

Installation & Operation Manual

GS Series & ProMod Series



GALLERY
STRETCHER

Introduction & Operation Guidelines



The ProMod and GS Series Gallery Stretchers are fully pneumatic canvas stretching machines capable of stretching original art on canvas, printed canvas and any material suitable for stretching and stapling.

The following parameters must be observed in order to ensure safety and efficiency.

1. Minimum amount of excess canvas 1.75"
2. Minimum stretcher thickness .75"
3. Maximum stretcher thickness 2.5"
4. Maximum supply air 110 psi
5. Minimum supply air pressure 90 psi
6. Maximum stretching pressure 40 psi

Safety Precautions

Air Pressure: before applying air to your machine, adjust the regulator at your compressor to produce 95 psi. If you are using a pneumatic staple gun please be sure to provide what the manufacturer recommends, this may require you to provide a 2 way manifold.

All air cylinders have been thoroughly operated, tested and held to a very high standard. The Clamping Bar has a dedicated internal pressure regulator and it is set to a point that will not exceed the Stretcher Bar pressure by more than 10 psi. This is to ensure that the canvas is permitted to slip just enough to minimize overstretching. The operating pressure of the **Stretching Bar must not exceed 40 psi** or it will damage your machine!

WARNING!!!

Do not place your fingers between the Clamping Bar, Stretching Bar and Front Plate of the machine at anytime!

Wear Safety glasses when stapling, do not push down on the canvas when stapling, hold it firmly to keep it steady!

Your Gallery Stretcher is partially assembled and ready to operate out-of-the-box, please take the time to identify the components and match them to your order. This manual covers the installation of multiple configuration based on the order you placed.

Recommended Installation Order:

- 1 - Installation of the Universal Mounting Brackets to your workbench.
- 2 - Fasten the machine onto the installed Universal Mounting Brackets.
- 3 - Connect the color coded Foot Pedals tubing to the ports of the machine.
- 4 - Install the optional Stapler Holster and connect the optional staple gun.
- 5 - Install and connect the Control Box.
- 6 - Connect the machine to your compressor.



ProMod Series Unpacking

Large Box:

- (1) ProMod Gallery Stretcher

Box #1

- (1) Dual foot pedals mounted on a plate
- (1) Control box with dual stage controls w/ hose

Box #2

Universal Bench Mounts

- (1 pair) for ProMod-5
- (2 pairs) for ProMod-8

Box #3

- (1) Long nose pneumatic Stapler
- (1) Box BeA-8 series staples
- (1) Air connector
- (1) Staple Gun Holster
- (1) Instruction Manual
- (1) Safety Glases
- (2) Hex Wrenches
- Stretcher Plates
- (1 pair) for ProMod-5
- (2 pair) for ProMod-8



GS Series Unpacking

Large Box:

- (1) GS Gallery Stretcher

Box #1

- (1) Dual foot pedals mounted on a plate
- (1) Instruction manual
- (1) Safety Glasses
- (2) Hex Wrenches
- (1 pair) Stretcher Plates
- (1) Air connector

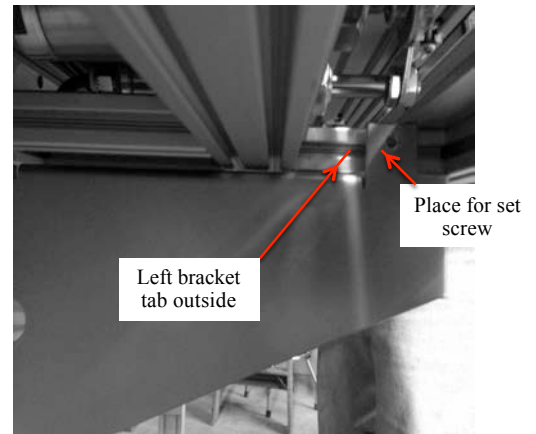
Optional Universal Bench Mount Installation (included with ProMod Series)

You have been provided with a universal mount that attaches to the front of a typical workbench. The lip on the universal mount will attach to the front of most workbenches. This will position the machine approximately at 3.25" from the top of the workbench.



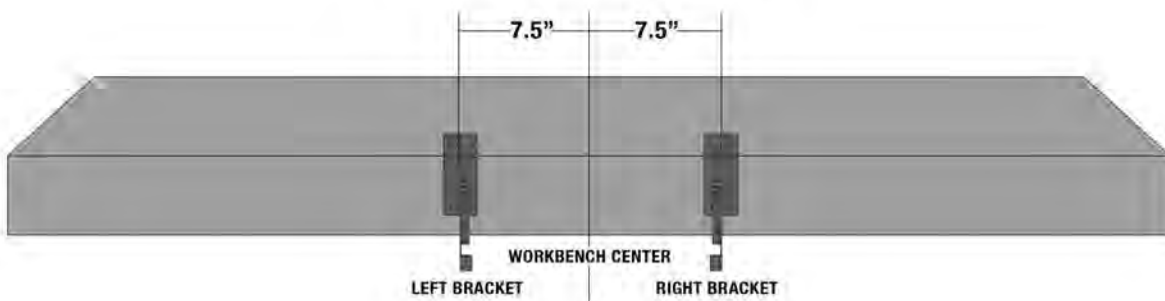
Installation

Your universal bench mount consists of (1) pair of brackets for a 36" and a 60" machine and (2) pair of brackets for a 96" machine. The brackets are paired so that there is a left-hand and right-hand bracket, indicated by the small tab on each bracket that favors one side as viewed from the front.



Set the machine onto the Universal Bench Mounts by placing the back rail of the machine into the 2 rear slots. Tilt the machine as shown and lower the front onto the mount, the 2 front tabs of the mount should rest on each side of the machines support rails as shown in the picture below. This keeps the machine from moving left or right. There is a tapped hole for a set screw on each tab that is included in the box.

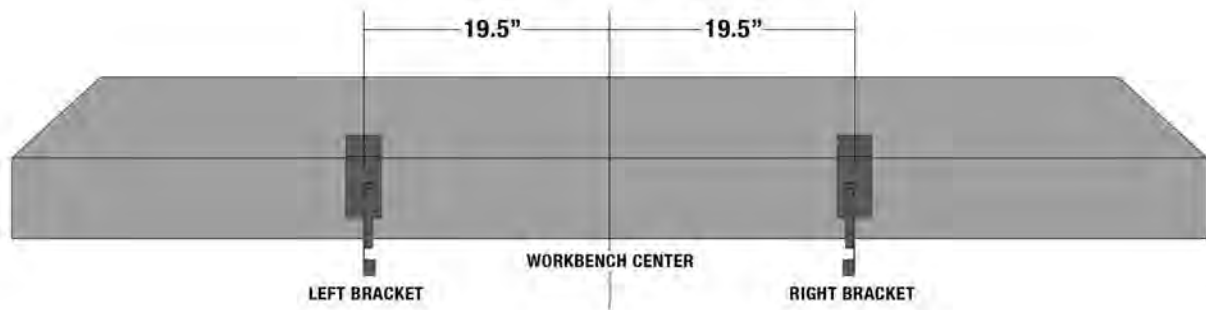
GS-36 UNIVERSAL MOUNTING BRACKETS



Installation for GS-36

Locate the centerline of the bench and make a mark. Place the left-hand bracket (identified by the forward most tab on the left outside edge) where the outside edge of the top mounting plate is 7.5" to the left of the centerline and secure it to the bench using the 2 holes at top of the mount. Place the right hand bracket 7.5" to the right of that centerline. These tabs will "trap" the machine to reduce movement. Your mounts come with 2 1/4-20 screws that allow you to apply a little pressure.

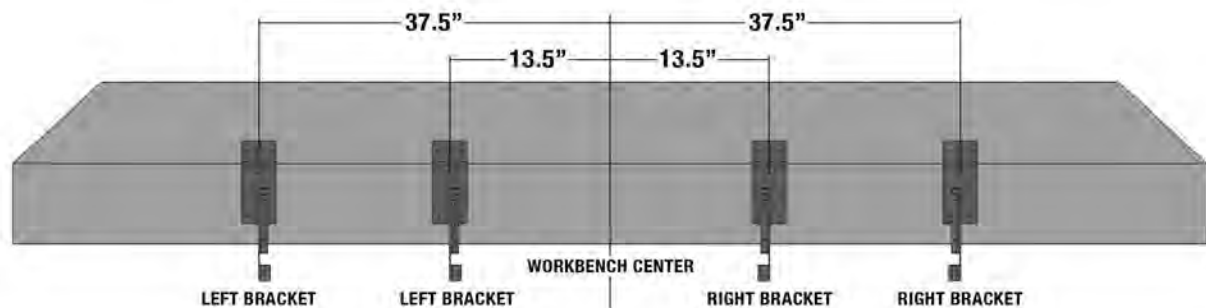
GS-60 & PROMOD-5 UNIVERSAL MOUNTING BRACKETS



Installation for GS-60 and ProMod-5

Locate the centerline of the bench and make a mark. Place the left-hand bracket (identified by the forward most tab on the left outside edge) where the outside edge of the top mounting plate is 19.5" to the left of the centerline and secure it to the bench using the 2 holes at top of the mount. Place the right hand bracket 19.5" to the right of that centerline. These tabs will "trap" the machine to reduce movement. Your mounts come with 2 1/4-20 screws that allow you to apply a little pressure.

PROMOD-8 UNIVERSAL MOUNTING BRACKETS



Installation for ProMod-8

The 96" model requires 4 brackets, (2) left-hand and (2) right-hand. Locate the centerline of the bench and make a mark. Place the left-hand bracket (identified by the forward most tab on the left outside edge) 13.5" to the left of the centerline and secure it to the bench using the 2 holes at top of the mount. Place the right hand bracket 13.5" to the right of the centerline. Now locate the second left-hand bracket and mount it 37.5" to the left of the first left-hand bracket, as measured from the 2 small tabs. Repeat this step for the right-hand bracket for the right side. You should now have (2) left-hand to the left of centerline and (2) right-hand to the right of centerline.

Foot Pedal Installation & Optional Stapler (included with ProMod Series)

A color-coded tubing harness is attached to the foot pedal assembly. The loose ends must be connected to the under-side of the machine (pictured below) to their corresponding color-coded quick-connect fittings. The **Black** and **White** labeled tubing are for the **Right Clamping Pedal**, the **Orange** and **Yellow** labeled tubing are for the **Left Stretching Pedal**.

The **Grey** connector is for the optional staple gun (included with the ProMod series). You should have a white plug inserted into that connector to block off air until you are ready to connect the optional staple gun. Simply depress the Gray ring and pull out the plug. Your optional staple gun includes a short section of tube that connects your gun to the machine.

The **Right Pedal controls the Clamping Bar** and the **Left Pedal controls the Stretching Bar**. Both pedals are configured to turn on when depressed the first time and stay on until they are depressed again.

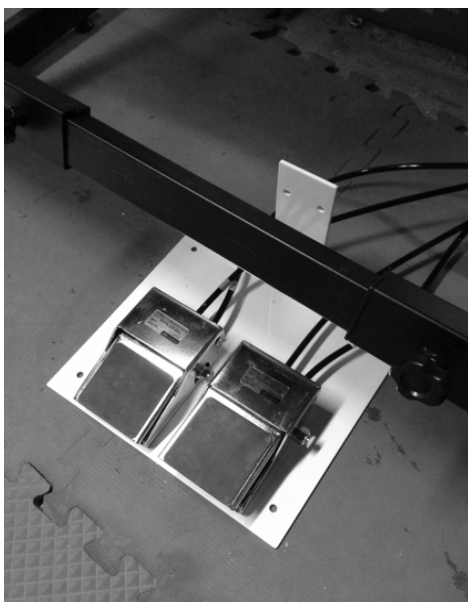
ProMod Series Only:

The Stretching Foot Pedal only works when at least one of the stages is selected on the control box. The position of the 3-way switch on the control box will determine what stage will be used. If the 3-way switch is in the **OFF** position nothing will happen to the stretching bar when the stretching pedal is depressed.

DO NOT connect air to machine until you have installed the Control Box.

WARNING!!!

Do not have any part of your body near the Clamping & Stretching Bar when first supplying air to the machine.



DUAL PEDAL PLATE TUBING HARNESS

CLAMPING PEDAL
B > Black Tubing
W > White Tubing

STRETCHING PEDAL
Y > Yellow Tubing
O > Orange Tubing

OPTIONAL STAPLER
G > Stapler Tubing



MACHINE UNDER-SIDE CONNECTORS

Installation of the ProMod Series Control Box

The ProMod series also includes a holster that mounts beneath the machine, it is shipped in 2 pieces, taped together and it includes two 1" screws for mounting to the inside rail just to the right of center. There are (2) preinstalled T-nuts in the track.



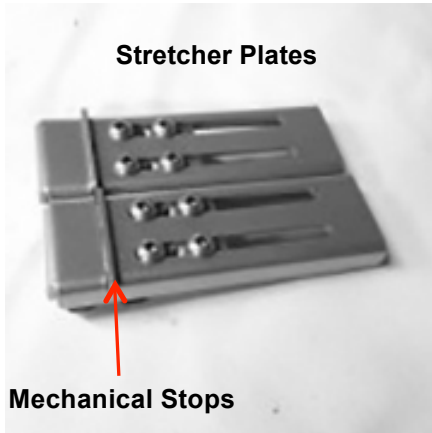
Installation of the ProMod Series Control Box

Locate the Control Box and the large T-wrench. Loosen the turn-knob beneath the machine and swing the arm out as shown below. Loosen the screw that is attached to the T-nut and slide that portion of the assembly onto the arm and re-tighten. Now connect the color-coded hoses to their corresponding connections.



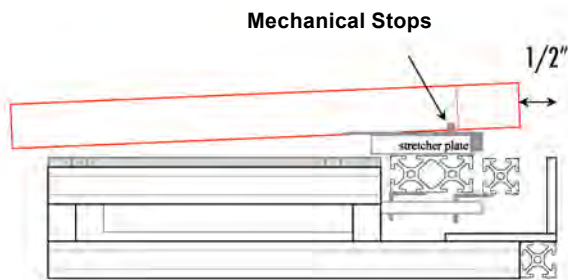
How to use the Stretcher Plates

The **Stretcher Plates**, shown below, are included with your machine. The black Delrin slide on the bottom of the stretcher bar slides into the slots of the Stretcher Bar on the machine, the wider of the two bars.

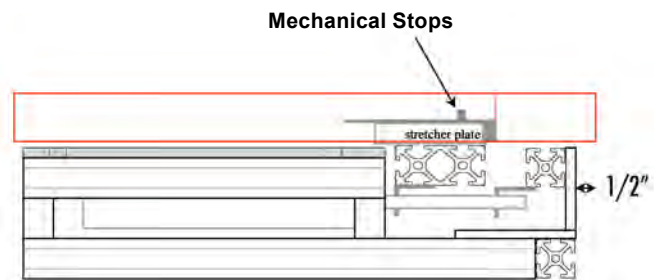


Stretcher Plates Setup

Position both stretcher plates in the middle of the **Stretcher Bar** of the machine. Favoring one side may cause the **Stretcher Bar** to bind so **always stretch canvas from the center of the machine**. Place an assembled wood **Stretcher Frame** on top of the stretcher plates as shown above; this is referred to as the **Loaded Position**.



This is referred to as the "Loaded Position"



This is referred to as the "Un-Loaded Position"

The drawings above illustrate the correct orientation in both positions. These two positions that are used to properly set-up your stretcher plates and also used during the stretching process. All stretches start in the **Loaded Position**, the clamp is closed and the frame is moved forward and down into the **Un-loaded Position** before tretching. After the staples have been applied always release the **Stretcher Bar** by depressing the **Left Stretching Pedal** to prevent the frame from kicking off the plates.

Loosen the (4) screws on each of the **Stretcher Plates** and place the assembled wood Stretcher Frame on top of the slotted brackets as shown below. Position the plates so that the **Mechanical Stops**, the short tab of metal about 1/8" high, are resting against the inside wood Stretcher Frame Bar.



Push the assembled frame and the plates together in and out until the face of the wooden frame is approximately 1/2" behind the front face of the **Angle Bar**. In other words, create a gap so that the canvas can waterfall down into the opening between the **Stretcher Frame** and the front **Angle Bar** of the machine. This step is critical for proper travel and alignment. If your **Stretcher Plates** are too far forward you will not get enough travel when stretching.

Tighten all of the screws. This **Stretcher Plate** setting would set for this width Stretcher Frame profile. This procedure would only need to be done again when a different width of Stretcher Frame is used. or by setting up another set of Stretcher Plates for a different profile width.

Note:

When the **Right Clamping Pedal** is pressed down the **Clamping Bar** will clamp the canvas. The operator would then move the wood Stretcher Frame Assembly forward and off of the Stretcher Plates, this position is referred to as the **Un-loaded** position. In this position the Stretcher Frame should extend approximately 1/2" over the front of the **Angle Bar**.

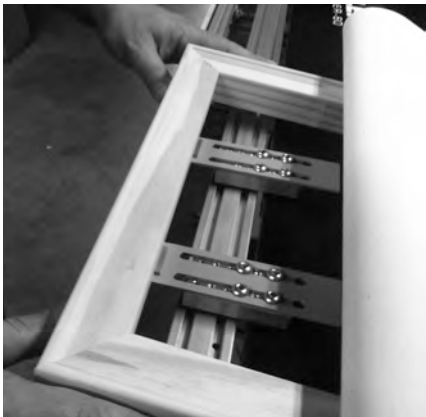


Basic Operation



Lay the artwork facedown on a clean work surface behind the machine. Fold the canvas along the image so that approximately 1/16" of the image is extending over the radius. If you print your own art it is very helpful to print registration marks to define the edges of the image. This also expedites the alignment, which is critical. Place the assembled Stretcher Frame on the artwork and slide it against the crease. Then slide the Stretcher Frame to center your artwork and align it along your registration marks.

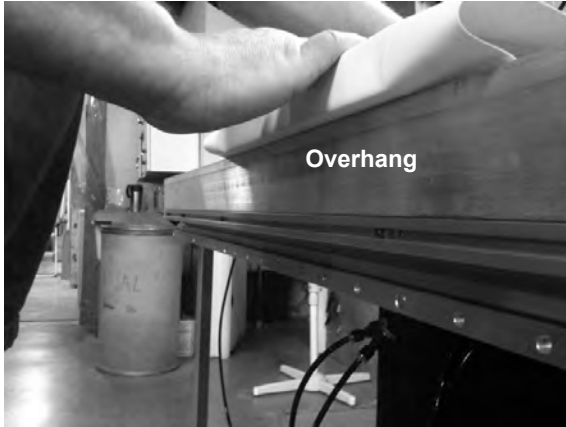
Once the artwork is aligned lay the **Starter Course** using a pneumatic staple gun. **Be sure that the artwork stays aligned and parallel to the Stretcher Frame.**



Place the Stretcher Frame on top of the **Stretcher Plates** with the starter course away from the operator. Referred to as the **Loaded Position**. Note the position of the Stretcher Frame against the **Mechanical Stops**.

There should be enough of a gap between the front **Angle Bar** to allow the canvas to **Waterfall Down** into the opening. Be sure to position the **Stretcher Plates** centered with the machine and space them evenly with your **Stretcher Frame**.(continued)

After the canvas is inserted place the palm of you hands on top of the Stretcher Frame to insure that the canvas is tightly in place before stepping on the **Right Clamping Foot Pedal** to close the **Clamping Bar**. The Clamping Bar will remain closed until the pedal is depressed.



Small frames tends to flip off the stretcher plates. Always keep a free hand on the canvas!!!

Once the canvas is clamped, move the entire **Frames Assembly** towards you and off of the plates. This is referred to as the **Un-Loaded Position**. The **Stretcher Frame** inside edge should be in front of the **Stretcher Plates**, the canvas should be held securely in the clamp and the front of the assembly should overhang by 1/2" passed the front **Angle Bar** of the machine. It is now ready to be stretched.

NOTE: There should be at least 1.75" of excess canvas beyond the bottom of the Stretcher Frame to ensure that the **Clamping Bar** will hold it. Even though our machine requires only 1.75" past the bottom it may be necessary to reduce your **Stretching Tension** to reduce slipping depending on the thickness of your canvas and type of lamination. A good stretch can be obtained with only **20-30 psi** – **Do not apply more than 40 psi!!!**

GS Series - Stretching Procedure

The pressure gauge on your **GS Series Gallery Stretcher** indicates the regulated air pressure of the **Stretching Plates**. It is a safe practice to always start a stretch at around **15–20 psi** this is accomplished with the **Tension Regulator** located right of the machine.

GS-36 Gallery Stretcher - Single-Pedal

Flip the **Toggle Switch** on the far right side to activate the **Stretching Bar**.

GS-60 Gallery Stretcher - Dual-Pedal

Step all the way down on the **Left Stretching Pedal** to activate the **Stretching Bar**.

Be sure to maintain control of the **Stretcher Frame** with your free hand. It should rest on top of the Stretcher Frame applying only light pressure. Increase the pressure slowly and let the frame rise no more than 3 to 4" away from the deck of the machine. It is now ready to be stapled.

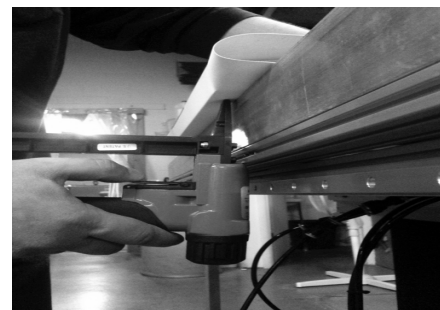
Do not push the frame flat against the deck. Pushing down on the frame during a stretch will promote slipping and can cause the artwork to distort.



GS-36 Regulator & Toggle Switch



GS-60 Regulator



ProMod Series Using the Control Box Features

The **Control Box** consists of a **3-Position Toggle Switch**, **2 Pressure Regulators** and **1 Air Gauge**.

Each stage is independently adjusted with its own pressure regulator. A single **Air Gauge** monitors the **Selected Stage**.

The **3-Position Switch** is **OFF** in the **Middle Position**.

Selecting either phase will have no effect unless the **Left Stretching Pedal** is pressed. Stepping down all the way will latch the foot pedal and will result in a continuous stretch. Stepping on the pedal a second time will release the Stretch.

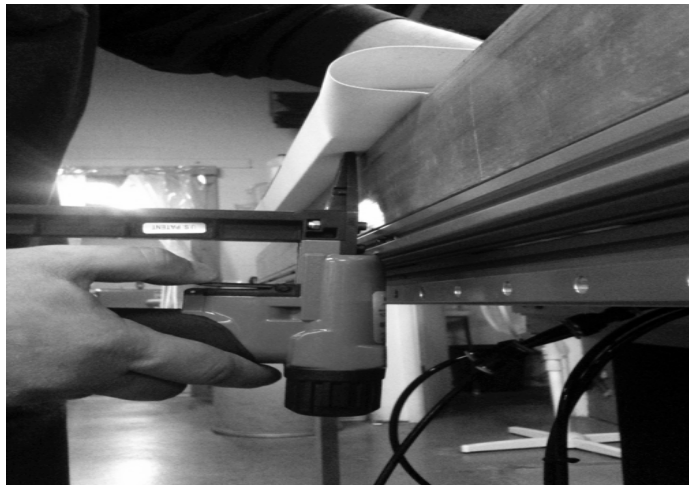
Configuring the ProMod Control Box

Position the **3-Way Toggle Switch** on the control box to **Stage 1** and step on the **Left Stretching Pedal** . Adjust the corresponding **Pressure Regulator** to **15-20 psi** to start a stretch. Increase the pressure slowly and let the frame rise no more than 3-4”.

The Pressure Gauge on the **Control Box** indicates regulated air pressure to the **Stretching Plates**. It is a safe practice to always start a stretch on **Stage 1**.

Flip the **3-way toggle switch** to **Stage 2**. Adjust the corresponding **Pressure Regulator** to **20-30 psi** to start a stretch. Increase the pressure slowly and let the frame rise no more than 3-4”.

When you are satisfied with the tension you can staple the canvas to the frame with the staple gun, shown in the photo below. The staple gun is operated upside down and the trigger is depressed with the thumb. Slide the nose of the staple gun along the angle bar beneath the stretcher frame. Place a staple at least 1 every inch.



Release the stretch by depressing the **Left Stretching Pedal** first and then depress the **Right Clamping Pedal** to open the clamp to remove the canvas. Rotate the artwork 90 degrees; use the deck of your machine and the work surface to support the artwork. This procedure is used for each stretch.

NOTE: Your second stretch does not typically require much pressure because the opposite end is not stapled. If too much stretching force is used the artwork will shift. Overstretching can easily be detected because the image will shift over the radius and the canvas on outside rails will start to crease. If this happens reduce your stretching force, the image should return to normal if the canvas is forgiving.

NOTE: During the stretch it is a good practice to tap the sides of the stretcher bar with the pad of your middle finger. If the canvas is taut against the side-wall then the sound will have a higher pitch as opposed to a dull sound. A dull sound would indicate that the canvas is gathering and cupping.

Troubleshooting

Every machine leaves our facility fully assembled and tested, however, during transit it is possible that the contents may have experienced some sudden changes in motion, this can lead to misalignment issues and even breakage. This section will attempt to resolve some of the possible issues you may encounter with your machine.

Clamping Bar Not Closing

If your foot pedal does not close please ensure that you have at least 95 psi from the compressor to the machine.

Stretcher Bar is Hanging Up

Rarely during transit, the cylinders and their mounts are forced out of alignment. If you are experiencing this problem please do not hesitate to contact us.

The Canvas is Slipping during a Stretch

Most stretches are done at no more than 30 psi; this will produce a nice tight stretch with printed canvas. Heavy canvas and oversized art may require more pressure, but it should not exceed 40 psi.

Stretcher Bar is Lifting when Stretching

Smaller artwork will tend to rise very easily and large artwork may not rise at all. Typically, the Stretcher Frame will rise about 3-4" **DO NOT Push Down** on the Stretcher Frame in an effort to keep the artwork flat. Pushing down will tend to force the canvas out of the grasp of the clamping bar, Instead use your hand to prevent it from rising above 3-4" above the deck of the machine.

Clamping Bar is Lifting during Stretch

Under normal operating conditions the Clamping Bar will tend to rise a little above the top of the angle bar as the stretching pressure is increased. When the canvas is clamped and being stretched there is a strong upward force that tends to pull the clamping bar upward with the canvas. This is not an issue unless the bar remains in this position or there is excessive play. If this occurs contact us.

Stretching Bar Deflecting Unevenly

This is also a normal response during a stretch. This Stretching Bar was purposely chosen because of the amount of deflection it has, this conforms well to the rubber extrusion. As for the uneven bar, this is more a matter of placement of the artwork. Try position the artwork at the center of the machine and work from there, favoring one side will result in an uneven travel but should not affect the quality of the stretch.

Canvas is not Tight Enough

Canvas is very dynamic and is susceptible to atmospheric conditions, stretching light printed canvas at 15-25 psi is more than sufficient and that heavy canvas should be no more than 20-40 psi.

Stretching Large Pieces

Stretcher Frames larger than 30" x 30" should be made with a cross-brace; this will reduce the amount of deflection of the Stretcher Frame during a stretch. The ideal placement of the **Stretcher Plates** is half the distance between the center and the outside rail, do this for both sides.

Tips & Tricks

Large Stretcher frames will not typically rise very much during a stretch due to their weight. The heavier the Stretcher Frame the less likely it is to rise. Most operators would tend to increase the stretching pressure above 40 psi; this will cause the canvas to slip out of the grip of the clamp. Instead, the operator should lift the far end of the Stretcher Frame until it is approximately 3-4" above the work surface, this will permit the canvas to stretch over the edge of the Stretcher Frame with less resistance. Placing a soft foam roller under larger Stretcher Frames will produce the desired effect.



Canvas Stretching Machine, LLC

7506 East Main Street. Reynoldsburg, Ohio 43068 Phone: 614-604-8165
www.gallerystretcher.com info@gallerystretcher.com