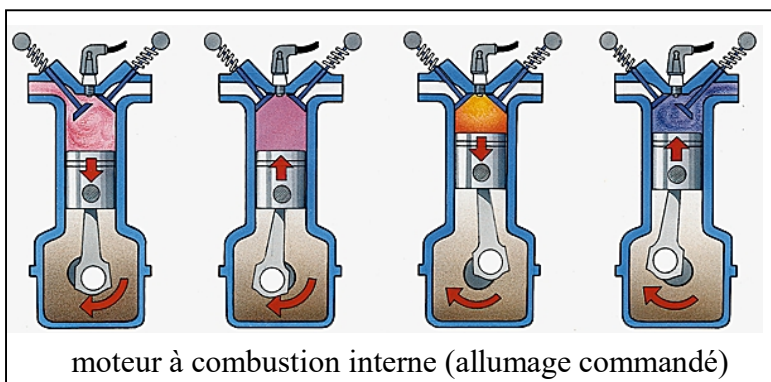
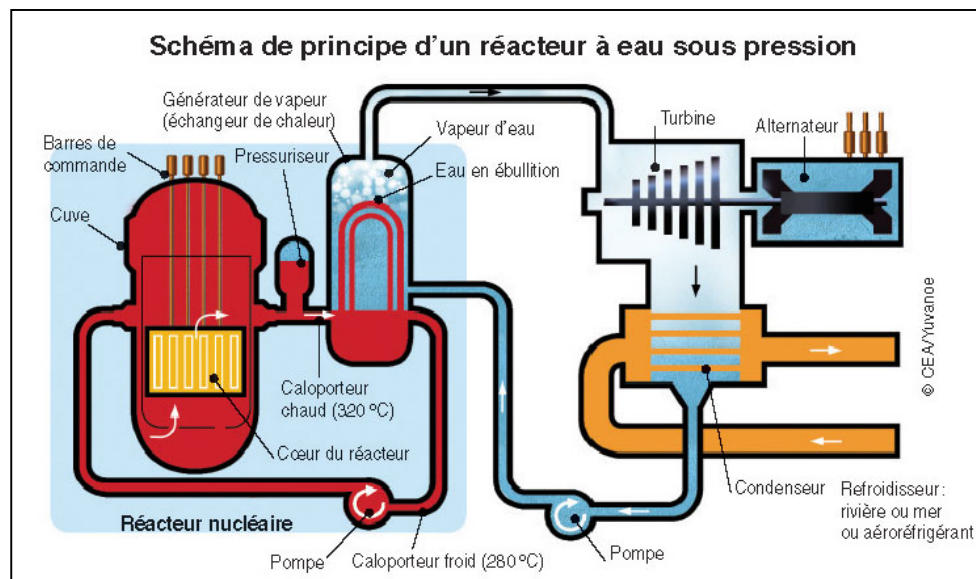
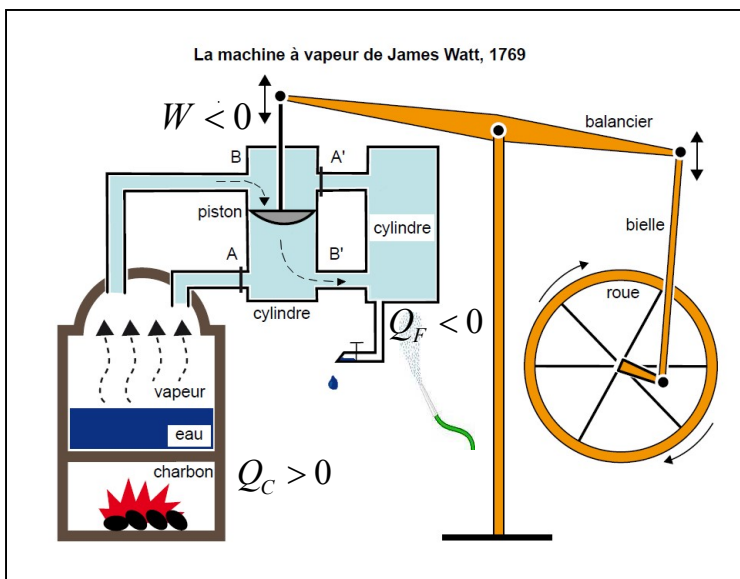
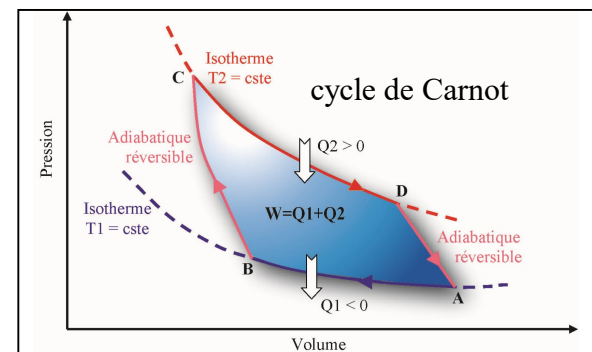
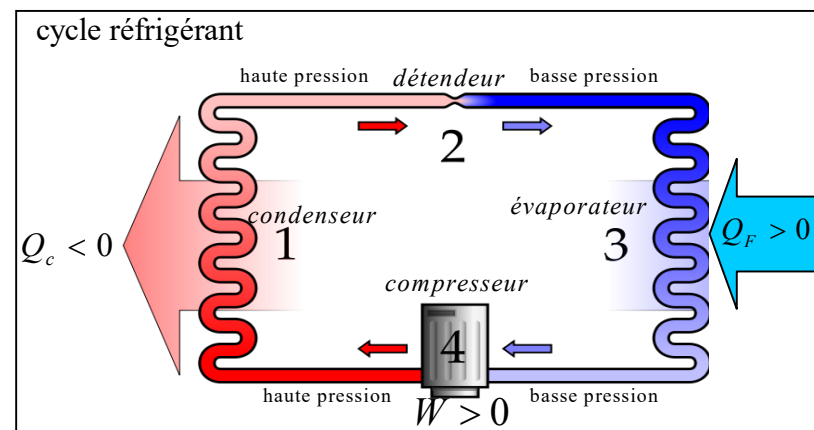


Expérience de la canette

Machines Thermiques – Introduction

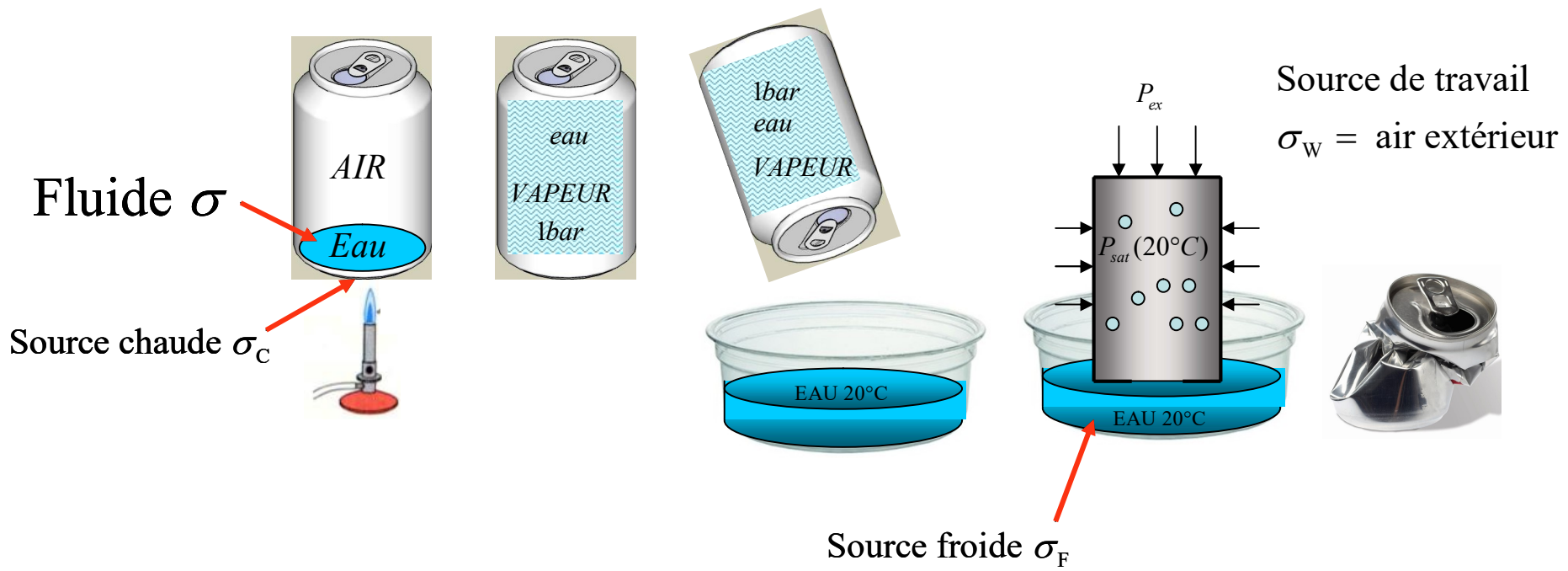


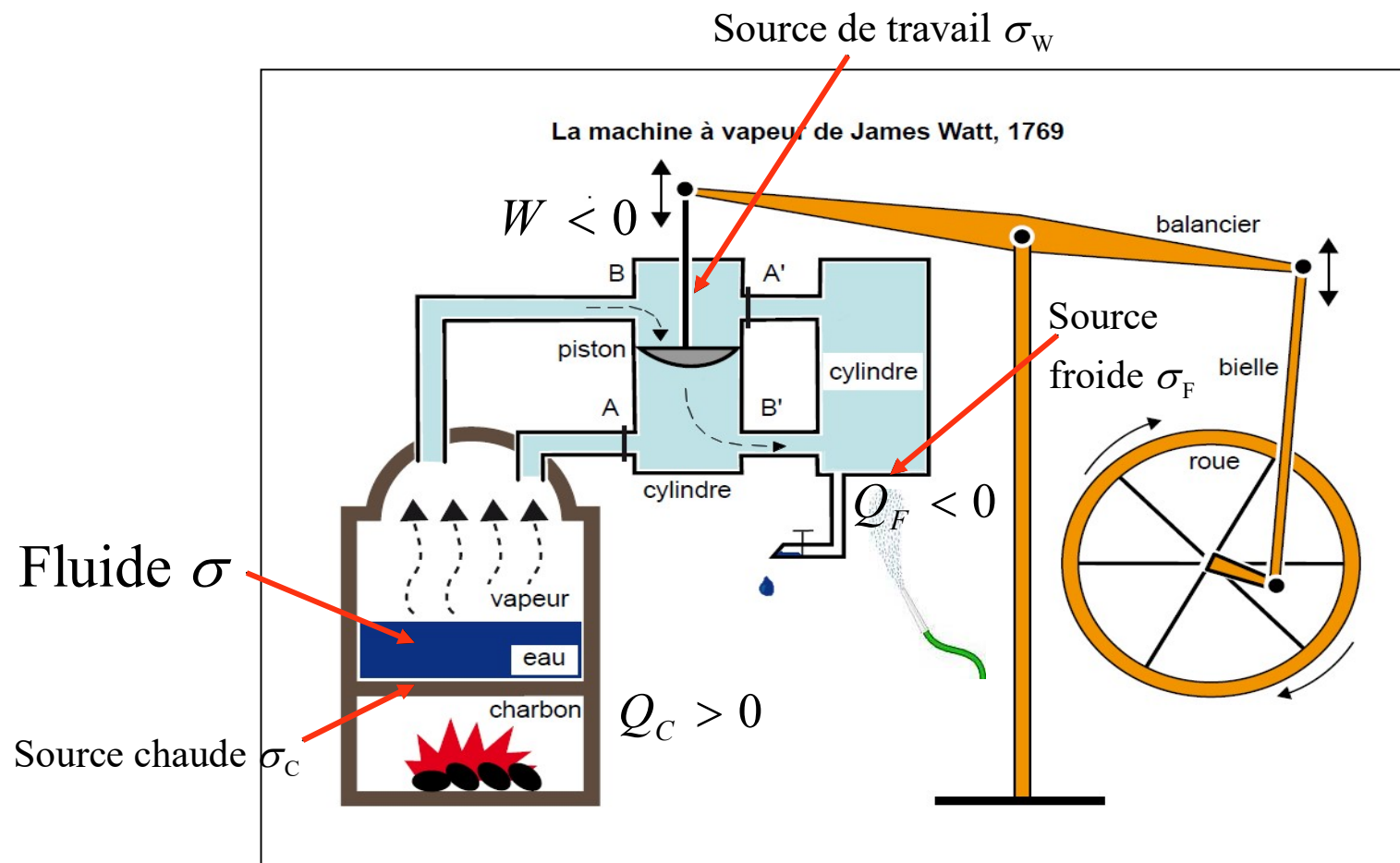
moteur à combustion interne (allumage commandé)

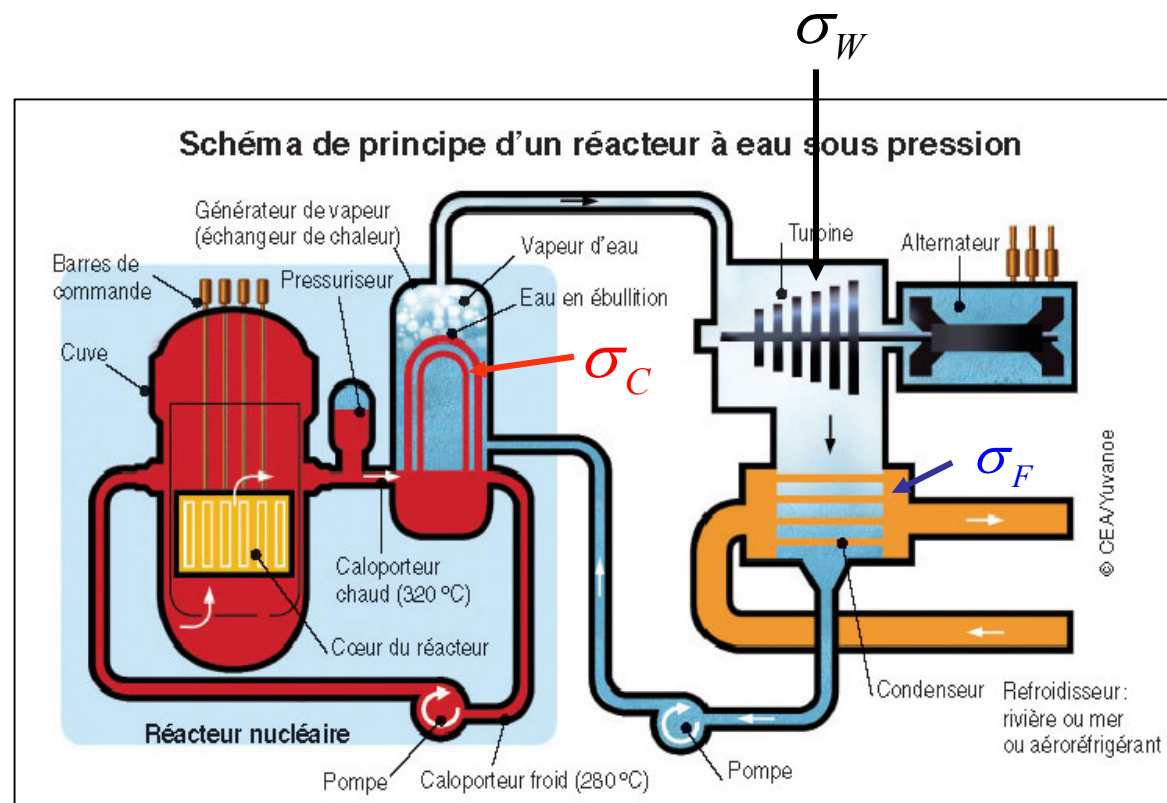


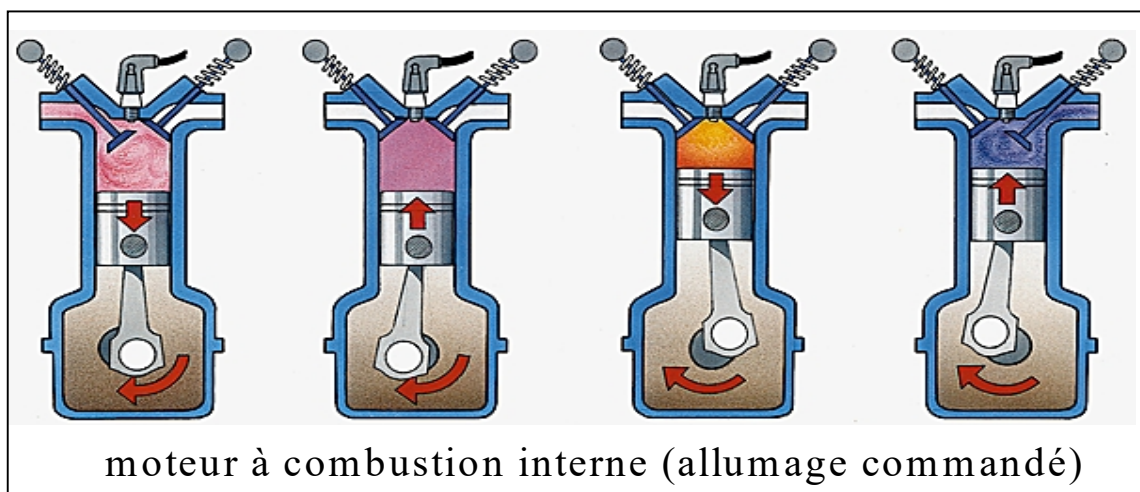
Ceci est une machine à vapeur



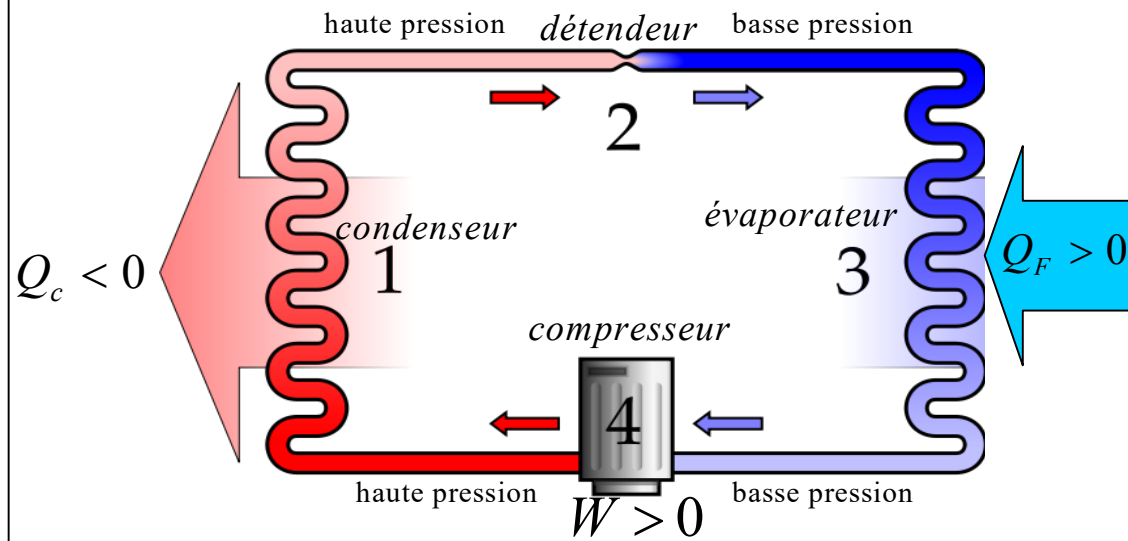


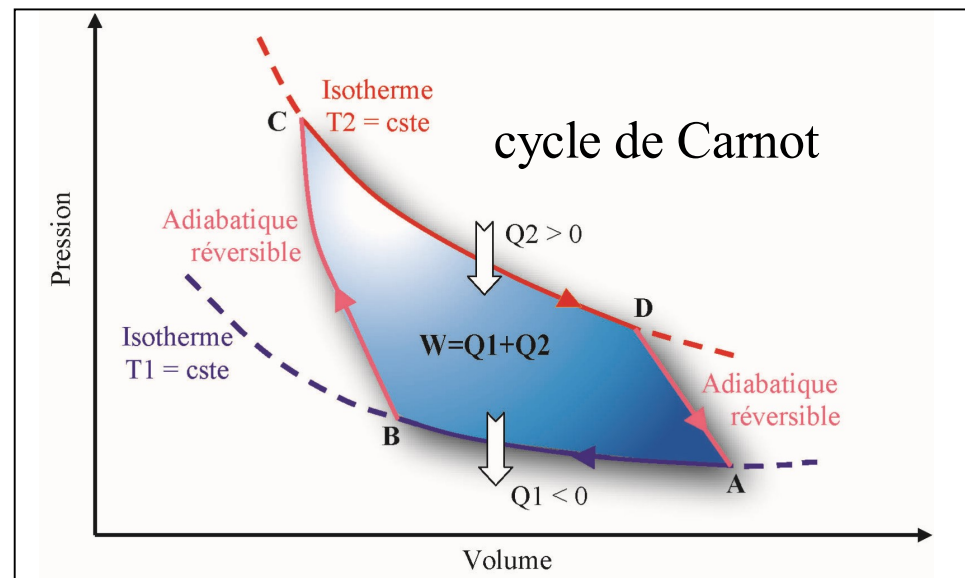




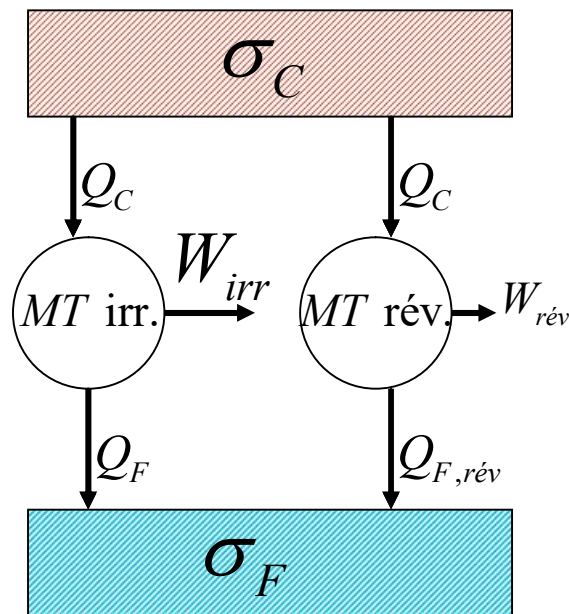


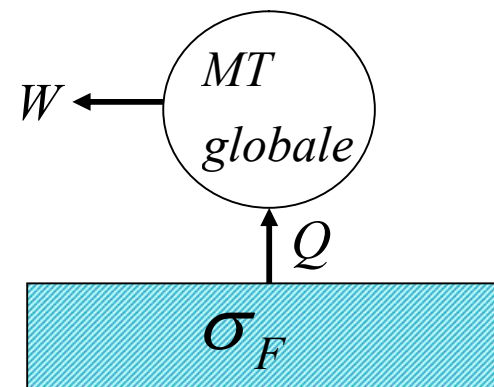
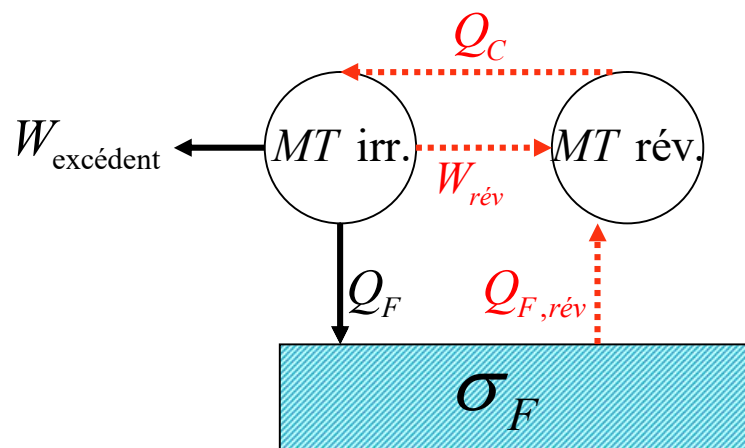
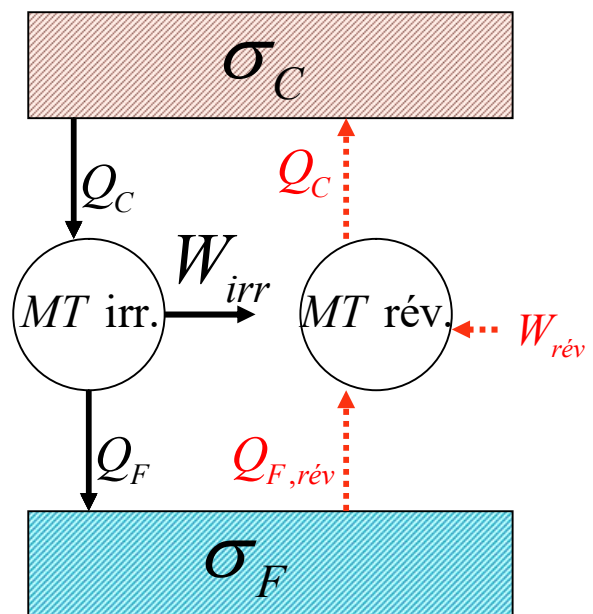
cycle réfrigérant





- ❑ la machine la plus efficace est celle qui fonctionne de manière réversible
- ❑ toutes les machines réversibles ont le même rendement.





$$\eta = 1 - \frac{Q_F}{Q_C}$$

$$\frac{Q_F}{Q_C} = f(T_F, T_C)$$

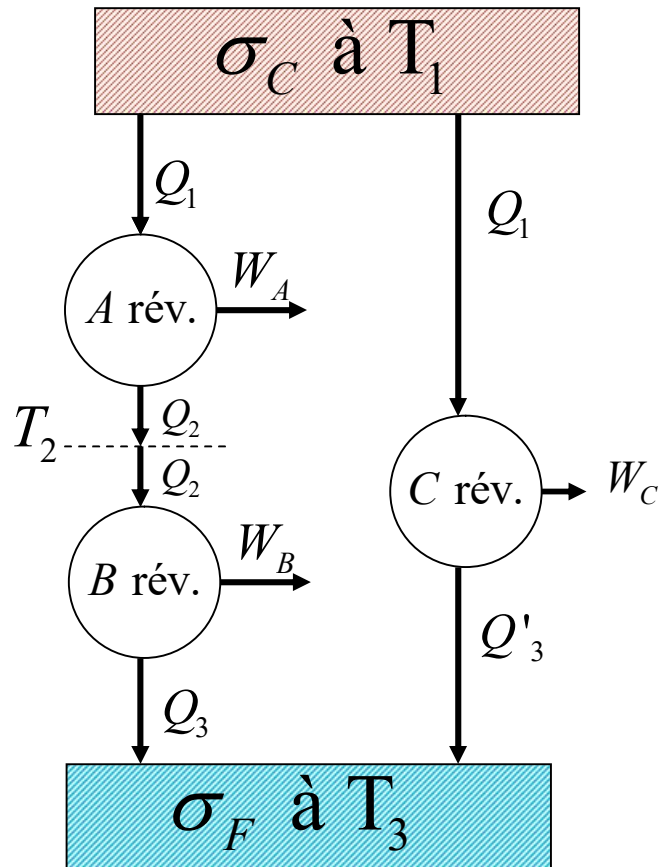
$$Q'_3 = Q_3$$

$$\frac{Q_3}{Q_2} = \frac{\left(\frac{Q_3}{Q_1}\right)}{\left(\frac{Q_2}{Q_1}\right)}$$

$$\frac{Q_3}{Q_2} = f(T_3, T_2) = \frac{f(T_3, T_1)}{f(T_2, T_1)} \triangleq \frac{\varphi(T_3)}{\varphi(T_2)} \stackrel{!}{=} \frac{T_3}{T_2}$$

$$T_{\text{point triple de l'eau}} \triangleq 273,16K$$

$$\frac{T_3}{T_2} \triangleq \frac{Q_3}{Q_2}$$



Température thermodynamique