

# SystemairCAD Week 36 release

C2025-09.36.K9

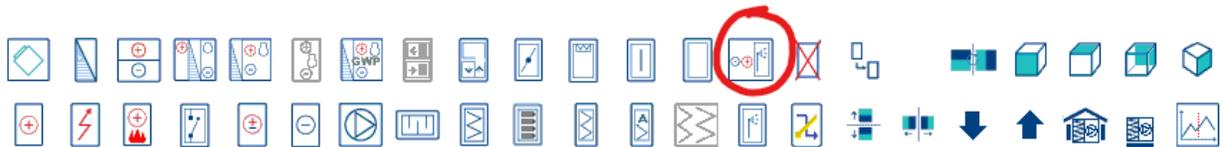
## Dehumidification and humidification

The access controller is updated with new features for humidification and dehumidification. Both features are combined in one function in SystemairCAD, to be able to make a complete humidity control function in the Air handling unit, with control system.

Define the summer and winter target Temperature and humidity in the Unit data dialog.

200 Pa	EXTRACT AIR	Summer	Winter
18	Temperature	22.0 °C	22.0 °C
	Relative humidity	40 %	40 %
	Supply air (Target)	Summer	Winter
	Temperature	16.0 °C	22.0 °C
	De-/humidification	60 %	40 %

Insert the Humidity function from the toolbar

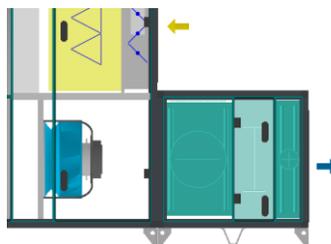


The inserted humidification function will include all components included for the selected variant. The icon in the dialog illustrates the included functions.

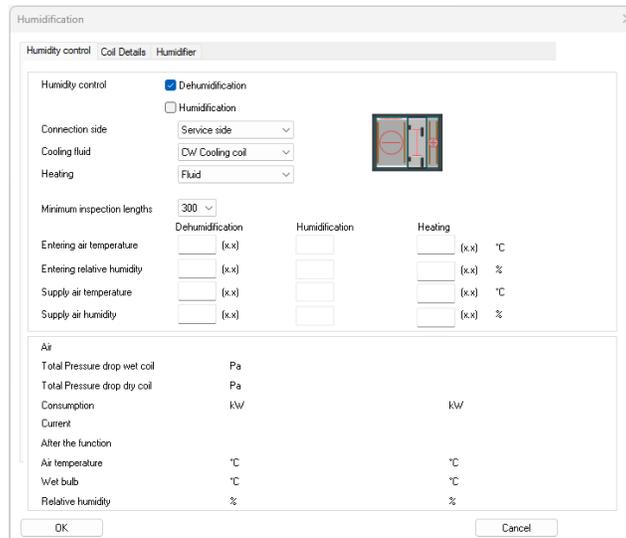
Humidity control	<input checked="" type="checkbox"/> Dehumidification
	<input type="checkbox"/> Humidification
Connection side	Service side
Cooling fluid	CW Cooling coil
Heating	Fluid



You will also see that the complete humidity function will highlight when you mouse over the function on the 3D model in SystemairCAD.



In the Humidification dialog you can select dehumidification, humidification or both:

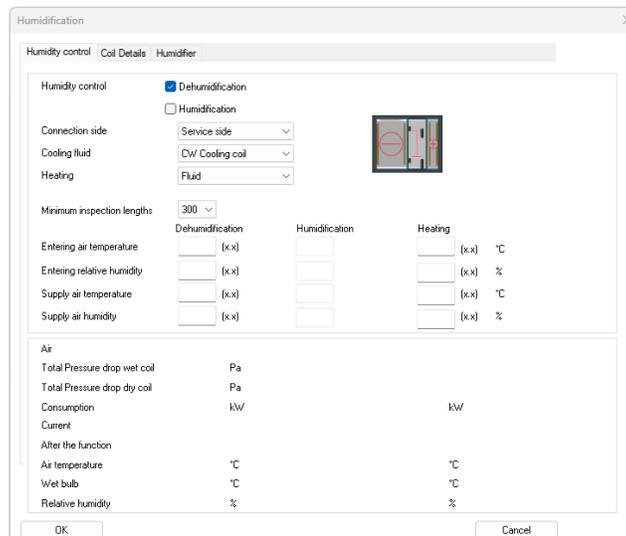


In the sub-dialogs you can see detailed data for the selected coils and the humidifier.

All variants of the humidification can only be placed in the supply air after the heat exchanger.

SystemairCAD will automatically calculate the need temperatures of the cooling coil and the heating coil to meet the target temperature and humidity defined in the Unit Data dialog.

## Dehumidification:

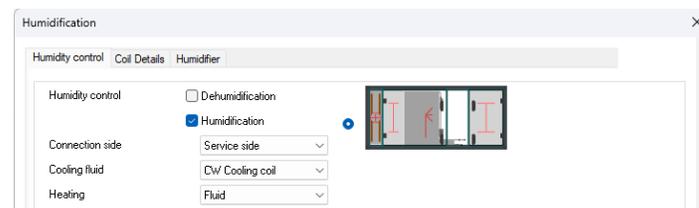


The dehumidification consists of a cooling coil and a heating coil.

In summer mode the cooling coil will sub-cool the air, to create the exact right amount of condensation, to fit the absolute humidity of the target temperature and relative humidity defined for the supply air. The heating coil heats the air to meet the required supply air target temperature.

In winter mode the heating coil is used for heating as any regular heating coil.

## Humidification



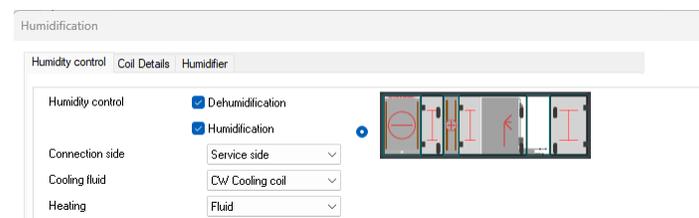
Humidification is only calculated in winter mode.

The function consists of a heating coil and an evaporative humidifier.

It is possible to select Fluid(water), condenser and electrical coils for heating.

Also here we automatically calculated the needed coil performance to meet the requirements defined in the Unit data dialog, related to temperature and humidity in the supply air.

## Both



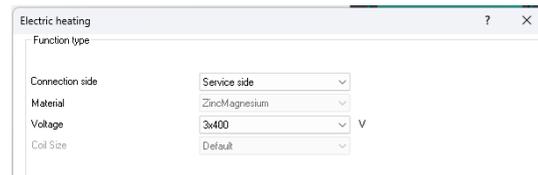
Here we combine both of the above functionality for a full humidity control, winter and summer.

**Explainer video:** [SystemairCAD C2025-09.36.K9 new features](#)

## Electrical heaters

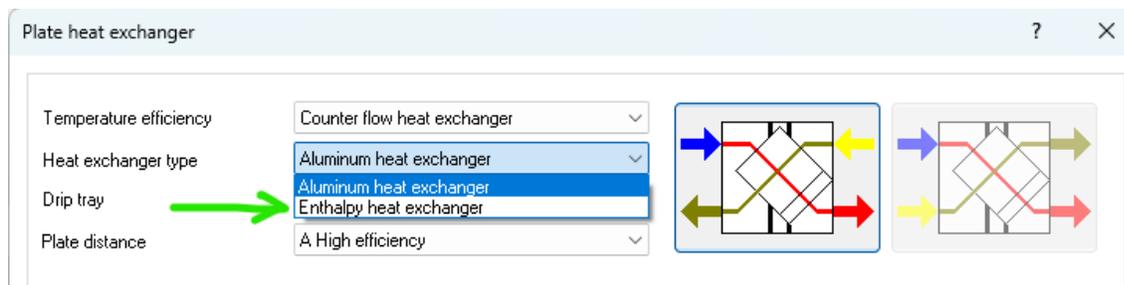
VEAB renewed the control system for the electrical heaters. As an effect of the update we do not need the low speed version of the heaters. All air speeds will be covered by the same electrical heater.

SystemairCAD dialog:



## Enthalpi counterflow heat exchanger for Geniox Core

We introduce the new Enthalpi counterflow heat exchanger supplied by Recutech for Geniox Core.



Thanks to the patented [enthalpy plate material METALPIC](#), the VentureE-RV offers unique features that improve the performance of your air handling unit and **provide many benefits to its users:**

- Highest **thermal efficiency** thanks to the large surface area of the plates
- Humidity transfer without contamination of the fresh air thanks to the **selective permeability** of the membrane and **100% tightness testing**
- **High resistance to unbalanced pressure** thanks to the aluminium mesh supporting the membrane
- **Limited** condensation and freezing
- **Savings** in (de)humidification / heating / cooling
- Room air with **stable relative humidity**