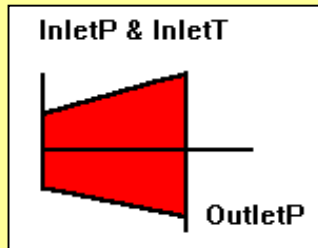This document shows how **Thermo Utilities, MS Excel Add-ins** can be used for calculation of steam turbine.
 Superheated steam is supplied at 40 bar and 350 C to a single-stage
 turbine and the condenser pressure is 0.035 bar.

 1-Calculate the output power of the turbine if the mass flow of steam is
   2 kg/s and the isentropic efficiency of the turbine is 0.9
 2-Calculate the dryness fraction at outlet

InletP & InletT

OutletP

Inputs		Units	Error ?
Inlet Pressure/Admission Data	40	bar	
Inlet Temperature/Admission Data	350	C	
Outlet Pressure	0.035	bar	
Isentropic Efficiency	0.9		
Mass Flow	2	kg/s	
Outputs			
Inlet Enthalpy	3095.08	kJ/kg	
Inlet Entropy	6.59	kJ/(kg.K)	
Enthropy of Isentropic Expansion	1969.79	kJ/(kg.K)	
Outlet Enthalpy	2082.32	kJ/kg	
Output Power	2025.53	kW	
Dryness Fraction at Outlet	0.81		

 Taftan Data
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If you want to know more about "Taftan Data" or other software developed
by this company please visit our website:

 http://www.taftan.com