

ENERGY CONSERVATION

IN

PUMPS

PUMP TYPES

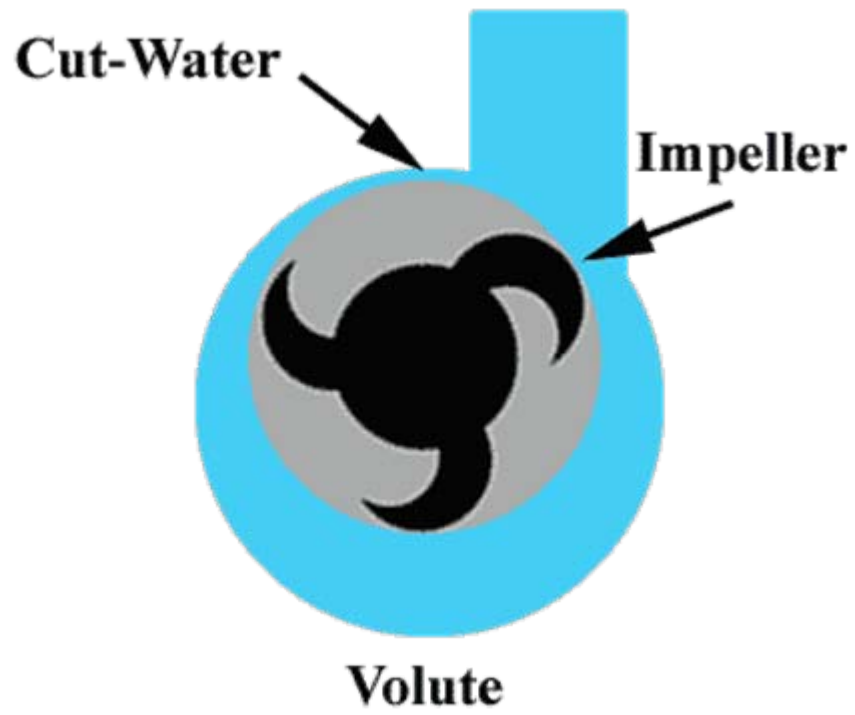
- **Dynamic** – Centrifugal and special effect pumps.
- **Displacement pumps** – Rotary or Reciprocating pumps.

PUMPS

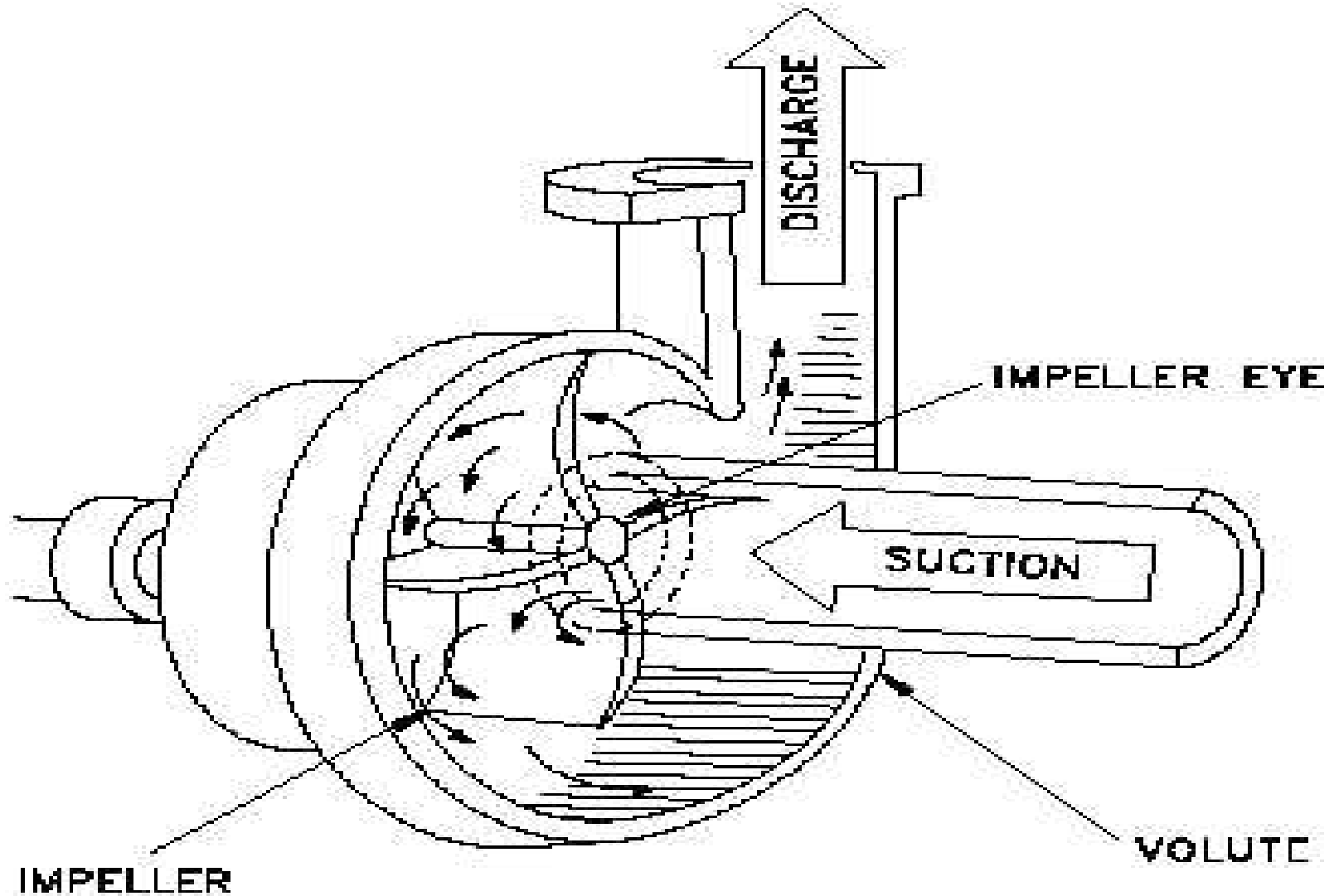
- **Principle** - Any liquid can be handled by any of the pump designs.
- Centrifugal pump is generally the most economical followed by rotary and reciprocating pumps.

PUMPS

- Although, positive displacement pumps are generally **more efficient** than centrifugal pumps, the benefit of **higher efficiency** tends to be offset by **increased maintenance costs**



CENTRIFUGAL PUMPS



PUMPS

- **A centrifugal pump is not positive acting; it will not pump the same volume always.**
- **Greater the depth of the water, the lesser is the flow from the pump.**

PUMPS

- **when it pumps against increasing pressure, the less it will pump.**
- **For these reasons it is important to select a centrifugal pump that is designed to do a particular job.**

PUMPS

- **The pump generates the same head of liquid whatever the density of the liquid being pumped.**

PUMPS

The actual contours of the hydraulic passages of the impeller and the casing are extremely important, in order to attain the highest efficiency possible.