

90-412\*\* (revised 09/04)

Please direct questions regarding  
this form to one of the following:

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## 27 MODULAR SERIES LUBRICATOR

### Installation Instructions, Operating Instructions and Parts List

#### Application:

The 27 Series Modular Lubricator is constructed of lightweight aluminum in a compact configuration, combining ease of installation with superior system design flexibility. Each unit is adaptable for conversion to duo or trio systems either with clamps which connect without disturbing existing piping or with standard nipples. A modular distribution block allows a portion of the air supply to be directed to a branch line or device.

#### Options and Accessories:

##### Options\*:

	Suffix
Metal Bowl (no Sightglass) . . . . .	M
Metal Bowl with Sightglass . . . . .	S

\*Add a dash followed by the suffix(es) in alphabetical order to the model number.

##### Accessories:

	Model No.
Metal Bowl . . . . .	.27L-41M
Metal Bowl with Sightglass . . . . .	.27L-41S
Connecting Clamp Kit (includes two connecting clamps, two screws, one O-ring and one allen wrench) . . . . .	.27MB01
Wall Mount Connecting Clamp Kit (includes one wall mount connecting clamp, one connecting clamp, two screws, one O-ring and one allen wrench) . . . . .	.27MB02
Distribution Block . . . . .	.27DB01



#### Technical Data:

##### Maximum Supply Pressure:

Plastic Bowl . . . . .	150 PSI
Metal Bowl . . . . .	250 PSI

##### Maximum Operating Temperature:

Plastic Bowl . . . . .	120° F
Metal Bowl . . . . .	250° F

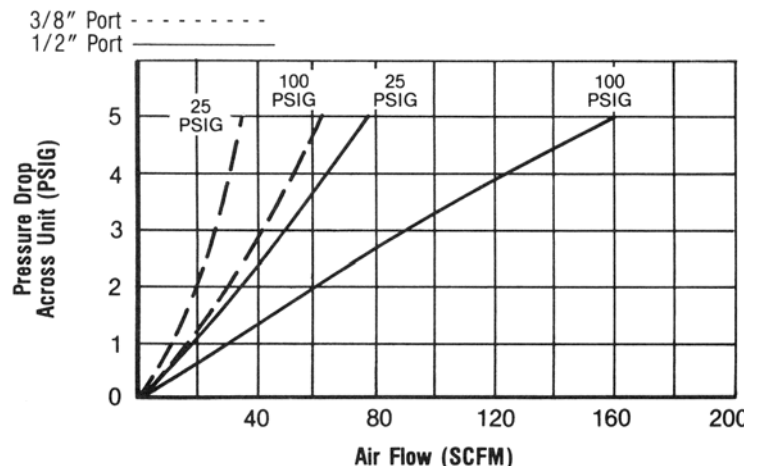
##### Material:

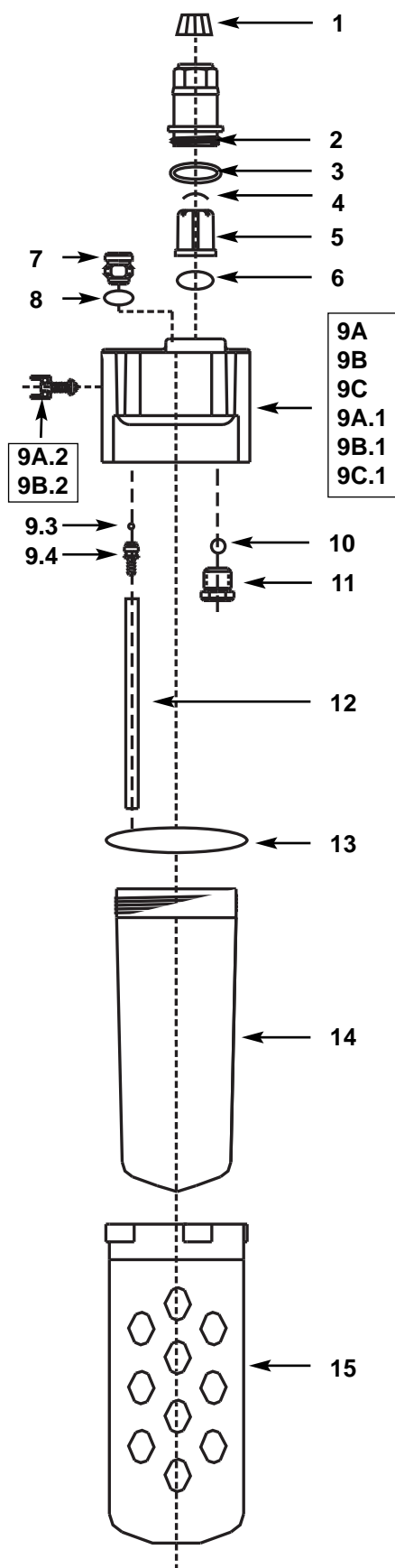
Body . . . . .	Die cast aluminum
Standard Bowl . . . . .	Transparent polycarbonate
. . . . .	w/ high impact plastic guard
Optional Bowl . . . . .	Die cast zinc

##### Dimensions and Weights:

Height . . . . .	8"
Width . . . . .	2 3/4"
Weight . . . . .	1 lb.

#### Lubricator Performance Data:





### Rebuilding Kit:

The Lubricator Repair Kit (Part number 27LK01) includes items 13, 14, and 15.

We reserve the right to make engineering changes in design or materials without notification.

### General description of operation:

As filtered and regulated air enters the lubricator, a small portion is diverted through the check stud (11) to pressurize the lubricator bowl (14). At low flow rates the majority of air passes through the venturi section of the back pressure valve assembly (9.2) and creates a low pressure arc to draw oil from the bowl (14), through the capillary feed tube (12) and past the oil check ball (9.3) to the sight dome assembly (2). This is where the oil flow rate is controlled manually by the adjusting screw (2). When drops are formed, the oil flows through the clearance between the drip spout (5) and sight dome (2) dripping through the point of injection. There, the air stream breaks the oil up into fine particles and mixes it under the swirling air to be carried to the outlet.

Under higher flow conditions, the spring loaded back pressure valve (9.2) opens and the excess flow bypasses the venturi section, then blends with lubricated air at a downstream point. The oil check ball (9.3) assures that when there is no air flow, oil in the feed tube (12) is held in place, shortening the time required to resume oil delivery when flow is reestablished. The fill plug (7) at the top of the lubricator provides access to refill the bowl (14) with oil.

### Lubricants to use:

Lubricants, as recommended by the equipment manufacturer, may be used, provided that they are not heavier than SAE #40 (S.U.V. 800 SEC at 100° F). *We recommend the use of Coilhose nondetergent ATL rustproofing lubricant in temperatures above 40° F. For applications between 45° F and -45° F, we suggest using Coilhose ATLW lubricant.*

### How to fill the Lubricator:

Lubricators may be filled through the fill port while under pressure and without shutting down the equipment. After carefully removing fill plug, insert the tip of a long spout oil can into the bottom of the fill port to avoid any blow back. Lubricator bowl should be filled to within 1/2" of the top.

The lubricator may also be filled by removing the bowl *after the system has been depressurized. Once the bowl has been filled and replaced, be sure it is locked into position before repressurizing the system.*

### Adjusting the Lubricator:

When the adjustment knob is turned completely clockwise, oil is not being delivered through the system and the equipment is not being lubricated. The adjusting knob should be set to the desired drip rate after the air has been turned on and flowing. By turning the adjustment knob in a clockwise direction, the oil feed rate is decreased. Although proper lubrication is determined through demand and experience, a good starting point is one to two drops per minute. To check lubrication rate, we suggest the following: Hold a piece of cardboard at the exhaust hole of the component in the least favorable position (farthest away from the lubricator or in the highest position). After the unit has run for about 100 strokes, an oil film on the cardboard will indicate that the setting is correct. If the oil film on the cardboard runs, the setting is too high. In order to prevent gumming, it is preferable to add too little rather than too much oil.

### Cleaning and maintenance:

The lubricator will provide long periods of uninterrupted service as long as both the air and oil supplies are kept clean and the oil level is kept above the end of the tube in the bowl. Failure of oil to drip through the sight dome, regardless of the position of the adjusting knob, indicates that cleaning is required. The lubricator does not need to be removed from the line for cleaning.

*Depressurize the air line* and disassemble the lubricator using the parts drawing on this page as a guide. Cleaning is normally needed only in the oil metering area. After unscrewing the adjusting knob/sight dome assembly, remove the inner drip spout and *clean all components with warm water and mild household detergent only.* The bowl guard is removed by depressing the release tab with the thumb, while turning the guard counterclockwise and pulling downward. The guard will become disengaged when the clasps clear the locking points on the body. The bowl can then be removed by turning it counterclockwise until it is completely unscrewed and free of the body.

### Components:

Item No.	Description	Part No.	Item No.	Description	Part No.
1	Adjusting Knob	8742-31A	9C.1	3/4" Lubricator Head	27L6-1
2	Sight Dome Assembly	8742-32A	9A.2	3/8" Back Pressure	
3	Retainer "O" Ring	26L-12		Valve Assembly	26L-16
4	Spring Washer	8742-42A	9B.2	1/2" Back Pressure	
5	Drip Spout	8742-33A		Valve Assembly	27L-15
6	Drip Spout "O" Ring	26L-14	9.3	Oil Check Ball	26L-18
7	Fill Plug	8844-10	9.4	Feed Tube Barb	26L-17
8	Fill Plug "O" Ring	3294C-8	10	Air Check Ball	26L-19
9A*	3/8" Lub. Head Ass'y	27L3-55	11	Check Stud	26L-20
9B*	1/2" Lub. Head Ass'y	27L4-55	12	Feed Tube	8844-5L
9C	3/4" Lub. Head Ass'y	27L6-55	13	Bowl Gasket	27F-16
9A.1	3/8" Lubricator Head	27L3-1	14	Polycarbonate Bowl	27L-41L
9B.1	1/2" Lubricator Head	27L4-1	15	Plastic Bowl Guard	27F-50

\*Items 9A, 9B and 9C are factory assembled and should be purchased as an assembly.