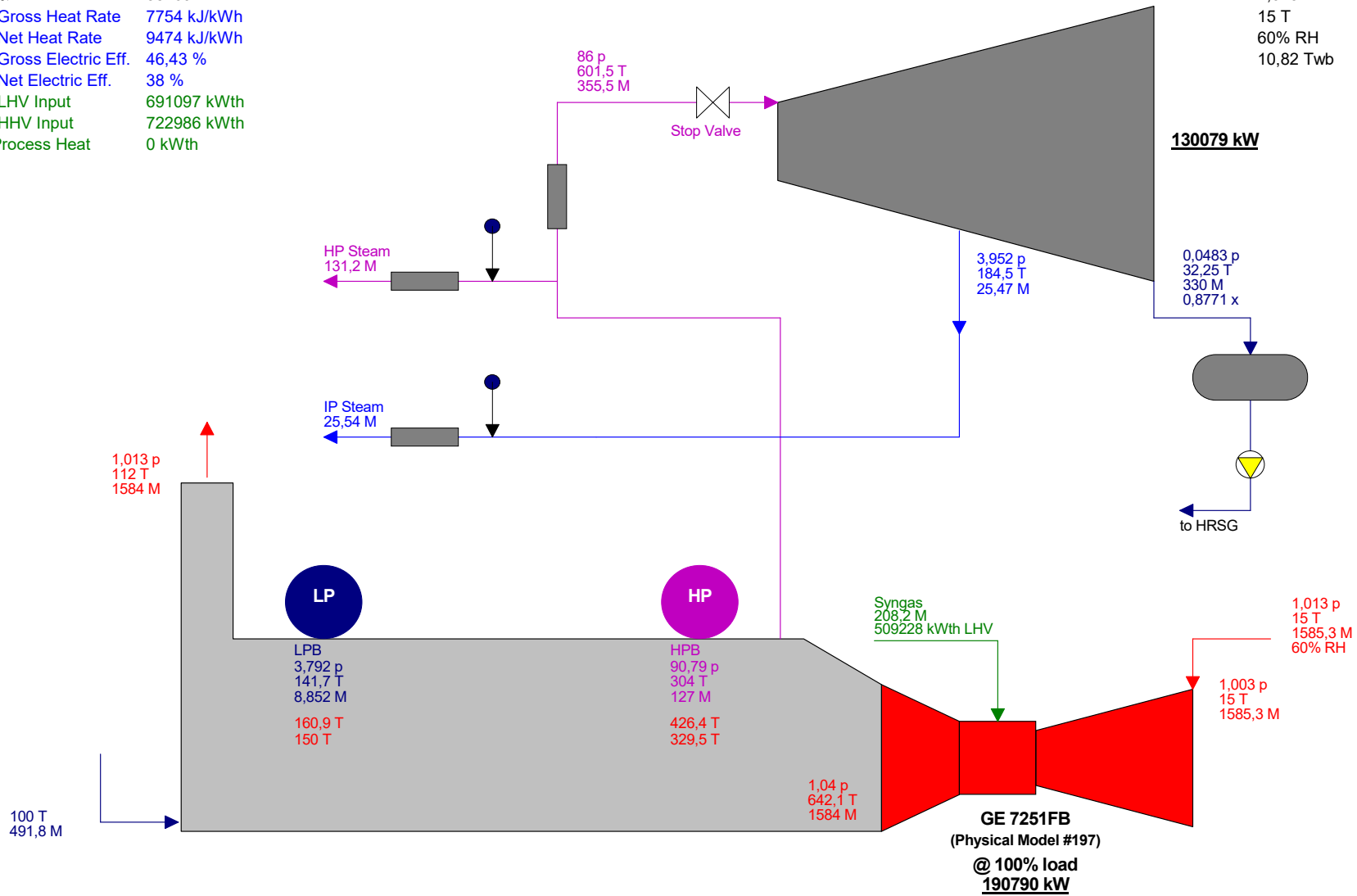


GT PRO 29.0 IMG
 Gross Power 320869 kW
 Net Power 262600 kW
 Aux. & Losses 58269 kW
 LHV Gross Heat Rate 7754 kJ/kWh
 LHV Net Heat Rate 9474 kJ/kWh
 LHV Gross Electric Eff. 46,43 %
 LHV Net Electric Eff. 38 %
 Fuel LHV Input 691097 kWth
 Fuel HHV Input 722986 kWth
 Net Process Heat 0 kWth

Ambient
 1,013 P
 15 T
 60% RH
 10,82 Twb

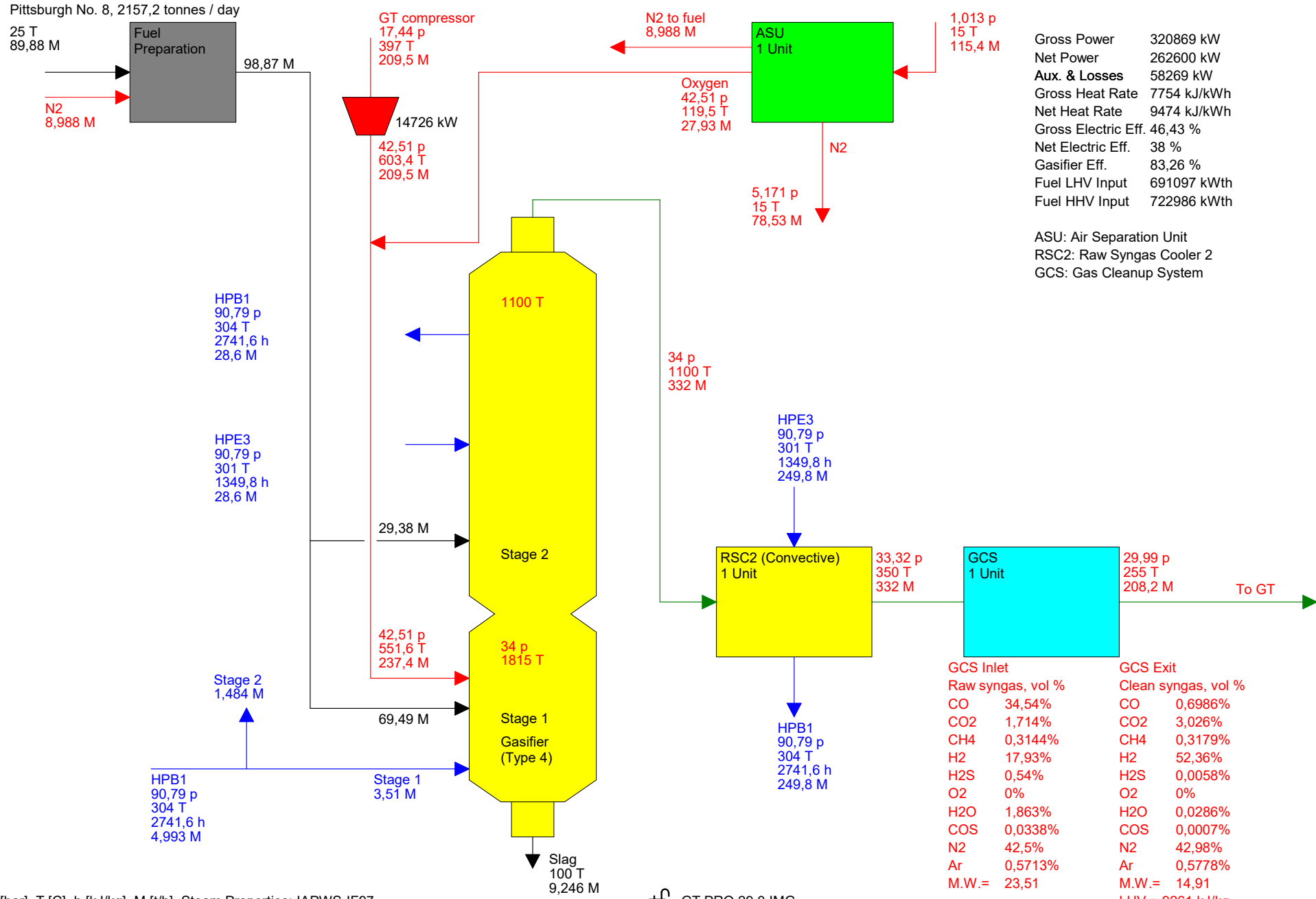


p [bar] T [C] M [t/h], Steam Properties: IAPWS-IF97

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GT PRO 29.0 IMG

Gasification System Flow Schematic - Type 4 Gasifier with Convective Cooler

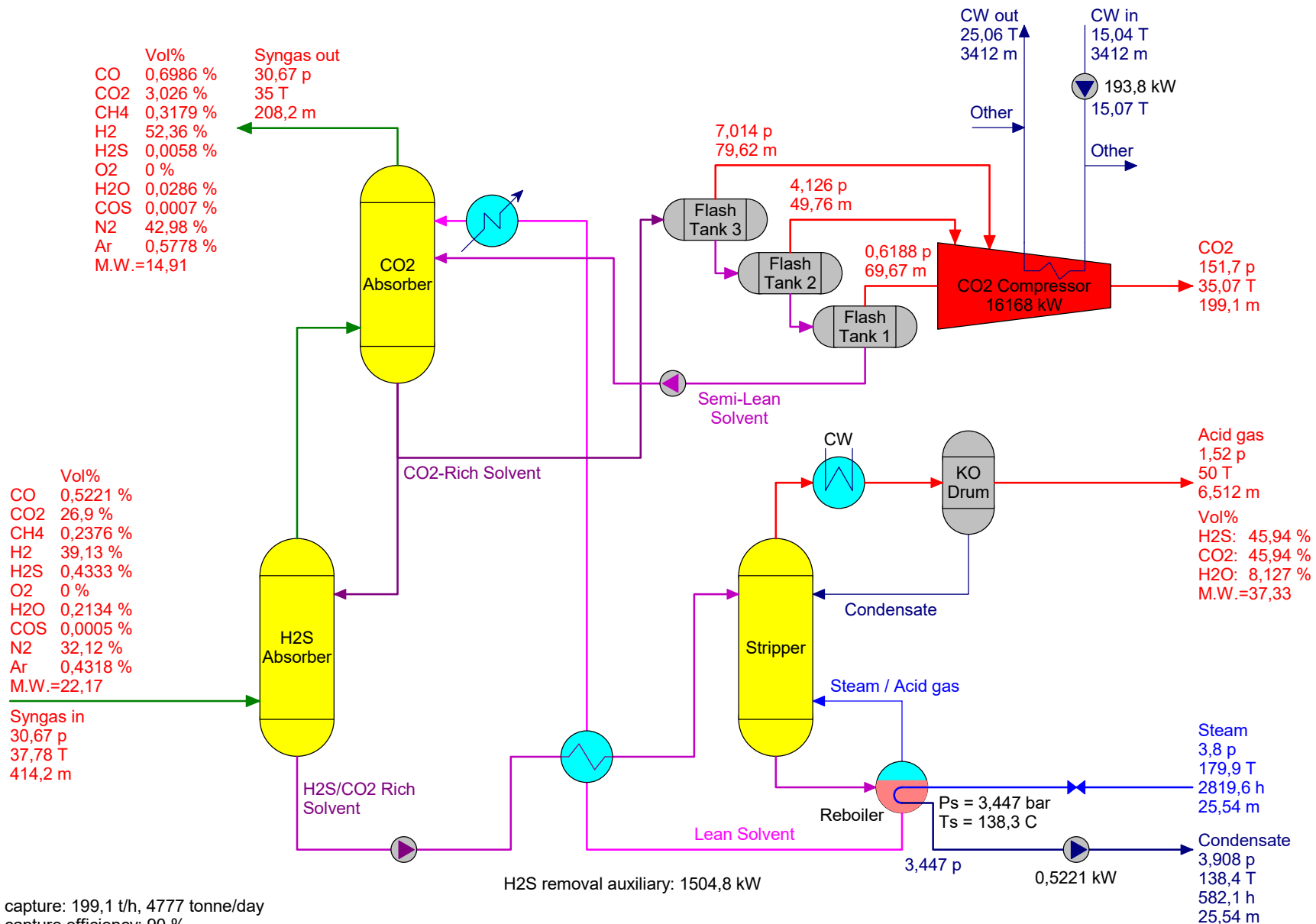


Gross Power	320869 kW
Net Power	262600 kW
Aux. & Losses	58269 kW
Gross Heat Rate	7754 kJ/kWh
Net Heat Rate	9474 kJ/kWh
Gross Electric Eff.	46,43 %
Net Electric Eff.	38 %
Gasifier Eff.	83,26 %
Fuel LHV Input	691097 kWth
Fuel HHV Input	722986 kWth

ASU: Air Separation Unit
 RSC2: Raw Syngas Cooler 2
 GCS: Gas Cleanup System

GCS Inlet		GCS Exit	
Raw syngas, vol %		Clean syngas, vol %	
CO	34,54%	CO	0,6986%
CO2	1,714%	CO2	3,026%
CH4	0,3144%	CH4	0,3179%
H2	17,93%	H2	52,36%
H2S	0,54%	H2S	0,0058%
O2	0%	O2	0%
H2O	1,863%	H2O	0,0286%
COS	0,0338%	COS	0,0007%
N2	42,5%	N2	42,98%
Ar	0,5713%	Ar	0,5778%
M.W.=	23,51	M.W.=	14,91
		LHV =	9261 kJ/kg

Acid Gas Removal and CO2 Capture - One Unit



CO2 capture: 199,1 t/h, 4777 tonne/day
 CO2 capture efficiency: 90 %
 H2S removal: 2,73 t/h, 65,53 tonne/day
 H2S removal efficiency: 99 %
 Heat input: 15876 kW, 15,88 MW
 Total electrical power consumption: 23353 kW

p[bar] T[C] m[t/h] h[kJ/kg]