

1. PRINCIPLE OF OPERATION

This diagram shows a typical internal vane vacuum pump which consists of a motor-driven cylindrical rotor eccentrically mounted within a larger housing or stator. Two spring-loaded vanes are mounted in the rotor, parallel to its axis, in diametrically opposed slots. The vanes bear against the wall of the stator under spring pressure and centrifugal action. The eccentric mounting of the rotor provides a permanent point of contact between stator and rotor and divides the stator in two sections: intake and exhaust. A thin film of oil at the point of contact maintains effective vacuum sealing, thus preventing the passage of gas between stages. Two openings in the stator serve as gas intake and exhaust ports. The intake port is connected to the system to be evacuated.

