



Alfa-V VXD

Air-cooled CO₂ gas coolers - Industrial V-type

General information & application

CO₂ gas coolers replace traditional air cooled condensers in refrigerating systems that have been designed for the use of CO₂ as a single refrigerant. Such installations are getting more and more widely used.

The Alfa-V series is a wide range of heavy duty V-type gas coolers for air conditioning and refrigeration applications. Alfa-V air-cooled gas coolers provide high capacities at a modest footprint.

Alfa Laval offers a wide range of CO₂ gas coolers with capacities ranging from 15 up to 750 kW.

Alfa Laval CO ₂ gas coolers	Capacity range*
Alfa-V	50-750 kW
Alfa-V Single Row	42-370 kW
AlfaBlue Junior	15-180 kW
AlfaBlue	20-450 kW

* air temperature = 35°C, CO₂ at 90 bar, gas temperature in/out = 120/38°C

Coil

An innovative coil design based on small diameter copper tubes and corrugated aluminium turbo fins provides excellent heat transfer at minimal refrigerant charge. Standard fin spacing is 2.1 mm.

Circuiting design is fully optimized to the thermodynamic properties of CO₂. Stainless steel header tubes for on-site welding connections.

Available in different fin thicknesses and fin spacings. Separate connections provide the opportunity for independent operation of both gas cooler coils.

Casing

Frame construction provides high rigidity for protection against vibration and thermal expansion. Casing and framework of corrosion resistant pre-galvanized sheet steel (corrosion resistance class C4), epoxy coated white RAL 9002 on both sides. Separated fan sections. Supports in galvanized steel.



Alfa-V gas cooler

Fan motors

Available in three fan diameters (800, 910 & 1000 mm) and five noise levels, power supply 400/50/3. Motors with external rotor, protection class IP 54 according to DIN 40050. Integrated thermo contacts provide reliable protection against thermal overload. EC fan motors available.

Certifications

The Alfa Laval quality system is in accordance with ISO 9001. All products are manufactured according to CE and PED rules.

Test

Each heat exchanger undergoes a pressure and leak test with nitrogen at 172 barg and is then supplied with a nitrogen pre-charge to prevent corrosion. Maximum operating pressure 120 barg at 150°C.

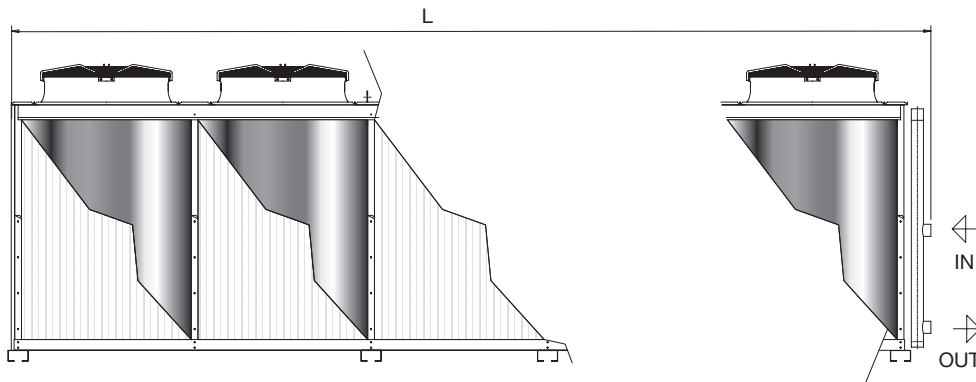
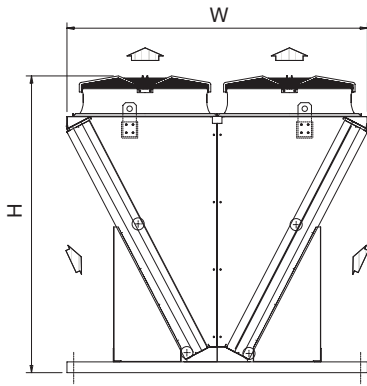
Selection

For gas cooler selection and support please contact your local Alfa Laval representative.

Nr. of fan pairs	Dimensions mm		
	L	H	W
2	2940	2210	2230
3	4250	2210	2230
4	5560	2210	2230
5	6870	2210	2230

Options

- Multi-circuiting
- Non-standard fin spacing
- Coil corrosion protection
 - Coil coating
 - Fins seawater resistant aluminium alloy 57S/5052
- Spray water device
- Vibration dampers
- Special fan motors
 - 480/3/60 (IP54)
 - EC fan motors
 - Protection class IP55
 - High-temperature motors
 - Explosion proof motors
- Electrical options
 - Isolating switch
 - Motors wired to a common terminal box
 - Switchboard (IP55)
 - EMC approval
 - Fan step control
 - Fan speed control
 - Frequency control



Code description

VXD S(E) 90 4 B D - options

- Options
- Fan speed connection (D=delta, Y=star)
- Coil size (B or C)
- Number of fans pairs (2 to 5)
- Fan diameter (80=800 mm, 90=910, 100=1000 mm)
- Sound level/fan code (T=high performance, S=standard, L=low, Q=quiet, R=residential, E=EC fan motor)
- Alfa-V gas cooler

Benefits

- Heavy duty design with high corrosion resistance
- Reduced refrigerant charge
- Stainless steel headers for on-site welding connections
- Favourable capacity/footprint ratio
- Excellent sound characteristics, suitable for residential applications
- Reliable performance
- Easy installation & maintenance.
- Energy efficient - low total cost of ownership.
- Two-year product guarantee.

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How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com

