

## DESCRIPTION

Manzel® Model 100 V Pump is a single piston, reciprocating type design. It provides positive lubrication to cylinder walls, bearings and moving parts of large engines, compressors, pumps and other similar equipment. The actual amount of oil that is being displaced to a point of lubrication may be observed through the drip tube. The sight glass gives visual indication of proper pump operation.

Higher pressures, high efficiency and greater capacity permits this pump to have a wide band of adjustment which provides for a less expensive drive arrangement.

## FEATURES

- Can be used with existing Models 82 and 94 Manzel lubricators.
- Sight glass gives visual indication of proper pump operation.
- Pump can be installed while equipment is running if necessary.
- Compact and easy to install without special assistance.



**Model 100V Pump  
(For use in Manzel  
Model 82 and 94 lubricators)**

## SPECIFICATIONS

Material .....	Steel and Meehanite
Piston Diameter .....	1/4-Inch (6.35 mm) 3/16-inch (4.763 mm)
Operating System Pressure (Max.) .....	(See Chart)
Output Range .....	(See Chart)
Stroke/Minute .....	3 minimum, 50 maximum
Operating Temperature (Max.) .....	150°F (+63°C)
Lubricant .....	Oils 80 to 5,000 SUS @ +100°F (+38°C)
Net Weight .....	1 lb., 8 ozs. (0.680 kg)

## PUMP SPECIFICATIONS

PISTON SIZE INCHES	MAXIMUM PRESSURE (PSI)		*DROPS PER STROKE		CUBIC INCHES PER STROKE		CUBIC CENTIMETER PER STROKE		STROKES PER MINUTE	
	**82 LUBRICATOR	94 LUBRICATOR	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.
3/16	6000	3000	6	1	.013	.002	.213	.033	50	3
1/4	6000	3000	12	2	.024	.004	.393	.066	50	3

\* At high outputs some oil will stream rather than form drops in sight tube.

\* \* For use as replacement pump only - Model 82 Lubricator no longer made.

## OPERATION

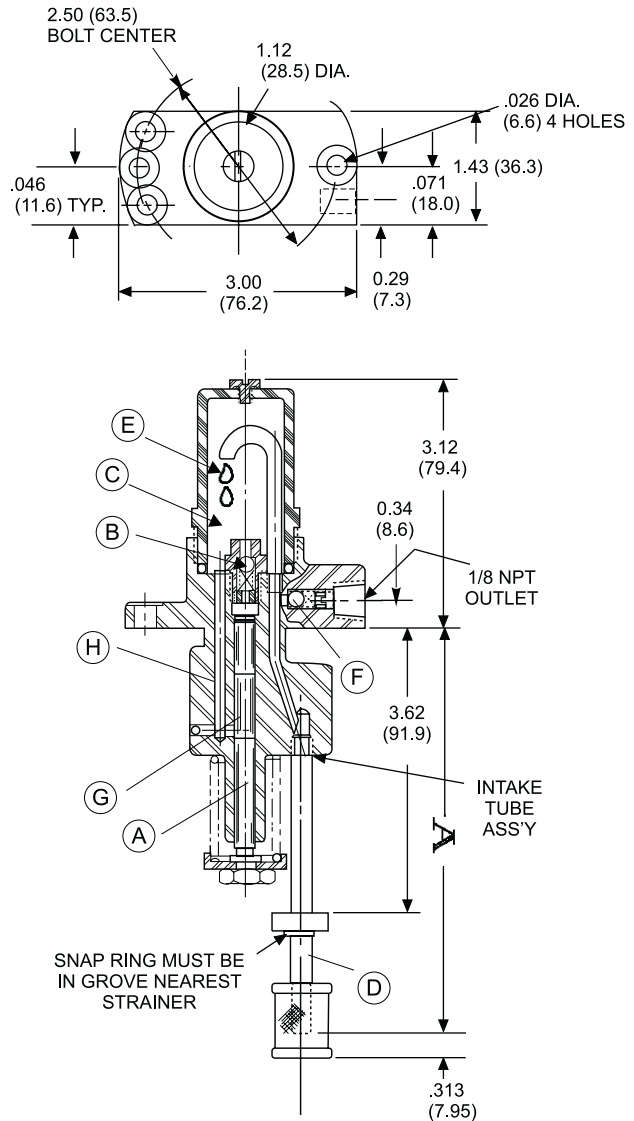
Primestroke (See Figure A)

On the down stroke of the piston (A), a partial vacuum is formed causing the inlet check valve (B) to open, thus allowing oil to flow around the inlet check valve ball and enter into the cylinder forward of the piston. The lowering of the oil level in the sight feed chamber (C) also creates a partial vacuum. This induces the oil to flow from the main reservoir, up the suction tube (D) and to drip (E) out into the sight feed chamber until the pressure is stabilized once again. During this action the outlet check valve (F) remains tightly sealed due to the differential pressure.

## Delivery Stroke (See Figure A)

On the upward stroke of the piston the inlet check valve (B) closes and seals off the inlet. As the piston rises, the pressure increases, the outlet check valve (F) opens and discharges the volume of oil drawn into the cylinder on the down stroke. During the upward movement of the piston, any oil seepage between the cylinder and piston is trapped in a relief section of the piston (G) and directed up into the sight feed chamber through (H); as a result of this feature no piston seepage is directed back to the main reservoir. In this manner, the sight glass oil level is also regulated by any piston leakage (due to piston wear) and the amount of oil level drop in turn regulates the number of drops falling from the drip tube. Therefore the amount of drops displaced through the drip tube is the amount of oil being discharged.

## OUTLINE AND MOUNTING DIMENSIONS



## ORDERING INFORMATION

Assembly No.	Dimension "A"	Metric Dimension	Plunger Size	Remarks
382-220-016	5.094	129.39	3/16 Dia.	Std. for 6" Reservoir
382-220-017	7.031	178.59	3/16 dIA.	Std. for 8: Reservoir
382-320-026	5.094	129.39	1/4 Dia.	Std. for 6" Reservoir
382-320-027	7.031	178.59	1/4 Dia.	Std. for 8" Reservoir
382-320-030	4.625	117.47	1/4 Dia.	Short tube for warning
382-320-031	4.094	103.99	1/4 Dia.	Short tube for shutdown