



TROX EPF Plugin

User guide

02/05/2025

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1 General

1.1 About this document

This document contains instructions on using TROX EPF Revit / MagiCAD for Revit plugin. TROX EPF Revit plugin integrates TROX EPF configurator into Revit / MagiCAD for Revit. It allows user to find and insert TROX climate beam products into Revit project.

1.2 Installing the software

1.2.1 Required third-party software

TROX EPF plugin works with the following Revit and MagiCAD for Revit versions:

- Revit 2023 - 2026
- MagiCAD for Revit 2025 with Revit 2023 - 2025
- MagiCAD for Revit 2026 with Revit 2023 - 2026

1.2.2 Installation

Administrator privileges are recommended for installation.

1. Ensure that you have required Revit version installed on your computer.
2. Install TROX EPF Revit plugin. Installation package can be downloaded from here:

<https://portal.magicad.com/>

1.3 Starting the program

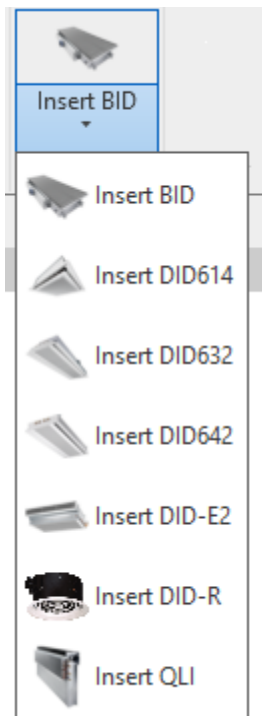
The plugin is automatically loaded and is ready to be used once Revit is started next time after the plugin is installed. If you installed the plugin with MagiCAD plugin manager, the plugin is ready to be used without restarting Revit / MagiCAD for Revit.

TROX EPF plugin ribbon panel can be found from MagiCAD Connect tab:



2 Functions

TROX EPF plugin contains commands to insert different TROX climate beam products into Revit project. Different products can be found from the drop down menu:



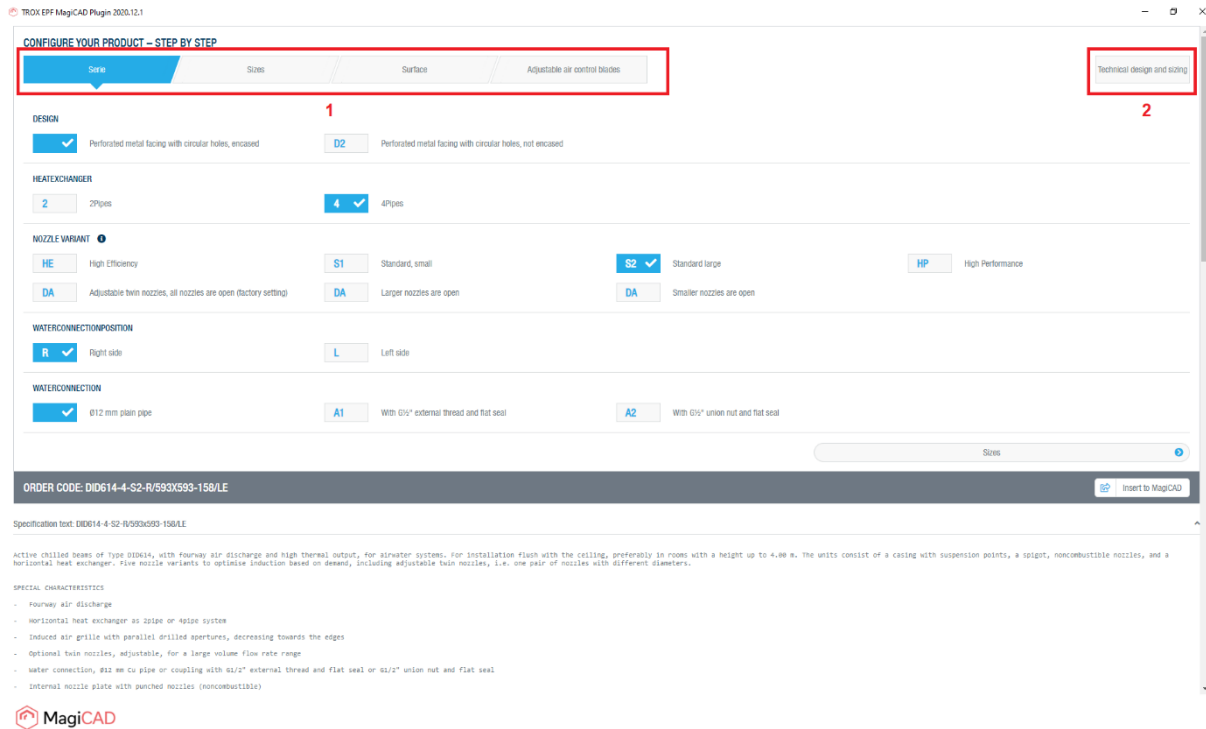
2.1 Insert Product

Clicking any of the products will open TROX EPF configurator for selecting suitable products into Revit project.

2.1.1 Description of insert product command (MagiCAD not installed)

Follow these steps to insert product from TROX EPF into Revit project:

1. Click the “Insert <Product Name>” -button from the TROX EPF ribbon panel. Once the operation is started the plugin opens TROX EPF configurator:



TROX EPF MagiCAD Plugin 2020.12.1

CONFIGURE YOUR PRODUCT - STEP BY STEP

1 **2**

DESIGN

☒ Perforated metal facing with circular holes, encased **D2** Perforated metal facing with circular holes, not encased

HEATEXCHANGER

2 2Pipes **4** 4Pipes

NOZZLE VARIANT

HE High Efficiency **S1** Standard, small **S2** Standard large **HP** High Performance

DA Adjustable twin nozzles, all nozzles are open (factory setting) **DA** Larger nozzles are open **DA** Smaller nozzles are open

WATERCONNECTIONPOSITION

R Right side **L** Left side

WATERCONNECTION

☒ Ø12 mm plain pipe **A1** With G½" external thread and flat seal **A2** With G½" union nut and flat seal

ORDER CODE: DID614-4-S2-R/593X593-158/LE **Insert to MagiCAD**

Specification text: DID614-4-S2-R/593X593-158/LE

Active chilled beams of Type DID614, with fourway air discharge and high thermal output, for airwater systems. For installation flush with the ceiling, preferably in rooms with a height up to 4.00 m. The units consist of a casing with suspension points, a spigot, noncombustible nozzles, and a horizontal heat exchanger. Five nozzle variants to optimise induction based on demand, including adjustable twin nozzles, i.e. one pair of nozzles with different diameters.

SPECIAL CHARACTERISTICS

- Fourway air discharge
- Horizontal heat exchanger as 2pipe or 4pipe system
- Induced air grille with parallel drilled apertures, decreasing towards the edges
- Optional twin nozzles, adjustable, for a large volume flow rate range
- Water connection, Ø12 mm Cu pipe or coupling with G½" external thread and flat seal or G½" union nut and flat seal
- Internal nozzle plate with punched nozzles (noncombustible)

MagiCAD

2. User can configure the different aspects of the product from the tabs (1). Technical values can be configured in the “Technical design and sizing” tab (2).

TROX EPF MagiCAD Plugin 2020.12.1

Primary air volume flow rate $Q_{p,air}$ 126.0 m³/s 58.0 .. 249.0 m³/s

SPACING/DISTANCES

Distance x 1.0 m 0.5 .. m

Installation height h_{inst} 2.5 m 2.2 .. 4.3 m

AIR RELATED DATA – COOLING MODE

Primary air temperature $t_{p,air,C}$ 16.0 °C 12.0 .. 24.0 °C

Room temperature $t_{r,C}$ 26.0 °C 20.0 .. 28.0 °C

Relative humidity of the air $\phi_{p,C}$ 45.0 25.0 .. 75.0

WATER RELATED DATA – COOLING MODE

Water flow temperature $t_{w,air,C}$ 16.0 °C 10.0 .. 22.0 °C

Water flow rate $Q_{w,air,C}$ 110.0 l/h 30.0 .. l/h

AIR RELATED DATA – HEATING MODE

Primary air temperature $t_{p,air,H}$ 18.0 °C 12.0 .. 24.0 °C

Room temperature $t_{r,H}$ 22.0 °C 18.0 .. 28.0 °C

WATER RELATED DATA – HEATING MODE

Water flow temperature $t_{w,air,H}$ 50.0 °C 26.0 .. 70.0 °C

Water flow rate $Q_{w,air,H}$ 50.0 l/h 30.0 .. l/h

WATER RELATED DATA – COOLING MODE

Water return temperature 19.5 °C

Pressure drop, water side 1.7 kPa

POWER RESULTS – HEATING

Total thermal output – heating 244 W

Thermal output – primary air -182 W

Thermal output – water 426 W

WATER RELATED DATA – HEATING MODE

Water return temperature 42.7 °C

Pressure drop, water side 0.1 kPa

AERODYNAMIC RESULTS – COOLING MODE

Throw distance 3.5 m

Velocity at l 0.84 m/s

Temperature difference at l -1.94 K

Velocity at l_r n.V. m/s

Temperature difference at l_r n.V. K

REMARKS

Air density 1.2 kg/m³

Akustische Ausgabe

Active part	Left Side	Octave 63 Hz 1/3	Octave 125 Hz 1/3	Octave 250 Hz 1/3	Octave 500 Hz 1/3	Octave 1 kHz 1/3	Octave 2 kHz 1/3	Octave 4 kHz 1/3	Octave 8 kHz 1/3	Left Side	Right Side
120 Pa	41 dB(A)	32 dB	37 dB	40 dB	39 dB	37 dB	31 dB	18 dB	< 15 dB	36 dB	36 dB

ORDER CODE: DID614-4-S2-R/593X593-158/L/E

BP Insert to MagiCAD

MagiCAD

- Once the product is configured, user can continue by clicking “Insert to MagiCAD” -button. In the “Technical design and sizing” tab, the button can be found by scrolling down.
- Plugin opens following dialog:

TROX EPF MagiCAD Plugin - Insert Products

Product	Variant	System	Airflow (l/s)	C. Power (w)	C. Supply System	H. Power (w)	H. Supply System	HeightLevel (mm)
DID614-4-S2-R/593x593-1	DID614-4-S2-R/593x593-1	▼	37.77778	424	Cooling supp. ▼	199	Heating supp. ▼	0

1 **2** **3** **4** **5** **6** **7** **8** **9**

10

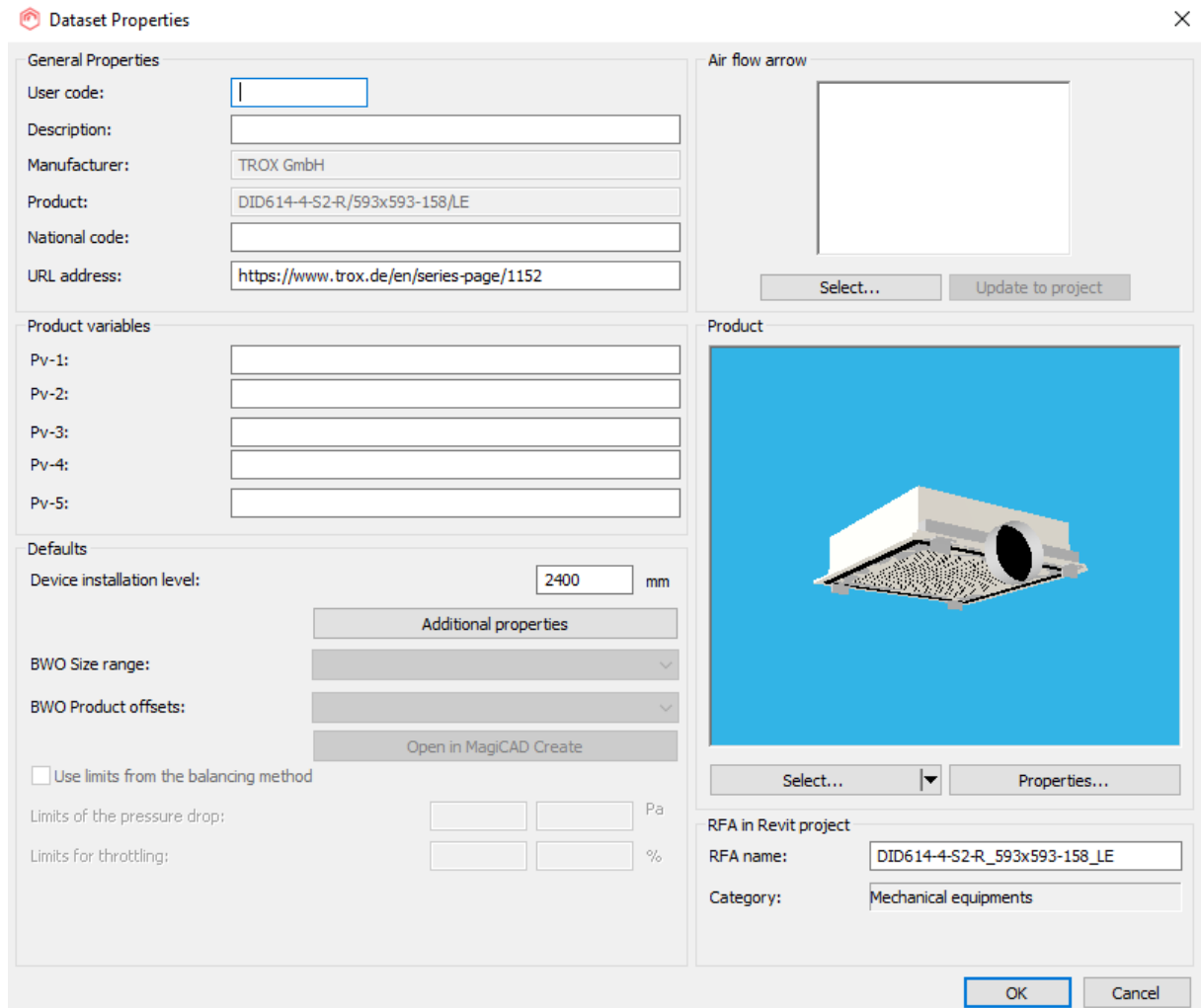
Insert Cancel

The dialog displays product code (1), variant code (2), air supply system (3), airflow (4), cooling power (5), cooling supply system (6), heating power (7), heating supply system (8) and height level (9). Product and variant code, airflow, cooling power and heating power are filled with data from EPF and cannot be edited. Use can change the systems and select the installation height. After that user proceeds by clicking the Insert -button, which initiates the insert operation to active Revit view. User can freely place the product into wanted position:

2.1.2 Description of insert product command (MagiCAD installed)

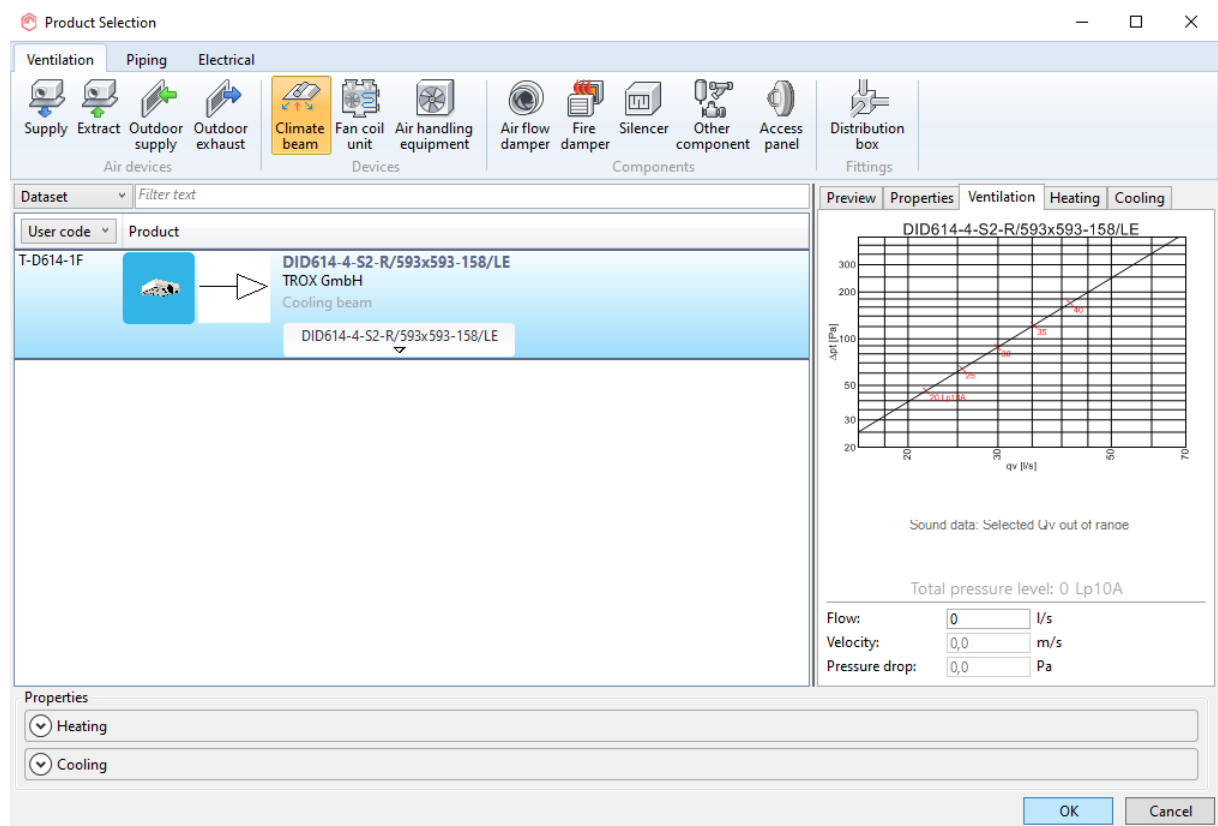
The insert product command workflow differs little bit if MagiCAD for Revit is installed on top of Revit. The steps are identical to plain Revit steps until step 3.

1. After the product is chosen in TROX EPF and “Insert to MagiCAD” -button is clicked, plugin loads MagiCAD Dataset dialog:



From the dataset properties dialog you can define for example 2D symbols for the product and for airflow arrows. Once ready, proceed by clicking OK -button.

2. MagiCAD Insert product view is opened. Notice that the working point should be defined in this dialog from the ventilation tab in the right side of the dialog. Once ready, user can start the insert operation by clicking the OK -button:



3. User places the product to the project with MagiCADs product installation feature:

2.1.3 Description of insert product command for climate beams with extract connections

TROX DID632 and DID642 are products that may have additional extract connection. When a product with the extract connection is chosen in EPF configurator, it has special handling in the plugin. The insert process is similar to the insert process of products to plain Revit, even when MagiCAD is installed.

Climate beams with extract connection are installed to Revit project as assemblies, which contain two instances. One of the instances is the main climate beam and the other is the extract connection.

The connectors in assemblies can be selected by holding down tab key while selecting them.

Extra connectors are added without data. Therefore MagiCAD for Revit gives empty results for this connectors in the Balancing calculation. Air flow and pressure drop values can be added manually on MagiCAD for Revit.

The additional connections can be seen like this:

