



# HOT PRESS

## HEATED GLASS TOP VACUUM PRESS

### USERS MANUAL

This users manual applies to the following Hot Press models.

Model	Working Area	
HGP220	25" x 37"	(635mm x 940mm)
HGP260	35" x 47"	(890mm x 1194mm)
HGP360	42.5" x 66.5"	(1080mm x 1689mm)
HGP560	50.25" x 98.25"	(1276mm x 2496mm)



**Overview**

Thank you for purchasing a Drytac Hot Press™ Glass Top Vacuum Press.

The Hot Press Glass Top Vacuum Press incorporates a proven, high technology heating system. The top panel of the press is made up of two sheets of reinforced tempered glass. The inner surface of the lower sheet has a transparent conductive coating applied to it. A controlled electric current is passed through this conductive film creating a highly efficient heating system. A sensor on the glass monitors and controls the temperature by means of a digital thermostat. The transparent top offers a high level of operator confidence as work can be viewed throughout most bonding processes. The glass is extremely smooth and scratch resistant.

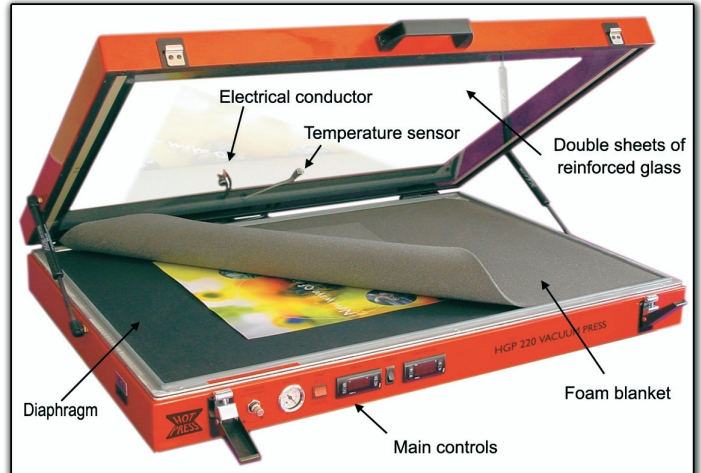
The Hot Press Glass Top Press handles a wide range of presentation materials from foam board and wood to photos, art prints and delicate fabrics. The Hot Press brand is well regarded by picture framers and other finishing professionals for its ability to produce consistent, high quality results.

All models feature an electronic timer with a manual override switch and vacuum pressure adjustment capabilities. Upon completion of the cycle, vacuum pressure is automatically released and the timer resets itself.

To ensure operator safety and to achieve the best results from your Glass Top Vacuum Press, the machine must be set up and operated in accordance with the instructions in this manual. Please review the entire manual before using the press for the first time.

We maintain a policy of constant improvement to our products. This means that you may find that some illustrations and descriptions will vary from the equipment you are using.

If you have questions concerning applications of the Glass Top Vacuum Press, please give us a call. Expert assistance is available at no charge. We can also supply many of the adhesives, overlaminates and other materials used in conjunction with this equipment. For more information, please contact our Customer Service Department (see page 19 for contact information).



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## Safety Considerations

*This product should only be used for the purpose and manner for which it was designed. Before installing and using the equipment, please read this entire manual and be sure that you understand all the aspects of proper use. Some of the more important safety considerations are listed below.*

- Ideally, the vacuum press should be used with a metal stand (available from Drytac). If a stand is not used, the press must be located on a sturdy table or countertop capable of supporting its weight (refer to Technical Specifications on page 17 of this manual). The largest model (HGP560) is supplied with a stand, which must be used due to the weight of the unit.
- Connection of the equipment to the power source must be handled by a qualified electrician familiar with local and national electrical codes. It is mandatory that the equipment be properly grounded.
- The gas struts which support the lid are a critical safety item. They must be fully extended (in other words, the lid must be open completely) in order for them to support the weight of the lid. The press must be installed in a location which allows the lid to be completely raised without interference. If the lid is only partially opened, it may close unexpectedly.
- Before each use, the struts should be checked to be sure they are operating properly. Over a period of time, the struts will lose pressure and will eventually require replacement.
- **The inner surface of the glass top is very hot during normal operation. Be very careful not to touch the glass when inserting or removing materials from the press.**
- Before servicing the equipment, it must be disconnected from the power source.
- If either of the circuit breakers on the rear panel of the unit should trip repeatedly, unplug the equipment and have it serviced. The same applies to the fuses on the side panel.
- The vacuum press incorporates a high-temperature safety cutout device, which disconnects all power from the unit if the internal temperature reaches a predetermined level (257°F / 125°C). If the unit unexpectedly shuts off during use and later comes back on after cooling down, it is likely that this safety device has activated. This indicates a problem with the temperature control system, and the unit should be repaired by a qualified technician.
- Do not use a knife to cut materials while they are inside the press. This could cause damage to the diaphragm.

## SETTING UP YOUR NEW VACCUUM PRESS

**Equipment Location:** The smaller vacuum press models such as the HGP220 and HGP260 may be used on a table or countertop, provided that it is able to support the weight of the equipment. The larger models should be used with a floor stand due to their size and weight. The ideal working height of the press will vary depending on the operator. We suggest a height of 28 to 31 inches (700 to 790 mm). It is critical that the lid of the press is able to open fully. Please be absolutely sure that nothing interferes with this!

For proper operation, it is very important that the press be flat and level. The best way to verify this is to use a carpenter's (bubble) level. If one corner of the unit is at a different height from the others, it may be difficult to achieve a proper vacuum. For best results, we recommend that the press be located away from air conditioning vents, fans and other sources of moving air.

**Unpacking:** Carefully inspect the vacuum press for possible shipping damage. If any is discovered, please contact our Customer Service Department immediately. If you are using a floor stand, unpack and assemble it using the instructions provided. Remove the vacuum press from the shipping carton and place it on the stand or table. Leave room to make connections to the rear of the unit.

Unpack and remove the vacuum pump from its box. The pump should be placed on or near the floor. There are suction cups on the bottom of the pump to help keep it in place, since the pump vibrates during operation. The pump will become warm during extended usage. If the equipment is going to be used in a high-volume production environment, please allow for adequate ventilation of the area where the pump is located.

### Stand Assembly (Model HPG560 Only)

Loosely fit the four tie bars to the ends of the stand (Illustration 4B), using the 16 M10 x 50 bolts, 32 x M10 plain washers and 16 M10 nuts. Tighten all nuts and bolts. Move stand into final position and ensure that it is level by using the leveling spacers. The stand may be leveled by supporting the low corner of the stand on the tie bar and removing the wheel. The leveling spacers can then be inserted between the stand and the wheel assembly and the wheel assembly re-bolted to the stand. Lower the stand back to the ground and re-check to make sure it is level.

### Mount The Press Onto the Stand (Model HPG560 Only)

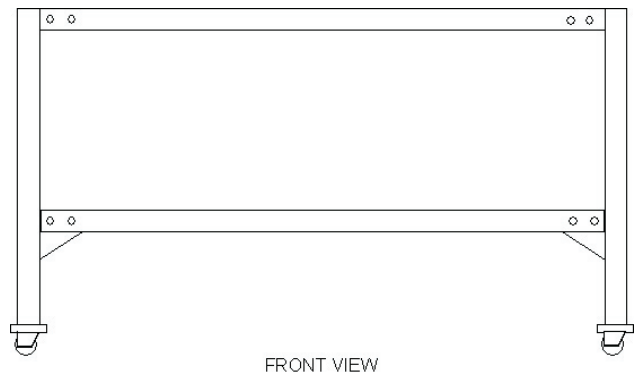
Remove the divider panels from the crate. Remove the screws from the side pieces of crate. Remove protective packaging from the press. **HOLDING THE FRONT AND REAR OF THE PRESS ONLY AND NOT WITHIN 75 mm OR 3 INCHES OF THE ENDS**, lift the press from the crate onto the stand. Align the press with the ends of the



**Illustration 4A:** Vacuum press mounted on stand.



**Illustration 4B:** Stand assembly



FRONT VIEW

**Illustration 4C:** Stand assembly - front view with wheels.

stand. Undo catches at front of press and raise lid. Remove three screws at front of diaphragm and draw diaphragm forward by approximately 300 mm or 12 inches. Working on underside of diaphragm, remove hoses from fittings on diaphragm by pushing collar on hose end of fitting inwards and pulling out hose. Remove diaphragm from press. Using the 4 M6 x 80 mm bolts, 8 M6 penny washers, 4 M6 spring washers and 4 M6 nuts, secure the press to the stand by passing the bolts up through the holes in the stand ends and into the base of the press. Tighten these nuts and bolts. Insert the diaphragm back into the press and insert the hoses back into the fittings on the underside of the diaphragm.

Push the diaphragm back into position ensuring it fits into the three clips at the back of the press and re-fit the three screws at the front of the diaphragm.

### Stand Assembly Instructions for Small Models (HGP220 / 260/ 360)

Component list:

- 2 x leg assemblies
- 2 x top rails
- 2 x bottom rails
- 12 x rail bolts (16 x for 360) M8 x 60 mm dome head
- 4 x press fixing bolts M6 x 80 mm cap head
- 4 x penny washers ¼ x 1 "
- 4 x shakeproof washers M6
- 1 x M6 Allen key

Loosely fit the top rails to the top of the leg assemblies to form a rectangle, using 8 of the M8 x 60 mm bolts. Loosely fit the bottom rails, about half way up the leg assemblies, using the remaining M8 x 60 bolts. Tighten all bolts using the Allen key and ensure stand is steady. The top rails are inset from the front and rear, the largest inset is the front of the stand. Lift press onto stand. Fit M6 x 80 mm bolts with shakeproof washers, then with the penny washers, then insert them up through the leg assemblies into the base of the press. Tighten press fixing bolts using the Allen key, until rubber press feet are compressed slightly.

### Connecting the Vacuum Pump

A length of plastic vacuum tubing (either red or green, depending on the model) is supplied with the equipment. Connect one end to the pump and the other end to the rear of the vacuum press. No tools are needed - the tubing is a simple "push fit" into the special connectors. You will feel two stages of resistance as the tube is inserted. The ends of the tubing must be clean and smooth to ensure a good seal. If damaged, simply cut off 1/4" (5mm) with a sharp knife. To remove the tubing, press the end of the metal fitting and pull the tubing out.

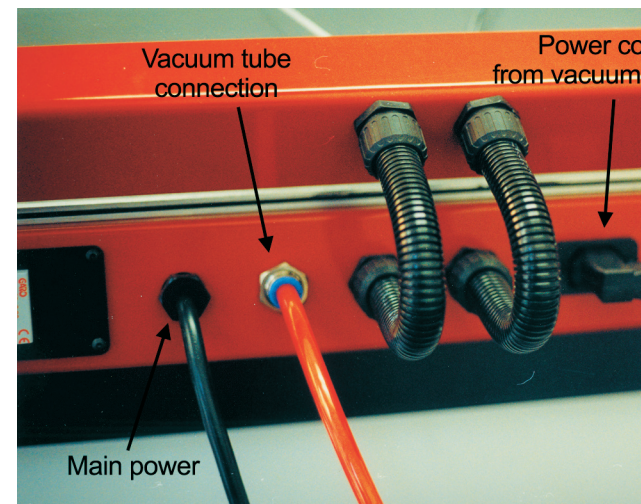
Plug the electrical cord from the pump into the matching connector on the rear of the vacuum press.

#### WARNING

**THIS OPERATION  
SHOULD BE CARRIED  
OUT BY A MINIMUM  
OF SIX PEOPLE.**

#### WARNING

**THE CORRECT FUNCTIONING OF  
YOUR VACUUM PRESS CANNOT  
BE GUARANTEED IF THE PRESS  
IS NOT MOUNTED SECURELY  
ONTO THE STAND  
AND THE PRESS LEVELLED**



**Illustration 5A:** Vacuum pump connections .

## ELECTRICAL CONNECTION

All four models of the Drytac Glass Top Vacuum Press require single-phase AC power. The current and power requirements are different for each model, and are summarized below.

Model	HGP-220	HGP-260	HGP-360	HGP-560
Voltage	220 - 240 VAC 50/60 Hz	220 – 240 VAC 50/60 Hz	220 - 240 VAC 50/60 Hz	220 - 240 VAC 50/60 Hz
Current	10 A	11 A	18 A	25 A
Current (peak)	11 A	13 A	22 A	28 A
Power	2.3 KW	2.5 KW	4.2 KW	6.7 KW
Circuit	20A	20A	30A	30A
Plug Type (NEMA)	6-20P	6-20P	6-30P	6-30P
Locking Plug Type	L6-20P	L6-20P	L6-30P	L6-30P

Please be sure to provide adequate ventilation if the equipment is to be used in a high-volume production environment.

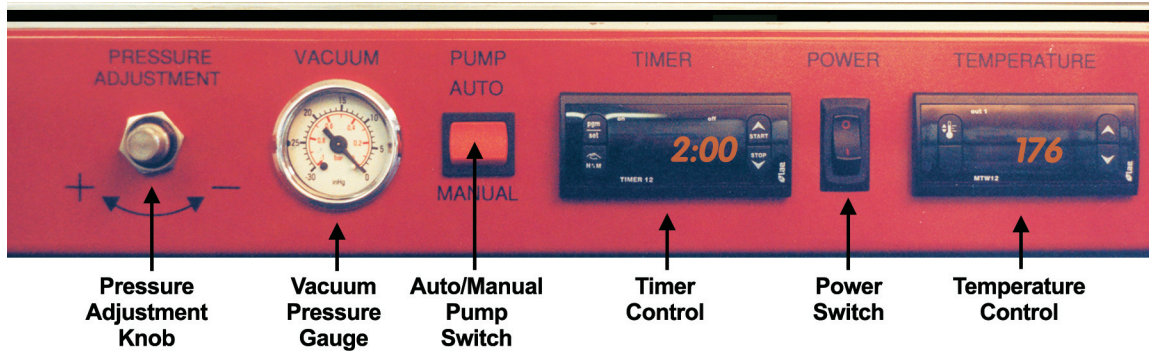
Make certain that the power source conforms to the requirements specified above. All local electrical and safety codes, as well as the current National Electrical Code (NEC) must be followed. All wiring must be installed by a qualified electrician.

To reduce the risk of electrical shock, the vacuum press must be used only with a properly installed 3-wire grounding-type receptacle and plug combination. Do not use extension cords or 2-prong adapters with this equipment. Proper grounding of the receptacle must be verified before use.

The electrical cord should be routed and secured so that it does not present a hazard. Protect the cord at all times from sharp objects, hot surfaces, oil and chemicals. Avoid kinking the cord. Periodically inspect the cord and plug, and replace immediately if worn or damaged.

Disconnect the equipment from the power source before moving or servicing.

Test the GFCI (Ground Fault Circuit Interrupter) circuit breaker. It is the circuit breaker located nearest to the center of the rear panel of the press. It should be tested after installation (and periodically thereafter) to ensure that it is functioning correctly. To test it, press the test button (labeled "T") adjacent to the breaker handle. The breaker should immediately trip. If it does not, the GFCI is defective and must be replaced. Note that the equipment must be connected to a power source in order to perform this test.



## MAIN CONTROLS

### Initial Test

Verify that both of the circuit breakers on the rear panel of the press are in the ON position (levers pointing to the right). Check that the *Auto/Manual* switch located on the front panel is in the AUTO position, and that the power switch is in the OFF position. Connect the power cord to the electrical outlet. Remove any materials from inside the press, then close and latch the lid. Turn the *Pressure Adjustment Knob* fully clockwise (maximum vacuum).

Turn on the power switch on the front of the press. The displays on the *Timer* and *Temperature* controllers should light up. The Timer will normally indicate 2:00 and the temperature controller will indicate room temperature. Within a minute or so, it will start to increase. After about 15 minutes, the temperature should reach the setting that was preset at the factory, normally 194°F (90°C).

Now press the *Start* button on the timer (the one in the upper right corner). The vacuum pump should start, and the timer should begin to count down. Within a few seconds, the pointer on the vacuum gauge should start to move. Within 30 seconds, the reading should be steady at 25" or higher.

When the timer reaches zero, the pump should automatically cut off, and the vacuum should automatically be released. Check the vacuum gauge, which should now be back at a zero reading.

Refer to the Troubleshooting section (pages 15-16) of this manual if the equipment does not function as described above, or contact Drytac for assistance.

### ILLUSTRATION 7A: MAIN CONTROLS

#### PRESSURE ADJUSTMENT KNOB

Adjusts pressure for applications such as mounting onto foam boards.

#### VACUUM PRESSURE GAUGE

Indicates actual vacuum pressure. A normal reading is 25" or higher (with the variable pressure adjustment set to maximum).

#### AUTO / MANUAL SWITCH

Acts as a simple On/Off switch for the pump if you do not need to use the Timer.

#### TIMER CONTROL

Controls the vacuum pump and pressure release valve. At the end of the preset cycle, the pump will turn off and the vacuum will be automatically released.

#### POWER SWITCH

Switches on the heating system and the timer.

#### TEMPERATURE CONTROLLER

Indicates the actual glass temperature and maintains the temperature at your chosen preset level.



Illustration 7B: Press Start button to begin initial test.

## ADJUSTING THE TEMPERATURE CONTROLLER (FAHRENHEIT)

To adjust the pre-set temperature, press and hold *Button 1*. Then use *Button 2* to increase or *Button 3* to decrease the pre-set temperature. Once the desired level is reached, release *Button 1* to set the desired temperature.

When current is flowing through the heating element, a small red dot next to *OUT1* will glow. In normal operation, the dot will turn on and off every few minutes as the controller maintains the glass at the preset temperature.

At the factory, the temperature controller is set to allow a maximum temperature of 239°F. The factory preset temperature is 194°F.

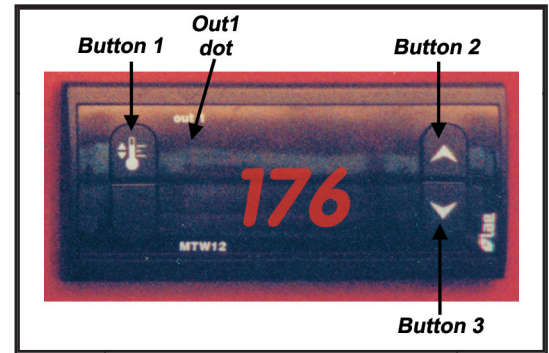


Illustration 8A: Temperature controller (F)

## ADJUSTING THE TEMPERATURE CONTROLLER (CELSIUS)

To adjust the preset temperature, press *Button 1* and *L1* will appear for one second. Then press *Button 3* to increase or *Button 4* to decrease the preset temperature. Once the desired level is reached, press *Button 1* to set your required temperature.

When current is flowing through the heating element, a small red dot next to *RL1* will glow. In normal operation, the dot will turn on and off every few minutes as the controller maintains the glass at the preset temperature.

At the factory, the temperature controller is set to allow a maximum temperature of 115°C. The factory preset temperature is 90°C.

Should you press *Button 4* in error and *HY1* displays, just press *Button 1* again. **Do not change the value that follows *HY1*.**

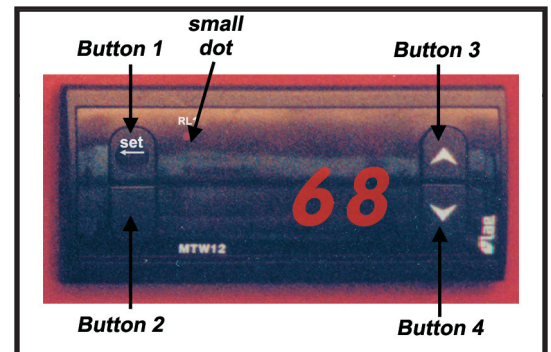


Illustration 8B: RL1 dot.



## OPERATING THE VACUUM PUMP (TIMER)

### Automatic Control

For automatic control, the pump switch should be set in the AUTO position. The Timer controls the length of the cycle in minutes and seconds.

*The Timer has three operating modes:*

**Set** - Normal mode. The timer is ready to operate.

**Pgm** - Program mode. The preset time may be changed.

**HAnd** - Manual mode (see “Manual Operation” below).

When in **Set** mode, the timer displays the preset time.

When in **Program** mode, either the minutes or seconds digits will be flashing to indicate that you may change them as desired.

### To Change The Preset Time

Enter the Program mode by pressing *Button 1*; either the minutes or seconds digits will flash. To alternate between minutes and seconds press *Button 2*. Use *Button 3* to increase or *Button 4* to decrease the time. Once the desired value has been set, press *Button 1* to return to set mode.

### To Start the Vacuum Cycle

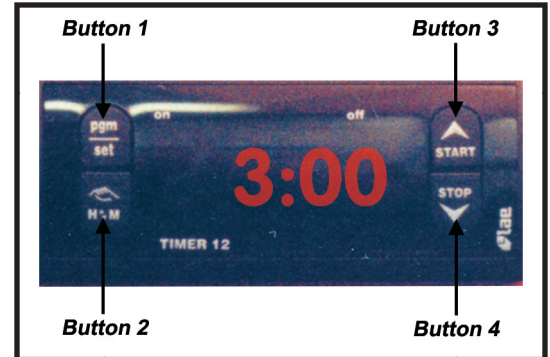
In **Set** mode (when no digits are flashing), press *Button 3* to start the cycle. The timer will indicate that the pump is on and begin to count down. Once the preset time has elapsed, the pump will stop, the vacuum will be released and the counter will return to showing the preset time.

If you wish to stop the cycle part way through, simply press *Button 4*. This will stop the pump, release the vacuum and reset the timer.

### Manual Operation

Switching the PUMP switch to the MANUAL position will cause the pump to start. The pump will run until 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 2*. While keeping *Button 2* depressed, press *Button 1*. The timer will display the word *hAnd*. Pressing *Button 3* (start) will switch the pump on; pressing *Button 4* (stop) will switch it off. To return to automatic operation, press Buttons 2 and 1 as described above. Although this facility is available, we recommend that you use the AUTO/MANUAL switch rather than the **hAnd** function.



**Illustration 9A:** Locations of controls for vacuum cycle duration.

## PRINCIPLES OF OPERATION

Your Hot Press Glass Top Vacuum Press is precision engineered to deliver the optimum heat and pressure for a variety of mounting and overlaminating applications. A conductive coating is applied to the upper surface of the lower of two sheets of tempered glass that form the lid of the press. When an electrical current is applied to the coating, the glass heats up in a very even and consistent manner.

When the lid is closed onto the gasket around the outside of the bottom frame, it forms an airtight chamber from which air is drawn out by the vacuum pump. The vacuum causes the flexible diaphragm in the base, and any materials placed on it, to be pressed against the glass, thus applying the heat and pressure needed to bond materials together.

### Key Processing Factors:

There are three key processing settings that apply to virtually all mounting and laminating jobs.

- Temperature
- Time (Dwell)
- Pressure

**Temperature:** The temperature setting is primarily dictated by the requirements of the heat-activated adhesives used in the dry mounting tissue and the overlaminating film recommended for your job. It is important that the press be operated at the correct temperature to activate the adhesive and bond the materials. See page 8 for more on temperature controls.

**Time (Dwell):** This factor works in conjunction with temperature to create a permanent bond between materials. Assuming that the temperature setting of the press is sufficient to activate the adhesive, it is almost always preferable to increase dwell rather than temperature. Dwell time is set using the Timer (page 9) and dictates the vacuum cycle (see Pressure, below).

**Pressure:** Pressure is established in the press by the vacuum pump, which is controlled by the Timer (see page 9). The vacuum presses the materials together for the amount of time chosen by the operator using the timer controls. Pressure should usually be set at over 25" of mercury. It should be reduced for softer mounting materials such as foam board using the vacuum adjustment valve.

### Other Factors

Following the recommended temperature and time settings on your Glass Top Vacuum Press will almost always produce excellent results. However, other factors can affect the settings on the machine.

**Materials:** Manufacturer's dwell and temperature settings are based on paper graphics. However, heavier materials such as canvas absorb more heat and may require a higher temperature setting or longer dwell time setting. This is also true for denser or thicker mounting substrates.

**Workpiece size:** The same principle applies to the overall size of the job. Larger jobs absorb more heat and may require longer dwell times.



Illustration 10A: Key processing factors

**NOTE:** Whenever possible, test actual materials together prior to processing a challenging or unusual job.

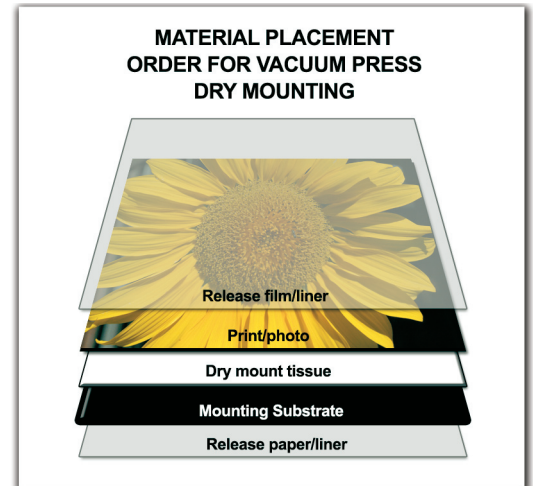
## FUNDAMENTALS OF DRYMOUNTING

Dry mounting an image to a substrate can be performed in a variety of ways and varies according to the nature of the mounting substrate, mounting adhesive and the print, photo or artwork being mounted. However, the basic methods described below will provide excellent results for most standard applications.

1. Set the vacuum press to reach an operating temperature of 185°F (85°C)\*.
2. Cut a piece of dry mounting tissue slightly larger (on all sides) than the work to be mounted.
3. Place your print face down onto a clean work surface and cover with the dry mounting tissue. Lightly tack the tissue to the back of the print with a tacking iron. To avoid adhesive build-up on the tacking iron, tack through silicone release paper/film, shiny side toward the tissue. Trim the excess tissue.
4. Place the print, with the tissue attached, onto the mounting substrate. Lift the opposite end of the print/mounting tissue and tack the mounting tissue side directly onto the mounting substrate.
5. Place the three components into the press between two sheets of release paper/film for approximately 30 seconds to 3 minutes\*— from the time the press has achieved the desired pressure setting.

\* Your actual settings will vary according to the size of the press, type of dry mounting tissue, the type of mounting substrate, the artwork material used (in terms of material and the size of the print). See individual product specifications for recommended dwell times.

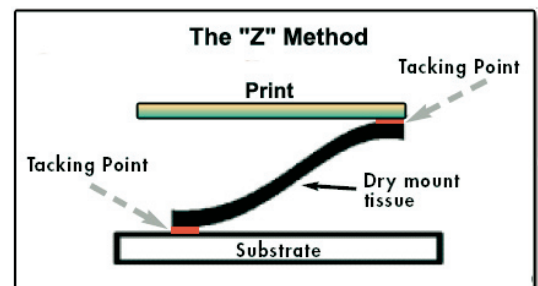
**Note:** Clear release film or silicone release paper must be placed on top of the “mounting package” to prevent any exposed adhesive from sticking to the glass.



**Illustration 11A:** Top to bottom material placement order in press

### PROCESSING TIPS:

- Maximum vacuum pressure is recommended - except when mounting onto foam board, as this type of substrate may be subject to “crushing”. When mounting onto foam board, we recommend using reduced vacuum pressure during the mounting cycle.
- We recommend silicone coated clear release film over silicone release paper. Clear release film is transparent (allowing you to see the work in progress), less prone to “creasing” and has a longer usage life.
- The diagram in Illustration 11A shows the positioning for each component in the dry mount package prior to being placed in the press.



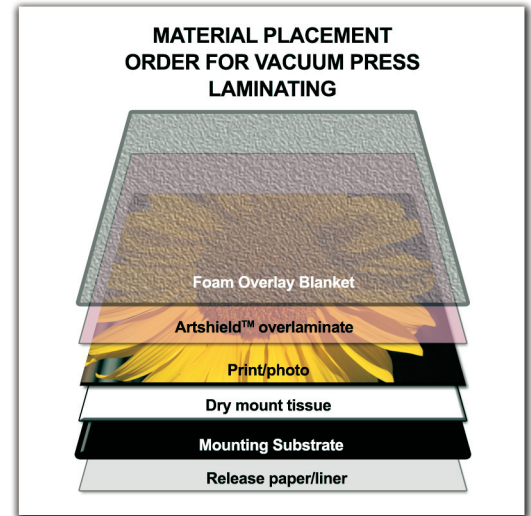
**Illustration 11B:** Tacking dry mounting components

## FUNDAMENTALS OF LAMINATING

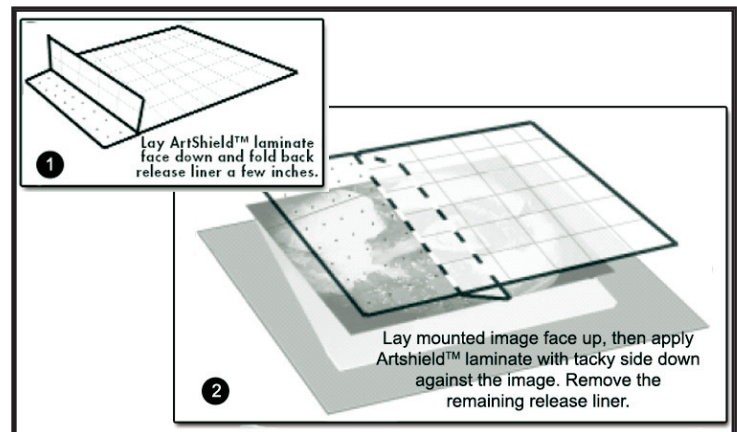
Laminating is the process of applying a thin clear film to the surface of a print, photograph or other type of graphic. Drytac manufactures a wide range of ArtShield™ laminate films for use with the Hot Press. The materials are activated by temperatures in the 185°F–210°F (85°C–99°C) range, with processing times ranging from 2 - 10 minutes. Please check the specific product recommendations before laminating.

1. Cut a piece of ArtShield™ UV HeatSet laminating film (or other appropriate heat activated laminating film) approximately 1/2" (1cm) larger (on all sides) than the print to be laminated. At this stage, your print may already be mounted or, if you choose, you may dry mount at a later time without affecting the laminated finish (refer to step 8 below).
2. If the print/graphic to be laminated has a non-breathable surface such as a resin coated (RC) photograph, it will be necessary to use a pre-perforated ArtShield laminating film. If the selected film is not pre-perforated, place it onto a cutting mat or card stock with the film surface face up. Using a perforating tool, lightly pierce the film in a crisscross pattern; ensuring the holes are approximately 1/4" (6mm) apart.
3. A release paper backing protects the adhesive-coated side of the laminating film. Peel this back approximately 1" (2.5cm), exposing one edge of the laminating film. Place your print face up on a clean work surface. Position your laminate on top, exposed adhesive edge down. While holding it firmly on the table with one hand, gently pull the release paper away and toward you from underneath.
4. Check that there is no dirt or dust trapped under the laminating film. If necessary, the film may be gently lifted, the contaminants removed and the film repositioned.
5. Using a burnishing pad or soft cloth, lightly smooth the laminating film down onto the print to remove excess air bubbles.
6. Place the print onto a larger piece of silicone release paper/film shiny side up.
7. Preheat your press to 180 - 210°F (82 - 99°C)\*.
8. Cover your work with the foam overlay blanket and place into the press.
9. Your work piece should be processed for two to ten minutes\* - beginning from the time that the press has achieved the desired pressure setting.
10. The final result should be a blemish-free finish. If any silvering is apparent under the clear film (especially visible in the dark areas), re-insert and process for an additional 2-10 minutes\*.

**Caution:** ArtShield™ Glossy laminating film cannot be pierced and is not recommended for photographs.



**Illustration 12A:** Top to bottom material placement order in press



**Illustration 12B:** Applying Artshield laminate to the print/photo.

\* Your actual settings will vary according to the size of the press, type of dry mounting tissue, the type of mounting substrate, the artwork material used (in terms of material) and the size of the print. See specific product specifications for recommended dwell times (dwell times provided are for paper graphics).

**Note:** Put the foam overlay blanket directly on top of laminating film. Do not put release paper/film between film and foam overlay blanket or between foam overlay blanket and top of press.

## PREPARING YOUR MOUNTING SUBSTRATE

Once you have decided on the most appropriate adhesive/substrate combination for your application, it is important that you properly prepare your substrate before coating. Although often overlooked, this can be the most important step when mounting a print or artwork for display.

### FOAM BOARDS

(E.G. FOME-COR®, ETC.)

The surface of these types of substrates is porous and often contains particles that can spoil an otherwise perfect mount. Clay-coated surfaces such as Fome-Cor®, Foam-X® and similar boards should simply be wiped with a TacCloth™ to remove dust particles.

### MAT BOARDS/MILL BOARDS

To prepare mat board or millboard for mounting, use the Anti-Static Wisk™ brush to remove dust particles and other debris.

### HARDBOARD

(E.G. MEDIUM DENSITY FIBERBOARD, MASONITE, ETC.)

To prepare hardboard substrates for mounting, wipe down the surface with a TacCloth. Should the surface contain irregularities, use sandpaper to remove them, then wipe the surface with a TacCloth.

**Please note:** Due to their highly absorbent properties, do not wipe down the surfaces of any of these substrates (i.e. foam board, mat/millboard or hardboard) with a moist rag.



**Illustration 13A:** Using TacCloth to wipe down foam board.

**Tip:** It is important that you remove dust and other debris from your prints prior to mounting.

## ROUTINE MAINTENANCE

**Cleaning:** Each day before using the press, check the pump filter bowl for water. To drain the bowl, ensure the pump is turned off, then simply unscrew the bowl, dump the water out and re-attach the bowl. If the press is used for mounting on foam board, the water trap may have to be emptied quite frequently. Do not allow the bowl to become full, as this may allow water to enter the vacuum pump and cause serious damage.

Use a brush or vacuum to remove dust and debris from the rubber diaphragm as needed. Keeping the diaphragm clean will help prevent the pump filter from becoming blocked.

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, it may be dissolved with acetone or nail polish remover. Do not use abrasive cleaners. A single-edged razor blade may also be used, but be careful not to scratch the glass.

The outside of the press may be cleaned with any standard, non-abrasive household cleaner.

**Latch Adjustment:** The latches on the front of the unit should close easily with a comfortable “click”. If they are too loose or if they need excessive pressure to close, they can be adjusted by turning the latch on the pivoting, threaded shaft. Adjust only one turn at a time. Lengthening the amount of threaded shaft visible (by turning counterclockwise) will tighten the latch and shortening the amount (by turning clockwise) will loosen it.

Overtightening the latches will not improve the effectiveness of the vacuum seal and will cause the latches to wear out prematurely.

**Hinge Adjustment:** The hinges at the rear of the press are designed so that they can be easily adjusted to ensure a good vacuum seal. Make sure that both hinges are adjusted by the same amount to keep the press lid level.

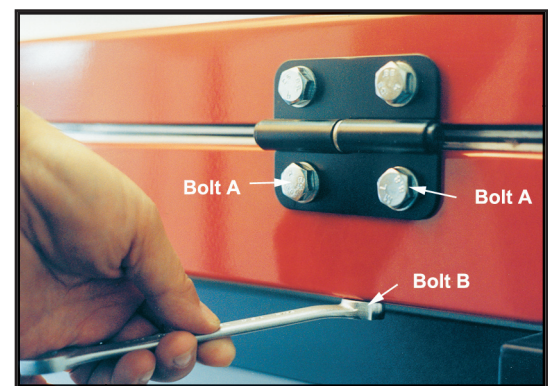
The top part of the hinge is bolted to the top frame and cannot be moved. Adjustment is carried out on the bottom part of the hinge. Both bolts pass through elongated holes in the frame. Should it become apparent that the grey sealing gasket is not in contact with the underside of the lid across the entire back of the press, the adjustment procedure is as follows:

Close the press; loosen both Bolts “A” half of a turn. Turn on the vacuum pump. Using a wrench, turn 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”.

**Vacuum Pump:** The vacuum pump is built with sealed, permanently lubricated bearings and does not require lubrication or other periodic maintenance other than cleaning the filter & water trap.



**Illustration 14A:** Adjust latches if they don't close with a soft “click”.



**Illustration 14B:** Hinge adjustment.

## VACUUM TROUBLESHOOTING

The vacuum gauge should indicate approximately 25" of mercury during normal operation. If the reading is too low, or the press takes a long time to "pull a vacuum", check for one or more of the following common problems:

**1. Foam or other materials trapped in the seal:** It is very easy for the foam overlay blanket to become misplaced and inadvertently become trapped in the seal. This will allow air to leak in, preventing a good vacuum from forming. Foam used in the press will tend to expand over time. As this happens, you should lay it on the bench and trim a strip off each edge. Also check for paper, canvas or other materials that may be stuck to the lid and interfering with the seal.

**2. Press is not level:** If all four corners of the press are not level, it may be difficult to achieve a proper vacuum. Use a carpenter's (bubble) level to verify. If one corner is out of alignment, use shims under the press as necessary to correct.

**3. Misalignment of press lid:** To verify this, do the "bookmark" test. Cut thin strips of paper and place at different sections of the seal all the way around the press. Close the lid and secure the latches, then try to remove the paper strips. The paper will normally be held tight. If the paper can be pulled out, this will indicate there is a gap between the seal and the lid of the press.

Normally, this can be resolved by adjustment of the hinges at the rear of the press. Refer to the Routine Maintenance section on page 14 for the procedure.

A gap at the front of the press may also indicate that the latches need to be adjusted. The latches should snap shut with a firm "click" but should not be difficult to close. If they are too loose, follow the adjustment procedure in the maintenance section. Do not overtighten the latches, as this will cause them to wear out prematurely and will not improve the vacuum.

**4. Diaphragm has split or has been cut:** Inspect the diaphragm carefully for holes, particularly around the edges and in the corners. Small holes can be repaired with a bicycle tube repair kit. (Apply the patch to the bottom of the diaphragm.) If necessary, the diaphragm can be removed from the press for inspection. Be sure to disconnect the press from the power source before taking the diaphragm out.

**5. Internal vacuum leakage:** Put your thumb over the hole in the rear corner of the diaphragm and observe the reading on the vacuum gauge. If the reading is still too low, check the following:

- a. Check that all vacuum hose connections are tight.
- b. Check the pump filter for blockage. Ensure the pump is off, then unscrew the filter bowl, pull the filter cartridge out and refit the bowl. If this fixes the problem, the filter element will need cleaning. Unscrew the retaining plate at the bottom of the cartridge and withdraw the filter element, wash in household detergent and re-assemble.

**Note:** The HPG560 has two vacuum inlets, one in each corner.



Illustration 15A: "Bookmark" test



Illustration 15B: Tugging on each strip to determine vacuum seal.



Illustration 15C: Checking for internal vacuum leakage.

## ELECTRICAL TROUBLESHOOTING

### 1. Press shows no readings on temperature or timer controls

- Check the two circuit breakers on the rear panel of the unit. The levers should both be pointing to the right (as seen from the back). Some models have circuit breakers with a color code – green indicates off, and red indicates the on position.
- Check power source – verify that the power cord is firmly connected, and that the power outlet is live. If it is not, check the circuit breaker at the building's electrical distribution panel.
- Unplug the power cord and check the fuses on the left side of the unit.

### 2. Press starts up normally, then overheats and shuts off, or the temperature controller displays an error code such as “PFA” or “LOR”.

- There is a problem with the temperature controller or temperature sensor. Contact Drytac for assistance with repairs.

### 3. Vacuum pump does not operate in either automatic or manual mode.

- Electrical cable from pump to rear panel of vacuum press is disconnected.
- Pump fuse (on left side panel has blown). Unplug the power cord and check the fuse.
- Vacuum pump has failed.



**TECHNICAL SPECIFICATIONS****Overall Size:**

HGP220 - 29 in. x 41 in. (720mm x 1040mm)  
HGP260 - 39 in. x 51 in. (975mm x 1300mm)  
HGP360 - 47 in. x 71 in. (1194mm x 1800mm)  
HGP560 - 56 in. x 103 in. (1422mm x 2615mm)

**Diaphragm Working Area**

(maximum, depends on substrate thickness):

HGP220 - 25 in. x 37 in. (635mm x 940mm)  
HGP260 - 35 in. x 47 in. (890mm x 1194mm)  
HGP360 - 42.5 in. x 66.5 in. (1080mm x 1689mm)  
HGP560 - 50.25 in. x 98.25 in. (1276mm x 2496mm)

**Time to Vacuum:**

HGP220 & HGP260 - 20 seconds typical  
HGP360 & HGP560 - 30 seconds typical

**Time to Temperature:**

HGP220, HGP260 & HGP360 - 12 minutes typical  
HGP560 - 15 minutes typical

**Voltage:**

All Models – 220 / 240VAC Single Phase; 50 / 60Hz

**Power Consumption (maximum):**

HGP220 - 2.3 kW  
HGP260 - 2.5 kW  
HGP360 - 4.2 kW  
HGP560 - 5.75 kW

**Current (nominal / maximum):**

HGP220 – 10 / 11 Amps  
HGP260 – 11 / 13 Amps  
HGP360 – 18 / 22 Amps  
HGP560 – 25 / 28 Amps

**Weight (net / shipping):**

HGP220 - 108 lbs. (49 Kg) / 148 lbs. (67 Kg)  
HGP260 - 159 lbs. (72 Kg) / 198 lbs. (90 Kg)  
HGP360 - 244 lbs. (111 Kg) / 320 lbs. (145 Kg)  
HGP560 - 463 lbs. (210 Kg) / 1130 lbs. (513 Kg)

## REPLACEMENT PARTS

Product Code	Description
XDIAP-HGP220	HGP220 Diaphragm
XDIAP-HGP260	HGP260 Diaphragm
XDIAP-HGP360	HGP360 Diaphragm
XDIAP-HGP560	HGP560 Diaphragm
	Conduit Bushing
	Conduit Pipe
XFUSE-1A	Fuse 1 Amp 20mm
XFUSE-5A	Fuse 5 Amp 20mm
XMCB-260	MCB Double Pole 16amp
XMCB-360	MCB Double Pole 20amp
XMCB-560	MCB Double Pole 32amp
XLCB	RCD 30amp Trip 40amp (GFCI)
	Fuse Holder
XSENSOR	Temperature Sensor
XSOLEN	Solenoid Valve
	Switch Single Pole
	Switch Double Pole
XTEMP	Temperature Controller (Fahrenheit)
XT/C/OUT	Safety cutout
XTIMER	Timer Preprogrammed
XTRANS	Transformer
	12VDC Power Supply
XRELAY-12V	Relay 12V
	Glass Clip Screws
	Diaphragm Screws
XHOOK	Catch Hook (mounted on press lid)
XCATCH/560	Catches HGP560
XCATCH/L	Catches
XSTRUT-220	HGP220 Gas Spring
XSTRUT-260	HGP260 Gas Spring
XSTRUT-360	HGP360 Gas Spring
XSTRUT-560B	HGP560 Gas Spring (bottom)
XSTRUT-560T	HGP560 Gas Spring (top)
XHOSE-8MM	Vacuum Hose 8mm (Green)
XHOSE-10MM	Vacuum Hose 10mm (Red)
XPNE145	Air Filter / Water Trap
XGAUGE	Vacuum Gauge
XVALVE	Vacuum Adjustment Valve
PUMP220	Vacuum Pump for HGP220
PUMP260	Vacuum Pump for HGP260
PUMP360	Vacuum Pump for HGP360
PUMP560	Vacuum Pump for HGP560

## WARRANTY POLICY

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

To achieve the best results from your Hot Press Heated Glass Top Vacuum 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 more efficiently assist with any problem you may encounter.

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

After the 12 month period has elapsed, Drytac will provide all reasonable assistance and will maintain stock of replacement parts. This will ensure that any problems that arise can be resolved quickly and economically.

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

When calling please have the following information ready:

- Press Model
- Serial Number (found on plate on left side of press)
- Date of Purchase

### **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.

## CONTACT INFORMATION

### **Drytac Corporation (USA)**

5383 Glen Alden Drive  
Richmond, VA 23231  
Toll Free Phone: **800-603-6610**  
Toll Free Fax: 800-622-8839  
E-mail: sales@drytac.com

### **Drytac Canada, Inc.**

220 Caldari Road  
Concord, Ontario  
Canada L4K 4L1  
Toll Free Phone: **800-353-2883**  
Toll Free Fax: 877-437-9822  
E-mail: toronto@drytac.com