

COOLSTREAM V

WHAT THIS UNIT IS USED FOR:

CoolStream V is a pre-cooling unit which may be installed into an existing or new ventilation system. It replaces an outdoor air inlet unit. CoolStream V uses the principle of direct evaporative cooling.

APPLICATIONS: It's easy to

upgrade an existing ventilation system: CoolStream V is designed to be ready to use as soon as it has been installed. It offers multiple features and benefits, including three installation options and integrated controls.

FEATURES AND BENEFITS: A key feature is its low installation and operating costs compared to conventional air conditioning. It is also highly reliable and energy efficient. Evaporative cooling provides a comfortable way to cool internal spaces by delivering 100% fresh outdoor air, ensuring high indoor air quality. A range of outdoor air filters is available in different classes to meet specific requirements.



KEY FEATURES

Conventional systems



It costs up to seven times less to run an evaporative cooling system than a conventional system

Low investment, operating and maintenance costs

Certified to
VDI 6022
("Hygienic requirements for ventilation products and systems for internal spaces")

No refrigerants
No environmentally harmful refrigerants (e.g. CFCs) needed for the cooling process

Up to a 12°C reduction in temperature
When it's 35°C / 30% RH outside.

CoolStream V supplies air that has been cooled evaporatively, as the initial component of a ventilation system. The ventilation system can comprise either a simple supply air fan with ducting, an existing Coltair ventilation system, or a complex air handling unit.

CoolStream V helps to keep internal spaces pleasantly cool on warm and hot days. Cooling is achieved with the assistance of evaporated water. No environmentally harmful coolants are needed.

The evaporative cooling process greatly reduces the temperature of the outdoor air. The internal space benefits from fresh, cool and clean air, where optional filters are installed. Where the outdoor temperature is 35°C / 30% RH, the air is cooled down to 23°C. The controls monitor and control the water, with the result that any growth of bacteria and limescale is suppressed.

The unit is made from aluminium and stainless steel. All surfaces are smooth and designed for easy maintenance.

CONTROLS

The controls look after the filling and emptying of the internal reservoir and also monitor the water temperature and circulation.

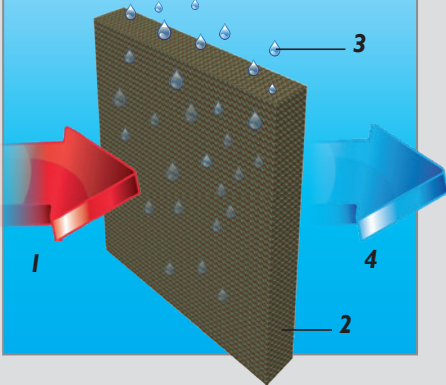
If there is a demand for cooling, the unit fills with water and the circulation process starts. If the cooling is not required for a short period, the unit is switched to standby, and in this circumstance the water stays in the unit. The controls ensure that the desorption medium is automatically dried after use.

OPTIONAL PRODUCT ACCESSORIES

There are outdoor air filters available in different classes. There's an optional VDI 6022 version with LED lighting, an inspection opening and a filter indicator.

HOW EVAPORATIVE COOLING WORKS

Hot outdoor air [1] moves through the desorption medium [2], which the system keeps moist [3]. The water evaporates and thereby makes the air temperature [4] drop to a great extent.



CoolStream V	Type	W100/H066	W100/H100	W140/H100
Airflow				
Max. allowable airflow (bottom / top duct connection)	m³/h	14,750	22,000	31,750
Max. allowable airflow (side duct connection)	m³/h	10,500	16,000	23,250
Evaporative cooling				
Max. allowable cooling capacity (bottom / top duct connection)	kW	59	88	127
Max. allowable cooling capacity (side duct connection)	kW	42	64	93
Cooling capacity based on the above airflow and at a 35°C outdoor temperature / 30% RH. / 1013 hPa				
Dimensions and weights				
Overall dimensions L x W x H (without filters)	mm	1435 x 1435 x 1155	1435 x 1435 x 1490	1835 x 1835 x 1490
Overall dimensions L x W x H (with filters)	mm	1725 x 1725 x 1155	1725 x 1725 x 1490	2125 x 2125 x 1490
Empty weight / operating weight	kg	60 / 120	75 / 145	130 / 230
Additional weight of filter	kg	25	35	45

