Deaerator Heating Steam Consumption

11/10/2026

Project: deaerator-steam

Input Parameters

Deaerated feedwater outlet flow	50,000 kg/h
Deaerator pressure (absolute)	1.2132 bar
Vent steam flow	0 kg/h
Inlet water temperature (condensate and make-up, mixed)	80.000 °C
Heating steam pressure (absolute)	3.0000 bar
Heating steam condition	Dry saturated
Heating steam temperature (superheated only)	250.00 °C

Calculated Results

Heating steam flow	2,210.0 kg/h
Inlet water flow	47,790 kg/h
Steam per kg of feedwater	4.4200 %
Deaerator (saturation) temperature	105.10 °C
Inlet water enthalpy	335.01 kJ/kg
Heating steam enthalpy	2,724.9 kJ/kg
Outlet feedwater enthalpy (saturated liquid)	440.64 kJ/kg
Vent steam enthalpy (saturated vapour)	2,683.5 kJ/kg