



STANDARD COMMERCIAL SH1000e Heat Recovery Ventilator

PRODUCT SPECIFICATIONS & TECHNICAL DATA



NOMINAL CAPACITY

500-1000 CFM

CASING – STANDARD

- Double-wall cabinet
- 22-gauge galvanized steel interior and exterior
- Supply and exhaust hoods with bird screens
- Access doors with quarter-turn handles
- 22-gauge galvanized steel drain pan
- Drain Connections: 1" NPT
- Insulation: 1" (25 mm)

CASING – OPTIONAL

- Painted white baked enamel outside finish
- Pool Construction: TEFC motors, stainless steel interior, and epoxy-coated fans
- Removable access panels

MOUNTING – STANDARD

On 18-gauge galvanized steel roof curb (insulation optional)

BLOWERS & MOTORS – STANDARD OPTIONS

Blowers:

- Quantity: 2
- Forward-curved
- Permanently sealed and lubricated ball bearings
- Power transmission by adjustable pulleys and belts

Motors:

- Type: Inverter duty 10:1
- Maximum Power: 2 hp
- Available Voltage:
 - » 120, 208, 230 V / 1ph / 60Hz
 - » 208, 230, 460, 575 V / 3ph / 60Hz

(See table on page 2 for details)

PLATE EXCHANGER OPTIONS

Polypropylene (sensible heat transfer)

Quantity: 1

Pitch: 0.16" (4 mm)

Dimensions: 21" x 21" x 19-3/8"
(533 mm x 533 mm x 492 mm)



Aluminum (sensible heat transfer)

Quantity: 1

Pitch: 0.17" (4.2 mm)

Dimensions: 19-3/8" x 19-3/8" x 19-3/8"
(492 mm x 492 mm x 492 mm)



FROST PREVENTION/CONTROL

See page 2 for details

ELECTRICAL & CONTROLS – STANDARD

- 24 V double motor contactor with start-stop dry contact
- Non-fused disconnect (NEMA 4)
- 24 V transformer for controls

ELECTRICAL & CONTROLS – OPTIONAL

- Fused disconnect
- 24 VAC, 20 VA power available for accessories

FILTERS – STANDARD

Quantity: 1 supply, 1 exhaust

Type: MERV 8

Dimensions: 18" x 20" x 2" (457 mm x 508 mm x 51 mm)

FILTERS – OPTIONAL

MERV 13 Filters (substitute on supply air circuit only)

WARRANTY

- Core Assembly: Limited 10-year
- All Other Covered Components: Limited 2-year

LISTED BY



SH1000e Features (Continued)

FROST PREVENTION/CONTROL – OPTIONS

If no defrost mode is selected, it is the customer's responsibility to protect the core from freezing.

Frost control activated by a temperature reference: 23°F (-5°C)

Pre-Heat in the Intake Hood:

- Powered by unit, SCR control (unavailable with 120 V)

Exhaust Defrost:

- Supply air blower shuts down and outside air damper closes. Warm exhaust air defrosts the core until it is completely defrosted.
- Includes motorized and insulated damper on fresh air intake (OA)

OPTIONAL COMPONENTS

- Motorized and insulated damper for exhaust port (EA)
- Non-insulated backdraft damper for exhaust port (EA)
- Motorized and insulated damper on fresh air intake (OA) (included with exhaust defrost)

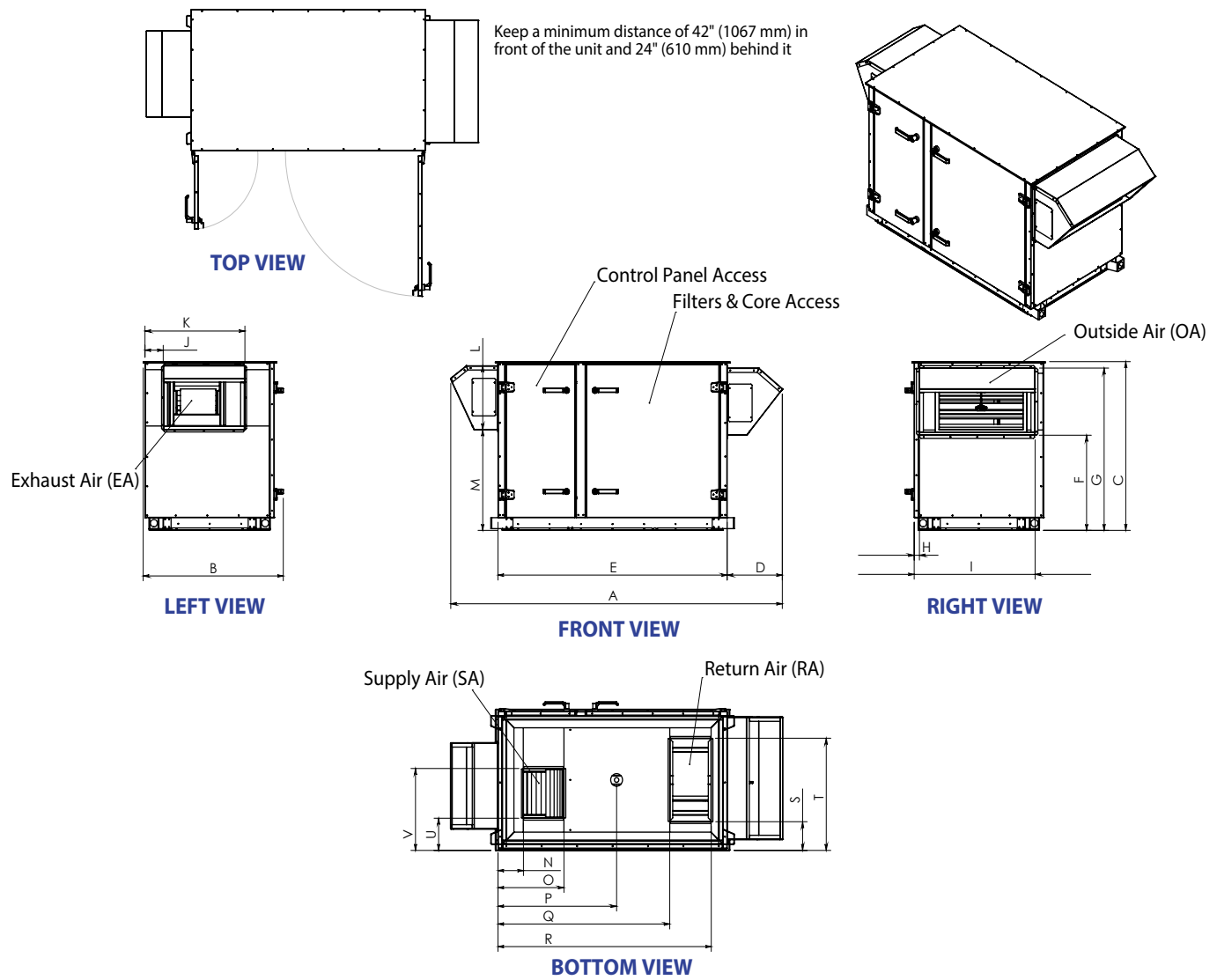
SH1000e Motor & Blower Options*

		PARAMETERS															
		HP				VOLTAGE & PHASE								MOTOR SPEED			
		3/4	1	1.5	2	1-PHASE			3-PHASE				SINGLE SPEED	2-SPEED		VARIABLE SPEED	
						120 V	208 V	230 V	208 V	230 V	460 V	575 V		MOTOR	VFD	MOTOR	VFD
MOTOR TYPE & EFFICIENCY¹	ODP, EPAct	√	√	√	√	√	√	√					√	√	√		√
	TEFC, EPAct	√	√			√	√	√					√		√		√
	TEFC, Premium			√	√				√	√	√	√	√		√		√

*See page 8 for motor sizing.

†Premium efficiency required when available.

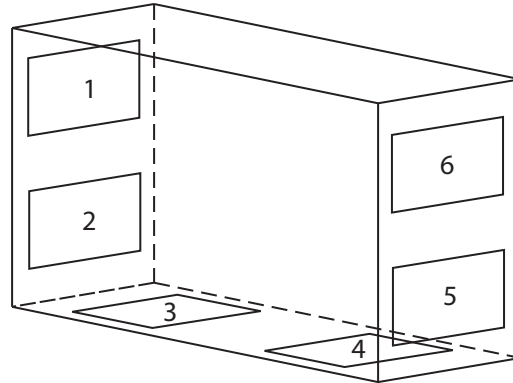
SH1000e Dimensions



DIMENSIONS in inches (mm)											
Unit	Overall			Openings							
	A	B	C	D	E	F	G	H	I	J	K
Standard	84.25 (2140)	35.63 (905)	40.5 (1029)	14 (356)	58.25 (1480)	22.75 (578)	38.88 (987)	1.375 (35)	30.75 (781)	4.75 (121)	25.38 (645)
Pre-Heat Option	109.75 (2788)	35.63 (905)	40.5 (1029)	39.5 (1003)	58.25 (1480)	22.75 (578)	38.88 (987)	1.375 (35)	30.75 (781)	4.75 (121)	25.38 (645)
Unit	Openings										
	L	M	N	O	P	Q	R	S	T	U	V
Standard	15.38 (391)	24.13 (613)	6.5 (165)	16.88 (429)	30.25 (768)	43.75 (1111)	54.13 (1375)	6.5 (165)	26.38 (670)	7.38 (187)	19 (483)
Pre-Heat Option	15.38 (391)	24.13 (613)	6.5 (165)	16.88 (429)	30.25 (768)	43.75 (1111)	54.13 (1375)	6.5 (165)	26.38 (670)	7.38 (187)	19 (483)

SH1000e Configurations & Weights

AVAILABLE CONFIGURATIONS*
1-2-5-6**
1-3-5-6**
1-2-4-6
1-3-4-6



DUCT CONNECTION KEY	
1	Exhaust Air (EA)
2, 3	Supply Air (SA)
4, 5	Return Air (RA)
6	Outside Air (OA)

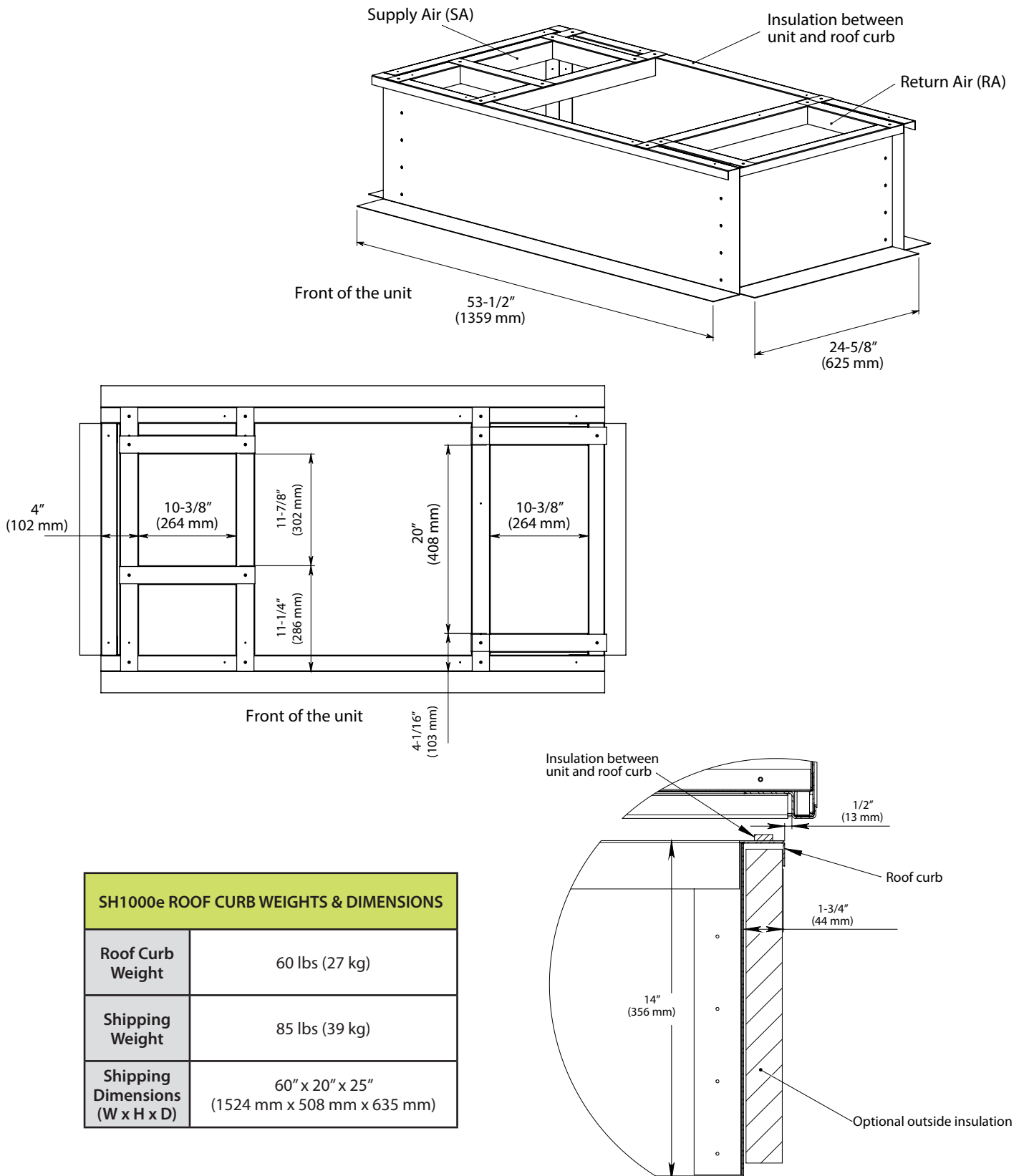
*Mirror Image Cabinet Also Available

**Not available with pre-heat option

SH1000e WEIGHTS & DIMENSIONS †		
Core Type	Polypropylene	Aluminum
Minimum Unit Weight	578 lbs (262 kg)	588 lbs (267 kg)
Maximum Unit Weight	690 lbs (313 kg)	700 lbs (318 kg)
Minimum Shipping Weight	638 lbs (289 kg)	648 lbs (294 kg)
Maximum Shipping Weight	740 lbs (336 kg)	760 lbs (345 kg)

† Actual weight may vary by $\pm 10\%$.
Roof curb shipped separately.

SH1000e Roof Curb Dimensions

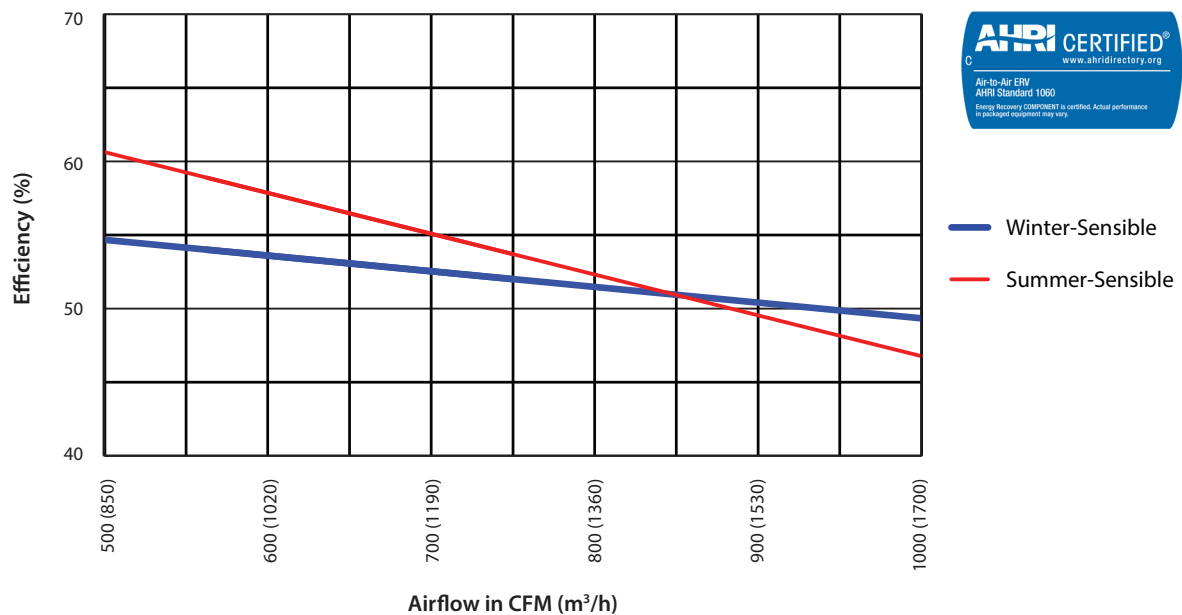


Polypropylene Core Performance

AHRI STANDARD CONDITIONS	CONDITIONS	
Outside Air Temperature	Winter	Summer
Dry Bulb	35°F (1.7°C)	95°F (35°C)
Wet Bulb	33°F (0.6°C)	78°F (25.6°C)
Exhaust Air Temperature	Winter	Summer
Dry Bulb	70°F (21.1°C)	75°F (23.9°C)
Wet Bulb	58°F (14.4°C)	63°F (17.2°C)

Note: Efficiencies are based on AHRI standard conditions.

SH1000e – Polypropylene Core Sensible Efficiency

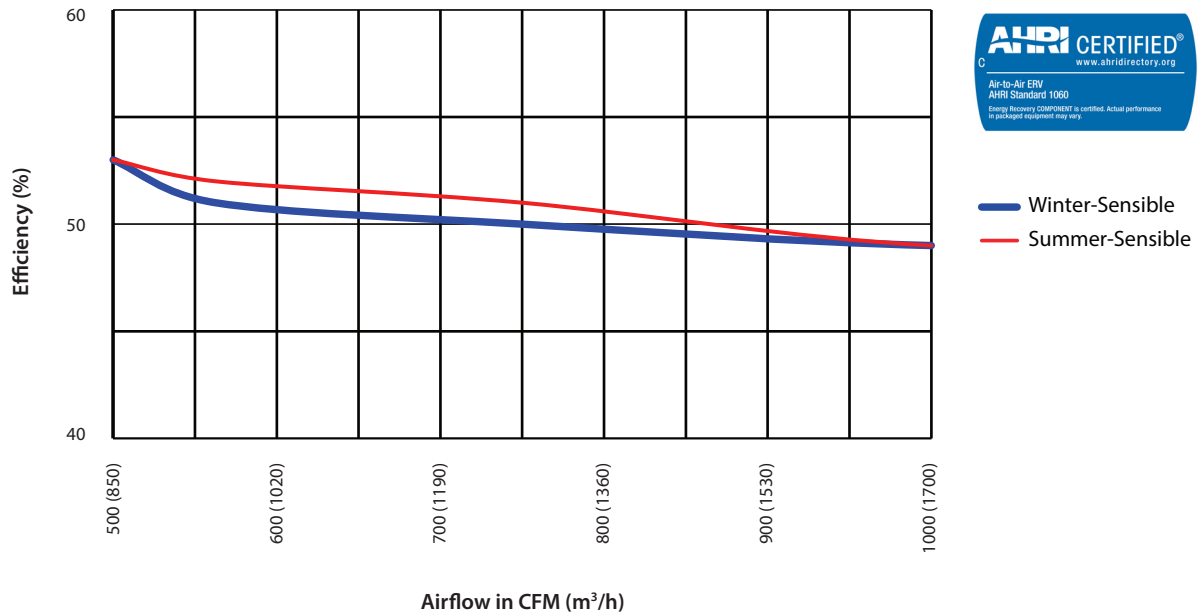


Aluminum Core Performance

AHRI STANDARD CONDITIONS	CONDITIONS	
Outside Air Temperature	Winter	Summer
Dry Bulb	35°F (1.7°C)	95°F (35°C)
Wet Bulb	33°F (0.6°C)	78°F (25.6°C)
Exhaust Air Temperature	Winter	Summer
Dry Bulb	70°F (21.1°C)	75°F (23.9°C)
Wet Bulb	58°F (14.4°C)	63°F (17.2°C)

Note: Efficiencies are based on AHRI standard conditions.

SH1000e – Aluminum Core Sensible Efficiency



Motor Selection – Polypropylene Core

SUPPLY																				
MOTOR	CFM (m³/h)	EXTERNAL STATIC PRESSURE (inH₂O) - SUPPLY																		MOTOR
		0.25 (60 Pa)			0.50 (125 Pa)			0.75 (185 Pa)			1.00 (250 Pa)			1.25 (310 Pa)			1.50 (375 Pa)			
		RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	
3/4 hp	500 (850)	911	0.14	0.17	1052	0.19	0.23	1174	0.25	0.30	1282	0.31	0.37	1381	0.38	0.46	1473	0.45	0.54	3/4 hp
	600 (1020)	994	0.18	0.22	1127	0.25	0.30	1244	0.32	0.38	1349	0.39	0.47	1445	0.46	0.55	1534	0.54	0.65	
	700 (1190)	1081	0.25	0.30	1207	0.32	0.38	1319	0.40	0.48	1420	0.48	0.58	1513	0.56	0.67	1600	0.64	0.77	1 hp
	800 (1360)	1165	0.32	0.38	1286	0.41	0.49	1393	0.49	0.59	1491	0.58	0.70	1581	0.67	0.80	1665	0.76	0.91	
	900 (1530)	1246	0.41	0.49	1364	0.50	0.60	1467	0.60	0.72	1561	0.69	0.83	1649	0.79	0.95	1732	0.89	1.07	1.5 hp
	1000 (1700)	1331	0.51	0.61	1444	0.62	0.74	1545	0.72	0.86	1636	0.83	1.00	1722	0.93	1.12	1802	1.04	1.25	

EXHAUST																				
MOTOR	CFM (m³/h)	EXTERNAL STATIC PRESSURE (inH ₂ O) - EXHAUST																		MOTOR
		0.25 (60 Pa)			0.50 (125 Pa)			0.75 (185 Pa)			1.00 (250 Pa)			1.25 (310 Pa)			1.50 (375 Pa)			
		RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	
3/4 hp	500 (850)	840	0.11	0.13	993	0.17	0.20	1122	0.22	0.26	1236	0.29	0.35	1339	0.35	0.42	1433	0.42	0.50	3/4 hp
	600 (1020)	881	0.14	0.17	1033	0.20	0.24	1161	0.27	0.32	1274	0.34	0.41	1376	0.41	0.49	1470	0.48	0.58	
	700 (1190)	914	0.17	0.20	1071	0.24	0.29	1197	0.31	0.37	1310	0.39	0.47	1412	0.47	0.56	1505	0.55	0.66	
	800 (1360)	942	0.20	0.24	1099	0.28	0.34	1231	0.37	0.44	1343	0.45	0.54	1445	0.54	0.65	1538	0.62	0.74	
	900 (1530)	975	0.24	0.29	1128	0.33	0.40	1261	0.42	0.50	1377	0.52	0.62	1479	0.61	0.73	1572	0.70	0.84	1 hp
	1000 (1700)	998	0.28	0.34	1150	0.37	0.44	1282	0.47	0.56	1400	0.58	0.70	1507	0.68	0.82	1600	0.78	0.94	

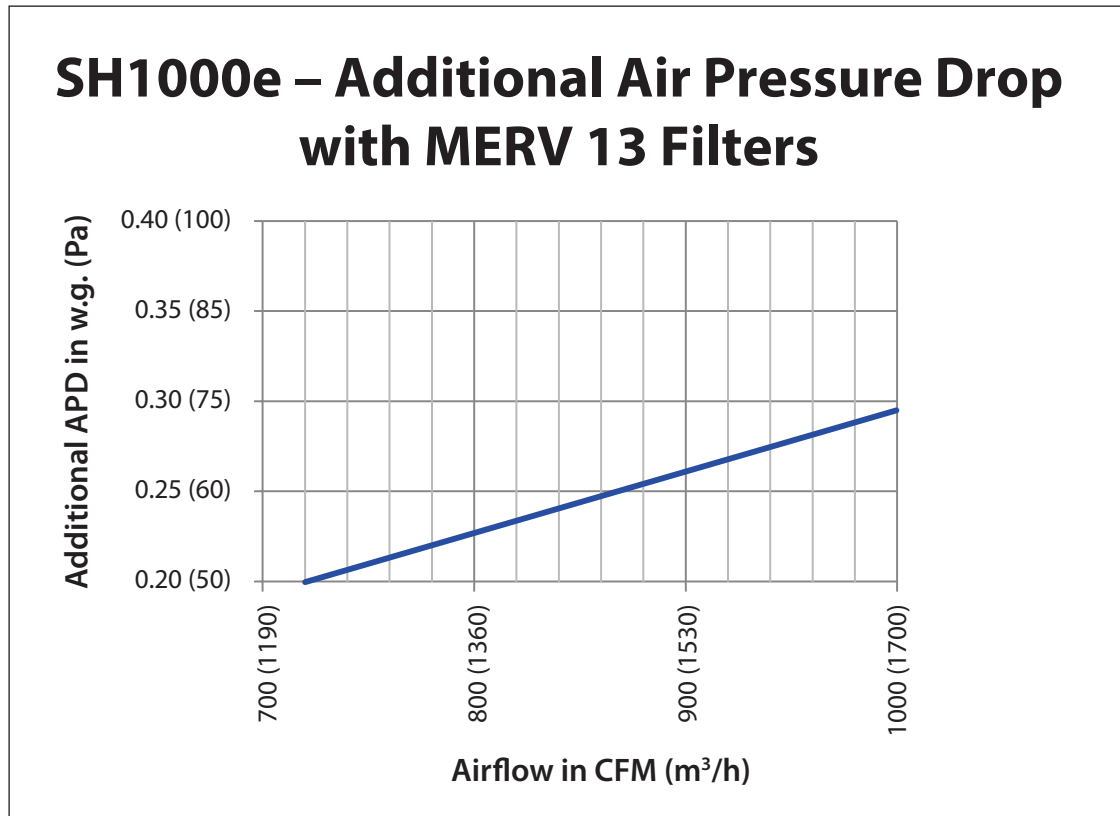
Motor Selection – Aluminum Core

SUPPLY/EXHAUST																				
MOTOR	CFM (m³/h)	EXTERNAL STATIC PRESSURE (inH₂O) - SUPPLY/EXHAUST																		MOTOR
		0.25 (60 Pa)			0.50 (125 Pa)			0.75 (185 Pa)			1.00 (250 Pa)			1.25 (310 Pa)			1.50 (375 Pa)			
		RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	
3/4 hp	500 (850)	917	0.14	0.17	1057	0.19	0.23	1179	0.25	0.30	1287	0.32	0.38	1385	0.38	0.46	1476	0.45	0.54	3/4 hp
	600 (1020)	983	0.18	0.22	1117	0.24	0.29	1235	0.31	0.37	1341	0.38	0.46	1437	0.45	0.54	1527	0.53	0.64	
	700 (1190)	1042	0.23	0.28	1173	0.30	0.36	1288	0.37	0.44	1392	0.45	0.54	1487	0.53	0.64	1576	0.62	0.74	
	800 (1360)	1093	0.28	0.34	1226	0.36	0.43	1339	0.45	0.54	1441	0.53	0.64	1535	0.62	0.74	1622	0.71	0.85	1 hp
	900 (1530)	1162	0.35	0.42	1291	0.44	0.53	1403	0.54	0.65	1502	0.63	0.76	1594	0.73	0.88	1679	0.82	0.98	
	1000 (1700)	1226	0.43	0.52	1350	0.53	0.64	1461	0.64	0.77	1560	0.74	0.89	1650	0.84	1.01	1735	0.95	1.14	

NOTES: hp = bhp x 1.2

Internal static pressure will vary based on selected options.

Additional Air Pressure Drop with MERV 13 Filters



Selection Information

▲ = Standard Feature

☐ = Optional Feature (check the box to select this option)

Send your completed selection to your American ALDES Representative.

MODEL

Series: Standard Commercial (SH)

Nominal Capacity: 500-1000 CFM

Application: Exterior (e)

CASING & CORE

Cabinet Finish

- ▲ Galvanized
☐ Painted
☐ Pool Construction

Duct Configuration (see pg. 4)

- ▲ 1-2-5-6 ¹
☐ 1-3-5-6 ¹
☐ 1-2-4-6
☐ 1-3-4-6

Mirror Image Cabinet

- ☐ Optional

Access Doors

- ▲ Fixed/Hinged
☐ Removable Panels

Roof Curb

- ☐ Insulated
☐ Non-Insulated

Plate Exchanger

- ▲ Polypropylene
☐ Aluminum

BLOWERS & MOTORS ²

Supply Blower

- ☐ 3/4 hp ☐ 1.5 hp
☐ 1 hp ☐ 2 hp

Exhaust Blower

- ☐ 3/4 hp ☐ 1.5 hp
☐ 1 hp ☐ 2 hp

Motor Type

- ☐ ODP
☐ TEFC

Speed

- ▲ Single Speed
☐ 2-Speed
☐ 2-Speed VFD
☐ Variable Speed Motor
☐ Variable Speed VFD

ELECTRICAL REQUIREMENTS ²

- ☐ 120V/1ph/60Hz
☐ 208V/1ph/60Hz
☐ 230V/1ph/60Hz
☐ 208V/3ph/60Hz
☐ 230V/3ph/60Hz
☐ 460V/3ph/60Hz
☐ 575V/3ph/60Hz

DISCONNECT

- ▲ Non-Fused
☐ Fused

FROST CONTROL

- ▲ None
☐ Exhaust Defrost ³
☐ Pre-Heat (Electric Coil)

FILTERS (SUPPLY)

- ▲ MERV 8 ☐ MERV 13

ADD-ONS

- ☐ Motorized & Insulated Damper for OA ³
☐ Motorized & Insulated Damper for EA
☐ Non-Insulated Backdraft Damper for EA
☐ 24 VAC, 10 VA terminals for OA and/or EA dampers by others
☐ 24VAC, 20VA power available for accessories by others
☐ Spare Filters QTY: _____
☐ Spare Belts QTY: _____

¹ Configuration not available with pre-heat option

² See pg. 2 for motor and blower restrictions

³ OA Motorized & Insulated Damper included

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