

## **STOKES, 412H-11 DESCRIPTION**

The Stokes Model 412J-14 Microvac Pump is a self-contained, rotary, oil sealed piston type unit. The piston is driven by an eccentric mounted on the drive shaft and the piston is guided by two floating hinge bars that are free to oscillate in the pump housing. Facing the drive end, the piston assembly rotates clockwise. Air enters the pump through the intake and then through the piston slide until the piston completes its stroke. At this point all air previously entrapped is in front of the piston as it begins another stroke. As the piston continues to rotate, the air in front of it is compressed and discharged through the exhaust valve and finally out the exhaust outlet. As the piston nears the top center positions the intake port is closed, separating the system from the pump. The exhaust valves are of the corrosion-resistant, heavy duty, poppet type. When the pump is in operation, lubrication of the internal parts is completely automatic. Oil is forced by atmospheric pressure from the reservoir through the oil lines to the shaft bearings. The oil is then fed into the pump to provide the necessary piston-to-cylinder oil seal. Finally, the oil is forced out through the exhaust valve with the air and returns to the reservoir. A solenoid valve automatically prevents oil from flooding the pump in the event of a power failure, or when the pump is shut-down without a vacuum being broken