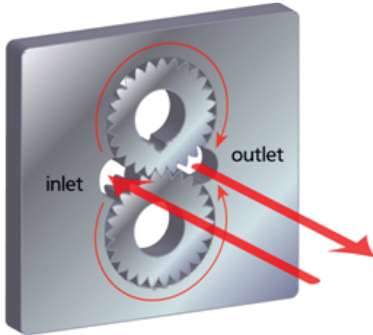


Mahr



What is a Gear Pump?

A Gear Pump consists of two intermeshing gears within a metal housing. These gears rotate within the pump housing creating pressure that pushes the fluid through the pump, commonly referred to as positive displacement. Contrary to first impressions, the fluid does not flow through where the gears intermesh. Rather the fluid fills the space between the gear teeth and the pump housing and moves around the gear, much like a waterwheel. This process allows for highly accurate and measured amounts of fluid to be pumped, commonly known as “positive displacement metering”.

There are four main reasons for using Gear Metering Pumps:

1. Precise control of the volumetric output of the fluid
2. Consistently generates pulseless, accurate and sustained high pressures
3. The ability to pump extremely thick products with viscosities up to 500,000 cP (more in certain cases)
4. Reduction of product shearing during the pumping process

Why Gear Metering Pumps over other types of Pumps?

There are several advantages of gear pumps over other types of pumps such as piston pumps, progressive cavity (screw pumps), or peristaltic pumps:

1. Gear metering pumps are constructed of alloy metal allowing for higher operating temperatures; longer pump life, and handling a broader range of abrasive or corrosive raw materials.
2. Gear pumps have tighter pumping tolerances, measured in microns, resulting in greater accuracy in continuous pulseless stream dispensing or shot dosing.
3. Gear pumps have a sustained linear flow during changes in operating speeds pressures, and temperatures.

