

CO₂ Evaporator



Evaporator - Ambient heated

Continuous evaporation of liquid CO₂ by ambient air heating.

The unit consists of two separate heat exchangers, which switches between operation and defrosting, to ensure a continuous evaporation.

The heat exchangers are mounted onto a rigid frame with piping, valves, instruments and control panel for automatic operation of the unit.

The heat exchangers are made in two versions dependant on the environment. Either the CU version with aluminium finned copper coils mounted in a powder coated casing or

a SS version with stainless steel coils and a galvanized steel casing for more aggressive climate conditions. Both versions come with a galvanized frame. Equipped with low noise fans specifically designed to maintain uniform low velocity airflow to ensure that water formed during defrosting is retained within the casing and led to drainage. A timer unit opens the solenoid valves alternately so that one unit is open to CO₂ while the other is closed. When the tube bank is closed, the ambient air drawn through the unit defrosts the water ice formed during the "open tube bank" cycle. The water collected in the aluminum drip tray during the defrost cycle is led to drainage. The evaporator is designed for installation inside a building.

Evaporator benefits

- Continuous operation & defrost mode
- Easy-install and maintenance. Vertically adjustable drip tray & removable inner drip tray. Hinged side panels
- Low noise fans
- Two versions CU and SS for aggressive climate conditions



Scope of supply:

- All necessary safety and change over valves.
- CO₂ Pressure regulation system
- Electrical panel with motor starters fuses and control system for automatic operation of the unit.
- Frame mounted for inside installation on the ground or on the wall.

Design codes:

- PED
- ASME optional

Technical specification:

CO ₂ working pressure (approx.)	16 bar(g)
CO ₂ outlet pressure	3.5-9.5 bar(g) 6...9
Ambient air temperature	min. 10°C
CO ₂ outlet temperature	max. 10°C below ambient temperature
Atmospheric humidity (max.)	50-60% (at 10°C ambient temperature)
Connection	Weld ends
Main Supply	3X380/440V + PE
Control Voltage	24VDC /230 VAC
Frequency	50/60 Hz
Degree of Protection	IP 55

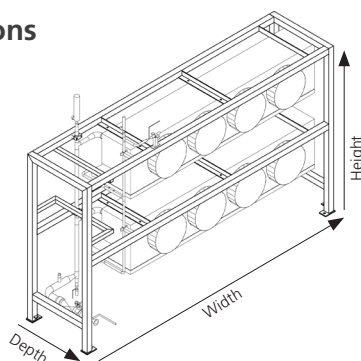
Type	Power consumption ¹ (kW)	Number of fans	Weight (kg)	Build-in measure (W X H X D) ² (mm)
EVU-500 CU	2 X 0,68	2 X 2	268	2040 X 2210 X 750
EVU-1000 CU	2 X 0,68	2 X 4	394	3110 X 2210 X 750
EVU-1500 CU	2 X 1,44	2 X 2	680	3800 X 2410 X 855
EVU-2000 CU	2 X 2,16	2 X 3	808	4670 X 2200 X 860
EVU-500 SS	2 X 0,25	2 X 1	326	2040 X 2161 X 1140
EVU-1000 SS	2 X 0,5	2 X 2	460	2920 X 2158 X 1135
EVU-1500 SS	2 X 1,1	2 X 2	554	2920 X 2200 X 1180
EVU-2000 SS	2 X 0,75	2 X 3	647	2200 X 3720 X 1130

1) Power cons incl defrosting

2) keep clearance distance between outlet and inlet air flow

Type:	Size (Evaporator capacity):	Order number:
EVU-500 CU	500 kg/h	P0651-EVU0500
EVU-1000 CU	1000 kg/h	P0651-EVU1000
EVU-1500 CU	1500 kg/h	P0651-EVU1500
EVU-2000 CU	2000 kg/h	P0651-EVU2000
EVU-500 SS	500 kg/h	P0651-EVU0500-SS
EVU-1000 SS	1000 kg/h	P0651-EVU1000-SS
EVU-1500 SS	1500 kg/h	P0651-EVU1500-SS
EVU-2000 SS	2000 kg/h	P0651-EVU2000-SS

Dimensions



Contact:



Service@union.dk
Tel.: +45 7620 7700