

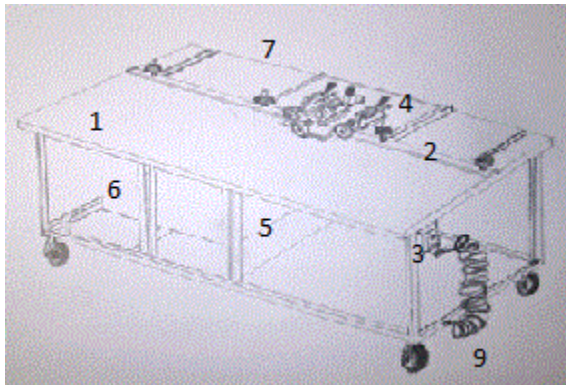


A GreenTek, LLC Product
INSTRUCTION MANUAL

Introduction

The GTColter grooving machine uses a non-marring surface as a work platform with anti-kickback hold downs to process Aluminum Composite Materials (ACM) through a grooving device located under a safety shield. Safety is a major part of any machine tool, and every effort has been made to manufacture the GTColter with the users' well being in mind. Read and understand your machine's operator manuals, and know the machines limitations.

Main components



1. Table top
2. Adjustable fence
3. On-off switch
4. Anti-kickback guard plate
5. Grooving apparatus (OEM Manual included)
6. Waste Collection Bin
7. Folding Bar
8. Spinner Table (optional)
9. Pneumatic outlets (optional)

- On-off switch
 - There are two safety paddle switches on the GTColter. One safety paddle switch is located on the grooving apparatus (5), refer to OEM manual, and the second is located under the front right corner of the machine. The OEM grooving apparatus has a power loss reset switch that will trip the switch to off when the GTColter's switch is turned off. The procedure for starting the machine is to first turn on the GTColter switch, and then proceed to turn on the OEM switch.
- Anti-kickback guard plate
 - The GTColter is equipped with three anti-kickback hold down devices on the guard plate (4). The guard plate is specifically designed for the correct orientation of the hold downs over the grooving apparatus.
- Adjustable fence
 - The adjustable fence (2) located on the table top (1) and under the anti-kickback guard plate (4) is adjustable for widths from 3/4inch up to 16 inches.
- Folding bar
 - The folding bar (7) is located on the back side of the table under the table top (1) and is used to fold or "brake" the grooved material.



- Waste Collection Bin
 - The waste collection bin is located on the left side of the GTColter, under the table top, and is used to collect the waste material for recycling.

Adjustments

- Anti-kickback hold down adjustment
 - The position and down pressure may need to be adjusted from time to time due to material differences.
 - Orientation of the three hold downs should be as close to the center line as possible without touching the guard plate or the adjustable fence. Refer to included OEM manual for adjustment directions.
 - Down pressure should be set so material flows under the guard plate, but with enough pressure to keep the material from rising off the table. See included OEM manual for directions.
 - A hand held scale can be hooked to the upper and outer most part of the wheel and should be eight pounds.
- Groove depth
 - Groove depth adjustment is accomplished with the height adjustment on the grooving apparatus. Refer to OEM manual for instructions.
 - Warning: never start machine until the height of the grooving apparatus is verified to be below the anti-kickback guard plate.
 - Warning: always loosen and retighten set screw on OEM grooving apparatus when making adjustments. GTColter recommends that you leave a tag installed on the height adjustment knob as an operator reminder of the set screw to prevent damage to the grooving apparatus.
 - Warning: never assume that material is the same thickness from job to job or even from different lots.
 - Groove depth should be set so that there is 3/32" of material left at the middle of the groove. This can be accomplished several ways.
 - Obtain some sacrificial material and test and adjust until you achieve the correct depth.
 - Unplug the machine, remove the anti-kickback guard plate, and use a height gauge to set the grooving height. Replace guard and test with a sacrificial piece of material.
- Groove Width Adjustment
 - Groove width adjustment is accomplished by moving the adjustable fence in or out parallel to the grooving apparatus.
 - To adjust, loosen the four knobs that secure the fence and slide fence in or out to the desired position and retighten knobs.
 - The outer two fence attaching points are equipped with graduated scales for ease of adjustment
 - In order to verify that fence is parallel to the grooving apparatus measure from the front or back of table to the fence on each side. The measurement should be the same, and if not, adjust the fence and recalibrate the graduated scales.
- Folding Bar
 - The folding bar enables the user to quickly fold or "brake" the ACM panel into its desired box and pan.



Making an ACM panel with the GTColter

For example: Let us say you wish to fabricate a 2' X 3' panel with a 1" return.

1. Size the ACM sheet goods
 - a. Determine blank size
 - i. To obtain a finished product with a panel face dimension (PDF) of 2' X 3', user must implement some very simple calculations. For a 1" return on all four sides, simply add a 1" for each side or 2" to each PFD side. This calculation gives the user a blank of 2'2" X 3'2".
 - b. Cut the blank
 - i. We have found that the best way to do this is with an ordinary panel saw equipped with an aluminum metal cutting blade. To be economically and environmentally efficient, calculated thought should be put into cutting blanks to obtain the maximize yield from the ACM sheet.
2. Groove the blank
 - a. Secure the GTColter's locking wheels, verify that the grooving apparatus is set at the right depth, and verify the adjustable fence is set at one inch. Plug the machine into an ordinary 115 volt outlet.
 - b. Power the machine up by first turning on the paddle switch on the right side of the machine and then the OEM switch on the grooving apparatus.
 - c. Place the ACM, good side up, flat on the right side of the table top and snugly against the fence. Slide the blank from RIGHT to LEFT against the fence through the grooving apparatus. Repeat for the next three sides.
 - d. Power machine down.
3. Notch or cut the corners
 - a. There are several ways to accomplish this task
 - i. Cut with ordinary tin snips
 - ii. Use a hand held notcher
 - iii. Use pneumatic notcher
 - b. The material at each corner needs to be removed for the blank to be folded into a box and pan. Remove the material at the center of the groove to the intersection.
4. Fold or "brake" the material
 - a. Using the folding bar on the back of the machine, insert the one side of the blank, good side down, into the slot and fold the blank up until you form a 90 degree angle. Repeat for next two sides, letting the previously folded side hang slightly past the edge for clearance.
 - b. Place material on spinner table or other suitable work surface, good side down, and fold last side with a hand brake.