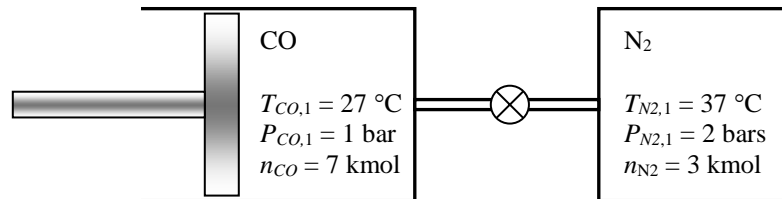

HOMEWORK: Closed System Mixing HW

Carbon monoxide (CO) and nitrogen (N₂) initially reside in the apparatus and at the states shown below.



The valve between the tanks is opened allowing mixing during which the piston moves. The final mixture has $T_2 = 27^\circ\text{C}$ and $P_2 = 1$ bar. The process is adiabatic.

- Find the work for the process.
- Find the exergy destruction for the process for $T_0 = 300$ K and $P_0 = 1$ bar.