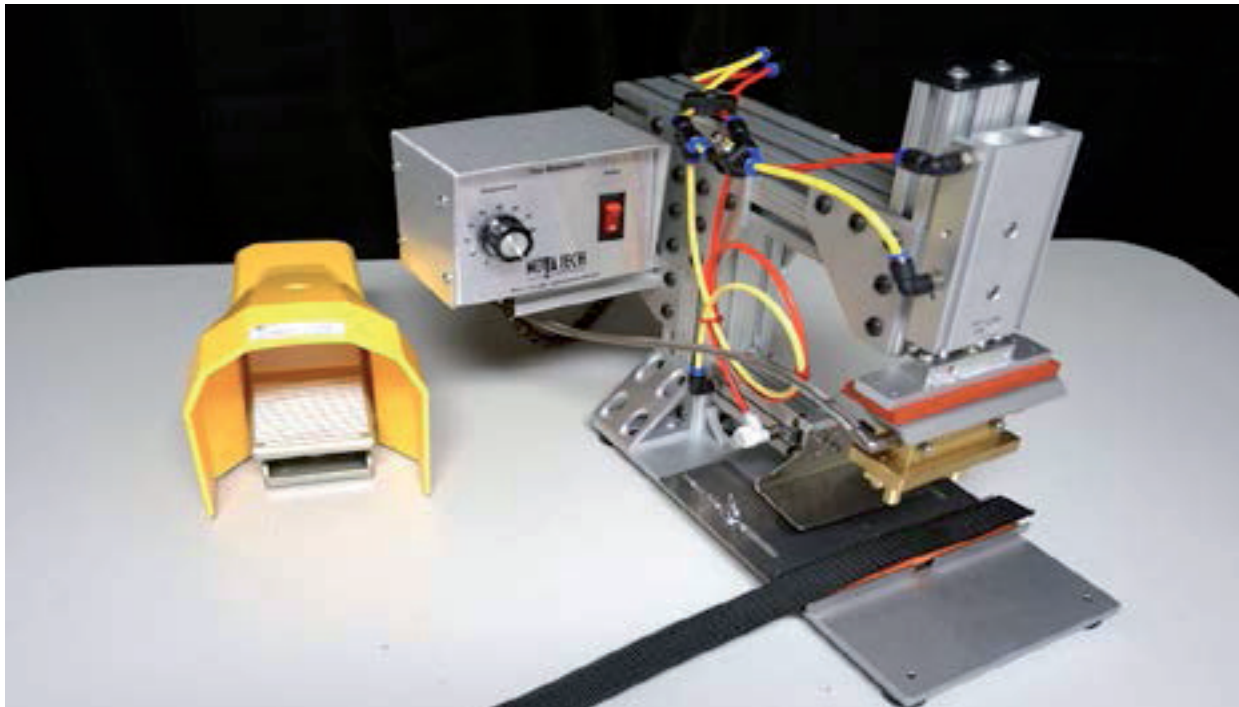


ARX-95 Pneumatic Hole Punch & Press

USER MANUAL



Abbeon Cal, Inc.

Industrial Plastic Working Equipment & Precision Instruments

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ARX-95 Setup & Operation

Because this User Manual covers several dozen model variations, some photos or images may not resemble your model. This User Manual is intended for general guidance. For specific questions not addressed please contact the manufacturer. See the Manufacturer's label on the unit for the model type and serial number.

SET UP

The air pressure required to properly operate this machine is 60 - 125 psi. Connect the air line to the quick connection located on the foot pedal or rear of the machine, depending on model. Listen for any air leaks.

Plug the machine into a suitable grounded power connection.

Place the foot pedal in an appropriate position on the floor. (Some models may instead be activated with two-buttons).

TOOLING TEMPERATURE

For -RK models, set the tooling temperature between 70% and 100% and allow a few minutes for the tooling to reach full temperature. For -TK and -DK models, set the digital temperature required by pressing the up or down arrows on the heat controller. A higher tooling temp will result in faster cycle time, cleaner holes and less residue buildup. Excessive temperature however will cause premature heater failure.

TOOLING SPEED & TIMER CONTROL

It's important to note that these models are designed to cut, punch or press primarily using HEAT, not force. As such do not set the tooling speed to operate faster than the tooling can melt through the work. Excessive tooling speed will cause damage and premature wear to the punch tooling and the air cylinder.

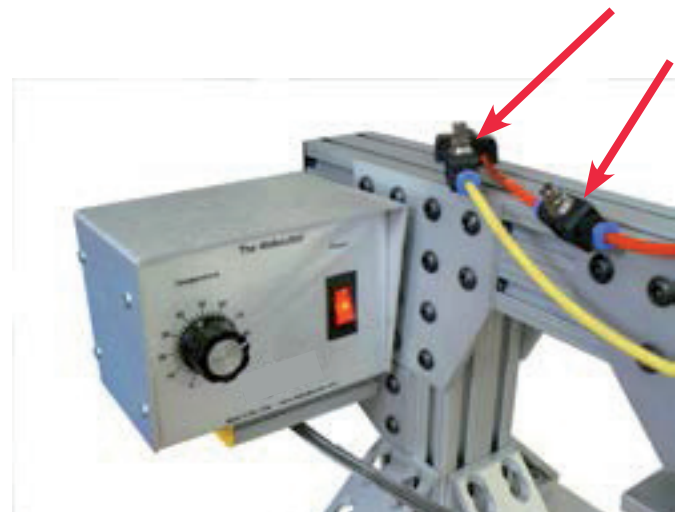
The speed of the tooling is set by the manufacturer. Should the speed need to be adjusted, set the up and down speed of the tooling air cylinder by turning the Speed Control Valves. Turning clockwise will decrease the speed; turning counterclockwise will increase the speed. Tighten the thumbnut under the adjustment



Analog Temperature Control (-RK)



Timer and Digital Control (-DK and -TK)



Air Cylinder Speed (Flow) Control Valves

screw to prevent the setting from changing.

The valve on the YELLOW line controls the PUNCH speed. The valve on the RED line controls the RETURN speed. Do not allow the tooling to move very quickly up or down.

-TK Timer models use an electrically operated switch to start the punch timer. **Press and release** the foot pedal to activate the punch cycle.

-RK, -DK, -WK and all other models use a pneumatic foot pedal connected by air lines. Pressing the pedal moves the punch down, releasing the pedal moves the punch up. **IMPORTANT: DO NOT PARTIALLY STEP ON THE PNEUMATIC FOOT PEDAL.** Press the foot pedal completely down for consistent air cylinder timing.

ADJUSTING THE TOOLING DEPTH

Proper tooling depth is necessary for clean, round holes or slots. Punch holes or slots require the punch to pass through the material slightly into the punch pad.

Tooling Depth is set by the manufacturer but can be adjusted as needed when changing tooling, punches, pads, or guides. The Tooling Depth is adjusted by moving the air cylinder up or down.

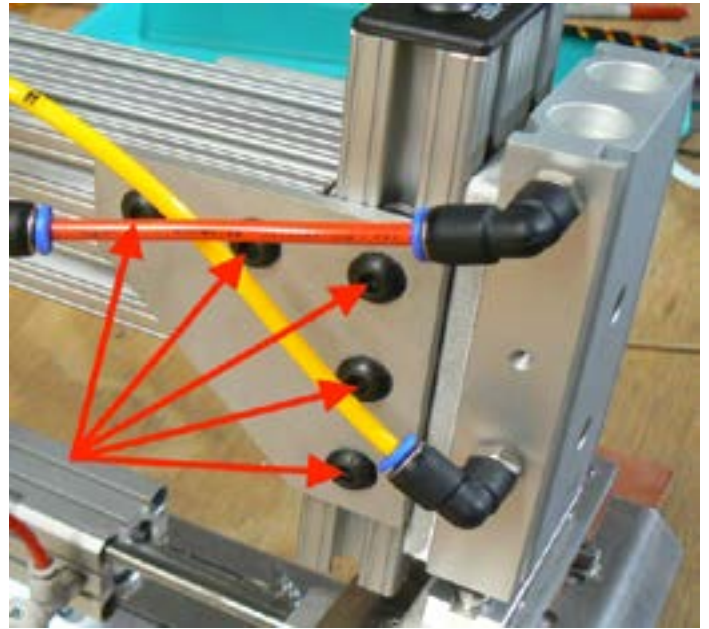
The Tooling Depth is adjusted by loosening the 5 or 6 button head screws (on each side of the tooling mount) as shown. Loosen the 6 screws so that the entire air cylinder assembly can be moved up or down. Connect the air pressure.

Place a punch pad into the guides and step on the foot pedal. The tooling will lower until it touches the pad.

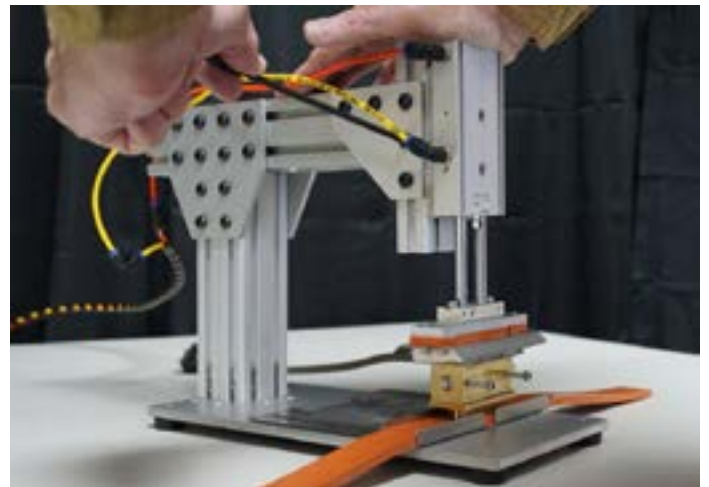
With the foot pedal depressed, push the air cylinder down so that the punch tooling presses into the punch pad slightly. Hold the air cylinder in this position while tightening the button screws. When properly adjusted, the punch tooling will punch to this depth each cycle.

Once the tooling depth is adjusted, turn on the power and set the heat controller to normal operating temperature. Place some sample material under the tooling on the punch pad and make some test cycles when the unit has reached operating temperature.

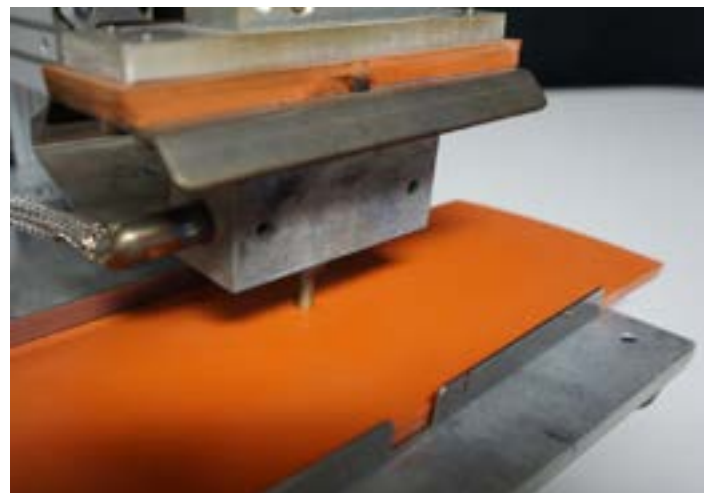
Adjust the temperature, speed and/or tooling height as needed to achieve desired results.



***Air Cylinder Adjustment Button Screws
(both sides)***



***Press and hold the Air Cylinder down
while tightening the button screws.***

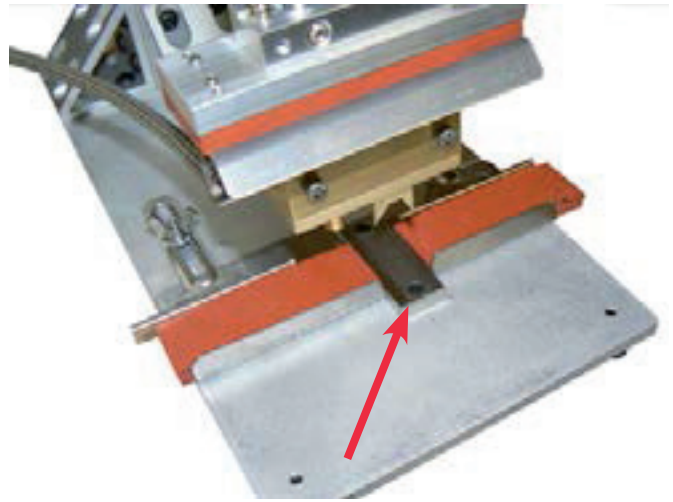


Proper Tooling Depth

TOOLING DEPTH: CUT & PUNCH MODELS (with anvil)

Some ARX-95 models may be equipped with tooling that both cuts and punches simultaneously. In this case, both the TOOLING DEPTH and KNIFE ALIGNMENT must be adjusted. The adjustment process is the same except that the knife must align squarely with the anvil.

To adjust CUT & PUNCH TOOLING DEPTH, remove the punch pad and loosen the button screws as before. Apply air and align the anvil squarely with the knife edge with the tooling down. While holding the knife on the anvil, tighten the button screws and replace the punch pad on either side of the anvil. (The tooling is designed so that the punches extend lower than the knife to ensure clean holes).



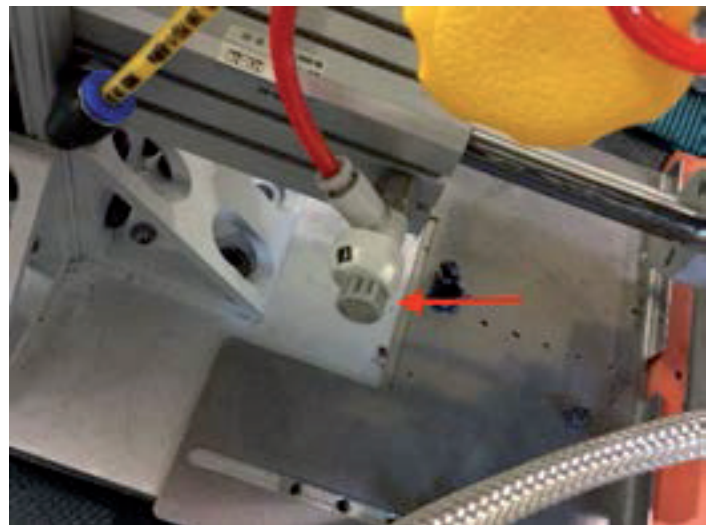
Knife Anvil on Cut - Punch model

ADJUSTING THE SLUG TRAY

The Pneumatic Slug Tray is designed to catch falling punch slugs after the punch cycle. Timing of the air cylinder speeds is critical to the proper functioning of the slug tray.

It is important that the foot pedal be pressed COMPLETELY for the timing of the controls. Therefore DO NOT PARTIALLY DEPRESS the foot pedal when operating.

The Slug Tray should extend slowly after the punch cycle so that it does not strike the punch tooling. Slug tray return timing is adjusted using the precision air flow valve as shown. **Pressing the foot pedal completely ensures that the punch tooling does not strike the slug tray during a normal cycle.**



Slug Tray Extension Adjustment Valve



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