

# **ST-20 MAX**

**INSTALLATION / OPERATION**

**MANUAL**

# Woodshop TOOL ST-20 MAX

## Limited Warranty Statement

Woodshop Tool warrants each new ST-20 MAX product to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the product or components, not to exceed 6 consecutive months from date of purchase.

Genuine ST-20 MAX parts and components will be warrantied for 30 days from date of purchase.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that, in our judgment, shall show evidence of such defect, provided further that such part, is so requested shall be returned within (30) days from date of failure to Woodshop Tool. Under no circumstances will it cover any merchandise or components thereof, which, in the opinion of the company, have been subject to misuse, unauthorized modification, alteration and accident, or if repairs have been made with parts other than those approved by Woodshop Tool. Shipping charges for returned items shall be paid by the user. This warranty shall not interpret to render Woodshop Tool or dealer liable for injury or damages of any kind or nature to person or property. This warranty does not extend to the loss of material, loss because of delay in job, or any expense or loss incurred for labor, substitute machinery, rental or for any other reason. Except as set forth above, Woodshop Tool shall have no obligation or liability of any kind on account of any of its equipment and shall not be liable for special or consequential damages.

*Woodshop Tool reserves the right to change specifications  
as we strive to achieve better quality equipment.*

# Woodshop TOOL ST-20 MAX

## Table of Contents

Front Cover.....	1
Warranty Statement.....	2
Table of Contents.....	3
Safety Information.....	4
Specifications and Features.....	5
Installation Instructions.....	6-7
Operating Instructions.....	8-9
Maintenance/Contact..... mple to operate	10Si

MODEL# ST-20MX

# Woodshop TOOL ST-20 MAX

## Safety Information

Woodworking machines are dangerous and can cause personal injury if not used properly.

Read safety instructions and operating instructions for your machine completely before installing the ST-20. Using this system before understanding its safe and proper use could result in severe injury to the operator.

***For your own safety, read or watch instruction manual before operating the ST-20.*** Learn the tool's application and limitations as well as the specific hazards distinctive to it.

Keep all guards and safety devices on your machine in the proper place while using this product.

Always wear proper Personal Protective Equipment.

Keep hands away from rotating bit on your machine when operating the ST-20.

Avoid awkward hand positions, where a sudden slip could cause contact with pinch points. Keep the proper footing and balance.

This system was designed for certain applications only. We strongly recommend that this system **NOT** be modified and/or used for any application other than that for which it was designed.

Be aware of kickbacks. Always use sharp bits. Keep the tool aligned and maintained properly. Follow operating procedures.

Turn your machine off before adjusting. Never adjust the fence, plate position, or any other part of the ST-20 while the machine is running. Wait for the machine to come to a complete stop.

Use the right tool, never 'force' the ST-20 to do work for which it was not intended. If used properly the ST-20 will produce better results in less time, under safer conditions.

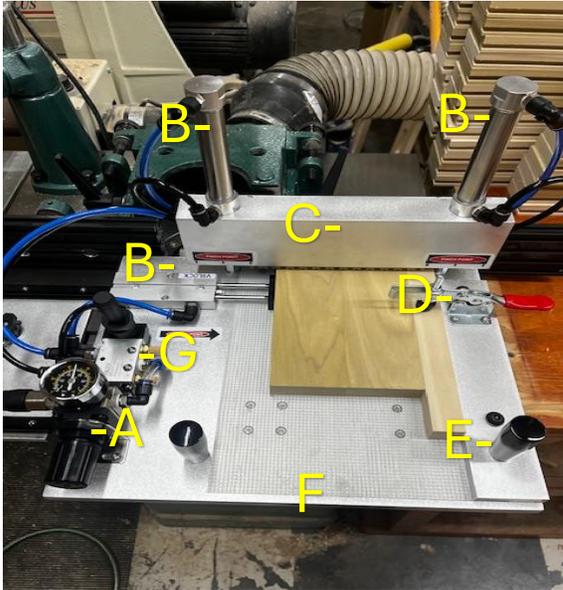
Maintain tools top condition. Keep clean and properly maintained for highest quality and safest performance. Remember to follow all lubrication and maintenance practices in this instruction manual.

Check for damaged parts before use of the ST-20, a careful assessment of all guards and other parts should be made to ensure that it will operate properly and perform as intended. Check for alignment of moving parts, binding of moving parts, breakage of parts, tightness of mounting hardware, and any other conditions that may affect its operation. A guard or other part should be repaired or replaced as soon as possible, preceding any additional use.

Keep children and visitors away, or at a safe distance. Never leave a running machine unattended.

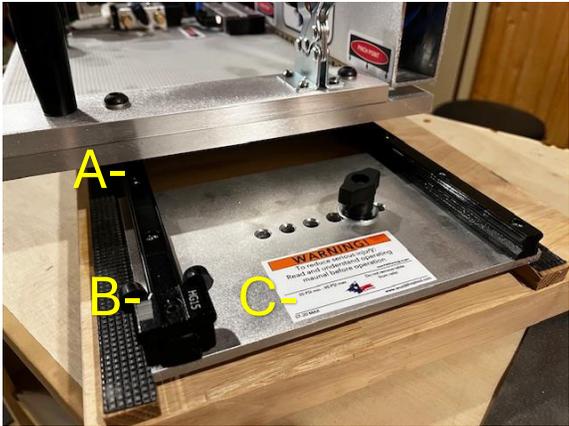
# Woodshop TOOL ST-20 MAX

## Specifications and Features



- A-Pressure regulator**
- B-Air Cylinder**
- C-Clamp Bar**
- D- Toggle Clamp**
- E- Conical Handles**
- F- Aluminum slide table**
- G- Control Valve**

7" clamping width, 1 ¼ clamping height. 60-70 psi recommended operating pressure.  
20", rail plate width.



- A-HG15 Carriage blocks**
- B-Rubber stop blocks**
- C- Mounting plates**

Woodshop Tool reserves the right to change specifications as we strive to achieve better quality equipment.

# Woodshop TOOL ST-20 MAX

## Installation Instructions

**It is highly recommended you watch the installation video at [www.woodshoptool.com](http://www.woodshoptool.com)**

**a:** Remove the ST-20 from the box, carefully unwrap each piece, inspect for damage.

**b:** Before placing the ST-20 on your machine install your preferred cutter and line up your fence with the cutter bearing or rubcollar, and parallel with miter slot. Cut a test board out of your rail material 10-12 inches long and run board thru you machine to insure allignment, when the allignment is correct **keep that board.** (*this will be your set up board*)

*Do not connect to air until step j and the ST-20 is securly mounted. Leave the hoses rolled up on the slide table.*

**c:** Place the ST-20 on your machine by inserting the miter lock bars into the miter slot. Or remove the locking bars and use the bolt only for T slot miters. Double check the distance from the cutter to the slide table, to insure it is as close as possible without hitting the cutter.

*The ST-20 comes set at on #2 miter slot Index pin.*

**c-2:** If adjustments need to be made to increase or decrease the distance from the cutter to the slide table. Remove the 5/16 hand nut from the lock bars on both of the rail plates, lift and place in the preferred hole leave loose. (*reference c*)

**d:** Now that the cutter and fence have been installed and adjust, the lock bars on the ST-20 have been adjusted and the ST-20 has been placed on your machine, Center the rail plates from side to side on your machine table.

### Mounting Method 1

**e:** Tighten the hand nuts on the rail plates to tighten the lock bars to the miter slot.

### Mounting Method 2

**f:** Using just the supplied bolt for the lock bars you can also just use these for a T-slot miter.

Continue to next page .....

# Woodshop TOOL ST-20 MAX

## Installation Instructions

**It is highly recommended you watch the installation video at [www.woodshoptool.com](http://www.woodshoptool.com)**

### Optional Mounting Method

**g:** Using Mounting Method 1 you can also drill and tap a 5/16 hole into the machine table thru the slot in the rail plates or elsewhere on the plates. This would be for a permanent installation or for a quicker set up for a dual use machine.

*Always double check with manufacturer of your machine before modifying or drilling and tapping the table surface, this action may void warranty or damage machine surface.*

**h:** Now that the ST-20 is securely mounted to your machine, unroll the air lines attached to the pressure regulator.

*The ST-20 ships in the open position with the regulator at 0*

**i:** At this point slide the ST-20 from side to side to insure smooth operating.

**j:** With the air line unrolled connect your air to the ST-20 air input hose and slowly increase the air pressure until the clamp bar lifts up, set pressure to at least 35psi min 90psi max (optimal setting is 50-60psi upon use.)

*You may have to adjust the hoses once you apply air.*

**k:** With step **j:** done use the hand valve to cycle the clamps several times to insure proper function and that the regulator maintains your desired pressure.

*Always keep hands and fingers clear of the Air Cylinder operation!*

**Now that you have installed the best way to cope your stick, its time to put it to work.**

Continue to next page.....

# Woodshop TOOL ST-20 MAX

## Operating Instructions

### **STEP 1 *Machine OFF***

With your machine off, and the ST-20 in the open position slide tool fully to the right, insert your test board against the side stop and up to your fence, then adjust toggle clamp to hold your test board down, be sure its snug.

### **STEP 2 *Machine OFF***

Release the toggle clamp and slide the ST-20 so that the test board is close to the cutter. Raise your cutter to line up with your test board, slide the ST-20 to the left, push test board up against the bearing or rub collar, and lock down the toggle clamp.

### **STEP 3 *Machine OFF***

*At this point, if you have a split fence on your machine you can adjust the left fence to the back of the machine you do not need it for operation.*

Slide the ST-20 to the right and adjust the fence if needed to keep your test board in place lined up with the bearing or rub collar. Once this is done, you are now in alignment and ready to work. *(Minor adjustments may be needed, never use primary rail material to run your first cuts)*

### **STEP 4 *Machine OFF***

Rip your test board to at least  $\frac{3}{4}$ -1  $\frac{1}{2}$  max this will be your Tear Out Board TOB. With the ST-20 in the right and open position insert the TOB back into the ST-20 up against the side stop and machine fence. Clamp down the toggle clamp. *(make sure it's the same cutting position as your cutter)* Cut two boards 10-12 inches long out of your rail material.

### **STEP 5 *Machine ON / WEAR SAFETY EQUIPMENT***

In the right and open position, insert your two boards against the TOB and up to your machine fence, make sure the table air cylinder will stroke up against your boards.

*(When running less than two boards use a small piece of scrap under the left side of the clamp bar to evenly clamp down on stock.)*

Hold your boards up against the machine fence, watch your fingers and lock the hand valve this will operate the ST-20 clamping your boards to the ST-20 make sure they are snugly clamped. Increase pressure to your liking.

Continue to next page.....

# Woodshop TOOL ST-20 MAX

## Operating Instructions

### **STEP 6** *Machine ON / WEAR SAFETY EQUIPMENT*

Using the handles slowly slide the ST-20 to the left until you approach the cutter. Proceed into the cut with a consistent speed and pressure, careful not to bog down your machine, after a few cuts you will know how fast you can run boards through the cutter.

### **STEP 7** *Machine ON / WEAR SAFETY EQUIPMENT*

Once you have run your boards through the cutter, you will be in the left position. For best results release the hand valve, unclamping the ST-20. Pull your boards back away from cutter path and slide the ST-20 back to the right, do not unclamp the TOB. Inspect the test material for fitness adjust if needed if correct you are ready to run your primary rail material.

### **FINALLY**

Woodshop Tool does not recommend passing the coped boards back through the cutter head after cut.

Clamp on the right - run boards through

Unclamp on the left - pull boards back

Be sure to turn your boards and not flip them for the second pass.

Please watch the operational tips videos at [www.woodshoptool.com](http://www.woodshoptool.com) that cover tips on how to run small pieces, long pieces, maintenance and more.

**It is time to increase production and accuracy because time is MONEY!!**

**Thank you for your purchase.**

# Woodshop TOOL ST-20 MAX

## Maintenance

Little maintenance is needed on the ST-20 but it's always best to check a few things.

**Blow off the ST-20 before and after use.**

**Keep rails clean and apply a small amount of lithium grease monthly. Or use grease certs to inject.**

*To use grease certs, remove the collision blocks and slide the ST-20 to the edge for access to the grease certs.*

**Double check clamps and all bolts and nuts after a few uses.**

---

### CONTACT

[sales@woodshoptool.com](mailto:sales@woodshoptool.com)

Warranty: [ccstooling@gmail.com](mailto:ccstooling@gmail.com)