

From the 6MPa column of the table  
 $h_{35}$  lies between  $h_{25}$  (110.3 kJ/kg)  
&  $h_{50}$  (214.4 " )

$$\text{Interpolating } \frac{50-35}{50-25} = \frac{214.4 - h_{35}}{214.4 - 110.3}$$

$$\therefore h_{35} = \underline{151.94 \text{ kJ/kg}}$$

$$h_{425} = \underline{3243 \text{ kJ/kg}} \text{ (direct from table value)}$$

In converting water at 35°C to steam at 425°C

$$\Delta h = 3243 - 151.94 = 3091.06 \text{ kJ/kg}$$

If 25 kg/s are converted, then  $\dot{H}$  given by

$$\dot{H} = \dot{m} \Delta h = 25 \times 3091.06 = 77,276.5 \text{ kJ/s}$$

or 77.28 MW