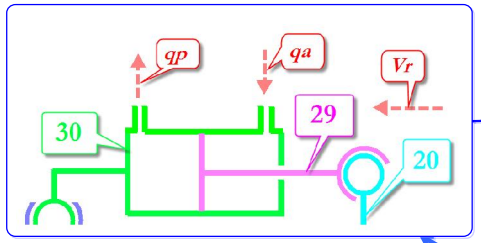
Relations du vérin hydraulique

Rentre en tirant



$$(0,6)\mathcal{P} = p \cdot q$$

w — bar — L/min

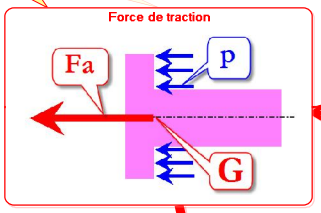
Puissance hydraulique

$$\mathcal{P} = p \cdot q$$

w — Pa — m3/s

$$Sa = \frac{\pi.(D^2 - d^2)}{4}$$

Force de traction



$$Fa = p.Sa$$

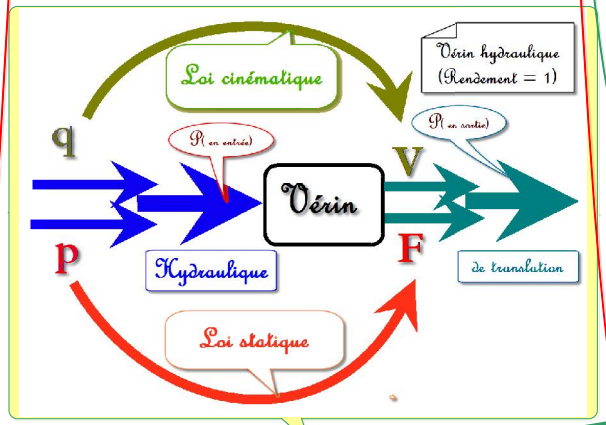
Relations du vérin hydraulique

$$Q = 6\,V.S$$

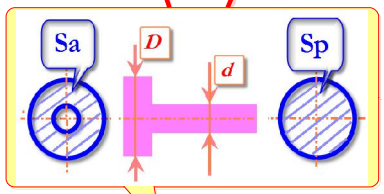
L/min — m/s — cm2

$$Q = V.S$$

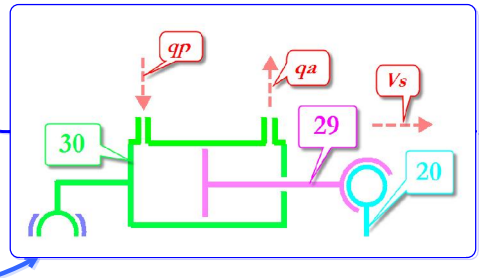
m3/s — m/s — m2



$$\mathcal{P}_{sortie} = \mathcal{P}_{entrée}.\eta_{mécanisme}$$



Sort en poussant



w — N — m/s

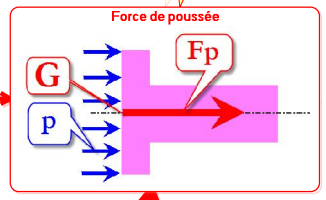
$$\mathcal{P} = \mathcal{F}.\mathcal{V}$$

Puissance de translation

$$\mathcal{P} = \vec{\mathcal{F}}.\vec{\mathcal{V}}$$

$$Sp = \frac{\pi.D^2}{4}$$

Force de poussée



$$Fp = p.Sp$$