

# 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 airborne oil particles are so fine that they can be transported through 50 feet of 3/8" O.D. rigid tubing or 1/2" O.D. flexible without settling out.

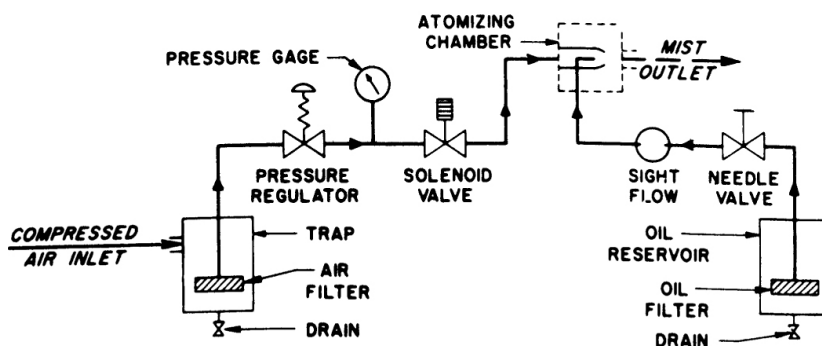
The Mist Lubricator system consists of tubing and distribution fittings, using flexible tubing where necessary.

1. **Main Line:** Tubing 3/8" O.D. and/or hose 1/2" O.D.
2. **Branch Line:** Tubing 1/4" O.D. and/or hose 3/8" O.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

BIJUR DELIMON INTERNATIONAL

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(800) 631 0168 TOLL-FREE  
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2250 Perimeter Park Dr., Suite 120  
Morrisville, NC 27560

## 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	No	No	D3012
		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
	5 gallon	110 VAC	Yes (N.O.)	Yes	D2718
		110 VAC	No	No	D2722

\* Black reservoir instead of blue

\*\* 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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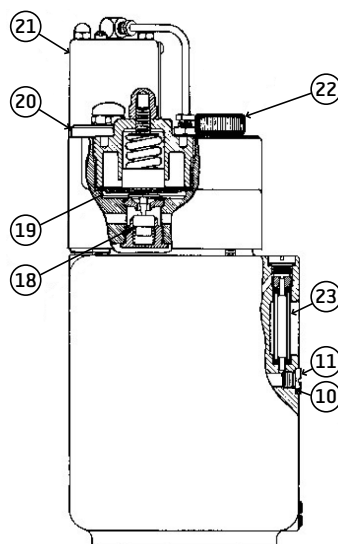
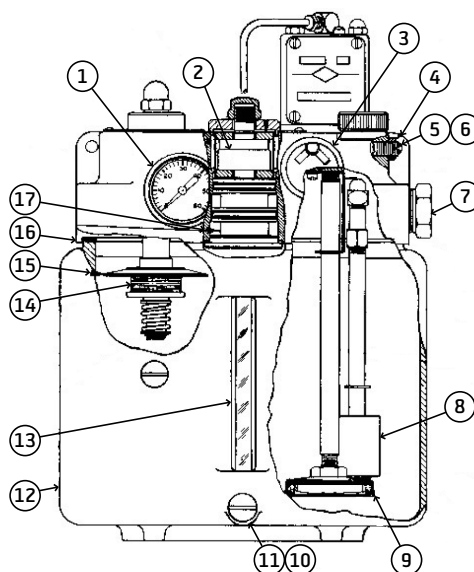
## Service Parts

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> B10011 (*)
9	Liquid filter group	S181
10	Drain plug seal	H0403
11	Drain plug	B7305
12	Reservoir assembly	D132-1 (○) D123-1 (*)
13	Liquid sight gauge group	S208 (○) S217 (*)
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 (○) B6937 (*)
23	Air sight gauge group	S216

<sup>1</sup> For Mist Lubricator (part #D3144-2)

○ = 1 gallon

\* = 5 gallon



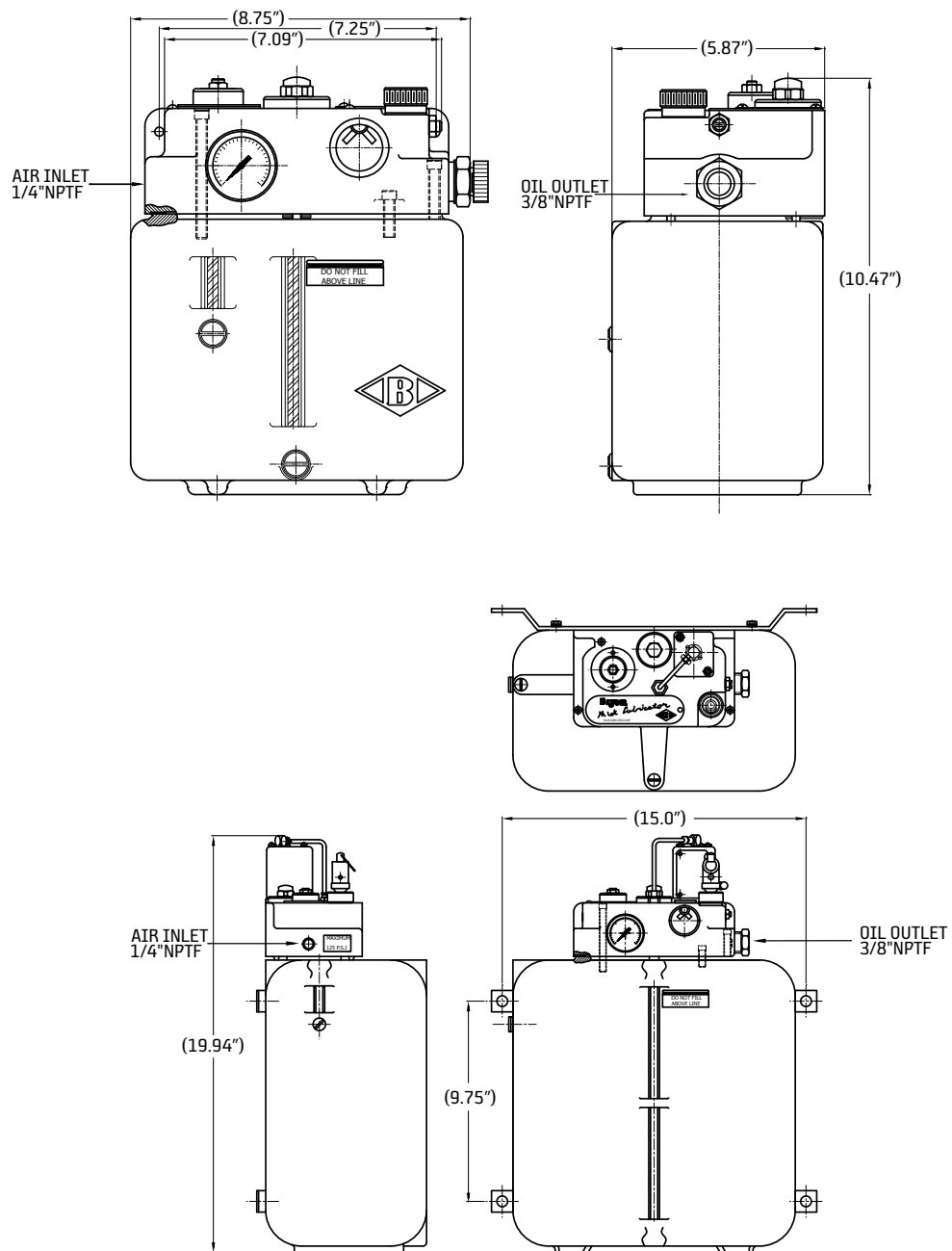
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**Dimensions for 1 & 5 gallon units**



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