



CIRCULAR DUCT WATER COOLERS

CWC



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Description

The duct water coolers CWC with circular duct connections are designed for cooling the ventilation air in a ventilation system. The CWC can also be used for cooling individual rooms or zones. For controlling the room or supply air temperature, the duct cooler can be supplemented with regulators, sensors, actuators, valves and anti-freeze protection.

- 6 standard sizes
- Chilled water coil with 3 tube rows made from hydrophilic aluminium
- Stainless steel drip tray for collecting the condensate
- Casing of Aluzinc coated sheet steel, AZ 150
- Openable cover for inspection and cleaning
- Circular duct connections with rubber seals
- Air tightness class D to EN 15727

Design

The casing is made of Aluzinc-coated sheet steel, AZ 150. The coil has copper tubes and tube connections, and hydrophilic aluminium fins. The hydrophilic fins improve the heat exchange by absorbing the water on its surface and by spreading the water instead of forming water droplets. An openable cover simplifies inspection and cleaning. Stainless steel drip tray for condensate collection, with G½" drain connection. The duct connections are provided with rubber seals. The duct cooler conforms to air tightness class D to EN 15727, which ensures that the chilled air will reach its destination and will not leak out of the ventilation system – which saves energy and money.

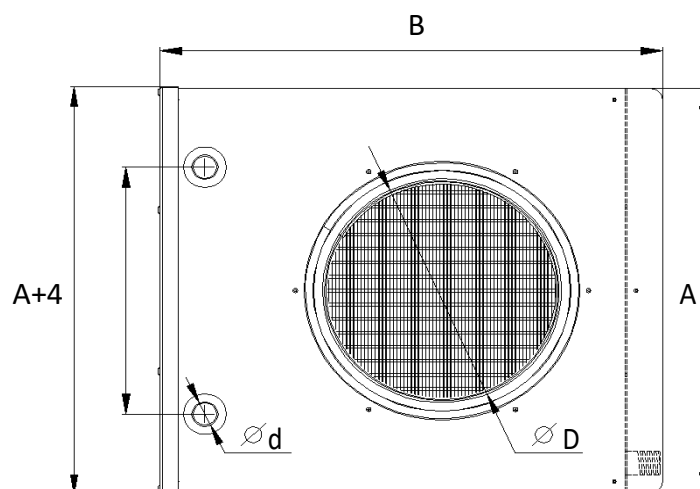
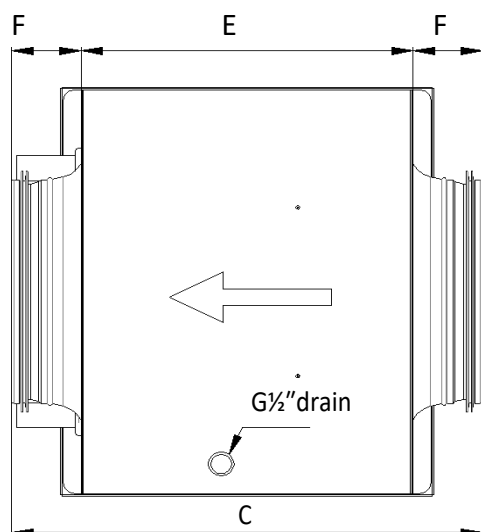
Operating data

- Max. operating temperature: +110°C
- Max. operating pressure: 1,0 MPa (10 bar)
- The coils are tested for leakage

Capacity and installation

Examples of capacity for each size are given on pages 4 to 5. The duct water coolers CWC can be installed in a horizontal duct only, with the air flow in arrow direction. The cooler is controlled by an external regulators, sensors, valves and actuators, which must be ordered separately.

Dimensions



Heater type	Ø D(mm)	A(mm)	B(mm)	C(mm)	E(mm)	F(mm)	G(mm)	Ø d(mm)
CWC 125-3	125	259	330	397	277	60	145	10
CWC 160-3	160	259	330	397	277	60	145	10
CWC 200-3	200	360	415	397	277	60	220	22
CWC 250-3	250	360	415	417	277	70	220	22
CWC 315-3	315	509	580	417	277	70	375	22
CWC 400-3	400	509	580	517	277	120	375	22

Model marking

CWC 125-3

1 2

1 - Duct diameter (mm)

125 – 125mm

160 – 160mm

200 – 200mm

250 – 250mm

315 – 315mm

400 – 400mm

2 - Number of tube rows

3 – 3 rows

Capacity of CWC 125-3

Water temp.				in/out 6°C/12°C			
Air flow	Air press. drop	Inlet air temp.	Inlet air humidity	Outlet air temp.	Output	Water flow	Water press. drop
m ³ /h	Pa	°C	% RH	°C	kW	l/s	kPa
90	7	20	65	12,3	0,3	0,01	0,6
90	7	25	55	13,5	0,4	0,02	1,1
90	8	30	45	14,5	0,6	0,03	1,9
180	16	20	65	14,0	0,4	0,02	0,9
180	17	25	55	15,9	0,7	0,03	2,0
180	17	30	45	17,0	1,0	0,04	4,2
265	25	20	65	14,9	0,5	0,02	1,2
265	27	25	55	17,3	0,8	0,03	2,8
265	29	30	45	18,1	1,4	0,06	7,0

Capacity of CWC 160-3

Water temp.				in/out 6°C/12°C			
Air flow	Air press. drop	Inlet air temp.	Inlet air humidity	Outlet air temp.	Output	Water flow	Water press. drop
m ³ /h	Pa	°C	% RH	°C	kW	l/s	kPa
145	12	20	65	13,5	0,4	0,02	0,8
145	13	25	55	15,2	0,6	0,03	1,7
145	13	30	45	16,7	0,8	0,04	2,9
290	28	20	65	15,1	0,5	0,02	1,3
290	31	25	55	17,5	0,9	0,04	3,1
290	34	30	45	18,4	1,5	0,06	7,9
430	48	20	65	15,9	0,6	0,03	1,7
430	56	25	55	18,0	1,2	0,05	5,7
430	60	30	45	19,8	2,0	0,08	12,4

Capacity of CWC 200-3

Water temp.				in/out 6°C/12°C			
Air flow	Air press. drop	Inlet air temp.	Inlet air humidity	Outlet air temp.	Output	Water flow	Water press. drop
m ³ /h	Pa	°C	% RH	°C	kW	l/s	kPa
225	9	20	65	12,8	0,7	0,03	1,2
225	9	25	55	14,2	1,1	0,05	2,7
225	10	30	45	14,2	1,7	0,07	5,7
450	19	20	65	14,5	0,9	0,04	2,1
450	22	25	55	15,4	2,0	0,08	7,4
450	23	30	45	16,4	3,0	0,12	14,3
680	34	20	65	15,5	1,1	0,05	2,9
680	40	25	55	16,4	2,7	0,11	12,3
680	42	30	45	18,0	3,9	0,16	23,2

Capacity of CWC 250-3

Water temp.				in/out 6°C/12°C			
Air flow	Air press. drop	Inlet air temp.	Inlet air humidity	Outlet air temp.	Output	Water flow	Water press. drop
m ³ /h	Pa	°C	% RH	°C	kW	l/s	kPa
355	14	20	65	13,9	0,8	0,04	1,8
355	16	25	55	14,9	1,7	0,07	5,4
355	17	30	45	15,6	2,5	0,10	10,6
710	36	20	65	15,6	1,2	0,05	3,0
710	43	25	55	16,6	2,8	0,11	12,9
710	45	30	45	18,2	4,0	0,16	24,4
1060	69	20	65	15,6	1,9	0,08	6,6
1060	78	25	55	17,8	3,6	0,14	19,7
1060	81	30	45	20,0	5,1	0,20	36,7

Capacity of CWC 315-3

Water temp.				in/out 6°C/12°C			
Air flow	Air press. drop	Inlet air temp.	Inlet air humidity	Outlet air temp.	Output	Water flow	Water press. drop
m ³ /h	Pa	°C	% RH	°C	kW	l/s	kPa
560	9	20	65	13,3	1,5	0,06	1,1
560	10	25	55	15,0	2,5	0,10	2,4
560	10	30	45	14,8	4,1	0,17	5,8
1120	20	20	65	14,9	2,2	0,09	1,9
1120	24	25	55	15,8	4,8	0,19	7,6
1120	25	30	45	17,1	7,1	0,28	14,5
1680	37	20	65	15,3	3,0	0,12	3,4
1680	43	25	55	16,8	6,5	0,26	12,5
1680	45	30	45	18,6	9,3	0,37	23,5

Capacity of CWC 400-3

Water temp.				in/out 6°C/12°C			
Air flow	Air press. drop	Inlet air temp.	Inlet air humidity	Outlet air temp.	Output	Water flow	Water press. drop
m ³ /h	Pa	°C	% RH	°C	kW	l/s	kPa
900	15	20	65	14,4	1,9	0,08	1,6
900	18	25	55	15,3	4,1	0,16	5,6
900	19	30	45	16,3	6,0	0,24	10,9
1810	42	20	65	15,3	3,3	0,13	3,9
1810	48	25	55	17,0	6,8	0,27	13,6
1810	50	30	45	18,8	9,8	0,39	25,6
2710	83	20	65	15,7	4,7	0,19	7,1
2710	93	25	55	18,0	8,8	0,35	21,3
2710	96	30	45	20,3	12,6	0,50	39,9

Product warranty

Fill in this warranty information form and keep this page for future reference or when warranty service may be required.

Model name		CWC-...
Warranty period		
Date of invoice		
Customer info	Name (company)	
	Address	
	Contact info	
Retailer info	Name (company)	
	Address	
	Contact info	
Fault description		

The product warranty covers product malfunctions, under normal operating conditions for 24 months from the date of manufacturer's invoice. Please note that the product warranty terms may vary depending on purchase or installation contracts.

During the product warranty period, warranty service (free of charge) is provided for product malfunctions caused under normal operating conditions. For warranty service, contact an official "Ventmatika" dealer. Any manipulation of the appliance by personnel not appointed by "Ventmatika" will cancel the guarantee. "Ventmatika" reserves the right to modify the product without prior notice.

Notes