

TEACHING LEARNING MATERIALS



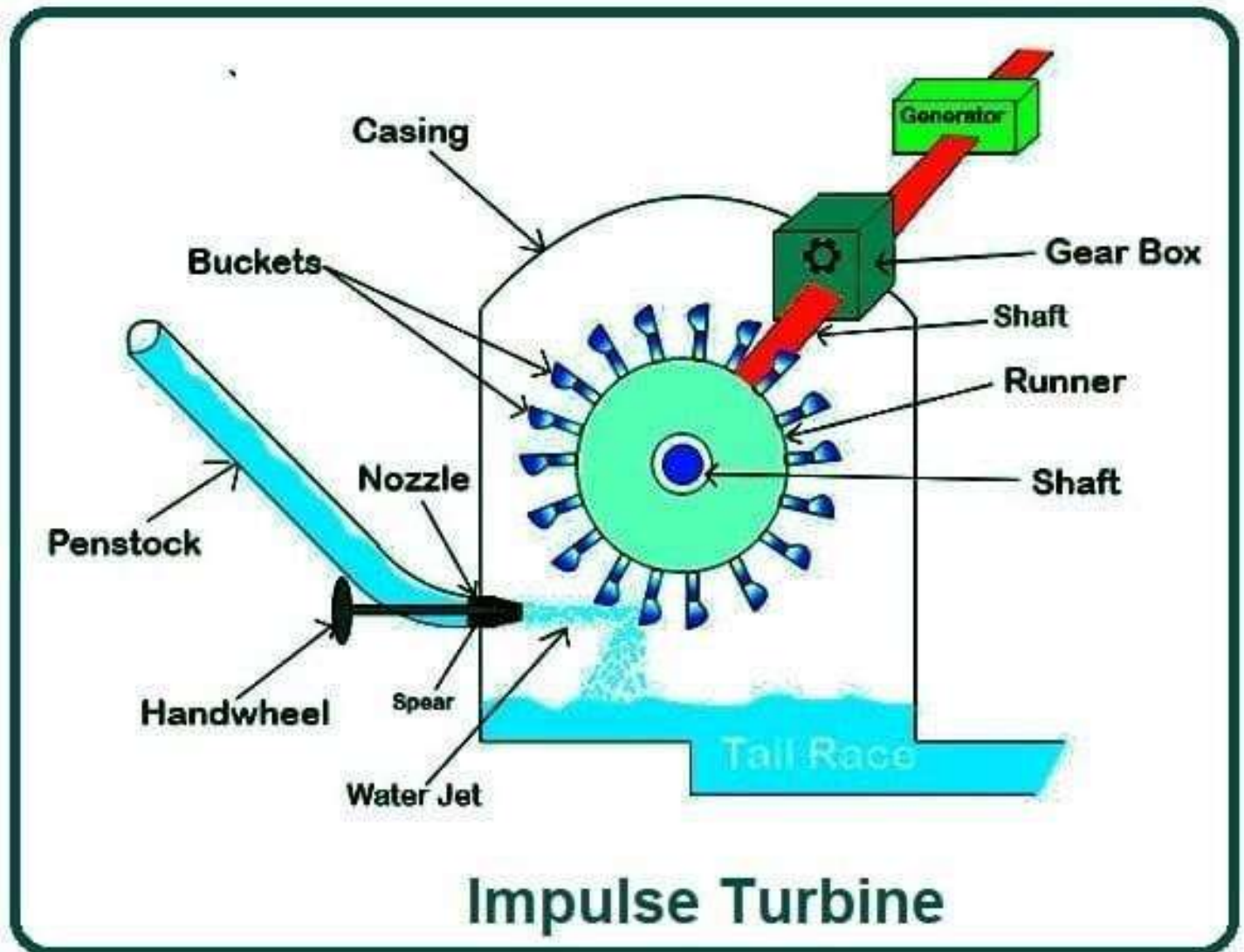
BRANCH:- MECHANICAL ENGINEERING

SEMESTER:- 5TH SEMESTER

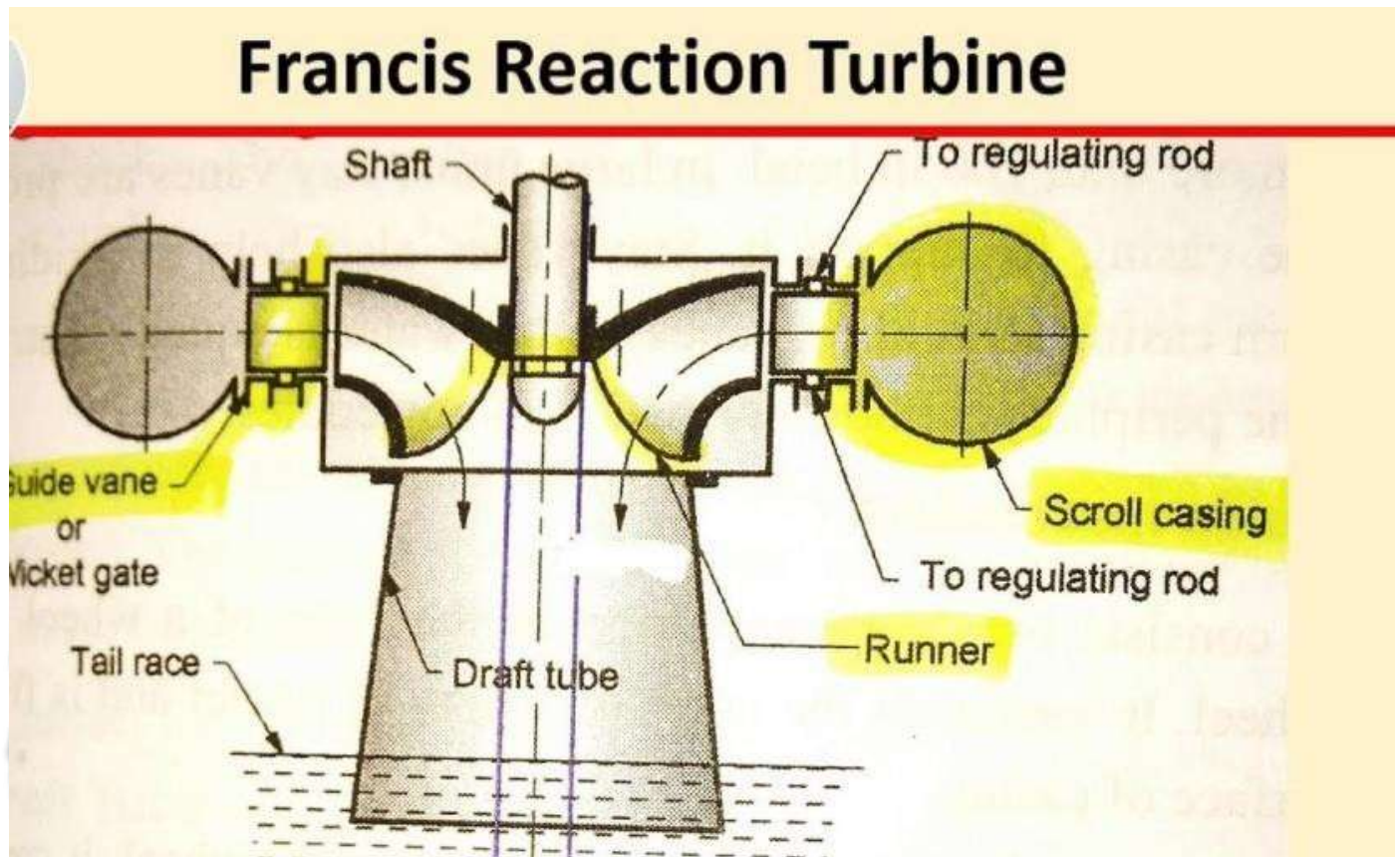
SUBJECT:- HMFP

PREPARED BY:- ER. JAGNYA PRASAD BEHERA &
ER. SANJAY KUMAR SAHU

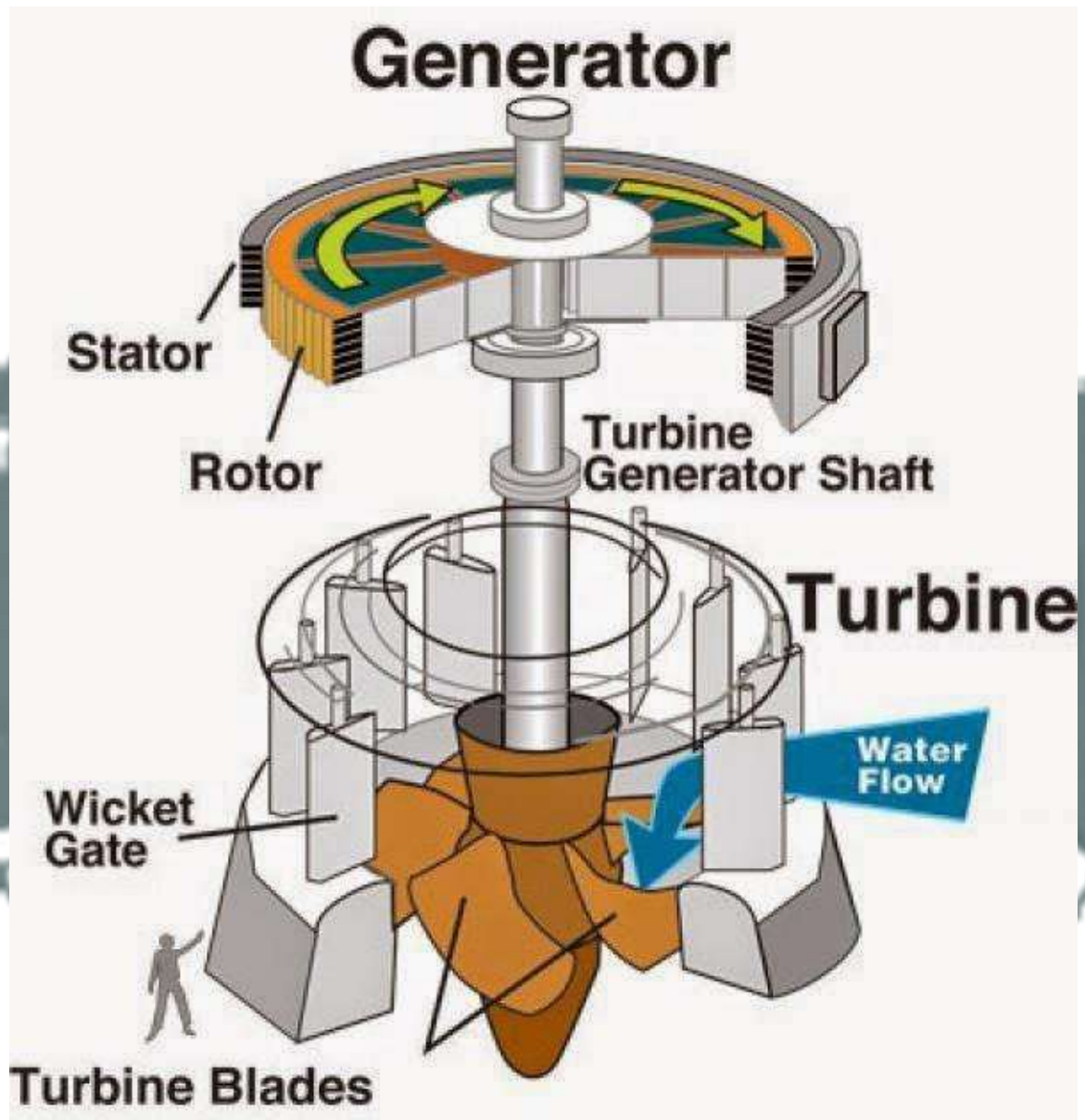
1. IMPULSE TURBINE (PELTON WHEEL) –



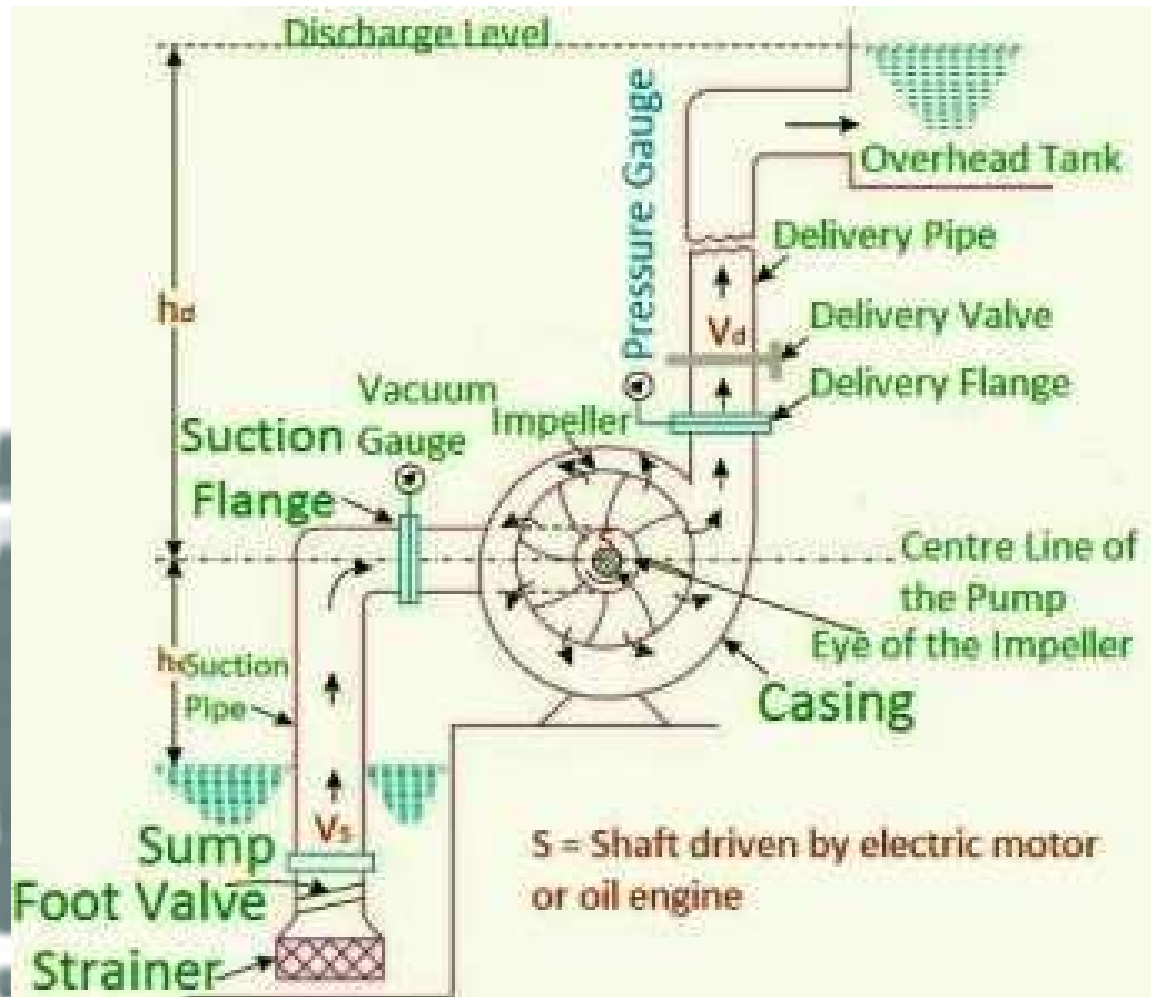
2. FRANCIS TURBINE –



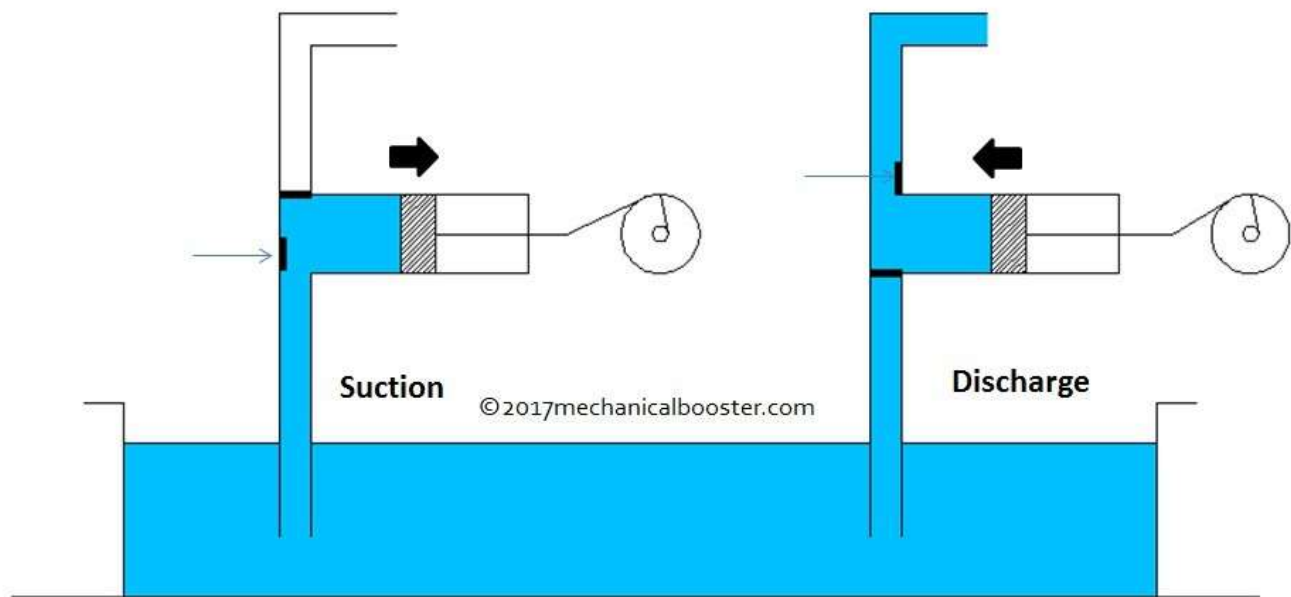
3. KAPLAN TURBINE -



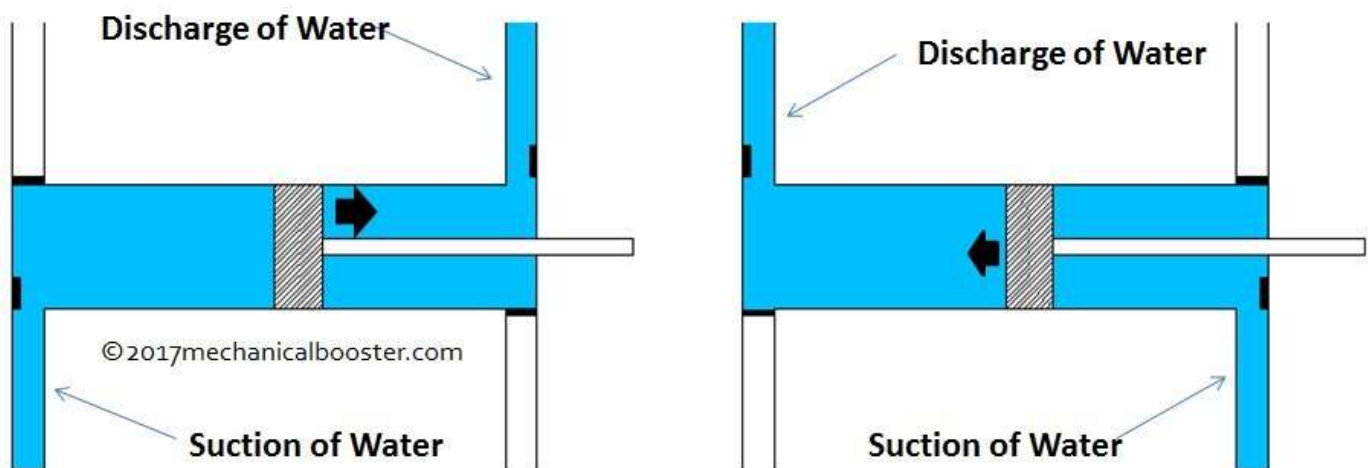
4. CETRIFUGAL PUMP -



5. RECIPROCATING PUMP -



Single Acting Reciprocating Pump



Double Acting Reciprocating Pump

6. PNEUMATIC VALVES -



Sequence Valve



Pressure Reducing Valve



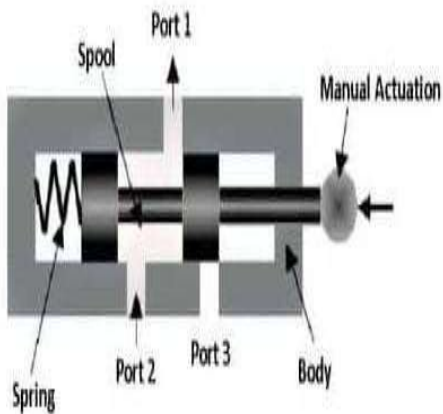
Pressure Regulator Valve



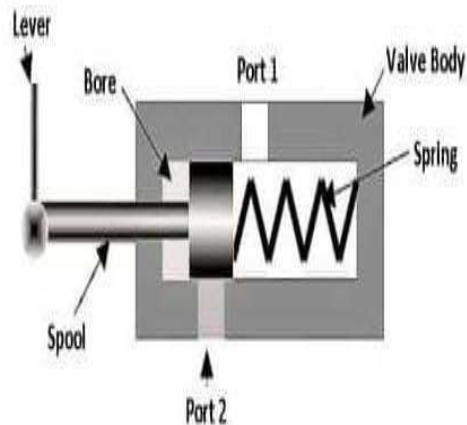
Direction Control Valve



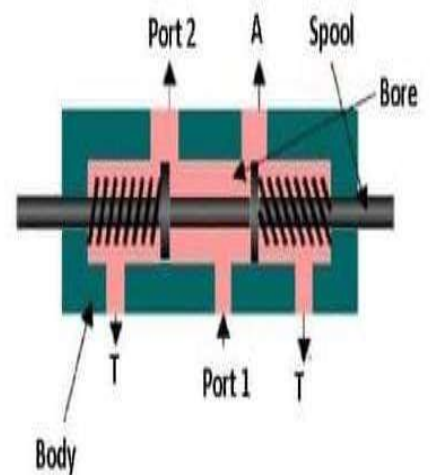
Flow Control Valve



3-way Direction Control Valve



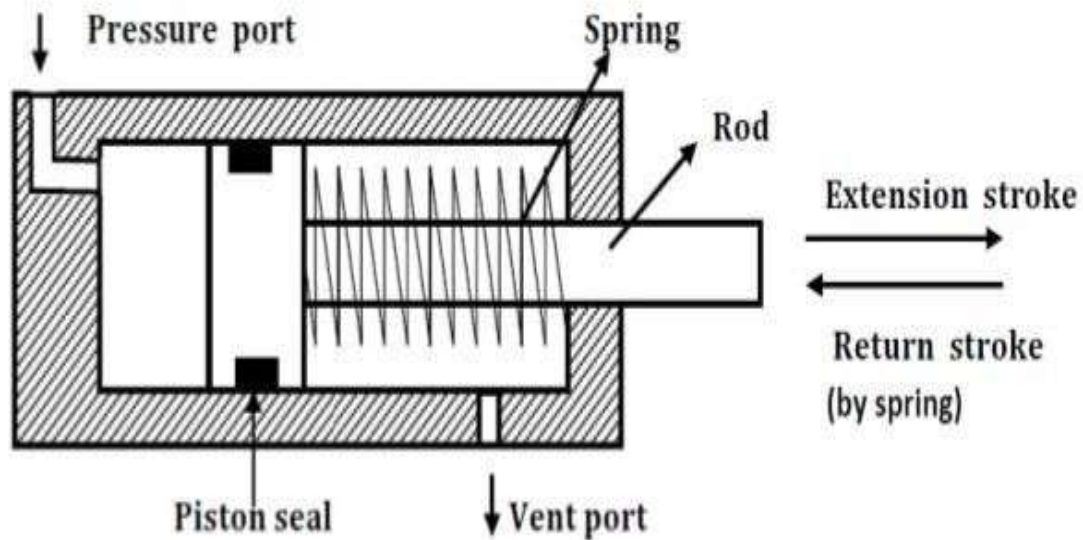
2-way Direction Control Valve



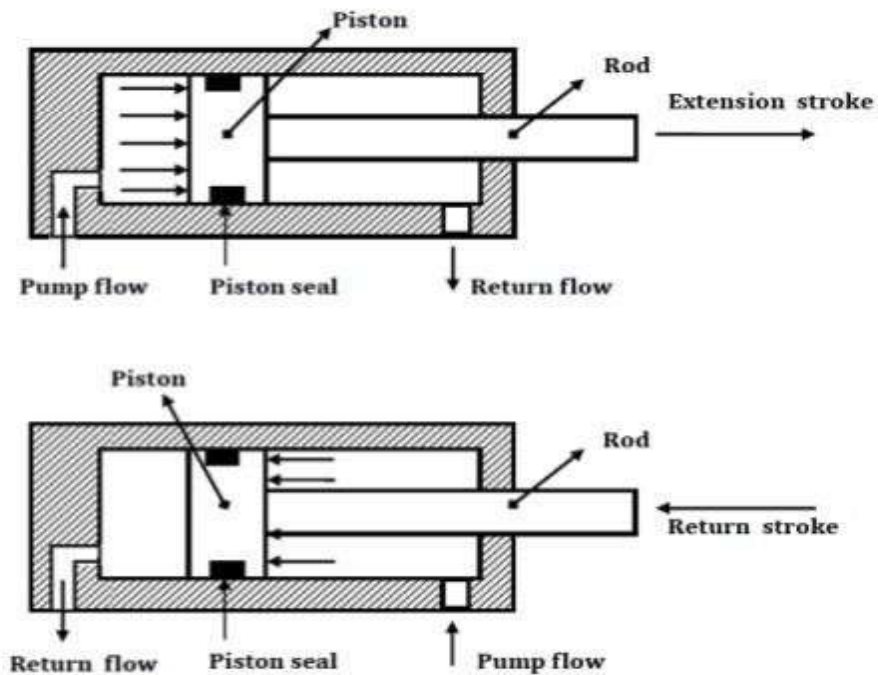
4-way Direction Control Valve

7. PNEUMATIC CYLINDERS –

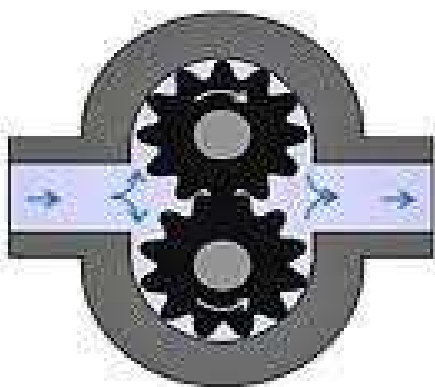
SINGLE ACTING CYLINDER



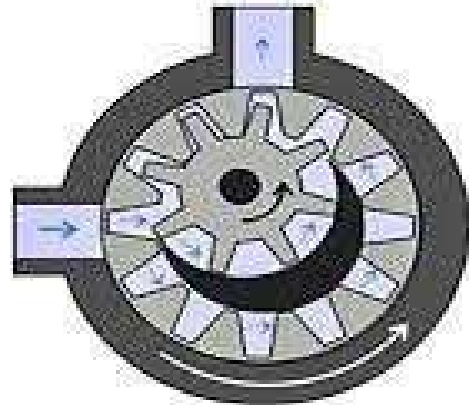
DOUBLE ACTING CYLINDER



8. GEAR PUMP –



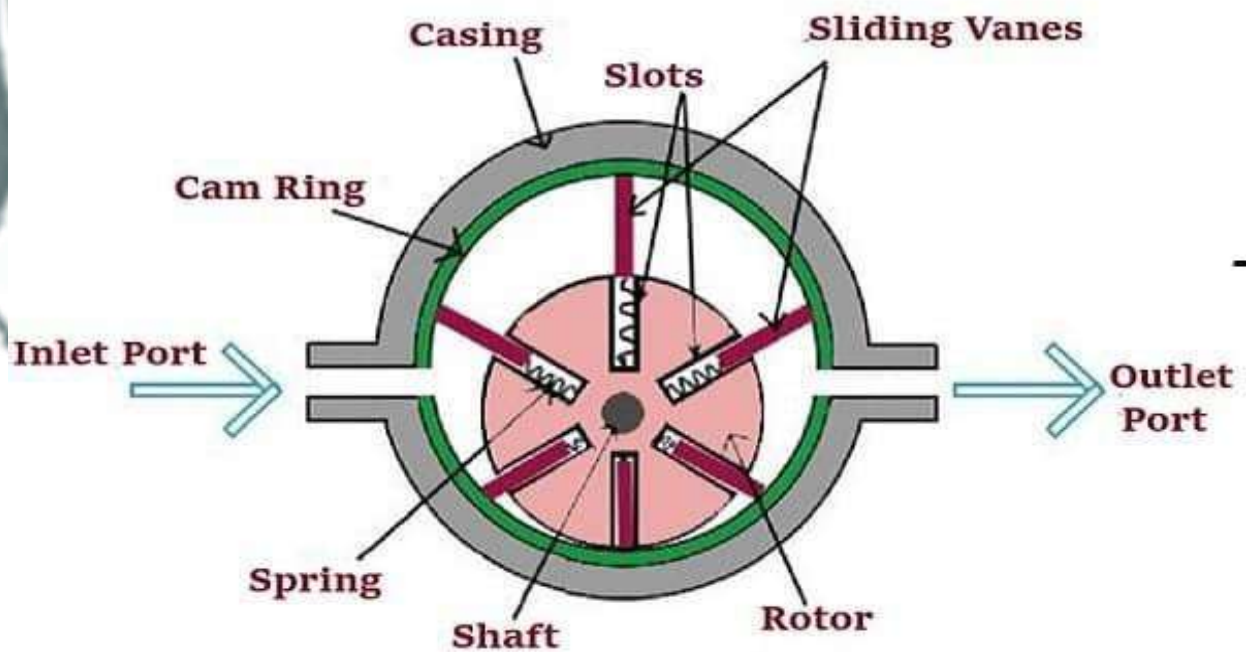
External Gear Pump



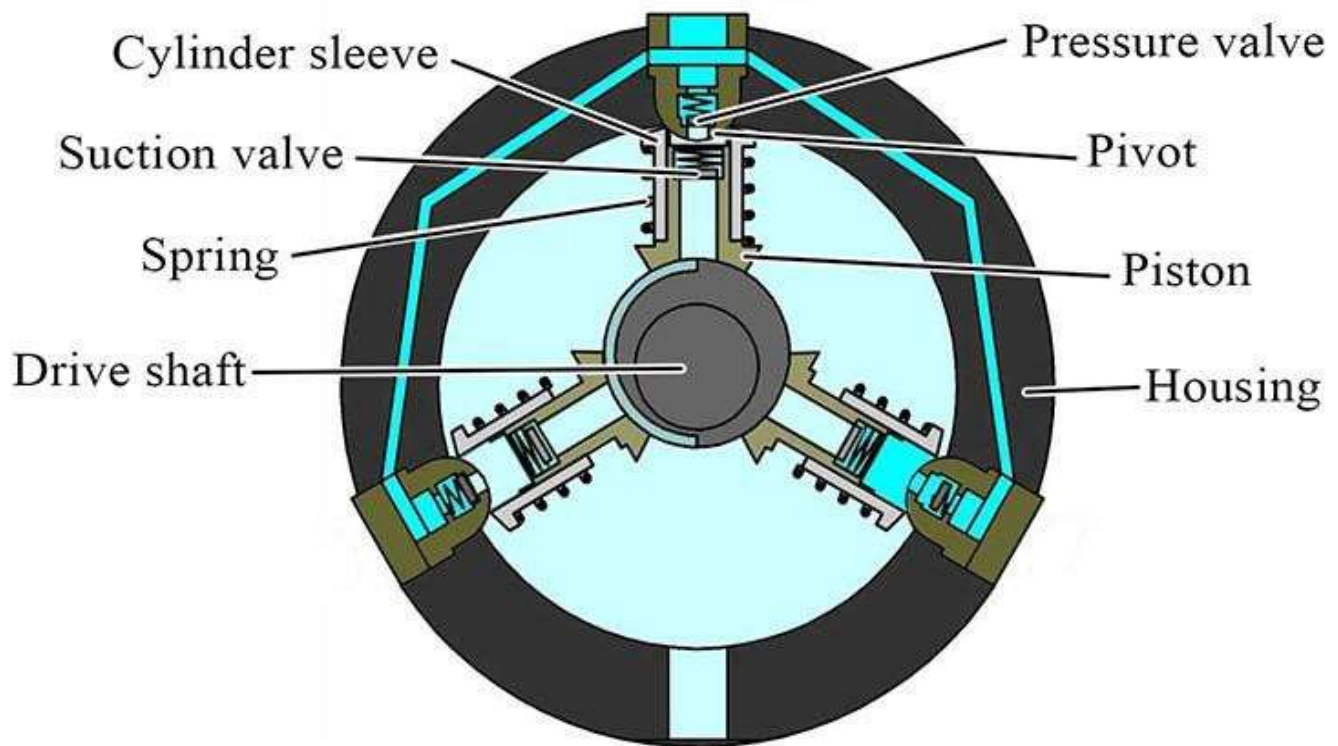
Internal Gear Pump

9. VANE PUMP –

Vane Pump Components



10. RADIAL PISTON PUMP -



11. METERING IN AND OUT VALVE-

