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Design.

Casing made of Zinc Magnesium-coated sheet steel.
Coil with copper pipes and pipe connections as well as aluminium fins with hydrophilic coating with 4 mm fin spacing that minimises maintenance, even in dusty environments. Stainless steel drip tray with condensation drain.
Opening access panel for easy inspection and cleaning.
Duct connections are fitted with rubber gaskets.

Use.

The CWDX is used in round ventilation ducts as an indoor unit for centralised cooling of the ventilation air in a ventilation system. CWDX duct coolers can also be used in combination with a heat pump with controller that switches between heating and cooling.

Installation.

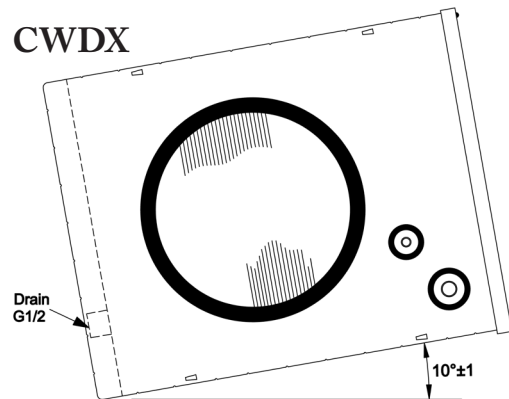
The CWDX is suitable for push-in assembly in standard spiral/ventilation ducts. Air direction as per installed arrow. Use screws to secure the unit to the duct system. It can be installed in either upstream or downstream from the fan unit in horizontal ducts. When installing downstream from the fan, ensure the air flow over the coil is uniform. We recommend that the distance to or from duct bends, fans, dampers or such is at least twice the duct diameter. To achieve maximum cooling output and ensure safer operation, the unit should not be installed directly after a fan outlet or duct bend. When installing upstream of the fan, ensure the fan motor and other components are suitable for the humid air downstream of the cooler. Max. air velocity for cooling operation is 2.5 m/s.

We recommend using an effective filter in the system. For cooling operation, the CWDX and ducts transporting the cooled air must be insulated externally to prevent the formation of condensation on the outside. Ensure that expansion forces in the system or the piping system's dead weight do not strain the CWDX's connections. Fill the pipes with nitrogen when soldering to prevent oxidation.

Protect pipe seals against high heat when soldering. We recommend using an expansion valve with external pressure equalizing to achieve optimal evaporation and minimize the risk of unevaporated coolant ending up in the compressor.

Drain.

The CWDX must be connected to a drain to drain off any possible condensation water. To prevent unnecessary stagnation of condensation water inside the duct cooler, it must be inclined by 10 ± 1 degrees in the direction of the drain.
- See figure below. The G 1/2" condensation drain must be connected through a water seal to prevent air leakage.
NOTE The drain must be dimensioned so as to prevent water from stagnating in the drip tray.



Dimensioning an Indoor Unit/Outdoor Unit.

When combining the CWDX outdoor unit with the CWDX indoor unit, it is important that the inner volume of the CWDX coil corresponds to the outdoor unit manufacturer's recommendations for optimal and safe use. It is also possible to connect more than one indoor unit to an outdoor unit. This must be done according to the outdoor unit manufacturer's instructions.

Cleaning.

Clean the coil regularly to achieve full output. The interval between each cleaning entirely depends on the air quality and on how well filters and other parts of the system are maintained. Use a soft brush to clean the intake side of the fins and then clean the entire coil with compressed air or by vacuuming it off. Blow away any dirt from the air outlet end to the inlet end. Take care not to deform the edges of the fins. Clean the bottom of the drip tray and check to make sure the condensation drain is free of any dirt.

Design Data.

Max. operating pressure: 4.29 MPa (42.9 bar).

Max test pressure: 4.8 MPa (48 bar).

The CWDX duct coolers have been pressurised and leak tested.

Supplied pressurised at 0.5 bar with dry air.

Check the pressure prior to installation.

Capacity.

Cooling and heating calculations can be performed using the web-based calculation program VEAB Select (www.veab.com) or contact our sales team for help.

NB: We reserve us from typographical errors and the right to make changes and improvements to the contents of this manual without prior notice.

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