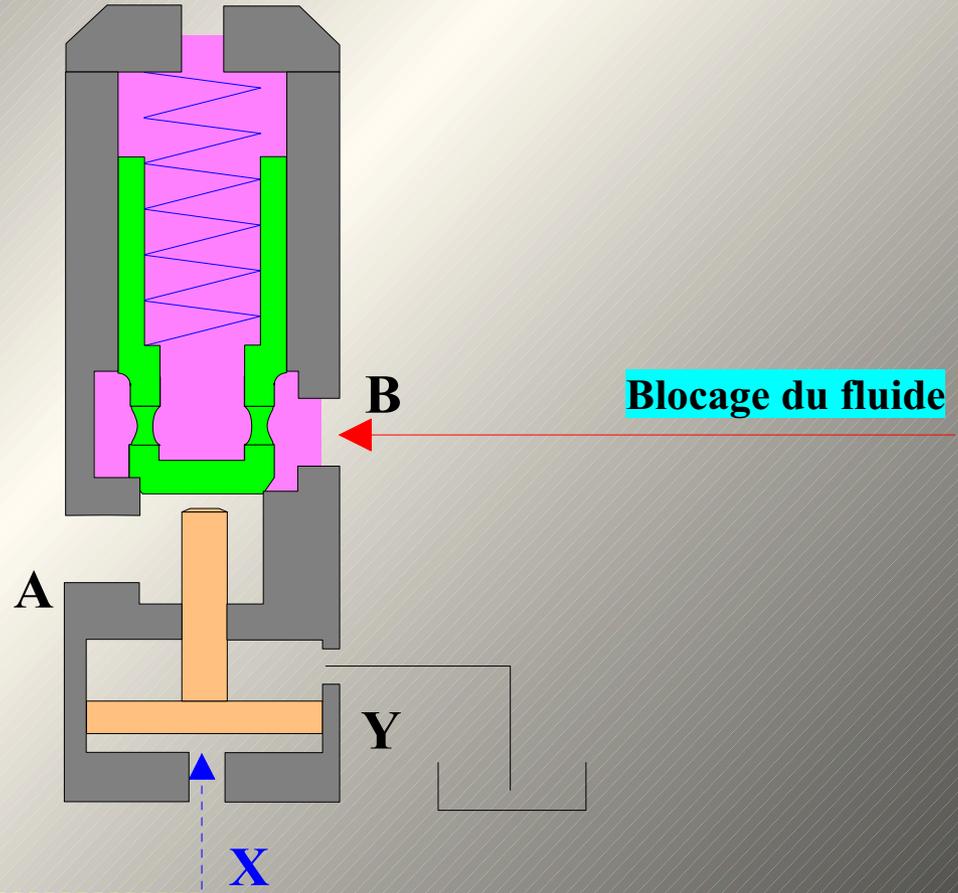


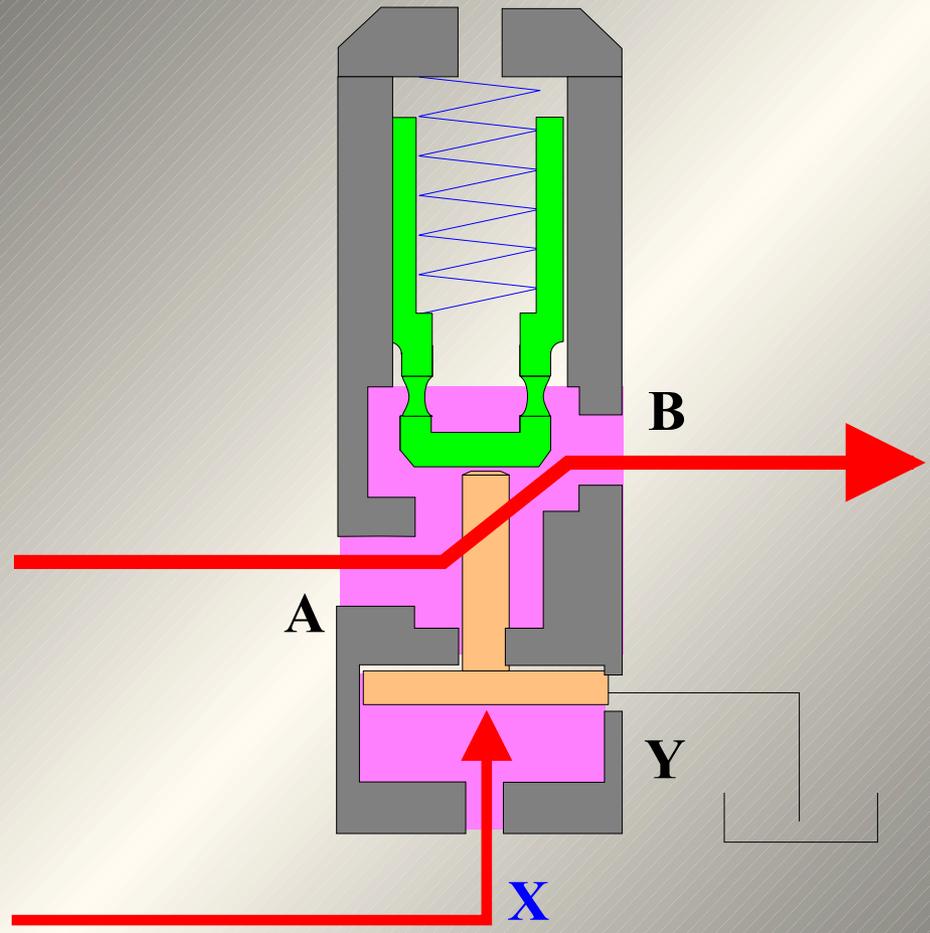
Craperet anti retour pilote

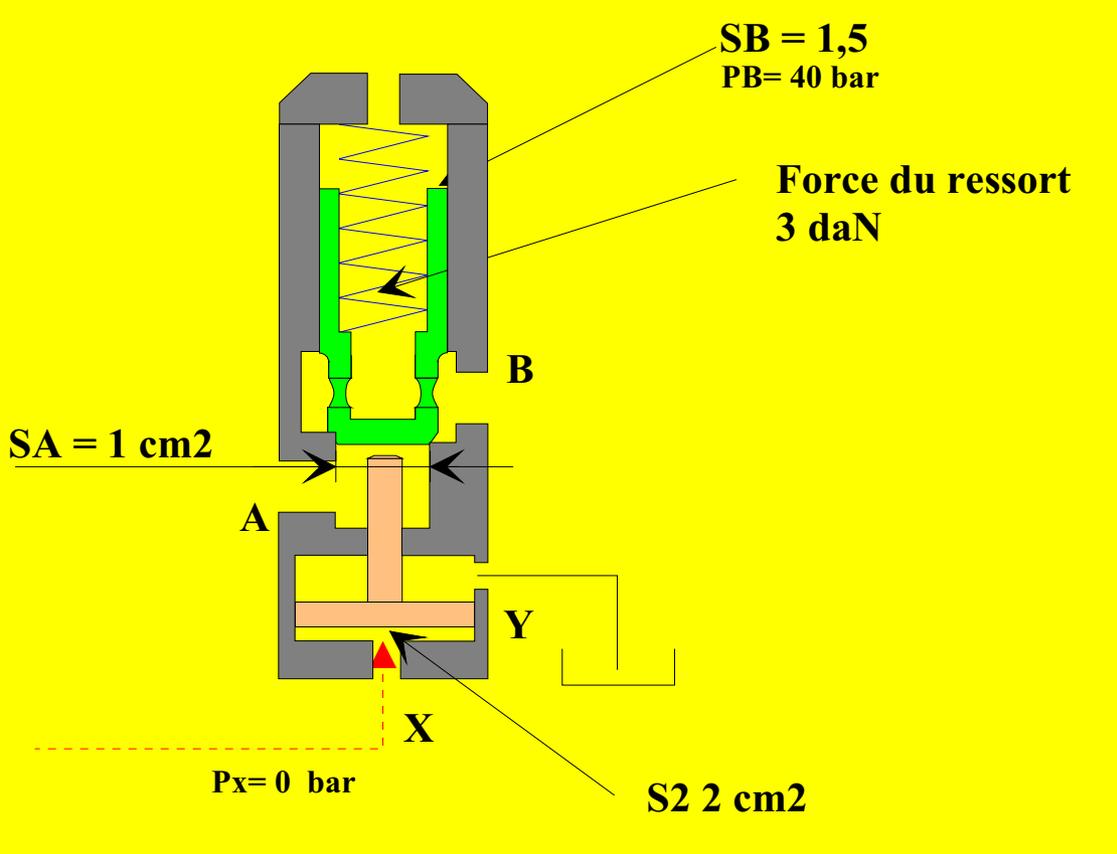


Non piloté

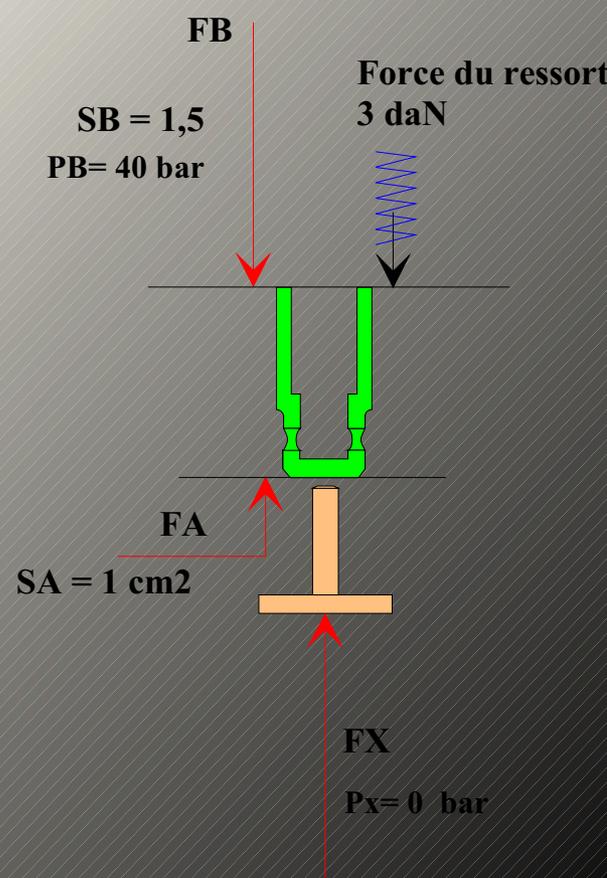


Piloté



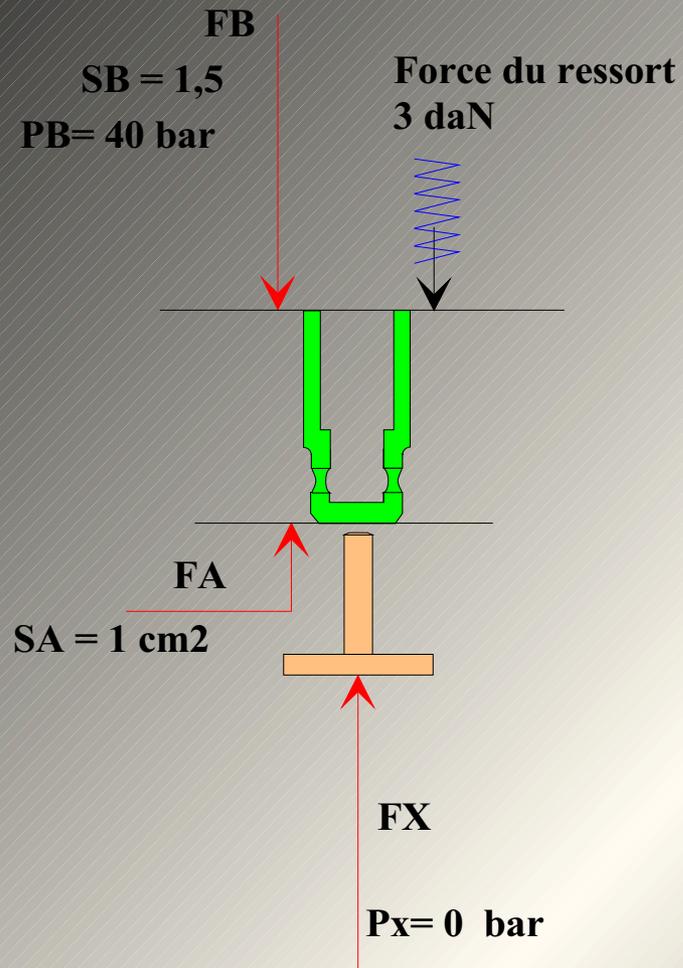


équilibre du tiroir

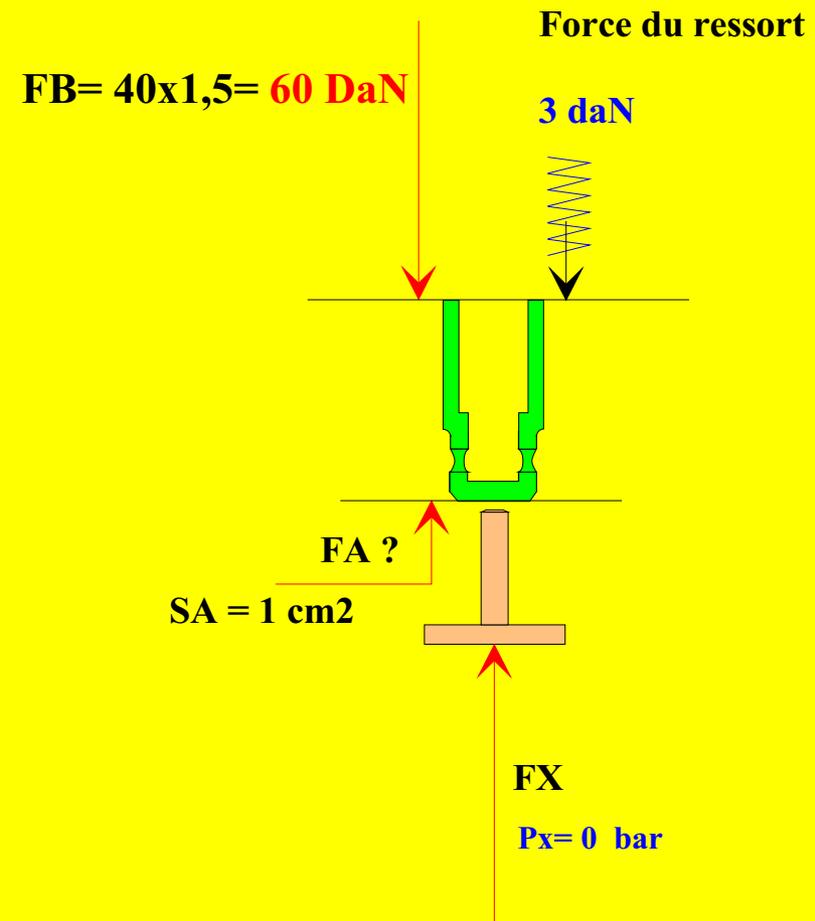


équilibre du tiroir

On connait:

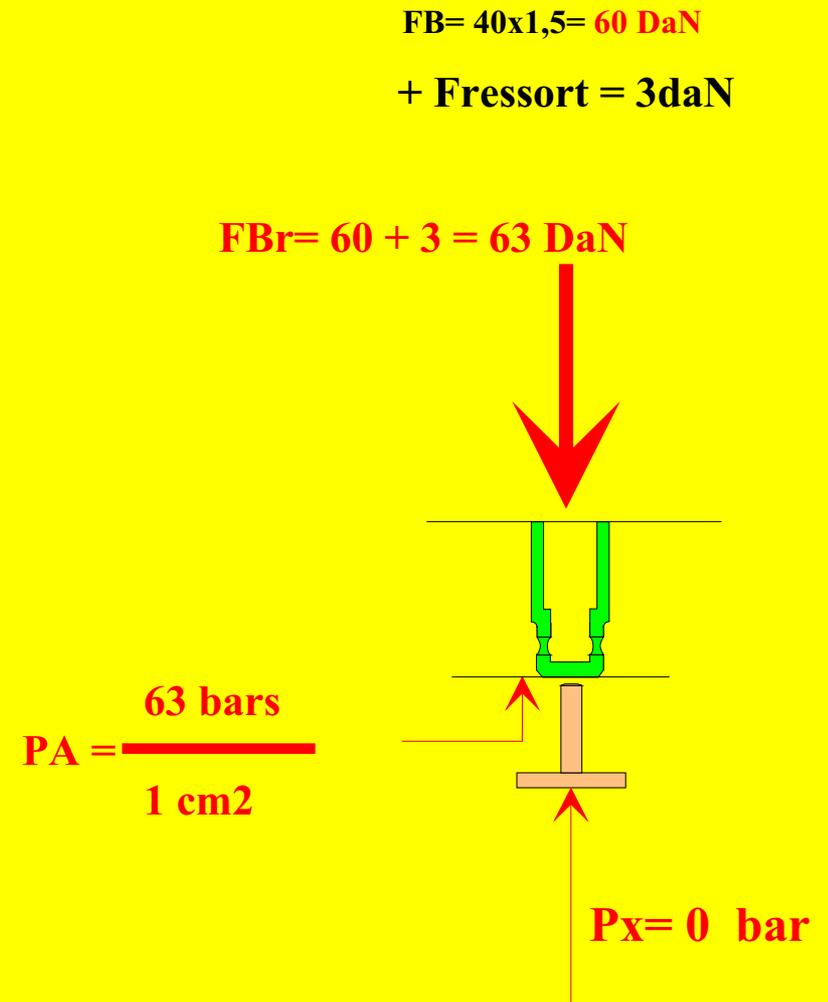
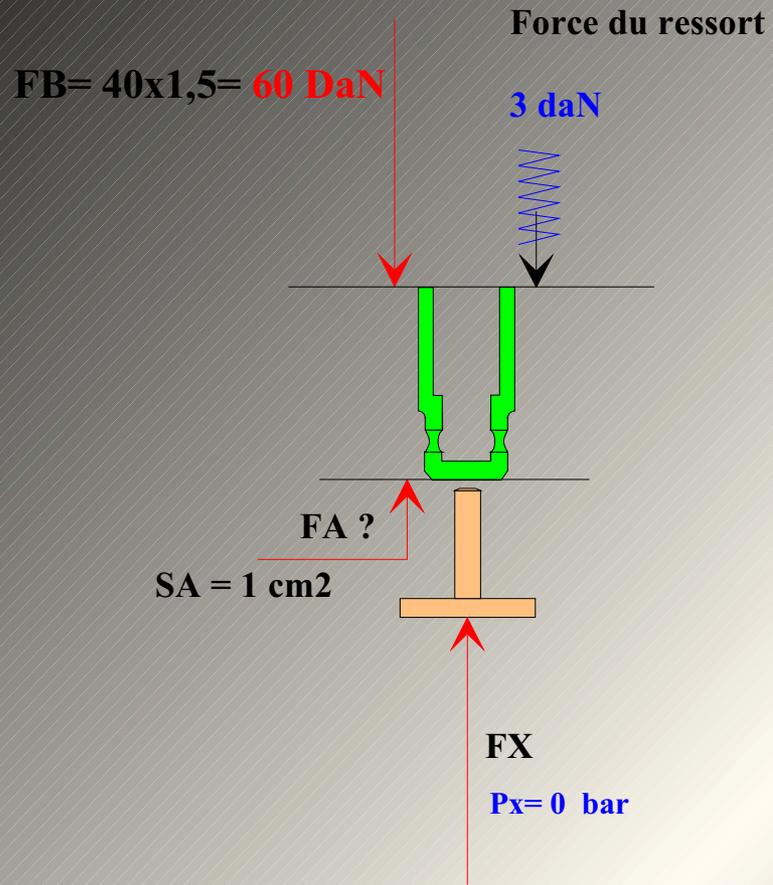


$SB = 1,5 \text{ cm}^2$
 $PB = 40 \text{ bar}$



SB = 1,5
PB = 40 bar

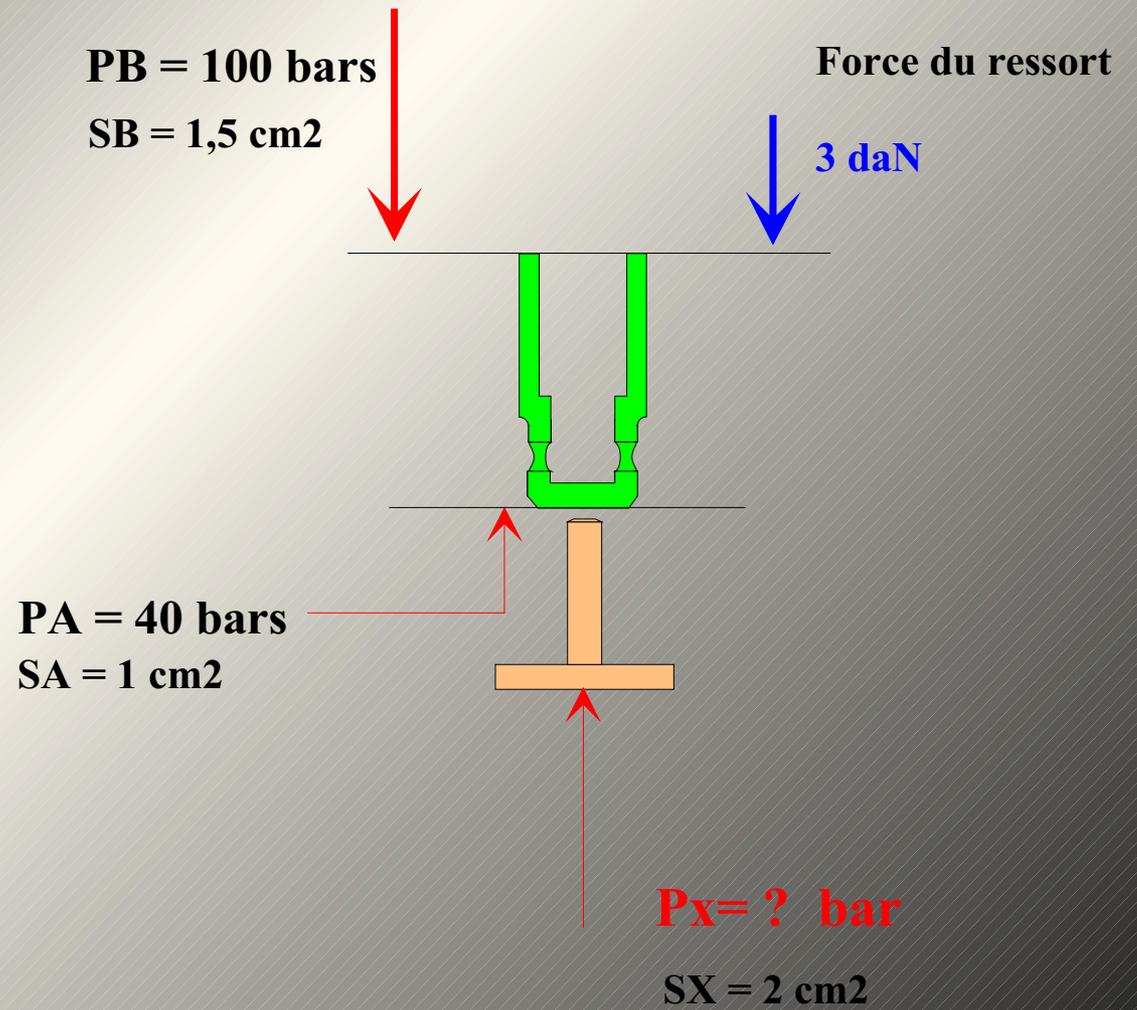
équilibre du tiroir



Le passage de B vers A est impossible car Px = 0



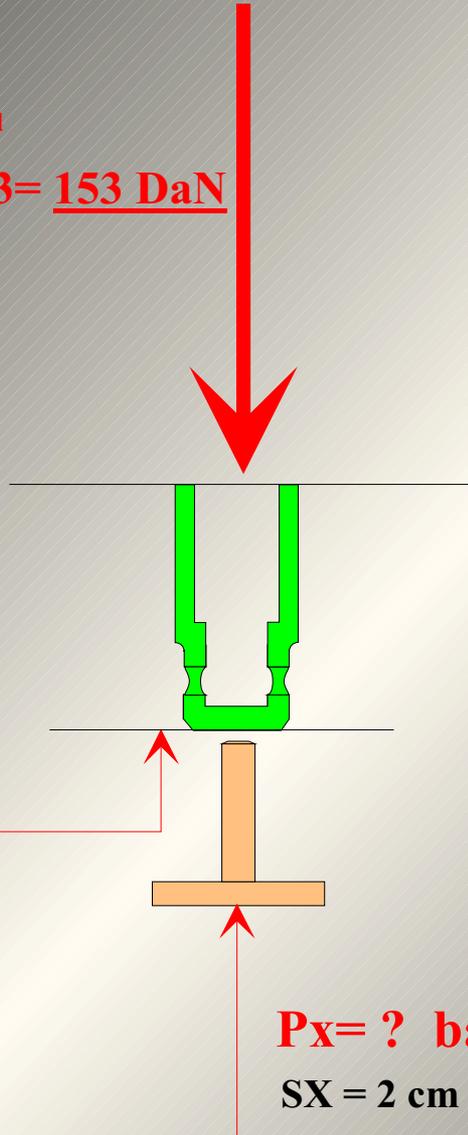
Chercher la valeur de Px ?



$$FB = 100 \times 1,5$$

$$FR = 3 \text{ DaN}$$

$$FB + FR = FB_{\text{résul}}$$
$$= 150 + 3 = \underline{153 \text{ DaN}}$$



$$PA = 40 \text{ bars}$$
$$SA = 1 \text{ cm}^2$$

$$FA = 40 \times 1 = \underline{40 \text{ DaN}}$$

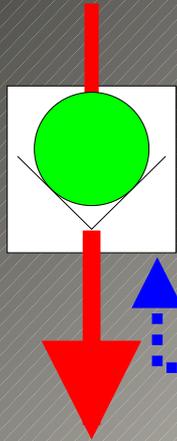
$$PX = ? \text{ bar}$$
$$SX = 2 \text{ cm}^2$$

$$FX = 153 - 40 = 113 \text{ DaN}$$

$$P = \frac{F}{S} = \frac{113}{2} = \underline{56,5 \text{ DaN}}$$

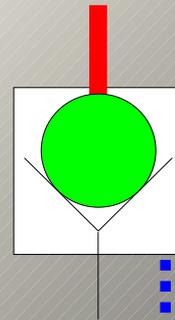


La fonction anti retour cesse lorsqu'intervient une information hydraulique sur le pilote



Il faut établir une pression suffisante sur le pilote

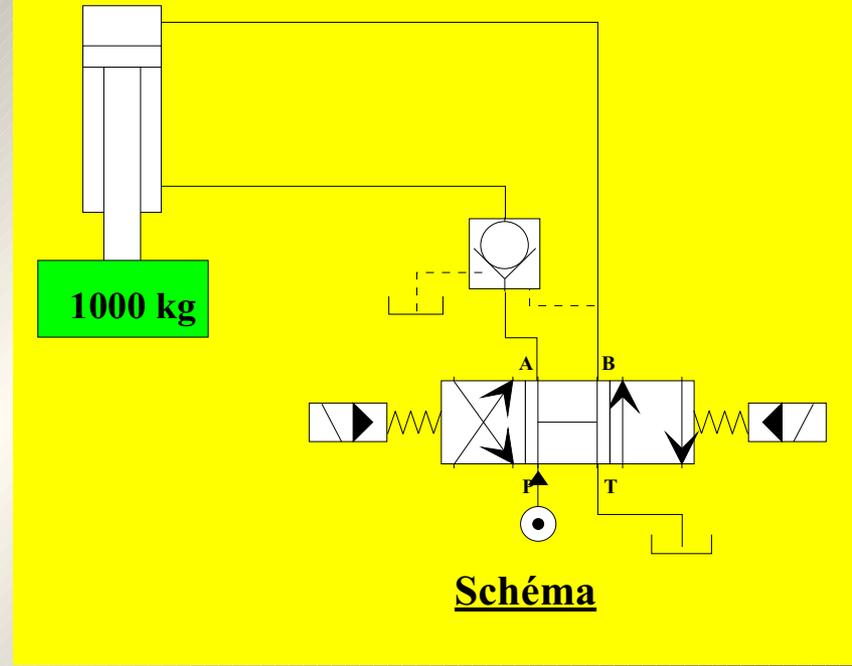
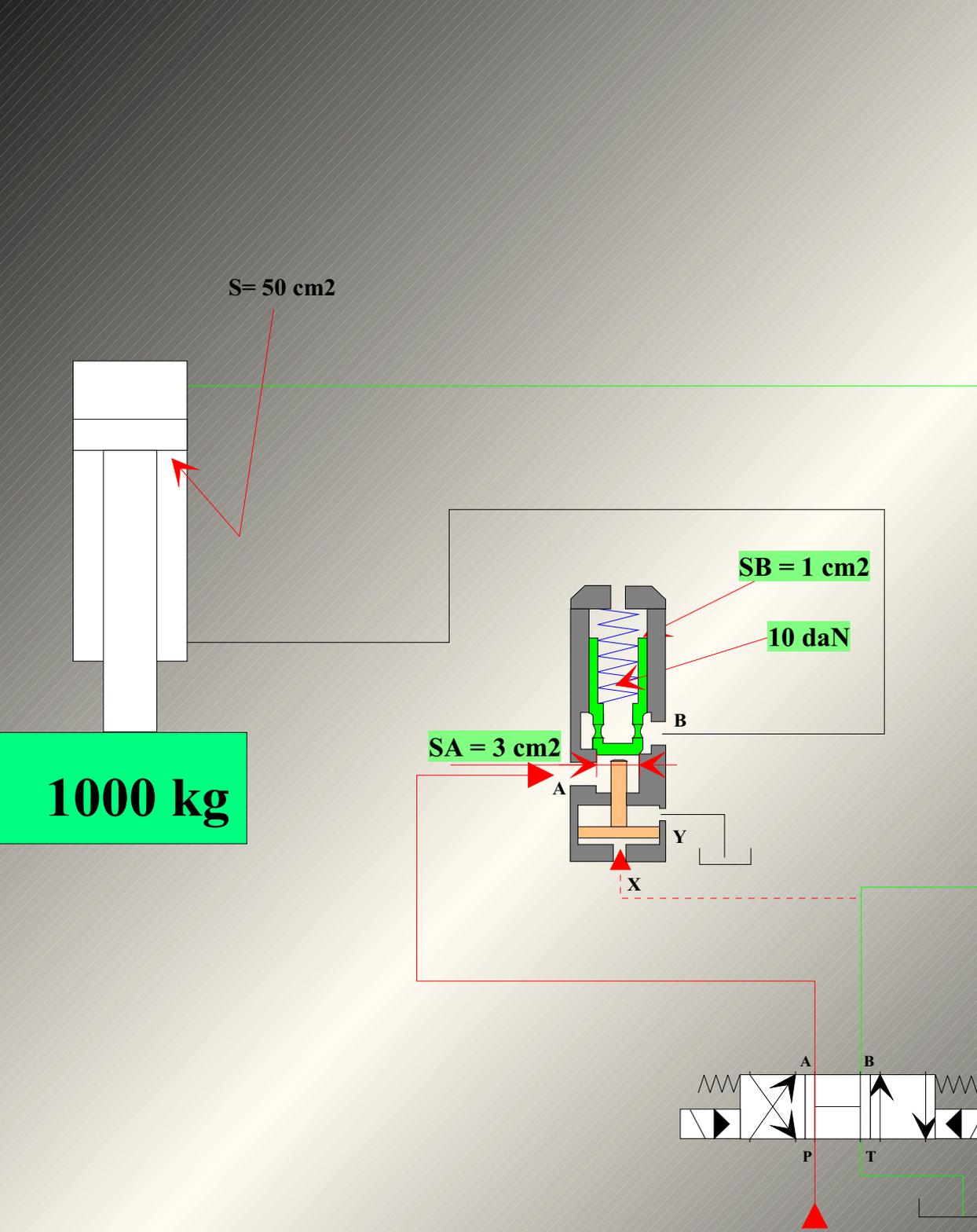
passage du fluide



Il faut mettre à 0 la pression sur le pilote

Aucun passage du fluide





Production
LGM



$$F = mg$$

$$F = 1000 \text{ kg} \times 1 = 1000 \text{ DaN}$$

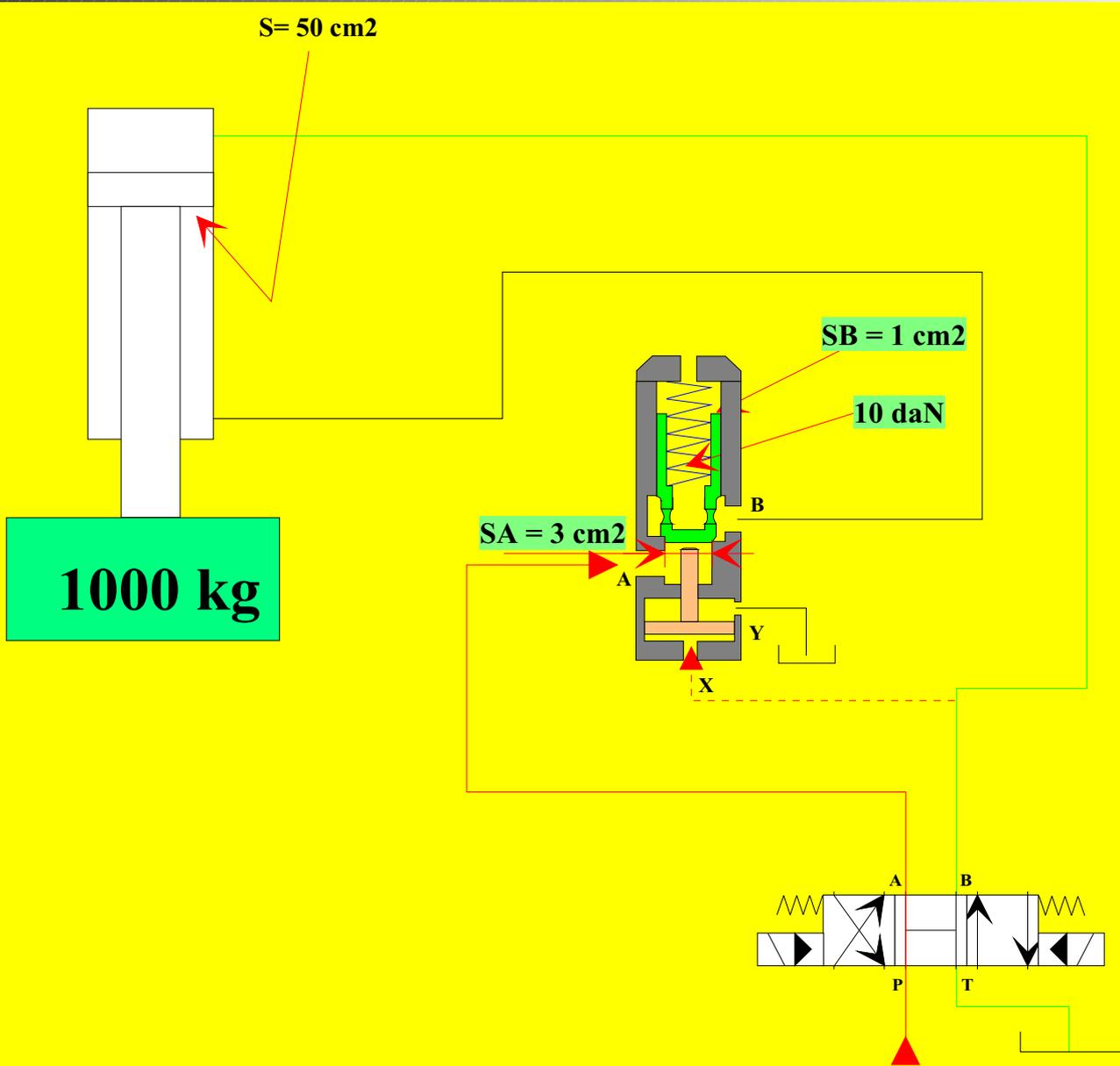
$$P = \frac{F}{S} = \frac{1000}{50} = \underline{20 \text{ bars}}$$

Force exercée par la chambre sur le clapet ou force de devérouillage

$$F = P \times S = 20 \times 1 = 20 \text{ DaN}$$

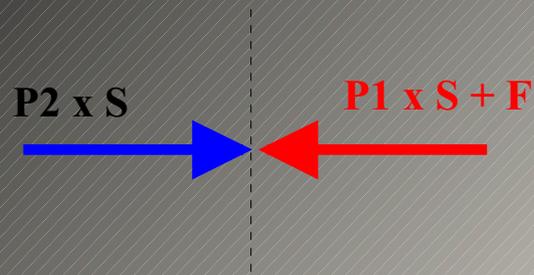
Pression de pilotage:

$$P = \frac{F}{S} = \frac{20}{3} = \underline{6.33 \text{ bars}}$$



Lorsque le clapet s'ouvre : le vérin rentre

équilibre du clapet



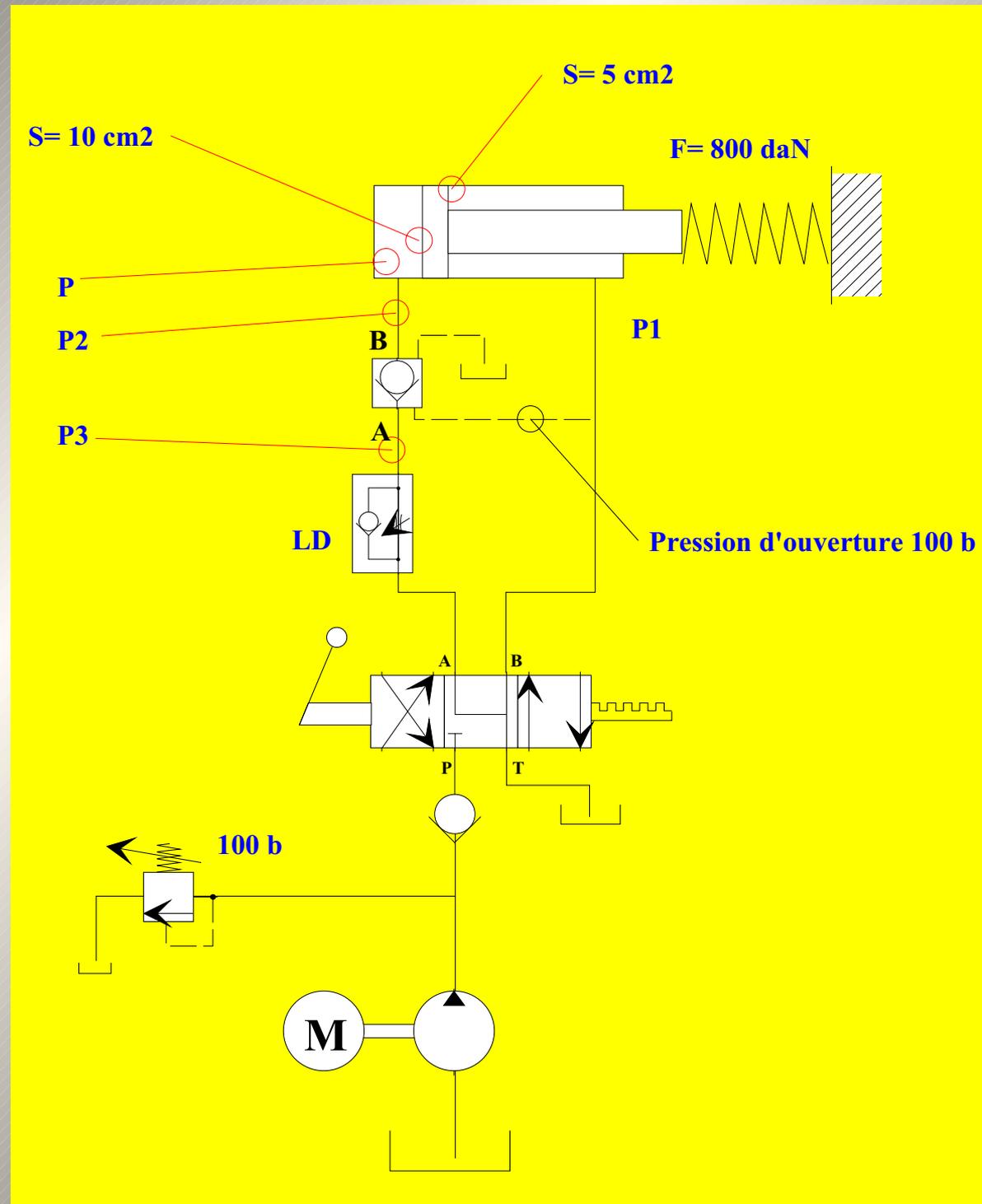
$$P3 = P2$$

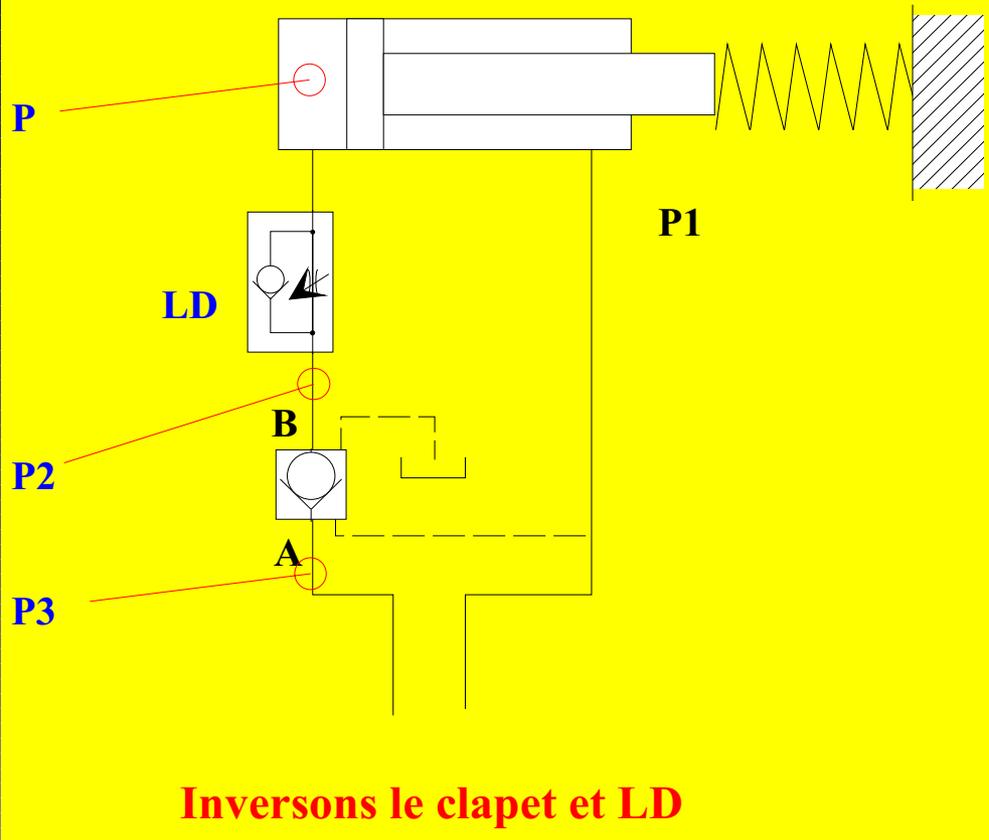
$$10 \times P2 = 5 \times P1 + F$$

$$10 \times P2 = 5 \times 100 + 800$$

$$P2 = \frac{500 + 800}{10} = 130 \text{ Bars}$$

Lorsque le vérin rentre le clapet vibre

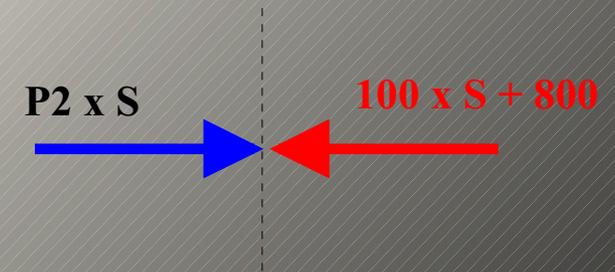




La pression en A est toujours nulle
le clapet ne peut pas vibrer

$$P = P2 \quad \text{clapet ouvert}$$

$$P2 = 0 \quad P = 130 \text{ bars} \quad P2 = P3 = 0$$



$$P = \frac{500 + 800}{10} = 130 \text{ Bars}$$



THE END

Echap

