

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) |
| 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

