



CDS
Dehumidification for process
drying and dry storage

Efficient and economical drying solutions

The CDS range of powerful dehumidifiers is ideal for efficiently improving any drying process. With their high dehumidification capacities, the units are an appropriate and economically sound solution in a variety of manufacturing processes where large amounts of moisture are to be removed continuously, e.g. in the timber processing industry and the food industry.

The CDS dehumidifiers provide the ideal means of controlling humidity in processing industries but also in water works and pumping stations, protecting the building structure and installations from being damaged by moisture and corrosion.

An economical solution

Dantherm's CDS dehumidifiers are more economical to buy, install and operate than other dehumidifier systems. They use considerably less energy than conventional dehumidification based on

heat and ventilation. One of the reasons is that CDS dehumidifiers use the condensation principle to dehumidify and re-circulate room air. Dehumidification based on heat and ventilation is far more expensive, because it heats up the air, killing the air to absorb more moisture, and then removes the air – along with the expensive heat.

The condensation principle

An integral fan draws humid air into the CDS dehumidifier through a filter. Here the air passes through an evaporator,

where the water vapour condenses on a cold surface and falls, as water droplets, into the drip tray and then into the drain. The cooled air then passes through a condenser and picks up not only the heat equivalent of the previous cooling, but also the heat equivalent of the electrical input to the unit. Consequently, the air leaves the unit drier and several degrees warmer. The repeated circulation of air through the unit reduces the relative humidity, giving very rapid but gentle drying.

Technical data for CDS dehumidifiers

	Dehumidification capacity at 15°C/60% RH	Air flow	Operating range – humidity	Operating range – temperature	Height	Width	Depth	Weight
	l/24h	m ³ /h	%RH	°C	mm	mm	mm	kg
CDS 80	41	1600	30 – 100	5 - 32	1680	730	730	196
CDS 100	55	2800	30 – 100	5 - 32	2030	830	830	254
CDS 200	84	3000	30 – 100	5 - 32	2280	950	950	352



Applications

- *Water works*
- *Pumping stations*
- *Sports halls*
- *Locker rooms*
- *Process drying*
- *Storage rooms*
- *Timber processing industry*
- *Food industry*



Electronic control

The CDS dehumidifiers 80/100/200 are fully automatic and fitted with an electronic control. The control is prepared for the connection of a room thermostat, if the dehumidifiers are to be used with a heating element. If a controlled and constant relative humidity is required, the dehumidifiers can be fitted with a room hygostat. Continuous ventilation without dehumidification can be selected on the control panel. Active, demand-controlled defrosting is incorporated in the electronic control. A sensor on the evaporator coil ensures that

the evaporator is defrosted only when required. During defrosting the cooling circuit is reversed by a four-way valve, which means that the evaporator will act as a condenser as long as the defrosting function is activated.

Benefits of the CDS dehumidifier

- Strong and rugged cabinet of epoxy-coated, hot-galvanized steel
- The condensate outlet is located at the bottom right hand side of the unit. The outlet stub can be connected to a Ø32mm permanent pipe installation
- All functions are surveyed by a user-

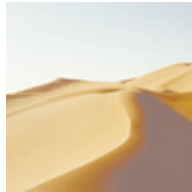
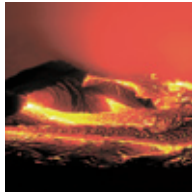
friendly control panel on the front of the unit

- Air intake through washable filters on three sides of the unit
- Dry air outlet through louvres at the top of the unit
- Ducts can be connected at the top of the unit
- A 7.2 kW heating element may be fitted for additional heating of the outlet air (optional extra)





Comfortable surroundings in any climate



Since 1958 Dantherm Air Handling has developed and produced climate control and air handling solutions that ensure optimum conditions for people and sensitive equipment alike. No climate is too extreme for us to handle – from the bitter cold at the North and South Poles to the searing heat of the Sahara.

Our core business areas are dehumidification, heating, air conditioning, ventilation and electronics cooling. Innovative, durable and cost-efficient products have secured us a position as a leading global manufacturer of stationary and mobile climate control units. And we are forever pursuing new techniques that will improve our solutions and ultimately your projects.

Dantherm Air Handling's headquarters are situated in Denmark with subsidiaries in Norway, Sweden, the United Kingdom, the United States and China – and an extensive European dealer network.

Dantherm Air Handling is a wholly-owned subsidiary of Dantherm A/S.

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