



Model XVC

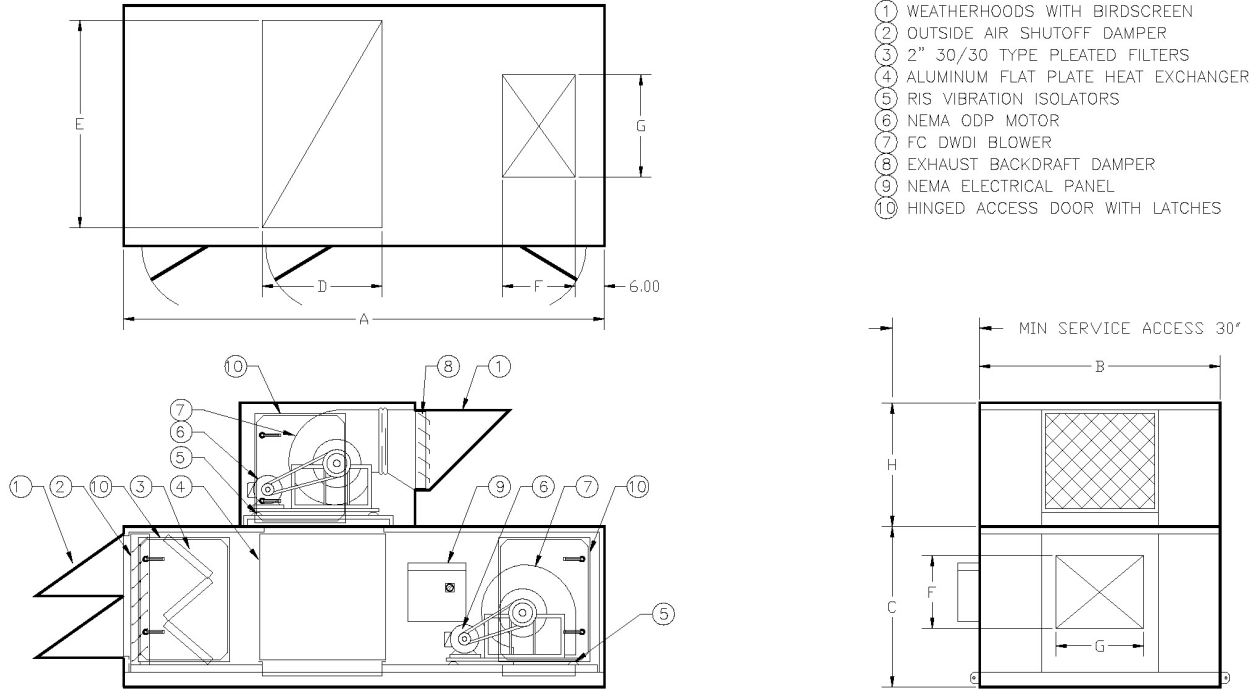
Packaged, roof or indoor mounted, air-to-air heat recovery ventilator featuring a flat plate aluminum heat exchanger with standard efficiencies of up to 75%. Suitable for large office buildings, schools, libraries, factories, hotels, water treatment plants, etc.



- The design of the XVC makes it unique in the XeteX line. It features an up-blast exhaust airstream and a straight-through, horizontal supply airstream.
- Ideal for roof mounted applications using gas fired heating and inter-floor/mezzanine indoor installations. This configuration also works well for units requiring water wash-down or indirect evaporative cooling.
- For roof mounted applications, the drain-pan is mounted below the roof, inside the space to significantly reduce freezing of the condensate drains.

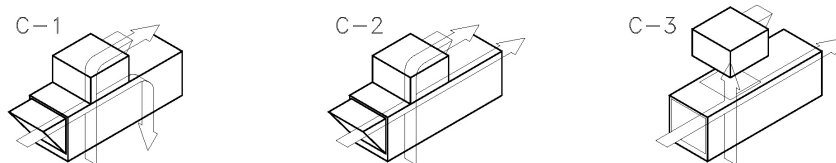
www.xetexinc.com

Model: XVC



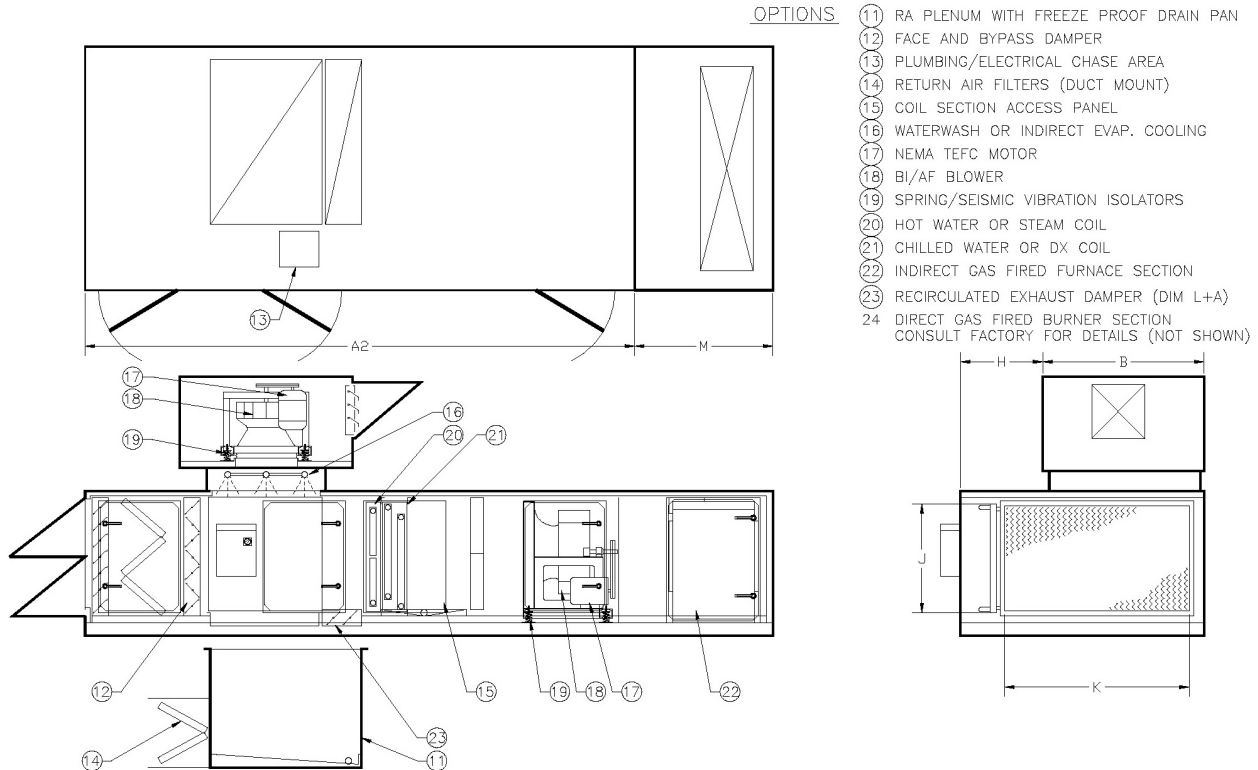
Model #	Dimension (Inches)							Blower Size	Est. Weight	Nominal CFM
	A	B	C*	D	E	F	G			
XVC-24-24	108	26	58	22	18	11.0	13.0	9" FC	1,500	1,500
XVC-24-36	108	38	58	22	30	12.5	14.5	10" FC	1,900	2,400
XVC-24-48	108	50	59	22	42	14.5	17.0	12" FC	2,200	3,300
XVC-30-36	120	38	70	28	30	14.5	17.0	12" FC	2,300	3,300
XVC-30-48	120	50	70	28	42	17.0	20.0	15" FC	2,800	4,500
XVC-30-60	120	63	72	28	51	17.0	20.0	15" FC	3,300	5,600
XVC-40-36	144	39	90	38	27	17.0	20.0	15" FC	2,200	4,400
XVC-40-48	144	51	90	38	33	17.0	20.0	15" FC	3,800	6,000
XVC-40-60	144	64	90	38	52	20.0	23.0	18" FC	4,800	7,600
XVC-40-72	144	76	90	38	64	20.0	23.0	18" FC	5,300	9,100
XVC-50-48	168	52	112	46	40	20.0	23.0	18" FC	5,600	7,100
XVC-50-60	168	64	112	46	52	20.0	23.0	18" FC	6,200	9,000
XVC-50-72	168	76	114	46	64	26.0	26.0	20" FC	7,200	11,000
XVC-50-96	168	100	114	46	88	28.0	28.0	22" FC	8,800	15,000
XVC-60-60	204	64	132	56	52	26.0	26.0	20" FC	8,400	12,200
XVC-60-72	204	76	132	56	64	28.0	28.0	22" FC	9,400	14,800
XVC-60-96	204	100	132	56	88	32.0	32.0	25" FC	11,200	20,000
XVC-80-72	240	76	156	76	64	32.0	32.0	25" FC	11,800	20,500
XVC-80-96	240	100	156	76	88	36.0	36.0	28" FC	14,500	27,000

* Does not include custom height of Roof Curb.



Consult factory for other available configurations.

XVC Options



Model #	A2 = A + Dim Below			Bypass Option		Heating Element			Nom Gas Heat MBH Input	Max BI Plenum Blower
	Heating Coil	Cooling Coil	Final Filters	H	Unit Weight (lbs)	Max Coil Dims		Furnace		
						J	K	M		
XVC-24-24	6	18	18	8	1700	21	24	Consult Factory	50 - 150	12" PF
XVC-24-36	6	18	18	12	2200	21	40		100 - 250	12" PF
XVC-24-48	6	18	18	16	2600	21	56		150 - 350	12" PF
XVC-30-36	12	24	18	12	2700	24	40		150 - 350	14" PF
XVC-30-48	12	24	18	16	3300	24	56		200 - 400	14" PF
XVC-30-60	12	24	18	20	4000	24	70		250 - 500	16" PF
XVC-40-36	12	24	18	12	3700	33	38	36	200 - 400	16" PF
XVC-40-48	12	24	18	16	3300	33	54	36	250 - 600	18" PF
XVC-40-60	12	24	18	20	5500	33	70	42	300 - 700	20" PF
XVC-40-72	18	30	18	24	6300	33	86	42	400 - 800	22" PF
XVC-50-48	18	30	24	16	6200	42	54	42	250 - 700	22" PF
XVC-50-60	18	30	24	20	7200	42	70	42	400 - 800	22" PF
XVC-50-72	18	30	24	24	8500	42	86	72	500 - 1100	25" PF
XVC-50-96	18	30	24	32	10600	42	118	72	500 - 1100	28" PF
XVC-60-60	18	36	24	20	9600	54	70	84	600 - 1100	28" PF
XVC-60-72	18	36	24	24	10800	54	86	84	700 - 1400	28" PF
XVC-60-96	18	36	24	32	13500	54	118	84	900 - 1700	32" PF
XVC-80-72	18	36	24	24	13700	72	86	84	900 - 1700	36" PF
XVC-80-96	18	36	24	32	17500	72	118	96	1200 - 2300	36" PF

Energy Recovery Custom Designed for Indoor Spaces

This unit and four others were built for an Independent Living Facility in Vermont. It was designed for indoor installation with certain space restraints. The horizontal supply airflow and vertical exhaust airflow allow the heat exchanger to lay flat inside the cabinet, reducing unit size. Since the exhaust air travels straight up through the Model XLT™ exchanger, condensation can drain straight down. A drain pan can then be located below the unit in the floor or ductwork, ensuring that water never collects inside the unit. Since the exhaust air flow rate was greater than the supply, the exchanger operated at a high efficiency—up to 71% in the winter. This takes a large portion of the heating load off the hot water coil and cuts building operation cost.



Top level blower cabinet is configured for exhaust air out. Supply air enters the bottom section through the damper (left) and flows out the other end (right).

Performance Specification

Model: **XVC-50-72-BP-HW**
Supply cfm: 11,000
Exhaust cfm: 12,000
Built: March 2006
Dimensions: 106" H, 186" L, 98" W
Weight: 7,500 lbs
Energy 792 MBH (Winter)
Recovered: 108 MBH (Summer)
Design -20 °F / 100% RH (Winter)
Conditions: 88 °F / 46% RH (Summer)



XVC Wrapped and Loaded for Shipment

Unit Features

- An XLT Type H Aluminum Flat Plate Exchanger operates at 71% effectiveness under Winter Design Conditions and at 65% effectiveness in Summer.
- The Double Wall cabinet has an 18 gauge Galvanealed Steel Exterior, 22 gauge Galvanized Interior, and 1½" thick Foil-Lined Fiberglass Insulation. Frame is Welded Structural Steel.
- 20" FC DWDI Blowers are belt driven by NEMA Frame, ODP motors (5 hp supply, 5 hp exhaust). The blowers are mounted on common frames and have rubber isolators and Flexible Duct Connections.
- A Hot Water Coil provides 899 MBH of heating capacity.
- 2" MERV 8 (30/30) filters on both outdoor and return airstreams protect the unit from debris.
- Outside Air Shut-Off, Outside Air Face-and-Bypass, and Exhaust Air Shut-Off Dampers and Actuators are included.
- Single Point Power Terminal Blocks, Main Disconnect, Protected Branch Circuits, and Motor Control Starters with Overloads are accessed in an Electrical Panel. Automatic Frost Control is also included.

Custom Configuration for a University Laboratory

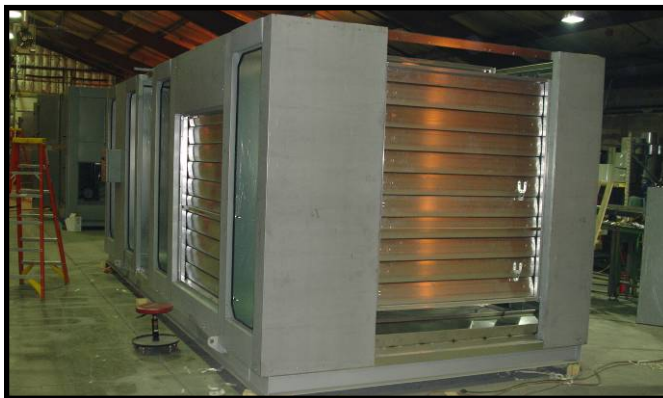
This custom XVC unit was built so that the customer, a university laboratory complex, could provide their own exhaust air blower section. Unlike most XVC units, which have exhaust air inlets on the bottom and exhaust air outlet sections on top, exhaust air enters this unit through one of its sides and passes straight out the other. In this airstream, XeteX only provided the exchanger and dampers. On the supply side, however, XeteX built the unit with cold water and steam coils, final filters, dampers, actuators, an air foil plenum blower, and a humidifier section. When finished, this unit gave the lab operators complete control over temperature and humidity, year-round energy recovery, and a custom configuration that met their requirements.



The heat exchanger (left) and cold water coil (right). The exchanger is flat, creating no turns within the unit.

Performance Specification

Model: **XVC-60-60-RT-BP-
HS-CW-SP**
Supply cfm: 10,500
Exhaust cfm: 10,500
Built: March, 2006
Dimensions: 94" H, 252" L, 108" W
Weight: 9,000 lbs
Energy Recovered: 741 MBH (Winter)
117 MBH (Summer)
Design Conditions: -20 °F / 99% RH (Winter)
90 °F / 45% RH (Summer)



Dampers for exhaust air (left) and supply air (right).



Air foil plenum blower section.

Unit Features

- An XLT Type H Aluminum Flat Plate Exchanger operates at 62% effectiveness under summer conditions and 69% under winter.
- The Double Wall cabinet has an 18 gauge Epoxy-Coated Galvanealed Steel Exterior, 20 gauge Galvanized Interior, and 2" thick Foil-Lined Fiberglass Insulation. Frame is Welded Structural Steel.
- The 36" quiet Air Foil Plenum supply air blower is belt driven by a Premium Efficient 15 hp motor. The exhaust air blower section was provided by others.
- A Cold Water coil provides 687 MBH cooling and a Steam Coil provides 1196 MBH heat. The humidifier section provides 275 lbs/hr of moisture.

Model XVC Unit Specification

Contractor shall provide a Model XVC packaged, (roof mounted/indoor mounted), air-to-air heat recovery ventilator as manufactured by XeteX Inc. Unit to include an aluminum flat plate exchanger, supply air and exhaust air blowers, motors with starters and relays, air filters, adjustable frost control, and other specified options.

Unit shall have a welded structural steel base frame with integral lifting lugs. Frame shall be coated with rust inhibiting paint. Lower floor shall have a sub-floor of 22 gauge galvanized steel, formed structural supports with rigid closed cell load-bearing insulation under blowers and components, and an interior floor of 16 gauge galvanized steel. Return air plenum and drain pan shall be provided by [XeteX/contractor].

Cabinet frame exterior shall be of formed 18 gauge (minimum) galvanized steel. Panels (fixed and access) to be of 18 gauge galvanized steel. Frame and panels to have double-wall construction with [1", 1.5", or 2", 4"] thick, 3# density, hardboard fiberglass insulation; internal liner of 22 gauge (minimum) galvanized steel; and silicone sealant to provide a complete vapor barrier and non-contaminating surface to all airstreams. Framing and panels of dissimilar metals that could create a galvanic effect are not allowed. Optional fully painted exterior with 2 coats minimum of High Performance Acrylic over galvanealed sheet metal. Optional fully painted interior with 2 coats minimum of epoxy over galvanealed sheet metal.

Provide access to all exchanger surfaces, blowers, motors, and filters through double walled, hinged, and gasketed access doors. Doors shall be held closed by a minimum of two roller cam latches. Continuous hollow rubber gasket shall be applied to all access openings to provide water and airtight seals. Door hinges shall be galvanized steel (optional—stainless steel).

Air-to-air heat exchanger shall be an XLT stationary, aluminum, flat plate type manufactured by XeteX. Heat transfer surface shall be formed aluminum plates with enhanced surface corrugation for increased performance. Exchanger shall be capable of withstanding a pressure difference between airflows of up to 7.2" (optional 27") w.g. without deforming air passages. Unit shall be capable of operating in temperatures up to 190 °F (optional 390 °F). Standard cell construction shall have a maximum cross contamination between airflows of 0.1% of total airflow. The entire cell shall be capable of being visibly inspected and cleaned as required.

FC—Blowers shall be forward-curved, DWDI, class I, and arranged in a draw through configuration relative to exchanger for quiet efficient operation.

PF—Blowers shall be a backward inclined, airfoil, centrifugal plenum (optional plug) type without scroll housings and arranged in a draw-through configuration. Fans shall incorporate a wheel; heavy gauge reinforced steel inlet plate shaft, and bearings configured in AMCA Arrangement 3 to form a heavy-duty integral unit. Blowers shall be tested to AMCA standard 210 and bear the AMCA certified ratings seal for performance. The fan blades shall be continuously welded, die-formed airfoil type, designed for maximum efficiency and quiet operation. Impellers shall be statically and dynamically balanced and non-overloading and complete fan assembly shall be test balanced at the operating speed prior to shipment. Bearings are to be heavy duty, grease lubricated, and selected for minimum average bearing L-10 life of 40,000 hours (optional L-50 life of 200,000) at the maximum class RPM.

Motors shall be premium efficiency (optional high efficiency), ODP, T-frame (optional TEFC or XP), nominal 1750 rpm (optional 3,600 rpm), 1.15 service factor minimum, and mounted on an adjustable base. Motor and blower are to be mounted on a common frame, isolated from the unit case with [FC—RIS isolators (optional spring or seismic restrained) and discharge gasket duct connection (optional flexible duct connections), PF—Spring isolators with a minimum of 1" deflection (optional seismic or restrained isolators) with flexible plenum connections.] Motors and blowers shall have V-belt drives with variable pitch sheaves on motors up to 10 hp. Motors, blowers, and frames shall be coated with rust inhibiting paint (optional epoxy coated).

Electrical controls shall include motor starters with overloads, fuses, control transformer for low voltage controls, service switch, and terminal points. Outdoor air and return air filters shall be 2" pleated 30/30 type. Filters shall be mounted within unit in galvanized holding frames upstream of exchanger and accessible through access panels.

Dampers shall have heavy duty extruded aluminum frames and 4" extruded aluminum air-foil blades mounted on brass shafts and supported and inter-connected by nylon gears. Low leakage dampers shall have hollow rubber jamb seals built into both the blades and the frame. The side casings shall enclose the gears with ABS plastic covers that also serve as seals in the closed position. Outside air dampers shall be mounted on the inlet of the unit and operated by a spring return direct-coupled actuator with an end switch to be interlocked with the supply air motor relay. Exhaust air backdraft damper to be parallel blade. Face-and-bypass dampers shall be interlocked so that when the face damper is open the bypass damper shall be closed.

Weatherized outdoor construction shall include sloped roof panels with rain gutters that overhang the sidewalls to shed water away from access panels, capped roof seams, intake and exhaust weather hoods with bird-screens, outside air shut-off damper, and exhaust air backdraft damper. Secondary roof panels that could trap moisture are not allowed. Roof curb shall be 16 gauge (minimum) galvanized steel with additional supports and cross members as needed. Curb to have 1.5" thick fiberglass insulation and wood nailer.