Chiller

MagiCAD plugin for AutoCAD

02/05/2025

MagiCAD

Content

1   General

About this document

This document contains instructions for using the Chiller MagiCAD plugin for Autodesk AutoCAD. Plugin application is an add-in application in AutoCAD and requires that MagiCAD is also installed.

With plugin user can:
- Do the sizing of a product and select Chiller fan coil units in selection tool, based on the system information acquired from the MagiCAD project.
- View the previously selected products and its details in the Chiller selection tool. Download the product specific documentation from the selection tool.

Installing the software

Chiller MagiCAD plugin for AutoCAD works with the following MagiCAD and AutoCAD versions:

- MagiCAD 2025 and AutoCAD 2021-2025
- MagiCAD 2026 and AutoCAD 2023-2026

Before the installation

1. Workstation administrator privileges are recommended for installation.

2. **Notice if you have several AutoCAD versions on your workstation.**
   Before running the plugin installer, start MagiCAD to make sure that Chiller MagiCAD Plugin for AutoCAD installs on the same AutoCAD platform as MagiCAD is installed.

Installation

1. Download the plugin installer file from MagiCAD portal to your workstation:
   https://portal.magicad.com/Download/ProductSearch?searchStr=Chiller&categoryId=3

2. Run the Chiller MagiCAD for AutoCAD plugin installer on your workstation and follow the instructions in installer.

Start and using the application

The plugin is automatically loaded and is ready to be used once MagiCAD and AutoCAD is started next time after the plugin installation.

Before you start using the Chiller plugin, create or open a MagiCAD ventilation project in AutoCAD. All the necessary ventilation, heating / cooling and sewer systems should be available in the project.

Locate the MagiCAD Connect tab from the AutoCAD ribbon. Once the Chiller plugin is loaded, the Chiller ribbon panel and split button can be found from MagiCAD Connect tab. Split button contains separate buttons for different operations: "Insert Fan coil" and "View documents".

2   Functions

Chiller plugin user interface overview

Chiller plugin contains two different operations.
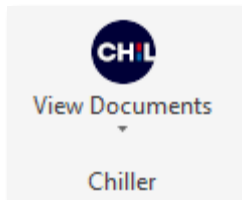
Insert Fan coil operation

With this command, user can make the product sizing and selection according to the selected MagiCAD heating and/or cooling systems data in the Chiller selection tool web application.

After the selection, user can insert the selected product into MagiCAD project and AutoCAD drawing as a 3D geometry object which contains all the HVAC specific data.

View Documents operation

With this command, user can view the previously inserted product details in the Chiller selection tool web application in the plugin browser view. User can also download all the product specific design documents from selection tool.

Detailed Insert Fan coil operation

Pre-requirement for inserting the fan coil product is to have the MagiCAD project with existing heating and/or cooling system. The system media type, supply and return temperatures are used for product selection. With some products also supply ventilation system and drainage system should exist.

Follow these steps to insert the fan coil product to AutoCAD drawing and MagiCAD project. The following steps contains the cooling type fan coil product insert.
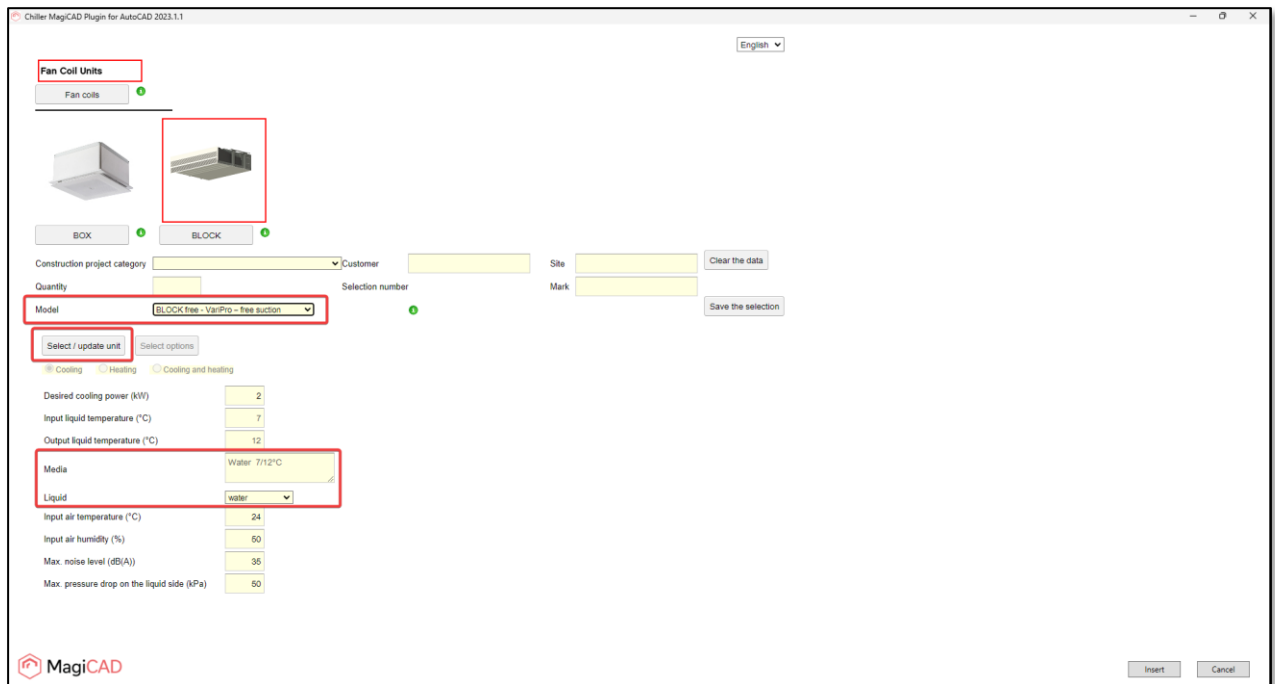
1. Start the fan coil insert operation from MagiCAD Connect tab and Chiller panel button or type the command *CHILLER_INSERT*.

2. The fan coil piping systems selection is done from the opened systems selection dialog. The product type (heating / cooling / heating + cooling) will be decided according to the system selection. Continue with OK button.
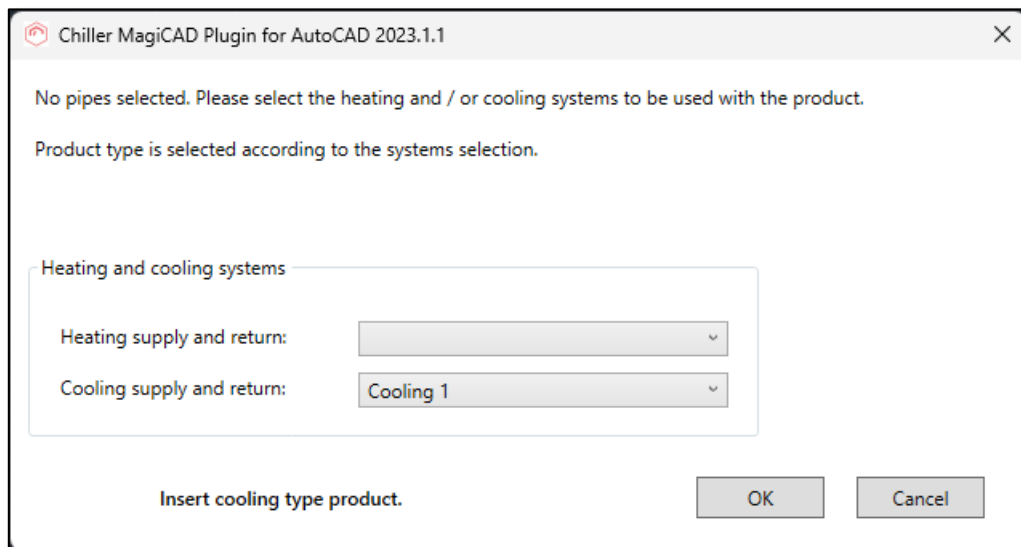
3. Plugin will open the Chiller selection tool application in its browser view and user can select the product family.
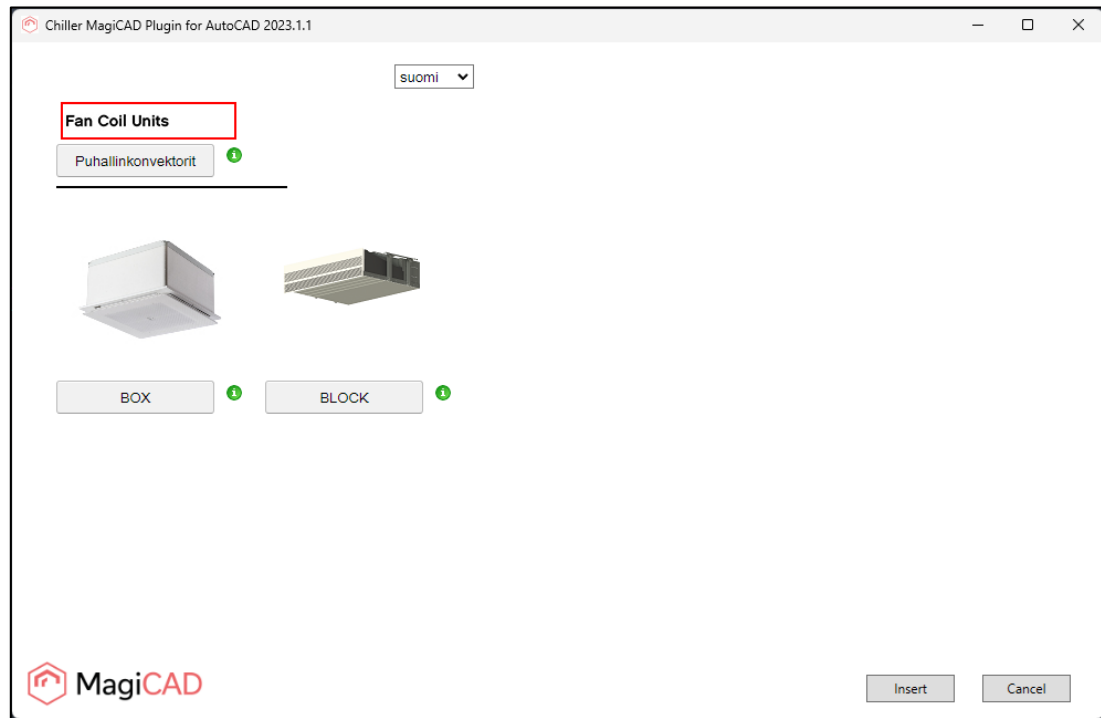
4. After the family is selected, user selects the product model or variant. Finally, user selects the unit for the product variant. The liquid should be selected before the unit selection. The media field indicates the MagiCAD system specific media name. This helps the user to select the correct media for the product.

5. After all needed selection are done, user saves the selection. Selection web application informs user when the selection has been saved. User inserts the selected product to AutoCAD/MagiCAD with Insert button.
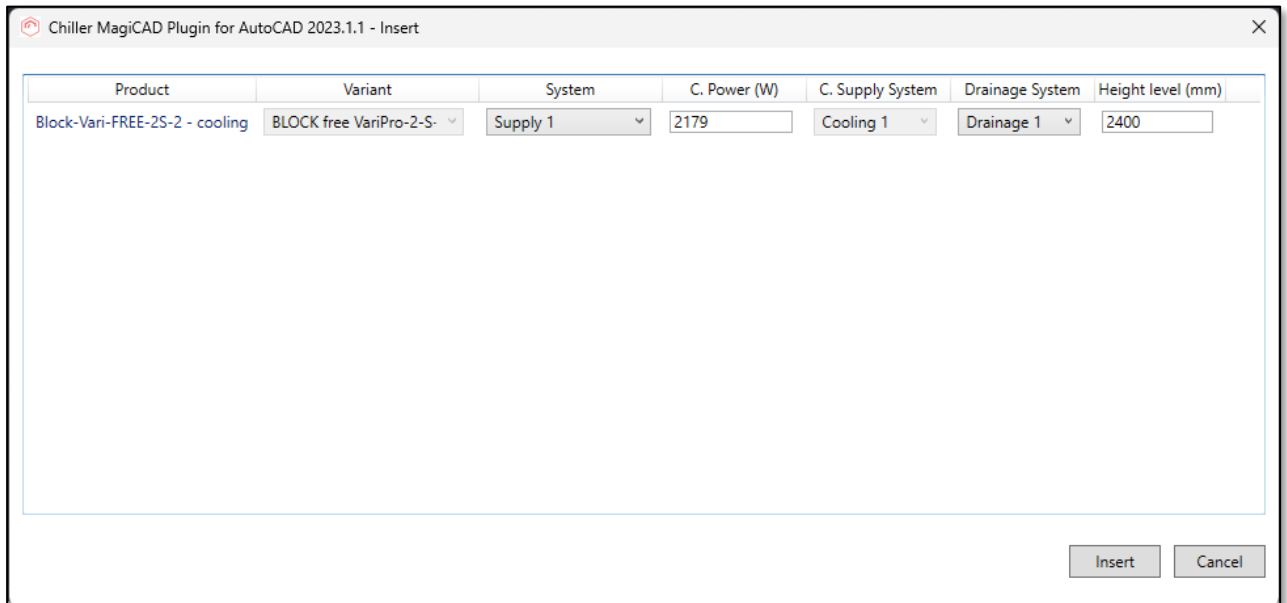
6. Plugin gets all the product related data and shows the product insert dialog for the user. In the dialog user will:
    a. In System column, select the ventilation system for the product. In case product contains a fresh air ventilation connection it will be connected to the same system.
   b. See the calculated cooling power.
    c. See the MagiCAD cooling system.
    d. Select the drainage system for the product (in case product needs the drainage connection).
    e. Select the installation height level.

    User inserts the product to drawing with Insert button.

Product	Variant	System	C. Power (W)	C. Supply System	Drainage System	Height level (mm)
Block-Vari-FREE-2S-2 - cooling	BLOCK free VariPro-2-S-	Supply 1	2179	Cooling 1	Drainage 1	2400

Insert   Cancel

7. User selects the position for the product in the drawing and after selection the product can be rotated. Single or multiple product instances can be added.
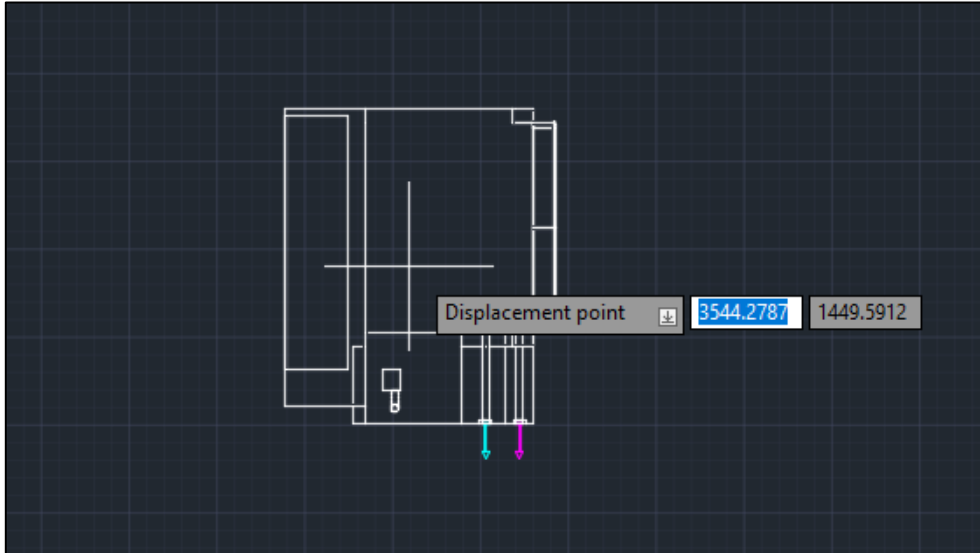
8. Connect the product to existing cooling pipework and also to ventilation ductwork and drainage pipework if necessary.
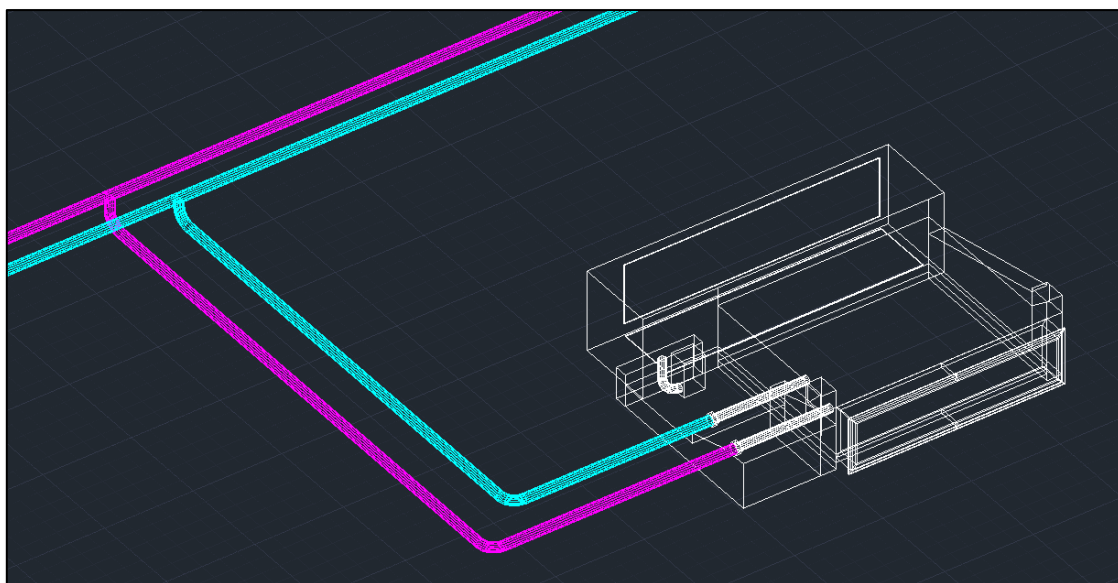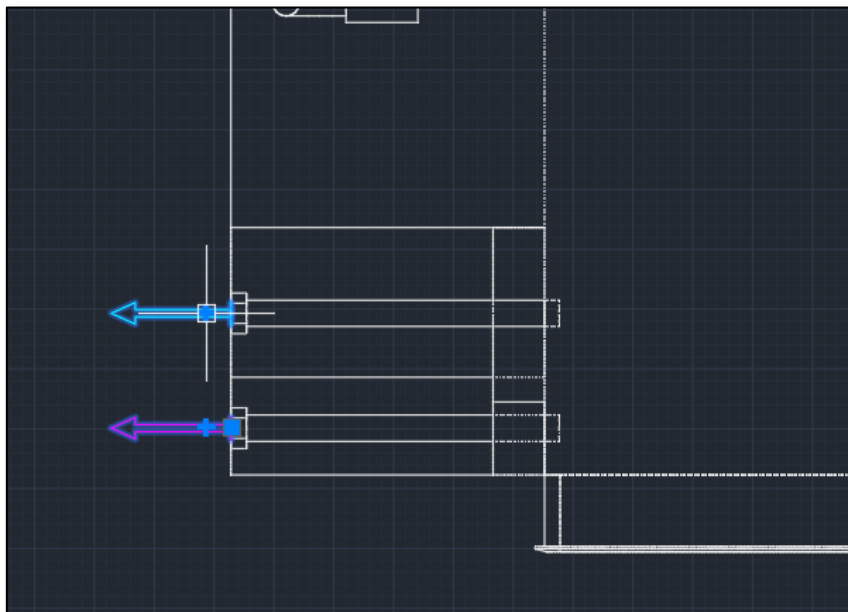
9. Run the MagiCAD balancing calculation to see from the report if the product is in balance with the rest of the pipework.

MagiCAD - Hydronic Network Balancing Report

Edit

○ Supply ○ General results
○ Return

Location	Level	Node	System	Type	Series	Product	Size	L [m]	Insulation	P [W]	qv [l/s]	v [m/s]	T [°C]	Q [W]	dp/L [Pa/m]	dpt [kPa]	pt [kPa]	adj.	Warnings
	Storey 1	1	C1	ROOT NOD						3179	0,1555						28,206		
	Storey 1		C1	PIPE	Fe-35		20	1,0		3179	0,1555	0,40	7,0	-11,0	130,4	0,132	28,206		
	Storey 1	3	C1	BRANCH	Fe-35		20/20			3179	0,1555	0,40				0,053	28,074		
	Storey 1		C1	PIPE	Fe-35		20	0,0		2179	0,1066	0,27	7,0	-0,3	67,1	0,002	28,021		
	Storey 1		C1	BEND-90	Fe-35		20			2179	0,1066	0,27				0,045	28,019		
	Storey 1		C1	PIPE	Fe-35		20	1,5		2179	0,1066	0,27	7,0	-15,9	67,1	0,098	27,974		
	Storey 1		C1	BEND-90	Fe-35		20			2179	0,1066	0,27				0,045	27,876		
	Storey 1		C1	PIPE	Fe-35		20	0,7		2179	0,1066	0,27	7,1	-7,1	67,1	0,044	27,831		
	Storey 1	4	C1	FAN COIL		BLOCK free	20			2179	0,1066		7,1			27,374	27,788		
	Storey 1		C1	PIPE	Fe-35		20	1,0		1000	0,0489	0,13	7,0	-10,3	10,4	0,010	28,069		
	Storey 1	5	C1	ZONE VAL		STAD*-15	15			1000	0,0489					3,000	28,059	2,6	
	Storey 1		C1	PIPE	Fe-35		20	0,9		1000	0,0489	0,13	7,1	-9,6	10,4	0,009	25,059		
	Storey 1	2	C1	CONN.NOD						1000	0,0489		7,1			5,000	25,050		

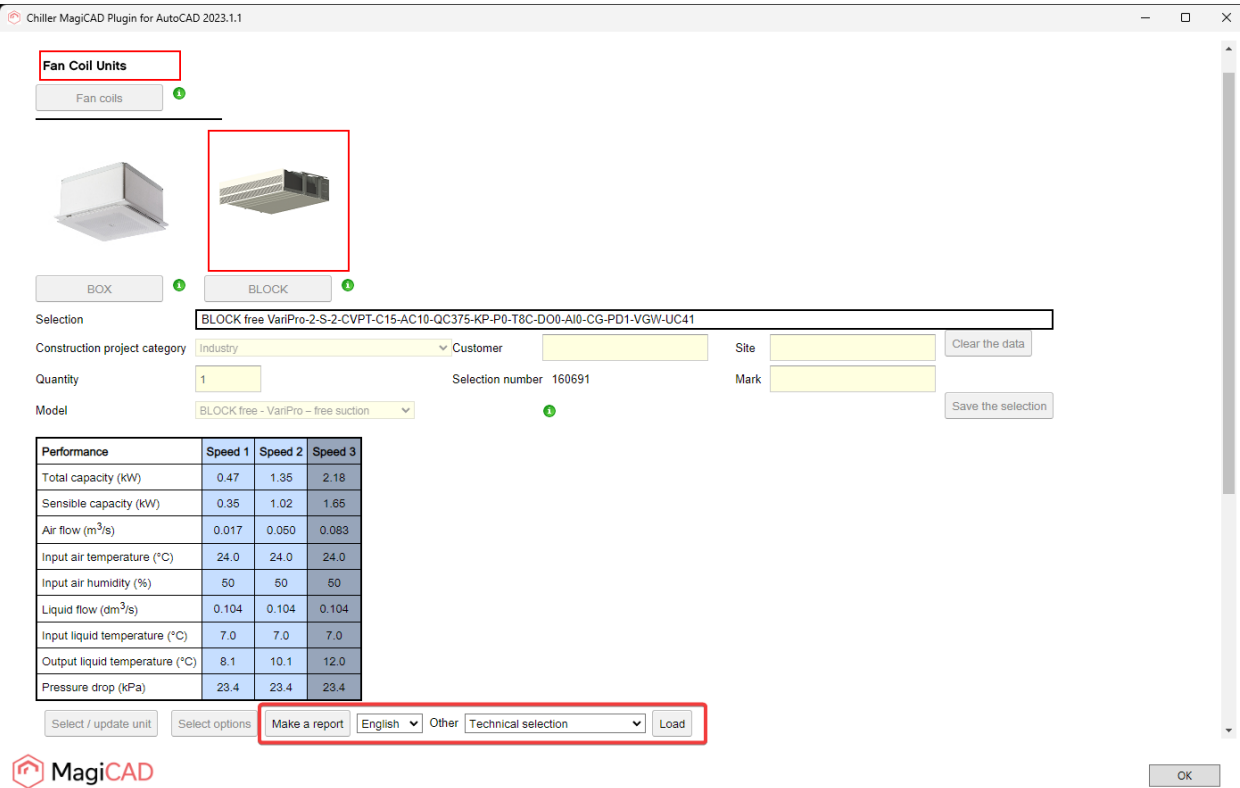| Previous warning/error | Next warning/error | | Ok - Update to model | Cancel |

Detailed View Documents operation

Pre-requirement for viewing the fan coil product documents is to have the AutoCAD drawing / MagiCAD project with existing fan coil product which is inserted with the plugin functionality.

Follow these steps to view the fan coil product documents in the Chiller selection application.

1. Start the View Documents operation from MagiCAD Connect tab and Chiller panel button or type the command *CHILLER_VIEW*.

2. Plugin asks for user to select the product which documents should be viewed. The command can be cancelled with keyboard Esc button.

3. After selecting the product, plugin will open the product specific page from the selection application. User makes the reports in the page with Make a report button. User can load for example the operating diagram which will be opened to users default pdf viewer. In other formats, the Windows Save As.. dialog will be shown to user and user can select where to save the file.

    The viewing of the documents is ended with OK button.