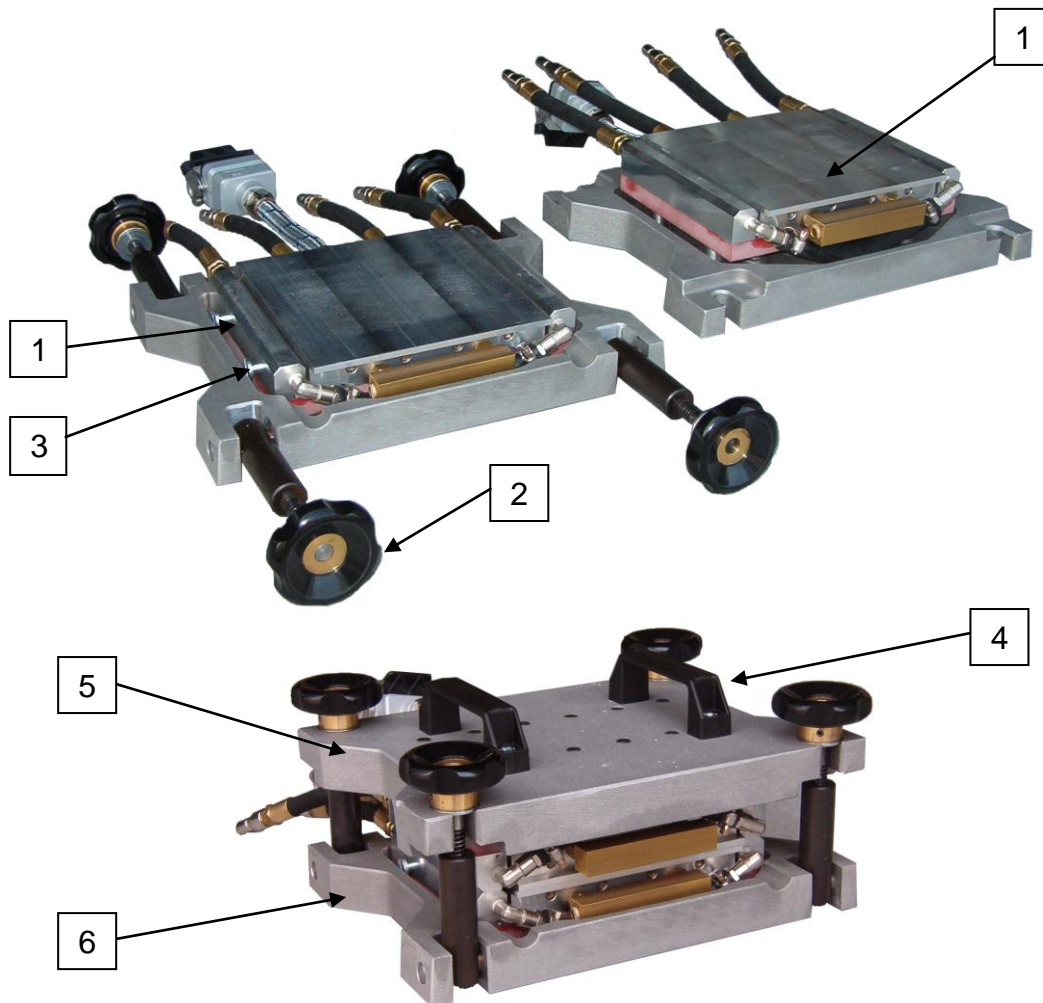
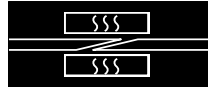


Fig. 2 – PF-150C series press overall view

Position	Description
1	COOLING BLOCKS
2	HAND WHEEL
3	LATERAL PINS
4	LIFTING HANDLES
5	UPPER PLATES
6	LOWER PLATES



## **6.2 Conveyor belt hot joint operating kit configuration**

In order to operate, the PF-150C 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**

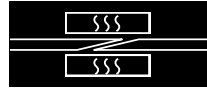
### **6.3.1 Fixed version press material (Stationary)**

- n° 1 PF-150C .heat press with user manual;
- n° 1 PMR-xx regulator with automatic process management functions;
- n° 1 PFC-07 control unit for automatic cooling
- n° 2 PMR-xx regulation unit/press electrical connection wires
- n° 1 torque wrench

### **6.3.2 Fixed version press material (Workshop)**

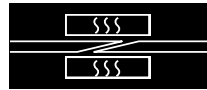
- n° 1 PF-150C .heat press with user manual
- n° 1 PF-150CW pneumatic unit
- n° 1 PMR-xx regulator with automatic process management functions;
- n° 1 PFC-07 control unit for automatic cooling
- n° 2 PMR-xx regulation unit/press electrical connection wires

Each version is equipped with 7 pairs of centring plates which are used to centre the joining guide on the lower heating plate.



## 7 PF-150C Technical specifications

Characteristics	UM	Value
<b>▪ ELECTRICAL</b>		
Power	W	2 x 1800
Supply voltage of resistance	V	120V
Frequency	Hz	50 / 60 Hz
<b>▪ PRODUCTION</b>		
Max toothed belt length	mm [inches]	150 [6]
Max toothed belt width	mm [inches]	11 [0.43]
Minimum toothed belt length	mm [inches]	900 [35.4]
Maximum zigzag length	mm [inches]	130 [5.11]
Max joining temperature	°C [°F]	200 [392]
<b>▪ DIMENSIONS</b>		
Dimensions ( <i>length x depth x height</i> )	mm [in]	510L x 350W x 180H [20L x 13.7W x 7H]
<b>▪ Weight</b>		
Weight	kg [lb.]	19 [42.6]
<b>▪ NOISE</b>		
Leq (at 1 m) - empty	dB(A)	< 70



## 8 Optional press accessories

The PF-150C 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.

### 8.1 The PMR


The PMR regulator powers the press and guarantee automatic welding cycle operations. All connections necessary for PF-150C series press operations are found on the back of the unit.

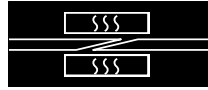
Control power voltage sets press power voltage. The PF-150C series press is able to operate at different voltages, 1x120V, 3x230V according to the PMR regulator used.

	<p><b>PMR-07/8 1x230V – art No. H080691073</b>  <b>PMR-07/6 1x120V – art No. H080691072</b></p>
<p>PMR-07</p>	
	<p><b>PMR-06/8 1x230V – art No. H080691023</b></p>
<p>PMR-06</p>	

### 8.2 Control unit PFC

The PFC-07 controls the press cooling cycle via the interface with the PMR-xx unit.

	<p>PFC-07 – art No. H080693010</p>
<p>PFC-07</p>	



### 8.3 PF-150CW pneumatic unit

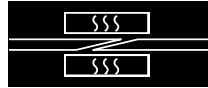
When using the workshop version, the PF-150C press is mounted on a pneumatic unit called the PF-150CW.

For its technical specifications, use and maintenance, please see the use and maintenance manual supplied with the PF-150CW pneumatic unit.



Fig. 3 PF-150CW pneumatic unit





## 9 Handling

This chapter includes specific instructions for machine handling.

### 9.1 Packaging and transport

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

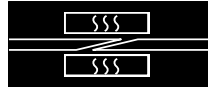
### 9.2 Handling, lifting points

Two lifting rings lock are included at the top of the press to lift it (figure 2, detail 4). Before handling the press, close the press and evenly tighten the locking screws on both ends (figure 2, detail 2).



#### **ATTENTION!**

Never use lifting points other than the two handles to lift the press.



## 10 Commissioning

### 10.1 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 lifting rings lock are included at the top of the press to lift it (figure 2, detail 4). **Before handling the press, close the press and evenly tighten the locking screws on both ends. Never use lifting points other than the two lifting handles to lift the press. The 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.

### 10.2 Transport damages



#### IMPORTANT!

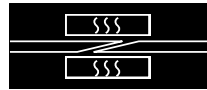
REPORT ANY DAMAGE NOTED ON THE MACHINE AT DELIVERY TO THE CARRIER AND PRESS SUPPLIER.

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.

### 10.3 Installation



### 10.3.1 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.

### 10.3.2 Positioning



#### **HAZARD!**

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.

## 10.4 Service connections

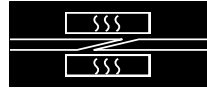
In order to operate, the machine requires the following connections:

CONNECTION TYPE
Electrical
Pneumatic
Hydraulic

### 10.4.1 Pneumatic and water supply connections and connection to the control unit

#### 10.4.1.1 Stationary use

- Ensure that the whole system is not supplied by electrical, air and water sources.
- Make sure that upstream systems meet equipment specifications.
- Connect the hoses from the PFC-07 cooling unit to the hoses (see fig. 5 “pneumatic and hydraulic connection example”) using the quick couplings.
- Make sure there are no leaks in the water connections and that any liquid leaks cannot come into contact with electrical parts.
- Connect the drain hoses to the remaining two free hoses (see fig. 5 “pneumatic and hydraulic connection example”).
- Make sure the drain hoses are free to drain cooling water.
- Connect necessary air between the PFC unit and the press (see fig. 5 “pneumatic and hydraulic connection example”).
- Connect the wires between the PMR regulator and the press and make sure they correspond to the assigned upper and lower plates



#### 10.4.1.2 Workshop use

- Ensure that the whole system is not supplied by electrical, air and water sources.
- Make sure that upstream systems meet equipment specifications.
- Connect the hoses from the PFC-07 cooling unit to the hoses (see fig. 5 “pneumatic and hydraulic connection example”) using the quick couplings.
- Make sure there are no leaks in the water connections and that any liquid leaks cannot come into contact with electrical parts.
- Connect the drain hoses to the remaining two free hoses (see fig. 5 “pneumatic and hydraulic connection example”).
- Make sure the drain hoses are free to drain cooling water.
- Connect necessary air between the PFC unit and the press (see fig. 5 “pneumatic and hydraulic connection example”).
- Connect the wires between the PMR regulator and the press and make sure they correspond to the assigned upper and lower plates.
- Connect the pneumatic supply hoses to the pressure regulator on the PF-150CW pneumatic unit where the PF-150CW press is installed (see figure 4)

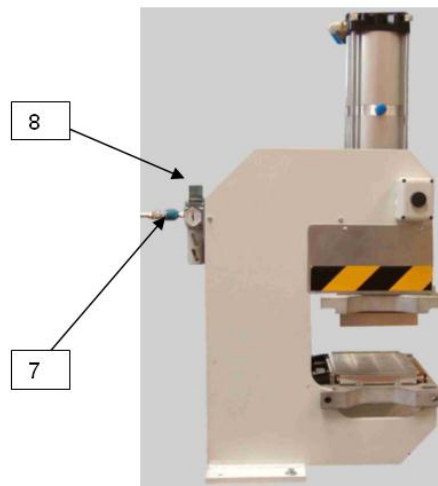


Fig. 4 – view PF-150CW

Position	Description
7	Pneumatic supply quick coupling
8	Pressure regulator

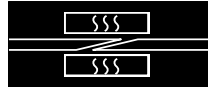
#### 10.4.2 Electrical connections



##### **ATTENTION!**

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 2, detail 5) and lower (Fig 2, detail 6) plates

For regulation equipment connections, consult the PMR-xx regulator instruction manual.  
An electrical power part (water and pneumatic logic) is managed by the PMR-xx regulator.



- Connect the press's connectors to the PMR-xx regulator
- If present carry out the necessary connections between the PMR-xx regulator and the control PFC-07
- Connect the PMR-xx regulator to the electrical mains.



**ATTENTION!**

PMR-xx regulator must be correctly connected to the mains according to the enclosed wiring diagram.  
Correct mains voltage is indicated on the identification plate.  
In the event use with other voltages is required, contact the manufacturer.  
Selected press connection wires section must meet local regulations.

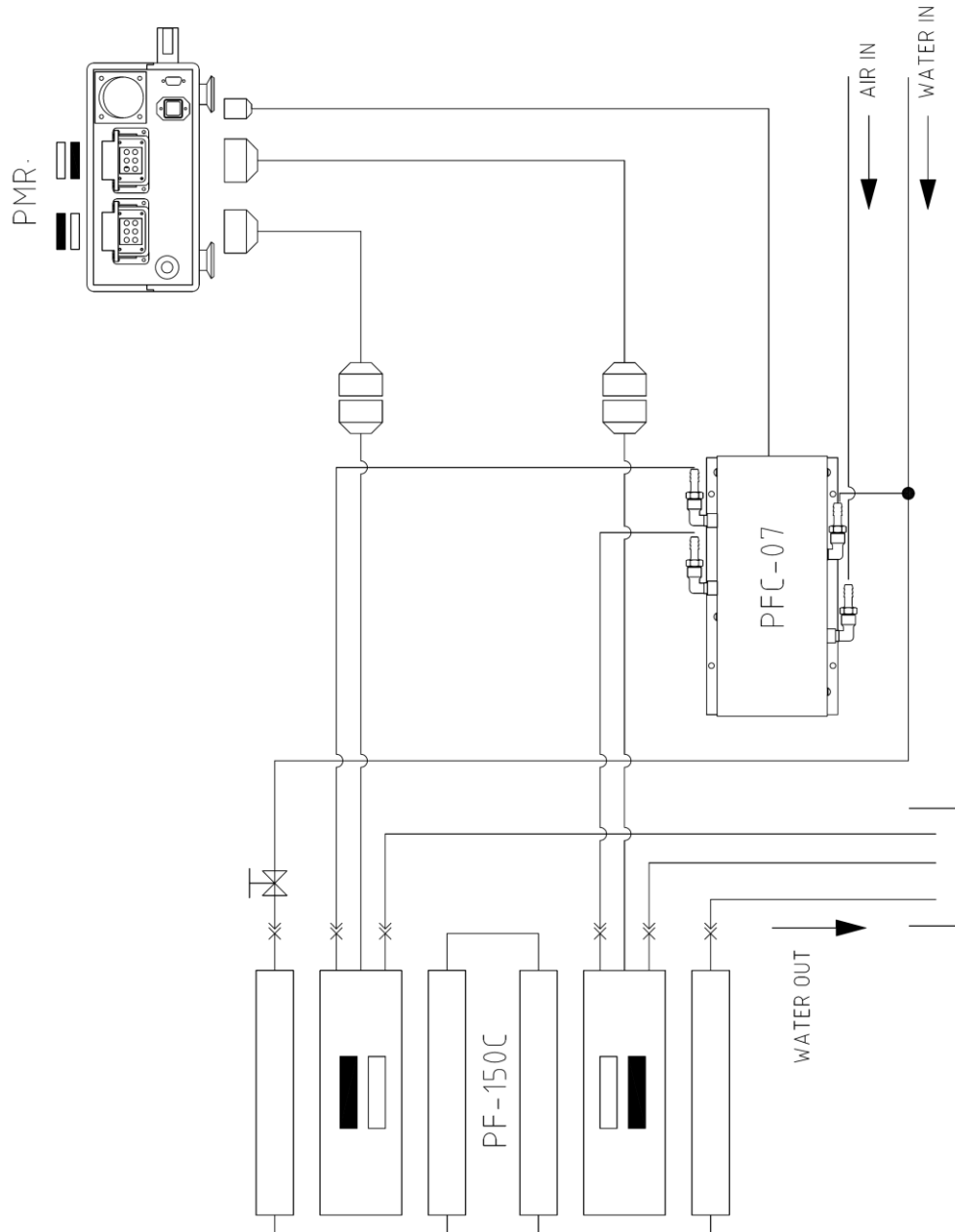
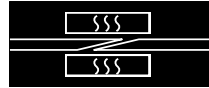
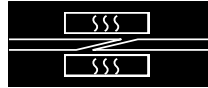


Fig. 5 – Pneumatic and hydraulic connection example



## 10.5 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..



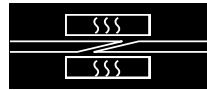
### **HAZARD!**

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

The PF-150C hot press device is a hot joining press with two water-cooled heating plates. There are four continuously cooled blocks [1] next to the joining plates whose purpose is to lower the temperature of the ends of the joining guide. The toothed belt is inserted in the joining guide, the prepared ends must be perfectly centred. Unscrew the four hand wheels [2] and lift the upper part. Position the joining guide centred on the lower heating plate.

The press is equipped with 7 pairs of centring plates, one per each guide width. They are used to centre the joining guide on the lower heating plate according to the guide width. Before joining, the pair of appropriate centring plates must be inserted in the cooling block [1] lateral pins [3] to the left and right of the lower heating plate.

The press is closed by placing the upper part over the lower one. Pressure is supplied by four hand wheels [2].

Heating plate temperature is independently regulated by an electronic circuit in the PMR-xx regulator unit. Each heating plate is equipped with four electrical cartridge resistances and temperature probe.

The external PMR-xx regulator unit is connected to the upper and lower press parts by two electrical wires, each with electrical conductors for the resistances and thermocouple.

The external PFC-07 cooling unit drives water circulation in the cooling system and drains it with a jet of air.

The joining cycle is fully automatic, heating at the set temperature, keeping the temperature for the time required for joining and cooling at the set temperature.

The press is suited for use in a workshop with the possibility of creating a battery of bench presses.

### 11.2 Transport

Two lifting rings lock are included at the top of the press to lift it (figure 2, detail 4). Before handling the press, close the press and evenly tighten the four hand wheels (figure 2, detail 2).



#### **ATTENTION!**

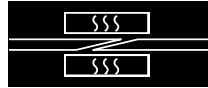
Never use lifting points other than the two lifting handles to lift the press (figure 2, detail 4).



#### **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 Toothed belt hot joining

#### 12.1.1 On site use

Prepare the ends of the toothed belt (refer to the Habasit guidelines for Flexproof toothed belt joints).

- a) Insert the ends of the toothed belt in the centre of the joining guide.
- b) Insert the joining guide between the heating plates, placing it inside the specific centring devices.



#### **CAUTION!**

Be careful to centre both prepared belt ends in the joining guide and centre of the joining plates. Otherwise the joint may be incomplete at the top of the coldest part.

- c) Close the press and apply pressure by alternately tightening the hand wheels. Using the supplied torque wrench, the recommended values are:

T5 and similar belts in inches:	5Nm
T10, AT10 and similar series in inches:	7-8Nm
AT20 and similar in inches:	10-12Nm
- d) Open the joining guide cooling device tap. The water flow can be regulated according to the type of toothed belt.



#### **CAUTION**

If the tips of the toothed belt are not suitably joined after these operations, reduce the water flow.

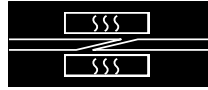
- e) Set joining data referring to the settings for the type of belt (see PMR-xx regulator unit user manual): upper plate temperature, lower plate temperature and press time.
- f) Press the start button to start the joining cycle. The cycle automatically stops at the end of the cooling phase and the regulation switches to stand-by.



#### **ATTENTION**

Do not touch hot press parts, aluminium plates, the joining guide and central shell area. Observe the warning sticker position. Keep away from water and material that can melt.

- g) Alternately loosen the hand wheels.
- h) Lift the upper part of the plate. Remove the joining guide. Remove the toothed belt.



### 12.1.2 Workshop use

Prepare the ends of the toothed belt (refer to the Habasis guidelines for Flexproof toothed belt joints).

- a. Insert the ends of the toothed belt in the centre of the joining guide.
- b. Insert the joining guide between the heating plates, placing it inside the specific centring devices.
- c. Open the joining guide cooling device tap. The water flow can be regulated according to the type of toothed belt.
- d. Set joining data referring to the settings for the type of belt (see PMR-xx regulator unit user manual): upper plate temperature, lower plate temperature and press time.



#### CAUTION!

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



#### CAUTION!

180° C steam reaches about 10 bar pressure (1 MPa or 10 KG/cm<sup>2</sup>).

- e. Adjust working pressure using the front knob (see PF-150CW use and maintenance manual): the set pressure depends on the type of belt to be joined
- f. press the 2-handed buttons (see PF-150CW use and maintenance manual): the upper plate lowers and presses on the joint. The piston stroke is fixed.
- g. Once the press reaches limit stop, hold down the 2 buttons for several seconds (see the PF-150CW use and maintenance manual)
- h. Release the 2 buttons: the upper plates remains closed in place.
- i. After set joining time elapses, press the red mushroom-head button (see PF-150CW use and maintenance manual): the plate lifts and returns to the upper idle position.
- j. Remove the belt with the completed joint.



#### CAUTION!

For mobile operations, make sure water is fully drained from the press after the cooling cycle.



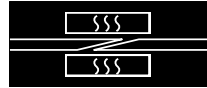
#### CAUTION!

If the press cooling circuit is not drained with a jet of compressed air, residual water may jeopardize the next welding cycle.



**ATTENTION**

In the case of use of the PMR-06, you must set the pressure at 0 bar.



## 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.

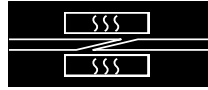
Use non corrosive detergents to clean metallic surfaces.



**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. Always keep the hot-pressing device clean. Always keep heating plates clean and smooth.

Operation	Frequency	Personnel	Procedure
Cleaning	Daily	Operator	Clean the press after use removing production residue.
Check water connections	Monthly	Maintenance worker	Check water seals. Any leaks are marked by calcium deposits
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 "Measurement of heating plates temperature"



#### ATTENTION!

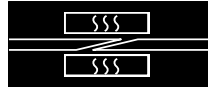
#### PERSONAL SAFETY DEVICES (DPI)

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.



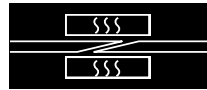
## 14.2 Measurement of plates temperature

Once a month, measure the heating plates temperature as follows.

- Remove the joining guides and centring plates. Place a heat resistant silicon pad in the hot-pressing device.
- Close the hot-pressing device applying slight pressure.
- Set temperature to 180°C and joining time to 60 minutes. Start heating.
- 10 minutes after reaching the set temperature, open the press, slightly lift the upper heating plate and place the precision thermometer sensor on the silicon foam pad at the exact centre of the heating plate.
- Close the press (without applying pressure). Wait three minutes and read the temperature.
- Repeat with the lower heating plate (place the sensor under the silicon foam pad at the centre of heating plate). The measured temperature should be 180°C +/- 2°C / 356°F +/- 3,6°F (including the max tool measurement precision +/- 1°C / 1,8°F).
- Interrupt the heating cycle by selecting the cooling phase with keys [STOP] and [UP] (See the PMR-xx unit instruction manual).

## 14.3 Temperature regulation

See the PMR-xx unit instruction manual.



## 15 Troubleshooting



### ATTENTION!

Maintenance and/or repairs on freely accessible electrical parts must be performed by skilled specialized personnel

### 15.1 Troubleshooting

Malfunction	Possible fault
The temperature of a heating plate indicated on the PMR regulator display differs more than 2°C from the set nominal value	PMR regulator fault Thermocouple wire fault Heating element fault
<b>Troubleshooting</b>	
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..	
<b>Solution</b>	
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 "Measurement of heating plates temperature").	

### 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.

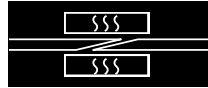
31016 CORDIGNANO (TV) - ITALY

Phone: +39 0438 9113

Fax: + 39 0438 912374

E\_mail : [info@habasis.it](mailto:info@habasis.it)

Internet : [www.habasis.com](http://www.habasis.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.

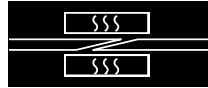
We would like to remind you that the most important materials used in machine construction are:

- 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!**

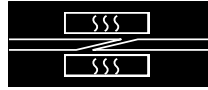
Do not store outdoors for any reason!  
The following environmental conditions should be observed.

### 17.2 Storage conditions

<b>Min/Max ambient temperature for storage</b>	Between +5°C and +40°C
<b>Relative humidity</b>	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



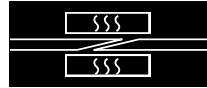
**CAUTION!**

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.



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@habasis.it](mailto:info@habasis.it)

Internet : [www.habasis.com](http://www.habasis.com)

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#### 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

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

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