SHR 14105R

Commercial Heat Recovery Ventilators

Product #: 40445-1

The SHR 14105R Commercial Heat Recovery Ventilation system (HRV) complements today's tight buildings. Fantech Heat Recovery Ventilators (HRV) are designed to supply air into a building while exhausting an equal amount of contaminated air to the outside. The aluminum heat exchanger core transfers sensible energy between air streams resulting in tempering of the supply air and reduced loads on the HVAC system.

Feature

- Push-pull configuration
- External low voltage contacts
- Dual service doors & reversible electrical box
- External three position switch (Low/Standby/Medium)
- Weighs 256 lbs (116 Kg)

Specifications

- Voltage/Phase – 120/1
- Power rated – 1272 W
- Amp – 10.6 A
- Average airflow @ 0.4" P_S (100Pa) – 1430 cfm (675 L/s)

Applications

- Indoor pools
- Spa
- Heath centers
- Night club
- Locker room
- High humidity applications

Port configuration

The unit has access doors on the front and back. Also, the main control panel may be moved from front to back allowing for ducting layout.

Fans

Four (4) factory balanced fans with backward curved blades. Motors come with permanently lubricated sealed ball bearings, (TOP) thermal overload protected and maintenance-free operation.

Heat recovery core

The heat recovery cores are fixed plate cross-flow heat exchanger using aluminum alloy 1100 and capable of transferring sensible heat between air streams. The heat recovery cores are engineered with a turbulence inducing geometry in order to maximize heat transfer while allowing an effective evacuation of condensate. The plates are hemmed to avoid cross-contamination of airstreams. The SHR 14105R features three cores, each 12" x 12" (305 mm x 305 mm) with a 15" (380 mm) depth.

Defrost

During the defrost sequence, a motorized damper temporarily blocks the incoming fresh air stream so that the warm air from the building can circulate through the HRV. The exhaust blower shuts down and the supply blower switches into high speed to maximize the effectiveness of the defrost strategy.

Serviceability

Cores, filters and drain pan can be accessed easily from both sides of the HRV from hinged access panels. Cores conveniently slide out with only 15" (380 mm) clearance. Blowers can be accessed from both side of the HRV from fastened access panels. Blowers are easily removed by taking off the access panel and sliding the motor plates out of the HRV. A quick connect allows for fast inspection of blowers.

Case

20 gauge galvanized steel. Baked powder coated paint.

Insulation

Insulated with 1 in. (25 mm) fiberglass with FSK facing and 2 in. (50 mm) of foil-faced high density polystyrene foam on the outdoor air side for condensation control.

Filters

The exhaust and fresh air streams are protected by MERV1 washable filters constructed to meet UL 900. Optional MERV6 filters are direct replacement to the MERV1. Use of MERV6 filters will add an additional system pressure of 0.36in.wg (90Pa) at 1410 cfm (665 l/s).

Controls

External three (3) position (Low/Stand By/Medium) rocker switch that will offer continuous ventilation. In addition Fantech offers a variety of external controls.

Mounting

Unit may be suspended by using threaded rod, not supplied, or placed on a platform. Unit shall be adaptable for easy service of electrical components.

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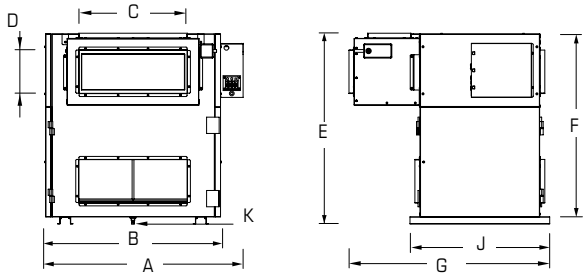
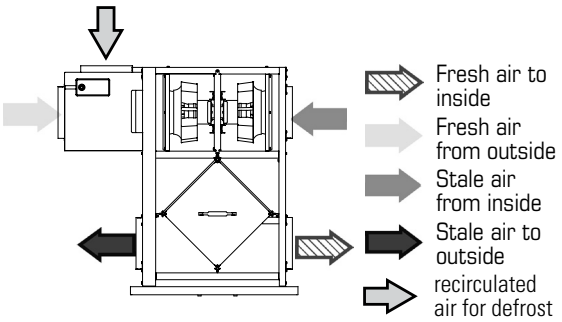
Dimensions & airflow

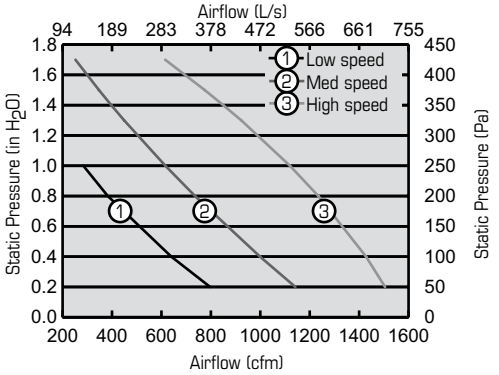




Model	A		B		C		D		E		F		G		J		K	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
SHR14105R	51 1/2	1308	47 3/16	1199	23 15/16	608	7 7/8	200	35	889	33 5/8	854	36	914	25 3/4	653	1/2	13

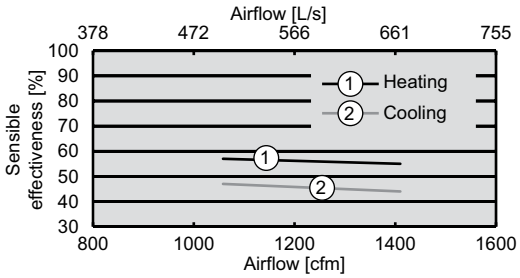
Ventilation Performance

in. wg. (Pa)	0.2 (50)	0.4 (100)	0.8 (200)	1.0 (250)	1.4 (350)	1.7 (425)
	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)
Supply High	1505 (710)	1428 (674)	1235 (583)	1120 (529)	850 (401)	615 (290)
Supply Med	1142 (539)	999 (471)	736 (347)	616 (291)	397 (187)	252 (119)
Supply Low	797 (346)	640 (302)	383 (181)	284 (134)	-	-



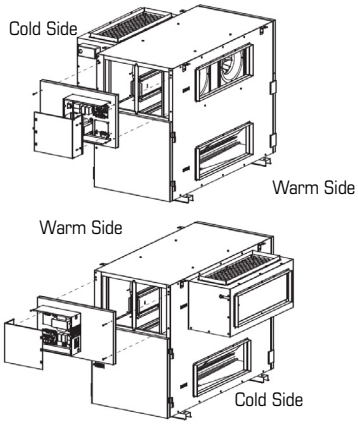
Energy performance

	Supply temperature		Net airflow		Sensible effectiveness
	°F	°C	cfm	L/s	%
Heating	35	1.7	1410	665	55
	35	1.7	1058	499	57
Cooling	95	35	1410	665	44
	95	35	1058	499	47



Port configuration

Standard Configuration as shipped from factory



Requirements and standards

- Complies with the UL 1812 requirements regulating the construction and installation of Heat Recovery Ventilators
- Complies with the CSA C22.2 no. 113 Standard applicable to ventilators
- Technical data was obtained from published results of test relating to AHRI 1060 Standards

Contacts

Submitted by: Date:
Quantity: Model: Project #:
Comments:
Location:
Architect:
Engineer: Contractor:

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