



LUBE MASTER

Operating instructions for Biolube Spray Systems

DANGER: NEVER OPEN CAP BEFORE DE-PRESSURIZING SPRAY SYSTEM. ALWAYS ALLOW SYSTEM TO DE-PRESSURIZE BEFORE ATTEMPTING TO REMOVE FILL CAP. NEVER USE FLAMMABLE OR COMBUSTABLE LIQUIDS (Class 3 or 4) IN LUBIE SPRAY SYSTEMS; DIESEL FUEL IS CLASS 4!

Disconnect or shut off air supply to the spray system.

1. After tank is completely de-pressurized remove cap.
2. Fill tank with a safe, non-flammable lubricant.
3. Replace cap and reconnect or turn on air supply.
4. **MAXIMUM AIR PRESSURE: 150 PSI**

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Operation

The function of the Lubie sprayer is to apply a small amount of lubricant/coolant through atomizing nozzles onto the cutting tool. The high pressure air drives the lubricant/coolant onto the tooling.

The higher the speed of the tooling the higher the air pressure you will use. Band saws generally use 20-60 psi, moulders, finger jointers and circle saws 90-120 psi.

IMPORTANT NOTES

- 1. Never use any flammable or combustibile liquids in Lubie spray systems ; Class 3 or 4 DIESEL FUEL IS CLASS 4!**
2. Never remove the fill cap while the tank is pressurized
3. Waterbased lubricants will freeze in winter. If the temperature of your mill falls below 32 F then install a belly band tank heater (PN: 5W669) or build a heated enclosure around the tank.
4. It is important that you install the air pressure regulator with filter. Rust, scale and other contamination in air lines can clog the very small ports in the metering venturi.
5. The closer the nozzle to the tooling the better the lubricant delivery. Make sure and leave enough room to easily remove the tooling.

Assembly and Mounting

Unpack the box and check to make sure the tank, nozzles, tubing, air pressure regulator and any option parts are un-damaged. Generally mounting will take 45 minutes or less. You will need a compressed air line with ball valve and a ½" male NPT fitting going to the air pressure regulator.

We do not recommend nozzles on the outside of the band unless you are having problems with extreme pitch build-up, which is rare for most large vertical head saws and resaws cutting hardwoods. Two nozzles above the guide and two nozzles on the inside back.

Sometimes a narrow band has pitch problems on the outside and the Lube Master can help. Direct the outside nozzle to the band just before it enters the cut. Outside nozzles should only be installed at the guide just before the blade goes into the wood.

1. Sit the tank upright (it will not work laying on its side) somewhere close to the machine where you can fill the tank easily and where employees do not trip over the air line or tubing that runs to the nozzles.
2. Mount the spray nozzles/brackets so that they are between ½" and 3" away from the tooling. This will vary depending upon whether it's a band saw, circle saw, finger jointer or other tooling. See the pictures below. The closer the nozzle to the saw the better but leave room for saw removal.
3. Run the ¼" poly tubing from the tank to the nozzles and wire tie them so they don't get caught in your machine.



12" Band Saw with 2 nozzles mounted just above guide, 2 additional nozzles go on the inside of the saw. Any place that is easy to attach the nozzles on the inside back is OK. The objective is to coat the blade before it reaches the top wheel. This prevents any pitch transfer to the wheel.



1 1/2" narrow band inside mount.



1 1/2" narrow band standard mount



Gang Rip spray bar



Finger Jointer

Now that the nozzle mounting is done fill the tank with lube, attach your air line to the air pressure regulator and you are ready to start the sprayer.



First turn on the air and set the air pressure regulator for the saw or tooling you are using. See the pressure settings below. Next set the lubricant flow by turning the black knob on the top of the clear sight dome.

Lubricator Adjustment & Pressure Settings

LEANER – Clockwise

RICHER –Counter Clockwise

Drops per Minute	Total Volume
25 dpm	1oz/hr (1/2 pint per 8 hours)
50 dpm	2 oz/hr (1 pint per 8 hours) standard narrow band setting, 2 nozzle
100 dpm	4 oz/hr (1 quart per 8 hours) standard 7"-12" band setting, 4 nozzle
200 dpm	8 oz /hr (½ gal per 8 hours) standard 12-14" band setting, 4 nozzle

¾-2" band saws 20-30 psi

3-8" band saws 30-40 psi

10-14" band saws 50-70 psi

Circle saws, moulders, finger jointers 90-110 psi

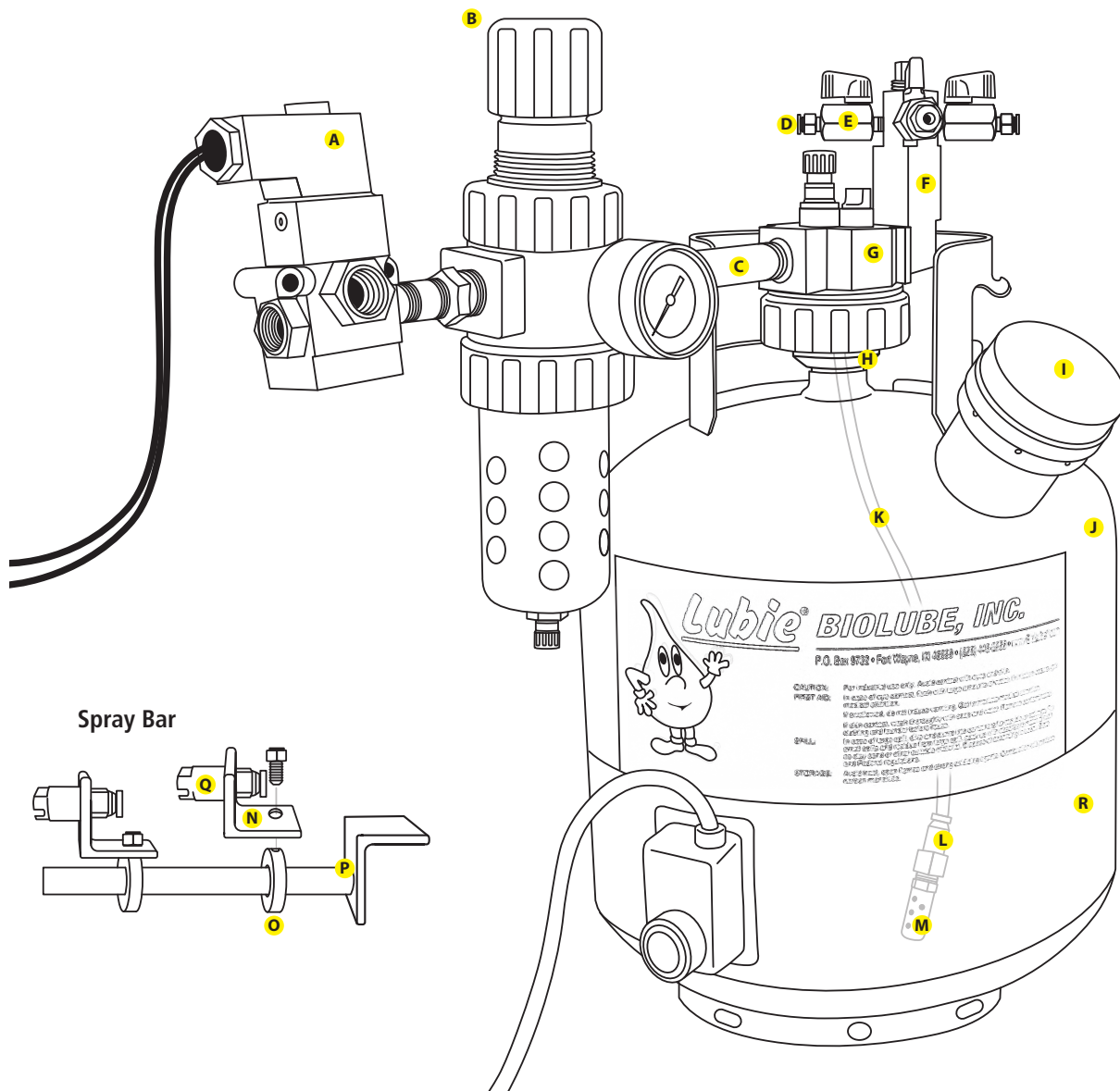
Your final adjustment will be to adjust the lubricant flow to each nozzle. This is done by opening or closing the ball valves on the top of the lubrication unit. The yellow handles.

For band saws the best general adjustment is for the line that runs to the inside of the band pointing at the gullet and tooth area is left fully open. The nozzle that points to the inside body of the band is 50% open and the two nozzles spraying the outside of the band are 25% open. If you see build-up stating in any area of the band you can then fine tune the amount of lubricant to that area.

Cold Weather Operation

All waterbased lubricants will freeze in the lines and tank at below 32F. There are a number of solutions to this problem.

1. Tank freezing is easily remedied by;
 - a. Installing a 110 volt belly band heater on the tank (PN: 5W669)
 - b. Building a box around the tank and putting a 25 watt light bulb in the box.
 - c. Sitting the tank on top of a metal pail and putting a 50 watt light bulb in the pail.
2. Lube freezing in the lines is the most common problem and to solve this first gently turn the black drip adjustor knob on top of the lubricator until it stops dripping. Wait for a minute or two and let the air pressure blow all the lube out of the lines. Then turn off your air line ball valve or on the air pressure regulator turn off the air. In the morning simply turn on the air and readjust the lube drip rate.

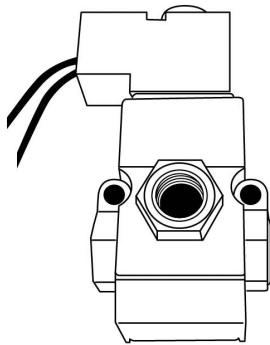


Spray Bar

Part #	Description
A	Mac air valve (optional 12 VDC or 24 VDC)
B 07E32A18AC	Air pressure regulator with filter, gage 1/2" ports
C 218-P-8	5 1/2" black iron pipe
D MV608-2	1/8" flow control valve
E 168 PLP-4-2	1/8" NPT Presto-O-Loc
F BL-073113-GB	4 port aluminum manifold
G 07L31BE	Custom-machined venturi with 1/2" ports
H 2125-75	Aluminum adapter, venturi to tank
I AOCAP32	Safety cap for Biolube fill port
J 5GW	5 gallon tank with 2" fill port
K NM-2.5-025	5/32" nylon tubing for tank pick-up
L 66PLP-5/32-2	5/32" tubing to filter connector
M 28-373	Tank (pick-up) filter
N 001 AN	Angle bracket for nozzle set-up
O C-050	1/2" ID shaft collar for nozzle assembly
P BL-6	6"x 1/2" dia. shaft for nozzle assembly (spray bar)
Q H 1/8 W110	110° brass nozzle (M to 1/8" NPT)
2202P-8-8	1/2" NPT brass 90° elbow (M to F)

Part #	Description
68PL-4-2	1/8" NPT male - 1/4" PE tube (Prestolok)
207P-2	1/8" NPT x 3/4" nozzle connector
E-43-0500	1/4" polyethylene tubing (standard)
218-P-2	plug for 1/8" brass pipe
SMJ-12	12" spray manifold (no fittings or nozzles)
SMJ-24	24" spray manifold (no fittings or nozzles)
SMJ-36	36" spray manifold (no fittings or nozzles)
SVA-24	Separate valve assembly for gang saws

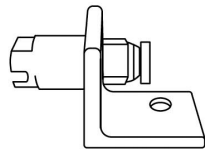
Part #	Optional Equipment
55B-12-PL	Mac electric 110 VAC solenoid for air line shut off
R 5W669	Strap tank heater, 115 VAC with thermostat
R 5W670	Strap tank heater, 115 VAC no thermostat
PS 718 P	Venturi rebuild kit (0731BE)
PS 738 P	Drip control repair kit for venturi unit



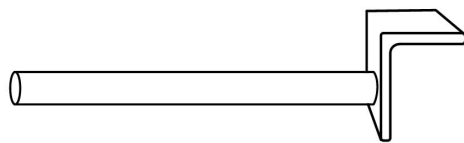
Mac air valve



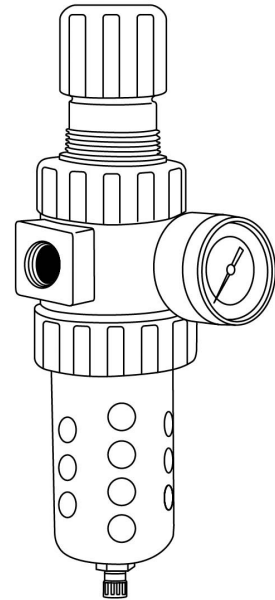
Tank filter & fitting for pick-up tube



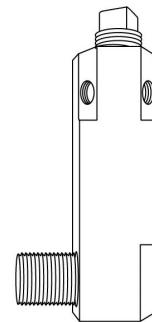
Nozzle assembly with 90° bracket



6" Spray bar



Air Pressure regulator with filter



4 Port distribution manifold

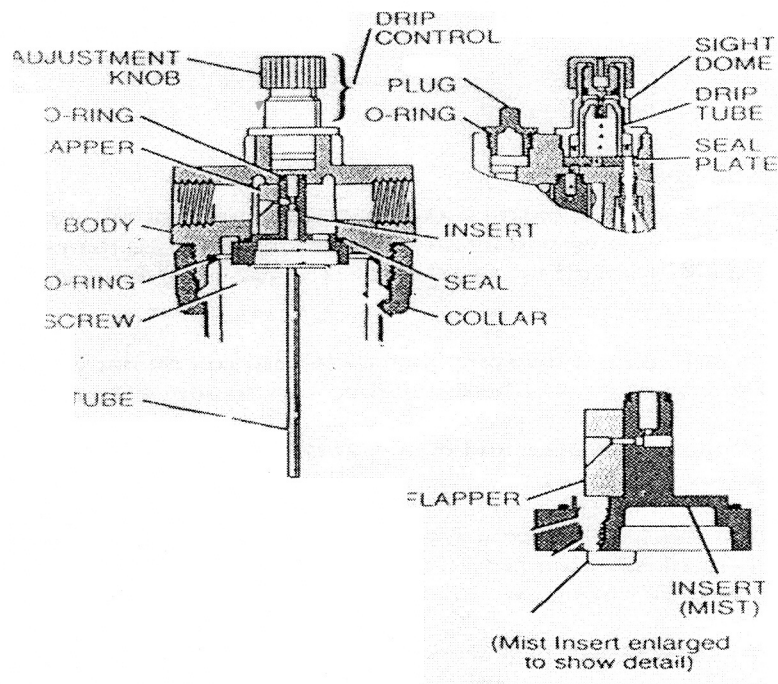


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To Replace the Drip Control Model 07L31BE (See Cutaway view)

1. Turn off air supply and depressurize the unit
 2. Unscrew drip control by rotating sight dome counterclockwise. Carefully remove seal plate. **NOTE: Do not damage surface on body underneath seal plate.**
 3. Lubricate seal plate with grease found in kit. Align pin on underside of seal plate with mating hole in body and install seal plate.
 4. Install sight dome and drip tube. Tighten to 10-15 inch pounds of torque.
 5. Turn on air supply and check for leakage. If leaks occur, repeat repair procedure.
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Warning

To avoid unpredictable system behavior that can cause personal injury and property damage.

- Disconnect air supply and depressurize all airlines connected to this product before installation, servicing, or conversion.
 - Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.
 - Medium must be moisture-free if ambient temperature is below freezing.
 - Service according to procedures listed in these instructions.
 - Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
 - After installation, servicing, or conversion, air supply should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
 - Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.
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To service Lubricator Model 07L31BE (See Cutaway View)

1. Turn off air supply and depressurize unit
2. Unscrew threaded collar and remove from the tank. Remove Seal.
3. Remove the two (2) screws in the body holding the plastic insert. ***Notice the direction the little tip on the outside of the plastic insert points!*** You will need to install it the same way later. Remove insert, seal, and o-ring from body.
4. Clean all internal sealing surfaces. The lubricant you use generally works well for cleaning.
5. Lubricate all seats and o-rings with grease found in kit.
6. Install tank seal into body. Note: The kit contains both 06L/16L and 07L31BE tank seals. Use the appropriate o-ring and discard the other.
7. Sub-assemble the plastic insert, o-ring, seal, check ball, spring, and flapper. The spring and check ball is under the flapper. Be careful do not lose these. Note: The flapper must be assembled so that the hole in the flapper lines up with the hole in the insert.
8. Install plastic insert (little black tip on side of insert points to air inlet side) and tighten the two (2) screws to 10-12 inch pounds of torque.
9. Install tank to body and hand tighten the collar.
10. Turn on air supply and check lubricator for leakage. If leakage occurs, **Do Not Operate**-repair again.