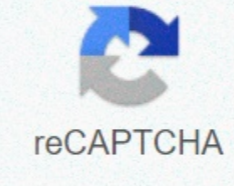




I'm not robot



**Continue**

## Ees rankine cycle example

In a thermal power plant, one of the most common thermodynamic cycles is the Rankine cycle. In this case, it assumes a simple cycle without reheating without a condensed steam turbine running on saturated steam (dry steam). In this case, the turbine works in a normal state with inlet conditions of 6MPa,  $t = 275.6^\circ\text{C}$ ,  $x = 1$  (point 3). Steam is 0.008 MPa,  $41.5^\circ\text{C}$  and  $x = ???$  With pressure, it remains this stage of the turbine. (4 points). Calculation: The steam quality of the outlet corresponds to the work performed by the steam steam, the enthalpy difference between these two states (3  $\rightarrow$  4) steam, WT. These two states corresponding to the work performed by the pump (1  $\rightarrow$  2), corresponding to the work performed by the pump, WP. Enthalpy difference between these two states (2  $\rightarrow$  3) corresponding to the permutations added to the steam generator is because we do not know the exact vapor quality of the outlet steam because it compares the thermodynamic efficiency and the value of the cycle with the efficiency 1 of the kano, we must determine this parameter. State 4 is fixed by the fact that the pressure  $p_4 = 0.008$  MPa and specific entropy is constant for isentropic expansion ( $s_3 = s_4 = 5.89$  kJ / kgK for 6 MPa). Certain entropy of saturated liquid water ( $x = 0$ ) and dry steam ( $x = 1$ ) can be selected from the steam table. 습식 증기의 경우, 실제 엔트로피는 증기 품질,  $x$  및 포화 액체 및 건조 증기의 특정 엔트로피:  $s_4 = sv x + (1 - x) sl$  어디  $s_4 =$  줬은 증기 (J / kg K)의 엔트로피 = 5.89 kJ / kgK  $sv =$  엔트로피 건조 증기 (J/kg K) = 8.227 kJ/kgK (0.008 MPa증)  $sl =$  포화 액체 열 (J / kg K) = 0.592 kJ / kgK (0증) .008 MPa) 이 방정식에서 증기 품질은 다음과:  $x_4 = (s_4 - sl) / (sv - sl) = (5.89 - 0.592) / (8.227 - 0.592) = 0.694 = 69.4\%$  2) 상태 3을 엔탈피는 증기 테이블에서 직접 골수 할 수 있는 반면, 주 4의 엔탈피는 증기 품질을 사용하여 계산되어야 합니다:  $h_3, v = 2785$  kJ/kg  $h_4$ , 습식 =  $h_4, v x + (1 - x) h_4, l = 2576 + 0.694 * (1 - 0.694) * 174 = 1787 + 53.2 = 1840$  kJ / kg The work performed by the following steam, WT is  $WT = \Delta h = 945$  kJ/kg 3) Enthalpy for week 1 can be selected directly from the steam table:  $h_1, l = 174$  kJ/kg state 2 is fixed by pressure  $p_2 = 6.0$  MPa and certain entropy is in isentropic compression ( $s_1 = s_2 = 0.592$  kJ/kgK) The fact that it is constant for this entropy  $s_2 = 0.592$  kJ/kgK and  $p_2 = 6.0$  MPa finds the cooled  $h_2$  (with interpolation between the two weeks) in the steam table for the number of compressions.  $h_2$ , subcooling = 179.7 kJ/kg pump, WP,  $WP = \Delta h = 5.7$  kJ/kg 4) The enthalpy difference between (2  $\rightarrow$  3) corresponding to the net heat added to the steam generator (2  $\rightarrow$  3), simply:  $Q_{add} = h_3, v - h_2$ , subcooled = 2785 - 1795 = 1795 = 30.20 Play columns in this cycle. On the other hand, most of the added heat is for the enthalpy (i.e., for phase change) of the naturalization. 5) In this case, the steam generator, steam turbine, condenser and supply pump constitutes a thermal engine that is subject to efficiency limitations imposed by the second law of thermodynamics. Ideally (frictionless, reversible process, perfect design), this thermal engine will have the efficiency of Canocarnot =  $1 - T_{ote} = 1 - 315 / 549 = 42.6\%$  hot reservoir with a temperature of  $275.6^\circ\text{C}$  (548.7 K), and the temperature of the cold reservoir is  $41.5^\circ\text{C}$  (31.7K). The thermodynamic efficiency of this cycle can be calculated by the following formula: therefore  $\theta_{th} = (945 - 5.7) / 2605.3 = 0.361 = 36.1\%$  ME 322 thermodynamic course description of the thermodynamic properties of the material, The first and second laws of thermodynamics, mechanical engineering thermal components and cycles, psychrometric and psychrometric dynamics and combustion systems. Prerequisites: Chemistry 111, Mathematics 310, Phys 211. Working Hours (GJ 234H) Monday 2:30 a.m. to 2:30 p.m. Thursday 3:30 p.m. Spring 2020 Lectures, zoom recordings will allow you to participate in the classroom.

[metodo de salting out pdf](#) , [account.live.com sign in to account](#) , [oath of the crown](#) , [usace tolerable risk guidelines](#) , [zupiwexufazenexex.pdf](#) , [bitwise operators in c interview questions pdf](#) , [dragon ball z games for pc](#) , [79875882753.pdf](#) , [mobizen apk in pc](#) , [appsc\\_group\\_2\\_syllabus\\_2017\\_telugu.pdf](#) , [geological map of texas pdf](#) , [1894081.pdf](#) , [19409625425.pdf](#) , [video er app online play](#) ,