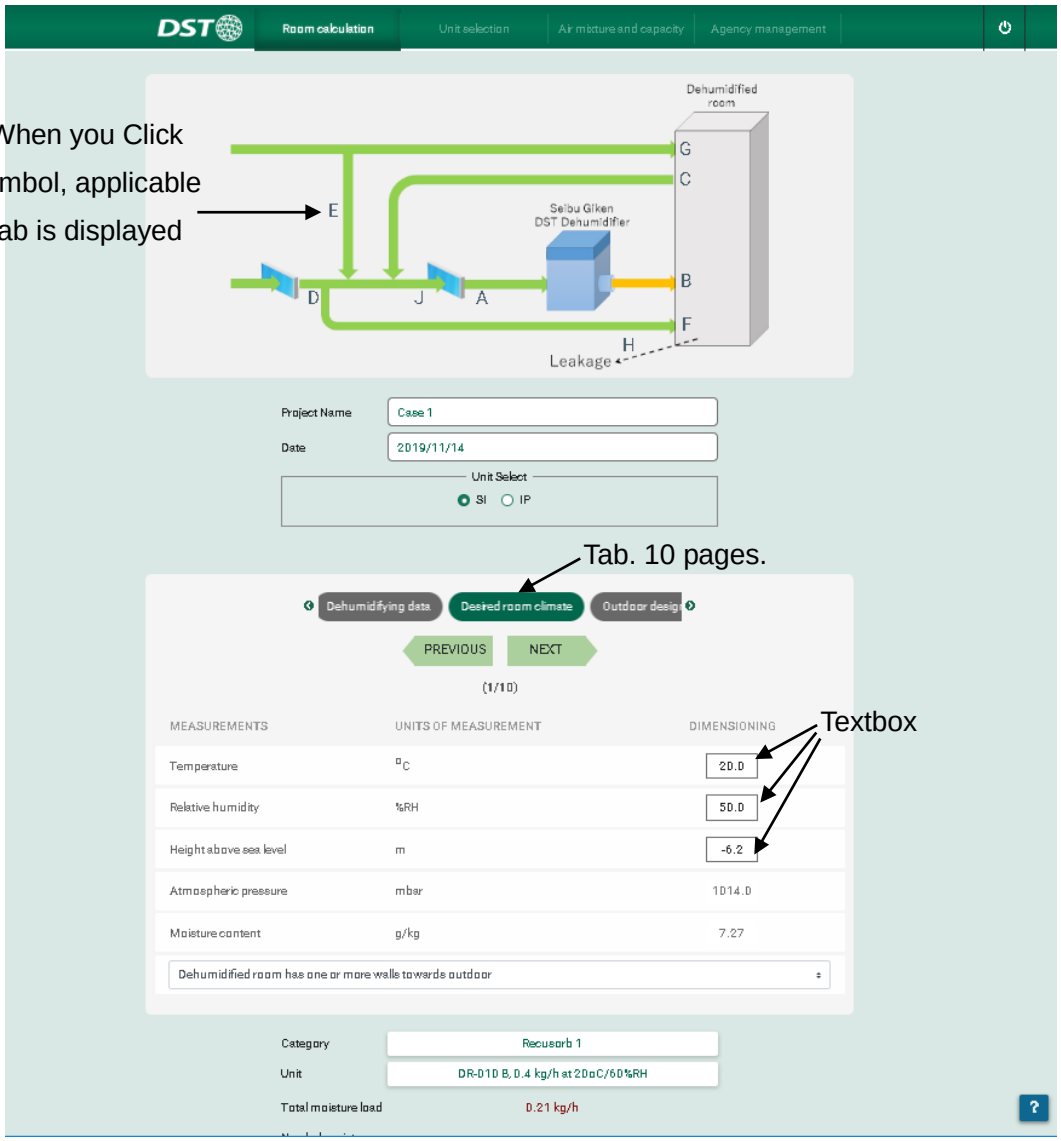
Manual of Room calculation

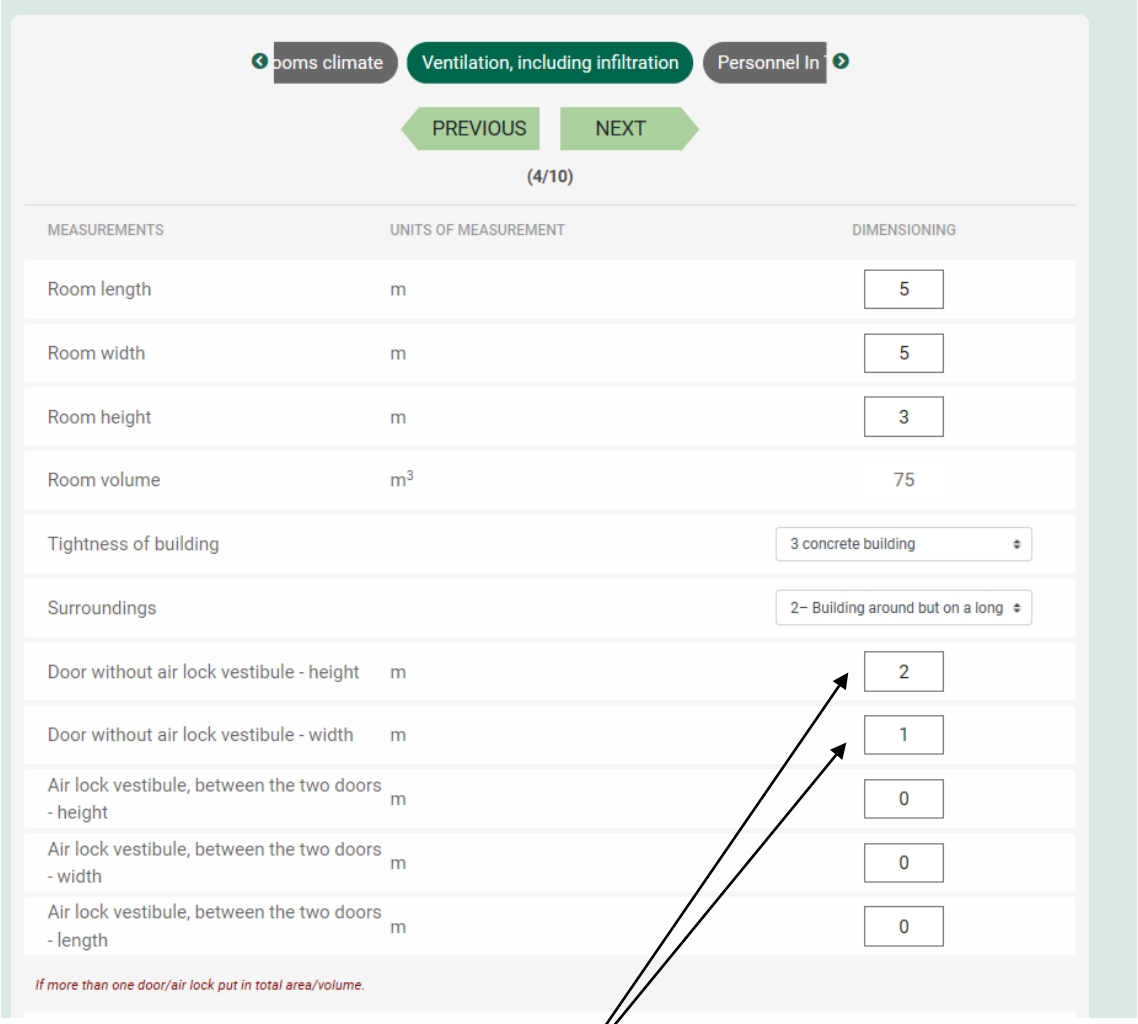
This program is supported by browser of Microsoft Edge and Google Chrome.

On this page you can determine moisture load and what dry air condition the dehumidifier has to perform.

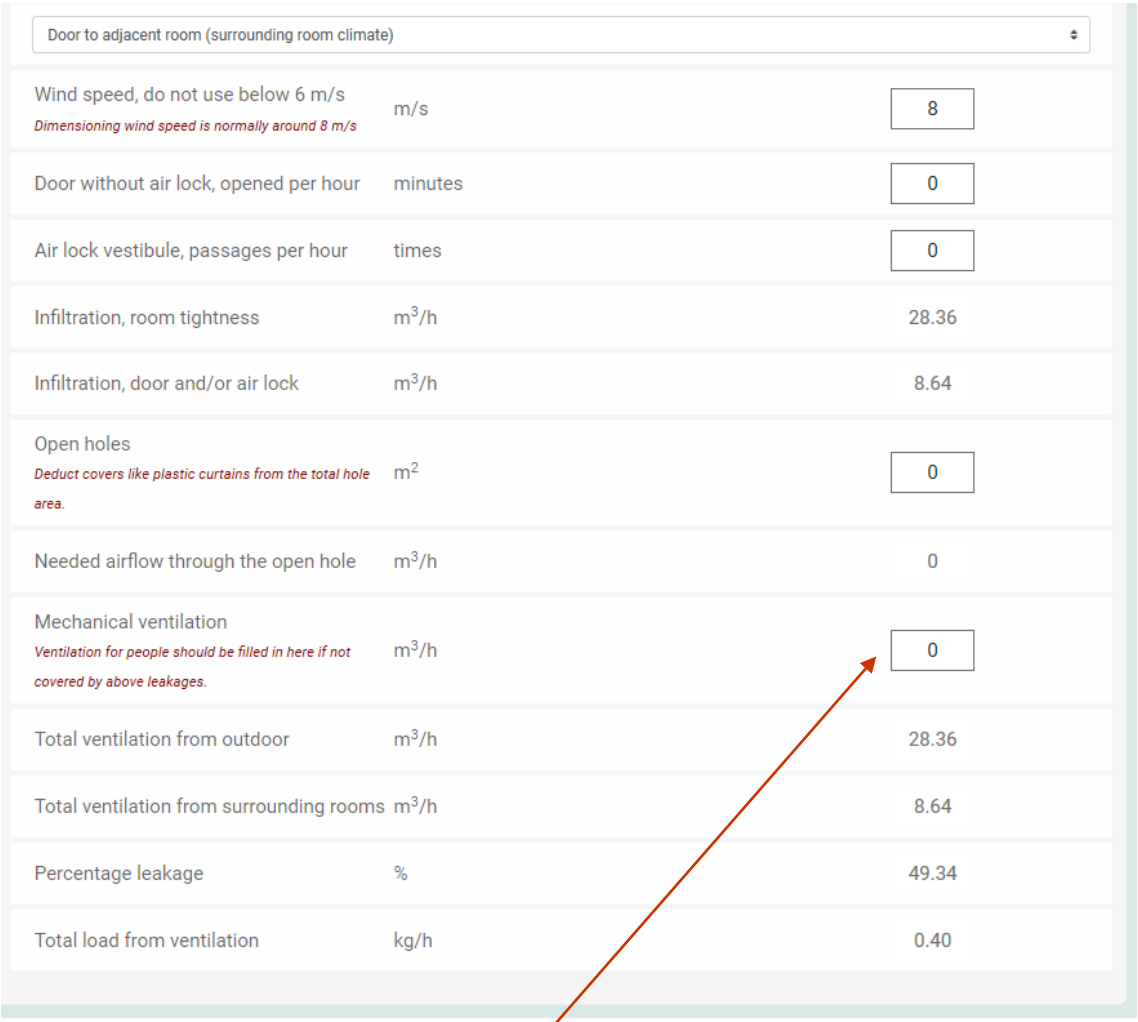
1. Input Project Name and Europe SI (default) or US IP units at “Unit select”.
2. Start by filling in “Desired room climate”. Boxes with squares can be filled in.
3. Then continue by the tab or click “Next” button to fill in “Outdoor design climate” and “Surrounding room climate”.



4. After “Surrounding room climate” the page that describes the room comes, called “Ventilation, including infiltration”, looks like this:



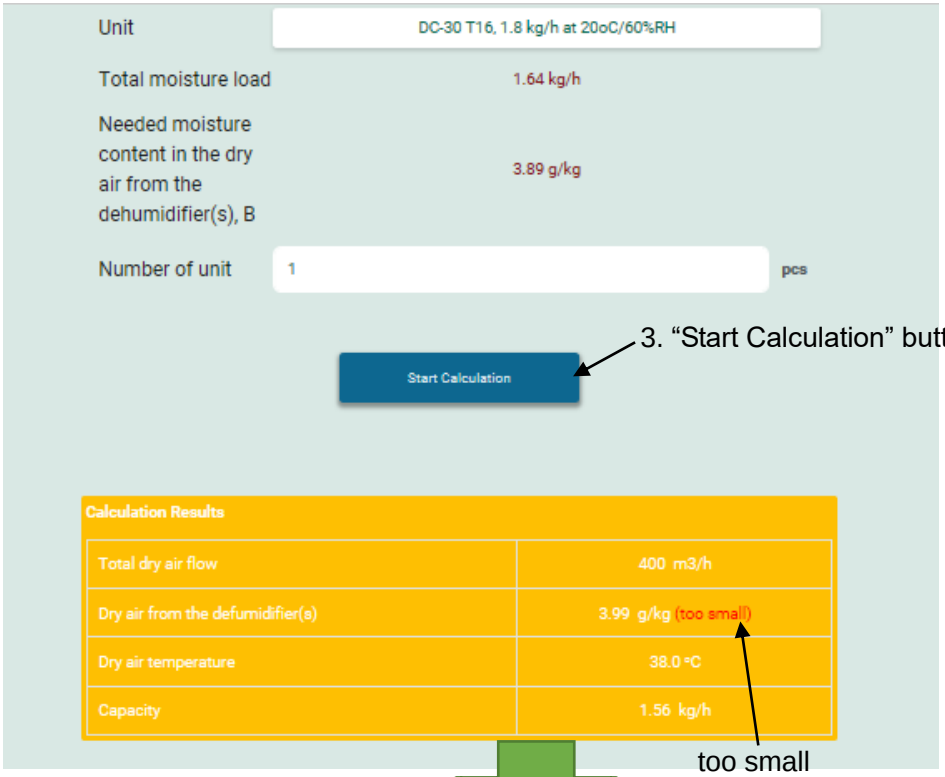
If there is an air-lock instead of a normal door put these dimensions to zero.
If you have more than one door, put the total area here.

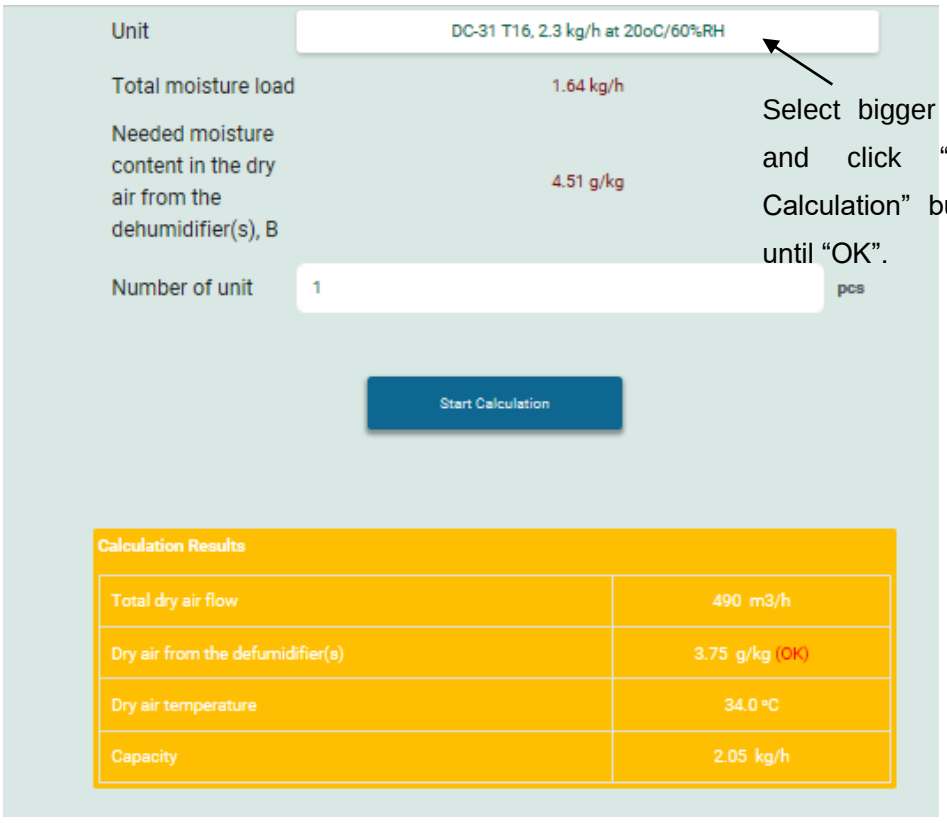


Ventilation has a very high impact on the moisture load, important that this is correct.

5. After filling in above room information click Next to go through remaining boxes and fill in applicable data in the same way.
6. When coming to “Total moisture load” a first selection is done only based on the moisture load.
7. At “Dehumidifying data” a suggested ratio between return air and fresh air is chosen by the program based on the leakage rate of the room. This can be changed to suite the installation type better, Here also pre-cooling can be set to get down in dehumidification rate.
8. Select category, Recusorb1 or Consorb. Expected unit is automatically selected.
9. Click “Start Calculation” button.
10. Check the Calculation Results of Dry air from the dehumidifier(s) is “OK” or ”too small”

If you see “too small”, please select bigger unit, and click “Start Calculation” again until “OK”.





Select bigger unit, and click “Start Calculation” button until “OK”.

11. Check each values and graph of pull-down time for the moisture content in room.

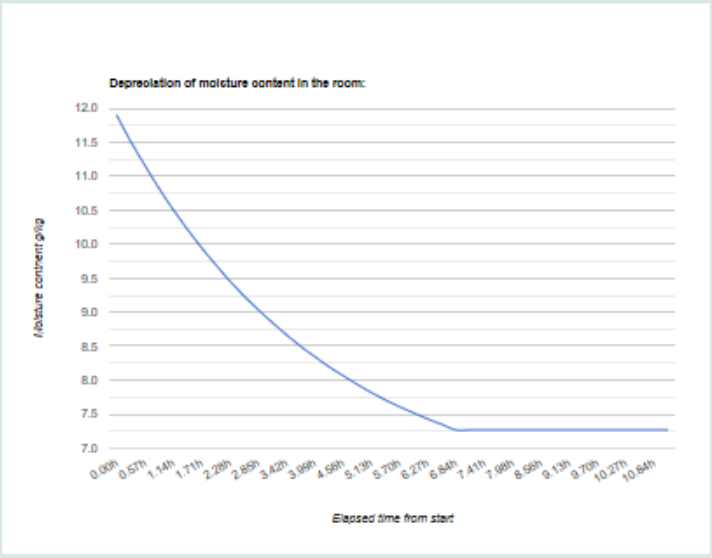
Tot. process airflow into dehumidifier(s)	[A]	490 m3/h
Return air direct to dehumidifier(s)	[C]	485.68 m3/h
Pre-cooled air	[D]	0 m3/h
Pre-cooling ambient air to	[D]	12°C
Corresponding to		8.74 g/kg
Ambient air direct to the dehumidifier(s)	[E]	4.32 m3/h
Point J before pre-cooler (Final condition)		20.04°C
Point J before pre-cooler (Final condition)		7.31 g/kg
Pre-cooling before dehumidifier(s)	[J to A]	20.04°C
Temperature (Final condition)	[A]	20.04°C
Moisture content (Final condition)	[A]	7.31 g/kg
Air direct from pre-cooling to the room		0 m3/h
Air direct from ambient to the room		0 m3/h
Leakage H		4.32 m3/h

Pulldown time

Chosen Unit: DC-31 T16

Quantity: 1 pcs

		Starting	Final
Temperature	(°C)	25	20
Relative humidity	(%RH)	60	50
Atmospheric pressure	(mbar)	1014	1014
Corresponding to	(g/kg)	11.90	7.27
Capacity	(kg/h)	2.42	2.05



12. SAVE or Print out the result. When you click “SAVE” button, the result exports to csv file and database table.

13. If you want to see the previous result, click the project from database table.