Catalog

CAT WMC-4

Model #: WMC300DSC-ER10 Serial #: STNU060200018

2006 290 Tons

Water-Cooled Oil-Free Chiller
With Magnetic Bearing Compressors
Model WMC 145S – 290D
125 to 290 Tons, 440 to 970 kW

3/60/460, 3/50/400 R-134a



H:7' 0"

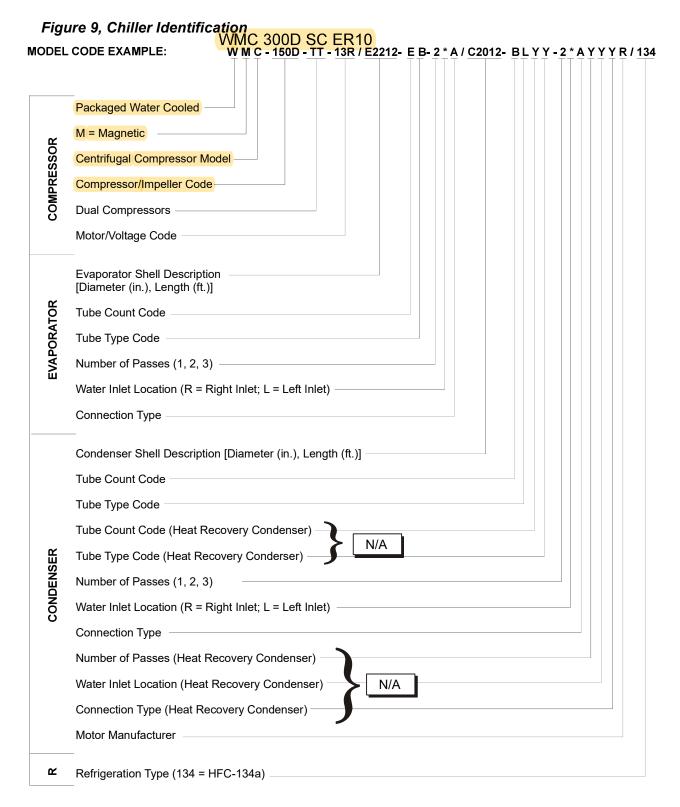


Shipping Weight: 9,321 lbs

Chiller Identification

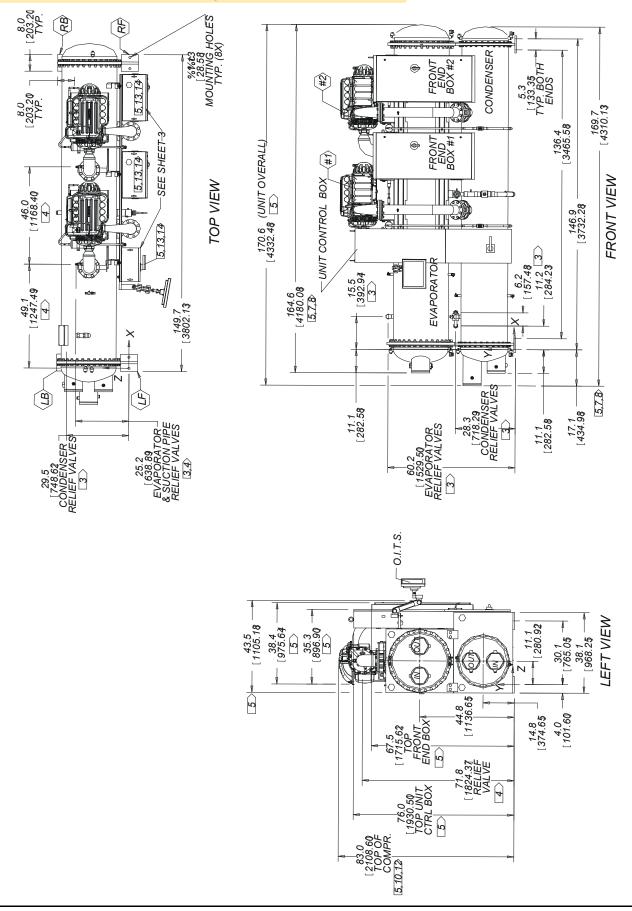
WMC centrifugal chillers are selected by computer and identified by their components on the selection printout as a Model #.

The unit model code is as follows:



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Figure 19, WMC 290D, 2-Pass Evaporator, 2- Pass Condenser (NOTE: See page 28 for notes.)



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Drawing Notes

- 1. All dimensions are in Inches and [Millimeters] unless noted otherwise.
- 2. <u>Manufacturing Tolerances</u>, final connections to unit must allow for +/- 0.5 inch (12.7mm) manufacturing tolerances.
- 3. Relief Valves,

Vessels, 1.00-inch FPT (25.4 mm) evaporator and condenser relief valves must be piped per ANSI / ASHRAE 15. Number of relief valves is 1 per evaporator and 2 per condenser (one is use at a time). Notes 3 on drawing.

Suction Pipe, 0.375 inch (9 mm) suction pipe relief valve (one per compressor) must be piped per ANSI / ASHRAE 15. Notes 4 on drawing.

4. Clearances:

Ends, 108 inches (2743 mm) on WMC 145, WMC 150 with 9 foot tubes, and WMC 250 144 inches (3658 mm) on WMC 150 with 12 foot tubes and WMC 290 plus 24 inches (607) is required at either end of the tube sheet for tube maintenance.

Sides 36 inches (914 mm) is recommended on all other sides and top for service clearance.

<u>Electric Panels</u> Most codes require 48 inches (1219 mm) clearance in front of the control boxes and electrical panels.

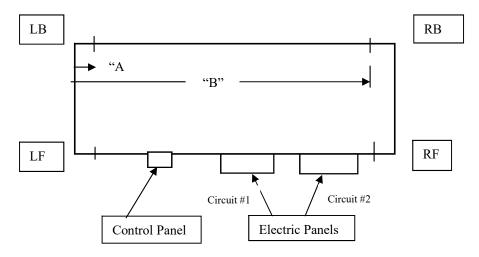
- 5. <u>Lifting Holes</u>, 3.25-inch (83 mm) diameter lifting holes are provided. See installation manual for lifting instructions.
- 6. <u>Water Connections</u>, all water connections are given in standard U.S. pipe sizes. Standard connections are suitable for welding or victaulic couplings. ANSI-flanged connections are available upon request. When using ANSI-flanged connections add 0.500 inch (13 mm) to each flanged end. Mating flanges are field supplied.
 - Unit shown has standard left-hand water connections. Right-hand connections are available for either vessel. For right hand evaporator, the inlet connection is on the left side looking at the head, the outlet is on the right side. For either left or right connections, the inlet nozzle is always on the left.
- 7. <u>Design Pressures</u>, dimensions shown are for units vessels with standard design pressures. The refrigerant-side design pressure is 200 psi (1380 kPa) and the water-side design pressure is 150 psi (1034 kPa). Consult factory for unit dimensions with higher design pressures.
- 8. <u>Vibration Pads</u>, the unit vibration isolator pads are provided for field installation. They are 0.250 inches (6 mm) high when fully loaded.
- 9. <u>Shipping Skid</u>, The optional shipping skid, when used, adds 4.00 inches (105 mm) to the overall unit shipping height.
- 10. <u>Power Wiring</u>, If main power wiring is brought up through the floor, this wiring must be outside the envelope of the unit.
- 11. <u>Control Wiring</u>, typical wiring connections to the compressor control box is single-point wiring into the top of the boxes.
- 12. Refrigerant Charge, the unit is shipped with an operating charge of refrigerant.
- 13. <u>Interface Panel</u>, The operator interface touch-screen panel (OITS) is shipped loose for field mounting after the unit is set in place.

Table 6, Overall Dimensions, 2-Pass Vessels

In. (mm)	WMC 145S, WMC 145D		WMC 150		WMC 250		WMC 290	
	Same End	Opp. End	Same End	Opp. End	Same End	Opp. End	Same End	Opp. End
Length	135 (3429)	141 (3581)	171 (4343)	176 (4470)	136 (3454)	141 (3581)	171 (4343)	176 (4470)
Width	35 (889)	35 (889)	35 (889)	35 (889)	43 (1092)	43 (1092)	43 (1092)	43 (1092)
Height	79 (2006)	79 (2006)	79 (2006)	79 (2006)	83 (2108)	83 (2108)	83 (2108)	83 (2108)

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Figure 20, Mounting/Lifting Weights



WMC Model	Vessel Models (Size)	Shipping Weight, Ibs (kg)					Lifting Location inch (mm)	
Wodel		LF	RF	LB	RB	Total	"A"	"B"
145S	E2209/C2009	1097 (497)	1115 (506)	1587 (720)	1614 (732)	5413 (2458)	4.0 (102)	112.0 (2845)
145D	E2209/C2209	1396 (634)	2249 (1021)	1305 (592)	2102 (954)	7052 (3202)	4.0 (102)	112.0 (2845)
150D	E2212/C2012	2450 (1112)	1918 (871)	1965 (892)	1528 (694)	7851 (3564)	4.0 (102)	147.0 (3734)
250D	E2609/C2209	1817 (824)	1744 (791)	2056 (933)	1974 (895)	7591 (3446)	4.0 (102)	112.0 (2845)
290D	E2612/C2212	1983 (899)	2163 (981)	2358 (1070)	2572 (1167)	9076 (4120)	4.0 (102)	147.0 (3734)

NOTES:

- 1. The block shown above is the mounting footprint, not the entire unit footprint.
- 2. Lifting holes in the top of the tube sheets are 3.25-inch diameter. Mounting holes in the feet are 1.125-inch diameter.

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