

southfreeze
refrigeration
L I M I T E D

VARI COOL™



Leading the way in
Agri Tech Refrigeration

Coolsense™
Specialist Refrigeration Equipment



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L I M I T E D

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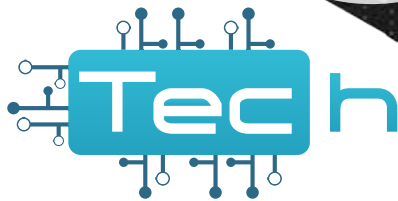
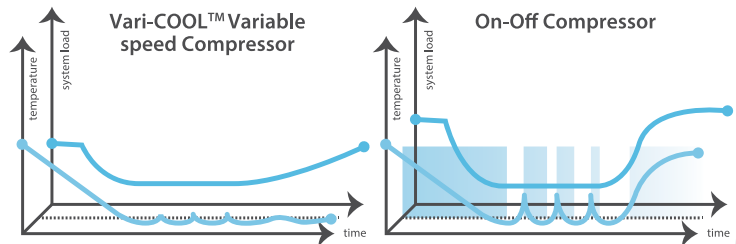


VARI-COOL™

TM

VARIABLE OUTPUT kW To match your Chilling Duty

A truly versatile chilling system which can match the load presented by your cooling duty. Using the latest in variable speed compressor technology the Vari-COOL™ can achieve unmatched chilling performance and energy efficiency figures.



1. High Efficiency Compressor Motor (IPM, Interior Permanent Magnet)
Uniform motor efficiency in operation always about 92% even in part load, unlike induction motors.



2. Passive Harmonic Filter
(Option) to ensure less than 8% THD-I current distortion. Giving compliance with power quality standards such as: NZECP36: 1993 IEEE 519-1992, TEC 61000-3-2, IEC 61000-3-12.



3. High Grade Heat Recovery
up to 70°C (Option) Fitted with flow monitoring and full temperature control. Logging its own performance.



4. R410a Refrigerant
High head pressures creating better heat recovery and better performance at low refrigerant chilling temperatures.



5. EC Variable Speed Fan
Consuming 650 Watts less than standard. Permanent magnet motor with built in controller 1200 Watts down to 550 Watts



6. R410a High Pressure Condenser
Large surface area for a high heat transfer co-efficient, less air movement required to achieve condensing, lower head pressure and therefore compressor current draw.



7. Electronic Expansion Valve
Lower head pressures, improved superheat control resulting in higher overall system chilling efficiency.



VARI COOLTM

The Vari-COOLTM has a control system designed to (communicate via the internet) using a Ethernet connection and a Human Machine interface (HMI).

This allows remote connection to the chilling system and web visualisation.



Data includes:

- Milk Holding Temp
- Milk Inlet Temp
- All Chilling System: Alarms, Parameters and Settings
- Chiller EER real time and data logged
- Milk Silo Fill Level (option)
- Milking Start and Completion Times
- Secondary Heat Exchanger Performance



Return on Investment (ROI)

High Grade Heat Recovery:

Hot water up to 70° degrees.

Saving > 80% of your hot water energy bill

Snap Chilling:

Bulk Milk Tank Entry Temp as low as 5° degrees.

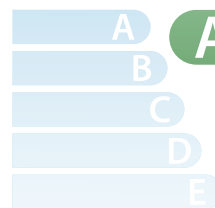
Grade A Energy Efficiency:

Returning an Energy Efficiency Rating "EER" of 3 and above saving > 25% on your chilling energy bill.

Multiple Bulk Milk Tank "BTM" Chilling:

The Vari-COOLTM can both snap chill and cool multiple BMT's.

Total Energy Efficiency Rating



A 4.36

26.8 kW of Heat Recovery (Hot Water at 70°)

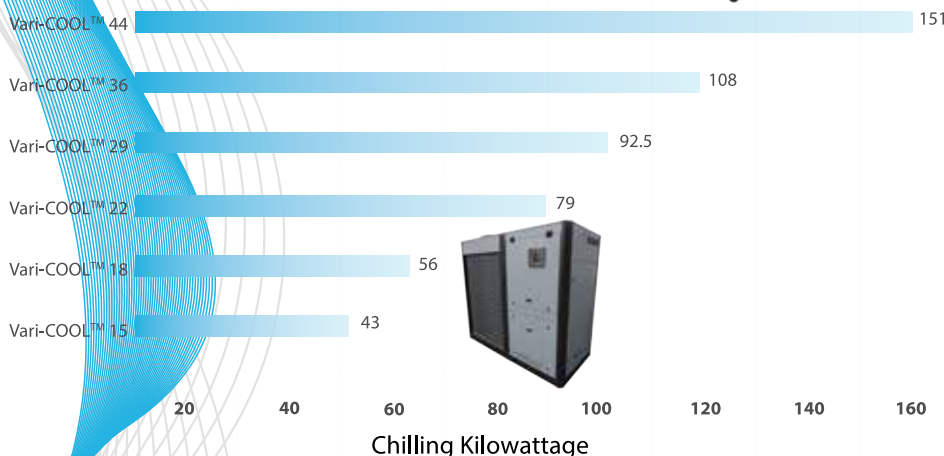
Vari-COOL System Capacities

Chilling Kilowattage

Based upon:

4 degree Evaporation Temperature

36 Degree Condensing Temperature



24,25 kW of Electrical Input

Product Chilling of 79 kW

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