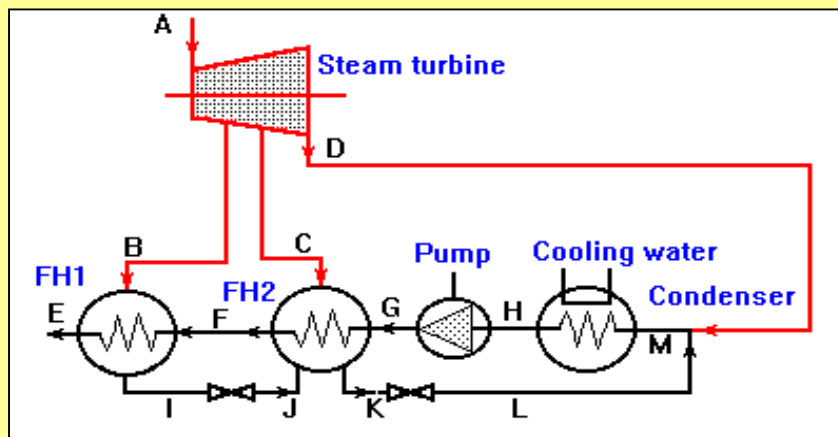This document shows how **Thermo Utilities, MS Excel Add-ins** can be used for calculation of closed-feed heater systems.
A regenerative steam cycle uses two closed-feed heaters. Determine the amount of steam bled at each stage. It is known that:
pB=10 bar, hB=3033 kJ/kg, pC=1.0 bar, hC=2590 kJ/kg, pG=40 bar, hG=112 kJ/kg
Boiler supplies 10 kg/s steam to the turbine.

Inputs		Units	Error ?
Spec. enthalpy at B	3033.00	kJ/kg	
Spec. enthalpy at C	2590.00	kJ/kg	
Spec. enthalpy at G	112.00	kJ/kg	
Pressure at B	10.00	bar	
Pressure at C	1.00	bar	
Pressure at G	40.00	bar	
Mass flow through the system	10.00	kg/s	
Outputs			
For the throttling process, I-J			
hE = hI = hJ	762.61	kJ/kg	
For the throttling process, K-L			
hF = hK = hL	417.51	kJ/kg	
Energy balance on FH1 gives, mB	1.52	kg/s	
Energy balance on FH2 gives, mC	1.16	kg/s	

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

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