

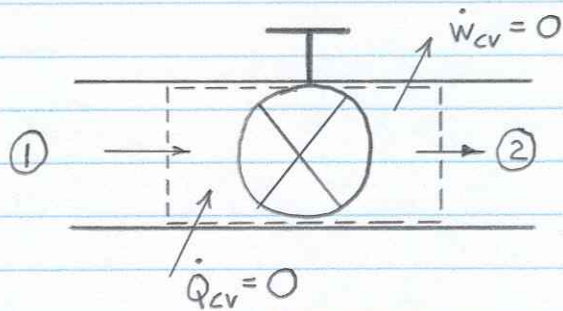
Throttle Valve

purpose: to cause a sudden pressure drop

Problem 6.31

CO_2 is used as a refrigerant. It flows from a condenser at 10 MPa , 40°C after which it is throttled to 1.4 MPa .

What is the state (T, x) of the exit flow?



Assumptions:

1. SSSF
2. $\Delta ke \approx 0$
3. $\Delta pe = 0$
4. $\dot{Q}_{cv} = 0$