

AFTERCOOLER

ACW 195F – 1400F

(Water cooled aftercooler)

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). All data in this datasheet is valid for air only. For any other technical gas please contact us or your local dealer.

TECHNICAL SPECIFICATION⁽²⁾

| | Shell side (water) | Tubes Side (air) | |
|--------------------------------|--------------------|------------------|---------------|
| Version | | »Cu« | »SS« |
| Design temperature | -10 to 90 °C | -10 to 90 °C | -10 to 200 °C |
| Design pressure ⁽³⁾ | 10 bar(g) | 10 bar(g) | |

MATERIALS

| | Version "SS" | Version "Cu" |
|--------------------|--|-----------------------------|
| Shell material | Carbon steel | Carbon steel ⁽³⁾ |
| Tubes | Stainless steel 1.4404 | Copper |
| Baffles | Carbon steel | Carbon steel |
| Tubes sheet | Stainless steel 1.4404 | Carbon steel |
| Outside protection | Powder paint coated (Epoxy-polyester base) | |

⁽²⁾ All data in this datasheet is valid for air only. For any other gas please contact us or your local dealer.

⁽³⁾ Up to 40 bar(g) available on request

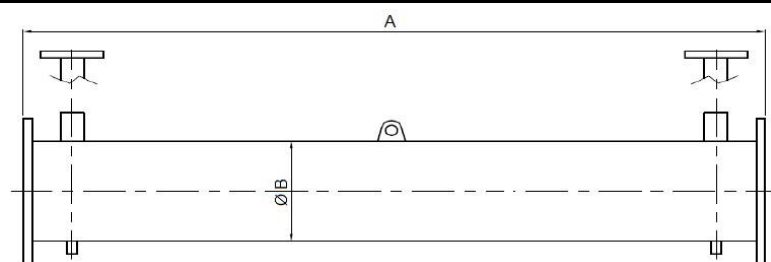
⁽⁴⁾ Stainless steel available on request

| MODEL ⁽⁵⁾ | COMPRESSED AIR | | | COOLING WATER | | POWER | DIMENSIONS | | |
|----------------------|------------------------------|------------|---------------|------------------------------|------------|---------------|------------------------|-------|-------|
| | Flow capacity ⁽³⁾ | Connection | Pressure drop | Flow capacity ⁽⁶⁾ | Connection | Pressure drop | Cooling/heat rejection | A | ØB |
| | [Nm ³ /h] | | [mbar] | [m ³ /h] | | [mbar] | [kW] | [mm] | |
| ACW 195F DN100/32 | 510 | DN100 | 6 | 0,87 | DN32 | 11 | 5,02 | 1.250 | 114,3 |
| ACW 200F DN100/32 | 1000 | DN100 | 27 | 1,7 | DN32 | 34 | 9,85 | 1.500 | 114,3 |
| ACW 220F DN100/32 | 1760 | DN100 | 101 | 3 | DN32 | 89 | 17,34 | 1.750 | 114,3 |
| ACW 235F DN100/32 | 2200 | DN100 | 181 | 3,75 | DN32 | 141 | 21,67 | 2.000 | 114,3 |
| ACW 320F DN125/40 | 2850 | DN125 | 110 | 4,85 | DN40 | 200 | 28,08 | 1.750 | 139,7 |
| ACW 330F DN125/40 | 3940 | DN125 | 242 | 6,71 | DN40 | 378 | 38,81 | 2.000 | 139,7 |
| ACW 380F DN150/50 | 4500 | DN150 | 129 | 7,66 | DN50 | 166 | 44,33 | 1.750 | 168,3 |
| ACW 385F DN150/50 | 5300 | DN150 | 206 | 9,03 | DN50 | 243 | 52,21 | 2.000 | 168,3 |
| ACW 500F DN200/50 | 5820 | DN200 | 50 | 9,91 | DN50 | 146 | 57,33 | 1.500 | 219,1 |
| ACW 1000F DN250/100 | 8520 | DN250 | 43 | 14,51 | DN100 | 150 | 83,93 | 1.500 | 273 |
| ACW 1400F DN300/100 | 12550 | DN300 | 46 | 21,38 | DN100 | 339 | 123,637 | 1.500 | 323,9 |

⁽⁵⁾ Other models available on request.

⁽⁶⁾ 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.



| Model | PED Category Shell side | PED Category Tubes side |
|---------------------|-------------------------|-------------------------|
| ACW 195F DN100/32 | | |
| ACW 200F DN100/32 | Art. 4, par. 3 | Art. 4, par. 3 |
| ACW 220F DN100/32 | | |
| ACW 235F DN100/32 | | |
| ACW 320F DN125/40 | | |
| ACW 330F DN125/40 | | |
| ACW 380F DN150/40 | Art. 4, par. 3 | Cat. I |
| ACW 385F DN150/40 | | |
| ACW 500F DN200/50 | | |
| ACW 1000F DN250/100 | Art. 4, par. 3 | Cat. II |
| 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.

INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE

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| | Our quality management system is certified by BUREAU VERITAS in conformity with ISO 9001:2015 | |
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