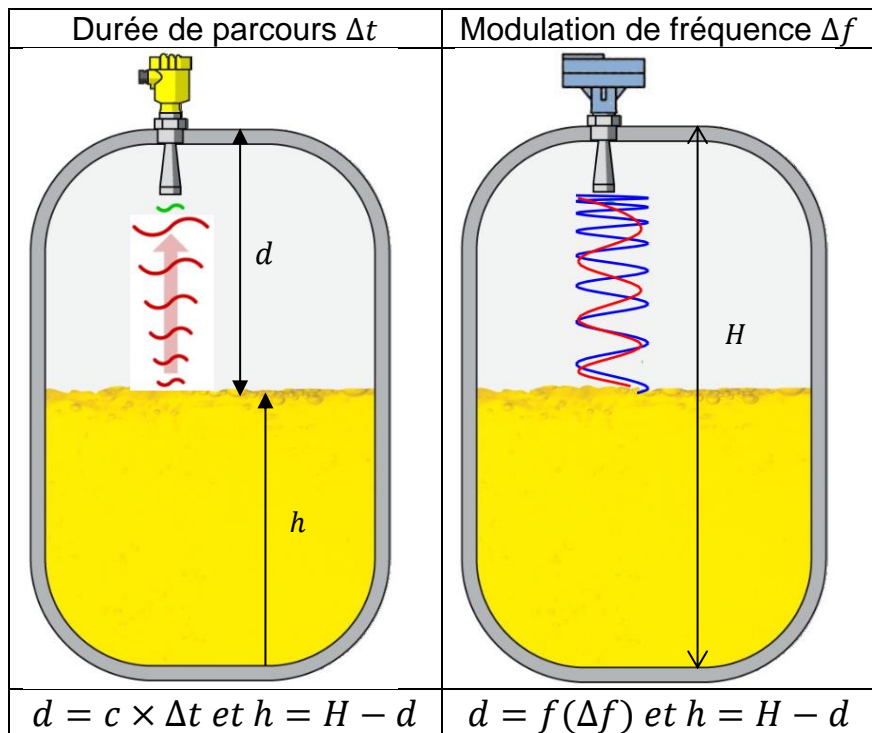


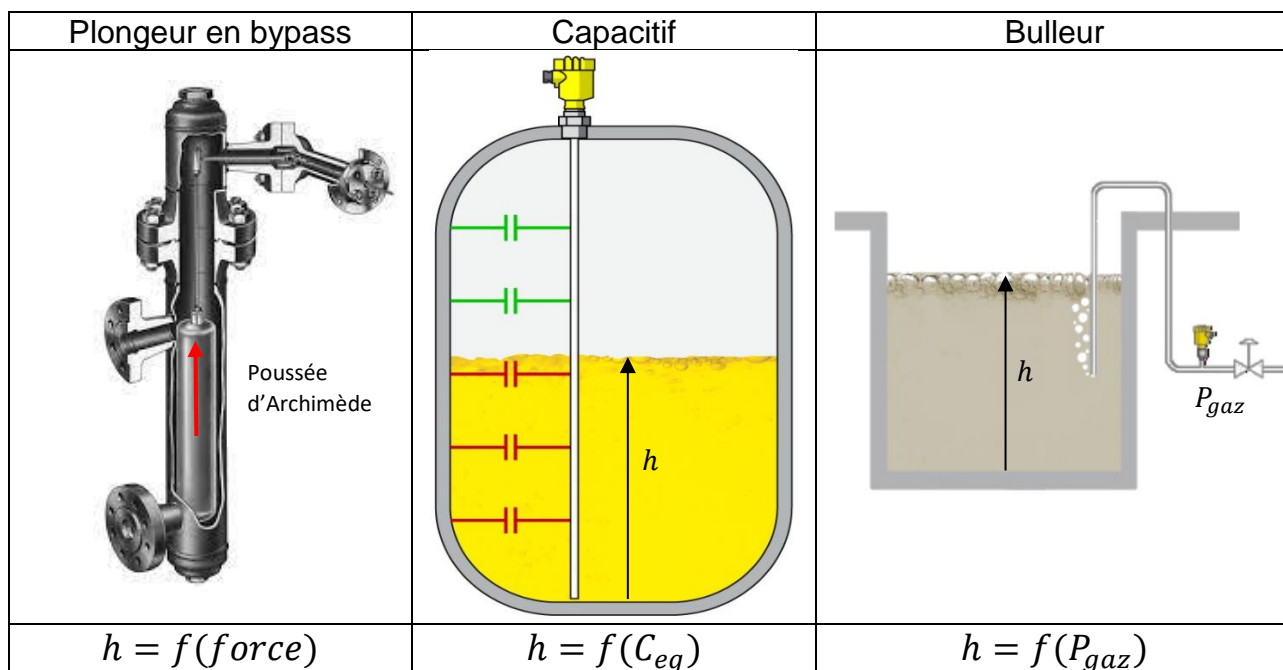
PRINCIPALES TECHNOLOGIES DE CAPTEURS

- **Niveau**

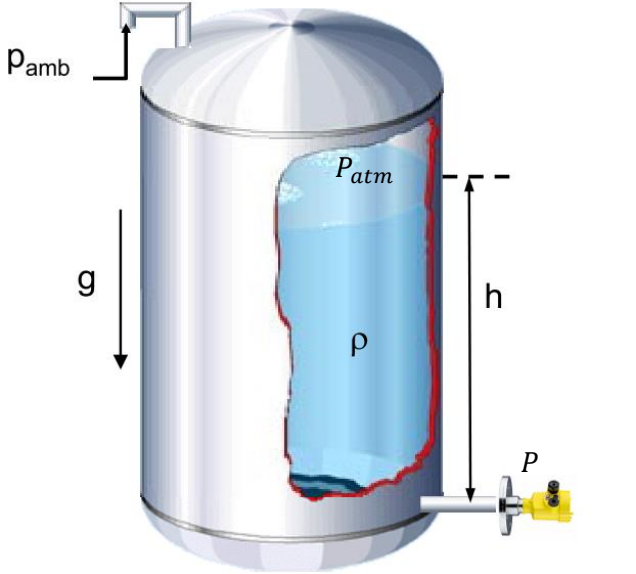
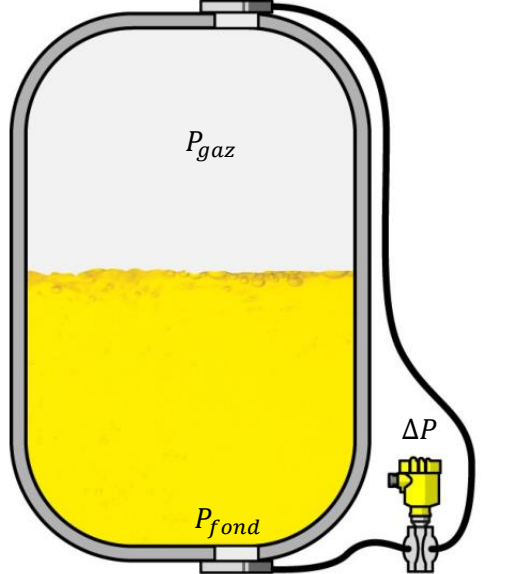
Mesure sans contact par laser :



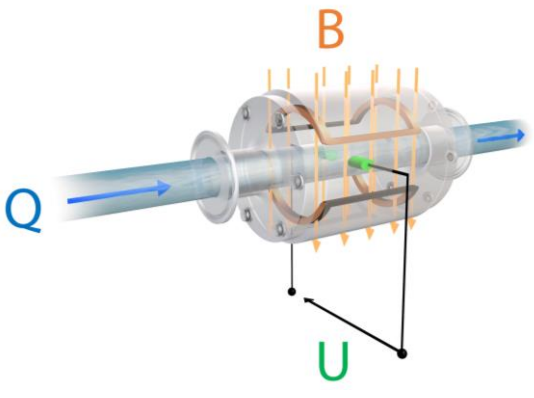
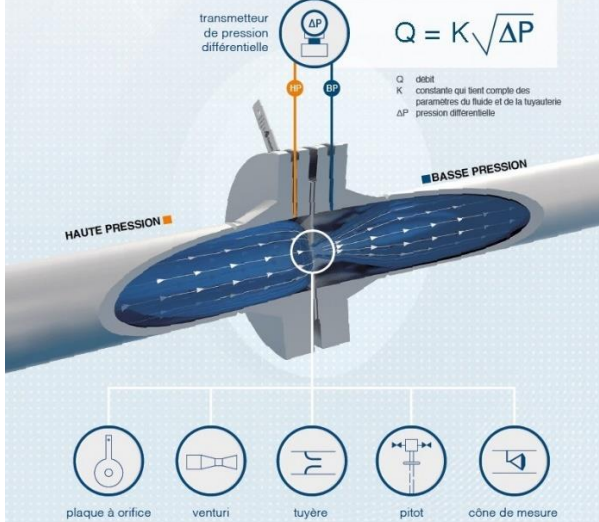
Mesure avec contact :




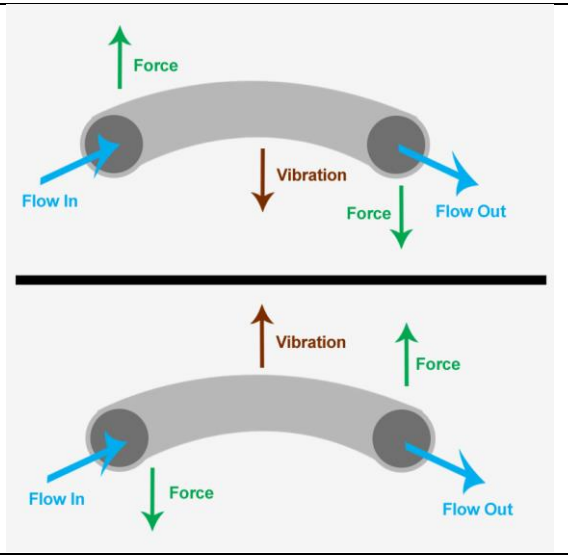
Par mesure de pression :

Statique (cuve ouverte sur atmosphère)	Différentielle (cuve pressurisée)
	
$P = P_{atm} + \rho gh$ $h = \frac{P - P_{atm}}{\rho g} = \frac{P_{relative}}{\rho g} = \frac{P_{gauge}}{\rho g}$	$\Delta P = P_{fond} - P_{gaz} = \rho gh$ $h = \frac{\Delta P}{\rho g}$



▪ **Débit volumique**

Électromagnétique	Diaphragme
	
$Q_v = f(\text{tension } U)$	$Q_v = K\sqrt{\Delta P}$

▪ **Débit massique**

Effet Coriolis	
	
$Q_m = f(\text{force de Coriolis})$	

▪ **Température**

RTD (Resistance Temperature Detector)	Thermocouple
	
$\theta = f(R)$	$\theta = f(fem_{\text{thermouple}})$
PT100 (platine) : $R = 100 \Omega$ à $0^\circ C$	Type K : $fem E = 798 \mu V$ à $20^\circ C$