

# CASTLE FRAME ASSEMBLY TABLE

## AT-5

### **Operator Manual**



CASTLE, INC.  
PETALUMA, CA  
800-282-8338

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*DO NOT ATTEMPT TO OPERATE THIS  
MACHINE UNTIL YOU HAVE READ THIS  
MANUAL.*

**SAFETY NOTIFICATION**

**WARNING:** The Castle Frame Assembly Table was designed with operator safety as a priority. This machine was carefully prepared for shipment at our factory. Upon receipt of the machine, inspect for shipping damage. Report any damage **IMMEDIATELY** to the freight company, your Castle dealer and to Castle, Inc. **DO NOT** attempt to operate the machine if you observe any physical damage. Contact Castle, Inc. at 800-282-8338 for instructions.

# INVENTORY

**With your Castle machine you should have received the following:**

- **Warranty Card (Please fill out & mail to Castle, Inc. to activate warranty)**
- **AT-5 Operator Manual**
- **Bolt Pack**
- **Leg Brackets**
- **Side Fence**
- **Bottom Fence**

# MACHINE REQUIREMENTS

**Air Supply: 85 PSI minimum, 150 PSI maximum**

- **Supply Line should be a minimum ¼ line.**
- **Install an air filter trap to eliminate foreign particles and water from your air supply prior to entry into the machine. The filter should be mounted to the wall where your supply comes from and should not be mounted to your machine.**

# SETTING UP YOUR AT-5

The AT-5 is shipped knocked down, with the legs bolted to a pallet and with the frame and top inside. To begin Set-up,

- Remove the clamp arm from the pallet by cutting the two zip ties.
- Unbolt the legs on the narrow side of the pallet and open them to an almost parallel position.
- Remove the envelope that is taped behind the arm. Inside the envelope you will find the operating manual, warranty card (which must be returned to Castle to activate your warranty) and a bolt pack.
- Remove the two fence packs. One pack will be the bottom fence by itself and the other pack will contain a side fence as well as four leg brackets.

*Attention: Parts are contained inside the Spacer Package.  
Do Not Discard*

- Lift the table top out and set it aside for later use. Set the two 4x4's on the floor to prep for the next step.
- Unbolt the legs completely.
- Place the frame face down on the 4 x 4's so that the iron angle is facing up.

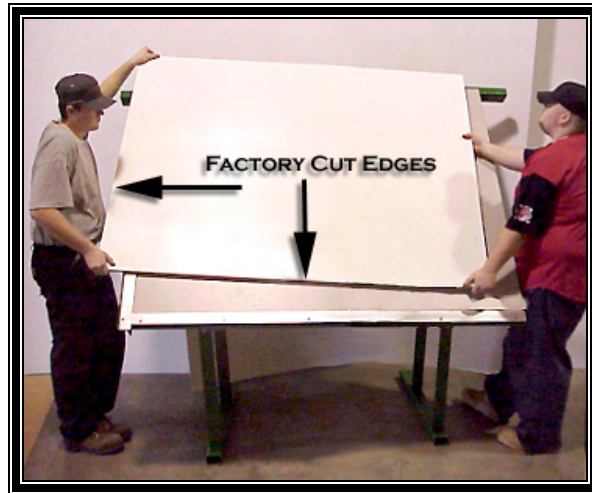


- Attach the legs and leg braces to the frame. To attach the legs you will need 2 brackets and 6 hex head bolts. Have someone hold the leg while you fasten it to the frame. The flat part of the angle iron should face the inside of the machine. Next attach the 2 leg support brackets, using the bolts supplied. Repeat this process for the other side.

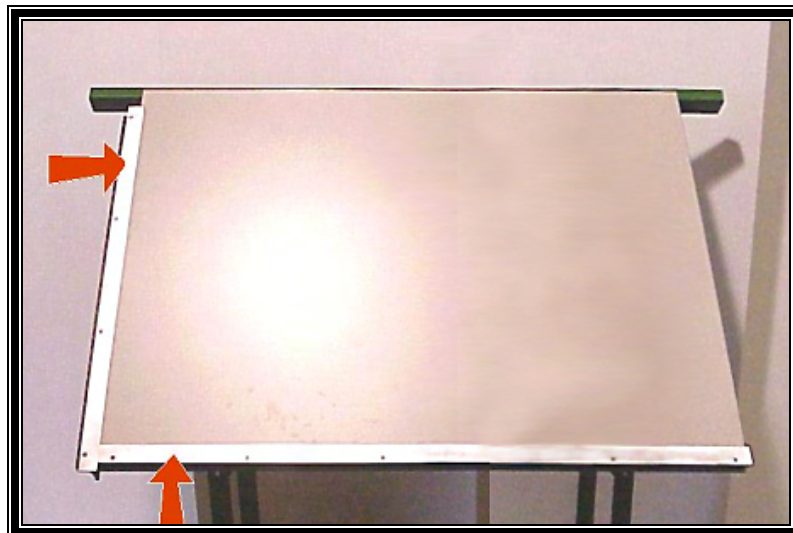
- Roll the assembly onto the legs by rolling it first over the top tube, then onto the leg backs, and finally up and into a fully upright position.
- Check that all the leg braces and bolts are still sufficiently tight.
- Attach the fences using the ¼-20 flat head bolts, the aluminum spacers and the ¼-20 flat keps. The side fence uses the small spacers and the bottom fence uses the larger spacers.
- When fastening only tighten one bolt on each fence in the bottom left corner of the frame. You will tighten the rest later.
- Place the table top onto the frame, and make sure that the top is sitting as far left as it will go and flat on the bottom.
- Using the supplied screws, fasten the table down through the rear of the frame.
- Screw the top onto the frame.



- Place a sheet of plywood measuring AT LEAST 4x5 on the table, and rest it on the bottom fence.



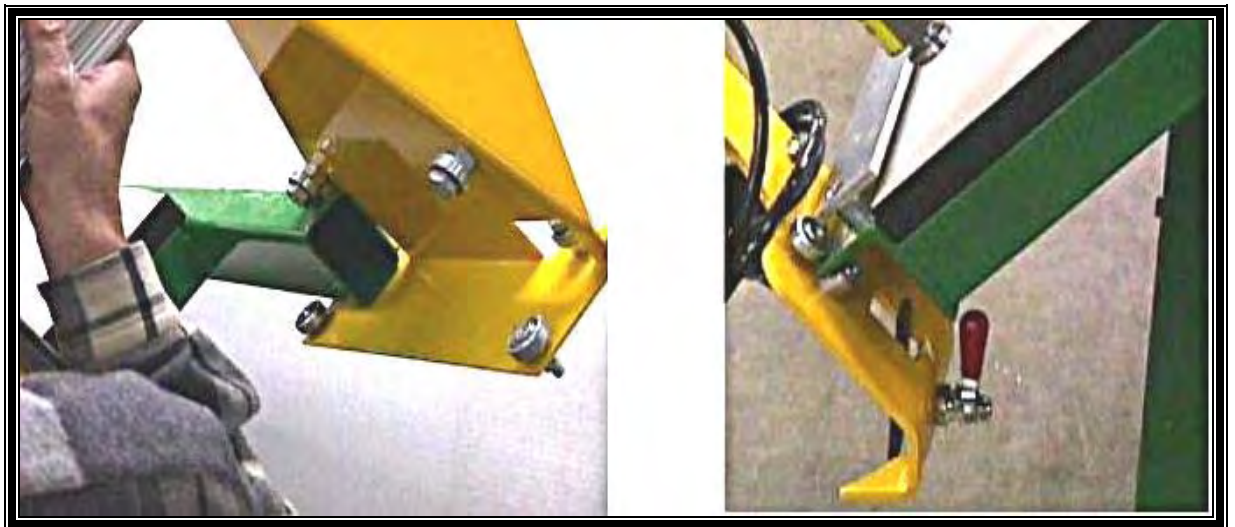
- Push up on the end of the fence opposite the end with the tight bolts until the fence is flush with the wood. Now tighten all of the bolts.



- Attach the arm bracket to the aluminum beam using the bolts and T-nuts supplied.

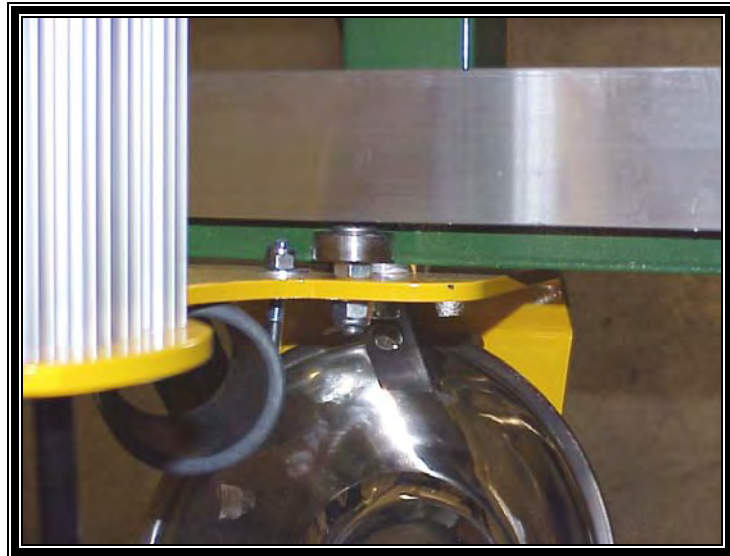


- Position the clamp arm onto the frame from the right side.

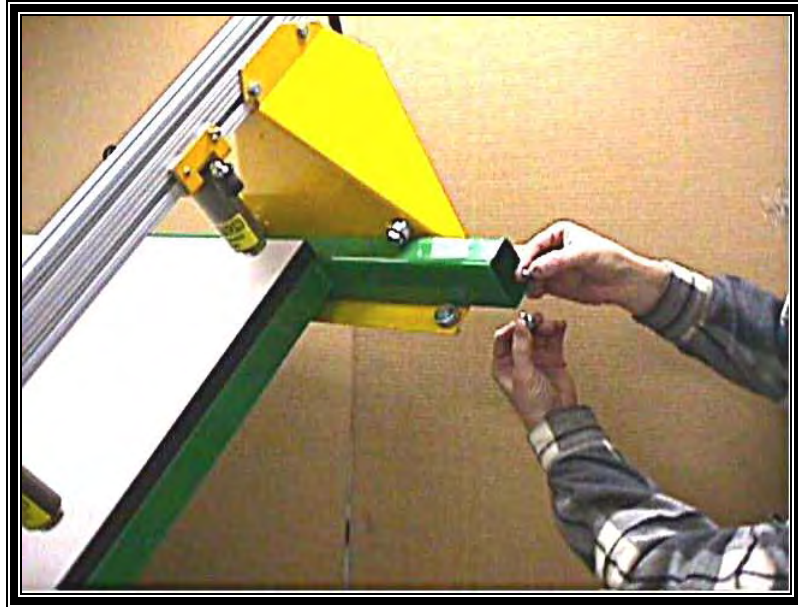


- The length of the arm may need to be adjusted at the bracket. Square the arm vertically by loosening 3 of the 4 bolts and drawing the arm parallel with the left fence.

- Slide the top bracket to achieve proper lower bearing adjustment.



- Install the stop bolts through the hoses in the back side of top beam. The stop bolts are necessary to keep the arm from sliding off of the beam.



# OPERATING INSTRUCTIONS

*Always use eye protection when operating power equipment.*

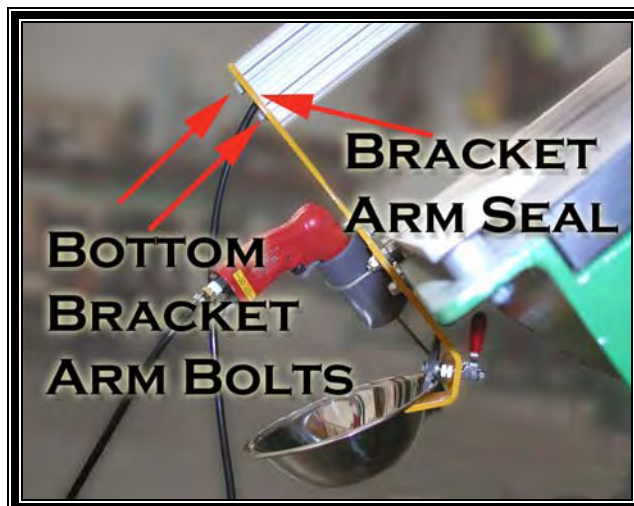
## *CYLINDER ACTUATING*

- To operate the clamp cylinder locate the black lever with a rubber stopper on it. Moving this lever back and forth will clamp and release the cylinder.



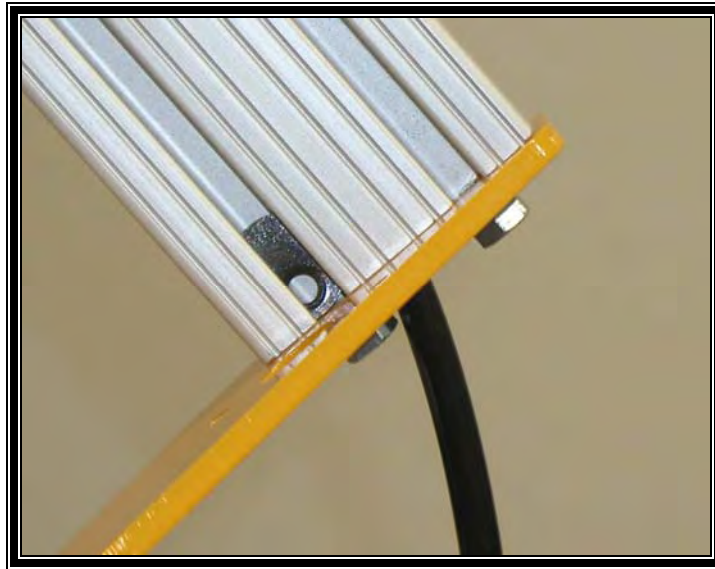
## *SCREW BOWL HOLDER*

- The Screw Bowl is held in place by the red knobbed lever on the Clamp Arm Bottom Bracket. Pull the lever down to release the bowl and push it up to hold the bowl in place.



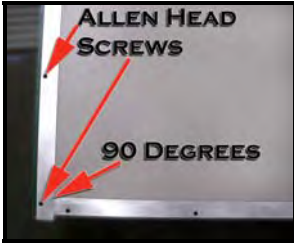




## *SCREW GUN AIRLINE*

- To attach the air screw gun to your machine use the 9/16 air line coming out of the bottom of the clamp arm. (The airline ships disconnected) To attach, take the red plug out of the regulator and thread on the 9/16 airline.



## DESCRIPTION OF PARTS

	<p>1. <b>Clamp Cylinder:</b> This is a single acting, spring return pneumatic cylinder with a padded foot on the end of the cylinder rod. The clamping force exerted is directly proportional to the amount of air pressure received by the machine.</p>
	<p>2. <b>Clamp Beam:</b> The clamp beam is the apparatus that the clamp cylinders mount to. Air is supplied through the inner channel of the beam to each cylinder.</p>
	<p>3. <b>Table Top:</b> The tabletop is an industrial grade particle board with a gray laminate work surface.</p>
	<p>4. <b>Regulator:</b> This regulates the air pressure going to the clamp cylinders and screw gun, if one is attached.</p>
	<p>5. <b>Fences:</b> The fences are located at the bottom and left side of the tabletop and are used to square the product being built.</p>

## MAINTENANCE

**WARNING!** *Contact a Castle, Inc. service technician for proper service information.*

### *MACHINE*

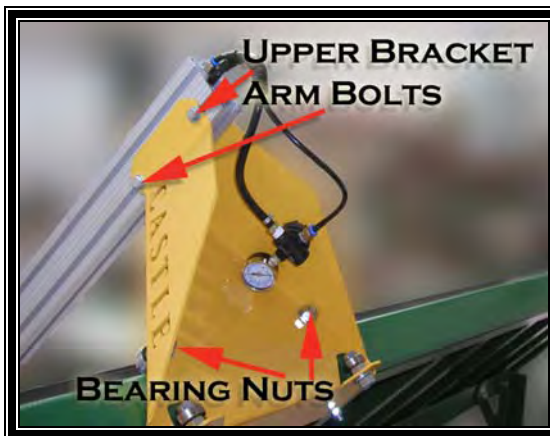
- It is suggested that the tabletop be cleaned periodically to rid it of any excess glue or dust.
- The Polypads wear down after a significant amount of use and should be replaced periodically. Refer to the parts list for the Part #
- If you notice a considerable slow down in the speed of the cylinder actuation, the cylinder may need to be rebuilt. Refer to the troubleshooting section for instructions

# TROUBLESHOOTING

## *CYLINDER REBUILDING*

The cylinders have several rings and gaskets that help maintain pressure within the cylinder itself. Over time these seals can become worn or damaged and may need to be replaced. Refer to the parts explosion for specific part identification and contact Castle or your Castle dealer to order the appropriate parts. You will need two people for this procedure.

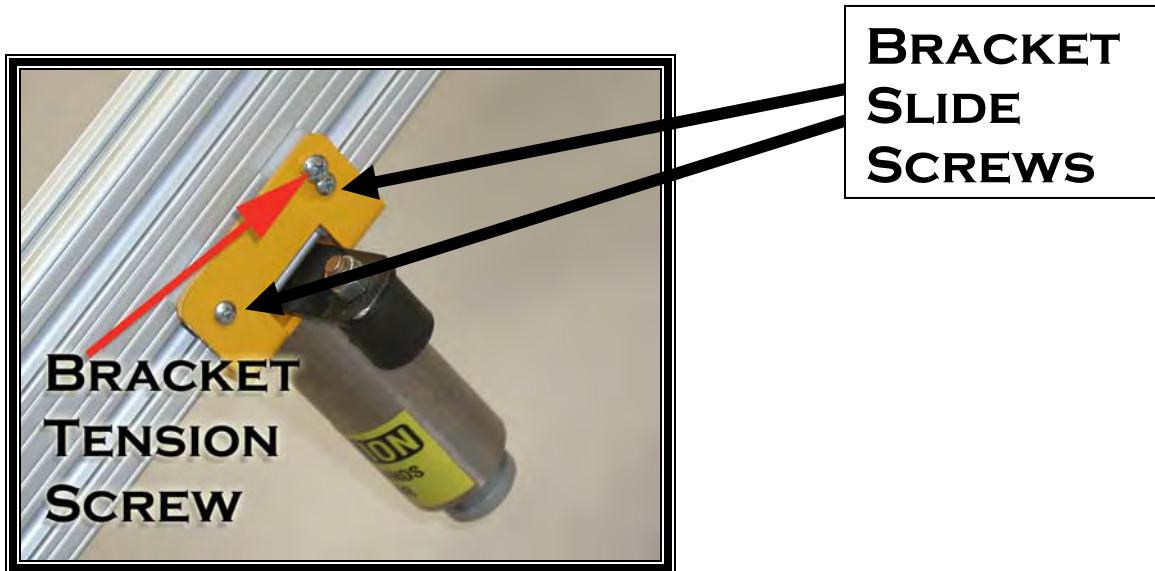
- Remove the arm from the upper bracket by removing the bolts in the bracket. This can be done with the arm on the machine, but will require a second person to hold the bottom bracket firmly against the table.



- Turn off the air and remove the airline for the cylinder to be rebuilt. The line is connected to the cylinder by a push-in fitting. Simply push the outer ring in as you pull the airline.



- Loosen the tension screw on the side of the cylinder bracket



- Take out the two bracket slide screws on each side of the cylinder bracket, and pull the whole assembly off of the arm.
- With the cylinder off of the arm, remove the snap ring - (2) on the parts explosion.
- Remove the piston. (1)
- Remove the PEM nut (10) and the screw (4) in the center.
- Remove the large washer (5) and the gasket. (6)
- Remove the piston assembly from the elbow. (17), (18), (19)
- Replace the elbow piston with a new one from the rebuild kit and apply the enclosed lube.
- Put the cylinder back together in the opposite order of Steps 5 through 9 using the new components in the rebuild kit where supplied.
- When tightening the center screw, be sure it is left **JUST LOOSE** enough to allow air flow from the elbow into the cylinder sleeve. This usually means that you tighten it very tight, but not 'death grip' tight.
- Slide the cylinder(s) back onto the arm.
- Replace the cylinder assembly, including the cylinder bracket, back onto the arm. Replace the bracket slide screws and tighten.
- Tighten the bracket tension screw until the desired slide resistance is reached.
- Hook the air up to the regulator and test the rebuilt cylinder. The piston should come down and retract quickly. The lever action should be stiff, but not take a full body lean.

## *ADJUSTING THE REGULATOR*

The air for the machine is taken in and controlled through the regulator at the top of the machine. If the air pressure seems low, it can be checked and adjusted at the regulator.

- Visually check that the regulator gauge reads between 80 and 85 PSI.
- If it does not, then pull the regulator knob to release it from its locked position.
- Turn the knob while watching the gauge until it reads the appropriate pressure.
- If there are other machines that use a lot of air pressure on the same line as the AT-8, then run the other machines while someone reads the gauge.
- It should remain between 80 and 85 PSI. If it drops significantly then the pressure should be turned up at the compressor.

## WARRANTY INFORMATION

Castle, Inc. uses only the highest quality materials available for the construction of our machines. Your AT-5 Frame Assembly Table is warranted for one full year from the date of purchase against workmanship or material defects under normal use and service. We are not responsible for negligence, misuse or accidents. We suggest any and all machine maintenance or repair be discussed with an authorized Castle Representative prior to any disassembly. We will gladly answer any questions you may have prior to any part removal.

Castle will, at its sole discretion, may either repair or replace machines that are found to be defective. This shall be the End User's sole remedy under this warranty. **Castle will not, under any circumstances, be liable to the End User for consequential, incidental, special or exemplary damages, or for loss of profits, revenue or use. Further, Castle disclaims any warranty, expressed or implied, as to the merchantability or fitness of a Castle product for any particular purpose.**

### *For Technical Assistance, Parts & Tooling:*

Call 800-282-8338, Monday through Friday, 8:00am - 4:00pm, Pacific Time  
Fax: 707-765-0953