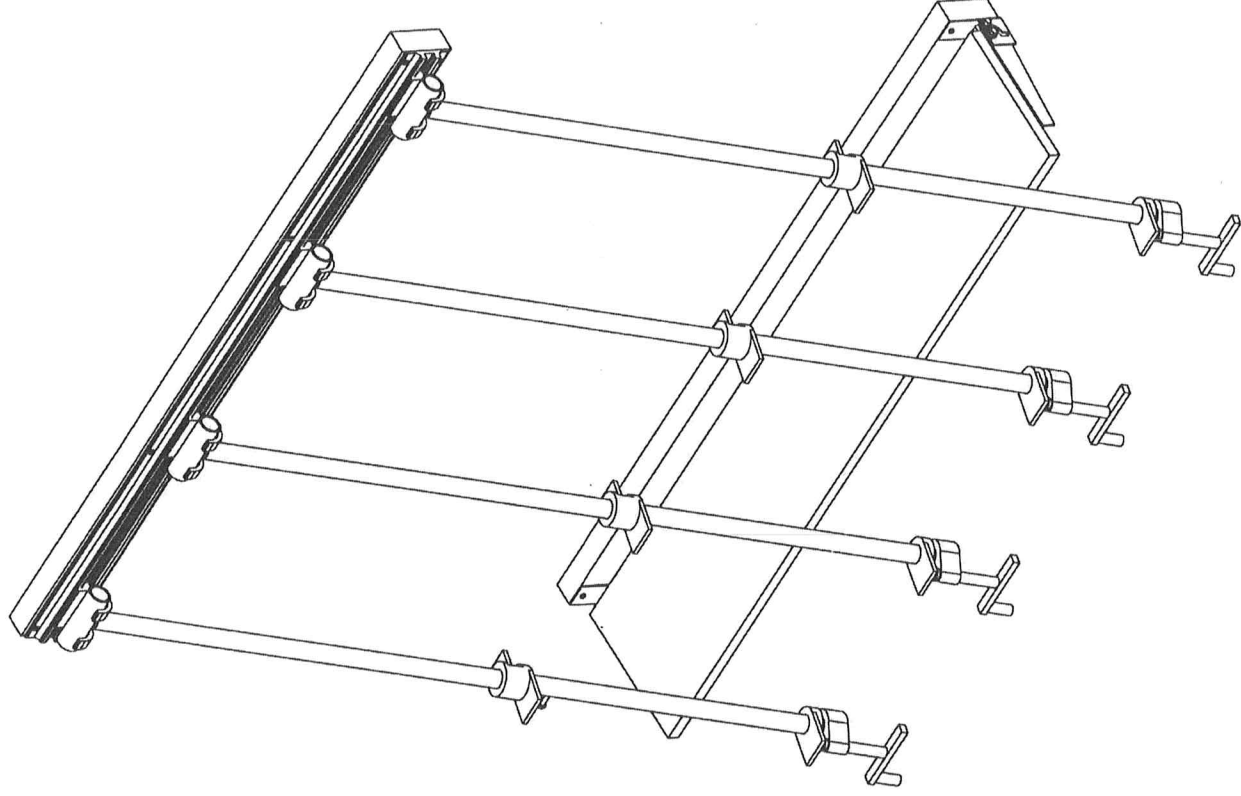


# Vertical Clamping System User Manual

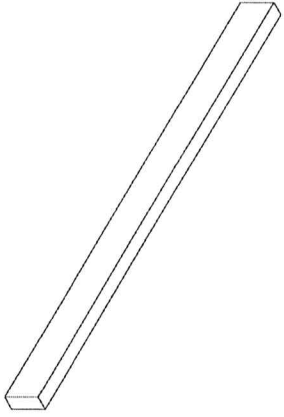


**Always read and follow all operation and safety procedures.**

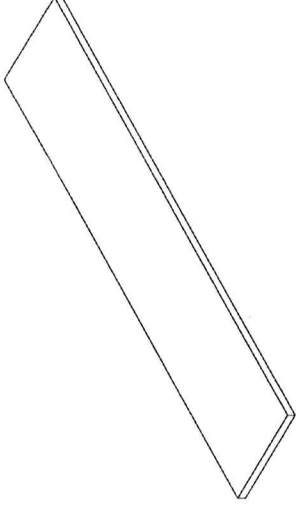
Bushton Manufacturing, LLC, P.O. Box 127, 319 South Main Bushton KS 67427  
620-562-3557 [www.hawkwoodworkingtools.com](http://www.hawkwoodworkingtools.com)

## INCLUDED ITEMS

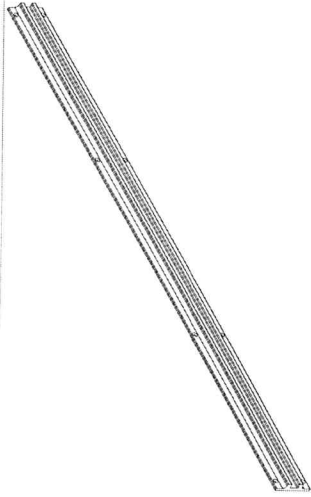
Everything you need to mount and use your new VerticalCLAMP is included when you purchase your system. Additional clamps and hangers are available for order separate. Included in the system:



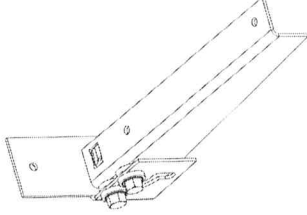
(4) 2 x 4 Hanger Boards.



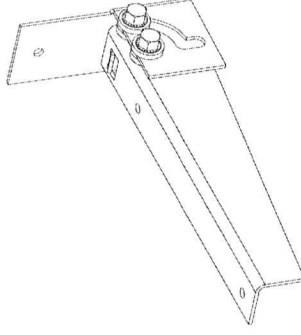
(1) 1 x 10 Flip Stop Board.



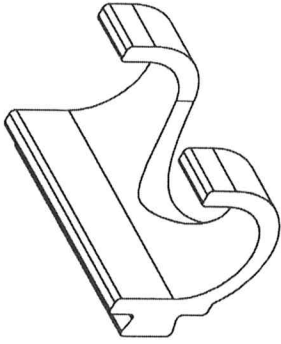
(1) Clamp Hanger Rail.



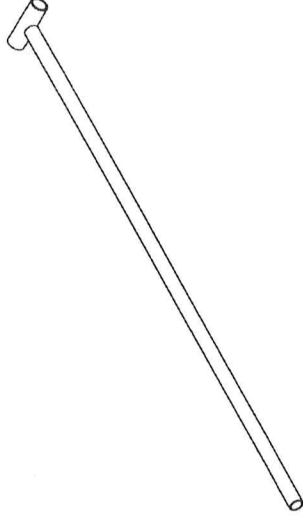
(1) Left Flip Stop Bracket.



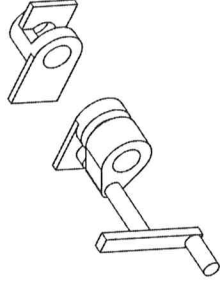
(1) Right Flip Stop Bracket.



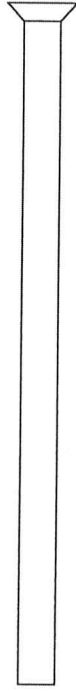
(4) Hangers.



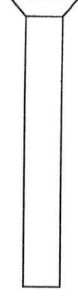
(4) T-Pipes.



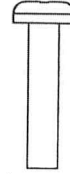
(4) Pipe Bar Clamps.



(16) 3-1/2" Deck Screws.



(8) #10 x 1-1/2" Flat Head Wood Screws.



(8) #8 x 3/4" Round Head Wood Screws

# VerticalCLAMP Vertical Clamping System

## Installation Instructions

### BEFORE INSTLLING YOUR VERTICAL CLAMPING SYSTEM

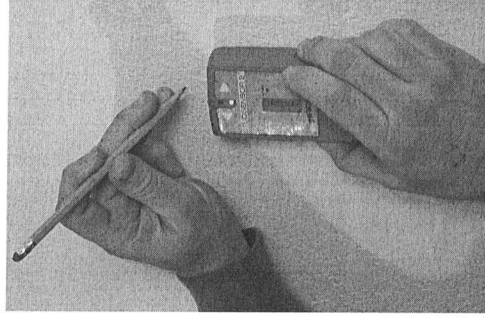


Your VerticalCLAMP Vertical Clamping System must be securely tightened to a sturdy wall. The system is very heavy when loaded with boards and is dangerous if not secure and could fall causing injury and damage to your boards and equipment.

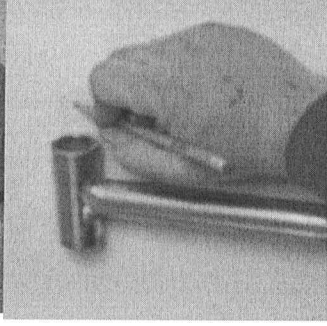
### INSTALLING THE RAIL MOUNTING BOARD

Start by locating the studs in your wall. A stud finder works well for this.

Select the height you wish to mount the top rail. To do this take a T-pipe and find a height that will be comfortable for you to work with. Mark the center of the top end of the T-pipe and use that height for the center of your top mounting board. We suggest a mounting height of approximately 6' from the floor.



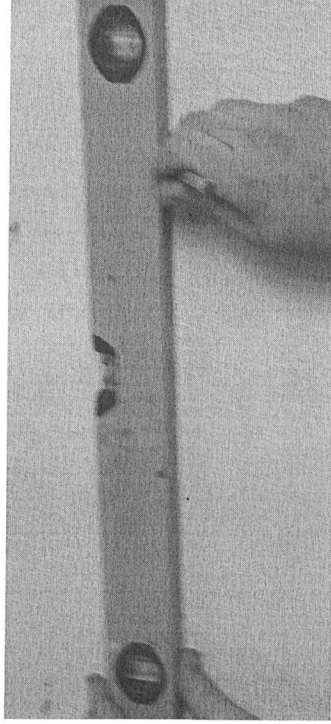
Take the time to get your level out and make sure the mounting board is level, this will save you a headache later when mounting the glide track.



Mount the first board where you will want your guide track installed on the wall.

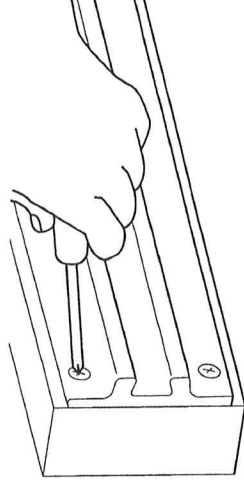
Remember, you must attach the mounting board securely to the wall studs with the 3-1/2" long deck screw. Use 2 screws per stud and attach to at least 3 studs. If these screws do not go into the studs 1-1/4" you should obtain longer deck screw for mounting.

Note: Be sure you do not mount the mounting board screws in the same location you will need to mount the guide track of your vertical clamping system. Your



### INSTALLING THE CLAMP HANGER RAIL

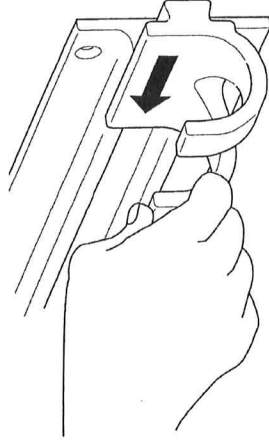
Attach the clamp hanger rail to the upper mounting board with the #10 x 1-1/2" long plat head wood screw. Use all 8 screws and place a screw in each of the holes in the clamp hanger rail. The clamp hanger rail must be level.



If the clamp guide rail is not installed properly the clamp hanger could slide of the rail causing injury and damage.

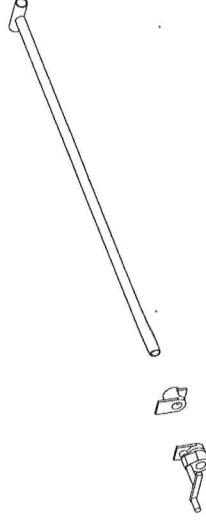
### INSTALL CLAMP HANGERS

Slide the clamp hangers on to the clamp hanger rail by inserting them in the rail at either end. Your t-pipes will hang on these hangers.



### ASSEMBLE CLAMPS

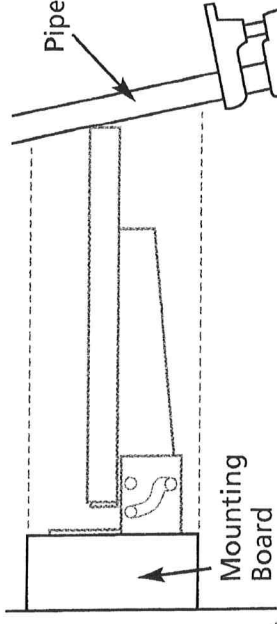
Slide the sling stop part of the clamp on to the t-pipe as shown. Then screw the clamp end of the clamp on to the t-pipe. Tighten with the clamp face parallel with the T.



## INSTALL THE FLIP STOP MOUNTING BOARD

The flip stop is used to provide a stable surface for the clamps we rest on when being loaded and adjusted. The flip stop should be installed so the back of the pipe clamp rests on the edge of the stop.

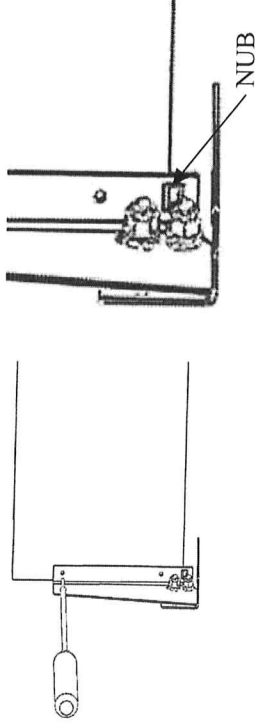
For the 4' t-pipes went with the system 40" between the to mounting boards works well. If you use longer or shorter pipes with pipe-tees on the end you will need to adjust this distance. The figure below shows how to select a height with respect to your clamp length.



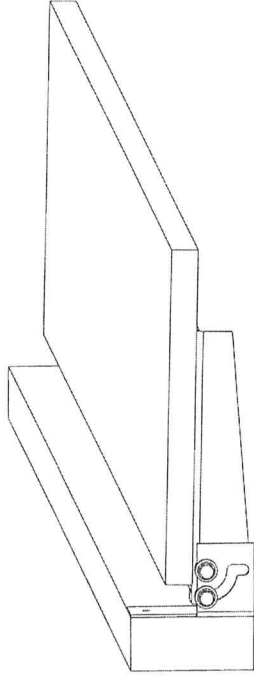
Attach the flip stop board as you attached the rail mounting board. Be sure to check for level. Use at least 2 screw in 3 studs.

## MOUNTING FLIP STOP BRACKETS

Mount the flip stop brackets to the 1 x 10 against the end of the board as shown below. Be sure to stop the board at the nub of the flip bracket.

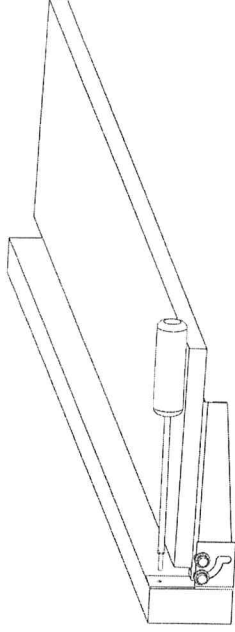


The bracket must be on the outside edge so that the flip stop can be flip to the up position. If it is not at the end of the board the flip bracket will not operate correctly. The left side is show here do the same with the right side flip bracket.



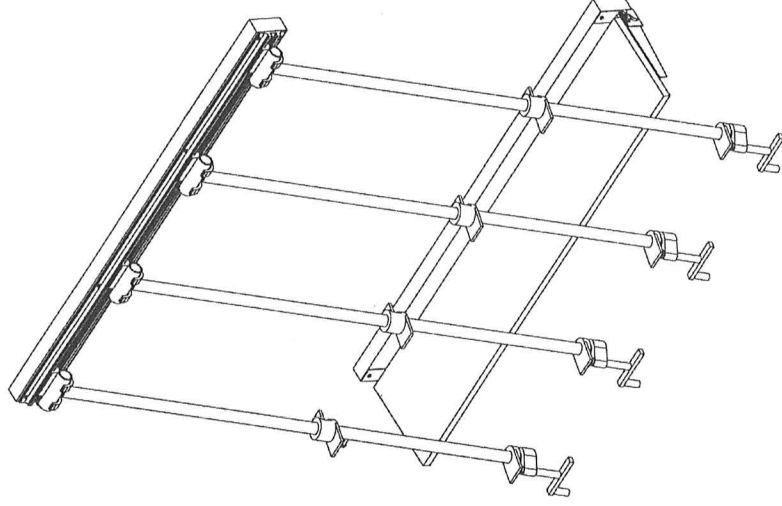
When mounting the board to the flip bracket, the board must be mounted to the front of the nub. If it is not then, the board will not have enough clearance for the flip bracket to operate.

Mount the flip stop assembly to your mounting board using the holes on the back of the mounting bracket. When mounted correctly, the flip stop should slip up when not in use. Be sure the assembly is level.



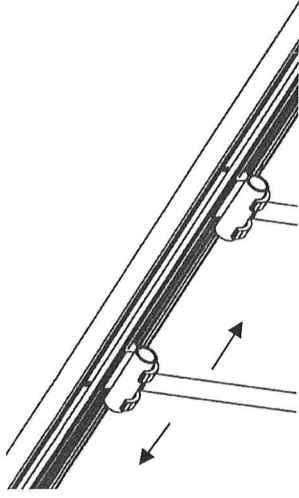
## HANGING CLAMPS

Hang the t-pipe clamp assemblies as show in the picture below which yields the complete assembly.

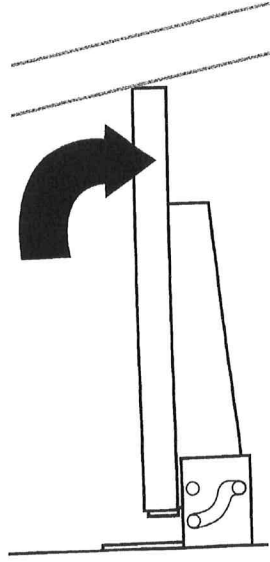


# HOW TO USE YOUR *HAWK* VerticalCLAMP Vertical CLAMPING SYSTEM

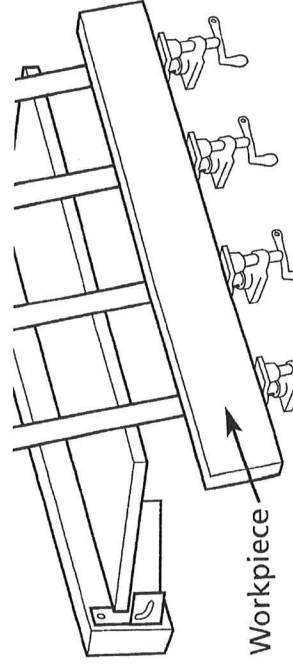
- Edge joint and thickness your material as you would do for in preparation for any panel glue up. Lay them out in order for the best color and grain patterns. Label the order.
- Determine the position of the vertical mounted clamps based on how long your work pieces are and how closely you want to clamp them.
- Slide the slide hangers into the position you want them for your current glue up as shown below.



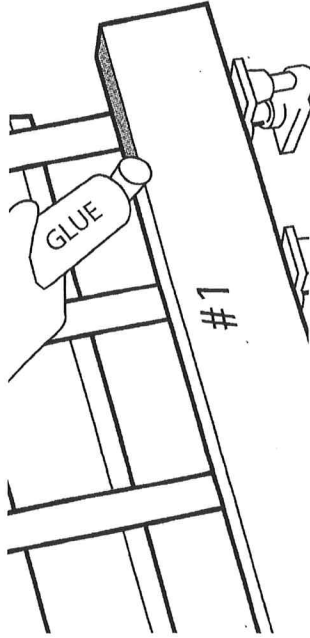
- Put the flip stop in the down position allowing the clamps to rest on the face edge of the stop as shown below.



- Insert your first board into the clamping system. The board should be sitting on the pipe clamp head and resting against the pipe.

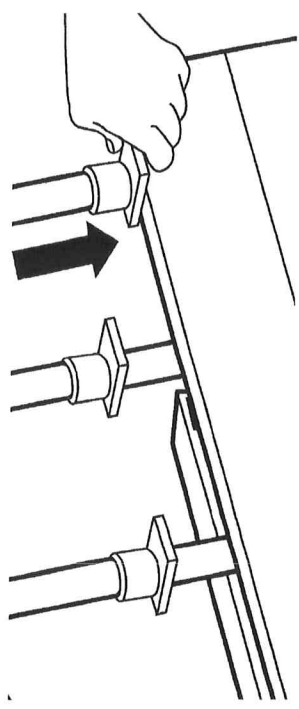


- Apply glue to the first edge of the first board and then the mating edge of the second board.

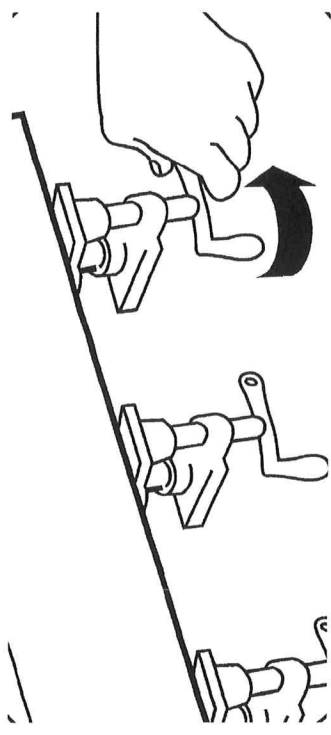


- Place the second board in the VerticalCLAMP.

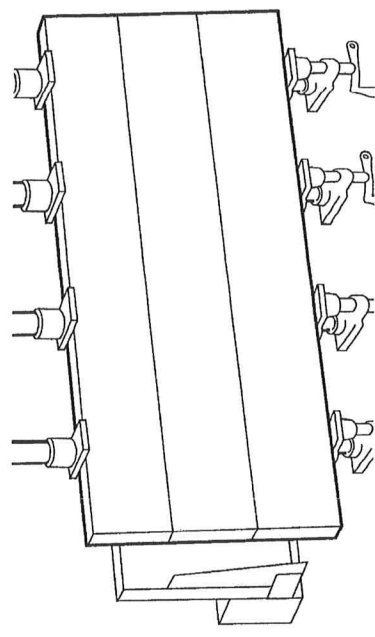
- Continue to apply glue and place the boards into the VerticalCLAMP until all boards are in place.
- Slide the sliding tail end of the clamp down to the top board of the panel.



- Start by tightening the clamp slightly. Start on one end and work your way to the other.



- Tighten all the clamps again working your way back.
- Repeat until the clamps are complete tight.
- Wipe all the glue that seeps out of the joints with a damp cloth to remove the excess.
- Put the flip stop into the upright position and allow the clamps to hang vertically.



- Allow the glue to cure the recommend time for the glue you used.

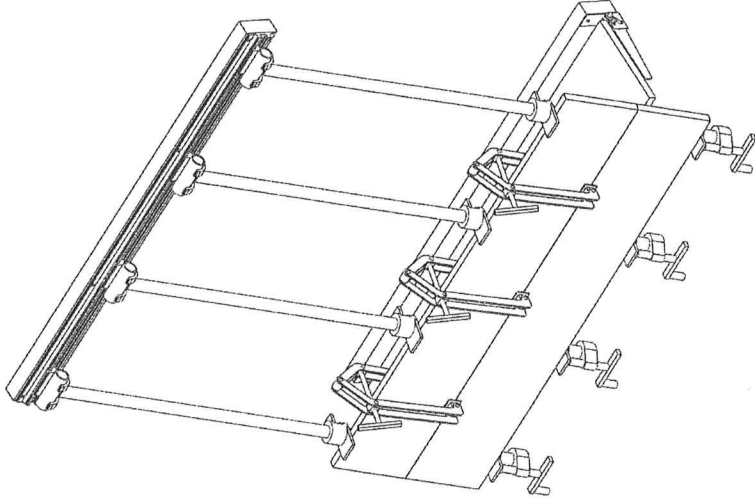
## TO UNLOAD THE VerticalCLAMP

- Drop the flip stop and allow the clamps to rest on the face edge of the flip stop.
- Loosen the clamps by turning the crank on the clamp heads.
- Slide the clamp tails up.
- Lift out your glued up panel.

## TO GLUE UP ONE JOINT AT A TIME USING CLAMPS TO HOLD THE JOINT FLAT.

This method will yield flat joints and will eliminate the need for planing and reduce the amount of sanding required to smooth up the board.

- Place your first board in the VerticalCLAMP. Glue the edge of the board
- Glue the mating edge of the second board and place it in the Vertical clamp.
- Snug up the clamps on the VerticalCLAMP
- Using swivel pad clamps like the HAWK SeamCLAMP, clamp the face of the edge to hold them flat as since in the figure below.



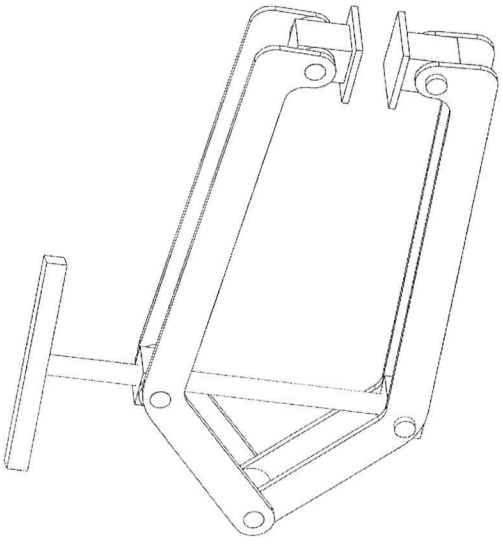
- Clamp all the clamps tight once they have been pulled up and everything is aligned.
- Let the glue dry for 20 to 30 minutes and then add the next board and repeat the process.

## ACCESSORIES

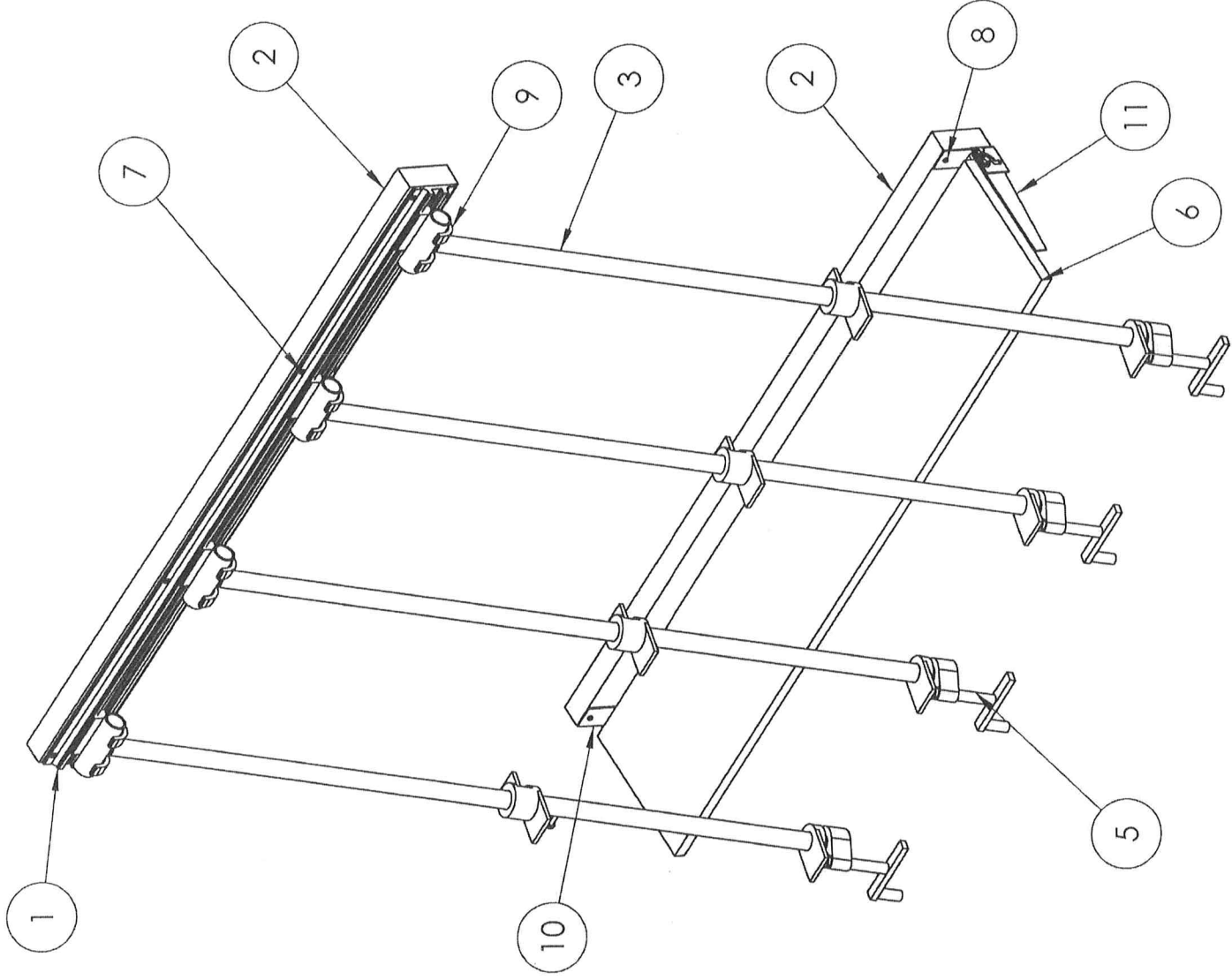
If you have longer panels you can place 2 or more VerticalCLAMPS beside each other on a wall.

Additional clamp/hanger sets can be purchased if you want for than 4 clamps per four foot section of the VerticalCLAMP.

HAWK manufactures and sell the SeamCLAMPS used in the single joint glue up method.

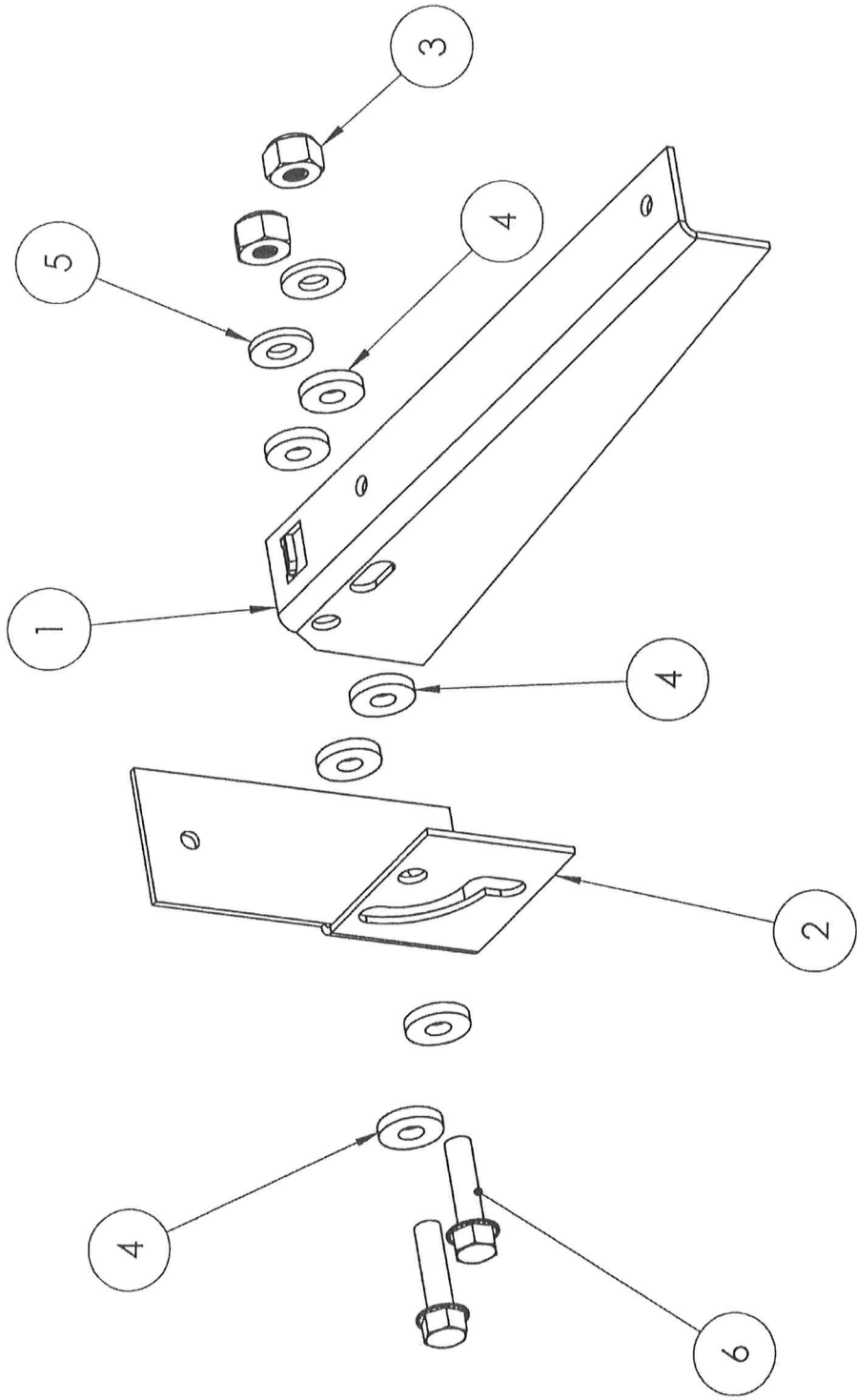


Check your HAWK Wood Working Tools Catalog or go online to [www.hawkwoodworkingtools.com](http://www.hawkwoodworkingtools.com) for the price of the accessories you need.



**950-0100 VerticalCLAMP**

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	750-0026	CLAMP HANGER RAIL	1
2	650-0036	2 x 4 x4' Long	2
3	750-0050	T-Pipe 4' Long	4
5	750-0031	PIPE CLAMP 3/4"	4
6	650-0037	1 x 10 x 4' Long	1
7	750-0034	#10 X 1-1/2" FLAT HEAD WOOD SCREW PHILIPS HEAD	8
8	750-0036	#8 X 3/4" ROUND HEAD WOOD SCREW	8
9	750-0027	SLIDE HANGER CLAMPS	4
10	650-0032	Left Flip Stop Bracket	1
11	650-0033	Right Flip Stop Bracket	1
12	750-0051	3-1/2" Lg Deck Screw not shown	16



650-0032 Left Flip Stop Bracket SHOWN			
KEY NO.	PART NO.	DESCRIPTION	QTY.
1	650-0030	LEFT SHELF MOUNT	1
2	650-0028	LEFT WALL MOUNT	1
3	715-0078	1/4-20 NYLON INS. LOCK NUT	4
4	715-0801	1/4" ID X 5/8" OD X .115 THK. NYLON WASHER	8
5	755-0105	1/4" FLAT WASHER	4
6	715-0904	1/4-20 X 1" HEX WHIZ HEAD BOLT	4

650-0033 Right Flip Stop Bracket MIRROR IMAGE			
KEY NO.	PART NO.	DESCRIPTION	QTY.
1	650-0031	RIGHT SHELF MOUNT	1
2	650-0028	RIGHT WALL MOUNT	1
3	715-0078	1/4-20 NYLON INS. LOCK NUT	4
4	715-0801	1/4" ID X 5/8" OD X .115 THK. NYLON WASHER	8
5	755-0105	1/4" FLAT WASHER	4
6	715-0904	1/4-20 X 1" HEX WHIZ HEAD BOLT	4