



# Bevent Rasch

MagiCAD plugin for BricsCAD – User guide

28/10/2024

## Content

<b>1</b>	<b>GENERAL</b>	<b>3</b>
	About this document	3
	Installing the software	3
	Required third-party software	3
	Before installation	3
	Installation	3
	Starting the program	4
<b>2</b>	<b>FUNCTIONS</b>	<b>4</b>
	Insert Roof Cowl operation	5
	Detailed insert operation in MagiCAD for BricsCAD	5
	Combination cowls	13
	Insert silencer operation	15
	Detailed insert operation in MagiCAD for BricsCAD	15

## 1 General

### About this document

This document contains instructions on using Bevent-Rasch MagiCAD for BricsCAD plugin. Bevent-Rasch MagiCAD plugin integrates Dimensio calculation tool into MagiCAD allowing users to insert roof cowls, roof inlets and silencers into MagiCAD project and drawing. Plugin enables also proper support for handling the combination roof cowls and roof inlets.

### Installing the software

#### Required third-party software

Bevent-Rasch MagiCAD plugin supports the following BricsCAD and MagiCAD versions:

- BricsCAD V24
  - MagiCAD 2024 UR-1
  - MagiCAD 2024 UR-2
  - MagiCAD 2025
  - MagiCAD 2025 UR-1
- BricsCAD V25
  - MagiCAD 2025 UR-1

#### Before installation

1. Workstation administrator privileges are recommended for installation.
2. Notice if you have several BricsCAD versions on your workstation. Before you run the plugin installer, start MagiCAD to make sure that the plugin installs on the same BricsCAD platform version where MagiCAD is installed. When using MagiCAD plugin manager, the plugin is installed on the currently active BricsCAD version.

#### Installation

1. Use MagiCAD plugin manager to install the plugin or download the plugin installer from MagiCAD portal:

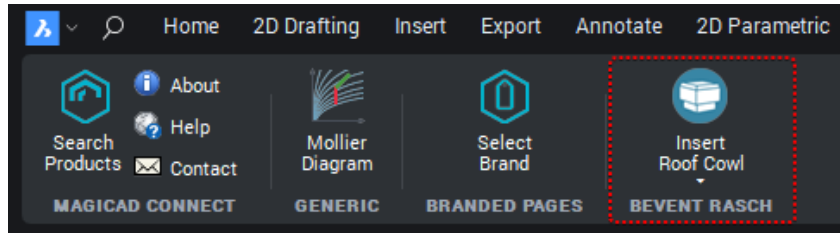
<https://portal.magicad.com/Download/ProductSearch?searchStr=Bevent-Rasch&categoryId=3>

2. Run the installer on your workstation.

## Starting the program

The plugin is automatically loaded and is ready to be used once MagiCAD is started next time after the plugin is installed. If you installed the plugin with plugin manager, the plugin is ready to be used without restarting the MagiCAD / BricsCAD.

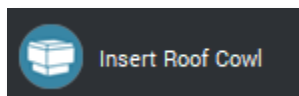
Bevent-Rasch MagiCAD plugin ribbon panel can be found from MagiCAD Connect tab:



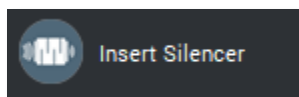
## 2 Functions

Bevent-Rasch plugin contains two operations:

- Insert Roof Cowl



- Insert Silencer



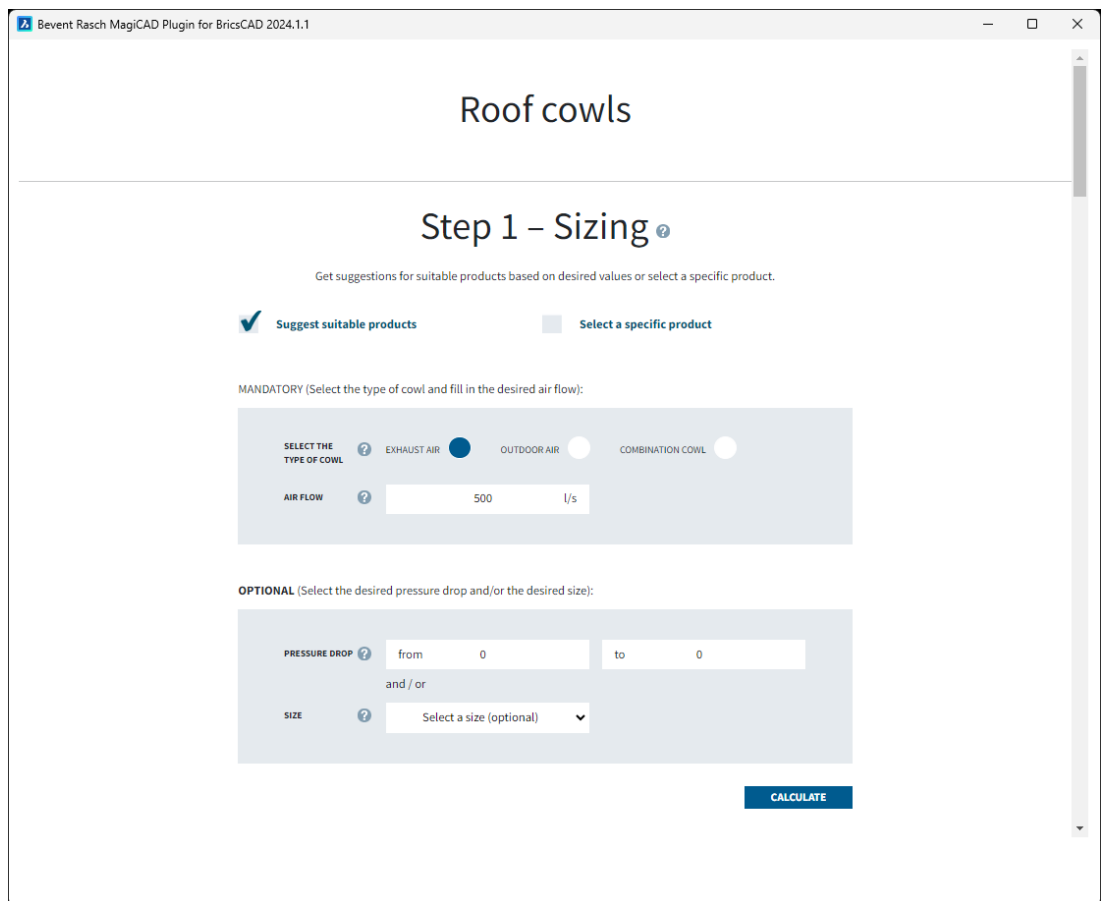
## Insert Roof Cowl operation

This command opens Dimensio calculation tool for selecting available Bevent-Rasch roof cowls. User can choose which roof cowl to insert, and optionally include the roof inlet to be inserted along with the roof cowl.

### Detailed insert operation in MagiCAD for BricsCAD

Follow these steps to insert roof cowl from Dimensio calculation tool to BricsCAD drawing:

1. Click the "Insert Roof Cowl" button from the Bevent-Rasch panel. Once the operation is started the plugin opens the Dimensio calculation tool.




- Proceed by selecting the wanted type of the cowl (exhaust, outdoor, combination cowl) and enter the required airflow and other wanted search parameters. Optionally you can choose to size a specific product, which allows you to directly choose from list of available products within the cowl type. After that click the calculate -button, and Dimensio will show list of suitable products:

Bevent Rasch MagiCAD Plugin for BricsCAD 2024.1.1

## Step 2 – Suitable products

The following products meet the values you have chosen. Select the product to complete your sizing.



Low pressure drop, available in stock in the most common sizes

### DELTA-AH


- Sizes for flows from 100 l/s to 15000 l/s
- Design similar to outdoor air cowl DELTA-UH and combination cowl DELTA-KH
- Water separation class A according to EN13030
- Very low pressure drop
- With adjustable outlet as an accessory
- Integrated lifting points
- Available in MagiCAD

Size 200 gives pressure drop 321 Pa at 500 l/s  
Exhaust air velocity 7,4 m/s

Size 300 gives pressure drop 43 Pa at 500 l/s Exhaust air velocity 4,6 m/s  
Sound power level: 47 dB(A)

Size 400 gives pressure drop 21 Pa at 500 l/s Exhaust air velocity 3,2 m/s  
Sound power level: 39 dB(A)

Size 500 gives pressure drop 10 Pa at 500 l/s Exhaust air velocity 2,3 m/s  
Sound power level: 34 dB(A)



Traditional chimney appearance

### BRSF

Rectangular roof cowl for use in comfort and industrial facilities. The design resembles a traditional chimney. Used for high-speed exhaust air.

- Sizes from 200 mm to 2000 mm (For sizing see datasheet or Dimensio)
- Design similar to exhaust air cowl BRSK and outdoor air hood BRSI
- Internal water deflector
- Suitable for roof inlet BRTG
- Hot-dip galvanized sheet steel as standard
- For corrosivity class C4 the cowl is

Size 300 gives pressure drop 206 Pa at 500 l/s Exhaust air velocity 11 m/s  
Sound power level: 50 dB(A)

Size 400 gives pressure drop 59 Pa at 500 l/s Exhaust air velocity 6,2 m/s  
Sound power level: 38 dB(A)

Size 500 gives pressure drop 19 Pa at 500 l/s Exhaust air velocity 4 m/s  
Sound power level: 38 dB(A)

- Proceed by choosing the wanted product variant and click the select -button. Dimensio loads the product view:

Bevent Rasch MagiCAD Plugin for BricsCAD 2024.1.1

Update the values of the selected cowl: ?

**Exhaust air** **DELTA-AH**

Air flow l/s

Pressure drop from

to

Size

UPDATE

← BACK

SAVE AS PDF

## Sizing results for DELTA-AH

PRODUCT INFORMATION DOCUMENTATION

**Specification / Product code ?**



Make a material selection and surface treatment below.

Own description for AMA-text

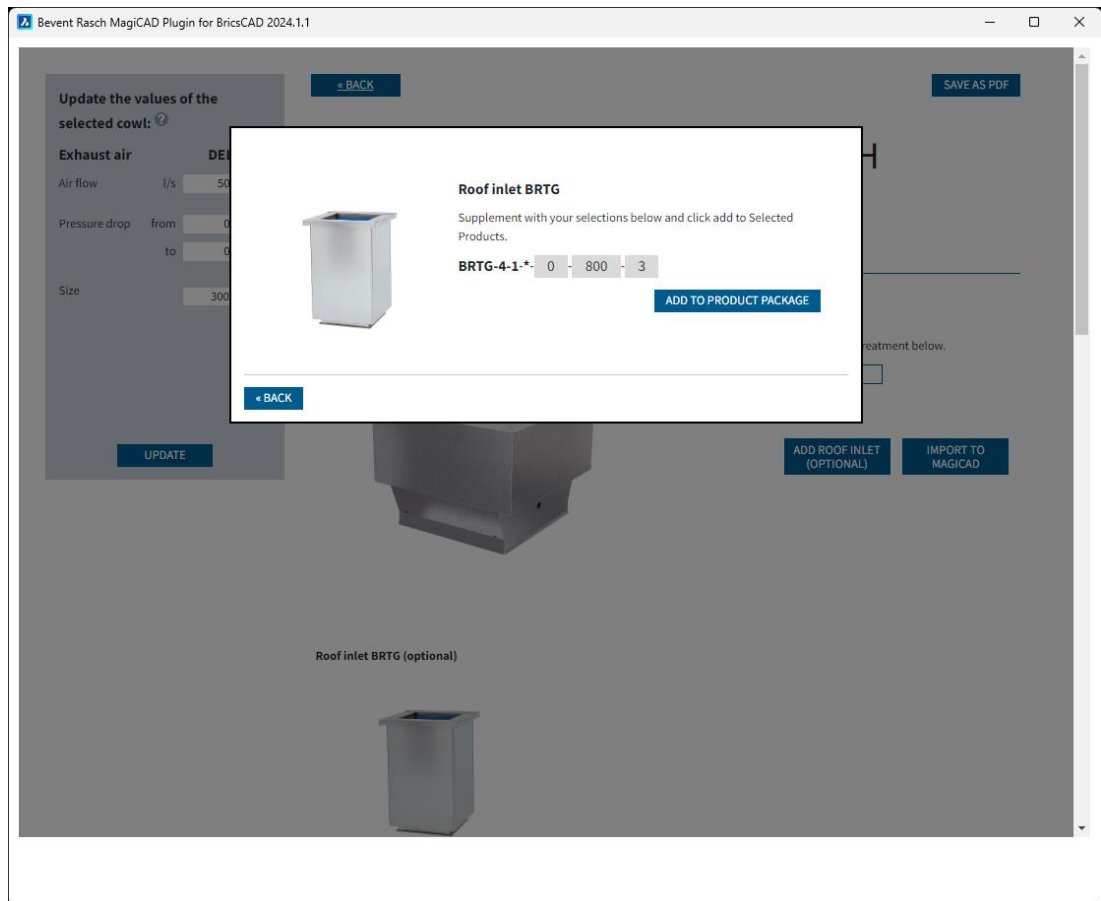
DELTA-AH-300

ADD ROOF INLET (OPTIONAL) IMPORT TO MAGICAD

Roof inlet BRTG (optional)

4. In product view, it's possible to still make the final selections to the product variant. Once the selection are made, you can proceed by clicking the Import to MagiCAD -button, which initiates the roof cowl insert operation to MagiCAD drawing. Optionally you can click Add roof inlet -button which allows you to insert also the roof inlet in addition to roof cowl. By clicking Add to product package users adds the roof inlet to list of products to be imported to MagiCAD and the roof inlet view is closed.





- Insert roof hood - Bevent Rasch MagiCAD Plugin for BricsCAD 2024.1.1

**Roof hood**

Product code: DELTA-AH-300

User code:

Top offset:  mm

Bottom offset:  mm

**Roof inlet**

Product code: BRTG-4-1-\*-0-800-3

User code:

Top offset:  mm

Bottom offset:  mm

☒ Add info text

**Ventilation systems**

**Exhaust**

System name:

Air flow:  l/s

**Outdoor**

System name:

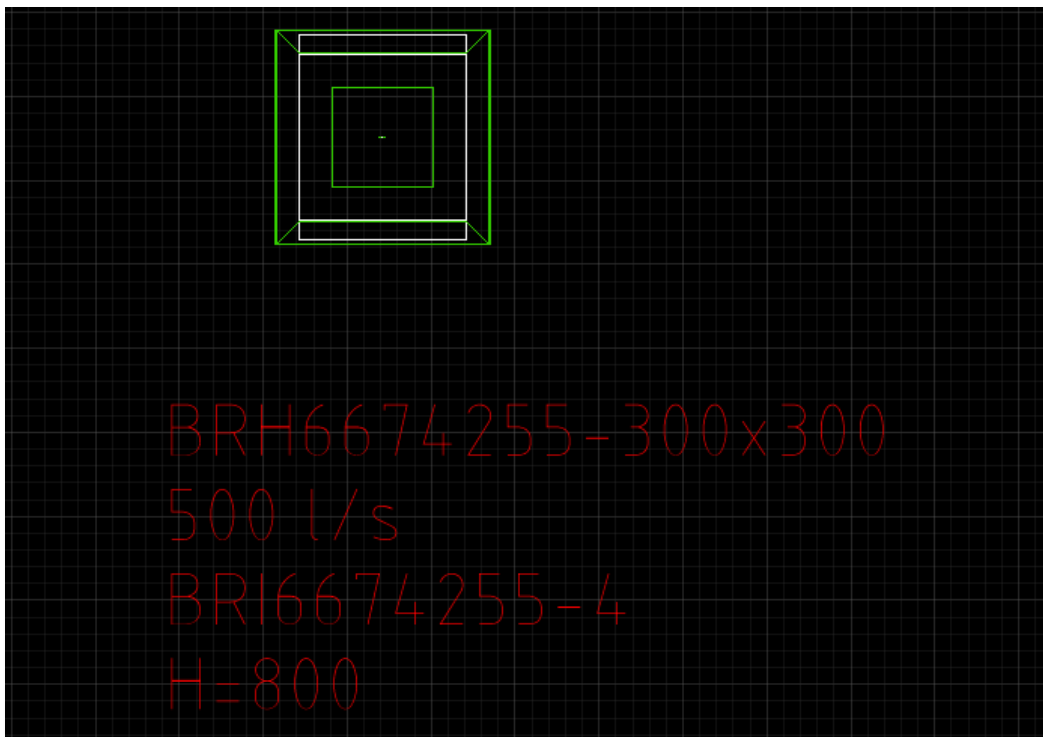
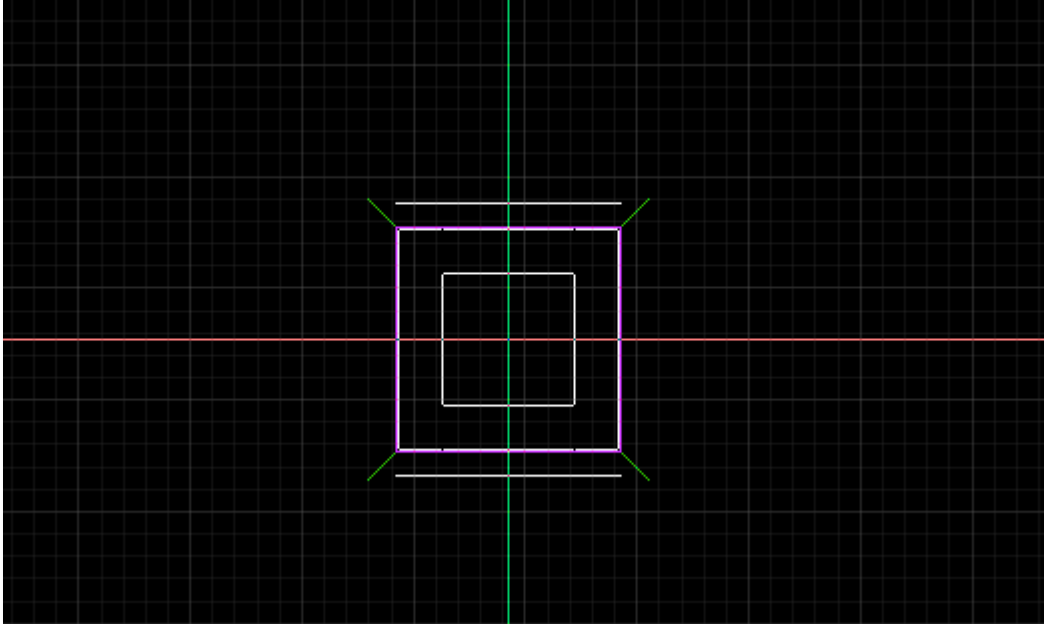
Air flow:  l/s

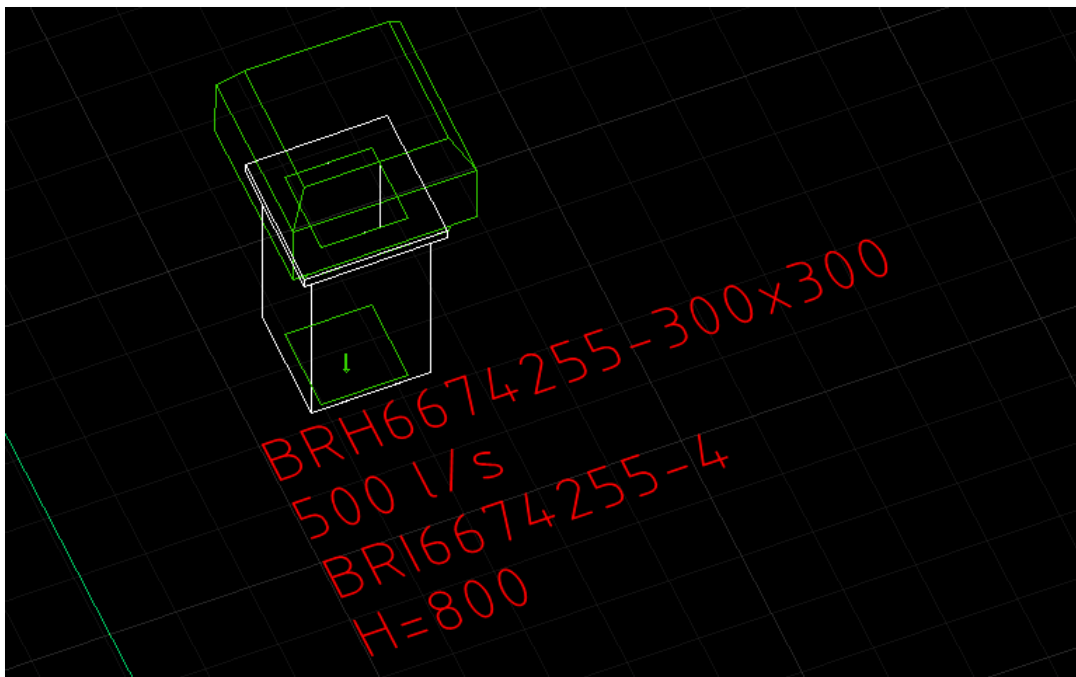
**Buttons:** Insert, Cancel

6. In insert view following fields must be filled:

- **User code:** MagiCAD specific user code of the roof cowl is entered here.
- **Offsets of cowl and inlet:** Insertion point of the roof cowl. Roof inlet is installed automatically below the roof cowl and connected to it (there is duct of minimum length between cowl and roof inlet).
- **Exhaust system name:** MagiCAD exhaust system for the roof cowl. Disabled if the imported cowl is connected only to outdoor system.
- **Exhaust system airflow:** Airflow of the exhaust system is entered here. Disabled if the imported cowl is connected only to outdoor system. By default the field is filled with the search criteria value filled in Dimensio.
- **Outdoor system name:** MagiCAD outdoor system for the roof cowl. Disabled if the imported cowl is connected only to exhaust system. For combination cowls both systems are enabled.
- **Outdoor system airflow:** Airflow of the outdoor side is entered here. Disabled if the imported cowl is connected only to exhaust system. By default the field is filled with the search criteria value filled in Dimensio.
- **Roof inlet User Code:** MagiCAD specific user code for the roof inlet is entered here.
- **Add info text:** Product specific info text will be generated to drawing.

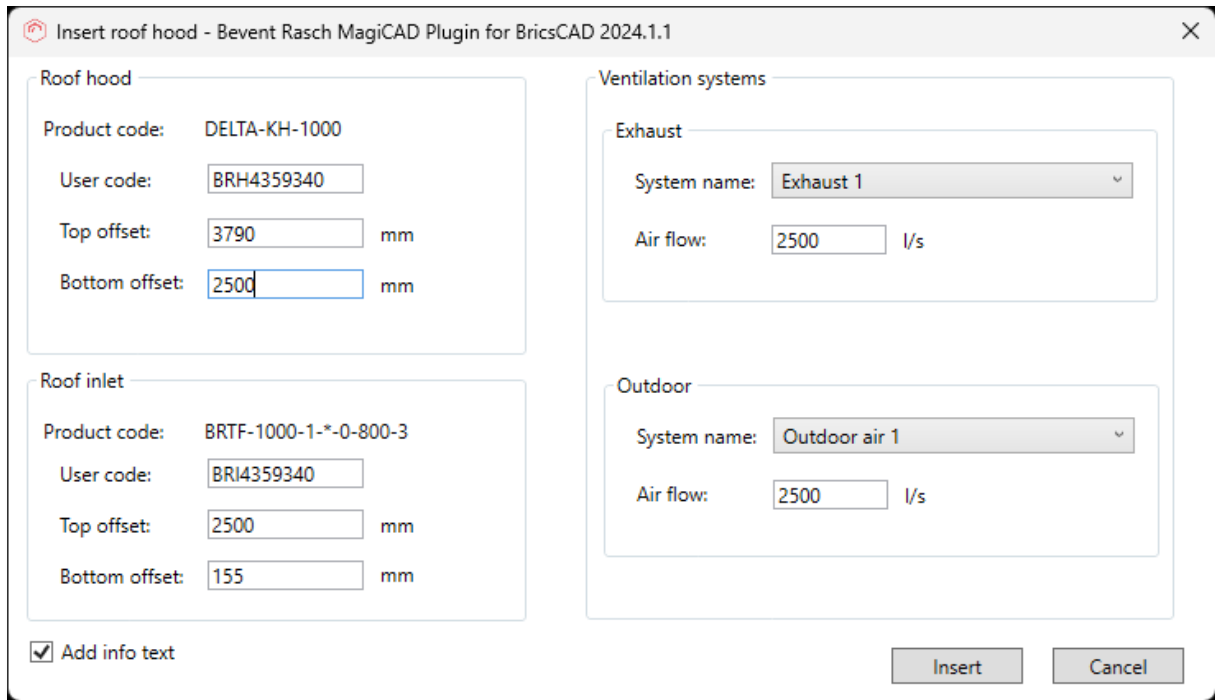
Once the required fields have been filled, proceed by clicking the insert button, which allows to place the products (cowl + roof inlet handled as one product package) in to drawing. After placement its possible to rotate the product.





## Combination cowls

The plugin also includes support for insertion of Bevent-Rasch combination roof cowls. The workflow is similar to inserting of regular roof cowls, but in Insert Roof Cowl dialog user needs to provide the airflow and system selections for both system types.



**Insert roof hood - Bevent Rasch MagiCAD Plugin for BricsCAD 2024.1.1**

**Roof hood**

Product code: DELTA-KH-1000

User code: BRH4359340

Top offset: 3790 mm

Bottom offset: 2500 mm

**Roof inlet**

Product code: BRTF-1000-1-\*0-800-3

User code: BRI4359340

Top offset: 2500 mm

Bottom offset: 155 mm

**Ventilation systems**

**Exhaust**

System name: Exhaust 1

Air flow: 2500 l/s

**Outdoor**

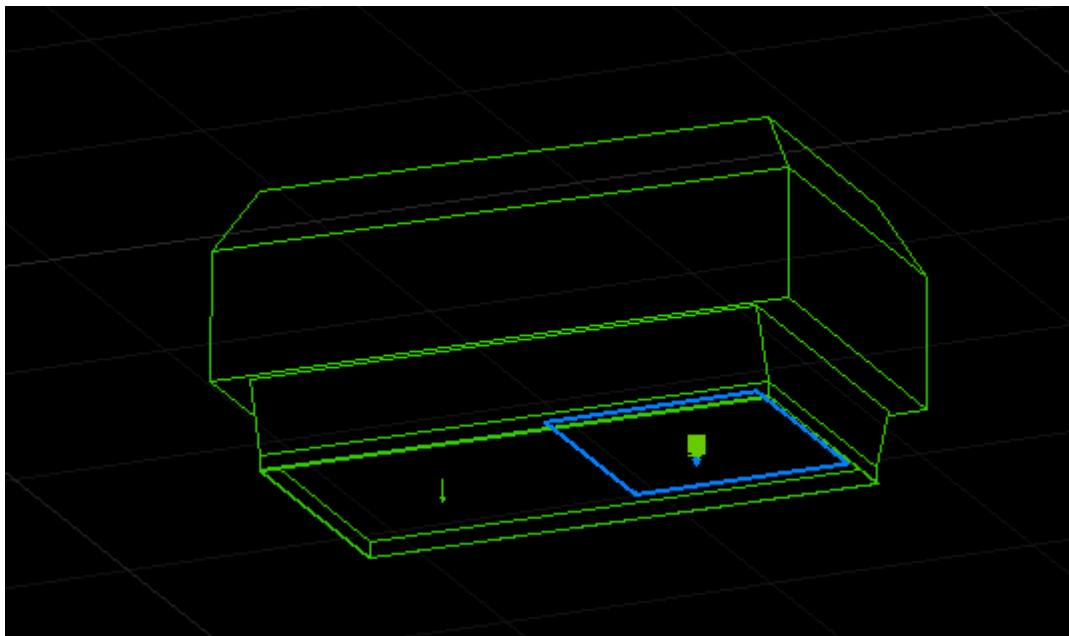
System name: Outdoor air 1

Air flow: 2500 l/s

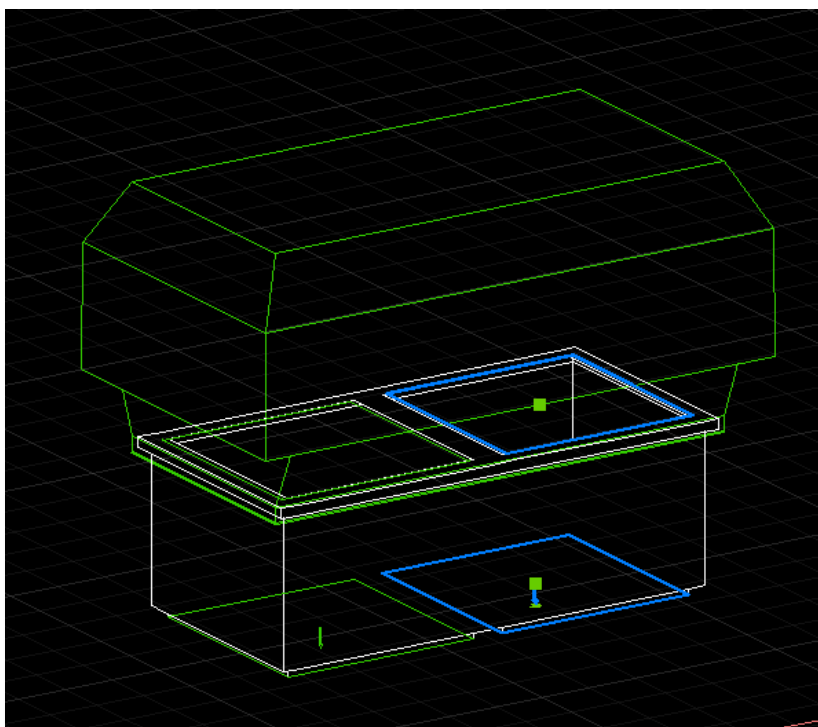
☒ Add info text

Insert Cancel

Plugin creates additional connector to the outdoor system in case of combination cowl.



Also the roof inlet for combination cowl is supported.



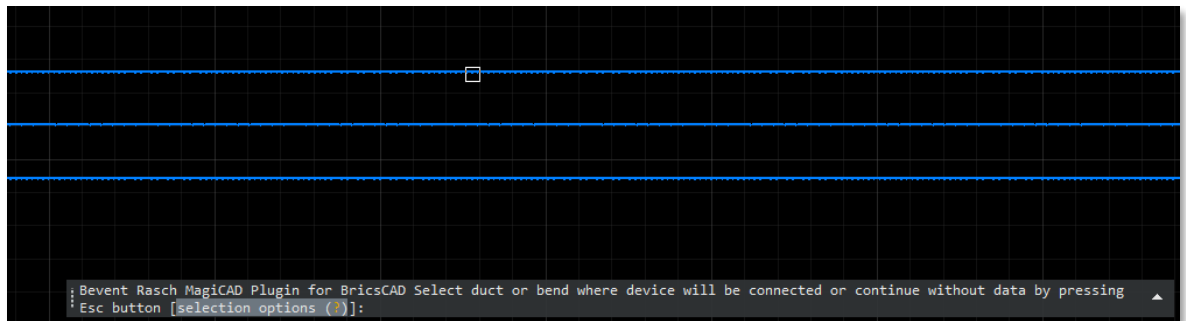
## Insert silencer operation

This command opens Dimensio calculation tool allowing user to search for suitable silencers and then insert the selected silencer into MagiCAD project.

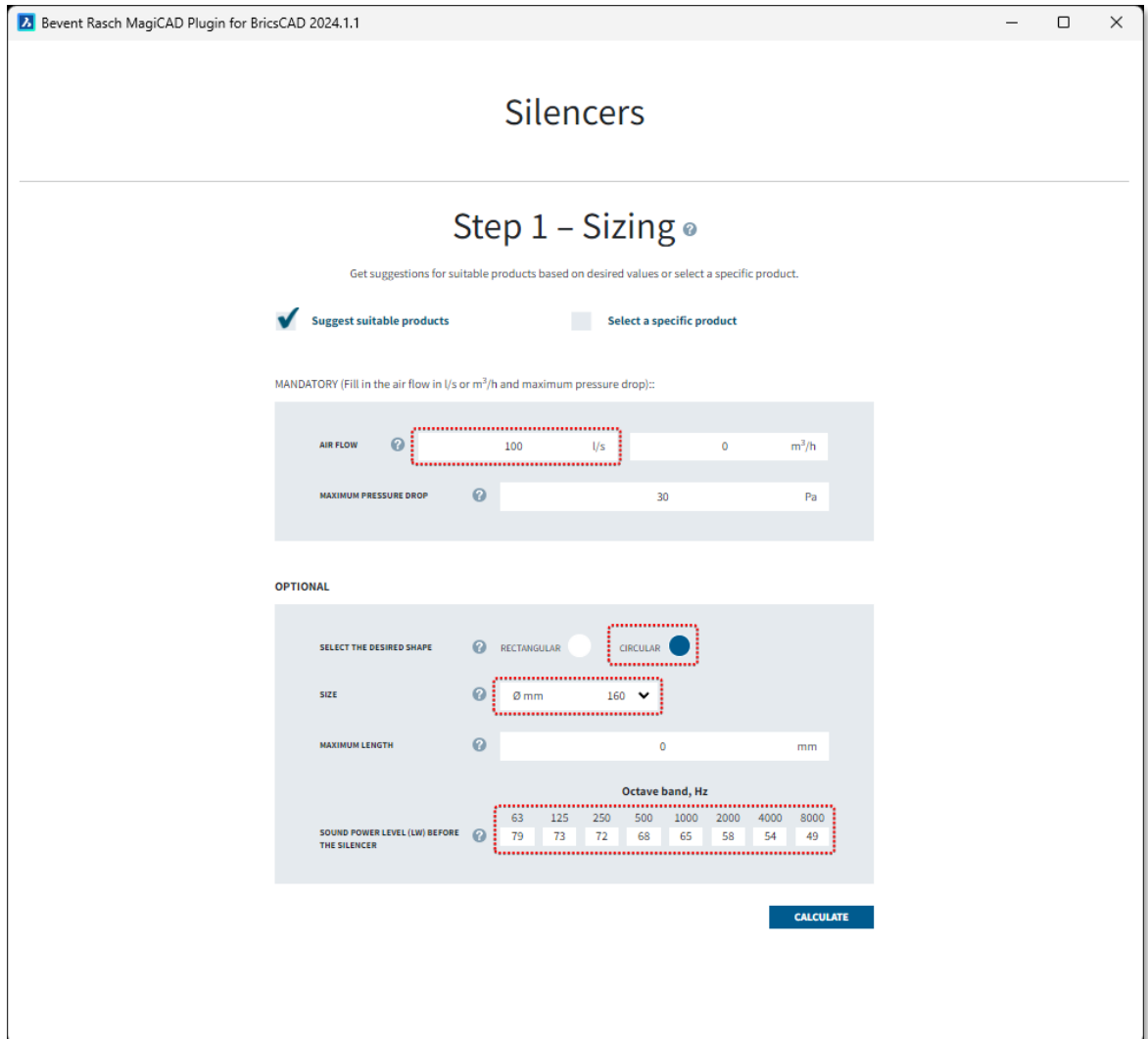
### Detailed insert operation in MagiCAD for BricsCAD

Follow these steps to insert Bevent-Rasch silencer into BricsCAD drawing:

1. Click the “Insert Silencer” button from Bevent-Rasch ribbon panel located in the MagiCAD Connect tab.
2. Plugin asks user to selected the duct where to connect the silencer to (this step can be skipped by pressing esc -button):



- Once the duct has been selected, plugin opens the Dimensio selection tool for silencer search. Notice that most of search criteria fields have been automatically filled with the parameters read from the selected duct.



**Silencers**

### Step 1 – Sizing <sup>?</sup>

Get suggestions for suitable products based on desired values or select a specific product.

☒ Suggest suitable products ☐ Select a specific product

MANDATORY (Fill in the air flow in l/s or m<sup>3</sup>/h and maximum pressure drop):

AIR FLOW <sup>?</sup>  l/s  m<sup>3</sup>/h

MAXIMUM PRESSURE DROP <sup>?</sup>  Pa

OPTIONAL

SELECT THE DESIRED SHAPE <sup>?</sup> ☐ RECTANGULAR ☒ CIRCULAR

SIZE <sup>?</sup>

MAXIMUM LENGTH <sup>?</sup>  mm

SOUND POWER LEVEL (LW) BEFORE THE SILENCER <sup>?</sup>

Octave band, Hz							
63	125	250	500	1000	2000	4000	8000
79	73	72	68	65	58	54	49

Notice though that if the flow summation, balancing and sound calculations have not been done in MagiCAD, the airflow and sound power levels are not available. If you skip selecting the duct, the wanted search parameters needs to be filled manually.




- Once search parameters are OK, click the calculate button, at the bottom of the view. Dimensio displays list of products that match the search criteria.

Bevent Rasch MagiCAD Plugin for BricsCAD 2024.1.1

## Step 2 – Suitable products

The following products meet the values you have chosen. Select the product to complete your sizing.

Is **within** the selected maximum pressure drop  
Is **not within** the selected maximum pressure drop



Circular duct silencer

**LFAC**  
Circular duct silencer LFAC.

- Sizes 80 mm to 630 mm
- Also available with duct silencer baffles in size 315 mm to 630 mm
- Spiral connection as standard, can also be obtained with e.g. flanges or sleeve connection
- Tightness class D
- Tightness class D
- Available in MagiCAD

**Typ 1**

	63	125	250	500	1000	2000	4000	8000	dB	dB(A)	
LFAC-1-160-300	-4	-3	-5	-9	-12	-21	-18	-10	77	62	<a href="#">SELECT</a>
LFAC-1-160-600	-4	-5	-9	-20	-26	-39	-26	-15	76	57	<a href="#">SELECT</a>
LFAC-1-160-900	-1	-6	-11	-26	-35	-48	-31	-17	78	57	<a href="#">SELECT</a>

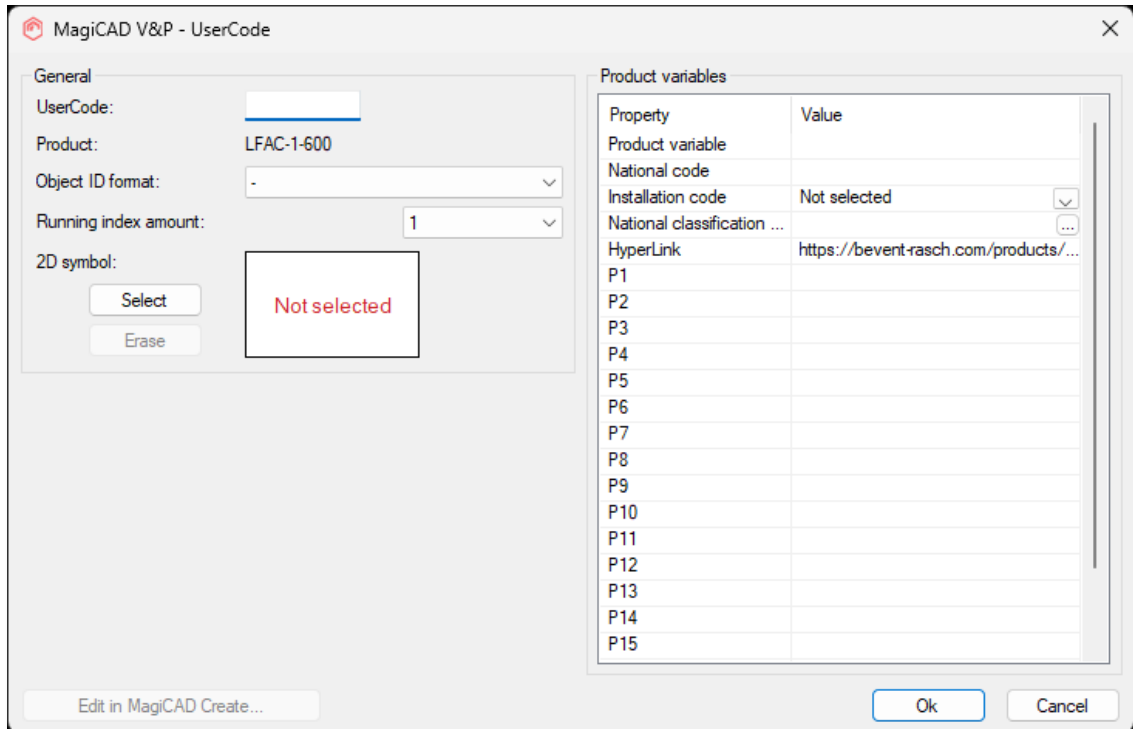
**Typ 3**

	63	125	250	500	1000	2000	4000	8000	dB	dB(A)	
LFAC-3-160-300	-4	-4	-7	-10	-13	-22	-18	-10	76	61	<a href="#">SELECT</a>
LFAC-3-160-600	-5	-7	-2	-15	-23	-39	-24	-14	76	62	<a href="#">SELECT</a>
LFAC-3-160-900	-5	-9	-17	-24	-37	-47	-30	-16	74	53	<a href="#">SELECT</a>

LFAC

- [illegible]

6. From product view click Import to MagiCAD -button in order to insert the silencer into MagiCAD project. Once the button is clicked, Dimensio window is closed and MagiCAD UserCode dialog is loaded.



The dialog box is titled "MagiCAD V&P - UserCode". It contains two main sections: "General" and "Product variables".

**General section:**

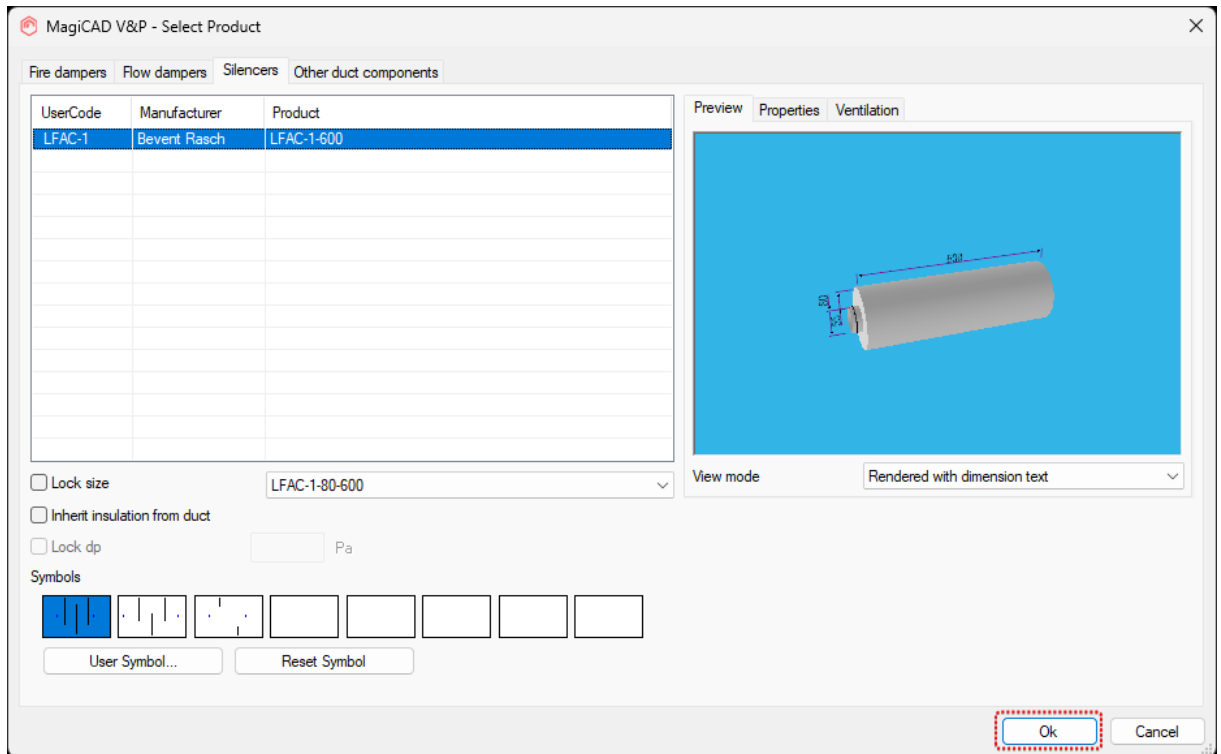
- UserCode:** A text input field.
- Product:** A dropdown menu showing "LFAC-1-600".
- Object ID format:** A dropdown menu showing "-".
- Running index amount:** A dropdown menu showing "1".
- 2D symbol:** A section with "Select" and "Erase" buttons, and a box labeled "Not selected".

**Product variables section:**

Property	Value
Product variable	
National code	
Installation code	Not selected
National classification ...	
HyperLink	<a href="https://bevent-rasch.com/products/...">https://bevent-rasch.com/products/...</a>
P1	
P2	
P3	
P4	
P5	
P6	
P7	
P8	
P9	
P10	
P11	
P12	
P13	
P14	
P15	

At the bottom, there is an "Edit in MagiCAD Create..." button on the left, and "Ok" and "Cancel" buttons on the right.

7. Proceed by entering the user code and optionally choosing the 2D symbol for the silencer. Once ready, click OK button. MagiCAD Select Product dialog with silencers is opened, and selected product is active in the view, proceed by clicking the OK button.



8. Silencer insert operation is started, place the product to the duct that you selected at the beginning of the command.

