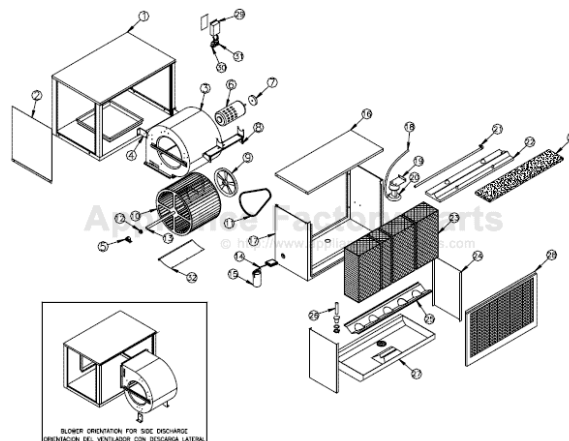


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ESSICK SI500D12 Owner's Manual

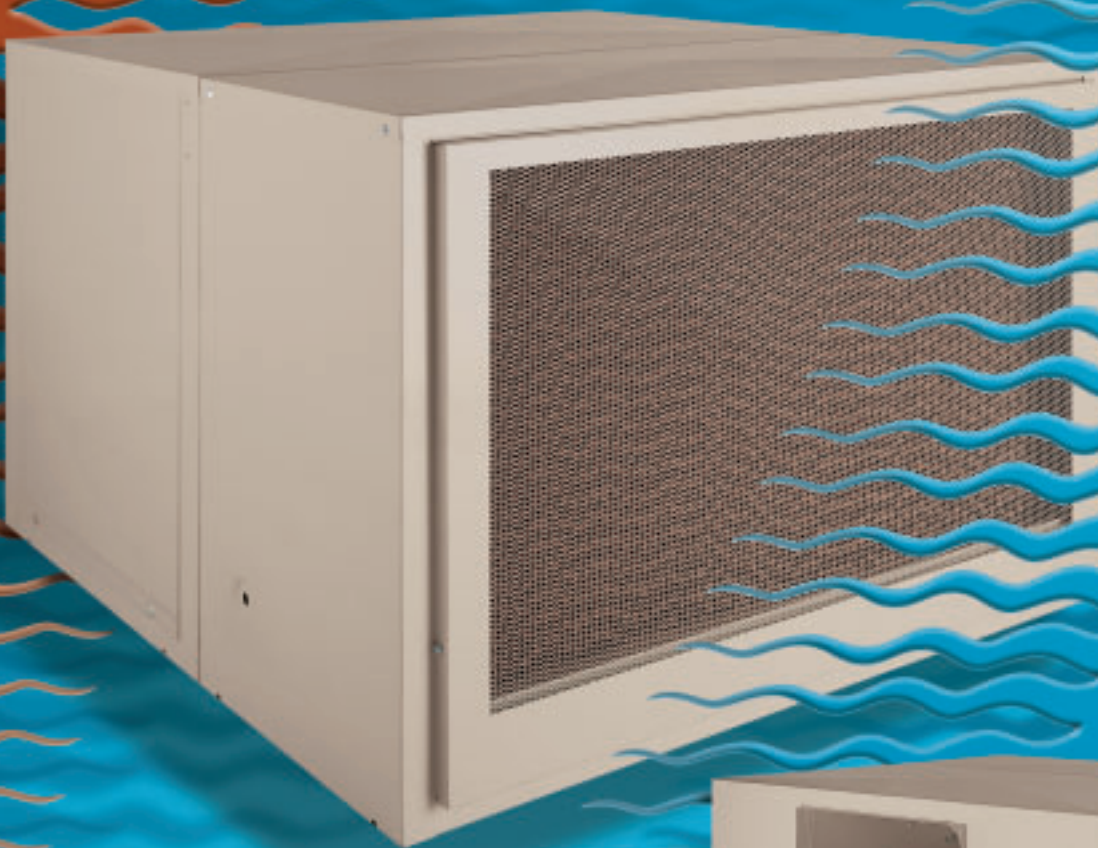
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----- Manual continues below -----

Comfort



ESSICK EXCEL
RESIDENTIAL EVAPORATIVE COOLERS

Standard Features of Thermostat

- Large LED readout is easy to read
- Easy 4-wire hook up makes installation quick and simple
- Durable rain-proof control box ensures safety
- Thermostat controlled dump cycle adds convenience
- Dump cycle control is compatible with any pump!
- Two-stage operation provides better comfort and even temperatures
- Easy to program and operate



STANDARD FEATURES OF A COMFORTCOOL EVAPORATIVE COOLER

All ComfortCool evaporative air coolers offer these standard features:

Expanded Metal Prefilter Screen - The unique lattice design of the expanded metal screen protects the evaporative air media and reduces air resistance providing greater air flow for better cooling.

Patented Water Distribution Housing - The innovative design for the water distribution system assures even water distribution to the evaporative media for maximum cooling.

Water Distributor - The water distributor is constructed from non-corrosive PVC tubing to provide positive, even flow to the evaporative media.

Water Reservoir - The unique, non-corrosive thermoplastic pan prevents corrosion and is removable for easy cleaning. The pan carries a limited lifetime warranty.

Pump - The pump features a unique water vapor barrier and a stainless steel shaft which protects the bearings for long-lasting performance.

Evaporative Media - The evaporative media provides a large cooling surface that is long-lasting and easy to clean. Available in an 8" or 12" thickness, the evaporative media is backed by a five-year limited warranty.

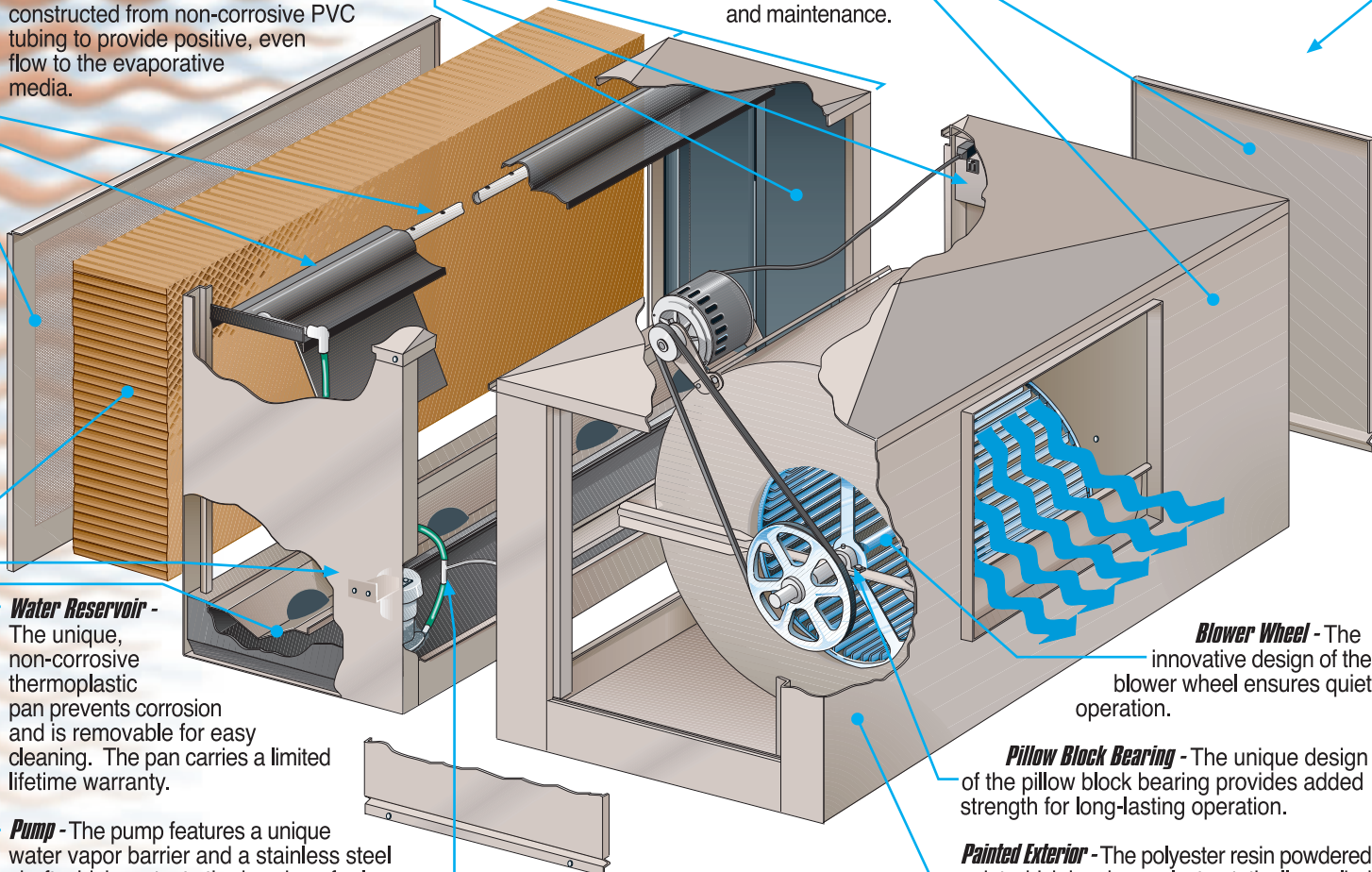
Moisture Shield - The non-metallic moisture shield prevents water from contacting the metal cabinet which helps guard against rust and corrosion.

Junction Box - The junction box provides a simple plug-in for motor and pump and may be mounted on either side of the cooler.

Separate Wet Section - The easy-to-disassemble unit may be separated from the blower section for easier installation and maintenance.

Cabinet - The outer cabinet is constructed out of heavy gauge galvanized steel for long-lasting durability.

Inspection Panel - The easy-to-remove panel provides quick access to the interior for cleaning and maintenance.



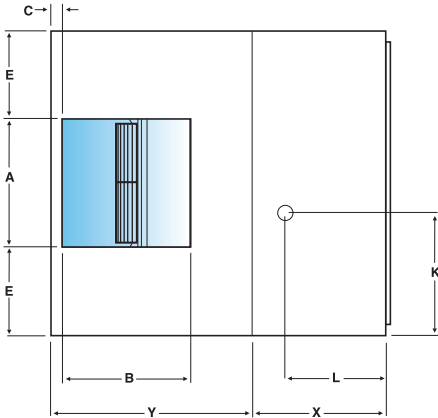
Blower Wheel - The innovative design of the blower wheel ensures quiet operation.

Pillow Block Bearing - The unique design of the pillow block bearing provides added strength for long-lasting operation.

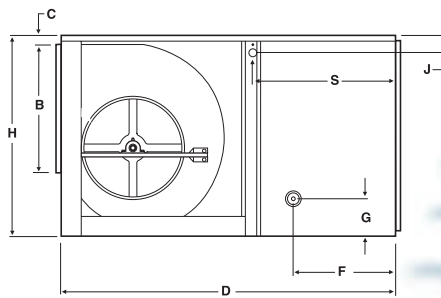
Painted Exterior - The polyester resin powdered paint which has been electrostatically applied gives all interior and exterior surfaces the highest resistance to weather and impact. The superior adhesive strength between the coating and the metal provides complete humidity resistance. There is no need for priming and undercoating.

Bleed Off - The bleed-off component reduces maintenance by keeping water fresh and clean.

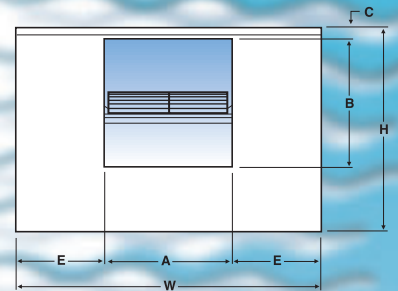
SPECIFICATIONS



BOTTOM VIEW



SIDE VIEW



FRONT VIEW

GENERAL SPECIFICATIONS***

SERIES NO.**	WEIGHT LBS.		CABINET DIMENSIONS			DUCT DIMENSIONS				WATER SERVICE LOCATION		JUNCTION BOX LOCATION		DRAIN LOCATION		BLOWER WHEEL			MODULE LENGTH	
	SHP.	OPER.	H	W	D	A	B	C	E	F	G	S	J	K	L	DIA.	WIDTH	SHAFT	X	Y
SI-500S SI-500D	150	220	28	42	45	17 3/4	17 3/4	1 1/2	12 1/8	14	5 1/4	20 3/8	3 9/16	25	13 1/2	16	16 3/4	1	18 1/4	26 3/4
SI-700S SI-700D	197	267	34 5/8	42	48	19 3/4	19 3/4	1 1/2	11 1/8	14	5 1/2	20 3/8	3 9/16	25	13 1/2	20	16 3/4	1	18 1/4	29 3/4
SI-500S12* SI-500D12*	150	220	28	42	49	17 3/4	17 3/4	1 1/2	12 1/8	14	5 1/4	24 3/8	3 9/16	25	17 1/2	16	16 3/4	1	22	26 3/4
SI-700S12* SI-700D12*	197	267	34 5/8	42	52	19 3/4	19 3/4	1 1/2	11 1/8	14	5 1/2	24 3/8	3 9/16	25	17 1/2	20	16 3/4	1	22	29 3/4

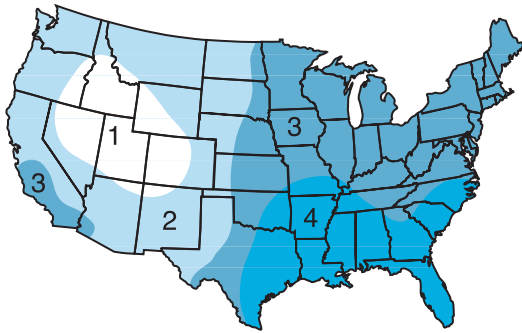
ELECTRICAL SPECIFICATIONS***

CFM^{YYY} INCHES STATIC PRESSURE

SERIES NO.**	INDUSTRY STANDARD RATING	H.P.	SPEEDS ^Y	PHASE	VOLTS ^Y	AMPS ^{YY}	WATTS ^{YY}	H.P.	CFM ^{YYY} INCHES STATIC PRESSURE						
									0	0.1	0.2	0.3	0.4	0.5	0.6
SI-500S/D	4000	1/3	1 OR 2	1	115	7.4	550	1/3	2787	2571	2318	1998	1752	1552	NR
	4400	1/2							3221	3017	2823	2571	2328	2066	
	5000	3/4							3674	3521	3347	3162	2929	2722	
SI-700S/D	5400	1/2	1 OR 2	1	115	9.3	730	1/2	4067	3825	3580	3335	3116	2662	NR
	6000	3/4							4655	4437	4213	4019	3805	3652	
	7000	1							5125	4916	4723	4539	4366	4182	

* "12" In model number denotes 12 inch CELdek™ evaporative media. ** "S" = side discharge and "D" = down discharge. *** All Dimensions in inches.
^YMotor shipped separately. ^{YY}Blower motor (high speed) and pumps. ^{YYY}Cubic feet per minute.

SELECTING AN ESSICK EXCEL COOLER



1. Consult zone map to find correct zone.
2. Consult table below to find correct “minutes per air change” for your zone.
3. Determine area to be cooled in cubic feet (building length x width x height).
4. Divide cubic feet (step 3) by minutes per air change (step 2) to determine CFM.
5. Select correct Essick Cooler model in the specifications table according to CFM and expected static pressure.

MINUTES PER AIR CHANGE					
INTERIOR HEAT LOAD	EXTERIOR HEAT LOAD	ZONE			
		1	2	3	4
HIGH	EXPOSED	2	1.5	1.3	.7
HIGH	INSULATED	3	2	1.5	1
NORMAL	EXPOSED	3	2	1.5	1
NORMAL	INSULATED	4	3	2	1.3

If CFM falls between models, choose the larger model.

Interior Heat Load: High means places with unusual heat sources from hot equipment or processes, crowded conditions, etc. Normal means no unusual heat sources – typical home or office.

Exterior heat Load: Exposed means walls, roof exposed to sun, poor insulation, etc. Insulated means walls and roof well insulated and/or shaded.

Example

A house in Phoenix AZ, 40 feet long by 30 feet wide with 8-foot ceiling. Insulated, no unusual heat sources.

1. $30 \times 40 \times 8 = 9,600$ cubic feet
2. Zone: 2
3. Minutes per Air Change: 2
4. $9,600 \div 2 = 4,800$ CFM
5. Referring to specification chart, cooler model SI-500S/D with 3/4 h.p. motor is indicated.

ESSICK EXCEL
RESIDENTIAL EVAPORATIVE COOLERS

