

# VALENT DEDICATED OUTDOOR AIR SYSTEMS

## DESIGNED FOR 100% OUTDOOR AIR

Valent was one of the first to specialize in high outdoor air units, which have unique design challenges like managing high humidity loads. Valent's DOAS designs are highly configurable to fit almost any project.

### OUTDOOR AIR EXPERTS

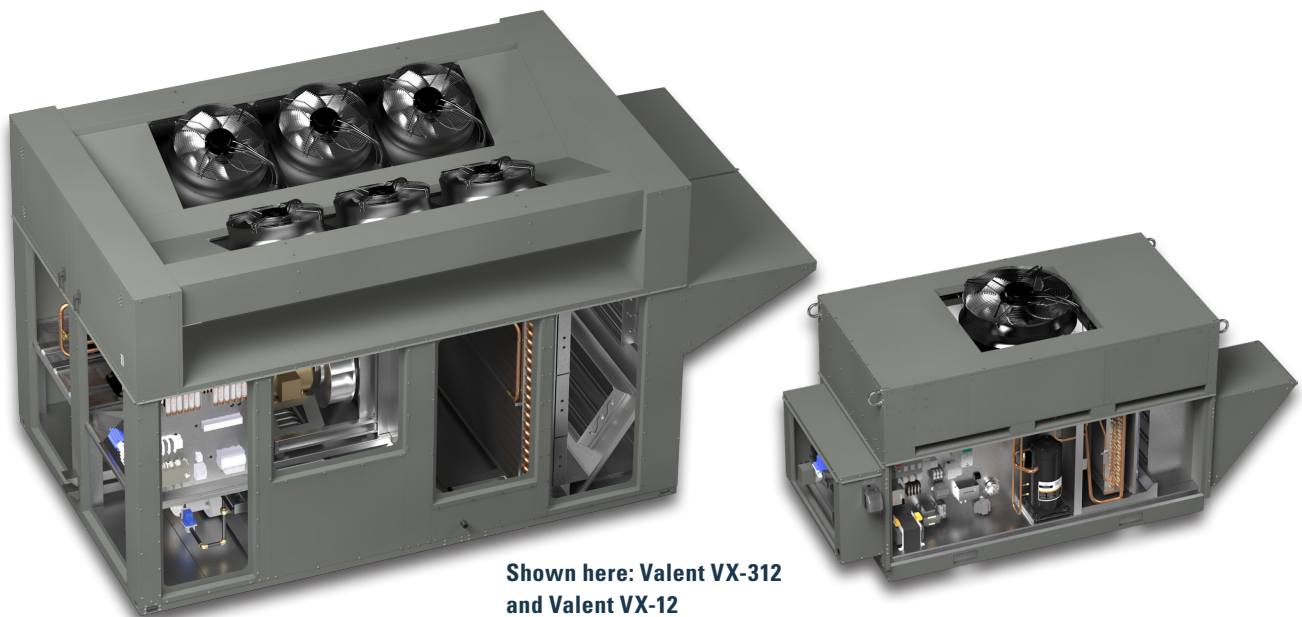
- Valent's years of experience in high outdoor air applications lead to high performing solutions
- Valent's application expertise can be helpful in the design process

### ROBUST DESIGNS

- Valent uses quality components to increase unit longevity
- Injected foam casings improve thermal performance
- Pre-painted cabinets reduce environmental wear and tear

### DEDICATED SUPPORT

- Valent's commitment to quality reduces the need for post sale support, but we'll help with any issues
- Valent representatives can provide product and selection support in the design process
- End-of-line testing reduces installation time



Shown here: Valent VX-312  
and Valent VX-12

# VALENT DOAS UNITS AT A GLANCE

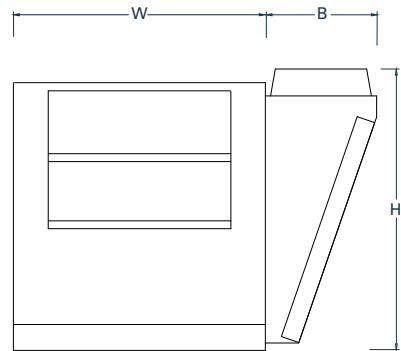
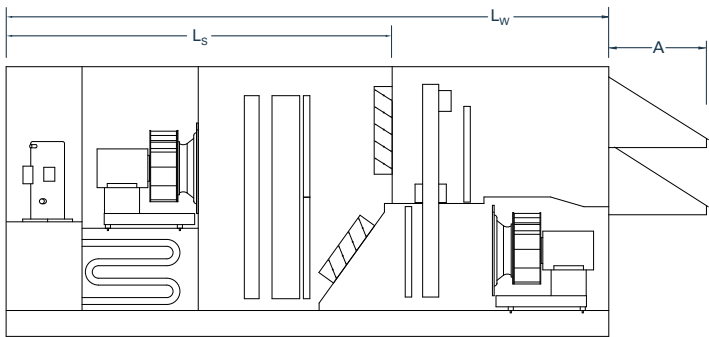
		VX, VXE & VXC CASING				
		12	112	212	312	412
AIRFLOW	Minimum <sup>a</sup> (cfm)	500	800	2,250	3,750	8,000
	Maximum <sup>a</sup> (cfm)	2,500	6,500	12,500	18,000	29,200
COOLING TYPE	Packaged, air cooled	Tons	Tons	Tons	Tons	Tons
		3	5	15	25	50
		4	7	17.5	30	60
		5	10	20	40	70
		6	12.5	25	50	80
		7	15	30	60	90
		-	-	-	70	100
		Circuits	Circuits	Circuits	Circuits	Circuits
		1	1	1	2	2
	Chilled water	Option	Option	Option	Option	Coming soon
	Air source heat pump	Coming soon	Option	Option	Not available	Not available
	No cooling	Option	Option	Option	Option	Option
COOLING COMPONENTS	Lead inverter scroll compressor	Standard	Standard	Standard	Standard	Standard
	Modulating hot gas reheat	Option	Option	Option	Option	Option
	Lead EC modulating condensing fans	Standard	Standard	Standard	Standard	Standard
	All EC modulating condensing fans	Not applicable	Option	Option	Option	Option
INDIRECT GAS FURNACE	Minimum (MBh)	75	100	300	600	800
	Maximum (MBh)	200	300	600	1,200	2,000
	Turndown (NG)	Up to 16:1	Up to 16:1	Up to 16:1	Up to 16:1	Up to 10:1
	Turndown (LP)	Up to 16:1	Up to 16:1	Up to 16:1	Up to 16:1 <sup>b</sup>	Up to 50:1
ELECTRIC HEAT	Minimum <sup>c</sup> (kW)	5	15	35	40	80
	Maximum <sup>c</sup> (kW)	60	60	120	230	230
OTHER HEAT	Air source heat pump	Coming soon	Option	Option	Not available	Not available
	Hot water	Option	Option	Option	Option	Coming soon
	Steam coil	Not available	Option	Option	Option	Not available

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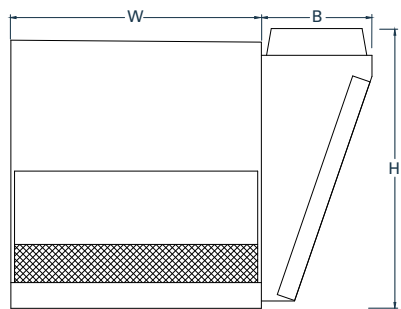
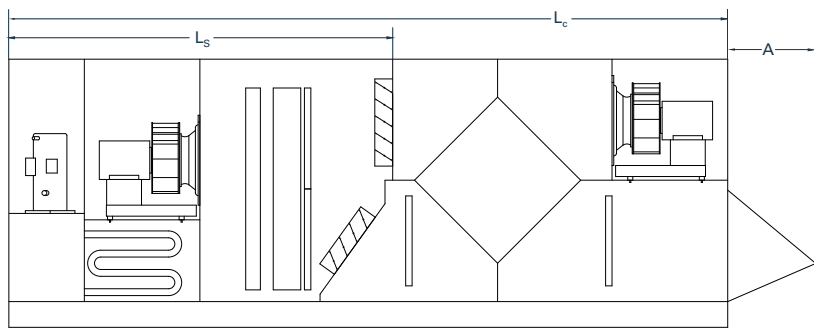
		VX, VXE & VXC CASING				
		12	112	212	312	412
ENERGY RECOVERY	Full width wheel Polymer	Option	Option	Option	Option	Coming soon
	Full width wheel Aluminum	Not available	Option	Option	Option	Coming soon
	Enthalpy core Polymer	Not available	Option	Option	Not available	Not available
	Enthalpy core Fiber	Not available	Option	Option	Not available	Not available
DUCT CONNECTIONS	Bottom supply/return	Standard	Standard	Standard	Standard	Standard
	Side supply	Option	Option	Option	Option	Coming soon
	Side return	Not available	Option	Option	Option	Coming soon
	End return	Option	Option	Option	Option	Coming soon
CONTROLS	Full controls	Standard	Standard	Standard	Standard	Standard
	Heat-cool only	Option	Option <sup>d</sup>	Option <sup>d</sup>	Option	Option
	Web user interface	Standard	Standard	Standard	Standard	Standard
AIRFLOW MONITORING	Damper	Option	Option	Option	Option	Option
	Fan	Option	Option	Option	Option	Option
CONSTRUCTION	Injected foam insulation	2" double-wall R-13	2" double-wall R-13	2" double-wall R-13	2" double-wall R-13	2" double-wall R-13
	Exterior	Gray prepainted	Gray prepainted	Gray prepainted	Gray prepainted	Gray prepainted
	Interior	Galvanized	Galvanized	Galvanized	Galvanized	Galvanized
CERTIFICATION	AHRI 1060	Compliant	Compliant	Compliant	Compliant	Compliant
	ASHRAE 90.1-2019	Compliant	Compliant	Compliant	Compliant	Compliant
	DOE 2023	Compliant	Compliant	Compliant	Compliant	Compliant
<p>Refer to Valent CAPS® selection software or the Valent Mechanical IOMs for additional detail.</p> <p>a Based on packaged DX cooling, indirect gas heating, 100% outdoor air, 1.5 in. wg supply external and 0.5 in. wg return air static pressure. Airflows will vary based on unit configuration.</p> <p>b LP furnaces available on 600 and 800 mbh furnaces only.</p> <p>c Max kW is dependent on unit voltage.</p> <p>d Not available with the fiber core.</p>						

# DIMENSIONS AND WEIGHTS

## Elevations with and without energy recovery wheel



## Elevations with enthalpy core heat exchangers



		DIMENSIONS (inches), WEIGHTS (pounds)											
		Height	Width	Length <sup>a</sup>	Length with wheel		Length with core		Hood length	Condenser width	Nominal weight		
		H	W	L <sub>S</sub>	L <sub>W</sub>		L <sub>C</sub>		A	B	VX	VXE	VXC
					Bottom return	Side return	Bottom return	Side return					
CASING	VX-12	58.1	44.0	82.2 <sup>c</sup>	125.0	N/A	N/A	N/A	22.3	N/A	1,180	1,780	N/A
	VX-112	59.3	52.5	98.6 <sup>a</sup>	149.5 <sup>a</sup>	180.5	180.5	N/A	22.1/40.0 <sup>e</sup>	30.1	2,700	3,400	3,800
	VX-212	72.5	68.2	109.0 <sup>a</sup>	163.2 <sup>a</sup>	197.3	197.3	N/A	27.1/38.0 <sup>e</sup>	30.1	4,500	5,100	5,675
	VX-312	101.3	98.0	155.2 <sup>d</sup>	247.9	276.9	N/A	N/A	39.0 <sup>b</sup>	N/A	7,750	9,600	N/A
	VX-412	101.8	100.9	283.6/249.4 <sup>f</sup>	N/A	N/A	N/A	N/A	36.25	N/A	11,600 <sup>g</sup>	N/A	N/A
		<p>a Powered exhaust units with no energy recovery, whether bottom or side return, have the same length as the wheel units with bottom return. This applies to the VX-112 and VX-212.</p> <p>b If the VXE-312 has an exhaust fan, the exhaust blower bump-out will have a length of 48.4 inches.</p> <p>c If the VX-12 has an indirect gas furnace, the furnace bump-out will have a length of 13.3 inches.</p> <p>d If the VX-312 has powered exhaust but no energy recovery, the length will be 203.6 inches for bottom return and 222.7 inches for side return.</p> <p>e Longer dimension reflects VXC hood length.</p> <p>f Longer dimension reflects 90-100 ton configurations, shorter dimension reflects 50-80 ton configurations. Units without cooling will have a length of 155 inches.</p> <p>g If the VX-412 is configured without cooling, the nominal weight will be 6,300 pounds. VX-412 50-80 ton configurations will have a nominal weight of 10,325 pounds.</p>											



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valentair.com

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