HOT GLASS VACUUM PRESS INSTRUCTION MANUAL

Thank you for choosing this **HOT PRESS** product. It has been carefully designed and built to give you a good and reliable service for many years.

This manual relates to the following HOT PRESS Products.

Model	Working Area
HGP260	890mm x 1195mm (35" x 47")
HGP360	1095mm x 1700mm (43" x 67")
HGP560	1270mm x 2490mm (50" x 98")

PLEASE TAKE TIME TO READ THIS MANUAL

HOT PRESS maintains a policy of constant improvement. This means that you may find that some illustrations and descriptions will vary from the machine you have.

For supply of the wide range of HOT PRESS Machines and Materials contact our Sales Department.

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Warranty policy

Every HOT PRESS machine is designed and built to give years of good service to the buyer.

To achieve the best quality results from your Hot Press, the machine should be set up and operated in accordance with the instructions included in this manual.

Please return your warranty card as soon as possible. This will help us to deal with any problem you may have more efficiently.

Should any fault arise within 12 months of the purchase date, which is due to faulty materials or workmanship in manufacture, then, HOT PRESS or their dealer will arrange for the machine to be repaired or replaced, at their discretion.

After that time HOT PRESS will provide all reasonable assistance, and will maintain stock of replacement parts. This will ensure that any problems that arise can be quickly and economically resolved.

Please feel free to contact HOT PRESS if you have any questions or problems.

When calling please have the following information ready:

Date of Purchase:

Place of Purchase:

Model and Serial No (you will find this on the plate on the side of the machine):

Our aim is customer satisfaction.

We will always do everything possible to resolve any problems with our machines and their use to your complete satisfaction.

Introduction

This range of machines applies the heat and pressure needed to process heat-activated materials used for a variety of mounting and over-laminating applications. Heat is applied through the lower of the two sheets of toughened glass that form the top “Lid”; this is then closed onto the raised sill or gasket around the outside of the bottom frame, forming an air tight chamber, from which air is then drawn out by the vacuum pump supplied with the machine. External atmospheric pressure resulting from the vacuum created causes the flexible base or diaphragm, and any items placed on it, to be pressed against the bottom sheet of glass, thus applying the pressure needed to bond materials together.

The machine should be installed correctly, i.e., on a stable, flat base (a Vacuum Press Stand is ideal), with external wiring and piping secured so as not to present a hazard. It should be noted that removing the diaphragm will expose internal wiring etc., and represents a potential risk and should not therefore be done unless the machine is disconnected from the power source.

SETTING-UP YOUR NEW VACUUM PRESS

During manufacture, each Vacuum Press is set up and tested thoroughly.

Your press and its pump are each packed in a carefully designed carton. These have been tested to ensure that the items are in perfect condition upon arrival.

Please check the carton and the press carefully. If there are any obvious signs of damage, contact your dealer.

Prepare a Bench

Please ensure that you have a suitable stand, bench or table ready. This should be firm and flat, and of an adequate size and strength. Ideally, it should be at least twice the size of the press. That way, you will have an adequate space for preparation of the work you will be mounting and laminating. We supply a range of tailor made stands offering a firm and sturdy support for our range of vacuum presses.

Lift the press onto the stand or bench and temporarily position it so that you can gain access to the connection points at the rear of the machine.

The ideal working height of the press will vary depending on the height of the operator. Experience indicates that a table top height of between 700mm (28”) and 790mm (31”) will be suitable.

Open your Press

Now, open your press. The top should stay in the open position supported by the gas struts. Open and close the top a few times to ensure that the struts are functioning properly.

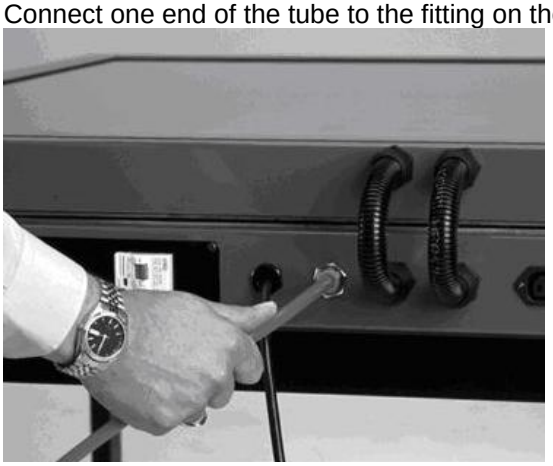
Open the Pump Box

The pump should be placed on or near the floor. Vibration during operation may cause the pump to move and could cause damage if the pump fell from a table.

Connecting the Vacuum Pump

Connect the piece of vacuum tubing. The vacuum tubes are a simple “push fit” into the special connectors. You will feel two stages of resistance as the tube is fitted. The ends of the tube must be clean and smooth to ensure a good seal. If damaged, simply cut off 5mm (1/4”) with a sharp knife.

Connect one end of the tube to the fitting on the rear of the press.



Connect the other end of the tube to the fitting on the pump.

Should you need to remove a tube from a connector, simply push down on the rim of the fitting with a finger and the tube should easily pull out.

The electrical lead from the pump can now be connected to the socket in the rear of the press.

Connect to the electrical outlet

Examine the plate carrying the serial number and voltage. Check that the voltage is suitable for your local supply. It is important that a supply of the right amperage is used. The table below should help you select the correct supply and connectors.

Model	**Current(A)**	**Power(kW)**	**Size of supply (A)**
HGP260	11	2.5	13
HGP360	18	4.2	20
HGP560	25	6.7	30

Depending on the market your machine was built for, the wiring will be coloured as follows:

BROWN	=	LIVE
BLUE	=	NEUTRAL
GREEN/YELLOW	=	EARTH

or,

BLACK	=	LIVE
WHITE	=	NEUTRAL
GREEN	=	GROUND

For operator safety, it is essential that the machine be correctly earthed (grounded).

After connecting the vacuum tube and the pump connect the mains lead to the outlet, but do not switch on yet. When facing the back of the press check that the two circuit breakers are in the "**ON**" position i.e., the switches are pointing to the right. The one nearest the centre of the machine protects you from electric shock should a wire become loose. You should test it periodically by using the small button marked "T". The second circuit breaker prevents overload should a short circuit occur. Now slide the press into the required working position on the work-top.

Controls

Examine the control panel on the front of the press.

Control Panel Layout

1 **2** **3** **4** **5** **6**

Key Controls are:

1. Variable Pressure Adjustment - Allows pressure adjustment (by regulating the vacuum) for mounting onto foam centred board.

2. Vacuum gauge - Indicates actual vacuum pressure. A satisfactory maximum reading is 25"+.

3. Auto/Manual Switch - Acts as a simple on/off switch for the pump if you do not need to use the timer.

4.Timer - Automatically controls the vacuum pump and will switch it off at the end of the pre-set cycle.

5. Power Switch - Switches on the power supply to the press.

6. Temperature Controller - indicates the actual glass temperature, and maintains that temperature at your chosen pre-set level.

Now Switch On

Check that the pump switch on the front panel is in the AUTO position.

Switch on the power switch on the front of the press. The digital display on the temperature controller will initially show the letters "LAE", followed a couple of seconds later by a nominal temperature. It will soon start to rise, and after about 15 minutes will show the temperature pre-set during manufacture. This will normally be 90 ^{O}C or 195 ^{O}F.

Adjustment of Temperature Controller

1 2 3 4

To change the set temperature, press and hold Button 1, now press Button 2 to lower set temperature or button 3 to raise set temperature. To turn heating off, press and hold button 4 for three seconds. To turn heating on again, press button 4 for three seconds.

When the press is heating, the “out1” indicator will illuminate.

At the factory the temperature controller is set to allow a maximum temperature of 115 ^{O}C or 239 ^{O}F, depending on which market your machine was made for.

Operating the vacuum pump

Automatic Control

1 2 3 4

For automatic control, the pump switch should be set in the AUTO Position. The timer controls the length of the cycle. To start the cycle, press button 1. Once the pre-set time has elapsed the pump will stop, air will be let back into the press and the counter will return to showing the pre-set time.
If you wish to stop the cycle part way through simply press button 1. This will stop the pump, release the vacuum and reset the timer.

To Change The Pre-set Timer

Press button 2 to reduce the time or button 3 to increase the time.

Manual Operation

Switching the PUMP switch to the MANUAL position will cause the pump to start. The pump is stopped when the switch is returned to the AUTO position.

The timer also has a manual mode which allows it to be used as a simple on/off switch. Press button 4 and hold for five seconds. The display will change to “OFF”. Pressing button 3 will turn the pump on and button 2 will stop it. To revert back to timed operation, press button 4 again for five seconds, the display will revert to the time. Although this facility is available we advise users to carry out manual operation using the AUTO/MANUAL switch rather than the manual mode on the timer.

Safety note

This product should only be used for the purpose and manner for which it was designed. We include care and maintenance advice with our product that should be read carefully and followed before use.

For complete operator safety, Vacuum Press machines are fitted with circuit breakers, fuses and a high temperature overriding cut-out.

The high temperature cut-out can be seen attached to the inside of the glass. If the temperature rises above 125 ^{o}C/ 257 ^{o}F, the cut-out will turn off all power to the system. It will then automatically reset itself after the press has cooled sufficiently, which may take up to 15 minutes.

If the cut-out operates repeatedly, please contact your dealer.

ROTINE MAINTENANCE OF PRESS

Cleaning

Sweep or vacuum dust and bits from the rubber diaphragm. Keeping dirt away from the machine will help prevent the pump becoming blocked.

Check the pump filter bowl for water periodically. To drain the bowl, ensure the pump is switched off, then simply unscrew the bowl, tip the water out and re-fit the bowl.

Clean all the way around the grey silicone seal with a damp cloth, checking for foreign matter and cuts.

If any adhesive has accumulated on the glass, this may be dissolved with acetone or nail varnish remover DO NOT USE ABRASIVE CLEANERS.

The coloured metal frame may be cleaned with normal, non-abrasive household cleaners.

SOME COMMON PROBLEMS

1. Foam trapped in the seal

It is very easy for the foam sheet to become misplaced, and inadvertently be trapped in the seal. This allows air to flow in, preventing a good vacuum being pulled. Foam used in the press will tend to expand in size over time. As this happens, you should lay it on the bench and slice a strip off each edge.

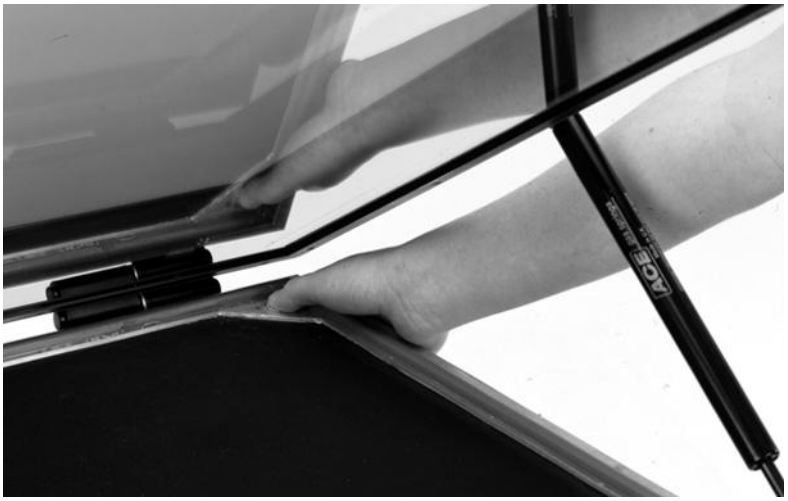
2. Very small gap at the rear of press

This can be created by movement whilst the press is in transit, follow the instructions for adjusting the hinges.

3. Very small gap at front of press

The catches may need adjustment.

4. Vacuum problems



First try the “Thumb Test”. Put your thumb over the extractor and observe the gauge.

Not a good Vacuum ? - Check the following:

1. Check that the tube fittings are tight.

2. Check the filter for blockage. Ensure the pump is off, then unscrew the filter bowl, pull the filter cartridge out and refit the bowl. If this rectifies the fault, the filter element will need cleaning. Unscrew the retaining plate at the bottom of the cartridge and withdraw the filter element, wash in ordinary household detergent and re-assemble complete unit.

3. Check the pump. If it is faulty, speak to your dealer.

If there are still problems - check the following:

1. Is there anything trapped in the seal, is it damaged? Any paper, foam or canvas blocking the seal can cause a vacuum leak. If the seal is damaged, remove a section and replace.

2. Check the press is level. If one edge is overhanging a table, it can prevent a good seal.

3. Are the catches tight enough? The catches should close with a smooth “click”. Over tightening will make the machine difficult to close and will not improve the vacuum.

4. Try to adjust the hinges. Follow the guide on page 13 to adjust the bottom hinges.

5. The “bookmark” test. Cut thin strips of paper and place in different sections of the seal around the press. Close the lid and secure the catches, then try to remove the paper. The paper will normally be held tight. If the paper can be pulled out, this will indicate a gap between the seal and the lid of the press.

6. Search for a hole in the diaphragm. Splits are most common along the edges and corners. Switch off power supply to press. Remove the screws holding the diaphragm. Then lift it out of the press and inspect both sides for holes.

Vacuum will not release?

Does the solenoid (the Solenoid can be found at the rear of the Pressure Adjuster) click when you switch on? If not this indicates that the solenoid is faulty.

Catches

The catches at the front should close with a comfortable “click”. If they are loose, or if they need excessive pressure to close, they can readily be adjusted by turning the catch on the pivoted threaded shaft. Do this just one turn at a time.

Lengthening the amount of threaded shaft visible (by turning anti-clockwise) will have the effect of tightening the catch, and shortening the amount (by turning clockwise) will have the effect of loosening it.

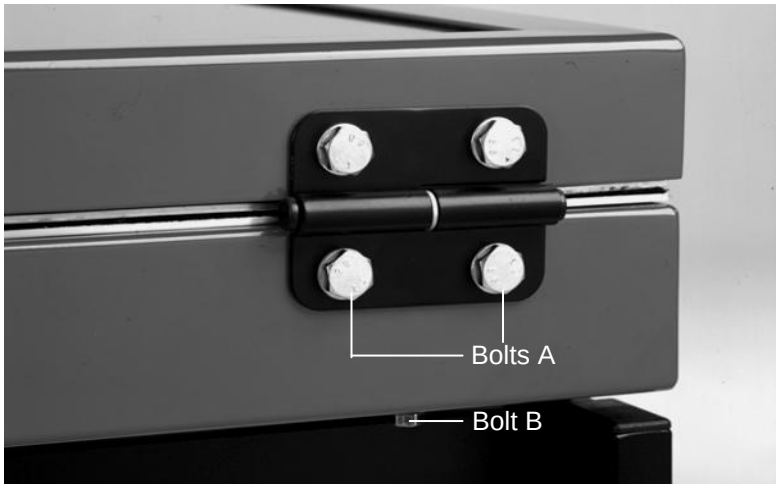
The catch is designed to work with a light “click”. Adjusting it to make it excessively tight will not improve the effectiveness of the vacuum seal, and may seriously damage the catch.

Hinges

The hinges at the rear of the press are designed and fitted in such a way that they can be easily adjusted to ensure a good vacuum seal. Ensure that both hinges are adjusted by the same amount to keep the press lid level.

The top part of the hinge is bolted to the top frame, and cannot be moved.

Adjustment is carried out on the bottom part of the hinge. Both bolts pass through elongated holes in the frame. Should it become apparent that the grey sealing gasket is not in contact with the underside of the platen all the way across the back of the press, then the adjustment procedure is as follows:



Close the Press, loosen both bolts A $^{1}/_{2}$ a turn. Switch on vacuum pump.

Using a spanner lightly screw up bolt B on each hinge a little at a time until a vacuum is pulled. Only a small adjustment will be required. Re-tighten both bolts A.

Checking & changing fuses

The fuses are located on the left side of the press. Disconnect from the mains. Open the fuse holder using a screwdriver, replace with a fuse of the same rating. Spare fuses are located under the rubber diaphragm.

WEEE Regulations

This equipment falls within the scope of the European Union Waste Electrical and Electronic Equipment. At the end of it's useful life, it must be disposed of in accordance with local codes in order to facilitate recycling.