FasGroov® INSTRUCTIONS

FOR SAFE, FAST, ACCURATE FABRICATION OF 1" AND 1-1/2" FIBERGLASS DUCTBOARD.

DEVELOPED WITH THE END USER IN MIND, BY THE COMPANY THAT MEANS HAND TOOLS FOR THE HVACR INDUSTRY.

KIT CONTENTS

VEE-GROOVE KITS

1 inch Cat. No.	1-1/2 inch Cat No.	Description	
FGVK	FGVKL	Vee-Groove Kit with following:	
FGV1	FGL1	#1 Tool	Order FGVLKW for 1-1/2" Vee Kit WITHOUT square.
FGV	FGLV	Vee Tool	
FGV5	FGL5	#5 Tool	
FGV6	--	#6 Tool	
FGS	FGS	Square	
FGK	FGK	Duct Knife	
FGM	FGML	Male Shiplap Knife	
FGF	FGFL	Female Shiplap Knife	
FGC	*	Tool Case	

SHIPLAP KITS

1 inch Cat. No.	1-1/2 inch Cat No.	Description	
FGSLK	FGSLKL	Shiplap Kit with following:	
FGV1	FGL1	#1 Tool	Order FGSLKLW for 1-1/2" Shiplap Kit WITHOUT square.
FG24	FGL24	Vee Tool	
FGV3	FGL3	#3 Tool	
FGV5	FGL5	#5 Tool	
FGV6	--	#6 Tool	
FGS	FGS	Square	
FGK	FGK	Duct Knife	
FGM	FGML	Male Shiplap Knife	
FGF	FGFL	Female Shiplap Knife	

FasGroov®

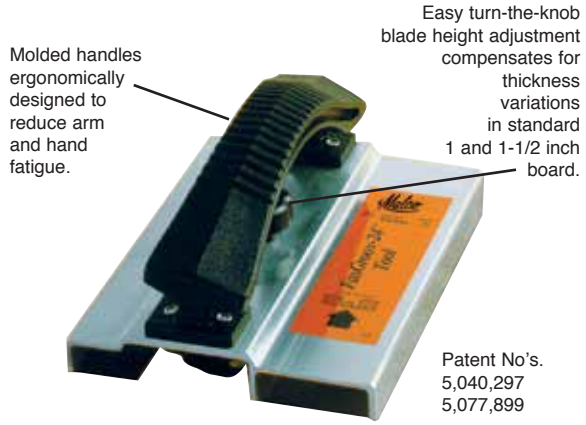
FABRICATING SYSTEM

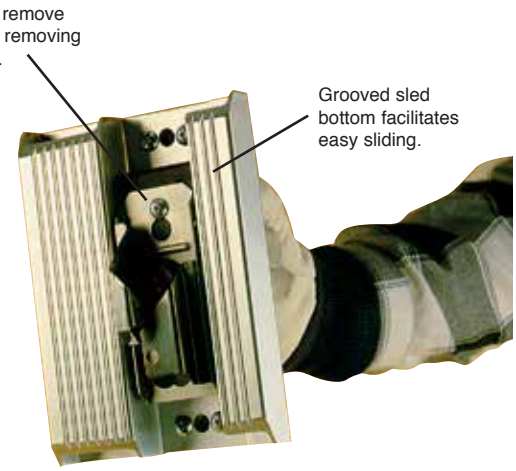
The duct fabrication procedures outlined in this manual pertain to two common methods of one-piece duct construction in standard 1" OR 1-1/2" ductboard. For applications requiring ductwork larger than that which can be constructed from a single piece of ductboard, consult the NAIMA fibrous Glass Duct Construction Standards Manual or your ductboard manufactures fabrication manual for information on the two-piece "U", two piece "L", and four-piece construction method.

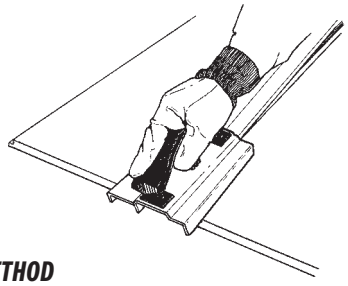
INTRODUCTION

Tool Features:

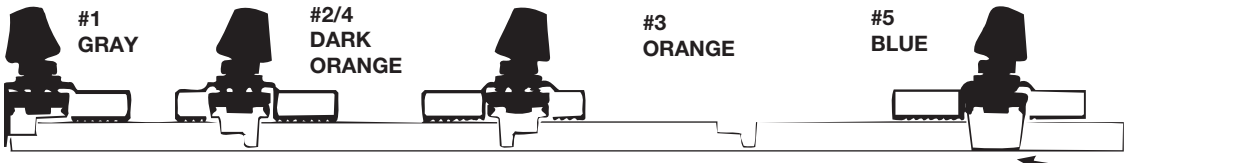
- **FasGroov Tool identification incorporates both the numbering system of fabrication machines and the traditional hand tool color coding system.** FasGroov Tools are available for both shiplap and vee-groove fabrication methods.
- **Easy, turn-the-knob, blade height adjustment.** Scrap lifts cleanly out of groove. Blades are also easily removed without removing screws.
- **Molded plastic handles are ergonomically designed to fit angle of grip and reduce arm and hand fatigue on-the-job.**
- **Extruded, anodized, aluminum body is durable and lightweight.** Grooved surface on sled bottom facilitates easy sliding.



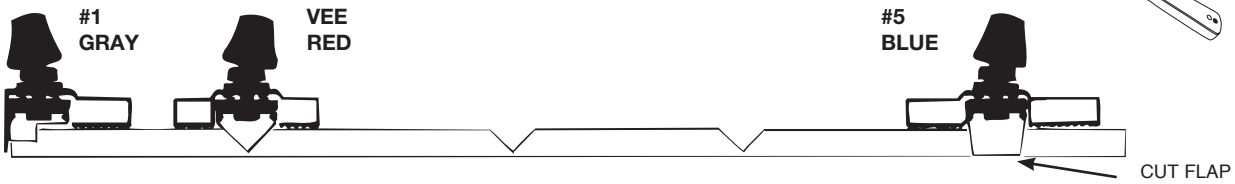


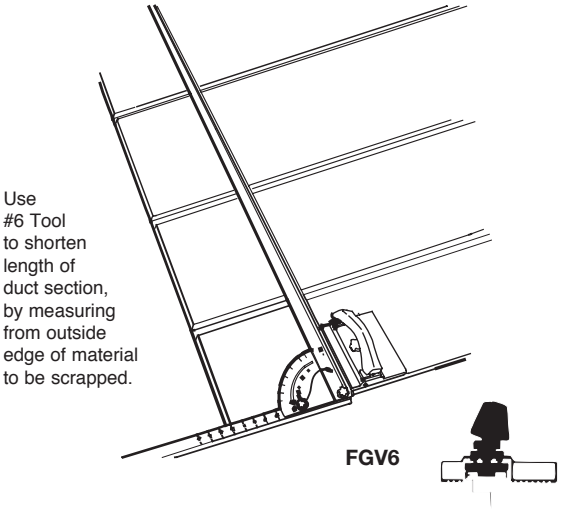

Easy sliding, scrap lifts cleanly out of groove.

SHIPLAP METHOD

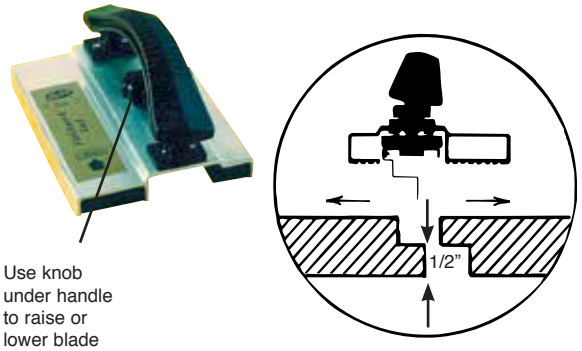


VEE-GROOVE METHOD



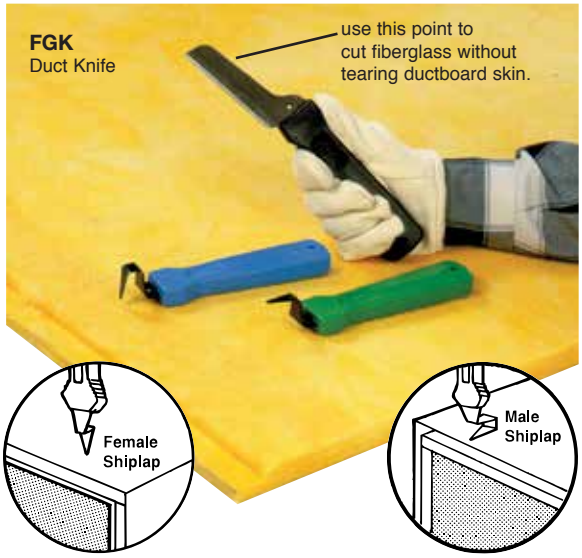


- 1” FasGroov kits also include a #6 tool (Tan color coded FGV6) for creating duct sections less than standard 4 foot lengths. The #6 replaces a shiplap knife for making a shiplap groove at fitting end prior to closure of duct section. The #6 may also be used for two-piece and four-piece ductboard fabrication.



Easy one-piece layout:

- **FasGroov Square permits fast and accurate layout without marking cuts or calculating add-on dimensions.** Lay out ductboard as you cut. Simply align dimension on FasGroov Square with edge of previous cut and move across the board. Square is also easily adjustable for angled cuts.

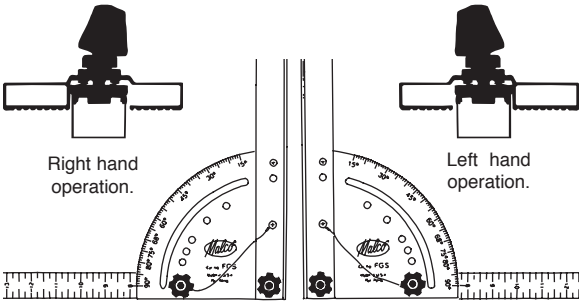


Single blade knives:

- **Single blade FasGroov Knives are safer to use and also feature comfortable molded handles.** Male and Female Shiplap Knives can be used on closed duct sections.

For right or left hand use:

- Right hand orientation of 1" kits is easily changed by converting #5 Tool and FasGroov Square for left hand fabrication. Tool handles may also be turned around to provide left hand grip angle.



CONVERTING FASGROOV SQUARE FOR LEFT HAND USE.

1. Remove the angle adjustment knob and the end pivot knob.
2. Position the ruler stamped leg so that the 3 holes are to your left. (Rule reads left to right.)
3. Remove the protractor for the "L" shaped leg by removing the two screws.
4. Flit the protractor over and install on the opposite end of the "L" shaped leg.
5. Place the "L" leg/protractor assembly on top of the ruled leg.
6. Align the pivot knob holes and install the pivot knob.
7. Install the angle adjustment knob in any of the fixed positions or the sliding position.
8. After converting your square for left hand use, double check the accuracy in the fixed° position with a roofing square. Built-in manufacturing hole tolerances will allow you to true the square.

Note: 1-1/2" Kit cannot be converted for left hand use.

SETTING UP TOOL
Adjusting Fasgroov Square

PREDETERMINED SETTINGS

Place adjustment knob into hole corresponding to most used angles.

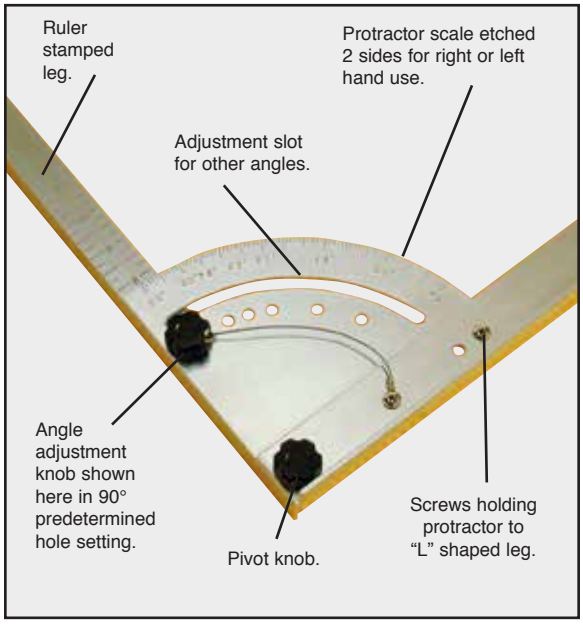
OTHER ANGLES

Place adjustment screw into protractor adjustment slot and tighten at desired angle.

STORAGE

Step 1: Remove angle adjustment knob and fold ends of FasGroov Square together.

Step 2: Place angle adjustment knob into the storage hole and tighten.

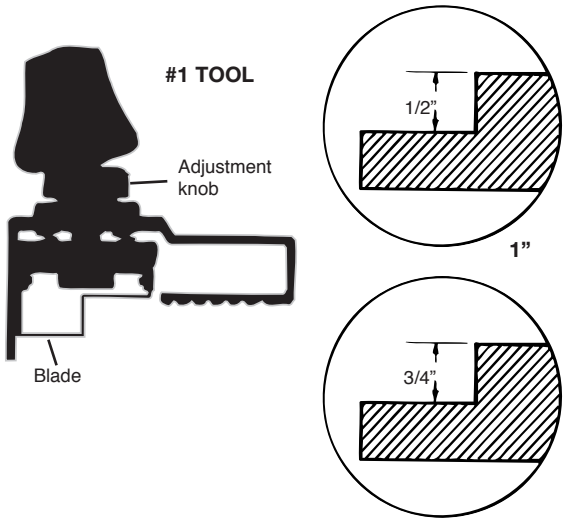


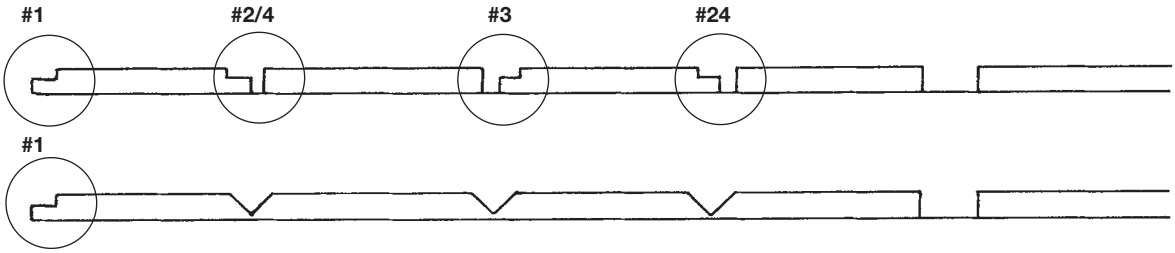
Hand Tool blade height adjustment:

FASGROOV #1 TOOL

Push the FasGroov #1 Tool along the left edge of a test piece of ductboard. Measure the depth of cut of the female shiplap groove, it should be half the thickness of the ductboard (see illustration).

If adjustment is needed: (1) Turn the blade adjustment knob counterclockwise to lower the blade for a deeper cut or (2) Turn the blade adjustment knob clockwise to raise the blade for a shallower cut. Repeat adjustment until the proper depth of cut is achieved.



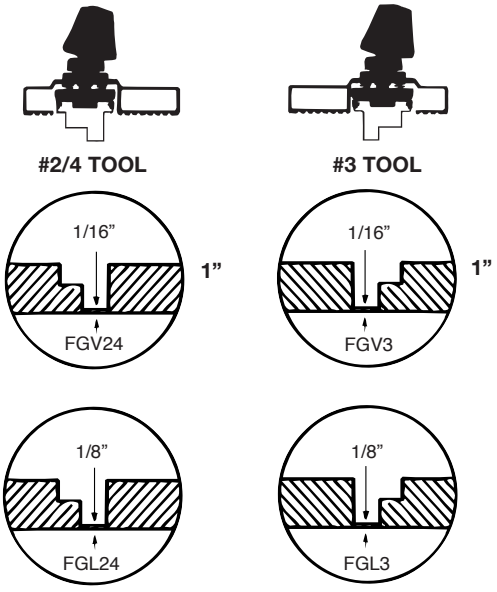


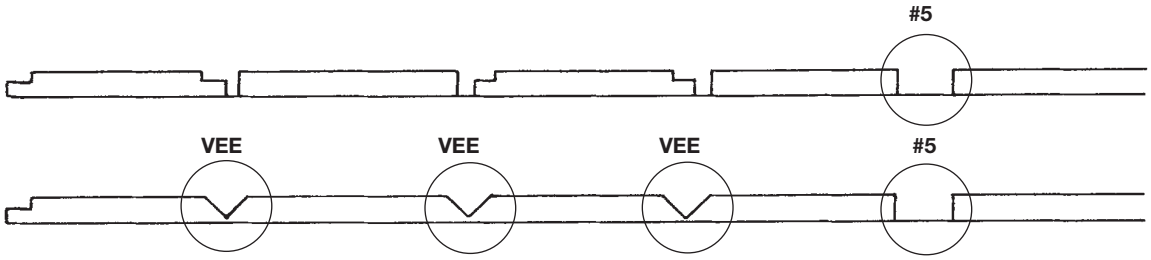
FASGROOV #2/4 AND #3 TOOLS

Push the FasGroov #2/4 Tool and FasGroov #3 Tool through a test piece of ductboard. Measure the amount of fiberglass remaining between the foil backing and the deepest part of the shiplap cut (see illustration).

If adjustment is needed: (1) Turn the blade adjustment knob counterclockwise to lower the blade for a deeper cut or (2) Turn the blade adjustment knob clockwise to raise the blade for a shallower cut.

Repeat adjustment until the proper depth of cut is achieved.





FASGROOV-VEE TOOL

Push the FasGroov-Vee Tool through a test piece of ductboard.

Measure the amount of fiberglass remaining between the foil backing and the deepest part of the vee-groove cut. There should be 1/8" of fiberglass remaining (see illustration for width of cut.)

If adjustment is needed: (1) Turn the blade adjustment knob counterclockwise to lower the blade for a deeper cut or (2) Turn the blade adjustment knob clockwise to raise the blade for a shallower cut.

Repeat adjustment until the proper depth of cut is achieved.

FASGROOV #5 TOOL

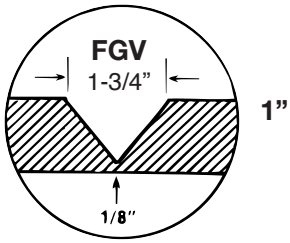
Push the FasGroov #Tool through a test piece of ductboard.

The blade should cut deep enough to skin all of the fiberglass off the foil backing. By using more pressure on the FasGroov #5 Tool, any remaining fiberglass may be cleaned off the foil.

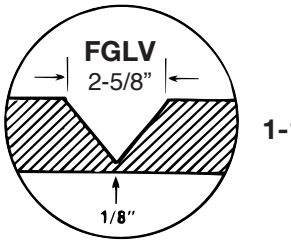
If adjustment is needed: (1) Turn the blade adjustment knob counterclockwise to lower the blade for a deeper cut or (2) Turn the blade adjustment knob clockwise to raise the blade for a shallower cut.

Repeat adjustment until the proper depth of cut is achieved.

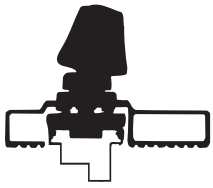
Note: It is important to use this tool according to the direction arrows on the label.



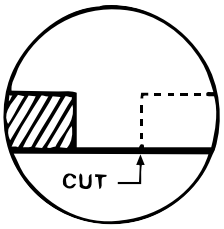
1"



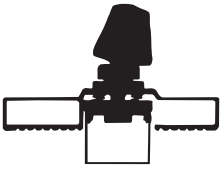
1-1/2"



VEE TOOL



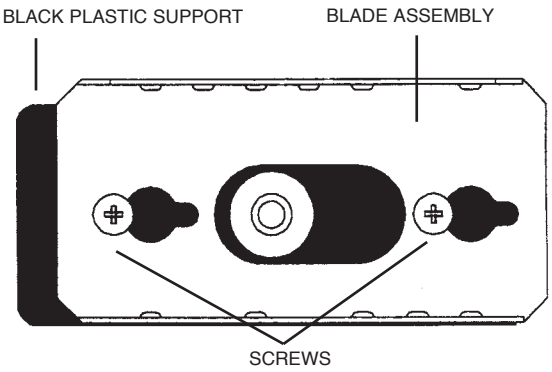
Use FGK Knife to cut staple flap.



#5 TOOL

Blade removal, replacement:

Since the blade adjustment mechanism is the same for all FasGroov Tools, this procedure applies to any tool requiring blade removal/ replacement.

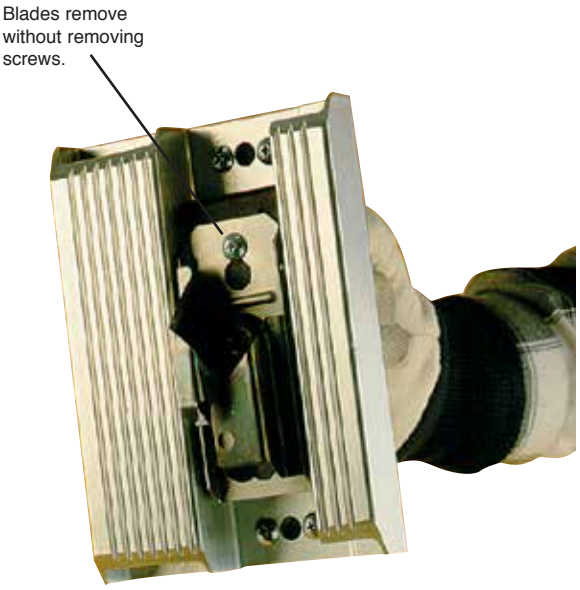


Loosen Screws

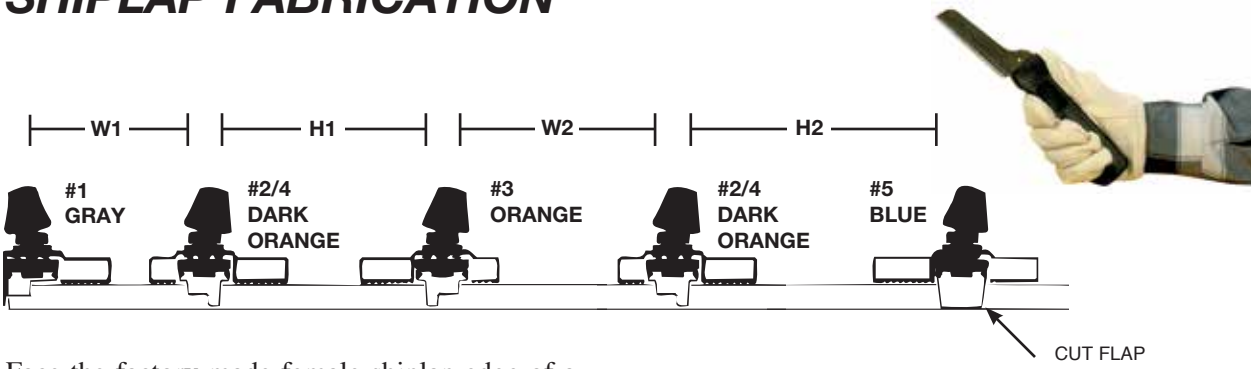
Slide and remove worn blade assembly.

Place new blade into the black plastic support and retighten screws.

Note: Initial cutting friction may be realized due to rust prevention factory finish on the blade.

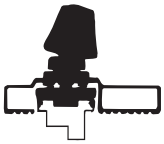


SHIPLAP FABRICATION



Face the factory made female shiplap edge of a ductboard section. Place the FasGroov #1 Tool against the left edge of the ductboard. Push the FasGroov #1 Tool closely along the left edge to produce a female shiplap groove.

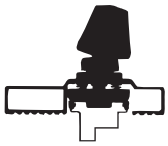
#1 TOOL



#2/4 TOOL

Set the FasGroov Square on top of the ductboard. Place the ruled edge along the factory made female shiplap edge. Measure the desired inside duct width dimension (W1) and align with the right edge of cut made previously by the FasGroov #1 Tool. Place the FasGroov #24 Tool against the slide edge and push along to produce a right hand shiplap groove.

Move the FasGroov Square to the right and measure the desired inside duct height dimension (H1). Align dimension with the right edge of cut previously made by the FasGroov #2/4 Tool.

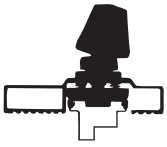


#3 TOOL

Place the FasGroov #3 Tool against the slide edge and push along to produce a left hand shiplap groove.

Move the FasGroov Square to the right and measure the desired inside duct width dimension (W2). Align with the right edge of cut previously made by the FasGroov #3 Tool. Place the FasGroov #2/4 Tool against the slide edge and push along to produce a second right hand shiplap groove.

Move the FasGroov Square to the right one last time and measure the desired inside duct height dimension (H2). Align dimension with the right edge of cut previously made by the FasGroov #2/4 tool. Place the FasGroov #5 Tool against the slide edge and push along to produce a staple flat groove.

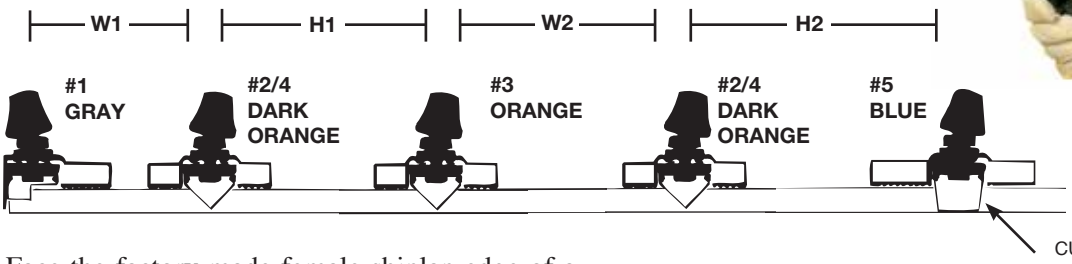


#3 TOOL

Place the FasGroov Duct Knife on the right edge of cut previously made by the FasGroov #5 Tool. Cut completely through the foil to finish the grooving process.

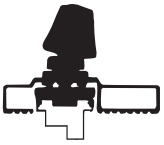
Fold the duct section together. Staple and tape the duct section with manufacturer approved products.

VEE-GROOV FABRICATION



Face the factory made female shiplap edge of a standard four foot ductboard section. Place the FasGroov #1 Tool against the left edge of the ductboard. Push the FasGroov #1 Tool closely along the left edge to produce a female shiplap groove.

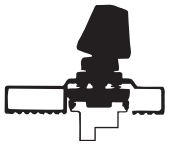
#1 TOOL



VEE TOOL

Set the FasGroov Square on top of the ductboard. Place the ruled edge along the factory made female shiplap edge. Measure the desired inside duct width dimension (W1) and align with the right edge of cut made previously by the FasGroov #1 Tool. Place the FasGroov Vee-Tool against the slide edge and push along to produce a vee groove.

Move the FasGroov Square to the right and measure the desired inside duct height dimension (H1). Align dimension with the right edge of cut previously made by the FasGroov Vee-Tool.

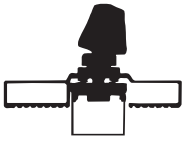


#3 TOOL

Place the FasGroov-Vee Tool against the slide edge and push along to produce another vee groove.

Move the FasGroov Square to the right and measure the desired inside duct width dimension (W2). Align dimension with the right edge of vee groove made in the previous step. Place the FasGroov-Vee Tool against the slide edge and push along to produce a third vee groove.

Move the FasGroov Square to the right ,one last time and measure the desired inside duct height dimension (H2). Align dimension with the right edge of cut previously made by the FasGroov-Vee Tool.



#5 TOOL

Place the Fasgroov #5 Tool against the slide edge. make sure the blade is turned the proper way or in the proper set of holes to produce a staple flap groove in the right handed vee groove direction. For blade removal/replacement, see page 14. Push along to produce a staple flap groove.

Place the FasGroov Duct Knife on the right edge of cut previously made by the FasGroov #5 tool. Cut completely through the foil to finish the grooving process.

Fold the duct section together. Staple and tape the duct section with manufacturer approved products.