CAA/WA SERIES

Air & Water-Cooled Aftercoolers

CAA Series

WA Series

The **Aircel CAA Air-Cooled Aftercooler Series (130 - 4,500 scfm)** provide economical cooling by utilizing ambient air to cool the hot compressed air from an air compressor. Discharge air from an air compressor is generally 180°F - 350°F, depending on the type of compressor. With a properly sized aftercooler, as much as 60% of the water in compressed air can be removed. Air-cooled aftercoolers can reduce the size of a dryer necessary to meet system output air requirements, will extend the life of the dryer and filters, and reduce maintenance, making it an outstanding value!

Air-cooled aftercoolers can be sized to cool the hot compressed air within 5°F to 20°F of the ambient air temperature. Aftercoolers can be installed so normal wasted heat can be reclaimed and recirculated.

The **Aircel WA Water-Cooled Aftercooler Series (50 - 3,000 scfm)** and separators are an ideal combination to remove troublesome moisture from compressed air. Proper installation of Aircel aftercoolers and matching liquid separators, effectively assist in maintaining trouble-free operation of compressed air equipment. By lowering the temperature of the compressed air in downstream air lines using water-cooled aftercoolers, up to 70% of the water vapor present condenses to a liquid, which can then be removed by moisture separators.

CAA Series Features

- Advanced technology designs to maximize heat transfer with minimum pressure drop.
- Compact design compared to conventional fan and tube designs provides smaller footprint.
- Corrosion resistance construction.
- Size from 130 to 4500 scfm (at 200°F inlet and 20°F approach).
- Durable aluminum plate core design saves space and minimizes energy usage.
- Horizontal airflow standard with vertical airflow optional.
- Standard TEFC (Totally Enclosed Fan Cooled Motor) for outside applications.
- Air motors are available on request.

Construction

- Cooler Material: Aluminum
- Shroud: Powder Painted Steel
- Fan Guard: Zinc Plated Steel
- Fan Blade: Polypropylene Blades, Aluminum Hub-Balanced for Free Vibration
- Mounting Brackets: Powder Painted Steel

Ratings

- Max Working Pressure: 250 psig
- Max Working Temperature: 250°F

WA Series Features

- Single pass design with smooth surface copper tubes minimizes fouling and allows lower pressure drop.
- Counter-flow shell and tube design provides close approach temperature; gains maximum heat removal benefit from expensive cooling water.
- Cooper heat exchanger surfaces provide excellent heat transfer.
- Seamless shells have maximum rupture strength and corrosion resistance.
- Tube rolled into tubesheet eliminates thermal stress.
- Removable end bonnets facilitate cleaning and servicing.
- Drain ports on shell side for easy maintenance.
- Compact package provides smaller footprint.
- Can be mounted in horizontal or vertical positions.

Construction

- Brass Shell & Baffles
- Copper Tubes
- Forged Brass End Hubs
- Cast Iron End Bonnets
- Steel Mounting Bracket

Ratings

- 150 psig max @ 300°F Tube Side
- 300 psig max @ 300°F Shell Side

CAA/WA SERIES
TECHNICAL SPECIFICATIONS

CAA SERIES Model Comparison

Models	Capacity (scfm) Rotary 200°F Inlet	2-Stage 250°F Inlet	1-Stage 300°F Inlet	Dimensions (inches) A	B	C (approx.)	D	E	F	G	H (NPT)	J	K	L	M	Shipping Weight (lbs)	Matching Serparator Model
CAA-130	130	96	80	12.64	15.94	14.72	10.86	2.52	0.75	1.18	1.00	14.65	3.94	3.50	8.19	40	DF-C 0320
CAA-225	225	175	145	16.30	19.88	15.59	14.56	2.52	0.75	1.77	1.50	18.66	3.94	3.50	8.19	60	DF-C 0450
CAA-450	450	350	300	21.00	26.38	17.75	18.81	3.15	1.00	1.77	2.00	25.19	4.92	4.53	10.98	137	DF-C 0750
CAA-800	800	600	500	23.19	30.31	18.74	21.02	3.15	1.00	1.77	2.00	29.13	4.92	4.53	10.98	163	DF-C 1100
CAA-1400	1,400	1,000	900	27.72	37.00	22.60	25.23	4.33	1.85	1.77	2.50	37.80	5.91	7.87	16.00	240	AG-Z 0144SP
CAA-2000	2,000	1,600	1,400	35.90	40.94	24.76	30.83	4.33	1.85	1.77	3.00	37.80	5.91	7.87	16.00	350	AG-Z 0192SP
CAA-3000	3,000	2,400	2,100	37.44	42.91	29.84	30.55	10.91	2.08	1.77	4.00	43.62	5.39	7.87	15.47	380	C/F*
CAA-3500	3,500	2,900	2,500	44.25	48.82	30.28	34.25	11.57	1.57	1.77	4.00	49.29	5.39	7.87	15.47	505	C/F*
CAA-4500	4,500	3,500	3,000	57.87	52.76	33.82	43.98	17.56	3.35	2.00	4.00	50.55	7.80	10.00	20.00	645	C/F*

C/F* Consult Factory. Due to a continuous program of product improvement, specification and dimensions are subject to change without notice.

Electric Motor Model Comparison

Models	HP	RPM	Motor Frame	Single Phase Voltage	Hz	Full Load Amps 230V	Three Phase Voltage	Hz	Full Load Amps 230V
CAA-130	1/3	3450	IEC 63	115/208/230	60	2.6	208-230/460	60	1.2
CAA-225	1/2	3450	IEC 71	115/208/230	60	3.4	208-230/460	60	2.0
CAA-450	1/2	1725	NEMA 56C	115/208/230	60	4.4	208-230/460	60	2.0
CAA-800	1	1725	NEMA 56C	115/208/230	60	6.4	208-230/460	60	3.8
CAA-1400	2	1725	NEMA 56C	115-230	60	10	208-230/460	60	6.2
CAA-2000	5	1725	NEMA 184TC	230	60	23	208-230/460	60	13.4
CAA-3000	7.5	1725	NEMA 213TC	N/A	N/A	N/A	208-230/460	60	19.6
CAA-3500	7.5	1725	NEMA 213TC	N/A	N/A	N/A	208-230/460	60	19.6
CAA-4500	10	1725	NEMA 213TC	N/A	N/A	N/A	208-230/460	60	26.0

Air Motor Model Comparison

Models	Air Pressure to Motor (PSI)	Motor Air Consumption (scfm)	Air Motor (NPT)	Fan RPM
CAA-130	30	10	1/4"	3450
CAA-225	60	17	1/4"	3450
CAA-450	40	25	1/4"	1725
CAA-800	40	25	1/4"	1725
CAA-1400	50	70	1/2"	1725
CAA-2000	60	150	1-1/4"	1725
CAA-3000	80	200	1-1/4"	1725
CAA-3500	80	200	1-1/4"	1725
CAA-4500	100	240	1-1/4"	1725

Air pressure to motor **MUST** be regulated and lubricated. **DO NOT EXCEED** fan RPM listed above.
Mufflers are included with all motors.

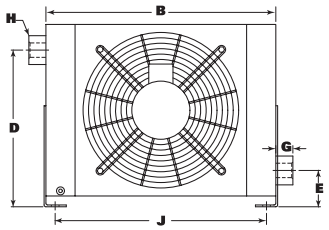
WA SERIES Model Comparison

Models	Capacity (scfm) Rotary 200°F Inlet	2-Stage 250°F Inlet	Dimensions (inches) A	B	C	D	E	F	G	H	J (NPT)	K (NPT) Water Conn	L	M	N	P (NPT)	Q (NPT) Air Conn	Weight (lbs)	Matching Serparator Model
WA-50	50	40	3.66	7	6.25	12.38	3.62	5.25	1.5	.44 x 1.0	(2) 0.38	1	2.69	13.47	3.24	(4) 0.38	1.5	23	DF-C 0120
WA-100	100	90	3.66	25	6.25	30.38	3.62	5.25	1.5	.44 x 1.0	(2) 0.38	1	2.69	31.47	3.24	(4) 0.38	1.5	33	DF-C 0210
WA-150	150	135	5.13	15.5	7.38	21.62	4	6.75	2	.44 x 1.0	(6) 0.38	1	3.06	23.6	4.05	(4) 0.38	2	54	DF-C 0320
WA-250	250	225	5.13	24.5	7.38	30.62	4	6.75	2	.44 x 1.0	(6) 0.38	1.5	3.06	32.6	4.05	(4) 0.38	2	76	DF-C 0450
WA-300	300	270	5.13	33.5	7.38	39.62	4	6.75	2	.44 x 1.0	(6) 0.38	1.5	3.06	41.6	4.05	(4) 0.38	2	82	DF-C 0750
WA-400	400	330	6.13	23.5	8.81	30.38	4.75	7.5	2.5	.44 x 1.0	(6) 0.38	1.5	3.44	33.25	4.56	(4) 0.5	3	98	DF-C 0750
WA-600	600	480	6.13	32.38	8.81	39.25	4.75	7.5	2.5	.44 x 1.0	(6) 0.38	2	3.44	42.12	4.56	(4) 0.5	3	115	DF-C 1100
WA-800	800	650	6.13	41.38	8.81	48.25	4.75	7.5	2.5	.44 x 1.0	(6) 0.38	2	3.44	51.12	4.56	(4) 0.5	3	130	AG-Z 0144SP
WA-1000	1000	850	6.13	50.5	8.81	57.38	4.75	7.5	2.5	.44 x 1.0	(6) 0.38	2	3.44	60.25	4.56	(4) 0.5	3	150	AG-Z 0144SP
WA-1500	1500	1250	6.13	59.5	8.81	66.38	4.75	7.5	2.5	.44 x 1.0	(6) 0.38	2	3.44	69.25	4.56	(4) 0.5	3	170	AG-Z 0192SP
WA-2000	2000	1800	6.13	68.38	8.81	75.25	4.75	7.5	2.5	.44 x 1.0	(6) 0.38	2	3.44	78.12	4.56	(4) 0.5	3	190	C/F*
WA-3000	3000	2800	8	85.9	12.13	94.38	6.5	10	3.5	.44 x 1.0	(6) 0.38	3	4.39	98.62	6.52	(4) 0.5	4	390	C/F*

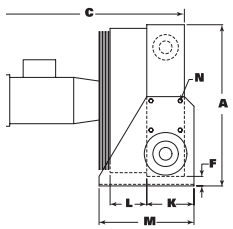
C/F* Consult Factory. Due to a continuous program of product improvement, specification and dimensions are subject to change without notice.

CAA SERIES Model Dimensions

CAA Front

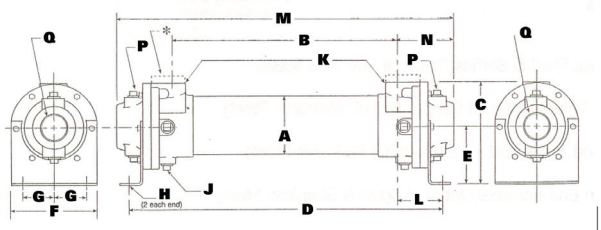


CAA Side



WA SERIES Model Dimensions

WA Single Pass



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