

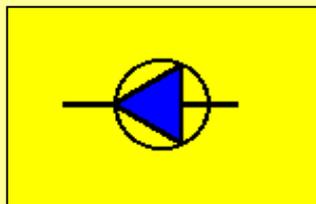
Pump

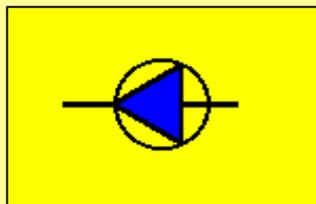
This document shows how Thermo Utilities, MS Excel Add-ins can be used for calculation of feed-pump.

Saturated water is supplied to a feed-pump at 0.035 bar. The outlet pressure is 12 bar.

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2- Calculate specific enthalpy, specific entropy, specific volume and temperature of the water before and after the pumping process



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Inputs		Units	Error ?
Inlet Pressure	0.035	bar	
Saturated Water	0		
Outlet Pressure	12	bar	
Isentropic Efficiency	0.9		
Mass Flow	2	kg/s	
Outputs			
Inlet Enthalpy	111.85	kJ/kg	
Inlet Entropy	0.3907	kJ/(kg.K)	
Inlet Temperature	26.69	C	
Enthalpy of Isentropic Compression	113.20	kJ/kg	
Outlet Enthalpy	113.35	kJ/kg	
Input Power	3.01	kW	
Outlet Temperature	26.79	C	
Outlet Entropy	0.3912	kJ/kg	
Outlet Specific Volume	1.0029	m3/ton	
Inlet Specific Volume	1.0033	m3/ton	
<p>Taftan Data Email: support@taftan.com</p> <p>If you want to know more about "Taftan Data" or other software developed by this company please visit our website:</p> <p>http://www.taftan.com</p>			