Iso-thermal

at constant temperature

Adiabatic

no heat flow and can be reversed.

Isentropic

adiabatic

Compressibility

- isothermal $k_T = -\frac{1}{V}\frac{\partial V}{\partial p}\Big|_T$
- adiabatic $k_S = -\frac{1}{V}\frac{\partial V}{\partial p}\Big|_S$

Heat Capacity

- constant volume $C_V = \frac{dQ_V}{dT}$
- constant pressure $C_P = \frac{dQ_P}{dT}$

Bulk Modulus

- iso-thermal $B_T = 1/k_T$
- adiabatic $B_S = 1/k_S$

Isobaric Expansivity

$$\alpha = \frac{1}{V}\frac{\partial V}{\partial T}\Big|_p$$

Thermal Reservoir

a body in/out of which arbitrary amounts of heat can be transferred without affecting the temperature.