ZOE CO, Liquefaction Simulation Results

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Working Conditions

Ambient Temperature:	**25°C**
Process Pressure:	**21.0 bar**
CO, Purity:	**99.9%**
Mass Flow Rate:	**160.0 kg/h**

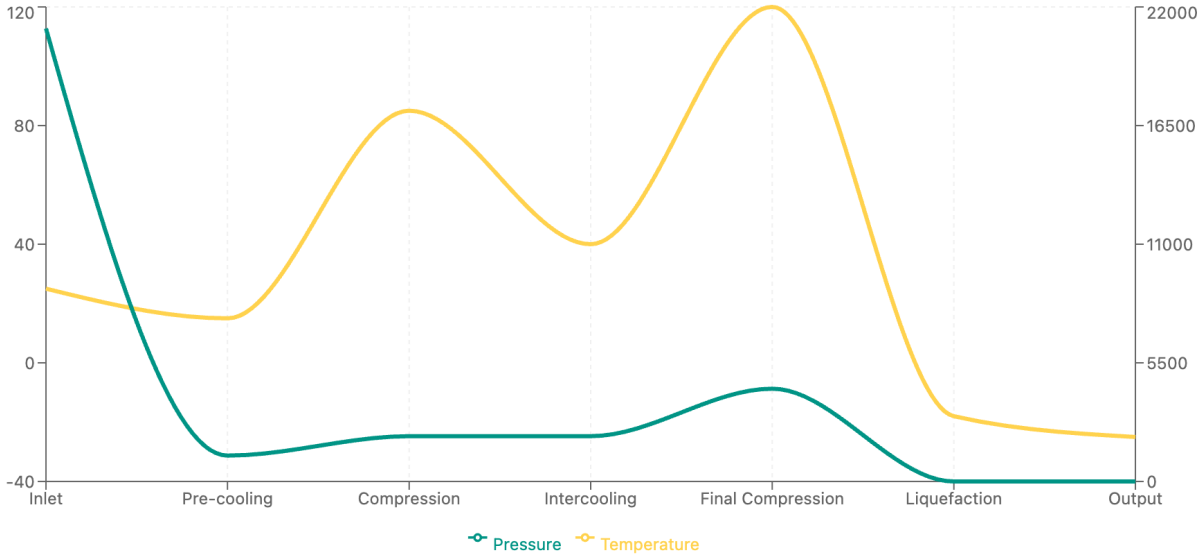
Liquid CO, Production

Mass Flow:	**142.81 kg/h**
Pressure:	**18.7 bar**
Temperature:	**-21.4°C**

Energy Consumption Data

Parameter	Value	Unit	Description
EER Chiller 4°C	0.00	MW	Coefficient de performance EER...
EER Chiller -30°C	0.00	MW	Coefficient de performance EER...
Positive Chiller Energy	-13.18	kW	Positive chiller, thermal ener...
Negative Chiller Energy	-2.56	kW	Negative chiller, thermal ener...
Compressor Power	19.98	kW	Compressor – Power
CO2 Chiller	0.000	kW	CO2 Chiller subcooling energy
PSA Heater	0.66	kW	PSA Heater heat duty

Temperature vs Pressure Profile



15-Year Cost Analysis

Year	CAPEX (€)	OPEX (€)	Total (€)
Year 1	125/000	18/500	143/500
Year 5	0	22/100	22/100
Year 10	15/000	26/800	41/800
Year 15	25/000	32/400	57/400

Performance Summary & KPIs

CO, Purity:	**99.9%**
Energy Efficiency (EER):	**3.2**
Total Power:	**2850 kW**
Specific Energy:	**0.18 kWh/kg**