

Swegon ProUnit plugin for Revit

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Chapter 1. General

About this document

This document contains instruction on using *Swegon ProUnit plugin for Revit*. The plugin allows inserting Swegon air handling units into Revit.

Installing the software

Required third-party software

Swegon ProUnit plugin for Revit works with the following MagiCAD and Revit versions

Revit

- Revit 2014, 2015, 2016 (64-bit version)

MagiCAD (optional)

- MagiCAD for Revit 2014.11 (with Revit 2014 and 2015)
- MagiCAD for Revit 2015.4 (with Revit 2015 and 2016)
- MagiCAD for Revit 2015.11 (with Revit 2015 and 2016)

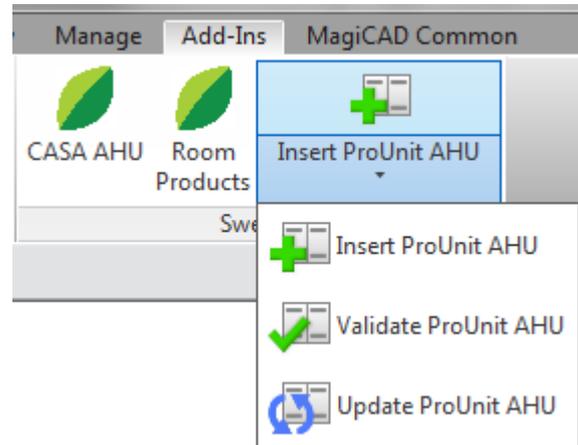
Installation

1. Ensure that you have required Revit version installed on your computer.
2. Install Swegon ProUnit plugin. Installation package can be downloaded from <https://portal.magicad.com/download/ProductSearch?searchStr=Swegon&categoryId=3>

The 64-bit version of the program is installed by running the msi-file.
Administrator privileges are recommended for installation.

Starting the program

After running the installation, Swegon panel appears to Revit Add-Ins -ribbon tab and user can start using the Swegon ProUnit plugin functionalities.



Chapter 2. Functions

Swegon ProUnit plugin user interface

Main functions

The plugin contains the following functions:



Opens the ProUnit where air handling units can be created and configured. User can choose products to be inserted to the Revit.



Validates Swegon's air handling unit. Checks if air flows / pressures drops are still valid for the dimensioning.



Updates selected Swegon's air handling unit by opening ProUnit. The selected air handling unit will be replaced/updated to the Revit project.

The air flows and pressure drops are read from the ducts in the Validate and Update functions if the air handling unit is connected to ducts.

Please note that pressure drops are available only if MagiCAD for Revit is installed. If MagiCAD for Revit is not exists, only airflows are read from the Revit to ProUnit.

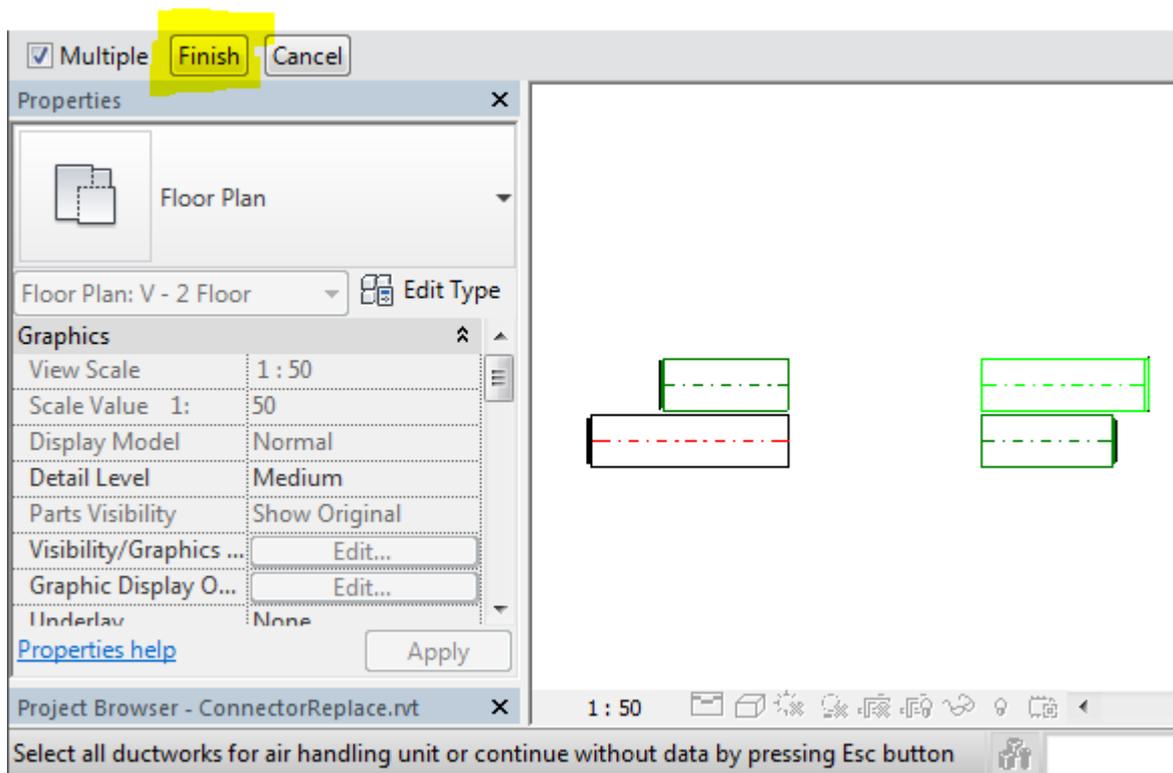
Insert ProUnit AHU



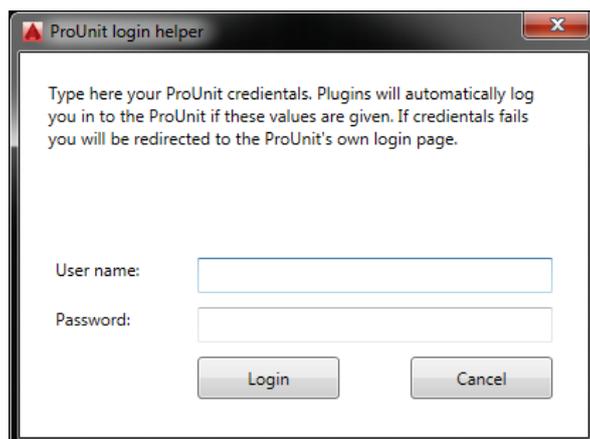
Follow these steps for inserting Swegon's air handling unit into Revit:

1. Click *Insert ProUnit AHU* button from plugin's ribbon panel in Revit.
2. Next step is that the plugin asks to point ductworks for getting air flows and pressure drops. This phase can be skipped by pressing Esc button. By pressing the Finish button, the air flows and pressure drops are read from the ducts.

Please note that pressure drops are available only if MagiCAD for Revit is installed. If MagiCAD for Revit is not exists, only airflows are read from the Revit to ProUnit.



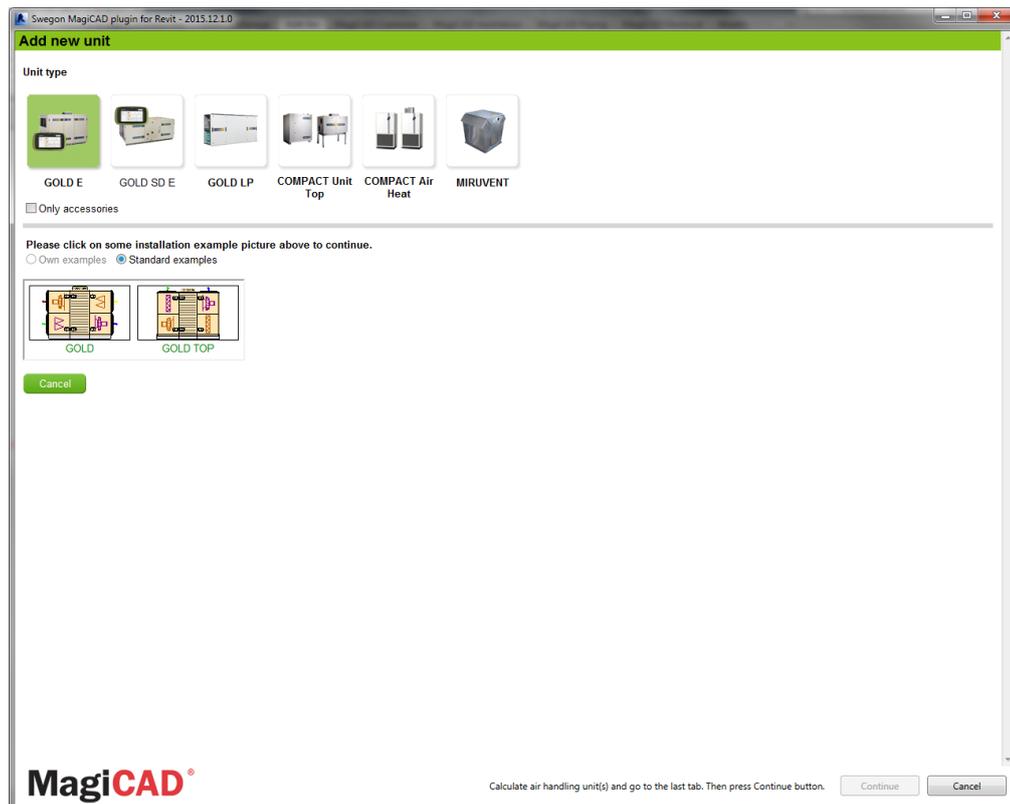
3. Swegon ProUnit program is started and user is asked to login to the application. The login is then saved during the session as long as Revit is open. When closing Revit the cached login will be removed from computer:



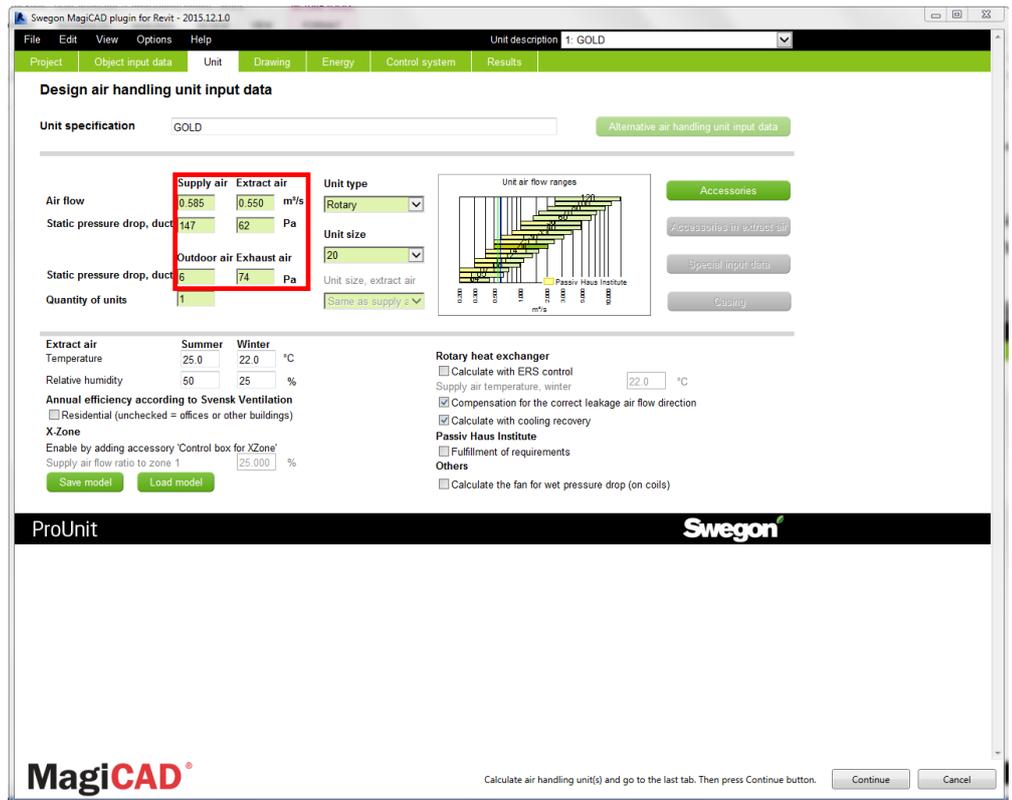
If you do not yet have a ProUnit account you can push the "Cancel button. You will then be redirected to the ProUnit homepage on which you can easily create your free account:



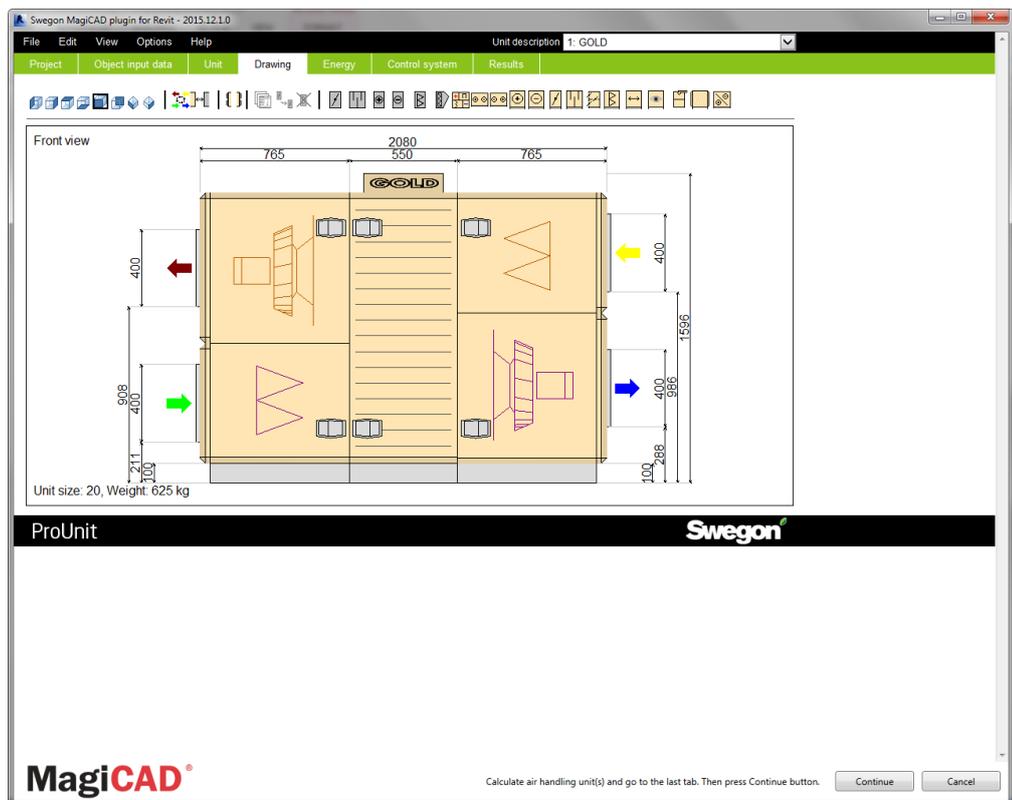
4. Swegon ProUnit program is started. User proceeds by choosing Unit type.



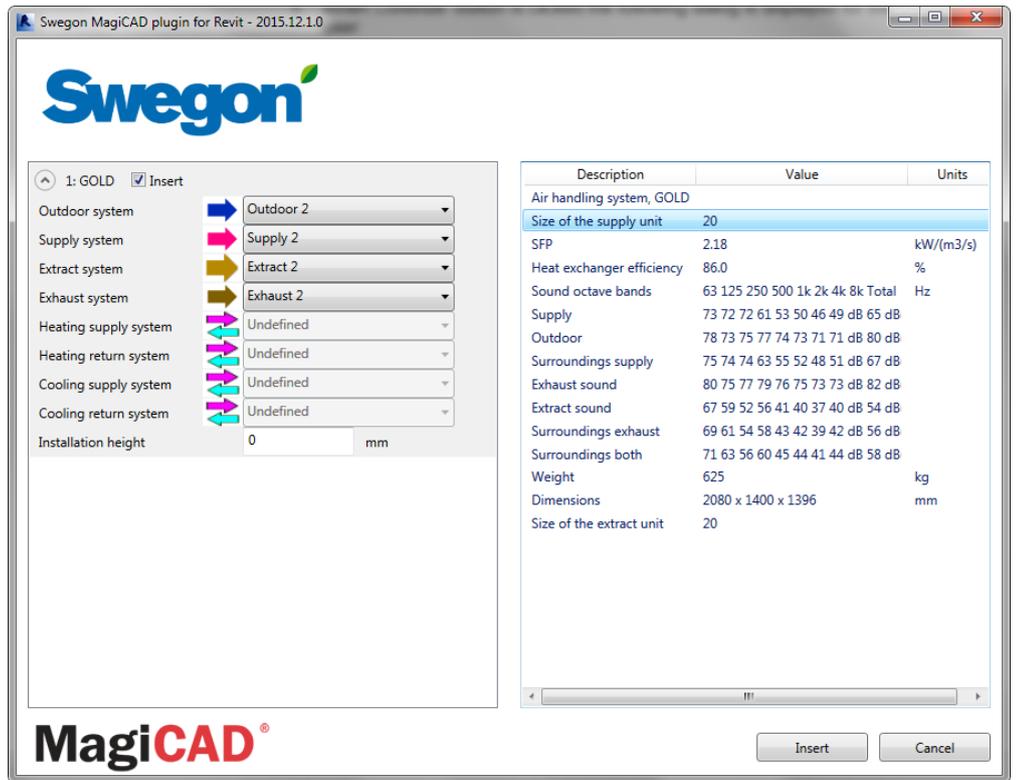
Air flow and external pressure values are auto-filled with values received from Revit. If ducts were not selected before entering to ProUnit, airflow and pressure drops values will be 0 by default:



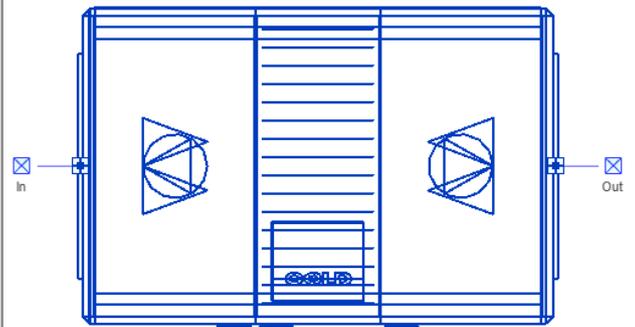
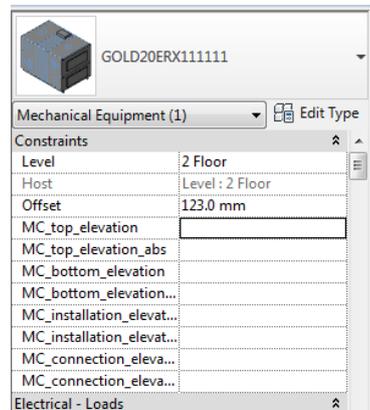
1. Configure and dimension an air handling unit and save the project file. Plugin supports also exporting several air handling units at once.



2. When *Continue* -button is clicked the following dialog is displayed for the user:



3. Available products are shown in list view on the left side of the dialog. Some product properties are displayed on the right side of the window. Before installing product into the Revit project, the user can select systems (not necessary) for each duct connection (for each product installed to the project). Also installation height (Offset) of the product can be defined here.
4. The installation process can be started by clicking *Insert* button. Notice that it's possible to uncheck insert checkbox in case you want to exclude some of the unit's from insert operation.
5. Products can be placed to the Revit one by one by dragging them to wanted position in the view. After products have been positioned in Revit, they can be connected to the ductwork.



Validate ProUnit AHU



Follow these steps for validating Swegon's air handling unit into Revit:

1. Click *Validate ProUnit AHU* button from plugin's ribbon panel in Revit.
2. Select air handling unit from the project which will be validated.
3. Plugins shows if validating is successfully passed or if it needs to be updated. If updating is needed user can continue to update or cancel the validation. Validation check if the selected air handling unit still meets the requirements of the ductwork (air flow and pressure drop) in ProUnit. There is 5% tolerance before the warning message is displayed for airflow and 10% tolerance for pressure drop.

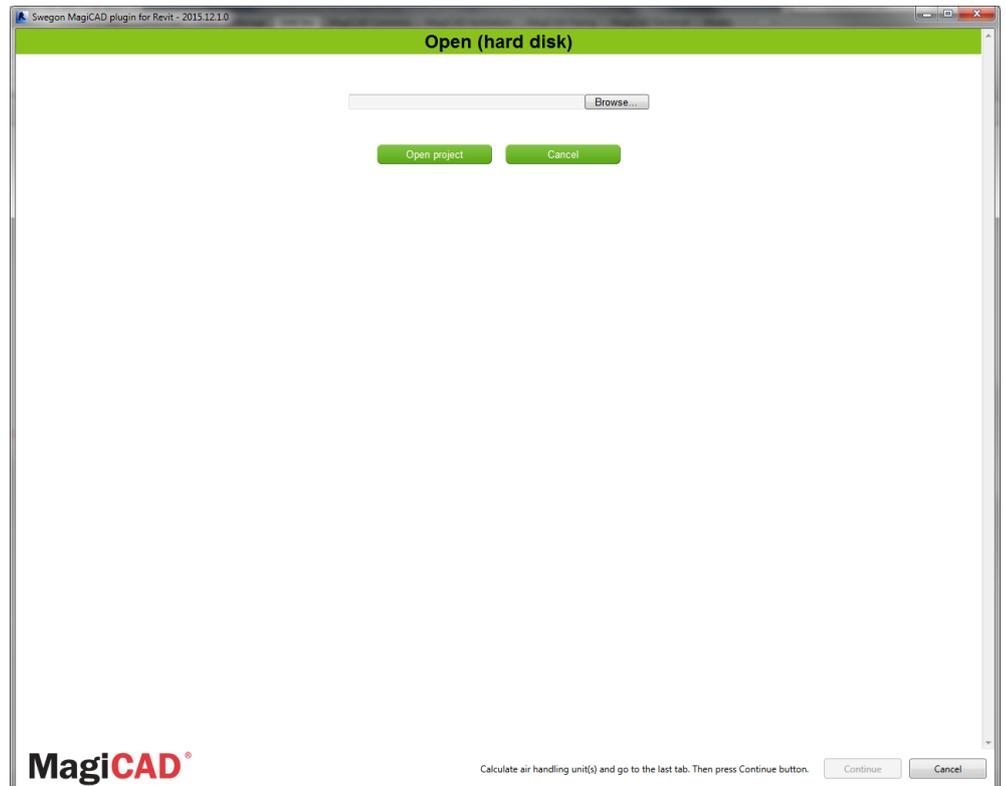
Please note that pressure drops are available only if MagiCAD for Revit is installed. If MagiCAD for Revit is not exists, only airflows are read from the ducts in Revit to ProUnit and the pressures of the original inserted air handling unit are used in ProUnit.

Update ProUnit AHU

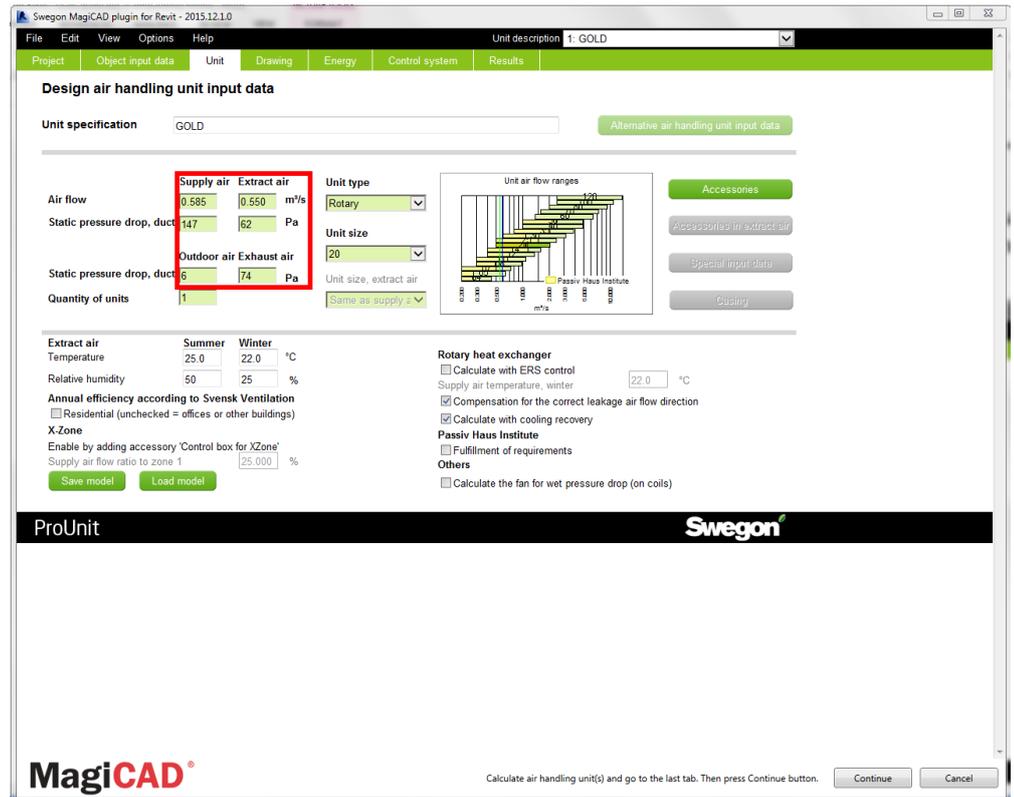


Follow these steps for Updating Swegon's air handling unit into Revit:

1. Click *Update ProUnit AHU* button from plugin's ribbon panel in Revit.
2. Select air handling unit from the Revit project which will be updated.
3. ProUnit starts and open file page is automatically displayed. User should choose the project file that he/she had saved when initially exporting the air handling unit from ProUnit into Revit and then click open project.



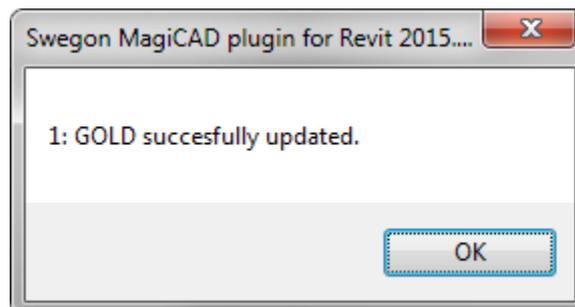
- Selected ahu will be opened if user opens the same project file as originally. Plugin automatically passes updated airflow and pressure rise requirements to ProUnit:



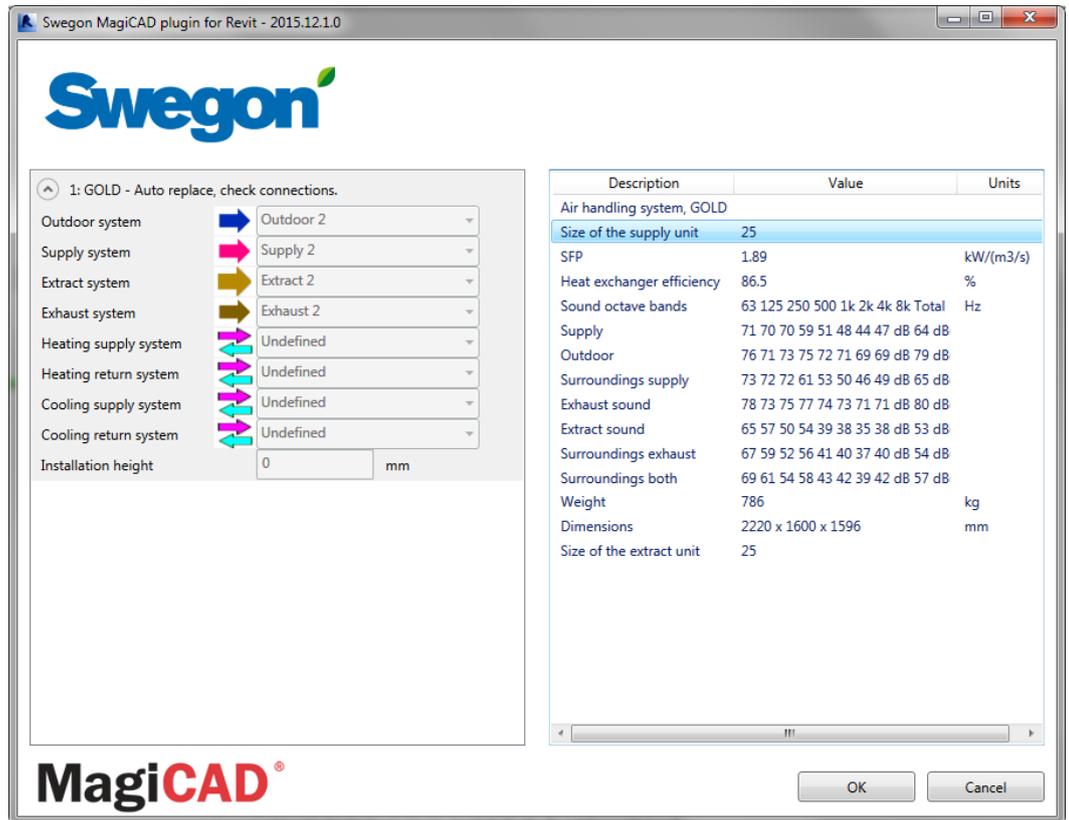
Air flows and pressures are read from the ducts if the selected air handling unit is connected to ducts.

Please note that pressure drops are available only if MagiCAD for Revit is installed. If MagiCAD for Revit is not exists, only airflows are read from the ducts in Revit to ProUnit and the pressures of the original inserted air handling unit are used in ProUnit.

- After user has finished dimensioning the AHU, he proceeds by clicking *Continue* -button.
- Plugin will perform compare operation in order to validate whether the original air handling unit have been changed into different kind of air handling unit during update in ProUnit. If air handling unit is still exactly the same, only technical data (such as sound data) is updated to existing air handling unit in the project. Following message will be displayed:



In case the air handling unit has been changed somehow (or switched to a completely another one), plugin performs replace operation. In replace operation the plugin deletes the original air handling unit from the project and places new unit to same position with same system selections. Following dialog is displayed to user:



The dialog is purely informative, no actions are required. If user has added new duct components during update, those will be inserted to the project at this point. From dialog user can see the systems automatically selected for new air handling unit. The user can exit the dialog by clicking OK button.