



# **IV Produkt MagiCAD plugin for Revit**

User guide

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## 1 General

### 1.1 About this document

This document contains instructions on using *IV Produkt MagiCAD plugin for Revit*. The plugin is a CAD extension application for importing air handling units into Revit and MagiCAD for Revit from IV Produkt Designer application.

### 1.2 Installing the Software

#### 1.2.1 Required Third-party Software

IV Produkt MagiCAD plugins work with the following MagiCAD for Revit versions:

##### Revit

- Revit 2021 - 2024

##### MagiCAD (optional)

- MagiCAD for Revit 2023 with Revit 2021 - 2023
- MagiCAD for Revit 2024 with Revit 2021 - 2024

#### 1.2.2 Installation

1. Download setup file from  
<https://portal.magicad.com/download/ProductSearch?searchStr=IV%20Produkt&categoryId=3>
2. Install IV Produkt MagiCAD plugin for Revit.

Administrator privileges are recommended for the installation.

### 1.3 Air handling units for the plugin

The air handling unit must be configured in the IV Produkt Designer application before using the plugin.

The plugin receives the air handling unit data from the IV Produkt Designer application in the transfer file (file extension is MAH). The transfer file must be saved somewhere where the plugin can use it.

The transfer file can contain more than one air handling unit at a time.

## 2 Features

### 2.1 IV Produkt MagiCAD Plugin User Interface

The plugin can be found in *Add-Ins* menu in Revit.



### 2.2 Import AHU

This feature allows the plugin user to select a transfer file (\*.MAH) and import the air handling unit(s) to Revit and MagiCAD for Revit.

Before the *Import AHU* feature from the plugin is used, the air handling unit(s) needs to be first exported from the IV Produkt Designer application.

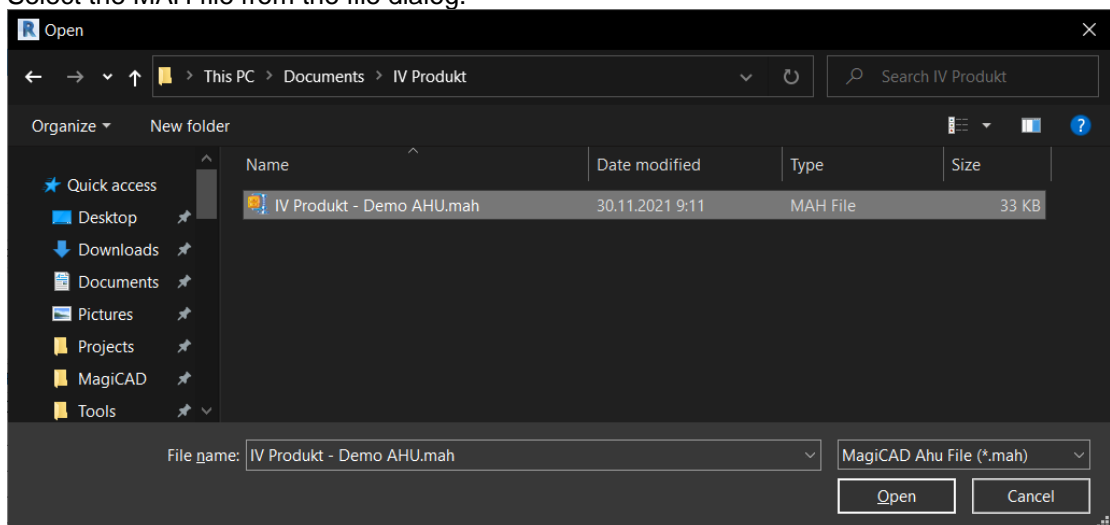
The user of the IV Produkt Designer application and the plugin can be a different person.

Follow these steps for importing a IV Produkt air handling unit into MagiCAD/Revit.

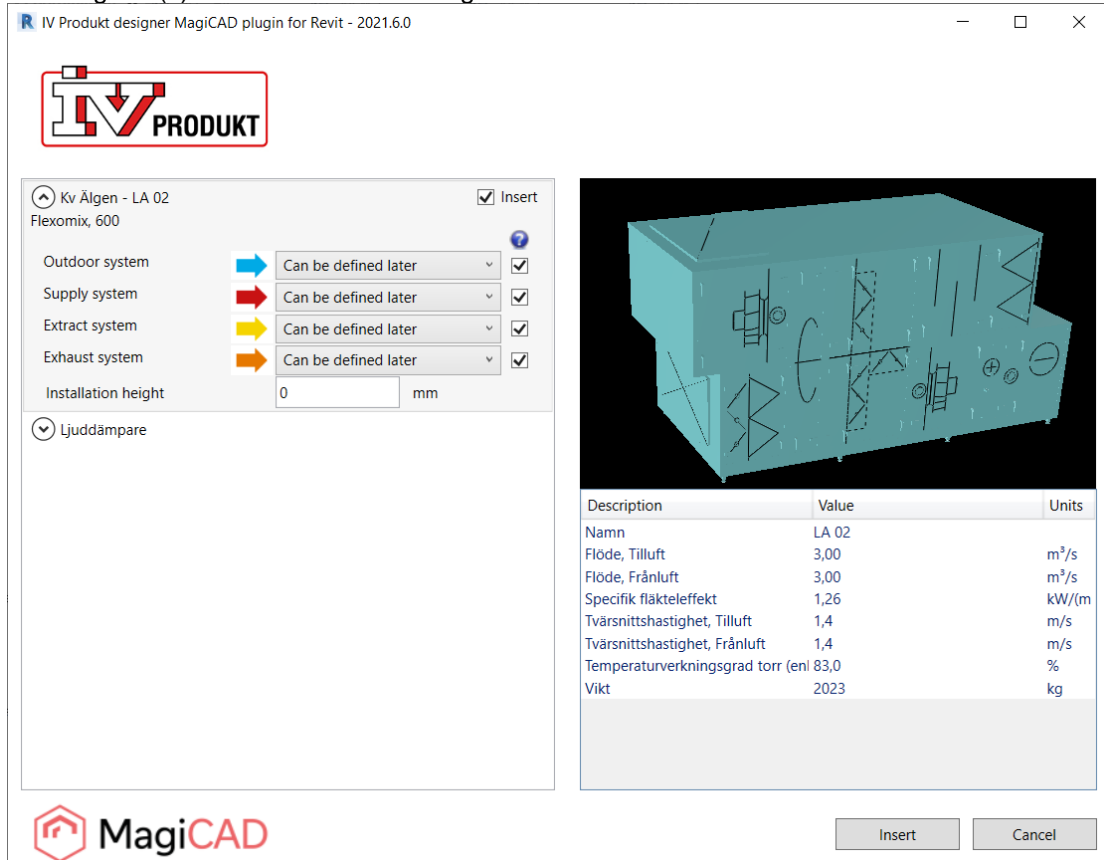
1. Click *Import AHU* button from *Add-Ins* ribbon panel in Revit.



2. Select the MAH file from the file dialog.



3. After clicking the *Open* button, the plugin reads the transfer file (\*.MAH) and loads the air handling unit(s) to the installation dialog.



The geometry of the product is displayed on the top right side. The product can be zoomed with the mouse wheel.

Before installing the product to the Revit or MagiCAD for Revit, the systems can be selected for each duct connection. The systems for each duct connections are read from the active Revit project. The duct system selections are not mandatory at this point.

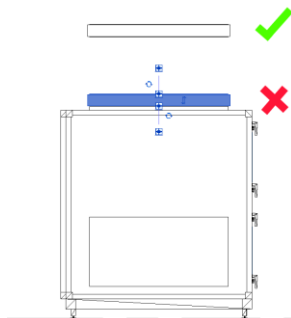
The installation height (offset) of the product can be defined in the installation dialog. The offset value can be changed later in Revit.

Please notice that it is possible to uncheck *Insert* checkbox in case you want to exclude some of the air handling units from the insert operation.

- Once the selections have been made in the installation dialog, the insert operation can be started by clicking *Insert* button.

At this point, the plugin creates the geometry (RFA) of the air handling unit and sets all technical data for the air handling unit in place.

Note! In the case of an air handling unit with vertical connections do not snap the duct components to the air handling unit! This will result in that the air handling unit and the duct component are merged together and it will not be possible to draw a duct between them. The duct component installation height will also affect the air handling position.



In these cases, the duct component must be inserted to the side of the air handling unit and moved into place after the insert operation.

- The product(s) can be placed to the Revit one by one by dragging them to wanted position.

Once the air handling unit is inserted to Revit, the air handling unit can be connected to ducts and pipes.

If the MagiCAD for Revit is installed, the air handling unit can be included to MagiCAD calculations by using MagiCAD features.

The plugin supports air handling units that have maximum of 4 supported air connections (outdoor, supply, extract, exhaust). Geometry can have more than 4 air connections but then calculation is not possible because of Revit limitation. However extra connections like smoke by-pass connection can be defined as a pluggable connections. When these connections are plugged and MagiCAD for Revit Calculation is based on balancing to fan pressure calculation can be executed without warnings. In this case there are not any air flow nor pressure drop values available.