

SUBMITTAL DATA SHEET – CW3

Job Name:

Order No.:

Project Manager:

Submitted To:

Date:

Special
Instructions:

Location:

Contractor:

Engineer:

Submitted By:

Asset ID:

MODEL	QUANTITY
<input checked="" type="checkbox"/> CW3	
COOLING APPLICATION	
Standalone	Pre-Cooling
	Supplementary
DESIGN CONDITIONS	
<u>Outdoor Ambient Conditions:</u>	
Dry Bulb	°F
Wet Bulb	°F
Elevation Above Sea Level	ft
<u>Fan Duty Point:</u>	
Supply Air Volume	cfm
External Static Pressure	in.wg
<u>Performance:</u>	
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.	

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

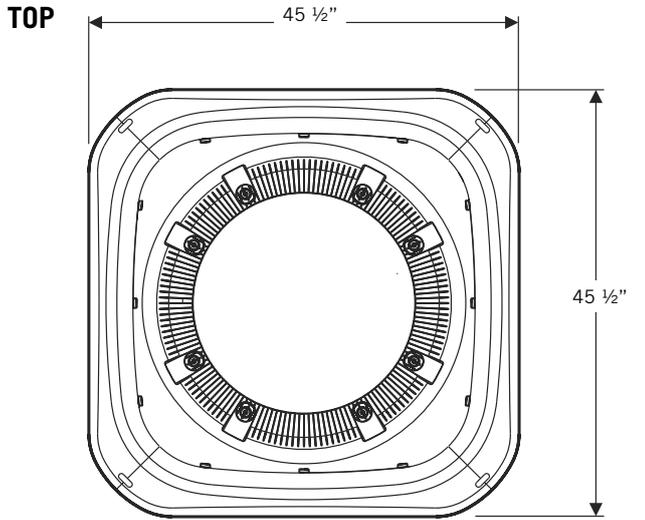
Reinforcement may be required for existing roof structures. For a structural reinforcement guide for timber nail-plated truss roofs, see "CW3 Design Guide, Reinforcement of Timber Nail-plated Truss Roofs". Contact your Seeley International agent for a copy.

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.

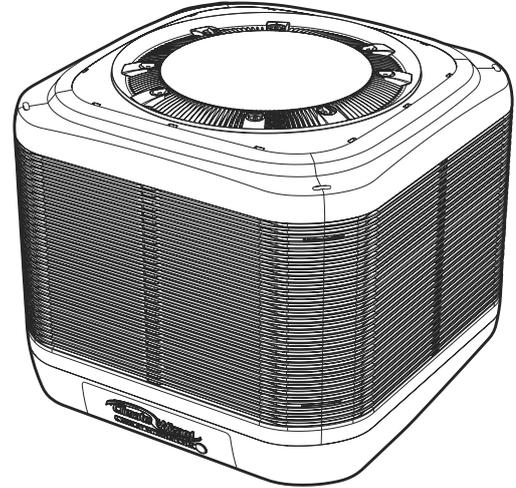
The cooler is supplied on a pallet that is designed to allow the cooler to be readily craned into position. Features in the pallet provide for the safe sling lifting of the cooler. Given the weight of the product, the use of a crane to lift the cooler onto its mounting dropper is preferred. Alternatively, 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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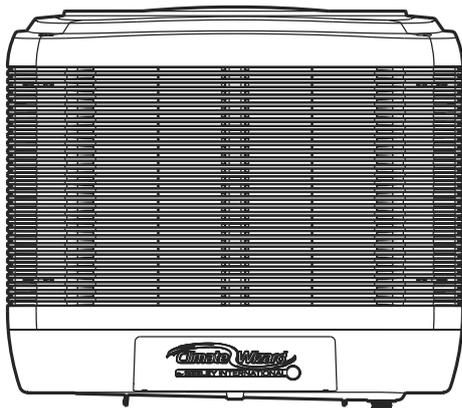
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ISO



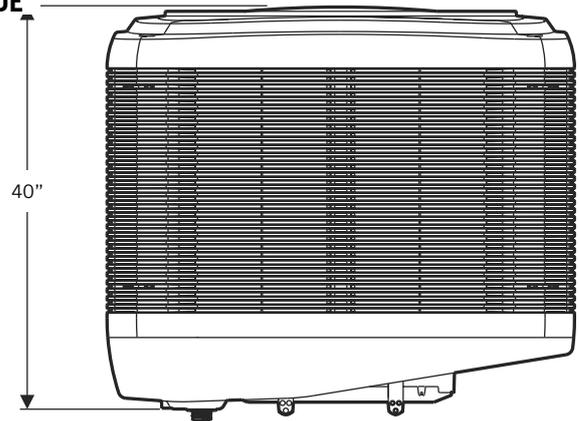
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FRONT



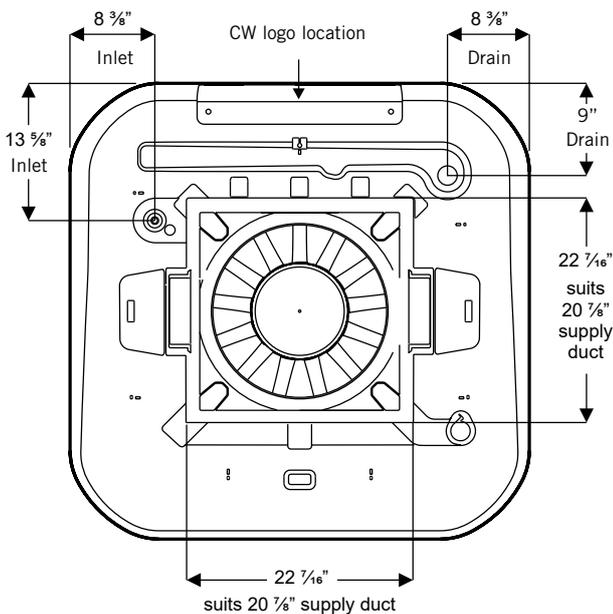
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SIDE



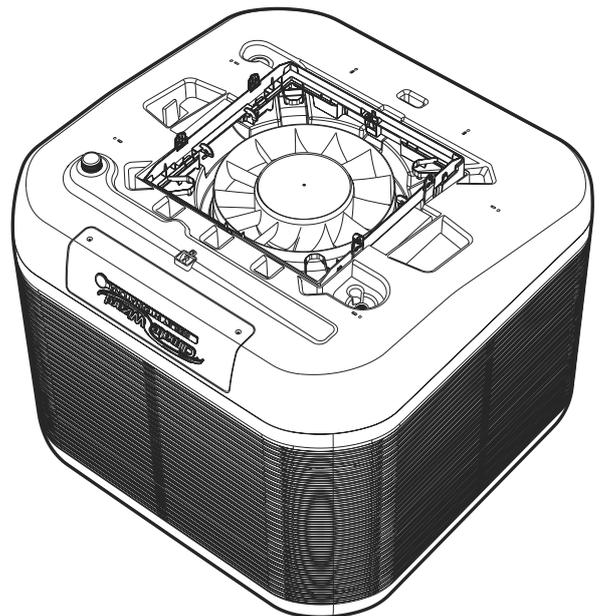
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SERVICES



ILL2678-A

UNDERSIDE



ILL2676-A

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	
OPTIMUM PERFORMANCE	Airflow	Supply Air	2750 CFM @ 0.60 in.w.g.
		Exhaust Air	1270 CFM
	Temperature*	Supply Air	66.7 °F
		Cooling Capacity*	Standalone
	EER*	Pre-Cooling	98,800 BTU/hr
Standalone		25	
ENVIRONMENT	Maximum Inlet Air Temperature	Pre-Cooling	57
			122 °F
SERVICES	Electrical	Voltage	220-240 V / 1~ / 60Hz
		Current	7A FLA / 15 MOPD
		Input Power	1.75 kW
	Water	Supply	5.3 GPM @ 15 PSI - 115 PSI
		Max Temperature	105 °F
		Inlet	1/2" Male NPT
		Consumption*	16 GPH
		Drain	3/4" Push-On
	Duct Connections	Drain Flow Rate	4 GPM
		Supply Air	Bottom Discharge 20-7/8" x 20-7/8"
Exhaust Air		Top Discharge	
AIR SYSTEMS	Supply Air Fan/Motor	Fan	15-3/4" Axial
		Motor	3.5 kW
		Control	Variable Speed, ECM, PWM Control
		Max Speed	2400 rpm
		Fan	15" Centrifugal Backward Curve
		Motor	950W
		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 46-1/4" Wide 41-1/4" High	
	Operating inc. Accessories	45-1/2" Long 45-1/2" Wide 40" High	
WEIGHT	Shipping	460 lb	
	Operating inc. Water/Accessories	530 lb	
STANDARDS COMPLIANCE	ETL Classified to UL 507		

* 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.

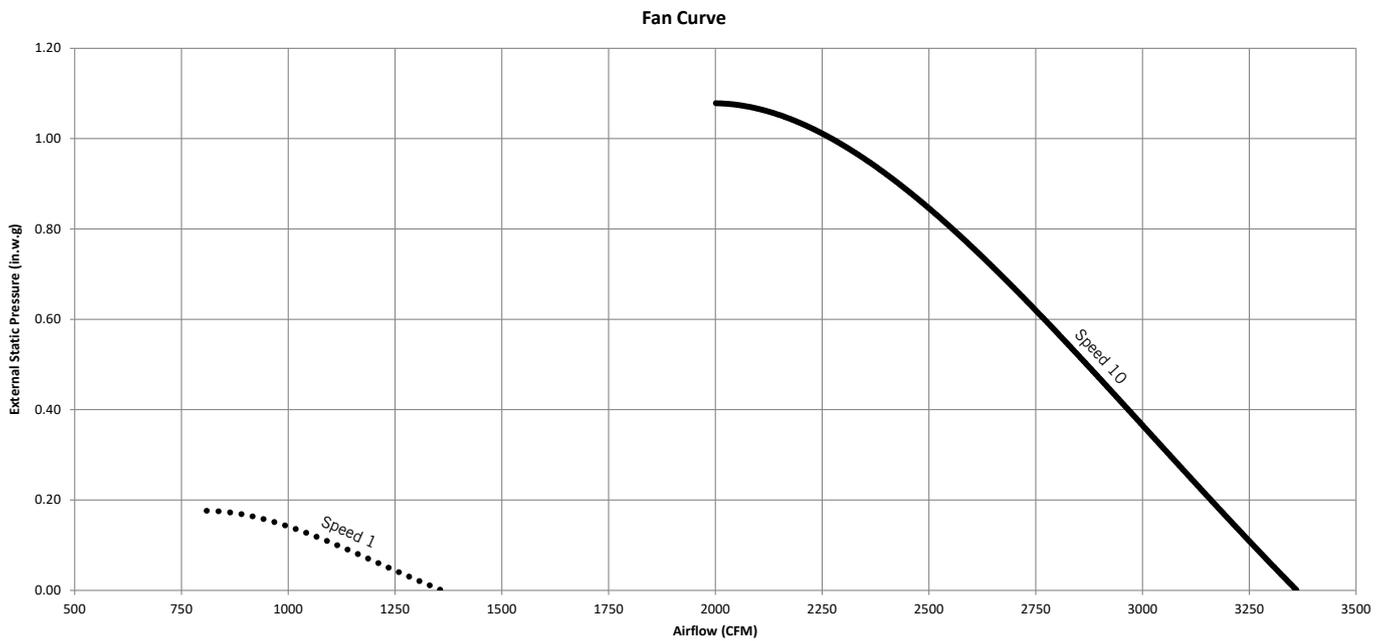
Frequency (Hz)	Radiated Sound Power level (db re 1 pW) Octave Band Centre Frequency							Total Sound Power (db re 1 pW)
	125	250	500	1k	2k	4k	8k	
CW3	62	69	77	76	71	64	54	81

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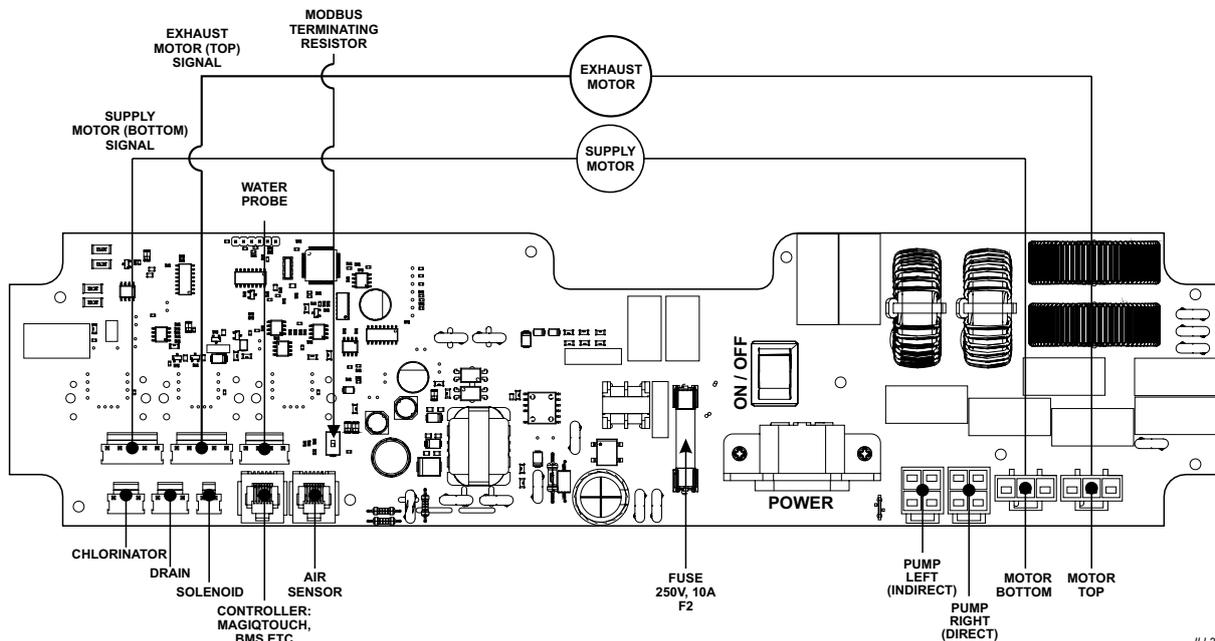
Performance Summary*						
Static Pressure (in w.g.)	0	0.20	0.40	0.60	0.80	1.00
Airflow (CFM)	3360	3160	2980	2750	2560	2260
Temperature (°F)	68	68	67	67	66	66
Standalone Cooling Capacity (BTU/hr)	47,000	47,300	46,300	43,300	41,300	38,200
Input Power (W)	1620	1660	1695	1745	1745	1750
Standalone EER	29	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



WIRING SCHEMATIC DIAGRAM



ILL2681-E