SEELEY INTERNATIONAL

The Climate Wizard By SEELEY INTERNATIONAL™

SUBMITTAL DATA SHEET – CW3

Job Name:		Location:	
Order No.:		Contractor:	
Project Manager:		Engineer:	
Submitted To:		Submitted By:	
Date:		Asset ID:	
Special Instructions:			

MODEL **QUANTITY**

☑ CW3 ____

COOLING APPLICATION

☐ Standalone ☐ Pre-Cooling ☐ Supplementary

DESIGN CONDITIONS

Outdoor Ambient Conditions:

Dry Bulb		°F
Wet Bulb		°F
Elevation Above Sea Level		ft

Fan Duty Point:

Supply Air Volume		cfm
External Static Pressure		in.wg

Performance:

Supply Air Temperature		°F
Pre-Cooling Capacity		BTU/hr

OPTIONAL ACCESSORIES **QUANTITY**

☐ MagIQtouch Wired Wall Controller.	
☐ MagIQtouch Wireless RF Wall Controller.	
☐ MagIQtouch BMS Industrial Controller M1.	
☐ MagIQtouch BMS Industrial Controller MS1.	
☐ MagIQtouch Internal Air Sensor.	
☐ MagIQtouch Link Module.	
☐ MERV13 Airfilters	

STANDARD FEATURES

- ☑ Indirect and Direct Evaporative Cooling.
- ☑ Patented high technology Microcore™ Indirect Cores.
- ☑ Fresh, outside air for better indoor air quality (IAQ).
- ☑ No refrigerants or ozone depleting chemicals.
- ☑ Quiet and vibration free operation.
- ☑ Filtered air with reduced dust, pollens and allergens.
- ☑ High EER (Energy Efficiency Ratio).
- ☑ Down discharge for conditioned air.
- ☑ Up discharge for exhaust air.
- ☑ Low maintenance, simple winterization
- ☑ Integrated water management system.
- ☑ Removable panels for easy maintenance access.
- ☑ Easy to connect power/control wiring.
- ☑ 65ft control cable.
- ☑ External air temperature sensor.
- ☑ 2x fans with high efficiency inverter motors.
- ☑ Compact footprint.
- ☑ High grade, UV stabilized polymer cabinet.
- ☑ 1-year limited warranty.
- ☑ ETL Classified to UL 507

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GENERAL

Climate Wizard coolers are characterized by the supply of 100% fresh, cool, outside air, with greatly reduced energy consumption relative to an equivalent refrigerated system performing the same duty.

The cooler comprises of a supply air fan, an indirect heat exchanger pack, integrated water reservoir, pump, and chlorinator system.

CABINET

The cabinet consists of a reservoir, four side panels and a lid constructed of injection molded UV stabilized reinforced polypropylene.

Components are effectively treated to ensure corrosion resistance and mechanical fasteners are zinc coated, stainless steel or aluminum.

Connection interface surfaces are provided for the outlet supply air ductwork to be fitted using established industry practices.

The cooler is fitted with two semi-circular, polypropylene blades, hinged and counterbalanced, to open automatically when the supply fan is activated, and to close when the supply fan is switched off. The weather seal prevents the escape of room air through the ductwork.

FAN & MOTOR

The supply fan is a statically and dynamically balanced multi-blade, aero foil shaped axial assembly. The exhaust fan is a multi-blade, centrifugal type with backward curved blades.

Both fans are constructed from glass reinforced polypropylene and are mounted to their electric motor shaft by means of an axial co-molded hub.

The electric motors are high efficiency, inverter driven and responsive to pulse width modulation to implement speed control that delivers optimum efficiency at lower speed operation.

HEAT EXCHANGE CORE

The cooler uses a series of Seeley International's patented Micro-Core™ heat exchangers. The Micro-Core™ is characterized by its compact and efficient design which incorporates both an indirect cooling stage and an additional Chillcel® fabricated honeycomb, direct cooling pad.

ELECTRICAL CABINET AND CONTROLS

The electrical control box is pre-wired within the cooler.

The cooler is compatible with the MagIQtouch range of controls and is supplied with 65ft control cable.

WATER MANAGEMENT SYSTEM

The water supply connection is via a flexible connector which is terminated with a 1/2" male nipple.

Water is held in an internal reservoir which forms an integral part of the polymer cabinet to provide integrity to the structure and to ensure durability and corrosion resistance.

Heat exchange core saturation is achieved through internally mounted pumps delivering water to a specially designed non-clog water distribution system guaranteeing continuous uniform flow.

The pumps are manufactured from engineering plastics, with stainless steel shafts and fully encapsulated synchronous motors with thermal overload protection. They are provided with an easily cleanable strainer within the reservoir section.

An electronic water management system controls the maximum salinity level and chlorination of the reservoir water through continuous monitoring and replenishment.

The reservoir is drained by an electric drain valve which responds to the water management control system. The design of the reservoir ensures that no water remains after draining.

AIR FILTERS

Intake air is filtered through aluminum framed, washable, pleated filters, protected by the intake louver forming the sides of the cabinet to minimize intrusion of rain.

INSTALLATION

It is essential that the roof truss design is adequate to support the weight of the cooler.

Reinforcement may be required for existing roof structures. For a structural reinforcement guide for timber nail-plated truss roofs, see "CW3 Design Guide, Reinforcement of Timber Nail-plated Truss Roofs". Contact your Seeley International agent for a copy.

The cooler is designed to be installed on dropper with a minimum metal thickness of 20 gauge to support the operating weight of the cooler. The top edge of the dropper must incorporate a raw, but deburred, safe edge to avoid fouling of the weather seal.

For information on the air duct design requirements, see Document: "Pre-installation Considerations for CW3 Duct Design". Contact your Seeley International agent for a copy.

The cooler is supplied on a pallet that is designed to allow the cooler to be readily craned into position. Features in the pallet provide for the safe sling lifting of the cooler. Given the weight of the product, the use of a crane to lift the cooler onto its mounting dropper is preferred. Alternatively, the cooler may be stripped of its major sub-assemblies to allow them to be handled onto the roof in more manageable pieces.

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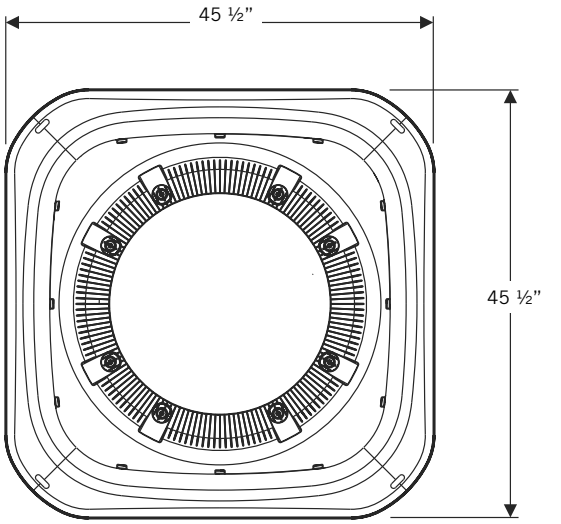
TOP



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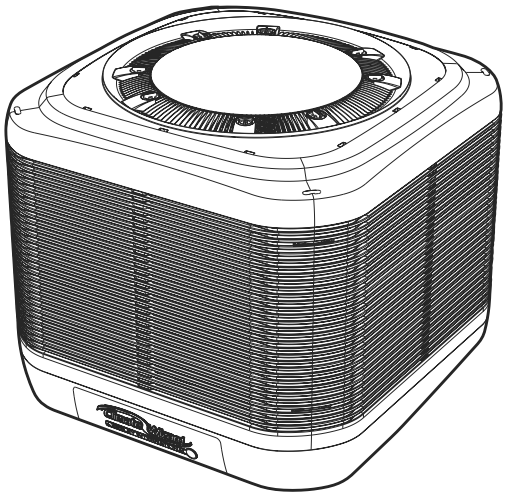

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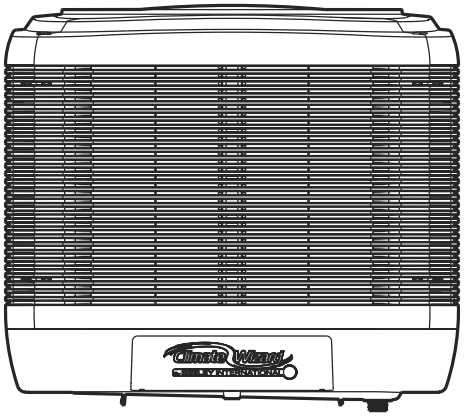
FRONT



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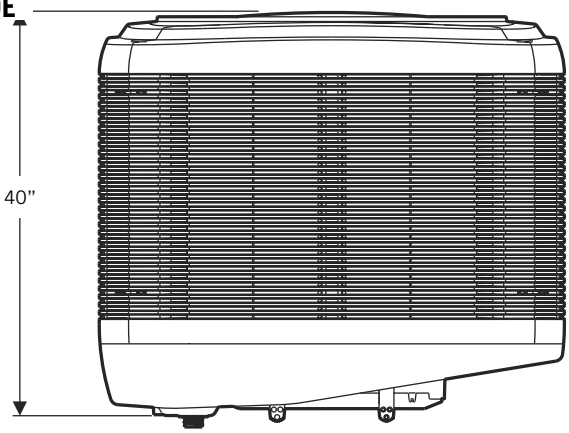
SIDE



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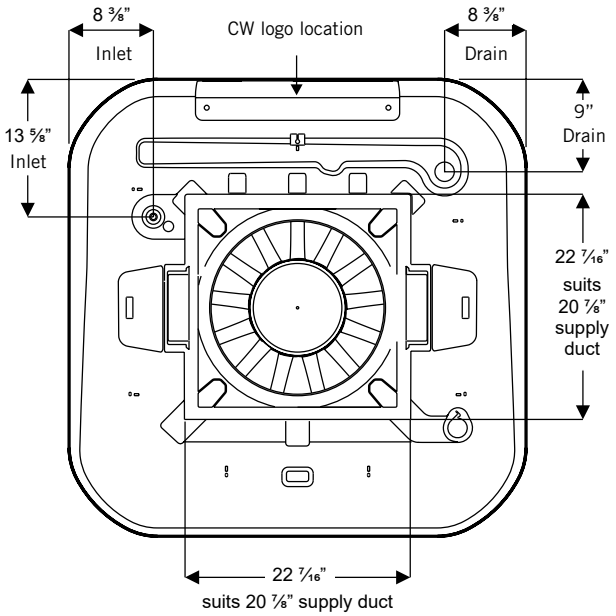
SERVICES



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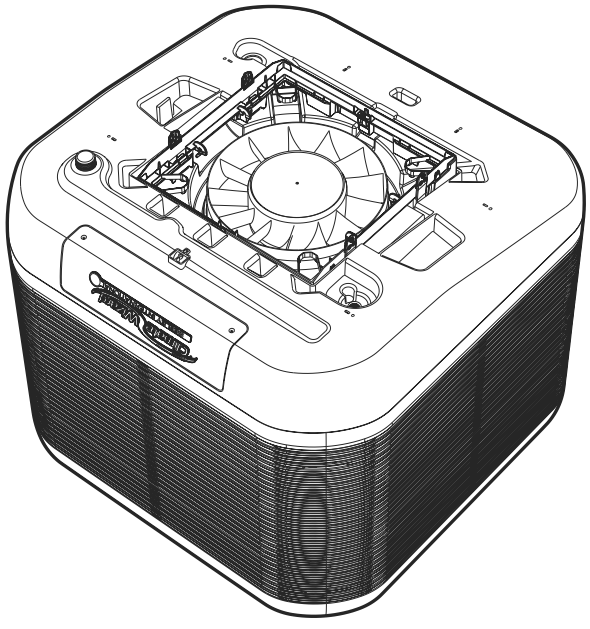
UNDERSIDE



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NOTE: Installers must allow adequate access to and around the cooler for Maintenance. Provision must be made for access to power, control, water supplies and drains. Refer to the Installation Manual for full details.

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MODEL:			CW3
SERVICES	Electrical	Voltage	220-240 V / 1~ / 60Hz
		Current	7A FLA / 15 MOPD
		Input Power	1.75 kW
	Water	Supply	2.6 L/min MINIMUM 5.3 L/min RECOMMENDED @ 15 PSI - 115 PSI
		Max Temperature	105 °F
		Inlet	1/2" Male
		Consumption*	16 GPH
		Drain	3/4" Push-On
		Drain Flow Rate	4 GPM
	Duct Connections	Supply Air	Bottom Discharge 20-7/8" x 20-7/8"
		Exhaust Air	Top Discharge
ENVIRONMENT	Maximum Inlet Air Temperature		122 °F
AIR SYSTEMS	Supply Air Fan/Motor	Fan	15-3/4" Axial
		Motor	750 W
		Control	Variable Speed, ECM, PWM Control
		Max Speed	2400 rpm
	Exhaust Air Fan/Motor	Fan	15" Centrifugal Backward Curved
		Motor	950 W
		Control	Variable Speed, ECM, PWM Control
		Max Speed	1100 rpm
	Air Filters	Inlet	MERV 10 Disposable 14" x 25" x 1" - Qty. 8
HEAT EXCHANGERS	Indirect Evaporative		8 Micro-Core™
	Direct Evaporative		8 Chillcel Pads
WATER SYSTEMS	Tank (Reservoir) Capacity		7.9 Gal
	Inlet Valve		12 VDC Solenoid Valve
	Indirect Heat Exchanger Pump		3.4 GPM @ 60" Head 220-240V 60Hz Input Power 32W
	Direct Heat Exchangers Pump		3.4 GPM @ 60" Head 220-240V 60Hz Input Power 32W
	Salinity Management		Conductivity Probe
	Chlorinator		12 VDC
	Drain Valve		12 VDC Vertical
DIMENSIONS	Shipping		46-1/4" Long x 46-1/4" Wide x 41-1/4" High
	Operating inc. Accessories		45-1/2" Long x 45-1/2" Wide x 40" High
WEIGHT	Shipping		385 lb
	Operating inc. Water/Accessories		465 lb
STANDARDS COMPLIANCE	ETL Classified to UL 507		

FREQUENCY (Hz)	Air Inlet Sound Power Level (db re 1 pW) Octave Band Centre Frequency							Total Sound Power (db re 1pW)
	125	250	500	1k	2k	4k	8k	
CW3	62	69	77	76	71	64	54	81

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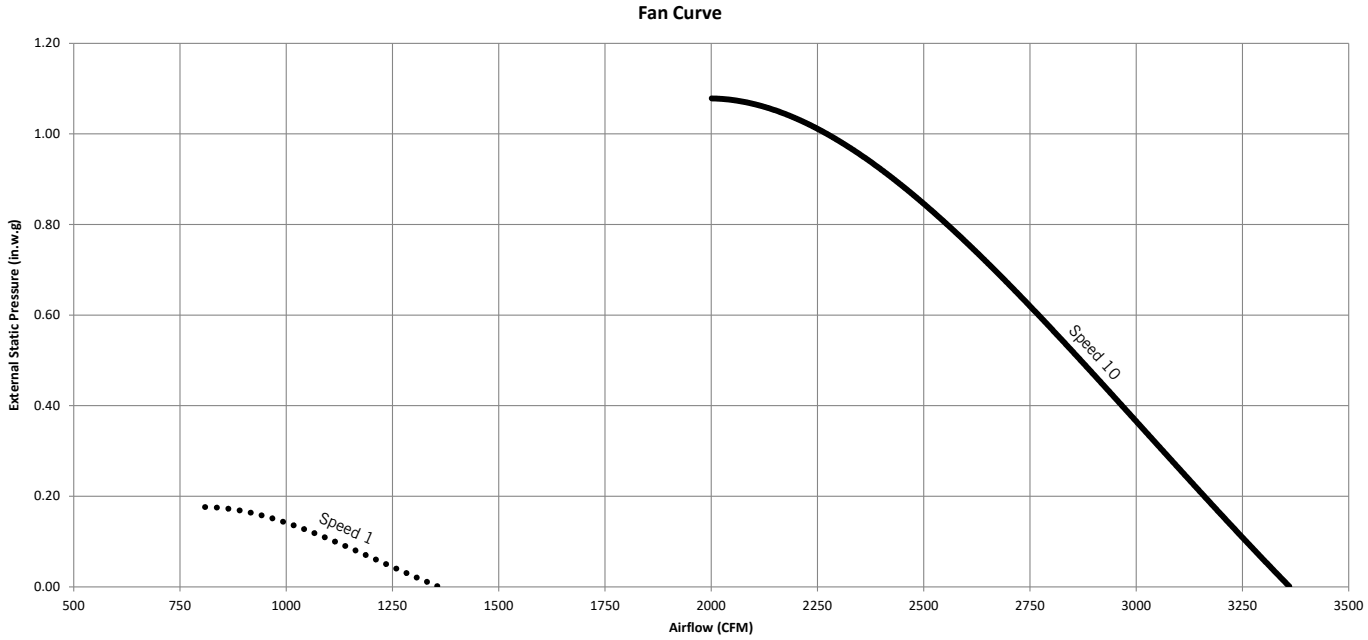
Performance Summary*						
Static Pressure (in w.g.)	**0**	**0.20**	**0.40**	**0.60**	**0.80**	**1.00**
Airflow (CFM)	3360	3160	2980	2750	2560	2260
Temperature (°F)	68	68	67	67	66	66
Standalone Cooling Capacity (BTU/hr)	47,000	47,300	46,300	43,300	41,300	38,200
Input Power (W)	1620	1660	1695	1745	1745	1750
Standalone EER	29	28	27	25	24	22
* Supply Air Temperatures, Cooling Capacities, COP and Water Consumption tested to ASHRAE 143 with design condition of: 100 °F dry-bulb, 70 °F wet-bulb and 81 °F room exit temperature.						

FAN CURVE



MAGIQTOUCH CONTROLS

CW3 is compatible with a wide range of MagIQtouch control solutions, including Wall Controllers, Building Management System (BMS) Controllers and Sensor Accessories.

Contact your local Sales office for compatible kits and installation literature.