# Mist Lubricator Pressurized Dispensing System



# General

The Mist Lubricator has been designed for close control of air borne lubricant to bearings. Having a wide range of adjustment at the lubricator and a selection of distributor fittings to apportion the droplets to the bearings, it becomes feasible to supply continuous lubrication to bearing surfaces without over lubrication.

The Mist Lubricator is a complete and fully automatic unit. The design contains all of the necessary components for air filtration, pressure control and oil atomization. Incorporated within the unit are a pressure gauge, solenoid operated air valve, electric wire conduit box and pressurized reservoirs with integral filter elements. A visible oil feed indicator provides a constant check that the lubricator is functioning. The rate of drops passing the sight window may be used as a guide to mist output; a faster rate of drops indicates more mist, a slower rate less mist. Choose either of the tubes permitting suitable observation.

Oil is atomized into very fine particles at the lubricator, carried in the air stream and distributed through (rigid or flexible) tubing to the bearings. The air flow through the bearings acts as a bearing coolant while depositing the oil particles, and at the same time prevents dust or abrasives from entering the bearing. The sizes of the airborn oil particles are so fine that they can be transported through 50 feet of 3/8" 0.D. rigid tubing or 1/2" 0.D. flexible without settling out.

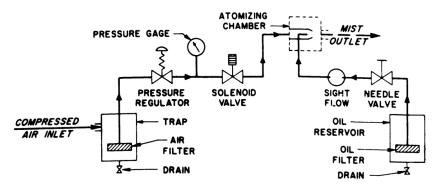
The Mist Lubricator system consists of tubing and distribution fittings, using flexible tubing where necessary.

- 1. Main Line: Tubing 3/8" O.D. and/or hose 1/2" O.D.
- **2. Branch Line:** Tubing 1/4" 0.D. and/or hose 3/8" 0.D.
- 3. Distribution Fittings:
  - + Mist Jets (MA): Mist for high speed antifriction bearings.
  - + Meter-Units (CA): Mist to oil for low speed bearings.
  - + Spray Jets (SA): To spray oil on gears, chains, etc.

# Operation

Fill oil reservoir to, but never above, indication line. Make sure unit is connected to the shop air line and the solenoid valve is connected to electrical system. Pressure is set to allow proper distribution of the mist with minimum air consumption. To adjust the mist output, the needle valve setting may be changed. Turn clockwise to decrease mist, counter-clockwise to increase mist. The rate of oil drops visible at the sight flow window is not a measure of mist output; however it provides a check that the lubricator is functioning and is a guide to mist output (more drops-more mist, less drops-less mist).

### Flow Diagram





### ATTENTION

Use clean oil only of the type and viscosity recommended by machine manufacturer.

### ATTENTION

Replace filter group annually.

#### WARNING

Never remove filler plug when unit is in operation.

#### Refer to the following documents:

+ Datasheet #2082: Mist Jets MA, CA & SA

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# **Technical Data**

| Maximum Inlet Air Pressure     | 125 psi (60 psi recommended) |  |  |
|--------------------------------|------------------------------|--|--|
| Recommended Operating Pressure | 20-30 psi                    |  |  |

# Maintenance

Check oil level daily and refill reservoir when required. Filters should be checked periodically and cleaned or replaced if necessary. Accumulated water and dirt in air reservoir should be drained when necessary.

### Troubleshooting

| Symptom                            | Possible Cause                                                                                           |  |
|------------------------------------|----------------------------------------------------------------------------------------------------------|--|
| Chattering of Unit When Turned On  | Check electrical supply line for low voltage.                                                            |  |
| No Delivery of Air or Coolant      | Check for burned out solenoid or loose wire connection.                                                  |  |
| Inability to Regulate Air Pressure | Check pressure gauge for proper operation and check diaphragm for rip or puncture. Replace if necessary. |  |

# How to Order

| Name            | Reservoir Capacity | Voltage | Level Switch | Pressure Switch | Part #  |
|-----------------|--------------------|---------|--------------|-----------------|---------|
| Mist Lubricator | 1 gallon           | 24 VAC  | Yes (N.O.)   | No              | D3694   |
|                 |                    | 24 VDC  | Yes (N.O.)   | No              | 32224** |
|                 |                    | 110 VAC | No           | No              | D2685   |
|                 |                    | 110 VAC | Yes (N.O.)   | Yes             | D3144   |
|                 |                    | 110 VAC | Yes (N.O.)   | No              | D3220   |
|                 |                    | 110 VAC | Yes (N.C.)   | Yes             | D3144-2 |
|                 |                    | 110 VAC | Yes (N.O.)   | Yes             | 24783*  |
|                 |                    | 220 VAC | No           | No              | D2819   |
|                 |                    | 220 VAC | Yes (N.O.)   | Yes             | D3068   |

\*\* Includes special 5-Pin Electrical Connection

When ordering, specify by name, reservoir capacity, voltage, level switch, pressure switch and part number, e.g. Mist Lubricator, 1 gallon, 24 VAC, Level Switch, No Pressure Switch, Part #D3694.

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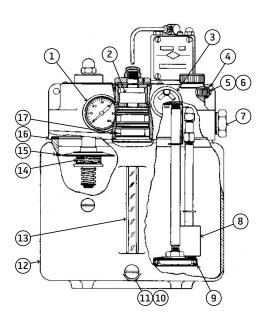
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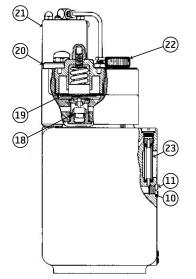
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# Service Parts

| Item                                             | Description                        | Part #               |  |  |  |
|--------------------------------------------------|------------------------------------|----------------------|--|--|--|
| 1                                                | Pressure gauge                     | B10114               |  |  |  |
| 2                                                | Coil (110 VAC, 60 Hz)              | B6300                |  |  |  |
|                                                  | Coil (220 VAC, 50/60 Hz)           | B6308                |  |  |  |
|                                                  | Coil (24 VAC, 50/60 Hz)            | B7497                |  |  |  |
|                                                  | Coil (24 VDC)                      | B9997                |  |  |  |
| 3                                                | Sight window                       | B5604                |  |  |  |
| 4                                                | Needle valve locknut               | HN230                |  |  |  |
| 5                                                | Needle valve assembly              | B6746                |  |  |  |
| 6                                                | Needle valve seal                  | H0412                |  |  |  |
| 7                                                | Outlet adapter                     | B6256                |  |  |  |
| 8                                                | Float assembly switch              | B9212                |  |  |  |
|                                                  |                                    | B9212-1 <sup>1</sup> |  |  |  |
| 9                                                | Liquid filter group                | S181                 |  |  |  |
| 10                                               | Drain plug seal                    | H0403                |  |  |  |
| 11                                               | Drain plug                         | B7305                |  |  |  |
| 12                                               | Reservoir assembly                 | D132-1               |  |  |  |
| 13                                               | Liquid sight gauge group           | S208                 |  |  |  |
| 14                                               | Air filter group                   | S205                 |  |  |  |
| 15                                               | Moisture shield assembly           | B8972                |  |  |  |
| 16                                               | Reservoir gasket                   | B6275                |  |  |  |
| 17                                               | Solenoid air valve group (no coil) | S197                 |  |  |  |
| 18                                               | Valve seat and plunger group       | S196                 |  |  |  |
| 19                                               | Regulator diaphragm group          | S195                 |  |  |  |
| 20                                               | Pressure switch gasket             | B7774                |  |  |  |
| 21                                               | Pressure switch                    | HE825                |  |  |  |
| 22                                               | Filler plug assembly               | B6303                |  |  |  |
| 23                                               | Air sight gauge group              | S216                 |  |  |  |
| <sup>1</sup> For Mist Lubricator (part #D3144-2) |                                    |                      |  |  |  |
|                                                  |                                    |                      |  |  |  |





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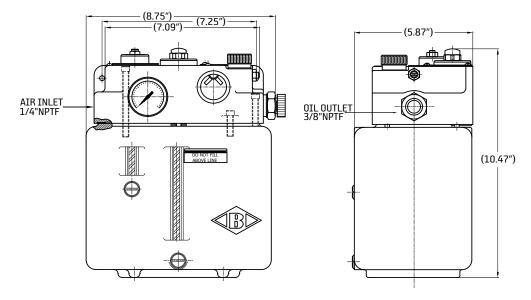
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# Dimensions for 1 gallon units



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