

Micropump External Gear Pumps

The majority of Micropump pumps fall into two categories:

- *Cavity style* - which represents conventional gear pump technology.

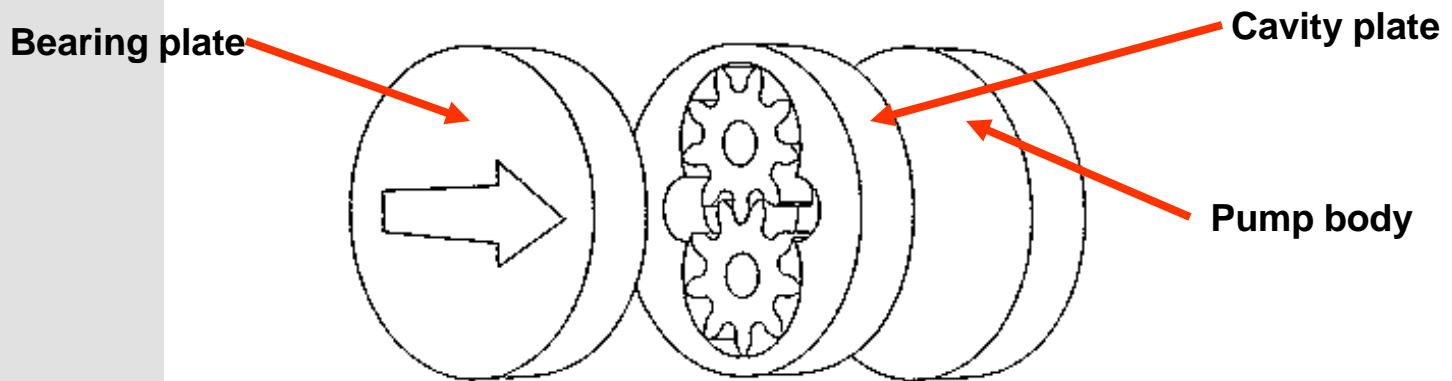


- *Suction shoe style* - which represents a considerable modification over the cavity style.

The suction shoe Design is a patented design and is exclusive to Micropump products.

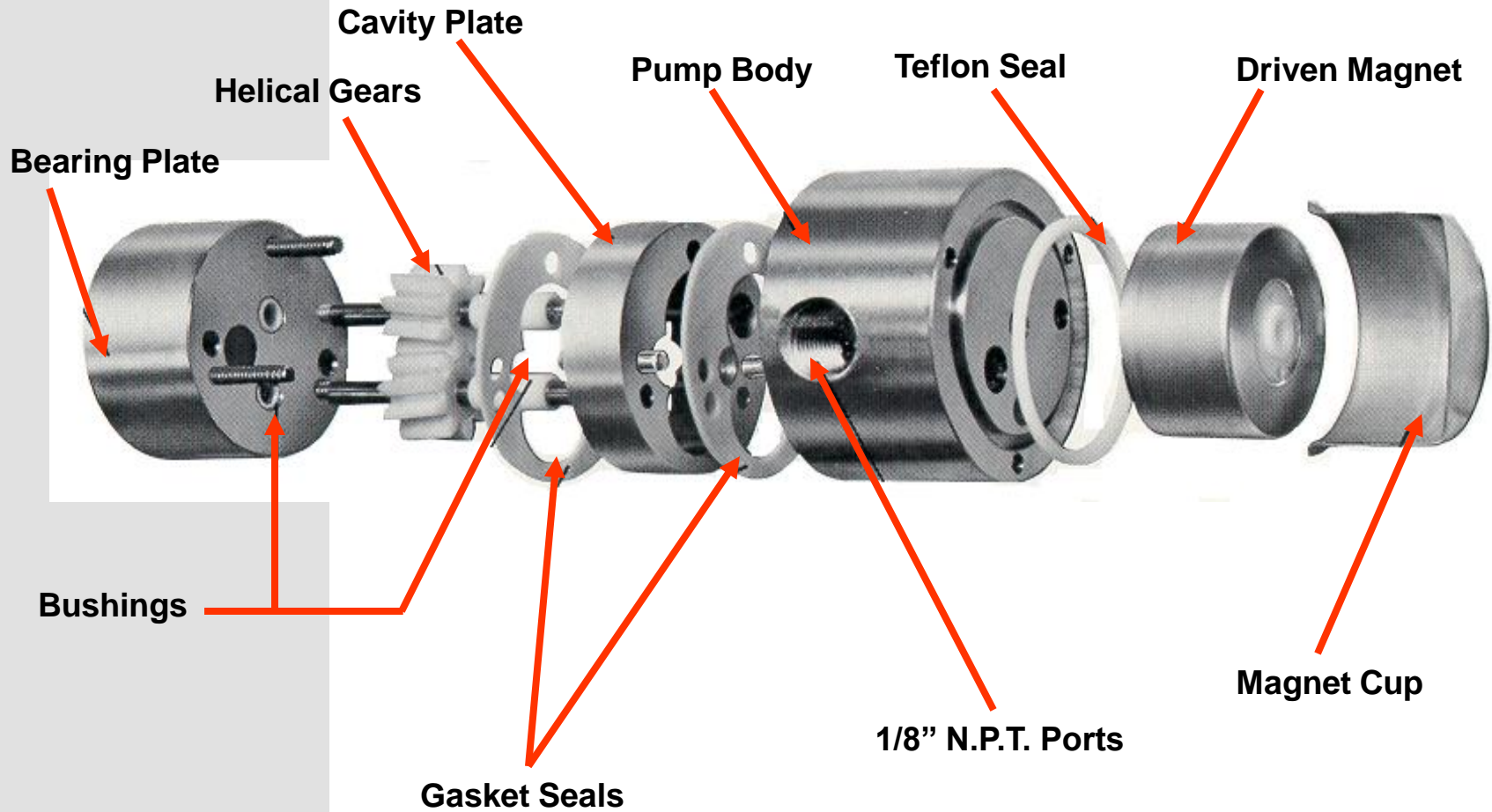
Gear pumps - cavity style

- The conventional cavity style pump seals the gear tips by placing the gears inside a cavity.
- The sides are sealed by placing the cavity plate between the pumpbody and the pump bearing plate.

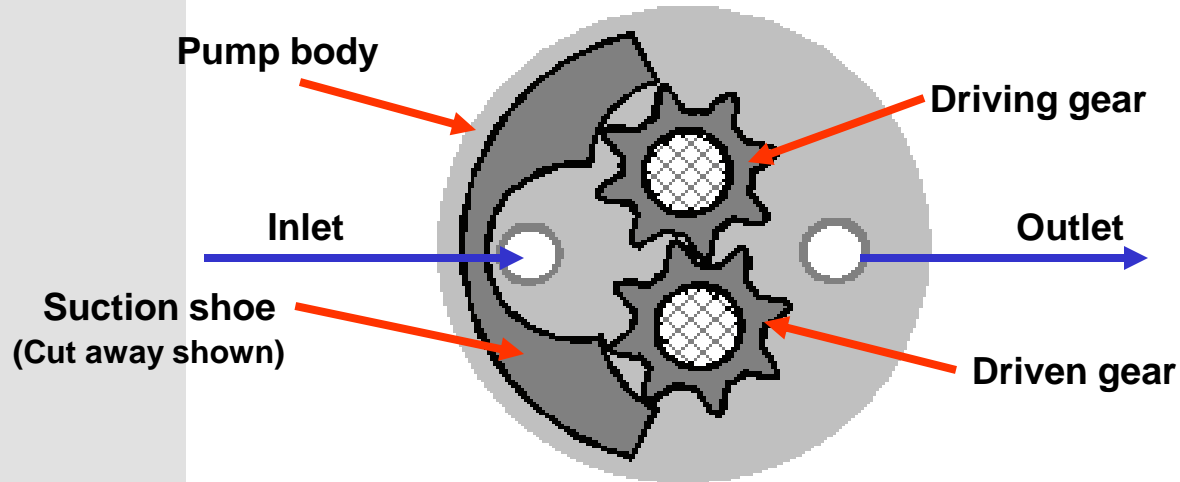


- Two gasket-like seals are used between these three metal components.

Cavity style pump - exploded view

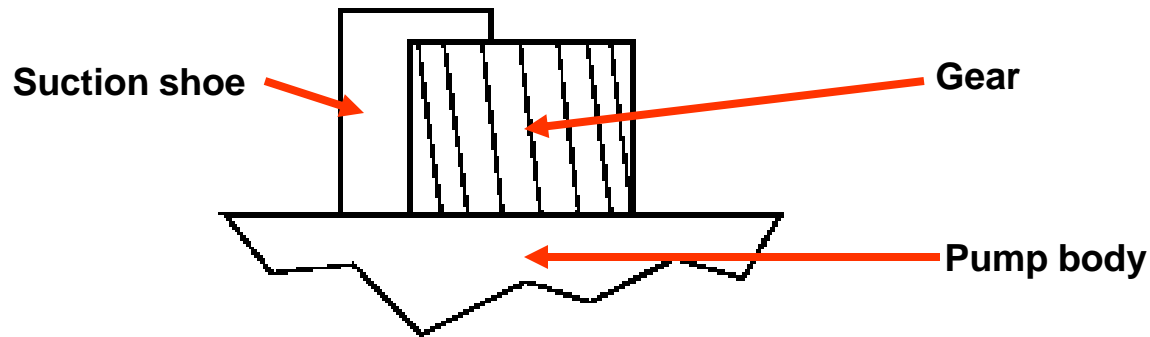


Gear pumps - Suction Shoe



- Suction shoe style gear pumps seal the gear tips by using only a portion of the cavity.
- The portion is called the Suction Shoe and seals only the minimum number of teeth (2).
- The fluid is positively displaced in the same manner as the cavity style pump to the outlet.

Gear pumps - Suction Shoe



- Like the cavity style pump, the sides of the gears are sealed on one side by the pump body.
- The other side is sealed only by the lip of the suction shoe.

Suction shoe style pump - exploded view

