

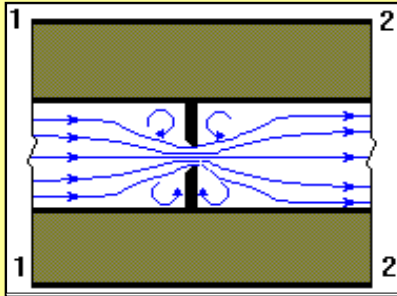
## Throttling Process

This document shows how **Thermo Utilities, MS Excel Add-ins** can be used for calculation of throttling process.

Steam at 7.5 bar with 0.95 dryness fraction is throttled to 4.0 bar.  
Calculate the specific enthalpy, specific entropy, specific volume and temperature

1- at inlet  
2- at outlet

What is the dryness fraction at outlet?



<b>Inputs</b>		<b>Units</b>	<b>Error ?</b>
Inlet Pressure	7.50	bar	
Inlet Dryness Fraction	0.95	C	
Outlet Pressure	4.00	bar	
<b>Outputs</b>			
Inlet Enthalpy	2662.06	kJ/kg	
Inlet Entropy	6.4486	kJ/(kg.K)	
Inlet Specific Volume	242.7108	m3/ton	
Inlet Temperature	167.76	C	
Outlet Enthalpy	2662.06	kJ/kg	
Output Entropy	6.7130	kJ/(kg.K)	
Output Specific Volume	445.8866	m3/ton	
Output Temperature	143.62	C	
<b>Dryness Fraction at Outlet</b>			
	0.9646		
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