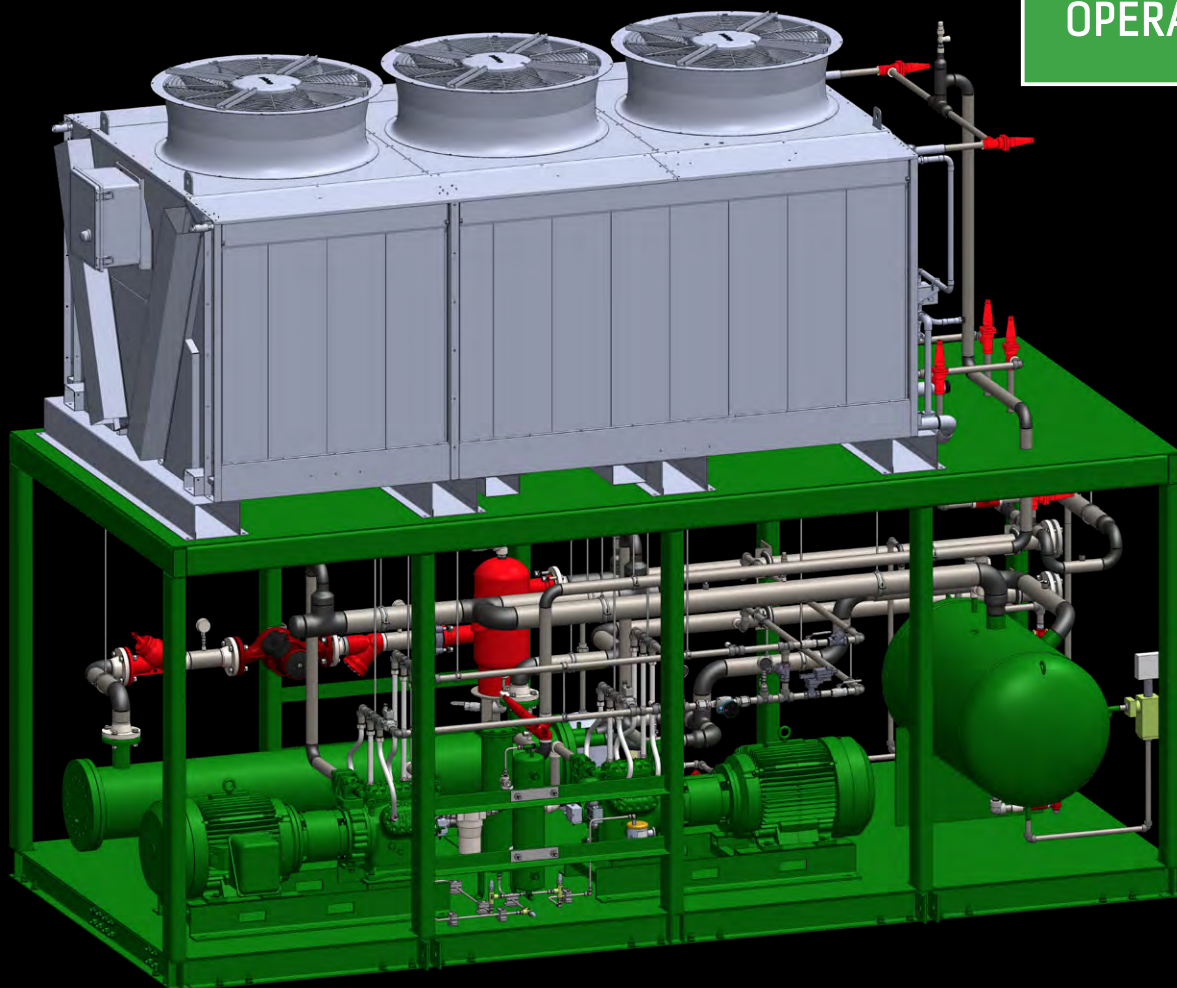


# ChillPack

Intelligent Process Cooling using Natural Refrigerants

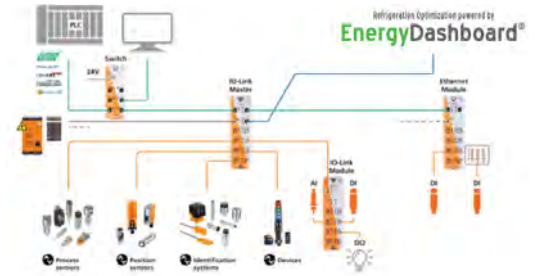
REPLACE BANNED  
HALOCARBON  
REFRIGERANTS  
AND REDUCE  
OPERATING COSTS



## ChillPack Glycol Cooling

VaCom, a BITZER Company, leverages innovative controls and technologies combined with industrial and commercial design knowledge to revolutionize the industry.

At VaCom, we believe ammonia is the most cost-effective and sustainable refrigerant to prolong the life of your refrigeration system. Low-charge ammonia can be applied simply and safely - and provides higher energy efficiencies than hydrofluorocarbons (HFCs).



### Tons of Advantages in a Convenient Package

**Simplicity:** VaCom ChillPack industrial chillers are designed with simplicity in mind for the uninitiated in ammonia refrigeration. All ChillPack models are designed to be a plug-and-play solution, with no need for specialized ammonia refrigeration contractors to install and operate.

**Efficiency:** VaCom ChillPack are designed for maximum energy efficiency. Our base design includes adiabatic condensing to minimize fan and compressor power requirements. VaCom's proprietary and proven energy savings control algorithms come standard on all packages.

**Flexibility:** VaCom ChillPack models provide flexibility for any size operation. ChillPack R-series chillers are available in 30TR capacity increments with Bitzer reciprocating compressors, as a low-cost alternative to typical industrial chillers. ChillPack S-series chillers incorporate BITZER industrial screw compressor packages for capacity requirements from 150-260TR.

Standard ChillPacks utilize adiabatic condensers, providing similar capacity regardless of installation location. Optional packages are available with air-cooled or evaporative condensers, depending on capacity and application.

**Controls:** Smart sensors with cabinetless design provides optimal instrumentation resolution, minimal installation costs, ease of service, and detailed diagnostics available through our EnergyDashboard®.

**Durability:** VaCom ChillPacks are designed for outdoor environments. Whether an open or enclosed package, all our equipment is rated NEMA 4X, IP65 and TEFC Motors. VaCom ChillPacks are built in the U.S. with the highest standards of materials, fabrication, specifications, and corrosion resistance. Designed with industrial refrigeration durability, reliability, and maintainability in mind.

**Safety:** The ChillPack series provides an important level of safety with ultra-low ammonia charge <1.5lbs/TR for minimal impact. In an unlikely situation of total ammonia charge release, the low charge ammonia will quickly dilute in the atmosphere with minimal impact to the environment surrounding your facility.

**Reliability:** ChillPack comes standard with a custom suction accumulator that has all the features of a central system in a smaller package. VaCom ChillPacks are built in the U.S. with the highest standards of materials, fabrication specifications and corrosion resistance.

**Oil Management:** VaCom offers a phase separator filter that is liquid ammonia to oil coalescer and can nearly remove 100% of lubrication oil. This results in optimum chiller efficiency since lubrication will impede the heat transfer and reduces system performance.

**Applications:** The ChillPack was created with small businesses in mind, from wineries, dairies, and breweries to small food facilities, server farms, and any other application utilizing glycol cooling. Engineered for maximum affordability, energy efficiency, reliability, and operational safety, the ChillPack is perfect alternative to synthetic refrigerant chillers.

### Model Number Nomenclature

**C P S - R 1 - S - H - L - V D**

Chiller Series

**C P S - R 1 - S - H - L - V D**

Heat of Rejection D: Adiabatic / A: Air-Cooled\*  
E: Evaporative Condenser\*

**C P S - R 1 - S - H - L - V D**

Controller V: VaCom Vault Control  
R: VaCom rPRO Control

**C P S - R 1 - S - H - L - V D**

Compressor R: Reciprocating / S: Screw

**C P S - R 1 - S - H - L - V D**

H: High Pressure Receiver / X: No High Pressure Receiver

**C P S - R 1 - S - H - L - V D**

Starter Panel S: Soft Starter / D: VFD

**C P S - R 1 - S - H - L - V D**

Quantity of Compressors

**C P S - R 1 - S - H - O - V D**

E: Low Ambient Package (Enclosed) / O: Open Package

Part of the VaCom Standard Configurable  
Smart Refrigeration Solutions



Features	Benefits
<b>Direct Expansion Design</b>	Extreme Low-charge and Compact System
<b>Adiabatic Condenser</b>	Reduced Footprint with Increased Energy Efficiency
<b>Ingenious Oil Management</b>	Innovative Liquid Separation to Remove Lubrication Oil for Optimal Cooling Efficiency
<b>Low-Charge Ammonia Package</b>	Environmentally Friendly and Minimized Impact Radius (in rare event of ammonia release)
<b>No High-Pressure Receiver</b>	Smaller Footprint with Diminished Risk of Ammonia Release
<b>Packaged BITZER Compressors</b>	No Requirement for Hot Gas Bypass with Minimal Turndown
<b>Compressor Skid Design</b>	High Reliability Coupled with Low Vibration
<b>Flexible Heat of Rejection</b>	Standard Adiabatic Condenser, Air-cooled, or Evaporative options available
<b>VaCom EnergyDashboard®</b>	Real-Time Condition Monitoring and Remote Diagnostics to Provide System Visibility along with Opportunity for Reduced Costly Downtime

## Reciprocating Compressor Package

Series	Compressor Model	Condensing Temp. (°F)	Evaporator Temp. (°F)	Capacity (TR)	Propylene Glycol 35% 10°F TD (GPM)	Efficiency (kBTU/kW)
R	<b>RDW-06 X1</b>	95	20	30	75	
	<b>RDW-06 X2</b>	95	20	60	140	12.9
	<b>RDW-06 X3</b>	95	20	90	225	12.9
	<b>RDW-06 X4</b>	95	20	120	300	12.9

## Screw Compressor Package

Series	Compressor Model	Condensing Temp. (°F)	Evaporator Temp. (°F)	Capacity (TR)	Propylene Glycol 35% 10°F TD (GPM)	Efficiency (kBTU/kW)
S	<b>OSKA8551 X2</b>	95	20	150	320	12.5
	<b>OSKA8571 X2</b>	95	20	210	510	14.0
	<b>OSKA95103 X1</b>	95	20	260	630	15.3

## Practical Application: Wine Distribution

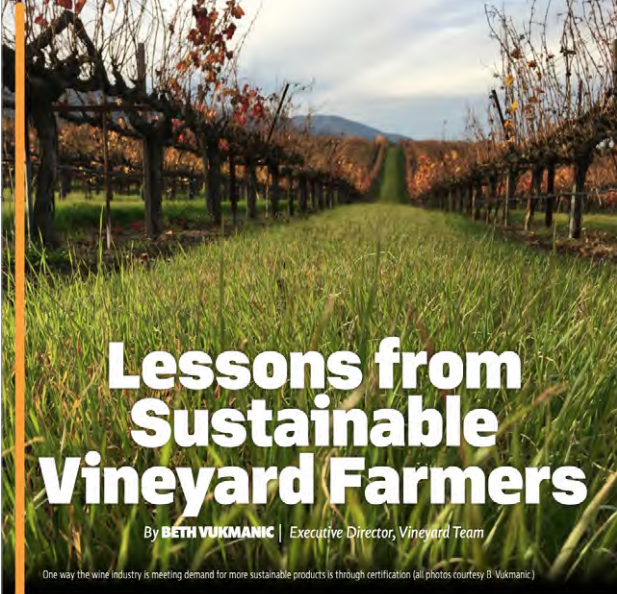
The ChillPack Chiller series is perfectly suited to a number of practical applications, including food and beverage facilities and distribution. With sustainable vineyard farming on the rise, the ChillPack Chiller series helps wineries:

**Increase Sustainability:** Natural refrigerants are a sustainable alternative to environmentally damaging HFCs. Further your green initiatives by using ammonia based packaged systems from VaCom.

**Improve Quality:** Utilize ChillPack to safely maintain your product at a consistent temperature for optimal quality avoiding climate variability.

**Increase Efficiency:** Ammonia is ~10% more efficient compared its HFC counterparts reducing your overall cooling cost of ownership.

**Reduced Carbon Footprint:** Because ammonia has no global warming impact, using it as a refrigerant helps your winery reduce its carbon footprint.



# Lessons from Sustainable Vineyard Farmers

By **BETH VUKMANIC** | Executive Director, Vineyard Team

One way the wine industry is meeting demand for more sustainable products is through certification (all photos courtesy B. Vukmanic)

**W**HILE "SUSTAINABLE" IS A COMMON term in agriculture today, this was not the case in 1994 when a small group of vineyard growers got together on California's Central Coast to talk about critical resource concerns like safe pest management, soil quality and farmworker training.

Nearly 30 years later, that small group of growers has expanded to include hundreds more, representing over 80,000 vineyard acres. They are members of the non-profit organization Vineyard Team. The organization continues to uphold the original growers' mission: Bringing together experienced growers and researchers to educate the industry on sustainable winegrowing practices. Today, sustainability is accessible to growers across the globe through in-field meetings, digital resources and third-party certification.

Founders Dana Merrill of Mesa Vineyard Management, Steve McIntyre of Monterey Pacific and Don Ackerman of Constellation Brands reflect on three decades of sustainable research and education.

**Evolution of Sustainability Concept**  
Consumers continue to prioritize

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