

SplitPack Low-Charge Ammonia Condensing System



CONVENIENT PACKAGE FOR A TURNKEY SOLUTION



SplitPack Ammonia Condensing Package

VaCom a **BITZER** Company, has leveraged our innovative controls technologies and our combined Industrial and commercial design knowledge to be the leaders in the industrial market.

At Vacom we believe Ammonia to be the most cost-effective and sustainable refrigerant for the life of your refrigeration system.

Low-charge ammonia can be applied simply, safely, and provides higher energy efficiency than HFC's.

Introducing the **Vacom SplitPack**, packaged ammonia condensing system. SplitPacks are designed with simplicity in mind for contractors and end-users to minimize installation time and operational costs.

Ease of Ownership - Simple Installation, Robust Operation, & Continuous Monitoring

Simplicity: VaCom SplitPack, condensing units are deliberately designed with ease of installation in mind. The SplitPack is a complete turnkey industrial low-charge ammonia system. All equipment is conveniently mounted in a purposefully designed skid, and fully fabricated to be shipped in one or two sections. Only a single power source is required to supply the complete package, air unit(s), and associated controls. Vacom can supply our standard Air Unit Panel(s) (AUP) for power/control integration into the SplitPack's Refrigeration Control Panel (RCP).

Efficiency: Vacom SplitPacks are designed with a strong focus on energy efficiency. Our base design includes adiabatic condensing to minimize fan and compressor power requirements. Vacom's proprietary and proven energy saving control algorithms come standard on all packages - including precision superheat via VaCom Air Unit Panel(s). SplitPacks are effectively designed to deliver sub-cooled liquid ammonia to direct expansion evaporators.

Flexibility: Vacom SplitPack models are designed to provide flexibility for nearly any size operation. SplitPack R-series are designed at 30TR capacity increments with Bitzer reciprocating compressors, as a lower cost alternative to screw compressors.

SplitPack S-series are designed with Bitzer Industrial screw compressor packages for larger capacity requirements from 150-260TR.

Standard SplitPacks are designed with adiabatic condensers, providing similar capacity regardless of installation location. Standard package options include air-cooled or evaporative condensers, depending on capacity and application requirements.

All SplitPacks come standard with low-ambient start-up and operation provisions. Including, false load, controlled pressure receiver (CPR), split condenser, and variable speed EC fan motors.

Our optional low ambient package (enclosed) provides extra protection for equipment in cold and harsh environments. This additional package, designed per IIAR-2 standards, provides high quality (removable) insulated metal panels, interior heater, ammonia detection safety, LED workspace lighting, and access door.

SplitPacks can be designed for ground or rooftop installation and can be modified to be split into two sections allowing the condenser to be installed outside within a limited distance of the base equipment frame.

Durability: Vacom SplitPacks are designed for the harsh conditions of outdoor environments. Whether an open or enclosed package (Low Ambient Package), all necessary equipment is NEMA 4X and IP65 rated along with TEFC motors. Vacom SplitPacks are built in the U.S. with the highest standards of materials, fabrication, specifications, and corrosion resistance. SplitPacks are designed and constructed with industrial-grade durability, reliability, and maintainability in mind.

Reliability: Each SplitPack includes a custom designed suction accumulator that has all the features of a central system in a compact package. An optional automatic liquid transfer system can be provided for the unlikely event of liquid migration to the accumulator. This system utilizes gravity transfer that will move liquid from the accumulator back to the CPR.

Safety: The SplitPack provides an important level of safety with critical ammonia charge of <2lbs/TR for minimal impact radius. In an unlikely situation of total refrigerant charge release, the ammonia will quickly dilute in the atmosphere with minimal risk to the environment surrounding your facility.

Model Number Nomenclature

S P S - R 2 - D - T - O - V S
Split System Series

S P S - R 2 - D - T - O - V S

Compressor R: Reciprocating / S: Screw

S P S - R 2 - D - T - O - V S

Quantity of Compressors

S P S - R 2 - D - T - O - V S

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

S P S - R 2 - D - T - O - V S

T: Liquid Transfer System / X: No Liquid Transfer System

S P S - R 2 - D - T - O - V S

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

S P S - R 2 - D - T - O - V S

Controller V: VaCom Vault Control / R: VaCom rPRO Control

S P S - R 2 - D - T - O - V S

Starter Panel s: Soft-Starter / D: VFD

Part of the VaCom Standard Configurable Smart Refrigeration Solutions





Applications

This system is designed to offer a natural refrigerant alternative to HFC or any synthetic refrigerant.

VaCom can provide a complete system that includes P&IDs , piping drawings, condensing units, control valve stations, control system, and Process Safety Information (PSI) for the system.

Features	Benefits				
Direct Expansion Design	Ultra Low-charge Design				
Adiabatic Condenser	Small Footprint, Low Water Usage, and High Energy Efficiency				
Ammonia	Environmentally Friendly				
Packaged BITZER Compressors	No Requirement for Hot Gas Bypass with Minimal Turndown				
Compressor Skid Design	High Reliability Coupled with Low Vibration				
Innovative Oil Recovery	Optional Automatic Oil Recovery and Transfer to Compressor with Liquid Ammonia to Oil Coalescer				
Flexible Heat of Rejection	Standard Adiabatic Condenser, Air-Cooled, Evaporative options available				
VaCom EnergyDashboard®	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)	Efficiency (kBTU/kW)
œ	RDW-06 X1	95	20	30	
	RDW-06 X2	95	20	60	12.9
	RDW-06 X3	95	20	90	12.9
	RDW-06 X4	95	20	120	12.9

Screw Compressor Package

Series	Compressor Model	Condensing Temp. (°F)	Evaporator Temp. (°F)	Capacity (TR)	Efficiency (kBTU/kW)
s	OSKA8551 X2	95	20	150	12.5
	OSKA8571 X2	95	20	210	14.0
	OSKA95103 X1	95	20	260	15.3



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