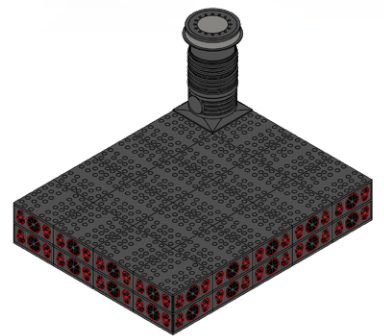
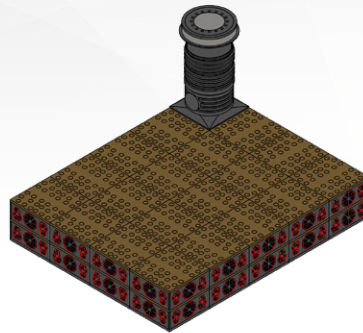
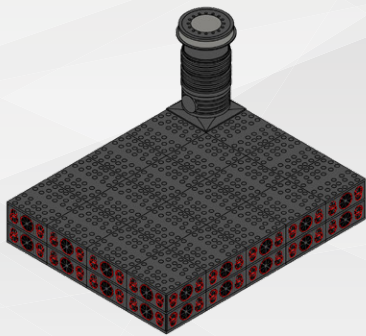




# Revit Families

MANUAL HANDLING  
DRAINAGE SYSTEM ECOBLOC  
INSPECT SMART



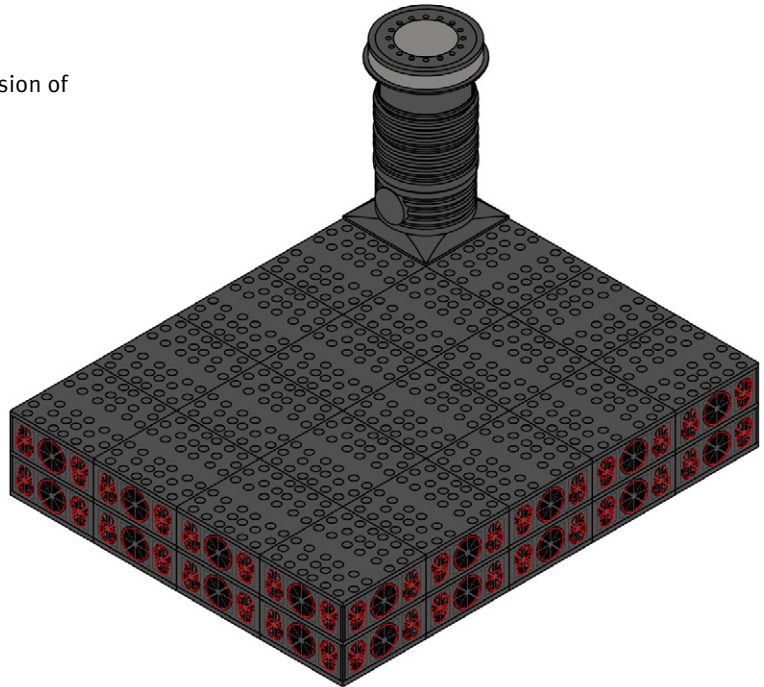
# GENERAL

## REVIT Drainage System EcoBloc Inspect smart

**ATTENTION: PLEASE ALWAYS FOLLOW THE INSTALLATION INSTRUCTIONS WHEN ASSEMBLING!**

### Revit Version

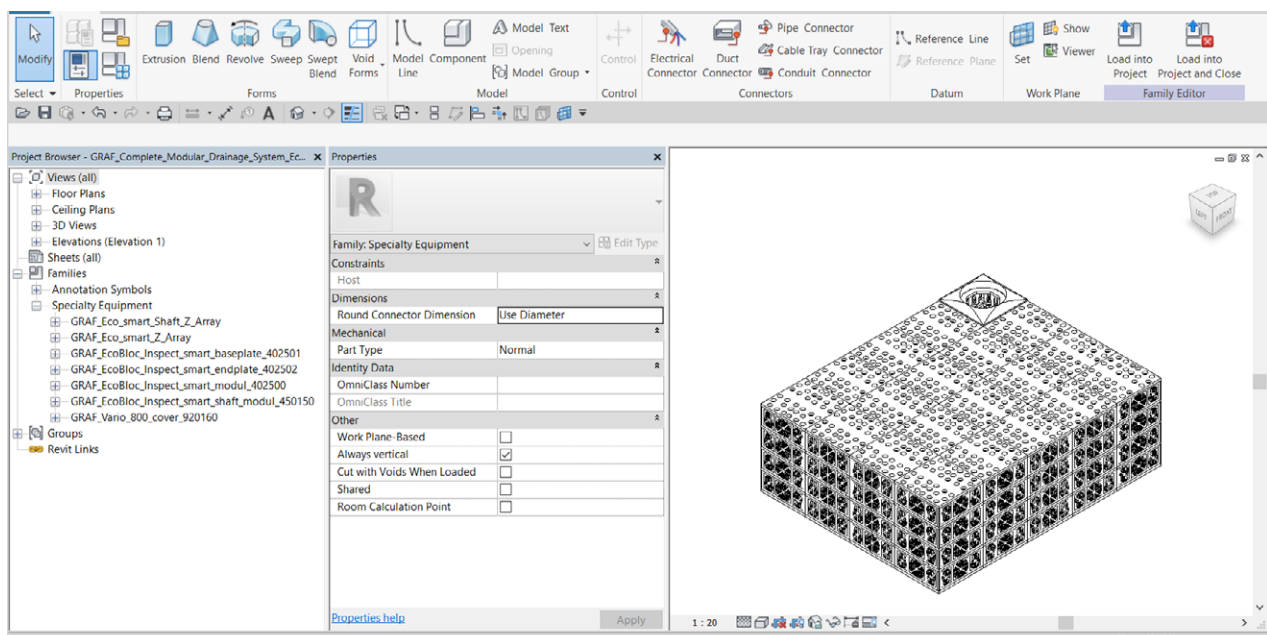
The GRAF Revit Families are created in the english version of Revit 2018.



### Revit Family

The Revit family GRAF\_Complete\_Modular\_Drainage\_System\_EcoBloc\_smart.rfa contains all families to build a complete drainage system with the EcoBloc smart series. The nested families are defined as shared families, so that the single part of the drainage system appears in the schedule of a project. All families are created on the Revit category Specialty Equipment.

The Drainage System family can be edited directly in the family editor, i.e. in terms of the dimensions. Then the family can be saved under a new name and can be loaded into a project



The family in the family editor environment with the nested families displayed in the project browser.

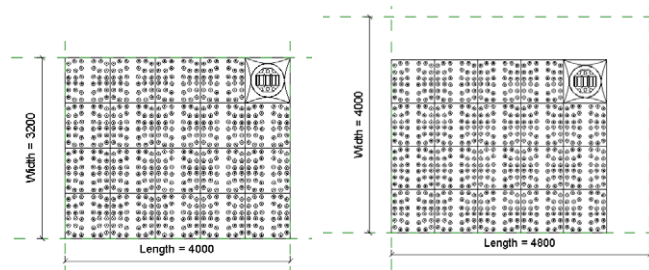
# CUSTOMIZING THE FAMILY


## REVIT Drainage System EcoBloc Inspect smart



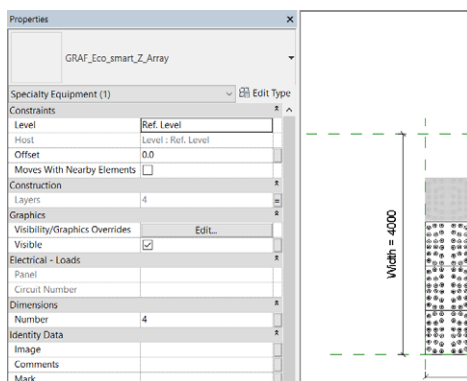
### Dimensions

In the sample below, the family is changed from a 3200 x 4000 dimension with 2 layers to a 4000 x 4800 dimension with 4 layers.

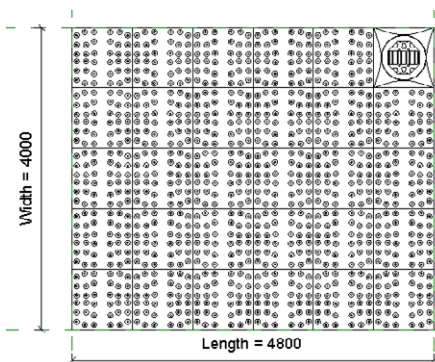


- ➔ From the menu, run the  Family Types button
- ➔ In the Family Types dialog, adjust the dimensions for Width and Length. Note that the dimensions of the reference planes are changed in plan view.

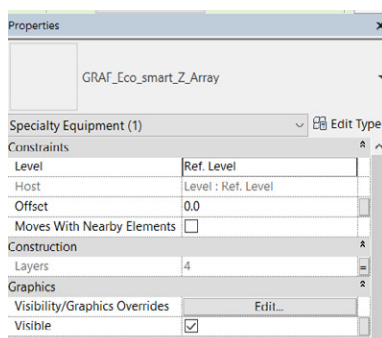
### Adding items to the EcoBloc Layout



Select each nested family in the drawing area and adjust the Number value in the Properties dialog according the dimensions.



- ➔ Move the Shaft family to the desired position.
- ➔ It's recommended to move the existing outer families to the reference planes and fill up spaces with copied families. The rows placed in the families have already the correct visibility settings for the end plates

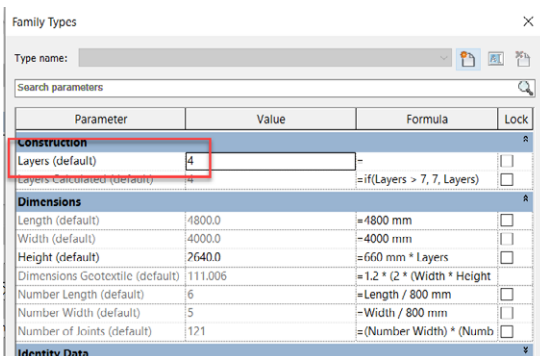


For individual layouts, control the correct settings for End Plate Left and End Plate Right.

# CUSTOMIZING THE FAMILY

## REVIT Drainage System EcoBloc Inspect smart

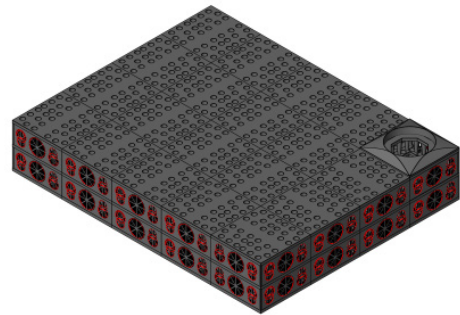
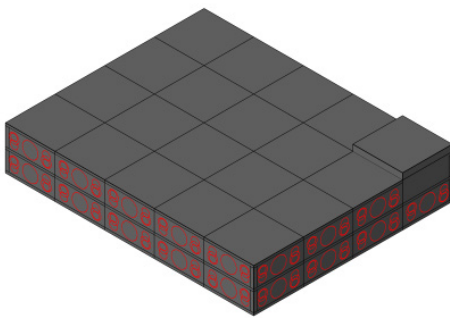
### Adding EcoBloc Layers



- ➔ The number of layers can be changed in the Family Types dialog.
- ➔ Save the family under a different name and load the family into a project.

### Detail Levels

The family in detail level Coarse and Fine.



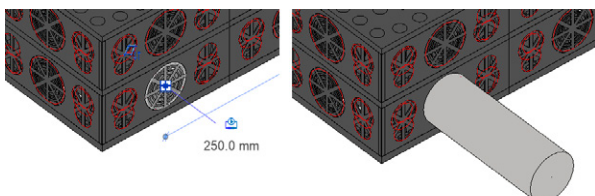
### Connecting Pipes

#### Object Styles

Model Objects Annotation Objects Imported Objects

Category	Line Weight		Line Color
	Projection	Cut	
Specialty Equipment	1		Black
GRAF Connector Area	1		Red
Hidden Lines	1		Black

The red circles illustrate the connection areas for the pipes. They are placed on a subcategory “GRAF Connection Area” and can be switched of in a project for selected views.



In the project, place the family GRAF\_Connector\_Element to any of the red connection area. Use the Center snap for an exact placement. Die family contains the Revit Connector element to place pipes.

# CUSTOMIZING THE FAMILY

## REVIT Drainage System EcoBloc Inspect smart



### Schedules

A	B	C	D	E
Count	Family	Type	Article Number	Material Desc
1	GRAF_Complete_Modular_Drainage_Syst	GRAF_Complete_M		
1	GRAF_Connector_Element	DN 200		
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP
1	GRAF_EcoBloc_Inspect_420_402000	GRAF_EcoBloc_Ins402000		PP

Copy & Paste the schedule from the GRAF Retention project to your project. The single parts of the drainage system are listed.

### Properties

GRAF\_Complete\_Modular\_Drainage\_System\_EcoBloc\_smart

Specialty Equipment (1)

Edit Type

Constraints

Level

Level 0

Host

Level : Level 0

Offset

0.0

Moves With Nearby Elements

☐

Construction

Layers

2

Layers Calculated

2

Electrical - Loads

Panel

Circuit Number

Dimensions

Length

4000.0

Width

3200.0

Height

700.0

Dimensions Geotextile

47.303 m<sup>2</sup>

Number Length

5

Number Width

4

Number of Joints

46

Identity Data

The drainage module calculates and schedules also the Geo-textile dimensions and the number of joints.

### ACCESSORIES

You will find a variety of suitable accessories in the Stormwater Management Accessories file.





For more information about our Stormwater Management, Rainwater Harvesting or Wastewater Treatment, ask for our technical catalogue.

**Otto Graf GmbH**  
**Kunststofferzeugnisse**

Carl-Zeiss-Straße 2 – 6  
DE-79331 Teningen

Tel.: +49 7641 589-0  
Fax: +49 7641 589-50

mail@graf.info  
www.graf-online.de