

Vertical Condensate Coolers

Carbon Steel

Model	<b>VCC</b>
Sizes	<b>6", 8", 12", 16"</b>
Connections	<b>150# RF</b>
Body Material	<b>Carbon Steel</b>
PMO Max. Operating Pressure	<b>150 PSIG</b>
TMO Max. Operating Temperature	<b>366°F</b>
PMA Max. Allowable Pressure	<b>150 PSIG @ 562°F</b>

**Note:** 250 PSIG unit available. Consult factory.

**Typical Applications**

The VCC Series Vertical Condensate Coolers are installed to reduce condensate temperature to acceptable limits when the condensate is to be discharged to drain. Cooling water is connected to the inlet of the included temperature regulating valve to maintain the desired condensate outlet temperature. All units are vented to atmosphere to ensure any flash steam is properly relieved. A steam trap is included on the drain to eliminate the possibility of steam discharge.

**How to Size / Order**

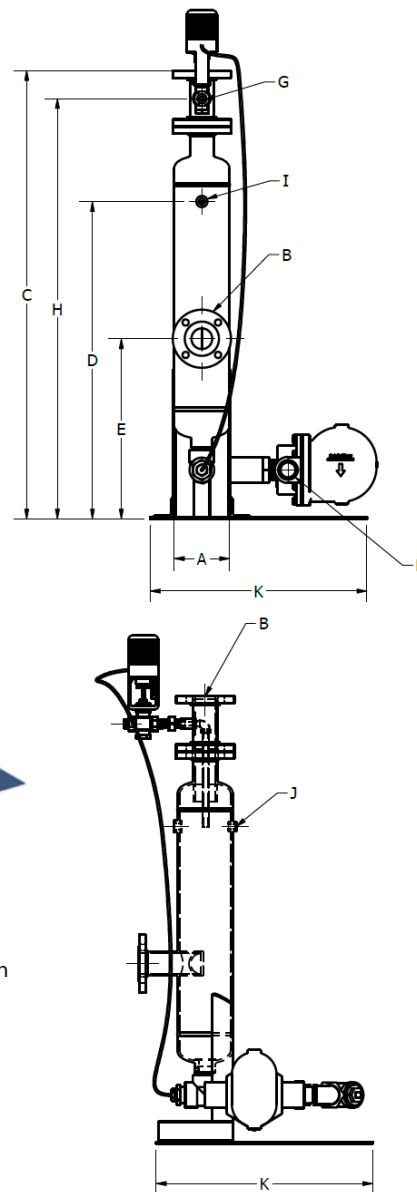
Use the Capacity Table to determine the proper tank diameter based on the incoming Condensate Load in lbs/hr. See note regarding base conditions for Condensate and Cooling Water temperatures. Consult factory for sizing with alternate conditions.

**Example:**

Condensate Load: **8,000 lbs/hr**  
 Condensate Temperature  
     Incoming: **210°F**  
     Leaving: **140°F**  
 Cooling Water Temp: **60°F**

**Based on 8000 lbs/hr at standard conditions**

Therefore Choose: **16" Condensate Cooler**  
**Model Code: VCC-16-22-F150**



**Note:** All Watson McDaniel vertical condensate coolers are supplied with ASME Section VIII Code Stamp.

**DIMENSIONS - inches**

Tank Diameter	A	B	C	D	E	F	G	H	I	J	K
6"	6-5/8	2-1/2	53-15/16	38-3/16	28-7/16	1-1/2	3/4	50-9/16	3/4	1/2	26
8"	8-5/8	4	54-15/16	38-7/16	29-3/16	2	3/4	51-9/16	3/4	1/2	26
12"	12-3/4	5	56-1/2	38-1/4	23-3/4	2-1/2	3/4	53-3/16	1-1/2	1/2	36
16"	16	6	66-13/16	45-11/16	34-13/16	2-1/2	3/4	62-7/16	2	3/4	36

**CONNECTIONS & CAPACITIES**

Tank Diameter in.	Model Code	Condensate lbs/hr	Total Load (Condensate & Cooling Water) lbs/hr	Total GPM at outlet	Cooling Valve Size in.	Valve Part Number	Trap Size in.	Trap Part Number
6	VCC-6-18-F150	1,100	2,063	4	3/4	W91-05-08S15-C13U	1 1/2	FTT-065-16-N
8	VCC-8-20-F150	2,100	4,000	8	3/4	W91-05-08S15-C13U	2	FTT-065-17-N
12	VCC-12-21-F150	4,800	9,000	18	3/4	W91-05-08S15-C13U	2 1/2	FTE-050-18-N
16	VCC-16-22-F150	10,500	19,700	39	3/4	W91-05-08S15-C13U	2 1/2	FTE-050-18-N

Sizing based on 20 sec mix time using 60°F water to cool condensate from 210°F to 140°F