

Uses energy transferred by liquids (hydraulic) and gases (pneumatic)

- Power is the rate that we use energy.
- Power = Work or Energy / Time
- $P = W/t = F \times d/t = F v$
- The unit joule is too small .The bigger unit of energy called kilowatt hour (kW h)

1 kW h is the energy used in one hour

at the rate of 1000 J s^{-1} (or 1 kW).

$$1 \text{ kW h} = 1 \text{ kW} * 1 \text{ h}$$

$$= 1000 \text{ W} * 3600 \text{ s}$$

$$= 3600000 \text{ J}$$

$$1 \text{ kW h} = 3.6 \times 10^6 \text{ J}.$$