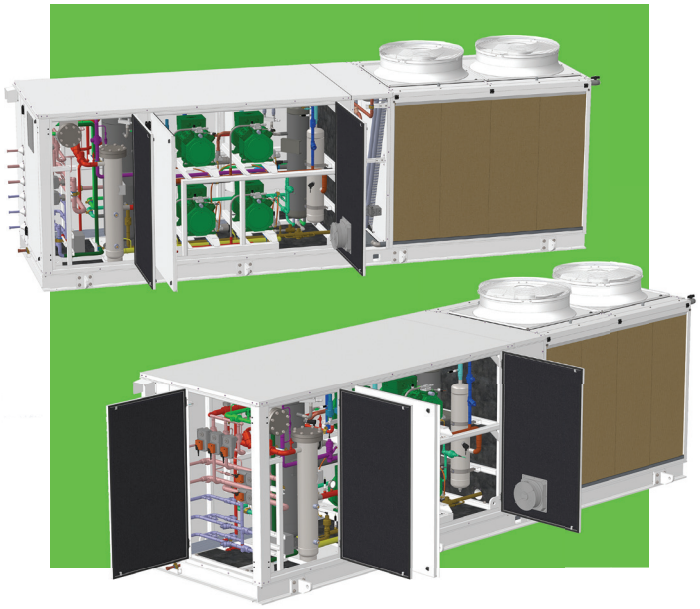
Aquilon DS™

TransCritical CO_2 Condensing Unit

A natural refrigerant-based refrigeration system that is safe, sustainable, and energy efficient in all climates.



Design Features:

- Robust high pressure design eliminates need for back-up generator and synthetic condensing unit during off periods
- Transcritical booster and high stage semi-hermetic recip compressors
- Logix® Industrial Microprocessor-based control system with supervisory HMI
- Integrated adiabatic gas cooler with EC fans
- High efficiency oil management system with coalescing oil separator(s)
- VFD drives on lead compressors
- Liquid subcooler
- CO_2 Leak Detection
- Two pipe hot gas defrost and heat recovery circuits
- Direct expansion CO_2 with motorized control
- Cooling capacities from 15 to 80 tons at -45 to 50F room temperatures

Feature Benefits:

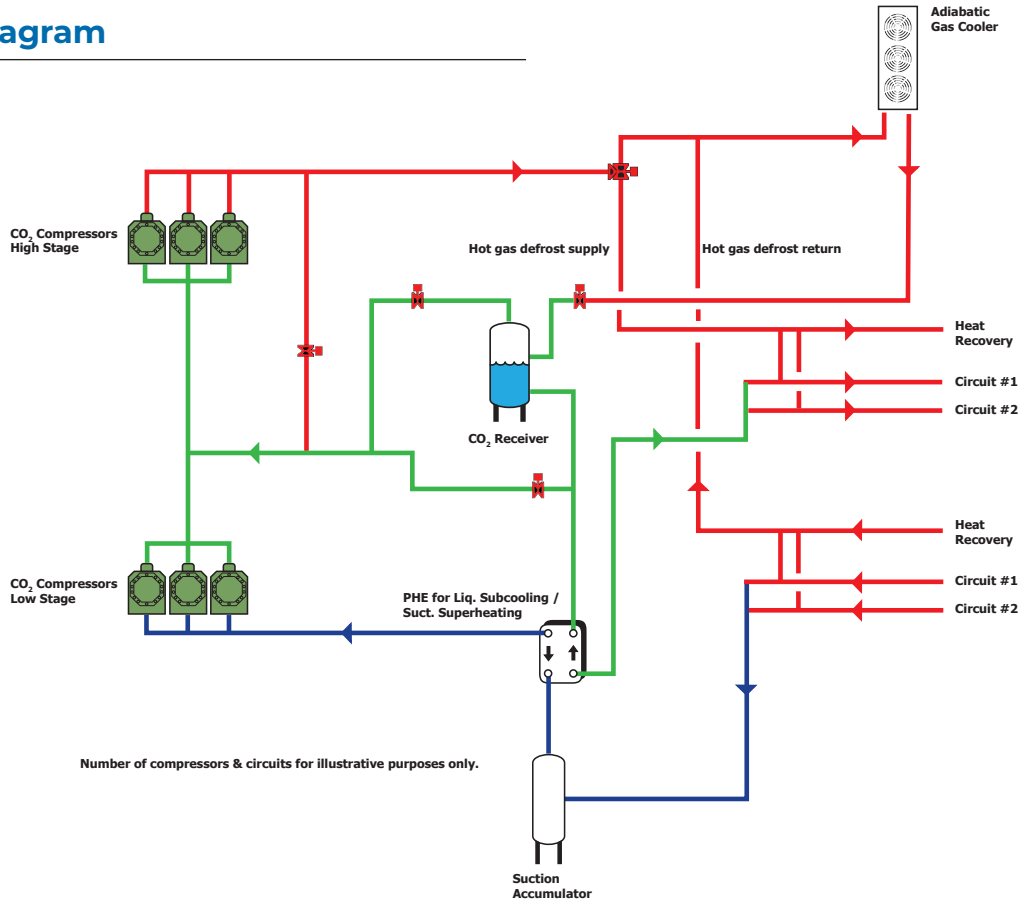
Contractor:

- Single point electric
- Power distribution to evaporators
- Insulated vessels and cold piping
- Integrated gas cooler minimizes field piping
- Field piping required only to evaporators as all control and isolation valves are integrated into the Aquilon DS package
- Full access doors for commissioning, start-up and service
- Easy rig points

End User:

- Regulatory cost and burden are significantly reduced
- Reduced energy cost by:
  - Operating at higher suction temperatures
  - Floating head pressure to 50F
  - Eliminating refrigerant and cooling water pumps
  - Utilizing intelligent and efficient heat recovery
  - Eliminating parasitic loads associated with air purgers, oil pots, and chemical feed pumps
- Reduced cooling water usage of up to 90% based on climate zone
- Significant reduction in maintenance cost:
  - No water treatment
  - No sewer cost
  - Semi-hermetic compressors do not require inspections or shaft seal replacements
  - Direct drive ECM fans eliminate the need for belt drive maintenance
- Increase revenue generating square footage by eliminating engine room
- Environmentally friendly, future-proof, natural refrigerant that costs $1/lb on average

System Diagram



Technical Data: Medium Temp[1]

Model	GC Fans	Compressors	HP	Dimensions (L x W x H)	MCA/MOP[2] (A)	Nominal Capacity (-28°F / 85°F)
AQU-DS-20M	1	1	20	152 x 60 x 78	70/100	20TR
AQU-DS-35M	2	2	40	189 x 60 x 78	110/150	35TR
AQU-DS-50M	3	2	60	288 x 60 x 78	160/200	55TR
AQU-DS-70M	4	3	80	289 x 60 x 78	195/200	70TR
AQU-DS-80M	5	3	90	328 x 60 x 78	220/300	80TR

Technical Data: Low Temp[1]

Model	GC Fans	Compressors	HP	Dimensions (L x W x H)	MCA/MOP[2] (A)	Nominal Capacity (-22°F / 85°F)
AQU-DS-15L	1	2	40	152 x 60 x 78	90/100	15TR
AQU-DS-30L	2	4	80	211 x 60 x 78	160/200	30TR
AQU-DS-40L	3	4	120	250 x 60 x 78	225/300	40TR
AQU-DS-60L	4	6	180	311 x 60 x 78	320/400	60TR

1 - Selections for MT only or LT only solutions, contact M&M Carnot for dual temperature units.
2 - 460v/3/60, excluding evaporator power. 575v/3/60 available upon request.

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