DATASHEET

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

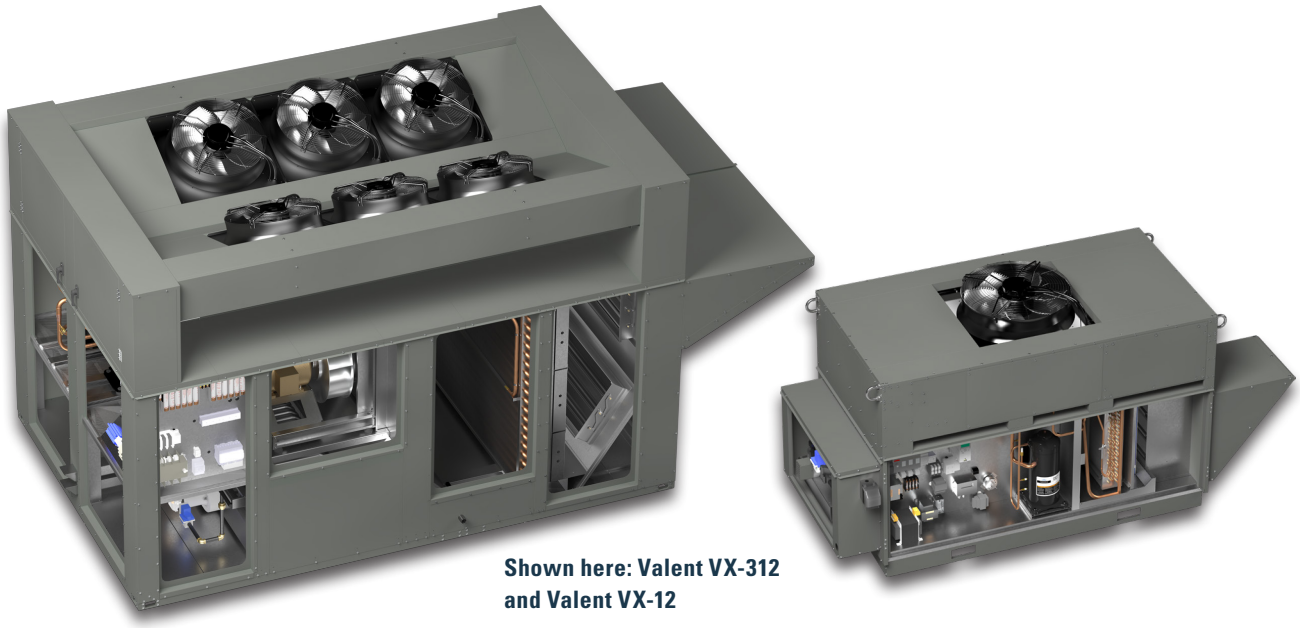
- Valent's years of experience in high outdoor air applications lead to high performing solutions
- Valent's application expertise can be helpful in the design process

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** [a] (cfm)	500	800	2,250	3,750	8,000
	Maximum [a] (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	Option
	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	Standard	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[b]	Up to 50:1
ELECTRIC HEAT	**Minimum** [c] (kW)	5	15	35	40	80[e]
	Maximum [c] (kW)	60	60	120	230	230[e]
OTHER HEAT	**Air source heat pump**	Coming soon	Option	Option	Not available	Not available
	Hot water	Option	Option	Option	Option	Option
	Steam coil	Not available	Option	Option	Option	Not available

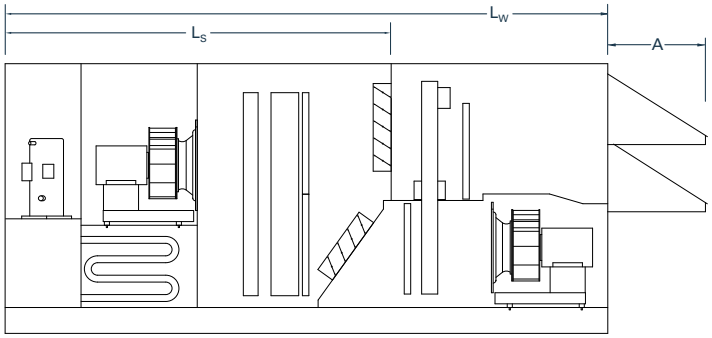
VALENT DOAS UNITS AT A GLANCE

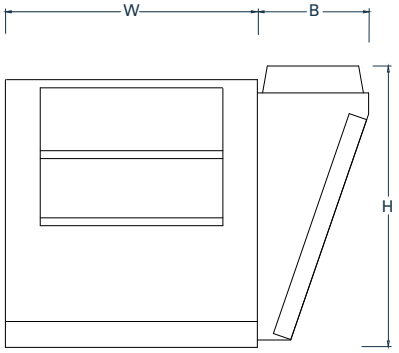
		VX, VXE & VXC CASING				
		12	**112**	**212**	**312**	**412**
ENERGY RECOVERY	**Full width wheel** Polymer	Option	Option	Option	Option	Coming soon
	Full width wheel Aluminum	Not available	Option	Option	Option	Coming soon
	Enthalpy core Polymer	Not available	Option	Option	Not available	Not available
	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[d]	Option[d]	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-16	2" double-wall R-16	2" double-wall R-16	2" double-wall R-16	2" double-wall R-16
	Exterior	Gray prepainted	Gray prepainted	Gray prepainted	Gray prepainted	Gray prepainted
	Interior	Galvanized	Galvanized	Galvanized	Galvanized	Galvanized
CERTIFICATION	**AHRI 920**	AHRI Certified	AHRI Certified	AHRI Certified	AHRI Certified	AHRI Certified
	AHRI 1060	Compliant	Compliant	Compliant	Compliant	Compliant
	ASHRAE 90.1-2019	Compliant	Compliant	Compliant	Compliant	Compliant
	DOE 2023	Compliant	Compliant	Compliant	Compliant	Compliant

Refer to Valent CAPS® selection software or the Valent Mechanical IOMs for additional detail.
a Indicates total supply airflow. Variables such as energy recovery, cooling and heating options, design conditions, external static pressure, and others will affect these values.
b LP furnaces available on 600 and 800 mbh furnaces only.
c Max kW is dependent on unit voltage.
d Not available with the fiber core.
e VX-412 Electic Heat offerings will not be in 208 or 230 Voltage, only in 460 and 575V.

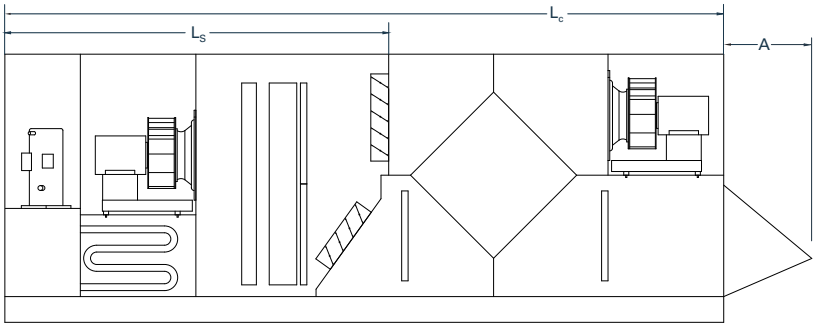
DIMENSIONS AND WEIGHTS

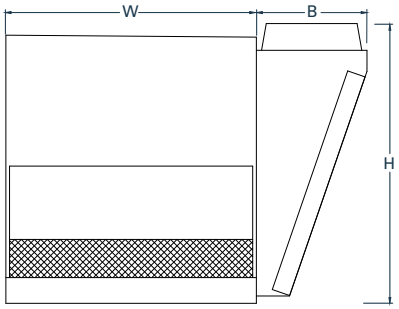
Elevations with and without energy recovery wheel





Elevations with enthalpy core heat exchangers





		DIMENSIONS (inches), **WEIGHTS** (pounds)											
		Height	**Width**	**Length**[a]	**Length with wheel**		**Length with core**		**Hood length**	**Condenser width**	**Nominal weight**		
		H	W	L_S	L_W		L_C		A	B	VX	VXE	VXC
					Bottom return	Side return	Bottom return	Side return					
CASING	**VX-12**	58.1	44.0	82.2[c]	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[a]	149.5[a]	180.5	180.5	N/A	22.1/40.0[e]	30.1	2,700	3,400	3,800
	VX-212	72.5	68.2	109.0[a]	163.2[a]	197.3	197.3	N/A	27.1/38.0[e]	30.1	4,500	5,100	5,675
	VX-312	101.3	98.0	155.2[d]	247.9	276.9	N/A	N/A	39.0[b]	N/A	7,750	9,600	N/A
	VX-412	101.8	100.9	283.6/249.4[f]	N/A	N/A	N/A	N/A	36.25	N/A	11,600[g]	N/A	N/A

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.
b If the VXE-312 has an exhaust fan, the exhaust blower bump-out will have a length of 48.4 inches.
c If the VX-12 has an indirect gas furnace, the furnace bump-out will have a length of 13.3 inches.
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.
e Longer dimension reflects VXC hood length.
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.
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.