

## DIRECT-AIRE SERIES PRESSES INSTALLATION, OPERATION, AND MAINTENANCE

### Section I: Installation

1. Carefully remove the press from the crate, taking note of separately packed items such as the "Quick Exhaust Unit"(Optional), FRL Unit (Optional) and "Synchro-Sig" Actuator(Optional).
2. Attach Mounting Pads.  
(See photos 1.1, 1.2 and 1.3)
  - A. Insert bolts from underside of press with lock washer.
  - B. Screw bolts into mounting pad and tighten securely. Repeat with alternate side.
3. Attach "Synchro-Sig" Actuator.  
(See photos 1.4 and 1.5)
  - A. Locate the 1/4" yellow tubing found under the press platen. Connect the tubing to the appropriate fittings on the actuator. See markings on the tubing. **DO NOT OVERTIGHTEN.** Normally, 1/2 turn past finger tight is sufficient for an airtight connection.
  - B. Using the 1/4-20 hex head bolts supplied, mount the "Synchro-Sig" to the press as shown.

**NOTE:** To insure operator safety some applications may require that you locate the "Synchro-Sig" actuator further away from your tooling.

SOME SECTIONS OF THIS MANUAL MAY NOT APPLY TO YOUR PRESS UNIT. Pictures are for reference only.



Photo 1.1



view from back  
Photo 1.2



Photo 1.3



Photo 1.4

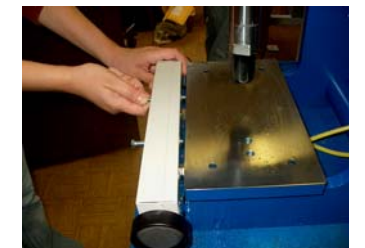


Photo 1.5

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4. Mount the press to your stand or workbench  
(See photo 1.6)
  - A. Select a bench of suitable size, strength and stability.
  - B. Bolt the press to the bench using the holes located in the press frame below the platen area. Never operate the press unless it is securely mounted on a bench or stand.



Photo 1.6

**CAUTION: WHENEVER CONNECTING YOUR AIR SUPPLY TO THE PRESS BE CERTAIN TO FOLLOW SAFE OPERATING PROCEDURES AND KEEP ALL PARTS OF YOUR BODY AWAY FROM THE MOVING PARTS OF THE PRESS!**



Photo 1.7

5. Connect air supply.  
(See Photos 1.7, 1.8, and 1.9)
  - A. The air supply must be clean and conditioned. Preferably, a Filter, Regulator, Lubricator Unit, (Joraco Part No. FRL-300) should be located within 6 feet of the press. For optimum results all air lines, fittings, and hoses used to supply the press should be the equivalent of 1/4" NPT minimum.
  - B. The minimum air pressure for operation is 50 PSI. The maximum is 125 PSI. The optimum operating range is 80 to 100 PSI. If your application consistently requires substantially more than 100 PSI it may indicate the need for a stronger press.
  - C. Connect the air supply to the press at the inlet port on Part No. G-300, 3-way, On-Off Valve.



Photo 1.8

**NOTE: A three way Shut Off Valve like the one supplied must always be used to insure complete bleeding of the press circuits when air supply is off.**



Photo 1.9

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6. Turn on air supply.

(See photos 1.10, 1.11)

- A. Remove the yellow lock out device found on the On-Off Valve. To turn the air on simply move the gold colored sleeve downward until it stops. Slide the sleeve upward to the stop to shut the supply off. With the supply on, check for air leaks and be sure all connections you have made are secure and air tight. If air leaks from inside the "Synchro-Sig" actuator the connections are incorrect. Correctly reconnect the tubing, taking note of the tubing labels.

**NOTE:** When the press is not in use or being serviced or maintained, always **SHUT OFF** the air supply and replace the lockout device. Secure with a padlock, etc. to prevent unauthorized use of the press.

**CAUTION:** BEFORE PROCEEDING, CLEAR THE PRESS TABLE AND WORK AREA OF ALL TOOLS, FOREIGN OBJECTS, AND BODY PARTS.

7. Test the installation.

(See photo 1.12)

- A. Test the "Synchro-Sig" Two Hand Actuator by simultaneously depressing the buttons on the SS-PB or the levers on the Model SS-DM or by simultaneously placing a finger in each sensing "button" on the Model SS-OT. The press should cycle once, return to the top of the stroke, and await another signal from the actuator. If the levers or "buttons" are continuously held down the press should remain in the down position until one or both levers or buttons are released.



Photo 1.10



Photo 1.11



Photo 1.12

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- B. Test the "Set-Up" Valve(OPTIONAL).  
The press maybe equipped with a "Set-Up" valve which allows tool setters or maintenance personnel to lock the ram in the down position to facilitate tool depth adjustment. Check the function of this valve. To actuate this valve, back out the red locking screw from the valve guard. Move the valve lever to the down position. The press ram will immediately descend to the bottom of the stroke and stay in that position. Once the ram depth has been set, (see Section II, Paragraph 2) return the valve lever to the up position. The ram will immediately return to the top of the stroke.



Photo 1.13

**NOTE:** After using the "Set-Up" valve, always lock the valve in the up position using the red locking screw.



Photo 1.14

**CAUTION:** THIS VALVE IS NOT DESIGNED FOR USE IN PRODUCTION AND SHOULD ONLY BE USED BY AUTHORIZED AND QUALIFIED PERSONNEL.  
(See photo 1.17)

- C. Ram Speed Adjustment (OPTIONAL).  
The ram speed on the down stroke can be adjusted to suit your application. Locate the adjustable flo-control muffler,(see page 10, letter "H"). Unlock the adjusting screw and screw it in to slow the ram down, back it out to increase ram speed. **NOTE:** When operating the press with slow ram speed, special guarding and control considerations apply. See the rear cover of this manual for CSR controls, etc. Lock the adj. screw when speed has been set.



Photo 1.15



Photo 1.16

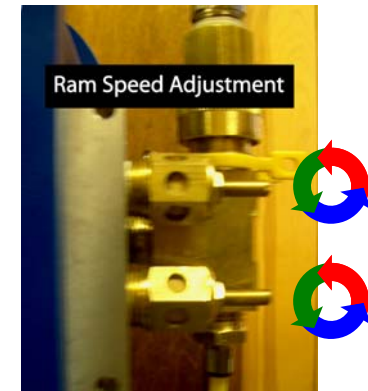


Photo 1.17

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### Section II: Set Up and Operation

(See photos 2.1, 2.2)

**NOTE:** Prior to installing any tooling in the press, proper point of operation guarding, specifically designed for your tooling, must be built and mounted on or around your tooling.

**CAUTION:** NEVER OPERATE, SERVICE, OR ADJUST THIS MACHINE WITHOUT PROPER INSTRUCTION.

NEVER SERVICE THIS MACHINE WITHOUT FIRST SHUTTING OFF AIR SUPPLY.

NEVER OPERATE THIS MACHINE WITH SAFETY GUARDS REMOVED.

1. Mount your tooling.

(See photos 2.3, 2.4)

- A. Using the tapped holes in the press platen, mount the lower portion of your tooling to the press. The platen is machinable and can be drilled and tapped as necessary. The standard bore in the press ram is .8125" with a depth of 1.5". Precisely fit your shank to the bore of the ram and lock the shank in with the 5/16-18 hardened lock screw located on the face of the ram. The end of the ram should bear against the upper portion of your tooling. If your tool incorporates guide pins, etc. be sure the tooling easily moves along the full length of travel with no binding or misalignment. Correct any problems found in the tool before placing tooling into production.



Photo 2.1



Photo 2.2



Photo 2.3



Photo 2.4

**DIRECT-AIRE SERIES PRESSES  
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( See Photo 3.1, 3.2)

1. Follow the instructions provided by the manufacturer of the Filter, Regulator, Lubricator Unit you are using. (See Section I, Paragraph 5A). Fill the reservoir with Joraco Air Tool Oil, Pt. No. JO-FRL. Adjust the drip rate to approx. one drop per 50 strokes of the press. **Only use oil specifically formulated for use in pneumatic equipment.**



Photo 3.1



Photo 3.2

**DIRECT-AIRE SERIES PRESSES  
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**Factory Support . . .**

Our 40 year reputation for providing quality *TOGGLE-AIRE & Direct-AIRE* presses that meet a wide range of special requirements and our 60 years of service and support experience are all available to you with one phone call. It's your biggest advantage in dealing directly with our factory. Make use of it. Please call with any and all questions you may have regarding your applications and our equipment.

Please contact our engineering department to discuss any questions you may have about control systems, modifications, and your applications. We are glad to supply our presses built to your specifications should you require other than our standard systems.



**WARRANTY**

A I M (hereafter referred to as the manufacturer) warrants that all TOGGLE-AIRE & Direct-Aire products will be free from defects in material and workmanship for a period of 180 days from the date of shipment to the original purchaser. Any claim made against this LIMITED WARRANTY must be made by contacting the customer service department of the manufacturer. At its option, A I M will repair or replace any product it deems defective under the terms of this warranty. If factory service is required, transportation costs to and from the factory are to be paid by the purchaser. This warranty does not apply to equipment that has been subject to abuse, misapplication, negligence, improper maintenance, alteration, or failure to follow manufacturer's instructions.

A I M's, SOLE OBLIGATION UNDER THIS WARRANTY IS STATED ABOVE. THIS WARRANTY IS IN LIEU OF ALL OTHERS, EXPRESSED OR IMPLIED, AND UNDER NO CIRCUMSTANCES WILL A I M BE LIABLE FOR ANY CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF TOGGLE-AIRE PRODUCTS.

**THINK SAFETY . . . WORK SAFELY . . .**