

Forklift Gears

A gear pump is one of the most common kinds of pumps used for applications of hydraulic fluid power. A gear pump operates by utilizing the meshing of gears in order to pump fluid by displacement. These machines are usually utilized in chemical installations in order to pump fluid with specific viscosity. Two main kinds of gear pumps are available. Internal gear pumps make use of an external and an internal spur gear and external gear pumps make use of two external spur gears. Gear pumps pump a continuous amount of fluid for every revolution. This defines them as fixed or positive displacement. Several gear pump machines are designed to work as either a pump or a motor.

When the gears rotate on the pump, this action functions to separate the intake side of the pump, creating a void and a suction that is filled by fluid. This fluid is carried by the gears to the discharge side, whereby the fluid is displaced by the meshing of the gears. There are very small and tight mechanical clearances, that together with the speed of rotation effectively avoid the fluid from leaking backwards. The rigid fabrication of the gears and houses gives the pump its ability to pump highly viscous fluids and allow for extremely high pressures.