

3-b-1 Determine phase

In which phase is water at $T = 180^\circ\text{C}$ and $h = 2000 \text{ kJ/kg}$?

Answer: Saturated mixture

At $T = 180^\circ\text{C}$, the enthalpy of the saturated liquid is 763 kJ/kg and of the saturated vapor it is 2777 kJ/kg. 2000 kJ/kg is in between, so the water is still in the compressed liquid phase.