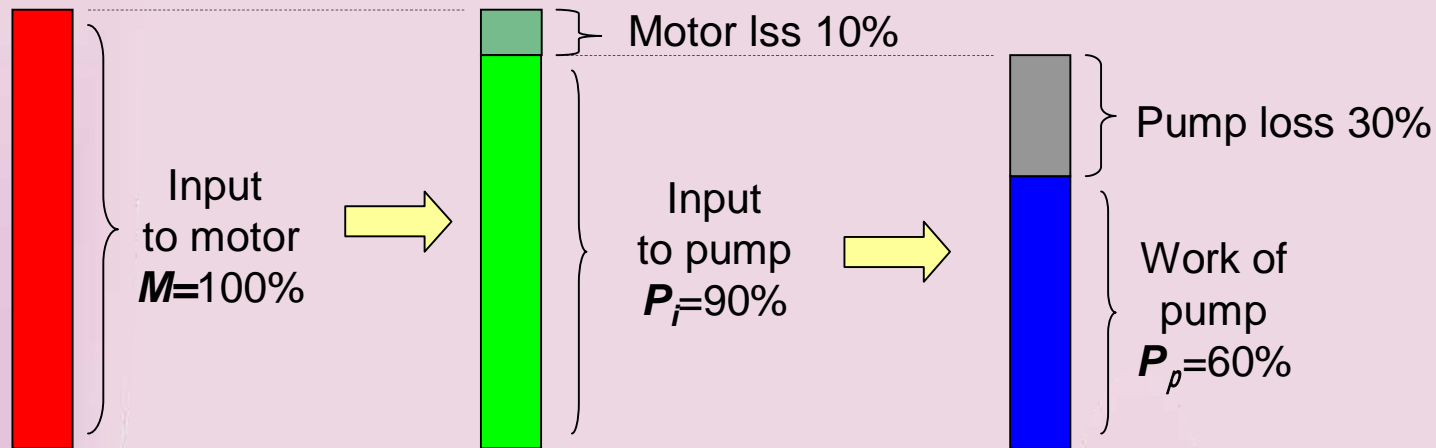


Pump efficiency - relation to motor input



Electric power M (kW) input to the motor is assumed to be 100%.

- If the motor loss is 10% of M , the residual 90% ($=100-10$) of electric power, P_i is input to the pump.
- If the pump did work P_p of 60% of M by using the electric power P_i , the remainder becomes the pump loss (invalid work), the loss is 30% ($=100-10-60$) of M .

Pump efficiency η_p at this time is $\eta_p = P_p / P_i \times 100$ (%).

Example above-mentioned;

- If the motor input 100kW and the motor efficiency is 90%, the input to pump becomes $P_i=90$ kW.
- When work of pump $P_p=60$ kW is used, the pump loss becomes 30kW.
- Then the pump efficiency $\eta_p = 60 / 90 \times 100 = 66.7$ (%).

