

3. Replace the fill plug and finger tighten.

CAUTION: DO NOT use a wrench.
Over-tightening will tear the reservoir bladder.

4. Tip the pump for leakage. If leakage occurs, remove the plug and check the plug seal for cuts or nicks. Replace the seal if necessary.

5. Replace the fill plug making sure the seal is centered properly on the plug. If leakage still occurs, remove oil and call your inside Chesterton Customer Service Representative.

PRIMING THE PUMP

If pump does not operate properly, it may have lost its prime. Follow the procedure below to prime your pump, if necessary.

1. Fill pump with hydraulic oil (**004211**), if necessary. See filling instructions.
2. Place pump on horizontal surface.
3. Set air supply pressure to 30-40 psi (2,1 – 2,7 bar).

4. Move pump treadle to **RELEASE** position.
5. Depress the button under the treadle to activate pump. Operate pump in **RELEASE** position momentarily several times to allow oil to flow back into pump and fill passage ways.
6. To verify that pump is primed, operate as normal with cylinder attached.

If pump still does not deliver oil, contact Chesterton Packing Application Engineering.

MAINTENANCE

1. Periodically check all hydraulic and air connections to be sure they are tight. Loose or leaking connections may cause erratic and / or total loss of operation. Replace or repair all defective parts promptly.
2. Periodically check the hydraulic oil level in your system. See filling instructions on page 2.
3. Change hydraulic oil after every 100 hours of operation. In dusty or dirty areas, it may be necessary to change the oil more frequently. To change the oil, drain used oil through the fill opening and fill reservoir to 1/2" (1 cm) below the fill opening with clean hydraulic oil. Dispose of used oil in accordance with local regulations.

When the unit will be stored for 30 days or more:

1. Wipe the entire unit clean.
2. Disconnect all air pressure and hydraulic lines to prevent accidental operation.
3. Cover the unit.
4. Store in a clean, dry environment. **DO NOT** expose equipment to extreme temperatures.



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CMS 2000 Pneumatic Injection System Instructions

Setup and Operation

SAFETY INFORMATION

To avoid personal injury or property damage during system operation, read and follow all cautions, warnings, and instructions, included with or attached to each product. Chesterton cannot be responsible for damage or injury

resulting from unsafe use of product, lack of maintenance, or incorrect product and system application. Contact Chesterton Packing Application Engineering when in doubt as to safety precautions or applications.

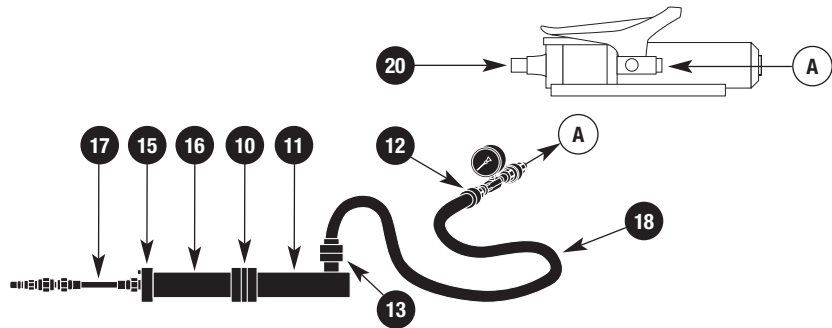
WARNING

1. Always wear proper personal protective gear when operating hydraulic equipment (i.e. safety glasses, gloves, etc.).
2. The system operating pressure must not exceed the pressure rating of the lowest rated component in the system. Make sure that all system components are protected from external sources of damage, such as excessive heat, flame, moving machine parts, sharp edges, and corrosive chemicals.
3. Disconnect air supply when pump is not in use. NEVER remove swivel air connector while air line is pressurized.
4. The pump is equipped with an overload valve, preset for maximum operating pressure. DO NOT attempt to adjust the overload valve. If adjustment is required, contact the factory. Adjustment by other than qualified personnel may cause malfunction, damage to the system, and/or personal injury.

NOTE: The CMS 2000 PNEUMATIC / HYD PUMP comes from the factory pre-filled with the proper amount of hydraulic oil. There should be no need to add hydraulic oil when the system is new.

Set Up:

1. Remove the CMS 2000 PNEUMATIC INJECTION SYSTEM (**004536**) from the Packing Box.
2. Take note that the CMS 2000 PNEUMATIC / HYD PUMP (**004537**) is permanently fixed to a removable plate attached to the bottom of the Toolbox.
3. The pump can be removed from the toolbox bracket along with mounting plate, by unclipping the four swing fasteners holding the plate in place.
4. Barrel (**16**) is pre-fitted permanently to cylinder (**11**) with coupling (**10**). Do not attempt to disassemble.



Use the above illustrations for reference

Hydraulic Connections:

Connect Gauge / Tee assembly to swivel fitting **A** first. Then connect hose (**18**) to the gage tee (**12**) and the hydraulic cylinder (**13**). Assure all fittings are tight.

NOTE: Chesterton requires installing a gauge in line to monitor hydraulic system pressure.

Adjust Hydraulic Pressure

The hydraulic pressure output of your air pump is controlled by the air pressure into the pump. Increasing the air inlet pressure will increase hydraulic output

pressure, and decreasing air inlet pressure will decrease the hydraulic output pressure.

Connect the Air Supply

Recommended air inlet pressure is 60 - 100 psi (4,1 - 6,9 bar).

Connect an air line to the 1/4" quick disconnect (**20**) on the pump. Make sure connection is tight.

Loading:

- A. Unscrew barrel cap (**15**).
- B. Load CMS-2000 injection compound.

Refer to Item #073738, CMS-2000 Automated Installation Instructions for details.

- C. Replace system barrel cap (**15**).

- D. Tighten system cap (**15**) with the spanner wrench (**004220**) included.
- E. Be sure to have appropriate CMS-2000 transmission hose (**17**) firmly attached before system is operated.

Operation:

1. Check the oil level in the pump, and add oil if necessary.
2. Check to make sure all air and hydraulic connections are secure before operating the pump.

To Activate the Pump

Depress the **ADVANCE** end (air input end) of the treadle* as shown in Figure 6 and the air motor will be activated to pump Hydraulic oil to the system.

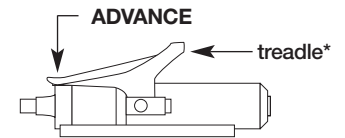


Fig. 6

To Hold Load Pressure

The air motor will stop and hold load pressure when the treadle is in the free **NEUTRAL** position. See Figure 6a.

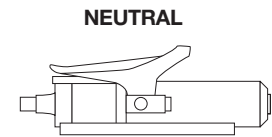


Fig. 6a

To Release Load Pressure

To release load pressure or retract a cylinder, depress the **RELEASE** end of the treadle as shown in Figure 6b.

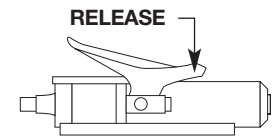


Fig. 6b

The CMS-2000 Injection System will need re-loading if the pressure gauge reads over 5000 psi. This is an indication that the piston has reached the barrel cap (**15**).

- A. Release the hydraulic pressure by depressing the treadle as shown in Figure 6b.
- B. Remove system barrel cap (**15**).
- C. Using either bulk or cartridge, refill the CMS-2000 Injection System (**16**).
- D. Replace the system barrel cap (**15**) and tighten with the spanner wrench.
- E. The CMS-2000 Pneumatic Injection system is now ready for service.

* **CAUTION:** Gauge pressure greater than 5000 psi may result in rupturing safety disk.

Adding Oil to the Reservoir

1. Hold pump on end as shown in Figure 1 and remove fill plug.
2. Fill to 1/2" (1 cm) below the fill opening with supplied hydraulic oil (**004211**). Use of fluids other than the supplied hydraulic oil may cause damage and will void your warranty.

WARNING: Attempting to overfill the reservoir will cause the reservoir to become pressurized. If the reservoir is subjected to high pressure, the casing may rupture, causing personal injury and/or equipment damage.

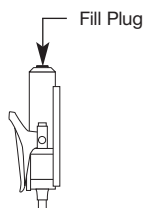


Fig. 1