

WATER SOURCE HEAT PUMP REFRIGERATION

Valent's water source heat pump refrigeration option expands the flexibility of an already broad range of air handling and energy recovery products.



BENEFITS

- Reduced operating costs over packaged air cooled refrigeration systems
- Greater design flexibility compared to outdoor-only units
- Decreased installation costs with integral air-to-air energy recovery and exhaust fans
- Enhanced indoor air quality and occupant comfort with integral dehumidification sequences

APPLICATIONS

Valent air handlers and energy recovery products optioned with water source heat pump refrigeration are well-suited to many applications and system types.

Dedicated Outdoor Air Systems

Many dedicated outdoor air systems (DOAS) leverage the efficiency and control benefits of water source heat pump systems through local terminal-based units. Similar advantages can be achieved when handling the heating, cooling, and dehumidification requirements of DOAS ventilation air with water source heat pump refrigeration. Valent manufactures ventilators with water source heat pump refrigeration systems capable of handling up to 100% outdoor air with or without the integration of one of four types of air-to-air energy recovery.



K-12 Education



Higher Education



Office

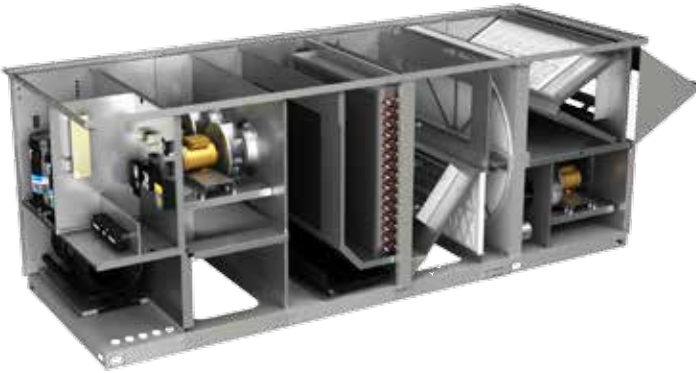
Comfort Cooling Systems

Typically defined by lower percentages of outdoor air, comfort cooling applications also benefit from the efficiency gains of water source heat pump refrigeration systems. Valent water source heat pumps can not only tightly control leaving air temperatures in these applications but also handle a wide range of entering fluid temperatures — making them well suited for boiler-tower, geothermal, or hybrid systems.

FEATURES

Refrigeration Modulation

- Digital Scroll™ modulation and fixed speed compressor staging maintains tight control over leaving air temperatures at a wide range of entering air conditions
- Modulating hot gas reheat system for humidity control



Water and Fluid Systems

- Robust coaxial heat exchanger for efficiency and added freeze protection
- Factory provided water valve controls refrigerant pressures and optimizes unit performance
- Designed for geothermal, boiler-tower, or hybrid systems

Platform Flexibility

- Packaged air handler capable of handling a wide range of entering air loads
 - Standard (VPR) or with optional powered exhaust (VPRX)
- Energy recovery ventilator with packaged water source heat pump refrigeration
 - Enthalpy wheel (VPRE)
 - Sensible flat plate (VPRP)
 - Enthalpic core (VPRC)

CAPACITIES

	Nominal Tonnage												
	5	8	10	13	16	18	20	25	30	35	40	50	60
Water Source Heat Pump	110												
			210										
								310					
									350				



Contact your Valent representative today for more information.

www.valentair.com

60 28TH AVENUE NORTH, SUITE 100

MINNEAPOLIS, MINNESOTA 55411

T – 612.877.4850

THE VALENT ADVANTAGE

Valent Air Management Systems is a manufacturer of highly-configurable air handling equipment designed to meet the needs of engineers, contractors, and building owners. At our core is a commitment to initial quality, long-term reliability, application flexibility, and dedicated product support.

Valent is a business of *Unison® Comfort Technologies.*

