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Simulation ID: ff040096-b472-4ab9-8c6a-b687d9886eb6

Working Conditions

Ambient Temperature:	25°C
Process Pressure:	21.0 bar
CO ₂ Purity:	99.9%
Mass Flow Rate:	160.0 kg/h

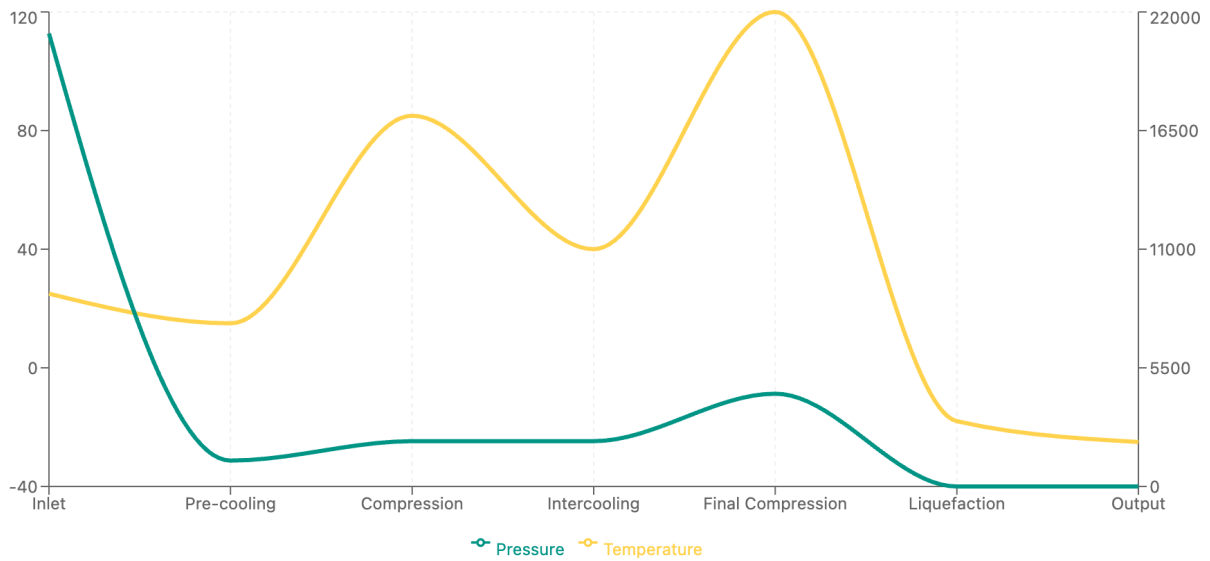
Liquid CO₂ Production

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
CO ₂ Chiller	0.000	kW	CO ₂ 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	1 250 000	18 500	1 435 000
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 ₂ Purity:	99.9%
Energy Efficiency (EER):	3.2
Total Power:	2850 kW
Specific Energy:	0.18 kWh/kg