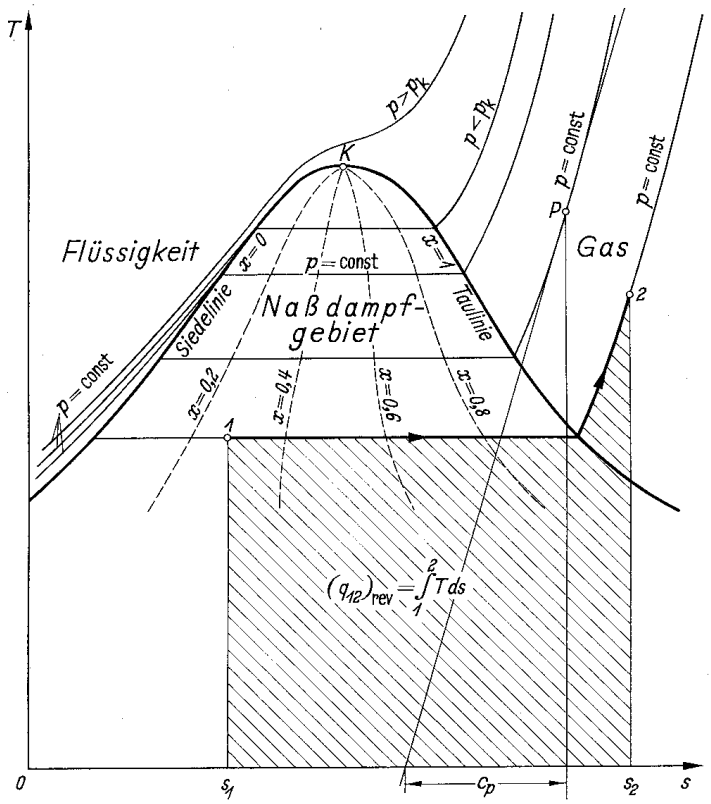
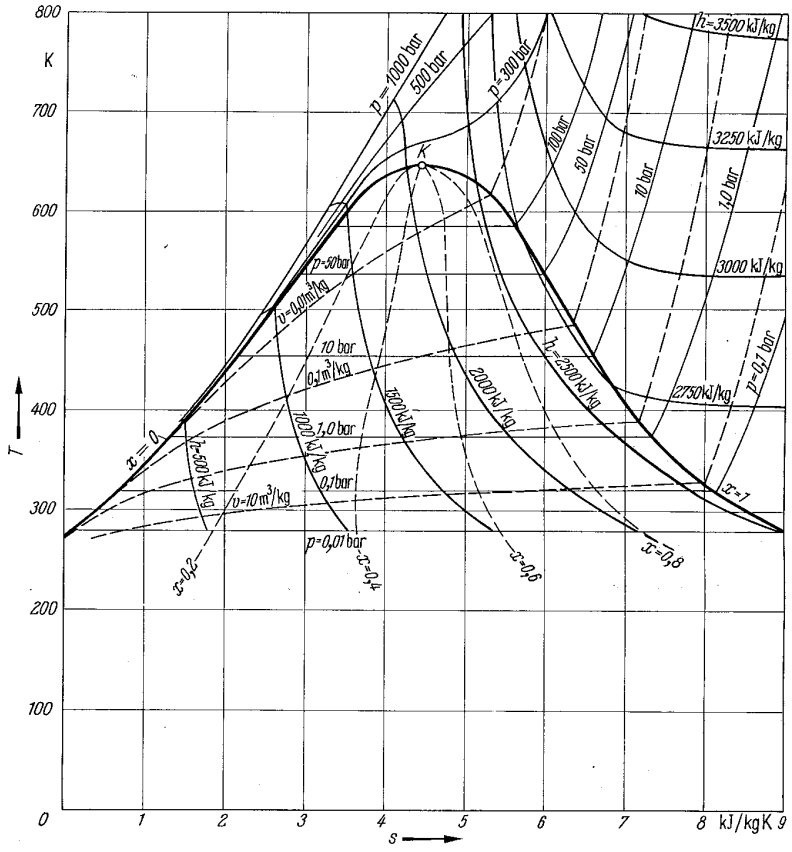
T/s-Diagramm für reales Gas



[Baehr 1992]

Verenum

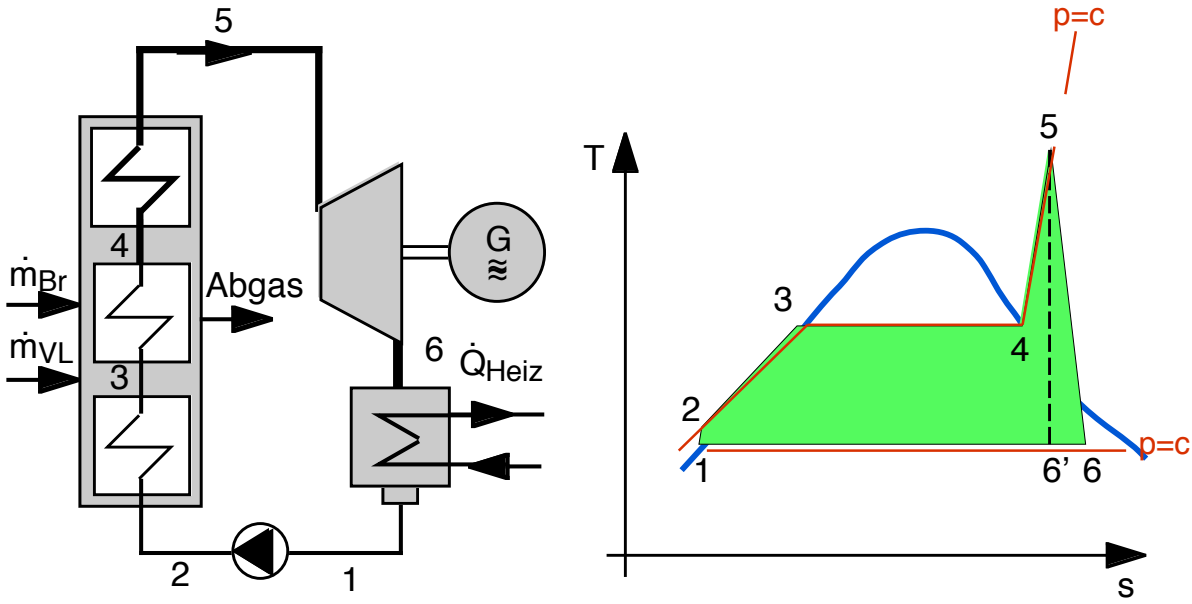
T/s-Diagramm für Wasser



[Baehr 1992]

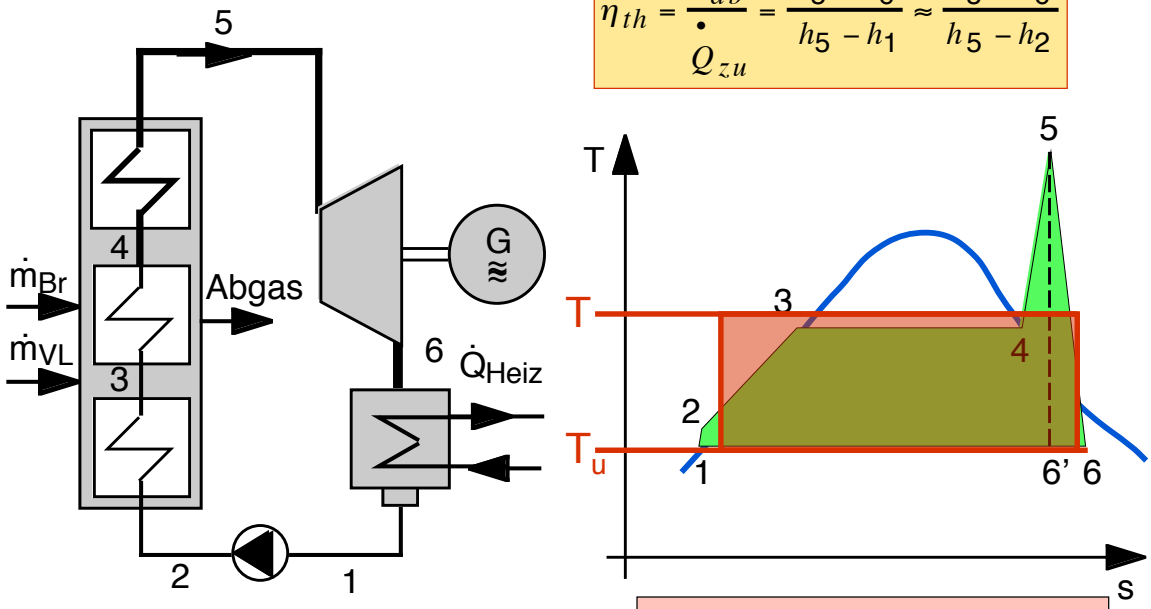
Verenum

Dampfkrafttechnik: Clausius-Rankine-Prozess



Wirkungsgrad Clausius-Rankine-Prozess

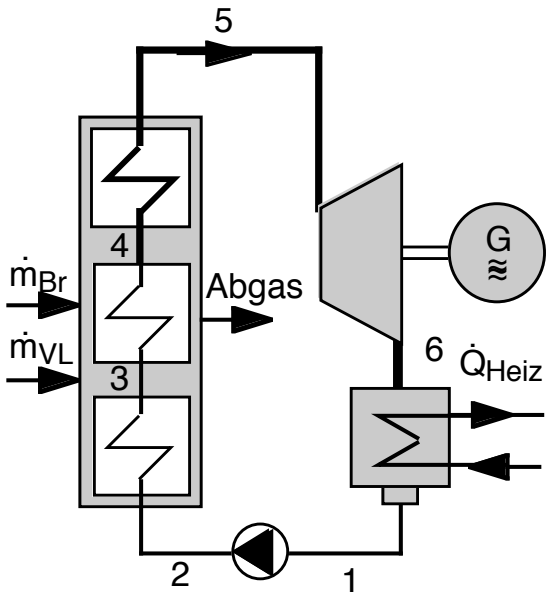
$$\eta_{th} = \frac{P_{ab}}{\dot{Q}_{zu}} = \frac{h_5 - h_6}{h_5 - h_1} \approx \frac{h_5 - h_6}{h_5 - h_2}$$

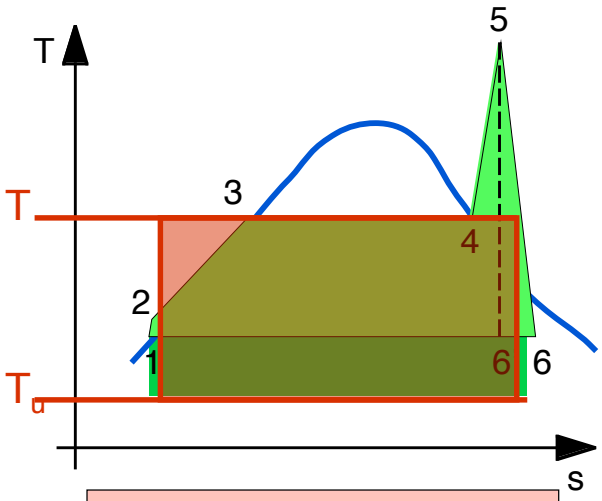


$$\eta_c = \frac{T - T_u}{T} = 1 - \frac{T_u}{T}$$

Wirkungsgrad Clausius-Rankine-Prozess

$$\eta_{th} = \frac{P_{ab}}{\dot{Q}_{zu}} = \frac{h_5 - h_6}{h_5 - h_1} \approx \frac{h_5 - h_6}{h_5 - h_2}$$

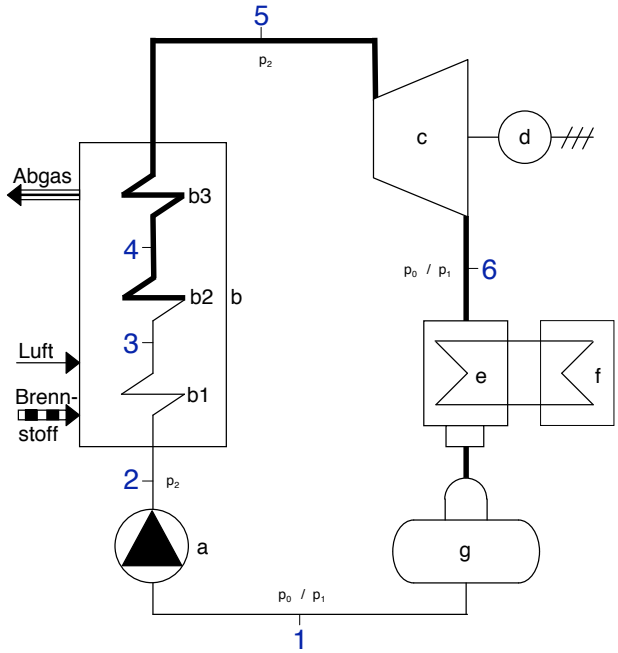


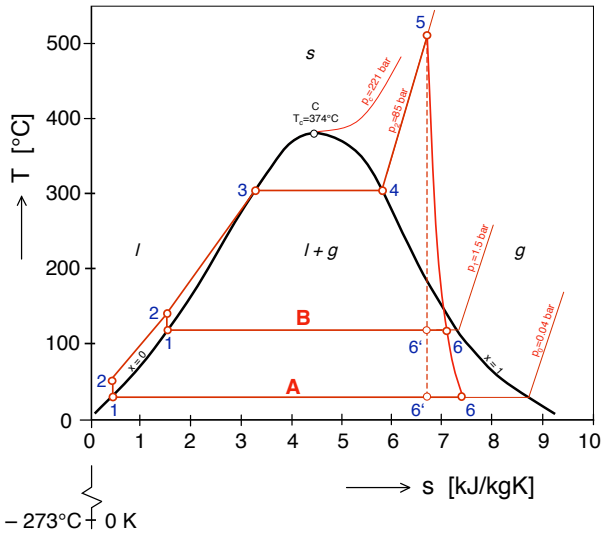


$$\eta_c = \frac{T - T_u}{T} = 1 - \frac{T_u}{T}$$

Verenum

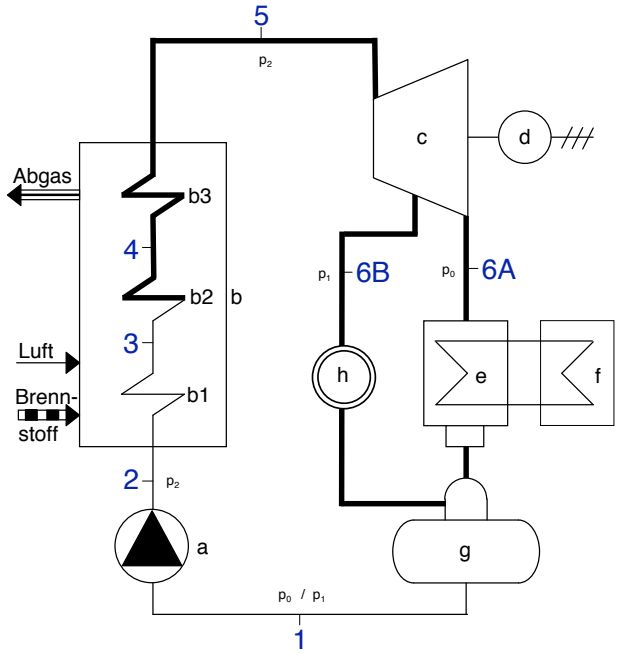
(Clausius-)Rankine-Prozess mit Überhitzung

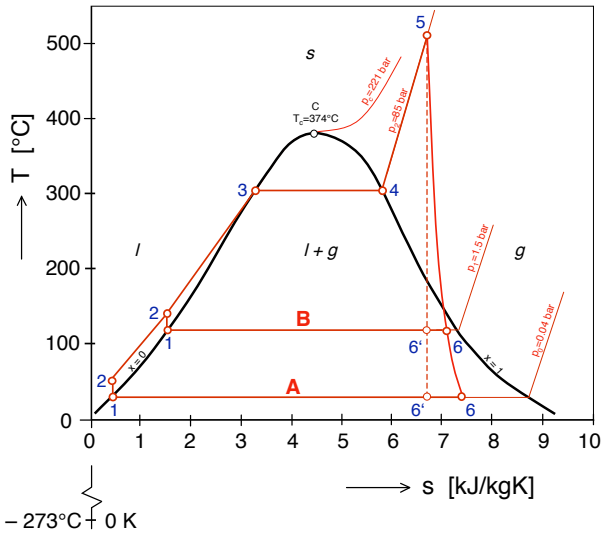




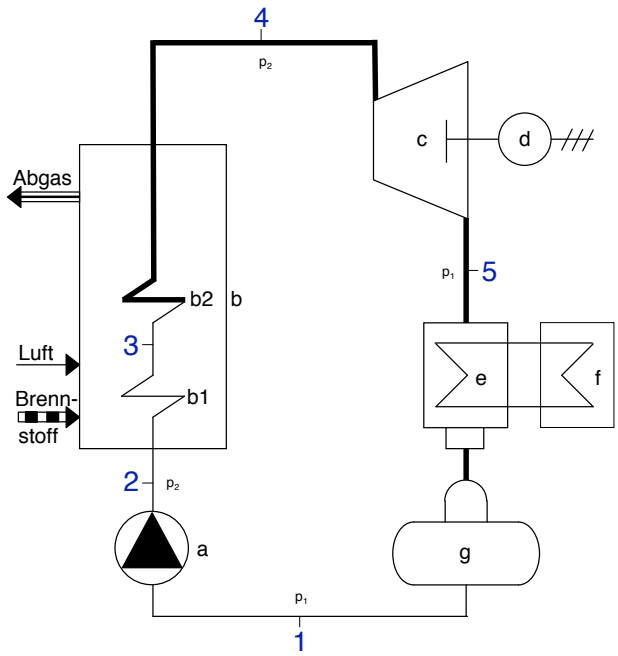
Verenum

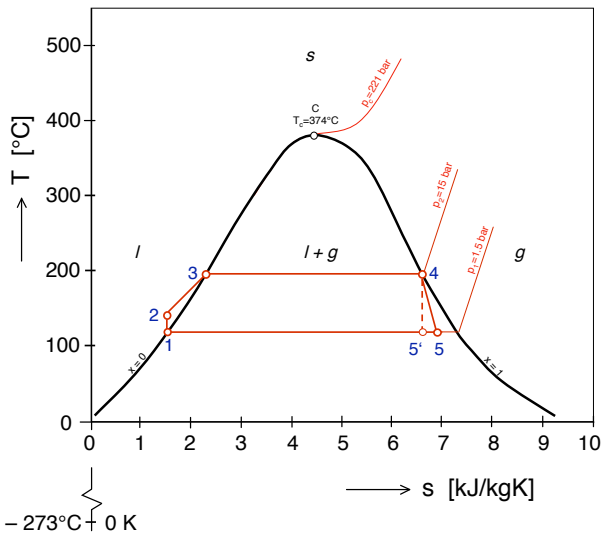
Rankine-Prozess mit Entnahmeturbine



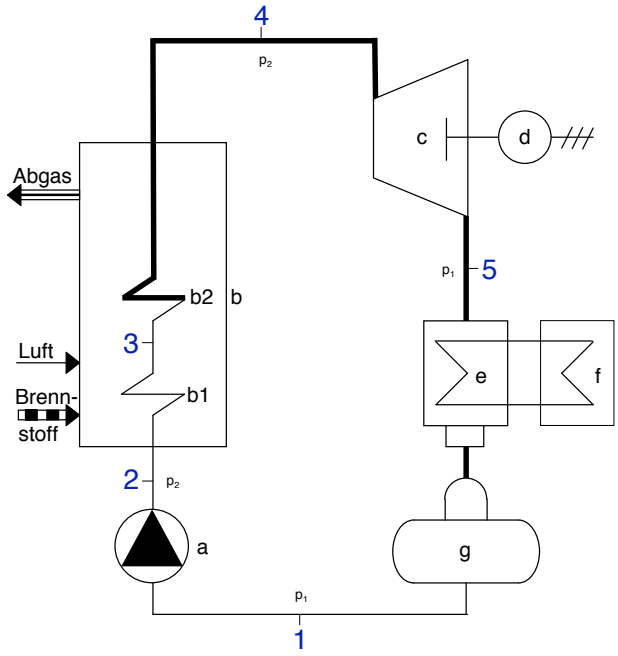


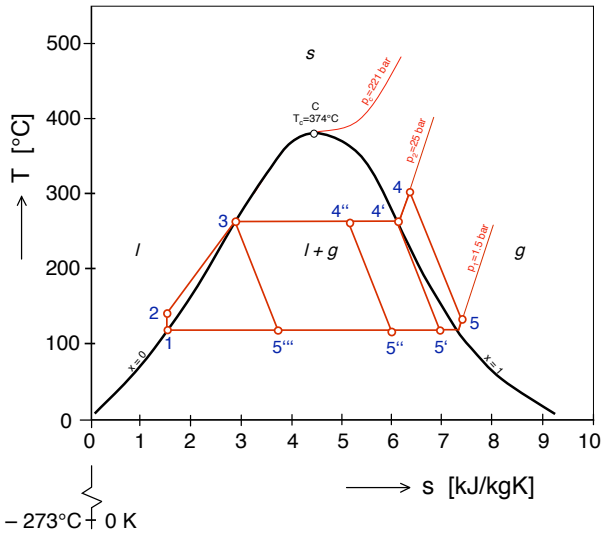
(Clausius-)Rankine-Prozess mit Sattdampf





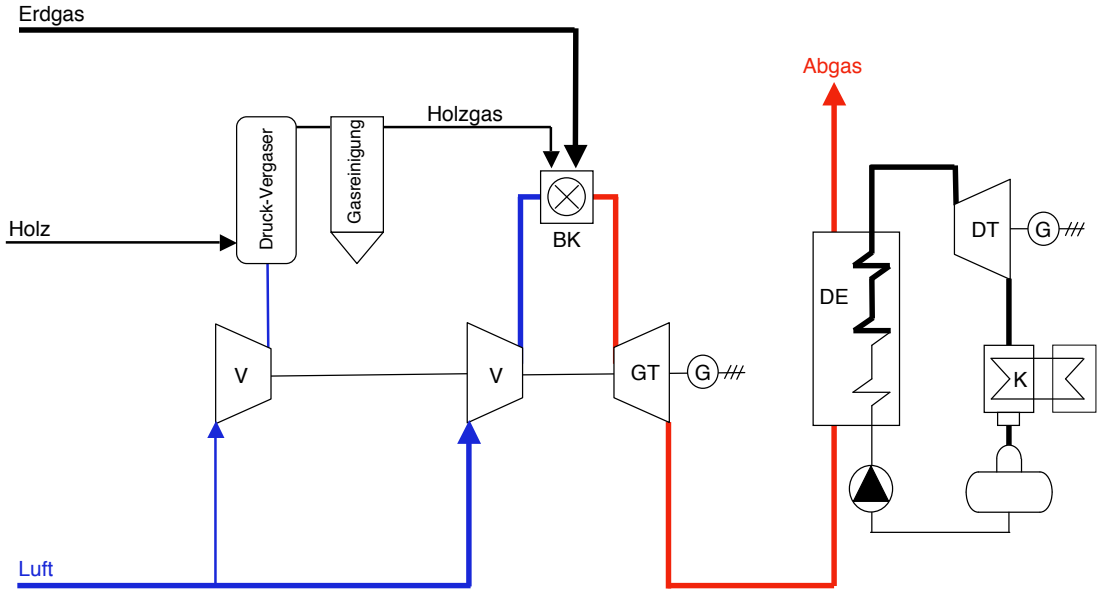
(Clausius-)Rankine-Prozesse mit DSM





Verenum

Holzgas-Kombikraftwerk



V =Verdichter
GT = Gasturbine
G = Generator
DE= Dampferzeuger
DT = Dampfturbine
K = Kondensator

Verenum