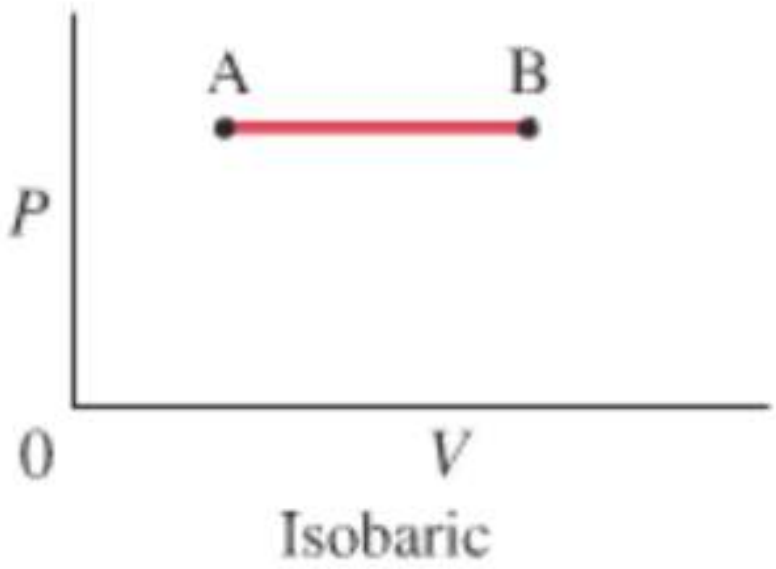
Thermodynamics
Tutorial-II

Isobaric Process

A process taking place at constant pressure is called isobaric process.

1) Work done $W=P(V_2-V_1)$
2) $\Delta U=nR(T_2-T_1)$



Isobaric

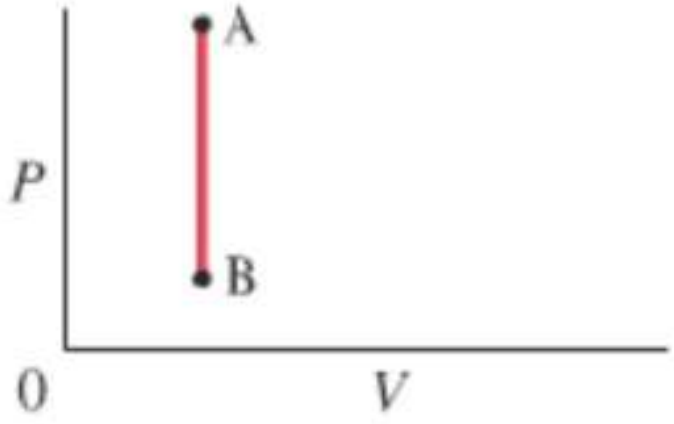
Isochoric Process

- **In an isochoric process volume of the system remain uncharged throughout i.e. $\Delta V = O$.**

- **When volume does not change no work is done ; $\Delta W = 0$ and therefore from first law**

  $$U_2 - U_1 = \Delta U = \Delta Q$$

- **All the heat given to the system has been used to increase the intenal energy of the system.**



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How to Solve the Thermodynamics Problems

- Define the system you are dealing with and isolate it from surrounding
- Apply the first law of thermodynamics to the processes undergone by the system
- Remember the various thermodynamics processes explained earliar.
- Make sure to use same units for Heat and work to have in the first law of thermodynamics
- Remember the sign of Heat and Work. Heat given is + and heat taken is -. Similarly Workdone by the system + and Work done on the system is -

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