

WATER-COOLED AFTERCOOLER ACW

DESCRIPTION

Water-cooled aftercoolers ACW have been designed to reduce compressed gas temperature thus water vapour content in compressed gas systems. Hot compressed gas passes through the tubes while cooling water passes around the tubes in counter flow. ACW aftercooler ensures the maximum performance and cool-down effect to reduce inlet water load to downstream equipment, such as refrigeration dryers, adsorption dryers and PSA gas generators.

APPLICATIONS⁽¹⁾

- Automotive
- Electronics
- Food & Beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application



⁽¹⁾ACW aftercoolers can be used in variety of applications. For applications not listed please contact us or your local dealer.

ADMISSABLE FLUIDS

Fluid group 2: non-explosive, non-flammable, non-toxic and non-oxidising media (air, N₂, He, Ar and mixtures of these gases).⁽²⁾

⁽²⁾ For any other technical gas please contact us or your local dealer.

TECHNICAL SPECIFICATION

	Shell side (water)	Tubes Side (air)
Design temperature	-10 to 90 °C	-10 to 200 °C
Design pressure	10 bar(g)	10 bar(g)

MATERIALS

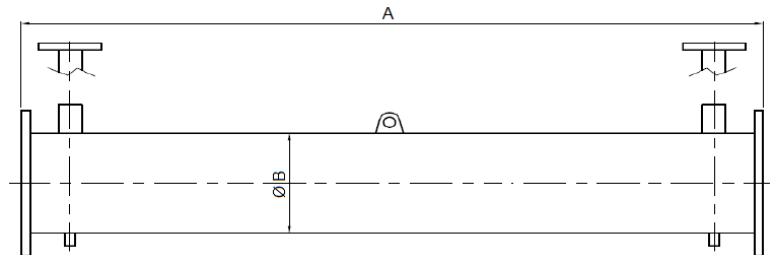
	Version "Cu"	Version "SS"	Version "FSS"
Shell material	Carbon steel	Carbon steel	Stainless steel 1.4404
Tubes	Copper	Stainless steel 1.4404	Stainless steel 1.4404
Baffles	PVC	Stainless steel 1.4404	Stainless steel 1.4404
Tubes sheet	Carbon steel	Stainless steel 1.4404	Stainless steel 1.4404
Outside protection	Powder paint coated (Epoxy-polyester base)		/

SIZES

MODEL	COMPRESSED AIR			COOLING WATER			POWER	DIMENSIONS	
	Flow capacity ⁽³⁾	Connection	Pressure drop	Flow capacity ⁽⁴⁾	Connection	Pressure drop	Cooling/heat rejection	A	ØB
	[Nm ³ /h]			[m ³ /h]					
ACW 195F DN100/32	510	DN100	10	0,87	DN32	4	5,02	1.250	114,3
ACW 200F DN100/32	1000	DN100	30	1,7	DN32	12	9,85	1.500	114,3
ACW 220F DN100/32	1760	DN100	100	3	DN32	31	17,34	1.750	114,3
ACW 235F DN100/32	2200	DN100	190	3,75	DN32	56	21,67	2.000	114,3
ACW 330F DN125/40	2850	DN125	100	4,85	DN40	72	28,08	1.750	139,7
ACW 335F DN125/40	3940	DN125	240	6,71	DN40	128	38,81	2.000	139,7
ACW 385F DN150/50	4500	DN150	130	7,66	DN50	126	44,33	1.750	168,3
ACW 390F DN150/50	5300	DN150	210	9,03	DN50	170	52,21	2.000	168,3
ACW 500F DN200/50	5820	DN200	50	9,91	DN50	94	57,33	1.500	219,1
ACW 1000F DN250/100	8520	DN250	50	14,51	DN100	150	83,93	1.500	273
ACW 1400F DN300/100	12550	DN300	50	21,38	DN100	303	123,63	1.500	323,9

⁽³⁾ Compressed air flow at 7 bar(g) working pressure and 50°C inlet temperature (100% saturated). Compressed air outlet temperature 10°C higher than inlet cooling water temperature.

⁽⁴⁾ At 25°C inlet cooling water temperature, 5°C differential water temperature.



PRESSURE EQUIPMENT DIRECTIVE PED 2014/68/EU (Fluid group 2)

Model	PED Category Shell side	PED Category Tubes side
ACW 195F DN100/32	Art. 4, par. 3	Art. 4, par. 3
ACW 200F DN100/32		
ACW 220F DN100/32		
ACW 235F DN100/32	Art. 4, par. 3	Cat. I
ACW 330F DN125/40		
ACW 335F DN125/40		
ACW 385F DN150/40		
ACW 390F DN150/40		
ACW 500F DN200/50	Art. 4, par. 3	Cat. II
ACW 1000F DN250/100		
ACW 1400F DN300/100		

CORRECTION FACTORS

For each specific project-related case we recommend to check actual sizing and performance of aftercooler with Omega Air distributor/factory.