## Oil Change

The best time to change the oil is when the pump is warm and the oil is less viscous. Before attempting an oil change, the pump must be disconnected from the power outlet.

## Changing the Oil on Models 8907, 8912 and 8917

To drain old oil, rotate the drain valve counter-clockwise until the handle will no longer turn. A 6-12 in. length of 3/8" I.D. tubing can be fitted on the oil drain nipple to direct the flow of oil neatly into a bottle or other container. When the old oil has been removed, close the drain valve by rotating it clockwise until the handle will no longer turn.

## Oil Fill

Replace the oil drain plug, remove the plastic oil fill plug located on the top of the oil reservoir. Fill the pump with vacuum oil until the level reaches the FULL mark of the label next to the oil sight glass. Do not overfill the pump. The excess oil tends to splash out of the exhaust. Replace the oil fill plug. Check the oil level again after the pump warms up to its normal operating temperature. Add or remove oil as needed. It is normal for the oil level to change upon initial start up.

## Frequency of Oil Changes

The oil change interval is completely dependent upon the running conditions of temperature, operating pressure, hours of daily operation, and upon the materials pumped. Clean, dry air at pressures below 50 mtorr are the most forgiving conditions. To determine your own oil change interval, visually monitor the pump oil conditions at regular intervals. If you suspect harsh operating conditions, daily visual checks are recommended. When the oil becomes cloudy, dark or includes particles of solids, it is time to change the oil. Oil may be visually checked through the oil level window. However, a much better check is to use the drain to draw out 20-50 ml into a small glass beaker and view the oil with a light behind it. Clean oil can be returned to the pump through the oil fill port.