



CXVE

Refrigerant condensers



Key benefits

- Star in energy efficiency
- Low maintenance and easy inspection
- Unmatched hygiene control

CXVE characteristics

- Combined flow, axial fan, induced draft
- PED 2014/68/EU coil design

Capacity range

475 - 2770 kW
(for single cell models, nominal R717 kW's)

Typical applications

- Industrial refrigeration applications with low sound and energy requirements.



Star in energy efficiency

- [Evaporative cooling](#) PLUS unique [combined heat transfer system](#) for minimized system-wide energy consumption. This patented combined flow design from BAC ensures unrivalled efficient heat rejection at the lowest possible energy input.
- **Axial fan** uses **half the energy** of similar centrifugal fan units.
- [Bacross II fill](#) factory-configured for unrivalled water/air contact and minimal air pressure drop. Guarantees **optimal condenser efficiency**.
- **High efficiency fan motors**.

Low maintenance and easy inspection

- Inspection of **water distribution system** (spray branches and nozzles) possible outside the unit, **during operation**. Inspect and maintain safely CXVE condensers with **unrivalled comfort, while standing** inside.
- The CXVE has a **spacious plenum** (internal area) and **easy inspection/maintenance access**.
- **Access via large hinged door to optional internal walkway**: no basin draining needed for unit interior inspection.
- Easy to inspect the **coil** during operation from the outside or from the inside via the **removable drift eliminator modules**.
- Easy to inspect the **fill** from the inside and via the **removable combined inlet shields** from the outside.
- The patented [Bacross II fill](#) sheets reduce fouling and are telescopically supported, allowing complete inspection of the fill core without dismantling.
- Self-cleaning cold water basin and fill above **sloped basin** to flush out dirt and debris.
- **Fans** are easily accessible from the in- and outside
- Optional clean out port **helps remove** silt and sludge from the cooling tower basin.
- Removable **suction strainer** anti-vortex hood.
- Make-up, drain and overflow easily **accessible** for inspection and cleaning.

Unmatched hygiene control

- Easy-clean and easy-inspect CXVE condensers **reduce hygiene risks** from bacteria (e.g. Legionella) or biofilm inside.
- The patented [Bacross II fill](#) sheets reduce fouling and are telescopically supported, allowing complete inspection AND cleaning of the fill core without dismantling.
- **Combined inlet shields** block sunlight to prevent biological growth in the tower, filter the air and stop water splashing outside.
- High efficient **drift eliminators** certified by Eurovent to prevent droplets escaping into the air.
- Optional clean out port **helps remove** silt and sludge from the cooling tower basin.
- Optional sump sweeper piping **prevents sediment collecting in the cold water basin**.

Reduced refrigerant charge



- There is **less coil surface** required because of the patented combined heat transfer system. This also means less refrigerant charge.
- Using less refrigerant charge **decreases** the operating charge of the overall system and **system costs**.

Year-round reliable operation

- Unique and patented heat transfer system: featuring [combined flow via heat exchange coil and fill pack](#), for fine temperature applications and thermal challenges.
- **Multiple fan motor system** covers independent fan motor and drive assembly per fan for stand-by in case of fan failure.
- Various corrosion-resistant materials, including the unique [Baltibond hybrid coating](#) for guaranteed long service life.
- **Single air inlet and discharge**, fits in most enclosures.

Ultra silent design

- CXVE units include **low noise axial fans** for minimal surrounding noise. To reduce noise even further, choose for Whisper Quiet fans.
- Factory designed, tested and rated sound attenuation is available on air inlet to cut operation noise even further. Single-side air inlet, and a **quieter condenser rear** for more noise-sensitive areas.
- [BACross II fill](#) guides smoothly the water all the way into the basin **without water splash noise**.

Cheap to install

CXVE condensers are factory-built and shipped in sections for larger models to reduce the overall size and weight, allowing **easy on-site section assembly with smaller crane**.

You want to use the CXVE condenser for your industrial refrigeration application? Contact your [local BAC representative](#) for more information.

Downloads

- [CXVE refrigerant condenser](#)
- [CXVE evaporative condenser - brochure](#)
- [Operating and Maintenance CXVE](#)
- [Rigging and Installation CXVE](#)
- [CXVE value pack](#)
- [Aviko - The Netherlands - CXVE](#)
- [Spare Parts for CXVE](#)
- [Retrofit Opportunities for CXVE](#)
- [Combined Flow Technology](#)



CXVE value pack

Refrigerant condensers

CXVE value pack

Experience lifetime savings and reliable performance

The CXVE value pack offers following benefits:

- Maximum performance in a small footprint **saves up to 50% energy**
- **Lifetime** expectancy **increase of 20%**
- **33% less water** and chemical consumption
- **Low environmental** impact

The value pack includes

- An evaporative condenser [CXVE](#)
- Protected with the new generation [Baltibond hybrid coating](#)
- a [water treatment](#) control package

Download the [CXVE value pack brochure](#) for more information.

Want to benefit from the CXVE value pack? Contact your [local BAC representative](#) for more information and prices.



Downloads

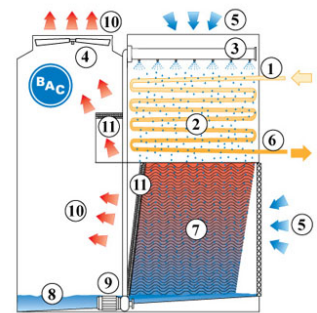
- [Преимущества CXVE](#)
- [Гибридное покрытие Baltibond нового поколения](#)
- [Оборудование BAC для обработки воды](#)

Principle of operation

Refrigerant condensers

Principle of operation

The CXVE combines the use of an evaporative condensing coil with an integrated fill pack for cooling down the recirculating spray water. The **vapour (1)** circulates through a **condensing coil (2)**, which is wetted by a **spray system (3)**. In parallel with the water spray flow, an **axial fan (4)** draws **air (5)** over the coil. The evaporation process condenses the vapour into **liquid (6)**. The spray water falls onto a **fill pack (7)** where it is cooled before falling into the sloping **water basin (8)** or sump. The **spray pump (9)** recirculates the cooled water to the top of the unit. The **warm saturated air (10)** leaves the tower through the **drift eliminators (11)** which remove water droplets from the air.



You want to use the CXVE condenser to cool your process fluid? Contact your BAC representative or use the [information request form](#) and tell us how we can help you.

Downloads

- [Combined Flow Technology](#)

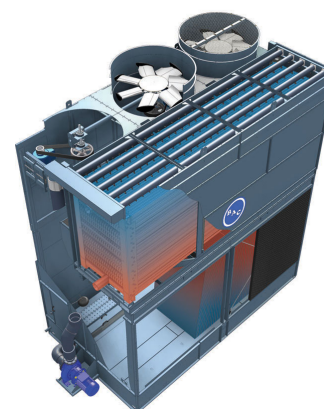
Construction details

Refrigerant condensers

Construction details

1. Material options

- Heavy-gauge hot-dip galvanized steel is used for external unit steel panels and structural elements featuring [Baltiplus Corrosion Protection](#).
- The unique [Baltibond hybrid coating](#) is an optional extra. A hybrid polymer coating for longer service life, applied pre-assembly to all hot-dip galvanized steel components of the unit.
- [Optional stainless steel](#) panels and structural elements of type 304L or 316L for extreme applications.
- Or the economical alternative: a **water-contact stainless steel cold water basin**. Its key components and the basin itself are stainless steel. The rest is protected with the Baltibond hybrid coating.



2. Heat transfer media

Unique and patented heat transfer system: featuring [combined flow](#) via heat exchange coil and fill pack.

Coil

- The coil is constructed of continuous length of prime surface steel, hot-dip galvanized after fabrication.
- Designed for maximum 23 bar operating pressure according to PED. Pneumatically tested at 34 bar.
- All hot dip galvanized and stainless steel coils are delivered with BAC's **Internal Coil Corrosion Protection**, to ensure an optimal internal corrosion protection and guaranteed quality.

Try our CXVE coil options:

- **Multiple circuit coils (split coils)** for your halo carbon refrigerants, maintaining individual compressor systems. Or use it for compressor jacket water or glycol cooling.
- **Stainless steel coils** are in type 304L or 316L.
- **High pressure coils** are designed for 28 bar operating pressure and pneumatically tested for 40 bar. Hot-dip galvanized after fabrication.

All coils are designed for low pressure drop with sloping tubes for free drainage of fluid.

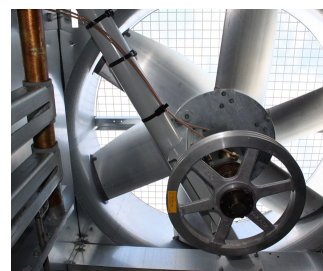
Fill

- Patented [BACross II fill](#) with integrated **drift eliminators** certified by Eurovent. Its thermal performance is proven during comprehensive [lab thermal performance tests](#) and it offers you unrivalled system efficiency. The fill pack includes individual **sheets and a telescopic fill support**. Sheets are easy to inspect and clean inside the tower without dismantling, eliminating the need for frequent fill replacement.
- In self-extinguishing **plastic**, which will not rot, decay or decompose.



3. Air movement system

- **CXVE fan system** features two corrosion resistant sheaves, belt and motor. Together with the heavy duty fan shaft bearings and the BAC **Impervix** motor, this guarantees optimal and year-round operational efficiency.
- **Low kW and noise axial fan(s)** in corrosion resistant aluminum, encased in fan cylinder with removable fan guard. To reduce noise even further, choose for a **Whisper Quiet fan** with minimal impact on thermal performance.
- Our **drift eliminators** in the coil section come in UV-resistant plastic, which will not rot, decay or decompose and their performance is tested and **certified by Eurovent**. They are assembled in **easily handled and removable sections**, for optimal coil access.
- Easy removable UV-resistant plastic **combined inlet shields** at air inlet or optional at the top air inlet. Sunlight block to prevent biological growth in tower, air filter and water splash-out stop.



4. Water distribution system

These consist of:

- **Spray branches** with wide non-clog, plastic, 360° distribution nozzles secured in grommets. Overlapping spray pattern for complete coil wetting. A **sloped cold water basin** with:
 - large hinged and inward swinging **access** door
 - anti-vortexing **strainers** and **make up** both easily accessible from inside the unit.
- Close coupled, bronze fitted centrifugal **spray pump** with totally enclosed fan cooled (TEFC) motor. Bleed line with metering valve installed from pump discharge to overflow.



Need more information? Contact your local [BAC representative](#).

Options and accessories

Refrigerant condensers

Options and accessories

Below is a listing of the main CXVE options and accessories. If your required option or accessory is not listed, look no further than your [local BAC representative](#).



Sound attenuation

Reducing noise at air **intake and discharge points** brings us closer to silent cooling equipment.



Whisper Quiet fan

Reduce noise even further with **ultra low-noise factory-tested fans**.



Remote sump connection

The best way to **prevent a sump freezing** is to use the auxiliary remote variety within a heated area. Shutting off the circulating pump allows all the water in the water distribution, as well as that in suspension and the sump to drain freely to the auxiliary sump.



Extended lubrication lines

Extended lubrication lines with easily accessible grease fittings can be used **to lubricate** fan shaft bearings.



Internal service platform

An internal platform helping you **access the unit top inside** and safely inspect your condensers.



External service platform

An external platform helping you **access the external unit top** and safely inspect your cooling equipment.



Vibration cut out switch

When excessive vibration occurs, this switch shuts down the fan, ensuring your cooling equipment **operates safely**.



Motor removal davit

For **easy removal or lifting** of the side motor.



Electric water level control package

For **perfectly precise water level control**, replace the standard mechanical valve with our electrical water level controller.



Safety switch

Cuts power to motors **with safety in mind** during inspection or maintenance.



Basin heater package

Thanks to our factory-installed heaters, the water stays at 4°C and **never freezes**, even during equipments downtime and however cold it gets outside.



Standby pump

Install a standby **reserve spray pump** as failure backup.



Water treatment equipment

Devices to control water treatment are needed to ensure proper **condenser water care**. Not only does this help protect the components and fill pack, controlling corrosion, scaling and fouling, it also avoids the proliferation of harmful bacteria, including **legionella**, in the recirculating water.



Filter

Separators and media filters efficiently **remove suspended solids** in the recirculating water, reducing system cleaning costs and optimizing water treatment results. Filtration helps you keep the recirculating water clean.



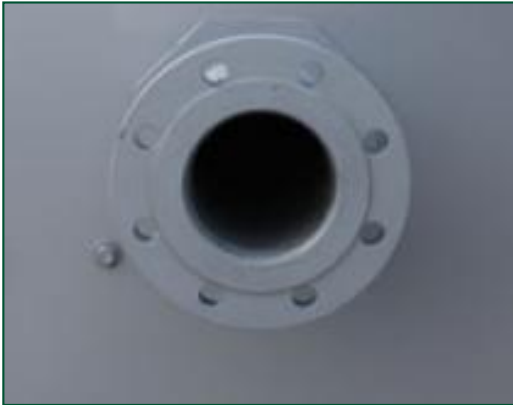
Sump sweeper piping

Sump sweeper piping **prevents sediment collecting in the cold water basin** of the unit. A complete piping system, including nozzles, is installed in the basin **for connection to side stream filtration** equipment. [Read more](#)



Clean out port

Clean out port **makes it easy to eliminate silt and sludge** from the basin when cleaning and flushing the sump.



Flanges

Flanges facilitate **pipng connections** on-site.



Special needs?

Refrigerant condensers

Special needs?

Our ongoing [R&D](#) investment helps BAC offer you a complete set of solutions for **CXVE evaporative condensers that meet your needs**. Plus, we also cater for extra requirements such as:

Sound control

CXVE uses a low noise axial fan.

Helping keep it near noiseless:

- [Sound attenuators](#)
- [Whisper Quiet fan](#)

Water savings

You need water for evaporative cooling. At BAC, however, we offer acclaimed and advanced water saving technologies. Helping in this aim are:

- [Electric water level control package](#)
- [Water treatment equipment](#)
- [Sump sweeper piping](#)
- [Filters](#)
- [Baltibond hybrid coating](#)



Energy saving

CXVE uses evaporative cooling technology for lower operating temperatures than other cooling methods. With the following options, reduce energy costs still further:

- Thermostat

Enhanced hygiene and water care

Water circulates in evaporative condensers and it is important to avoid excessive accumulation of dissolved solids. The following options help keep your condenser clean:

- [Remote sump connection](#)
- [Water treatment equipment](#)
- [Sump sweeper piping](#)
- [Clean out port](#)
- [Filters](#)

To control biological growth and scale formation, the water quality of the circulated water should be checked regularly. [Water quality guidelines](#) can be found in the [Knowledge center](#) of the website.



Year-round reliable operation

Inspect and maintain your condenser and protect it against extreme weather for year-round reliability. The options below help keep your condenser running smoothly and reliably and facilitate maintenance.

- [Remote sump connection](#)
- [Water treatment equipment](#)
- [Sump sweeper piping](#)
- [Clean out port](#)
- [Filters](#)
- [Internal service platform](#)
- [External service platform](#)
- [Vibration cut out switch](#)
- [Electric water level control package](#)
- [Extended lubrication lines](#)
- [Baltibond hybrid coating](#)

Do you too want to benefit from the above solutions? Contact your [local BAC representative](#) for more information.

CXVE 1212-1218

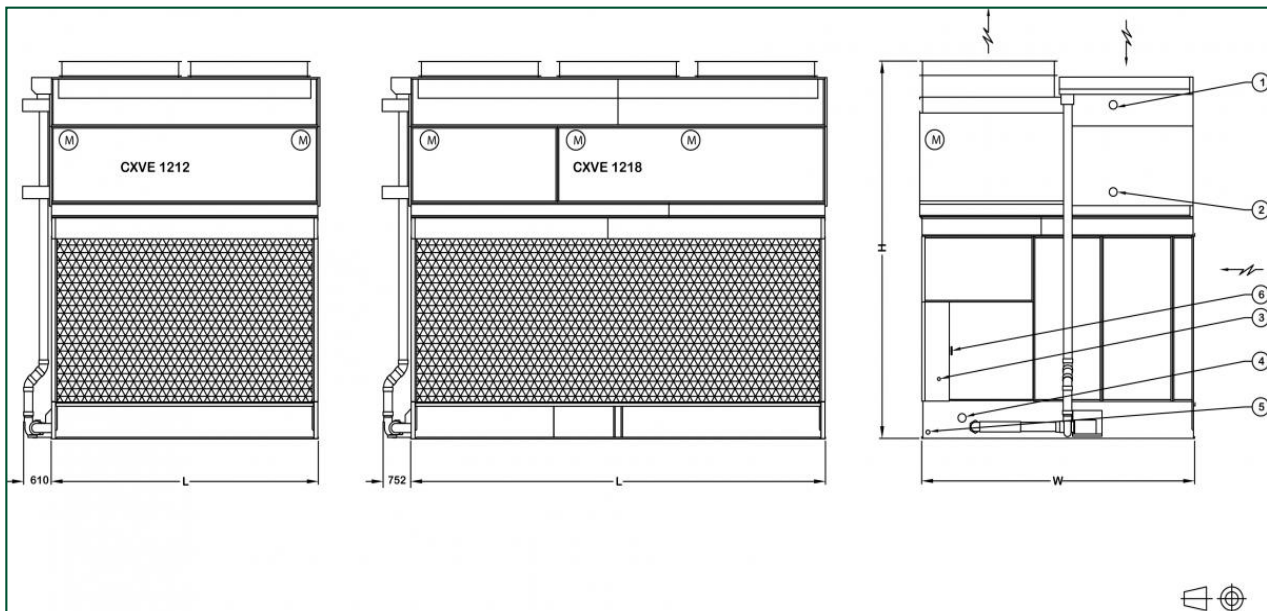
Refrigerant condensers

Engineering data

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Last update: 01/06/2023

CXVE 1212-1218



1. Refrigerant in; 2. Refrigerant out; 3. Make up; 4. Overflow; 5. Drain; 6. Access door.



Model	Weights (kg)			Dimensions (mm)			Air Flow (m³/s)	Fan Motor (kW)	Water Flow (l/s)	Pump Motor (kW)	R717 charge (kg)
	Oper. Weight (kg)	Ship. Weight(kg)	Heaviest Section (kg)	L	W	H					
CXVE 268-12 12-20L	8930	5570	3200	3651	3607	5199	41.7	(2x) 7.5	54.6	(1x) 5.5	80.0
CXVE 287-12 12-30L	8980	5630	3260	3651	3607	5199	47.1	(2x) 11.0	54.6	(1x) 5.5	80.0
CXVE 302-12 12-20L	9810	6410	4030	3651	3607	5199	40.8	(2x) 7.5	54.6	(1x) 5.5	133.0
CXVE 341-12 12-40L	9940	6540	4160	3651	3607	5199	51.2	(2x) 15.0	54.6	(1x) 5.5	133.0
CXVE 341-12 12-20L	11000	7540	5420	3651	3607	6080	40.2	(2x) 7.5	54.6	(1x) 5.5	186.0
CXVE 343-12 12-20L	10690	7260	5140	3651	3607	6080	40.4	(2x) 7.5	54.6	(1x) 5.5	160.0
CXVE 356-12 12-20L	11390	7920	5800	3651	3607	6080	40.0	(2x) 7.5	54.6	(1x) 5.5	200.0
CXVE 356-12 12-30L	10610	7180	5060	3651	3607	6080	45.6	(2x) 11.0	54.6	(1x) 5.5	160.0
CXVE 363-12 12-20L	12010	8500	6380	3651	3607	6080	39.6	(2x) 7.5	54.6	(1x) 5.5	240.0
CXVE 369-12 12-30L	11050	7590	5480	3651	3607	6080	45.4	(2x) 11.0	54.6	(1x) 5.5	186.0
CXVE 379-12 12-40L	10680	7250	5130	3651	3607	6080	50.8	(2x) 15.0	54.6	(1x) 5.5	160.0
CXVE 381-12 12-30L	11920	8410	6290	3651	3607	6080	44.7	(2x) 11.0	54.6	(1x) 5.5	240.0
CXVE 393-12 12-30L	12050	8540	6420	3651	3607	6080	44.7	(2x) 11.0	54.6	(1x) 5.5	240.0
CXVE 394-12 12-40L	10820	7380	5270	3651	3607	6080	50.8	(2x) 15.0	54.6	(1x) 5.5	160.0
CXVE 411-12 12-40L	11520	8050	5930	3651	3607	6080	50.2	(2x) 15.0	54.6	(1x) 5.5	200.0
CXVE 420-12 12-40L	12120	8610	6490	3651	3607	6080	49.8	(2x) 15.0	54.6	(1x) 5.5	240.0
CXVE 438-12 18-30L	14010	8890	5300	5480	3607	5349	63.6	(3x) 7.5	85.2	(1x) 7.5	160.0
CXVE 460-12 18-30L	14670	9510	5930	5480	3607	5349	64.2	(3x) 7.5	85.2	(1x) 7.5	200.0
CXVE	14130	9010	5420	5480	3607	5349	71.8	(3x)	85.2	(1x)	160.0



466-12 18-45L								11.0		7.5	
CXVE 490-12 18-45L	14800	9630	6050	5480	3607	5349	72.5	(3x) 11.0	85.2	(1x) 7.5	200.0
CXVE 491-12 18-60L	14230	9110	5520	5480	3607	5349	80.0	(3x) 15.0	85.2	(1x) 7.5	160.0
CXVE 504-12 18-30L	15740	10530	7320	5480	3607	6230	62.5	(3x) 7.5	85.2	(1x) 7.5	240.0
CXVE 525-12 18-30L	15870	10670	7460	5480	3607	6230	62.5	(3x) 7.5	85.2	(1x) 7.5	240.0
CXVE 543-12 18-45L	15860	10660	7440	5480	3607	6230	68.6	(3x) 11.0	85.2	(1x) 7.5	240.0
CXVE 545-12 18-30L	16910	11640	8430	5480	3607	6230	61.8	(3x) 7.5	85.2	(1x) 7.5	300.0
CXVE 563-12 18-45L	15990	10790	7580	5480	3607	6230	70.6	(3x) 11.0	85.2	(1x) 7.5	240.0
CXVE 574-12 18-60L	15960	10750	7540	5480	3607	6230	75.6	(3x) 15.0	85.2	(1x) 7.5	240.0
CXVE 601-12 18-45L	17950	12630	9420	5480	3607	6230	69.0	(3x) 11.0	85.2	(1x) 7.5	360.0
CXVE 601-12 18-60L	16090	10890	7680	5480	3607	6230	78.5	(3x) 15.0	85.2	(1x) 7.5	240.0
CXVE 628-12 18-60L	17130	11870	8650	5480	3607	6230	77.6	(3x) 15.0	85.2	(1x) 7.5	300.0
CXVE 643-12 18-60L	18050	12730	9520	5480	3607	6230	76.8	(3x) 15.0	85.2	(1x) 7.5	360.0

Sound attenuation

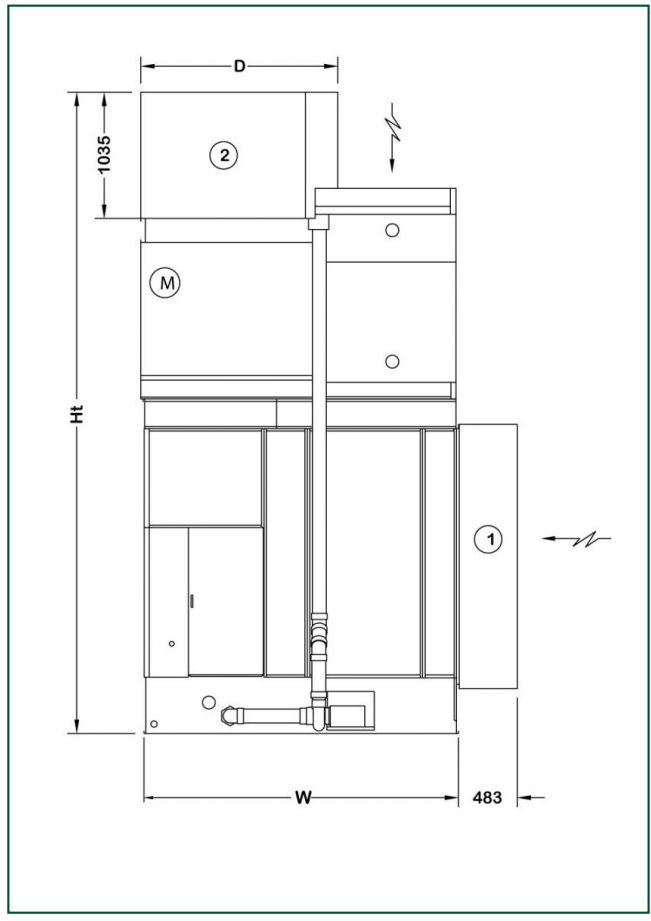
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Sound attenuation



1.Intake attenuator; 2. Discharge attenuator



Model	Dimensions (mm)		Weights (kg)	
	D	Ht	Intake	Discharge
CXVE 111-0806-10L	1778	7166	180	70
CXVE 151-0809-10L	1473	7166	180	100
CXVE 176-0809-20L	1473	7166	180	100
CXVE 190-0809-15L	1473	8047	180	100
CXVE 207-0809-20L	1473	8047	180	100
CXVE 217-0812-15L	1778	7166	330	130
CXVE 227-0812-20L	1778	7166	330	130
CXVE 239-0812-30L	1778	7166	330	130
CXVE 259-0812-20L	1778	8047	330	130
CXVE 264-0812-30L	1778	8047	330	130
CXVE 279-0812-30L	1778	8047	330	130
CXVE 284-0812-30L	1778	8047	330	130
CXVE 298-0818-22.5L	1778	7319	500	190
CXVE 310-0818-30L	1778	7319	500	190
CXVE 329-0818-22.5L	1778	8200	500	190
CXVE 345-0818-30L	1778	8200	500	190
CXVE 373-0818-30L	1778	8200	500	190
CXVE 387-0818-30L	1778	8200	500	190
CXVE 395-0818-45L	1778	8200	500	190
CXVE 409-0818-45L	1778	8200	500	190
CXVE 244-1012-15L	1778	7979	370	130
CXVE 256-1012-20L	1778	7979	370	130
CXVE 273-1012-15L	1778	7979	370	130
CXVE 274-1012-30L	1778	7979	370	130
CXVE 289-1012-20L	1778	7979	370	130
CXVE 308-1012-30L	1778	7979	370	130
CXVE 301-1012-15L	1778	8860	370	130
CXVE 311-1012-15L	1778	8860	370	130
CXVE 313-1012-15L	1778	8860	370	130
CXVE 326-1012-20L	1778	8860	370	130
CXVE 327-1012-15L	1778	8860	370	130
CXVE 328-1012-20L	1778	8860	370	130
CXVE 332-1012-20L	1778	8860	370	130
CXVE 340-1012-20L	1778	8860	370	130
CXVE 341-1012-30L	1778	8860	370	130
CXVE 347-1012-20L	1778	8860	370	130
CXVE 353-1012-30L	1778	8860	370	130
CXVE 355-1012-30L	1778	8860	370	130
CXVE 359-1012-30L	1778	8860	370	130
CXVE 365-1012-30L	1778	8860	370	130
CXVE 376-1012-30L	1778	8860	370	130
CXVE 388-1018-30L	1778	8129	570	190
CXVE 396-1018-22.5L	1778	8129	570	190
CXVE 414-1018-45L	1778	8129	570	190
CXVE 419-1018-22.5L	1778	8129	570	190
CXVE 419-1018-30L	1778	8129	570	190
CXVE 439-1018-30L	1778	8129	570	190
CXVE 446-1018-45L	1778	8129	570	190
CXVE 469-1018-45L	1778	8129	570	190
CXVE 461-1018-22.5L	1778	9010	570	190
CXVE 483-1018-30L	1778	9010	570	190
CXVE 491-1018-22.5L	1778	9010	570	190
CXVE 502-1018-22.5L	1778	9010	570	190
CXVE 502-1018-30L	1778	9010	570	190
CXVE 519-1018-45L	1778	9010	570	190
CXVE 521-1018-30L	1778	9010	570	190



CXVE 533-1018-30L	1778	9010	570	190
CXVE 539-1018-45L	1778	9010	570	190
CXVE 563-1018-45L	1778	9010	570	190
CXVE 575-1018-45L	1778	9010	570	190
CXVE 268-1212-20L	1930	7979	370	140
CXVE 287-1212-30L	1930	7979	370	140
CXVE 302-1212-20L	1930	7979	370	140
CXVE 341-1212-40L	1930	7979	370	140
CXVE 341-1212-20L	1930	8860	370	140
CXVE 343-1212-20L	1930	8860	370	140
CXVE 356-1212-20L	1930	8860	370	140
CXVE 356-1212-30L	1930	8860	370	140
CXVE 363-1212-20L	1930	8860	370	140
CXVE 369-1212-30L	1930	8860	370	140
CXVE 379-1212-40L	1930	8860	370	140
CXVE 381-1212-30L	1930	8860	370	140
CXVE 393-1212-30L	1930	8860	370	140
CXVE 394-1212-40L	1930	8860	370	140
CXVE 411-1212-40L	1930	8860	370	140
CXVE 420-1212-40L	1930	8860	370	140
CXVE 438-1218-30L	1930	8129	570	200
CXVE 460-1218-30L	1930	8129	570	200
CXVE 466-1218-45L	1930	8129	570	200
CXVE 490-1218-45L	1930	8129	570	200
CXVE 491-1218-60L	1930	8129	570	200
CXVE 504-1218-30L	1930	9010	570	200
CXVE 525-1218-30L	1930	9010	570	200
CXVE 543-1218-45L	1930	9010	570	200
CXVE 545-1218-30L	1930	9010	570	200
CXVE 563-1218-45L	1930	9010	570	200
CXVE 574-1218-60L	1930	9010	570	200
CXVE 601-1218-45L	1930	9010	570	200
CXVE 601-1218-60L	1930	9010	570	200
CXVE 628-1218-60L	1930	9010	570	200
CXVE 643-1218-60L	1930	9010	570	200