

# GEBERIT BIM PLUG-IN 2022



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# **TABLE OF CONTENTS**

1	Abo	out this document	4
	1.1	Signs and symbols	4
	1.2	Highlighted Passages	4
2	Pre	parations	5
_	2.1	Installing the plug-in	5
	2.1	2.1.1 Licensing	6
	2.2		7
		Selecting the pipe diameter unit	8
	2.0		Ũ
3	Tra	ining examples – Geberit BIM Plug-in	9
	3.1	Training example – catalogue	9
	0.1	3.1.1 Överview	9
		3.1.2 Inserting a BIM object	10
		3.1.3 Adjusting a Duofix BIM element	12
	3.2	Roof drainage system training example	18
		3.2.1 Overview	19
		3.2.2 Opening projects	21
		3.2.3 Inserting a level	21
		3.2.4 Creating reference levels	25
		3.2.5 Drawing a pipe system 3.2.6 Calculating a pipe system	33 46
		3.2.6       Calculating a pipe system         3.2.7       Displaying a material list	52
		3.2.8 Exporting calculation results	52
		3.2.9 Fault clearance	55
	3.3	Installation systems training example	57
	0.0	3.3.1 Overview	58
		3.3.2 Creating a new project	60
		3.3.3 Adapting the project	60
		3.3.4 Drawing walls	61
		3.3.5 Inserting sanitary appliances	62
		3.3.6 Calculating installation walls	65 70
		<ul><li>3.3.7 Displaying the material list and cut list</li><li>3.3.8 Displaying dimensional drawings</li></ul>	70
		3.3.9 Exporting calculation results	72
		3.3.10 Removing the installation wall definition	74
	34	Training example - wizards	75
	0	3.4.1 Splitting a pipe	75
		3.4.2 Labelling a pipe system	79
		3.4.3 Optimising the precut mat	84

## **1 ABOUT THIS DOCUMENT**

With the aid of the planning examples in this training manual, you will learn how to handle the Geberit BIM Plug-in.

An overview of the topics:

- · Installing the plug-in
- · Using the plug-in

This training manual was created in 2020 with Autodesk® Revit®. The designation of individual functions and the visualisation of training examples may vary if you work with a different version of Autodesk® Revit®.

## 1.1 Signs and symbols

The following signs and symbols are used in the training manual:

Symbol	Designation	Meaning
?	Info	Reference to additional information on the subject under Help or in another training manual
	Hint	Hint for an easier or better approach
	Note	Basic information on a specific procedure
•	Action	Instruction for action consisting of only one step
1. 2.		Instruction for action consisting of several steps
$\checkmark$	Result	Result of an action

## 1.2 Highlighted Passages

Keyboard shortcuts appear in the text as follows: **STRG** + **C**. The corresponding shortcut for keyboards with English keys appears in brackets (**CTRL**+**C**).

Software dialog elements are shown as follows: **Tab** or **Window** or **Menu entry**.

Software buttons are shown as follows: OK.

# **2 PREPARATIONS**

## 2.1 Installing the plug-in

If you have not already done so, you need to install the Geberit BIM Plug-in on the computer on which Autodesk® Revit® is also installed.



Administrator rights for the PC are required for the installation of the plug-in.

- 1. Double-click on the installation file.
  - ✓ The installation wizard starts up.



2. Follow the instructions on the screen.

#### 2.1.1 Licensing

The **Catalogue** and **Assistants** modules can be used without a separate licence. In order to be able to use the **Pluvia** and **Installation systems** modules, you need to have a valid Geberit ProPlanner license.

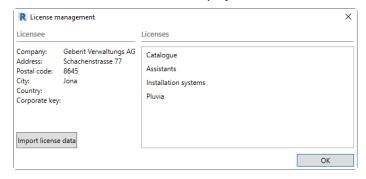
If need be, you can export the Geberit ProPlanner license and transfer it to another computer.

#### 2.1.1.1 Exporting the Geberit ProPlanner license

- 1. Start Geberit ProPlanner.
- 2. Click on License management in the Help menu.
  - ✓ The License management window appears.
- 3. Click on Export license data and save the license file.

#### 2.1.1.2 Importing the Geberit ProPlanner licence

- 1. Start Autodesk® Revit®.
- 2. Show the Add-Ins tab in the menu bar.
- Click on Help in the Geberit BIM Plug-in area and select License management.
  - ✓ The License management window appears.
  - 4. Click on Import license data.
  - 5. Navigate to the Geberit ProPlanner licence file and click on **Open**.
    - ✓ The available licences are displayed in the **License management** window.



6. Click on OK.

## 2.2 Selecting the market

You must select the market before you can use the Geberit BIM plug-in. Selecting the market defines the elements available for the planning and calculation.

- 1. Create a new Autodesk® Revit® project or open an existing Autodesk® Revit® project.
- 2. Show the Add-Ins tab in the Autodesk® Revit® menu bar.
- 3. Click on Show/hide plug-in in the Geberit BIM Plug-in area to show the Geberit BIM Plug-in window.
  - ✓ The **Geberit BIM Plug-in** window appears.
  - ✓ The message Please select a market appears in the Geberit BIM Plug-in window.

Geberit BIM Plug-in		×
	Please select a market.	
👚 Select market		
Geberit BIM Plug-in	Project Browser - Project1	



4. Click on Select market.

✓ The Market selection window appears.

R Market selection	×
Market	
	Ý
The market defines the product range, price calculation rules for new projects.	s, and
OK	Cancel

- 5. Select your preferred market.
- 6. Click on OK to save the setting.
  - ✓ The tabs of the available modules appear depending on the imported licence.

Geberit BIM	Plug-in			×
Catalogue	Pluvia	Installation systems	Assistants	

## 2.3 Selecting the pipe diameter unit

Pipe diameters are specified as standard as nominal diameters (DN) or outer diameters (OD) depending on the selected market. The nominal diameter (DN) should be used for this training manual.

11



1. Click on Settings.

👚 Germany (de-DE) - DN		¢
Project Browser - Schulungsdate	Geberit BIM Plug-in	63

✓ The **Document settings** window appears.

R Document settings – 🗆 :						
Catalogue Pluvia Installation systems Report						
General						
Pipe diameter unit: Nominal diameter (DN)			~			
	OK	Can	:el			

- 2. Show the Catalogue or Pluvia tab.
- Select the Nominal diameter (DN) setting as the Pipe diameter unit in the General tab.

Cocument settings					-	×
Catalogue	Pluvia	Installation systems	Report			
General						
Pipe diame	eter unit:			Nominal diameter (DN)		×
				Nominal diameter (DN)	Ν	
				Outer diameter (OD)	13	

4. Click on OK to save the settings.

You can only use the **Outer diameter (OD)** or **Nominal diameter (DN)** setting within a document. It is not possible to use both settings at the same time.

# 3 TRAINING EXAMPLES – GEBERIT BIM PLUG-IN

You can use the Geberit BIM Plug-in to insert BIM objects from the Geberit product catalogue into Autodesk® Revit® and to create and calculate Pluvia systems and installation systems.

The examples in this training manual will help you to learn the basic ways of working and the fundamental functions of the Geberit BIM Plug-in.

### 3.1 Training example – catalogue

In the training example for the **Catalogue** module, you insert a BIM object from the Geberit product catalogue into an Autodesk® Revit® project.

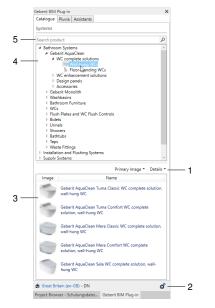
This chapter covers the following topics:

- · Selecting and inserting products
- · Anonymising product information
- Turning connection bends
- · Connecting discharge pipes

#### 3.1.1 Overview

All of the products available in the product range are listed in a tree structure. The tree structure corresponds to the structure in the online catalogue of the respective market.

Not available products are shown in grey.



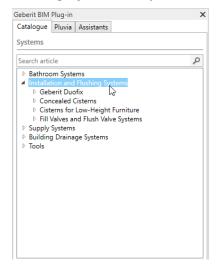
- 1 Customise the view of available products
- 2 Call up the document settings
- 3 Available and not available products
- 4 Tree structure of the product groups
- 5 Search by Geberit article number or article description

9

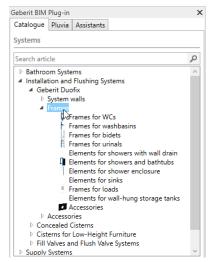
#### 3.1.2 Inserting a BIM object

#### 3.1.2.1 Selecting a Duofix element

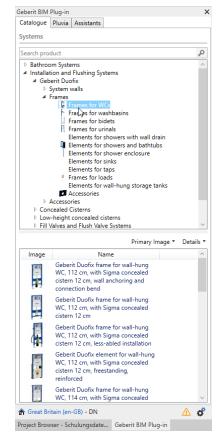
1. Click on the triangle (▷) in the tree structure to open the **Installation and Flushing Systems** entry.



2. Open the **Geberit Duofix** product category in the same way and navigate to the Installation Elements product group.



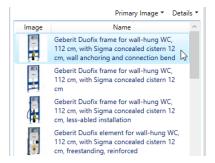
- 3. Click on the Elements for WCs product group.
  - ✓ The available products in the **Products of category** area appear once you have marked the product group.



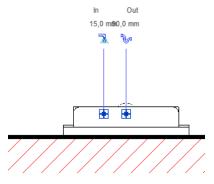
Alternatively, you can search for the article number of a product in the **Search product** field.

#### 3.1.2.2 Inserting a Duofix element

1. Double-click on the Geberit Duofix frame for wall-hung WC, 112 cm in the Products of category area.



 The BIM object of the Duofix element is downloaded from the Geberit PIM system.



2. Click on the required position in your BIM planning to insert the Duofix element.

3. Press ESC twice to exit the function.

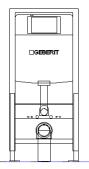
#### 3.1.3 Adjusting a Duofix BIM element

#### 3.1.3.1 Setting the height offset

The Geberit Duofix installation elements can be aligned vertically using the heightadjustable leg support set. It is possible to compensate for a height offset of 0–20 cm in the floor construction.

The plug-in allows you to set this height offset individually for each instance of a product and the specification of the reference level. The reference level can be the unfinished floor (default setting) or the finished floor.

1. Show the front view of the Duofix element.

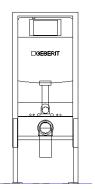


- 2. Highlight the Duofix element in your BIM planning.
- 3. Show the **Properties** window.

4. Enter a value up to 200 mm in the surface height and Elevation from Level fields in the Constraints area.

Constraints	*	1
Front actuation		
Top actuation		
Angle	0.00°	
On Finished Floor Level		
Fastening distance 180	Z	
Fastening distance 230		
Thickness of finished floo	r 0.2	
Warning	-	
Level	Level 1	
Elevation from Level	0.2	
Host	Level : Level 1	
Offset from Host	0.2	

5. Click on Apply to apply the settings.



#### 3.1.3.2 Turning connection bends 45°

In order to be able to connect the waste water in the next step, turn the connection bend of the installation element  $45^{\circ}$ .

- 1. Show the **Properties** window.
- 2. Enter the value -45° in the Angle field in the Constraints area.

Constraints		*	^
Front actuation	$\checkmark$		
Top actuation			
Angle	-45.00°		
On Finished Floor Level	$\sim$		

3. Click on Apply to apply the settings.

✓ The connection has been turned -45°.

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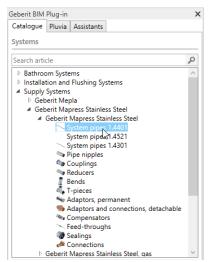
#### 3.1.3.3 Connecting pipes

At the end, you can connect the element for wall-hung WC to a drinking water pipe and a discharge pipe.

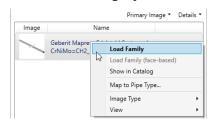
#### 3.1.3.3.1 Connecting drinking water

You first need to load a suitable Geberit to be able to connect a drinking water pipe to the element for wall-hung WC.

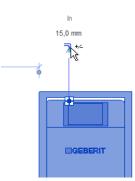
Select the supply system Geberit Mapress Stainless Steel > System pipes
 1.4401 in the tree structure of the BIM catalogue.



2. Right-click on Geberit Mapress Stainless Steel system pipe CrNiMo in the Products of category area and select Load Family in the pop-up menu.



- ✓ Load the BIM content of the Geberit family with all pipes and fittings.
- ✓ The drawing function is started.
- **3.** Press **ESC** to cancel the drawing function.
- **4.** Mark the Duofix installation element and click on the pipe symbol.



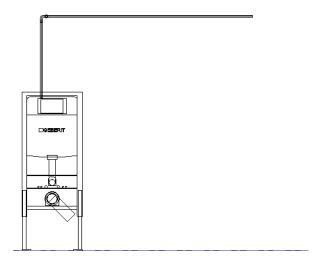
5. Make sure that the Geberit Mapress Stainless Steel system pipe is selected in the Properties window.



6. Enter the value 15 mm in the options bar in the Diameter field.

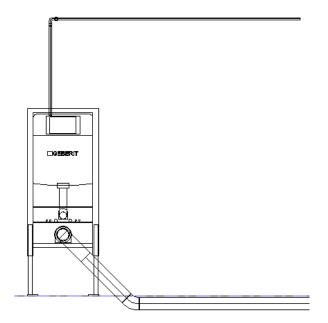
Diameter:	15.0 mm	$\sim$
-----------	---------	--------

7. Draw the drinking water pipe and press **ESC** twice to exit the drawing function.



#### 3.1.3.3.2 Connecting waste water

- **1.** Connect the discharge pipe to the element for wall-hung WC as described for the drinking water pipe.
- **2.** To do this, load a suitable Geberit family from the Building Drainage Systems area, e.g. Geberit **HDPE**.
- 3. Connect a discharge pipe with a diameter of 90 mm or 100 mm.



#### 3.1.3.4 Displaying manufacturer-neutral Geberit BIM content

Public sector tenders usually require manufacturer-neutral planning. The plug-in allows you to switch between neutral (LOD300) or manufacturer-specific product information (LOD400).

- 1. Highlight the Duofix element in your BIM planning.
- 2. Click on Edit Type in the Properties window.
  - ✓ The **Type Properties** window appears.
- 3. Activate LOD300 in the Identity Data area.
  - ✓ Information, such as Article number, Manufacturer, Model and Description is replaced by neutral information in all available instances of the product.

Identity Data		\$	
Article number	n/a	Γ	
Assembly Code			
Cost			
Description	concealed cistern support frame for toilet	Г	
Keynote			
LOD300		1	
LOD400		1	
Manufacturer	generic	Г	
Model	-	Г	
Type Comments			
Type Image		Γ	
URL		Ì	
Assembly Description		ſ	
Type Mark		Ť	
OmniClass Number	23.45.05.21.11.11	Г	
OmniClass Title	Water Operated Water Closets	Г	
Code Name		T	

4. Click on **OK** to confirm the setting.



Alternatively, you can use the **Manufacturer-Neutral View** wizard to switch between neutral (LOD300) or manufacturer-specific product information (LOD400).

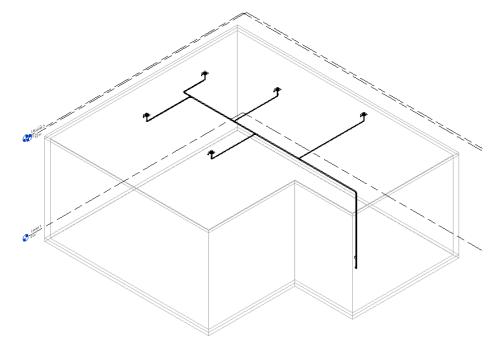
## 3.2 Roof drainage system training example

In the training example for the **Pluvia** module you can create and calculate a simple pipe system for the drainage of a building roof.

This chapter covers the following topics:

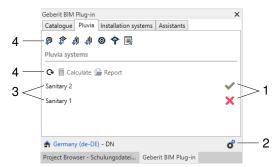
- Inserting a level for drawing the pipe system
- Inserting reference levels
- Drawing a pipe system
- · Calculating a pipe system
- · Adapting properties and troubleshooting
- · Displaying a material list
- · Exporting calculation results

Once you have completed all the planning steps, the system should look like this:



#### 3.2.1 Overview

You will find the functions for the calculation of Pluvia systems in the Pluvia tab.



- 1 Status of the calculation Open the **Calculation results** window
- 2 Call up the document settings
- 3 Available Pluvia systems in the model
- 4 Planning and calculation functions

#### 3.2.1.1 Calculation status

Symbol	Meaning
✓	Calculation successful
×	Calculation faulty
$\overline{\mathbf{X}}$	Calculation is processing
<b>-</b> ]	Calculation has been cancelled
ŶĴ	Calculation is no longer up-to-date

#### 3.2.1.2 Planning and calculation functions

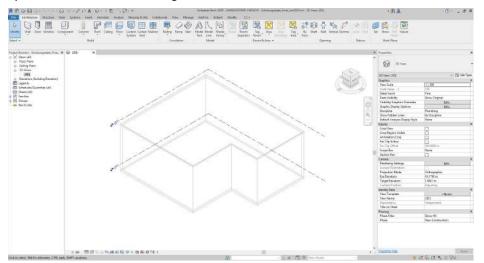
Button	Function
P	Place an underground pipe connection
	Assign a roof outlet
Ņ	Assign an access pipe
ή	Assign an expansion socket
0	Highlight the underground pipe connection in the model
<b>今</b>	Highlight the roof outlets in the model
	Display and adjust the properties of one or more marked elements
G	Update the list of calculable Pluvia systems in the model
	Calculate the system
P	Export the calculation in PDF or Excel format

#### 3.2.2 Opening projects

To create the Pluvia system for this training example, you can create the building yourself or use a prepared Autodesk® Revit® file as described below. All the necessary elements to draw the pipe system in addition to the building are included in the Autodesk® Revit® file.

Download the training file from the following address if you do not have it: https://buildv1geberit.blob.core.windows.net/e-learning/Revit/Geberit.rvt.

▶ Open the **Geberit.rvt** training file in Autodesk® Revit®.



#### 3.2.3 Inserting a level

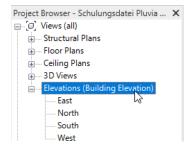
The pipe system is drawn on its own level.

#### 3.2.3.1 Showing south view

1. Open the Views (all) entry in the Project Browser window.

Project Browser - Schulungsdatei\_Final\_J... X -[-], Views (all) - Floor Plans

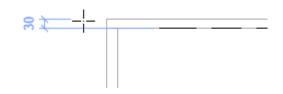
- E Ceiling Plans
- ...... 3D Views
- Elevations (Building Elevation)
- 2. Open the Elevations (Building Elevation) entry.



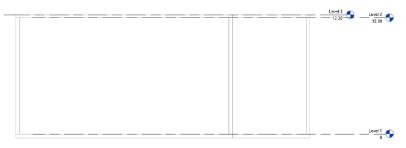
3. Double-click on South.

#### 3.2.3.2 Inserting a level

- 1. Show the Architecture tab.
- - **3.** Position the cursor to the left of the building at the height of the edge of the roof. Make sure that the dimensions show a distance of 0.30 m.



- 4. Click in the drawing area.
- 5. Move the cursor to the right next to the outer wall and click in the drawing area.
- 6. Press ESC twice to exit the function.
  - ✓ Level 3 has been inserted.



#### 3.2.3.3 Adjusting level properties

Adjust the properties of the new level so that all elements and the building of the model are visible when drawing the pipe system.

1. Double-click on Level 3 in the Project Browser to show the level.

×

- 2. Select the following settings in the **Properties** window in the **Graphics** area:
  - Detail Level: Fine
  - Discipline: Plumbing

Properties				×
Floor Plan				•
Floor Plan: Level 3	~	Edit	Тур	be
Graphics			\$	^
View Scale	1:100			
Scale Value 1:	100			
Display Model	Normal			
Detail Level	Fine			
Parts Visibility	Show Original			
Visibility/Graphics Overrides	Edit			
Graphic Display Options	Edit			
Orientation	Project North			
Wall Join Display	Clean all wall joins			
Discipline	Plumbing			
Show Hidden Lines	By Discipline			
Color Scheme Location	Background			

- 3. Click on Edit in the Graphic Display Options field.
  - ✓ The Graphic Display Options window appears.
- 4. Select the Wireframe setting in the Style field and click on OK.

Graphic Display Options		×
✓ Model Display		
Style:	Hidden Line	~
Transparency:	Wireframe Hidden Line Shaded Consistent Colors Realistic	
	-	

- 5. Click on Edit in the View Range field in the Extents area.
  - ✓ The View Range window appears.

- 6. Select the following settings:
  - Top: Associated Level (Level 3)
  - Bottom: Level Below (Level 2)

#### Level: Unlimited

View Range				×	
Primary Range					
Top:	Associated Level (Level 3)	$\sim$	Offset: 2.	3000 m	
Cut plane:	Associated Level (Level 3)	$\sim$	Offset: 1.	2000 m	
Bottom:	Level Below (Level 2)	$\sim$	Offset: 0.	0000 m	
View Depth					
Level:	Unlimited	$\sim$	Offset: 0.	0000 m	
Learn more about view range					
<< Show	ОК		Apply	Cancel	

- 7. Click on OK.
- 8. Click on Apply in the Properties window to save the level settings.
  ✓ The building is displayed in Level 3.

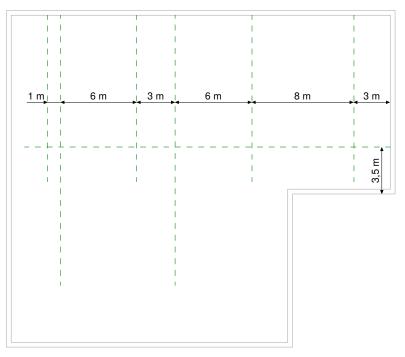
Level 3

×



#### 3.2.4 Creating reference levels

Create reference levels at defined distances as auxiliary lines to be able to draw pipes at the correct distances.

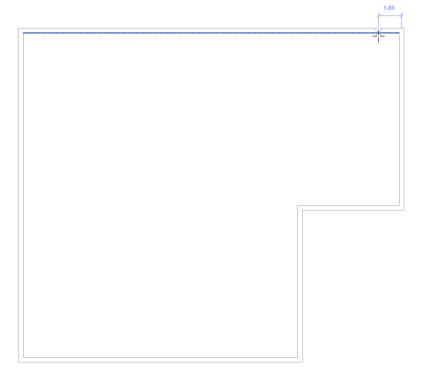


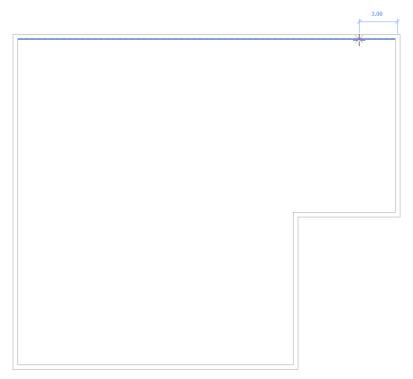
#### 3.2.4.1 Creating vertical reference levels

1. Show the **Systems** tab.



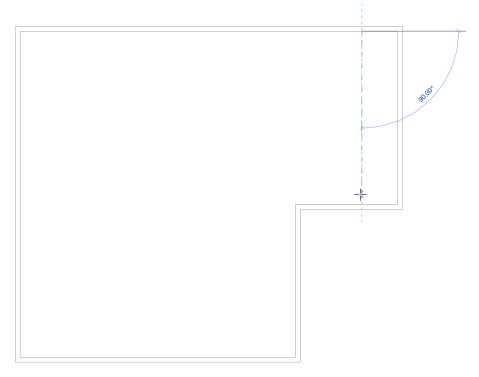
- 2. Click on Ref Plane in the Work Plane area.
- 3. Position the cursor at the upper wall.
  - ✓ The dimensions show the distance to the right wall.





 Move the cursor to the left or right until the dimensions show a distance of 3.00 m.

5. Click in the drawing area and move the cursor down to define the length of the reference level.



6. Click in the drawing area to create the reference level.

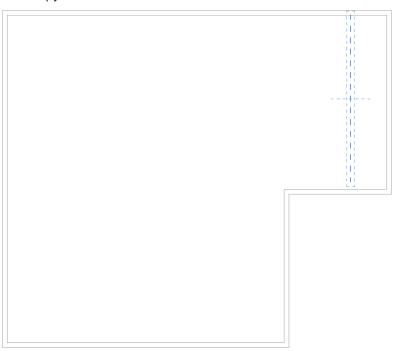
7. Press ESC twice to exit the function.



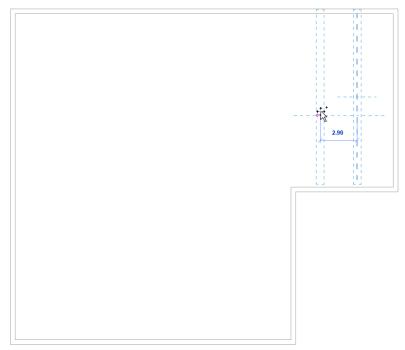
8. Mark the reference level.



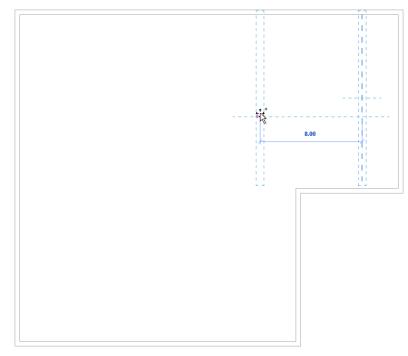
9. Click on Copy in the Modify area in the Modify | Place Reference Plane tab.
✓ A copy of the reference level is inserted.



- **10.** Click on the copied reference level.
  - ✓ The reference level is attached to the cursor.



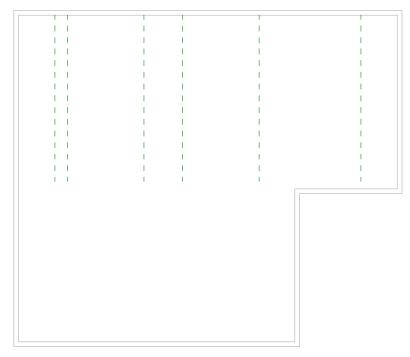
**11.** Move the reference level to the left until the distance between both reference levels is **8.00 m** and click in the drawing area.





Alternatively, you can move the reference level to the left, enter a distance of **8.00 m** on the keyboard and press Enter.

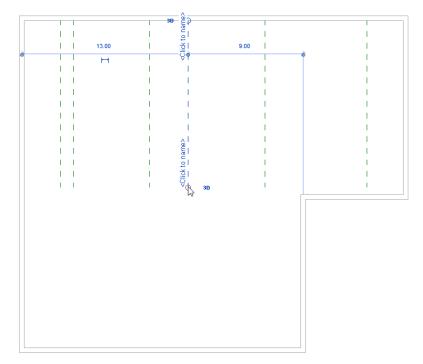
- **12.** Create all other vertical reference levels at the corresponding distances in the same way, see "Creating reference levels", page 25.
- 13. Press ESC twice to exit the function.

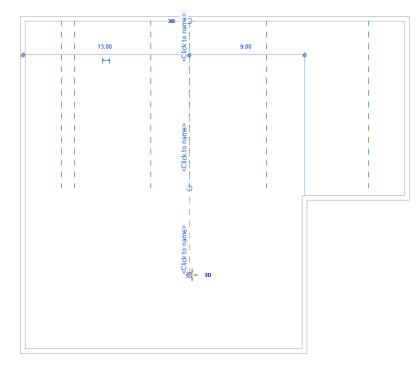


#### 3.2.4.2 Extending reference levels

You need to extend two reference lines to be able to draw the pipes correctly at a later stage.

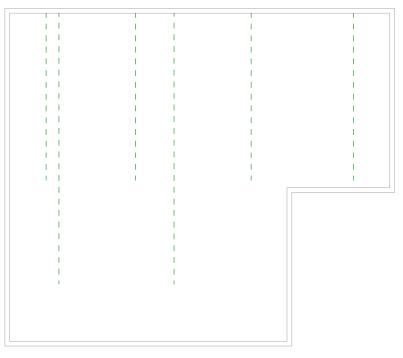
- **1.** Highlight the reference level shown.
- 2. Click on the circle at the end of the reference level.





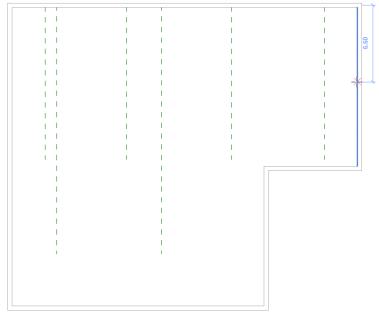
**3.** Press and hold the left mouse button and pull the end of the reference level downwards.

- 4. Release the left mouse button.
- 5. Also extend the second reference level from the left in this way.

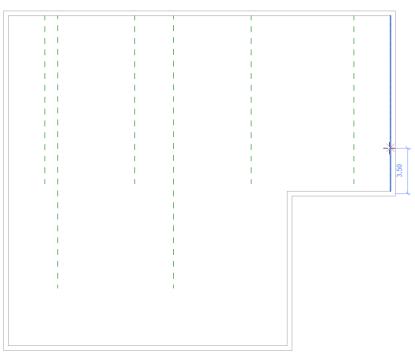


#### 3.2.4.3 Creating a horizontal reference level

- 1. Click on Ref Plane in the Work Plane area in the Systems tab.
- *\_\_*//
  - **2.** Position the cursor at the right wall.
    - ✓ The dimensions show the distance to the upper or lower wall.

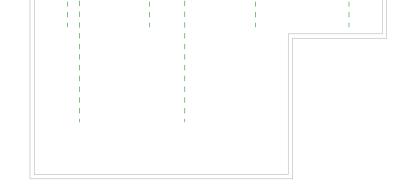


3. Move the cursor up or down until the dimensions show a distance of 3.50 m to the lower wall.

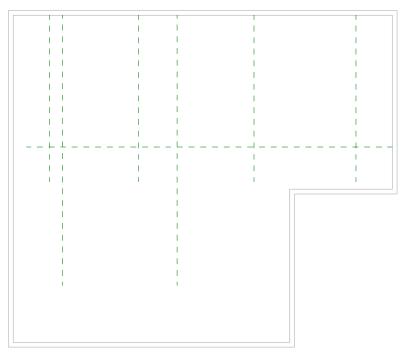




4. Click in the drawing area and move the cursor to the left wall to define the



- 5. Click in the drawing area to create the reference level.
- 6. Press ESC twice to exit the function.

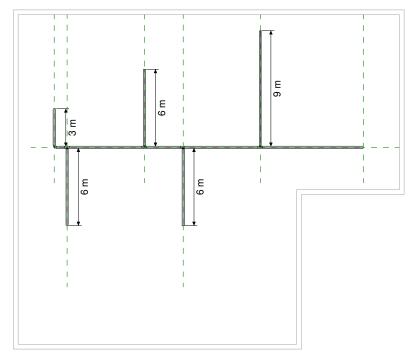


#### 3.2.5 Drawing a pipe system

The pipe system in this training manual is drawn with Geberit pipes. The necessary families are already included in the training file.

You can also draw the pipe system with standard pipes. In the calculation, the standard pipes from the plug-in are replaced by the corresponding Geberit pipes.

The following pipe lengths are intended for the training example:



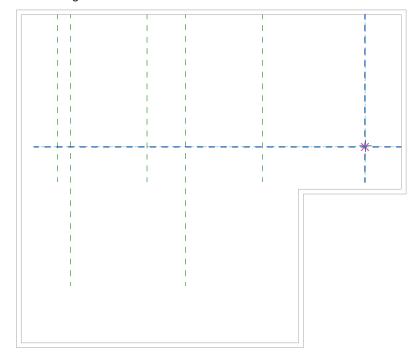


- 1. Click on Pipe in the Plumbing & Piping area in the Systems tab.
- 2. Enter the value -0.8 m in the Middle Elevation field in the options bar so that the pipes under the roof are drawn.
- 3. Click on Apply in the options bar.



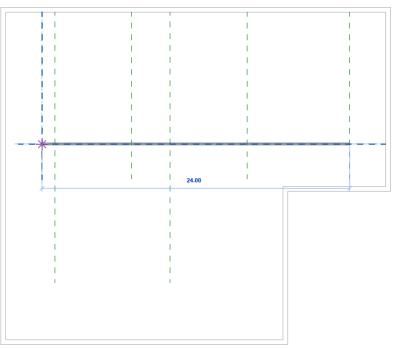
4. Select the Geberit PE-HD entry under Pipe Types in the Properties window.



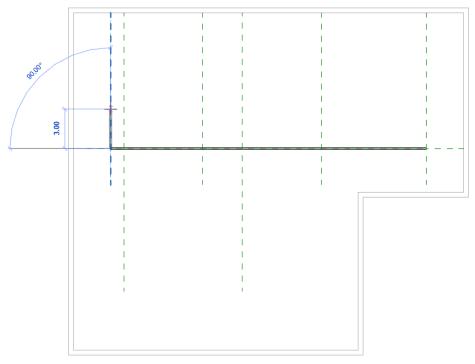


**5.** Click on the point of intersection of the right and horizontal reference level in the drawing area.

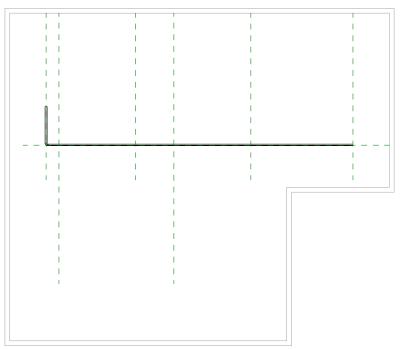
- 6. Pull the pipe as far as the outer left reference level.
- 7. Click on the point of intersection of the left and horizontal reference level.



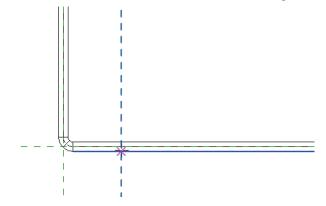




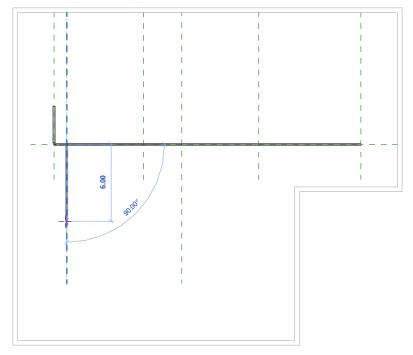
- 9. Click in the drawing area.
- **10.** Press **ESC** to exit the pipe drawing.



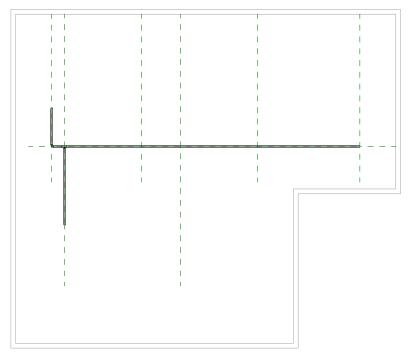
**11.** Click on the point of intersection of the second reference level from the left and the horizontal reference level on the outer edge of the pipe.



12. Move the cursor down until the pipe is 6.00 m in length.

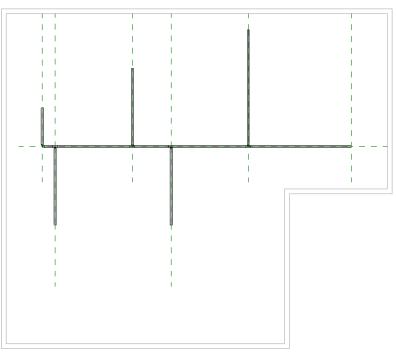


13. Click in the drawing area.



14. Press ESC to exit the pipe drawing.

- **15.** Draw all other pipes in the intended lengths in this way, see "Drawing a pipe system", page 33.
- **16.** Press **ESC** twice to exit the drawing function.



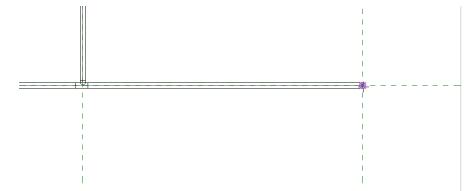
#### 3.2.5.1 Drawing a stack



1. Click on Pipe in the Plumbing & Piping area in the Systems tab.



- 2. Activate the Inherit Elevation option in the Placement Tools area in the Modify | Place Pipe tab.
- **3.** Click on the open end of the continuous pipe.

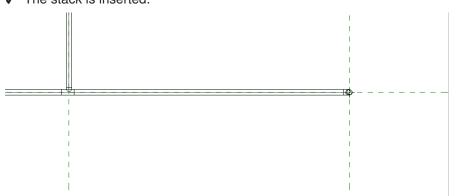


4. Enter the value -10.0 m in the options bar in the Middle Elevation field and confirm with Enter or press the Tab key and click on Apply.



5. Move the cursor back into the drawing area.

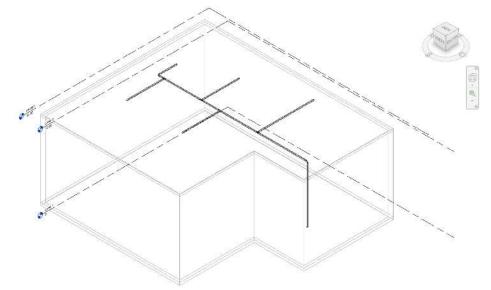




#### 3.2.5.2 Checking a pipe system in 3D view

You can call up the 3D view to check whether the pipe system has been drawn correctly.

- ► Show the **{3D}** view.
  - ✓ The 3D view of the model is shown.



#### 3.2.5.3 Inserting roof outlets

You can insert roof outlets once you have drawn the pipe system.

1. Show Level 3.



- 2. Click on **Plumbing Fixture** in the **Plumbing & Piping** area in the **Systems** tab.
- 3. Select the **PF\_UN\_Pluvia roof outlet with contact foil and thermal** insulation\_Geberit entry in the **Properties** window.

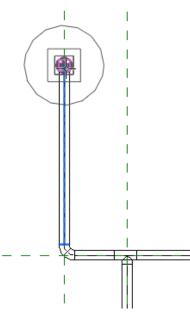


You can also use another inlet instead of the roof outlet described. The correct properties are only defined later by the plug-in.

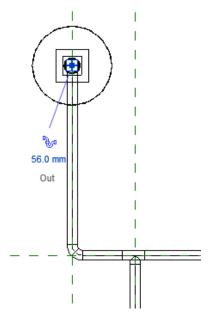
- 4. Move the cursor into the drawing area.
  - ✓ The roof outlet is suspended from the cursor.



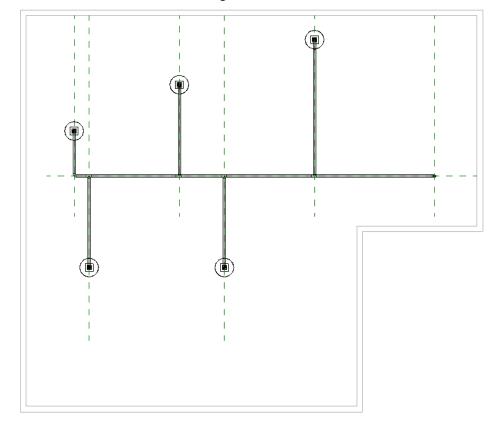
**5.** Place the roof outlet centrally at the open end of a pipe. Make sure that the middle line of the pipe is highlighted in blue.



6. Click in the drawing area to insert the roof outlet.



7. Insert all other roof outlets in the same way.

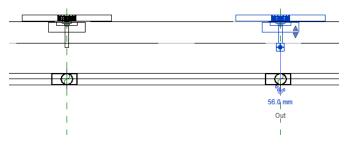


8. Press ESC twice to exit the drawing function.

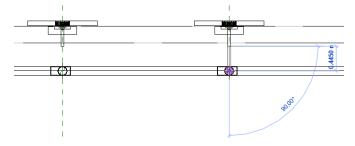
### 3.2.5.4 Connecting roof outlets to pipe system

Connect the roof outlets to the pipe system in the following step.

- 1. Show the South view.
- 2. Mark a roof outlet in the model.

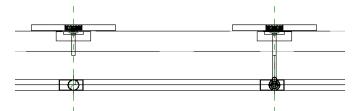


- Glick on the trap symbol on the marked roof outlet.
   ✓ A connection pipe section is attached to the cursor.
  - 4. Move the cursor down to the centre of the fitting.

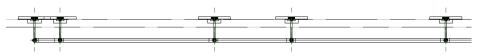


5. Click on the fitting.

✓ The roof outlet has been connected to the fitting.

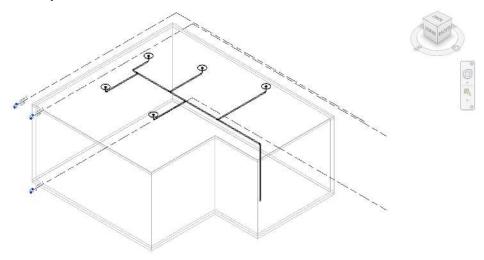


- 6. Press ESC to exit the drawing function.
- 7. Connect all other roof outlets to the pipe system in this way.



#### 3.2.5.5 Checking a pipe system in 3D view

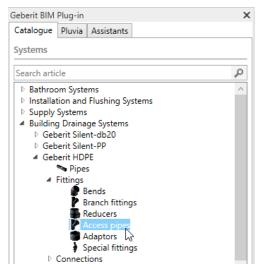
 Show the 3D view again to check whether the roof outlets have been inserted correctly.



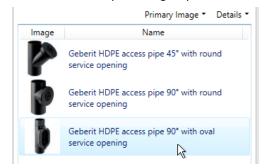
#### 3.2.5.6 Insert access pipe

In the following step, insert the access pipe with the **Catalogue** module directly from the Geberit online catalogue.

- 1. Show the Catalogue tab.
- Open the Building Drainage Systems product category in the tree structure and navigate to the Geberit HDPE > Fittings > Access pipes product group.

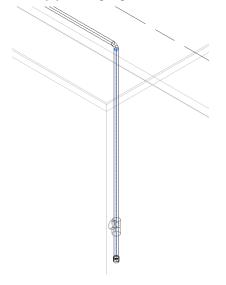


**3.** The available products in the **Products of category** area appear once you have marked the product group.

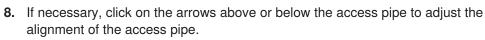


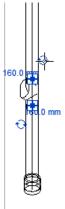
- 4. Double-click on the Geberit HDPE access pipe 90° with oval service opening in the Products of category area.
  - The BIM object of the access pipe is downloaded from the Geberit PIM system.
- 5. Move the cursor into the drawing area.
  - ✓ The access pipe is suspended from the cursor.

**6.** Position the cursor above the end in the stack. Make sure that the middle line of the pipe is highlighted in blue.

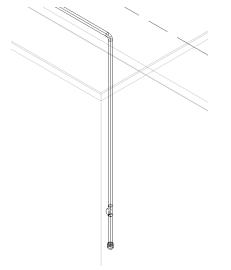


- **7.** Click in the drawing area.
  - ✓ The access pipe has been inserted into the stack.





9. Press ESC to exit the drawing function.



You can insert expansion sockets in the same way. The expansion sockets can be found in the catalogue under **Building Drainage Systems** > **Geberit HDPE** > **Connections** > **Push-in connections**.

# 3.2.6 Calculating a pipe system

Once you have completed the pipe system, you can perform the calculation with the Geberit BIM Plug-in. To do this, define the underground pipe connection, the roof outlets and the access pipe.

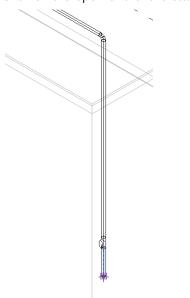
#### 3.2.6.1 Positioning an underground pipe connection

You will establish the connection to the drainage system with the positioning of the underground pipe connection.

1. Show the Pluvia tab in the Geberit BIM Plug-in window.



**3.** Click on the open end of the stack in the model.

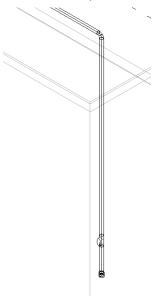


- ✓ The **Properties** window appears.
- 4. Select the following underground pipe connection.

Jnderground pipe connection (1)	
Dbject	
Pluvia transition - Conventional installation - to cast iron	n pipe
Pluvia transition - Conventional installation - to clay pipe	e
Pluvia transition - Conventional installation - to concrete	e pipe
O Pluvia transition - Conventional installation - to HDPE pl	lastic pipe
	145
ptional Material	
Durantita Antone Decemination	
Quantity Art. no. Description	No data found
Quantity Art. no. Description	No data found
Quantity Art. no. Description	No data found
Quantity Art. no. Description	No data found
Quantity Art. no. Description	No data found
Quantity Art. no. Description	No data found
Quantity Art. no. Description	No data found
Quantity Art. no. Description	No data found
Quantity Art. no. Description	No data found
Quantity Art. no. Description	No data found
Quantity Art. no. Description	No data found

The available underground pipe connections depend on the market.

5. Click on **OK** to position the underground pipe connection.

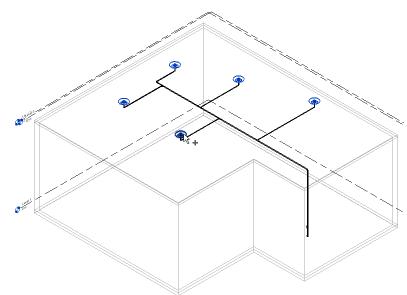


#### 3.2.6.2 Defining roof outlets

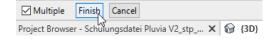
In the next step, define the roof outlets and specify their properties.



- 1. Click on Define roof outlet.
- 2. Mark all roof outlets in the model.



3. Click on Finish in the Autodesk® Revit® menu bar.



✓ The **Properties** window appears.

### **4.** Select the following roof outlet.

Object				-
		oof - Outlet (Promenade) with clamping flange		
•		oof - Outlet (Promenade) with Contact Foil		
•		oof - Outlet with Clamping Flange		 
		bor - Outlet with Contact Foil La		 
		oof - Outlet with Contact Poin and Overnow Adaptor		
		pof - Outlet with Contact Sheet & Fastening Flange for Insulated Roofs		
		oof - Outlet with Contact Sheet & Fastening Flange		
<ul> <li>Pluvia</li> <li>Pluvia</li> <li>Pluvia</li> </ul>	One 12L - Flat Ro lumetric flow rate ength (L):	oof - Outlet with Fastening Flange for Roof Foils		
<ul> <li>Pluvia</li> <li>Pluvia</li> <li>Pluvia</li> <li>Target vo</li> <li>Vertical la</li> </ul>	One 12L - Flat Ro lumetric flow rate ength (L):	oof - Outlet with Fastening Flange for Roof Foils (V target): 12,00 ♀ V/s		
<ul> <li>Pluvia</li> <li>Pluvia</li> <li>Target vo</li> <li>Vertical le</li> <li>Optional N</li> <li>Quantity</li> </ul>	One 12L - Flat Ro lumetric flow rate ength (L): laterial	bof - Outlet with Fastening Flange for Roof Foils         t(V target):       12,00 ‡ U/s         0.36 ‡ m         Description         Gebent Pluvia contact foil for roof foils: Sealing of connection-PVC		
Pluvia     Pluvia     Target vo     Vertical le     Dptional N     Quantity	Cone 12L - Flat Ro lumetric flow rate ength (L): laterial Art. no. 1 359.575.00.1 0 359.124.00.1	cof - Outlet with Fastening Flange for Roof Foils (V target): 12.00 ℃ //s 0.36 ℃ m Description Gebent Pluvia contact foil for roof foils: Sealing of connection=PVC Gebent Pluvia gravet ring		
Pluvia     Pluvia     Target vc     Vertical k      Optional N      Quantity	Cone 12L - Flat Ro lumetric flow rate ength (L): Arterial Art. no. 1 359.575.00.1 0 359.124.00.1	bof - Outlet with Fastening Flange for Roof Foils (V target): 12.00 © U/s 0.36 © m  Description Geberit Pluvia contact foil for roof foils: Sealing of connection=PVC Geberit Pluvia gravet ring Geberit Pluvia gravet ring Geberit Pluvia gravet ring		
Pluvia     Pluvia     Target vc     Vertical k      Optional N      Quantity	Cone 12L - Flat Ro lumetric flow rate ength (L): laterial Art. no. 1 359.575.00.1 0 359.124.00.1	cof - Outlet with Fastening Flange for Roof Foils (V target): 12.00 ℃ //s 0.36 ℃ m Description Gebent Pluvia contact foil for roof foils: Sealing of connection=PVC Gebent Pluvia gravet ring		
Pluvia     Pluvia     Target vc     Vertical k      Optional N      Quantity	Cone 12L - Flat Ro lumetric flow rate ength (L): Arterial Art. no. 1 359.575.00.1 0 359.124.00.1	bof - Outlet with Fastening Flange for Roof Foils (V target): 12.00 © U/s 0.36 © m  Description Geberit Pluvia contact foil for roof foils: Sealing of connection=PVC Geberit Pluvia gravet ring Geberit Pluvia gravet ring Geberit Pluvia gravet ring	No data found	
Pluvia     Pluvia     Target vc     Vertical k      Optional N      Quantity	Cone 12L - Flat Ro lumetric flow rate ength (L): Arterial Art. no. 1 359.575.00.1 0 359.124.00.1	bof - Outlet with Fastening Flange for Roof Foils (V target): 12.00 © U/s 0.36 © m  Description Geberit Pluvia contact foil for roof foils: Sealing of connection=PVC Geberit Pluvia gravet ring Geberit Pluvia gravet ring Geberit Pluvia gravet ring	No data found	
Pluvia     Pluvia     Target vc     Vertical k      Optional N      Quantity	Cone 12L - Flat Ro lumetric flow rate ength (L): Arterial Art. no. 1 359.575.00.1 0 359.124.00.1	bof - Outlet with Fastening Flange for Roof Foils (V target): 12.00 © U/s 0.36 © m  Description Geberit Pluvia contact foil for roof foils: Sealing of connection=PVC Geberit Pluvia gravet ring Geberit Pluvia gravet ring Geberit Pluvia gravet ring	No data found	
Pluvia     Pluvia     Target vc     Vertical k      Optional N      Quantity	Cone 12L - Flat Ro lumetric flow rate ength (L): Arterial Art. no. 1 359.575.00.1 0 359.124.00.1	bof - Outlet with Fastening Flange for Roof Foils (V target): 12.00 © U/s 0.36 © m  Description Geberit Pluvia contact foil for roof foils: Sealing of connection=PVC Geberit Pluvia gravet ring Geberit Pluvia gravet ring Geberit Pluvia gravet ring	No data found	

The available roof outlets depend on the market.

- Leave the settings for the Vertical length (L) and the Target volumetric flow rate (V target) on the predetermined values.
- 6. Click on OK to define the roof outlets.

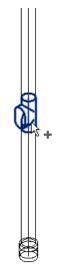


In some markets, you can use the **Geberit Pluvia product finder** link to specifically search for a suitable roof outlet for your requirements.

### 3.2.6.3 Defining access pipes

J

- 1. Click on Define access pipe.
- 2. Click on the access pipe.



3. Click on Finish in the Autodesk® Revit® menu bar.

Multiple	Finish	Cancel Ingsdatei Pluvia V2_stp			
Project Browser	r - Schulu	ungsdatei Pluvia V2_stp	×	P	{3D}

- ✓ The **Properties** window appears.
- 4. Click on **OK** to define the access pipe.

#### 3.2.6.4 Calculation

You can calculate the Pluvia system once you have defined all the required elements in the model.



1. Click in the **Geberit BIM Plug-in Refresh the list of calculable systems** window to display the Pluvia system.

2. Mark the Pluvia system.

Geberit BIM	Plug-in			×			
Catalogue	Pluvia	Installation systems	Assistants				
₽  Pluvia systems							
📀 🖩 Calculate 🕒 Report							
Hydronic S	upply 1	6					

- **3.** Click on **Calculate**.
  - ✓ The Pluvia system is calculated.
  - ✓ If the calculation has been successful, the **Finished** symbol appears next to the Pluvia system in the **Pluvia** tab.
  - ✓ If the calculation is incorrect, the Failed symbol appears next to the Pluvia system in the Pluvia tab.
    - ✓ The Calculation results window appears once the calculation is complete. Warnings relating to the volumetric flow rates are displayed in the Dimensioning area in some markets. These warnings are cancelled in the

# following section.

ssage	es Hydraulic	systems Material Isometry
	ID	Description
Dim	nensioning (	3)
1	364903	S 19: The calculated volumetric flow rate is above/below the limit values permitted for this roof outlet.
10	364940	5.22: The calculated volumetric flow rate is above/below the limit values permitted for this roof outlet.
)		The fastening material for vertical installation with an expansion socket can only be used for a wall distance of 20 cm. Other installation rules must be taken into account for different wall dis
)	547537	S 3: Check if lateral supports are required.
0	549968	5.4: Check if lateral supports are required.
þ	552436	S 5: Check if lateral supports are required.
0	552442	S 6: Check if lateral supports are required,
0	552460	S 7: Check if Taleral supports are required.
0	553487	\$ 8: Check if lateral supports are required:
0	564787	\$ 11s6: Check if lateral supports are required.
0		The calculation was performed in accordance with DIN 1986-100.
5		The calculation was carried out (7/15/2021 7:24 AM).
0		The calculation was carried out for Geberit Verwaltungs AG (210715-072420-c7727634).



The **Roof outlet offset** warning or information in the **Regeneration** area indicates that the respective roof outlet has been moved by the specified value to provide a correct calculation.

#### 3.2.6.5 Adjusting properties

If the calculation warnings relating to the volumetric flow rates are displayed, you can cancel them as follows by adjusting the roof outlets.

- 1. Close the Calculation results window.
  - 2. Click on Highlight the roof outlets in the model.
  - 3. Highlight any element in the model.
    - ✓ The roof outlets are displayed and marked in the model.
- 4. Click on Properties.
  - ✓ The **Properties** window appears.
  - 5. Enter the value 5.0 in the Target volumetric flow rate (V target) field.
  - 6. Click on OK to save the settings.



- 7. Click on Calculate in the Geberit BIM Plug-in window.
  - ✓ The Pluvia system is calculated.
  - ✓ The **Dimensioning** area no longer displays any warnings.

lessag	es Hydraulio	systems Material Isometry
	ID	Description
Di	mensioning (	a)
٢		The fastening material for vertical installation with an expansion socket can only be used for a wall distance of 20 cm. Other installation rules must be taken into account for different wall dis
1	565263	S 3: Check if Tateral supports are required.
œ	565270	S 4: Check if lateral supports are required.
00		The calculation was performed in accordance with DIN 1966-100.
D		The calculation was carried out (7/15/2021 7/27 ANI).
Ð		The calculation was carried out for Geberit Verwaltungs AG (210715-072729-67(3988d).
Re	generation (7	3
as -	565347	[Bend] Family for article '363,051,16.1' not found. An alternative family has been used for the visualization.
n.	565378	[Bend] Family for article '363.051.16.1' not found. An alternative family has been used for the visualization.
Ð	565358	Roaf outlet Offset (U.Q1,Q, D,Q) cm
00	565387	Roaf outlet Offset (0.0, 1,0, 0,0) cm
D	565436	Roof outlet Offset (0.0, -1.0, 0,0) om
9	CCCC+n	R



- You can quickly recalculate the hydraulics of the pipe system by clicking on the Dimensioning button.
- The hydraulics are also recalculated by clicking on the Regeneration button. In addition, all the hydraulic elements are regenerated. This may take considerably longer with an extensive hydraulic system.

# 3.2.7 Displaying a material list

After a successful calculation, you can see in the material list which materials are required to realise the Pluvia system.

► Show the Material tab.

essages	Hydraulic s	steins Materia	Isometry			
dineuc	Unit	Art no.	Description	Assembly brr	Unit price	Article Information (359.107.00.1)
53	Pax		Total number of buttoolds			
	Res	159.1072043	Ceber & Plana motils, thet: Maximum discharge rate=120s	30 mm	705(04 GRP	
5	Ba	309.575.00.1	Geberit Plasa contact fail for roof fails: Scaling of connection=PVC (S.	12 min	90,96 GBP	
R45	m	360.000.16.0	Gebeck HOPF pipe d=40mm	5 min	1,24 CRP	about
2	Ros	360.771.76.1	Gebel t dectrofusion coupling: d=40nim	2 min	4,45 GBP	
22,22	m	361.000.16.0	Geberit HOPE pipe: doS0mm	6 min	3,94 389	
3	FCS	361,045,16,1	Geberit HUPE bendt 431, d=30mm	8 mm	2,24 GBP	L
3	Pea	361.035.16.1	Guberit HDPE band with large log: 001, dir 50mm	8 min	2,60 GBP	
1	Hes	361559.16.1	Geber & HDPE reducer, concentric, short: d=50mm, d1=40mm	8 mm	2/15 CBP	
17	Ra	361.771.16.1	Gebenit electrofusion coupling: d=50mm	3 min	4,45 GBP	🚔 🎡 🍒
11,06	m	163.000.16.0	Gebeck HOPE pipe: d=56mm	7 min	4,92 609	Sector Constraints
3	Pice	363.045.16.1	Geberit HDPE band: 43*, d=56mm	9 min	2,72 GBP	
2	Pes	363.035.16.1	Gebenit HOPE band with large lag: 90* dis 95mm	Q min	2.93 GBP	w



Once you highlight an article in the material list, you can call up a variety of additional information in the **Article information** area.

# 3.2.8 Exporting calculation results

At the end, you can export the calculation result as a PDF or Excel file. First adapt the data for the export cover sheet.

#### 3.2.8.1 Adapting the cover sheet details

1. Show the Manage tab.



2. Click on Project Information in the Settings area.

### ✓ The **Project Information** window appears.

roject Information			×
Family: System Family: Project In	formation $\lor$	Load	
Type:	$\sim$	Edit Type	
instance Parameters - Control selected	d or to-be-created insta	nce	
Parameter	Valu	ie	^
Identity Data		\$	
Organization Name			
Organization Description			
Building Name			
Author			
Energy Analysis		\$	
Energy Settings	Edit		
Route Analysis		\$	
Route Analysis Settings	Edit		
Other		\$	
Designat Jacob Data	Dence Dete		
	OK	Cancel	

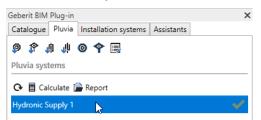
3. Enter the details for the cover sheet into the corresponding fields.

Details on the cover sheet	Field in the <b>Project Information</b> window
Project data	
Project number	Other > Project Number
Project name	Other > Project Name
Project description	Identity Data > Organization Description
Address	Other > Project Address
Status	Other > Project Status
Release date	Other > Project Issue Date
Plumber/sanitary engineer	
Company	Other > Client Name
Responsible person	Identity Data > Author

4. Click on **OK** to save the settings.

#### 3.2.8.2 Exporting calculation results

1. Mark the Pluvia system in the Geberit BIM Plug-in window.





If your model contains several Pluvia systems, you can adjust the order of the Pluvia systems with drag and drop in the **Pluvia** tab. This means that the Pluvia systems are calculated in the appropriate order and issued in a report.



To export the calculation result for several Pluvia systems, you can mark the Pluvia systems in the **Pluvia** tab using the **CTRL** button and click on **Report**.



2. Click on Report.

R Report Options	:
Output	
● PDF ○ Excel	
Lists	
✓ All lists	
✓ Cover sheet	
✓ Material list	
Quote	
✓ Hydraulic list ✓ Fastening list	
<ul> <li>Pluvia support brackets</li> </ul>	
✓ Isometry	
Filename	
:hulungsdatei Pluvia V2_stp_02 (DW-Einläufe g	esetzt)_neu

- **3.** Select whether you wish to export the report as a PDF or Excel file in the **Output** area.
- 4. Select the scope of the report in the Lists area.
- ... 5
  - **5.** In the **Filename** area, click on the button with the three dots and define the storage location and the file name.
  - 6. Click on OK to save the report.
    - ✓ After the report is created and saved, the report opens automatically.

# 3.2.9 Fault clearance

If errors occur during the calculation of a pipe system, you can identify and clear these in the hydraulic list. For example, you can adjust the pipe diameter or the properties of individual elements.

You can call up the hydraulic list as follows if necessary:



- 1. Click on the **Finished** or **Failed** symbol next to the desired Pluvia system in the **Pluvia** tab.
  - ✓ The Calculation results window appears.
- 2. Show the Hydraulic systems tab.

dessages	Hydraulic sy	stems	Material Isometry													
	1D	-5	Туре	d [mm]	Pipe diameter	6	L	H [m]	V target []/:	Ý [[/s]	p in [mber]	p out [mbar]	x [m/s]	W.	V start mi	V:
•	565229	1	Stack	90	Calculated	-1.9)	1,48	1,48	25,0	27,7	-110	0	5.1	100	4.1	
	565232	2	Stack	90	Calculated	1.63	7,63	7,63	25,0	27,7	-676	-110	5.1	100	4.1	
2	565263	3	Collector pipe	90	Calculated	1.4	8.00	0,00	25,0	27,7	-442	-676	5.1	100	Û/	
1	565270	4	Collector pipe	90	Calculated	1.9	6,00	0,00	20,0	21,5	-277	-390	4	100	0	
2	565287	5	Collector pipe	75	Calculated	- 12	3,00	0,00	15,0	15,7	-197	-286	4,2	100	0	
	565294	6	Collector pipe	75	Calculated	.4	6,00	0,00	10,0	10,7	-78	-150	2.9	100	0	
•	565313	7	Collector pipe	56	Calculated	1.9)	1.00	0,00	5,0	5,6	-46	-77	2.8	100	0	
	565338	8	Collector pipe	56	Calculated	. 4	3,05	0,00	5,0	5,6	13	-46	2.8	100	0	
	565355	9	Roof outlet pipeline	56	Calculated		0,44	0,44	5,0	5,6	-12	13	2.8	100	D/	
1	565358	10	Section that shows the i	56			0.59	0,59	5,0	5,6	0	-12	2.8	100	0	
B	565369	1156	Collector pipe	56	Calculated	- 1	6,13	0,00	5,0	5,1	28	-71	2.6	100	0	
	565384	12	Roof outlet pipeline	56	Calculated	.4	0.44	0,44	5,0	5,1	0	28	2.6	100	0	
4																8



• As soon as you mark an element in the hydraulic list, it is highlighted in the model.

• As soon as you mark an element in the model, its entry is highlighted in the hydraulic list.

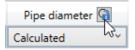
#### 3.2.9.1 Adjusting pipe diameters



We recommend fixing all pipe diameters before you manually adjust the diameter of a pipe. This ensures that all other pipe diameters are adopted without changes during the recalculation.



1. Click on Fix / Release Diameters in the header of the hydraulic list.



- 2. Select the required pipe diameter or the **Calculated** setting in the line of the required pipe in the selection field in the **Pipe diameter** column.
- 3. Click on **Dimensioning** to recalculate the system.

#### 3.2.9.2 Adjusting properties

- **1.** Click on **Properties** in the hydraulic list in the line of the required pipe.
  - ✓ The Properties window appears.
  - 2. Adjust the required properties.
  - 3. Click on OK to save the settings.
  - 4. Click on **Dimensioning** to recalculate the system.

# 3.3 Installation systems training example

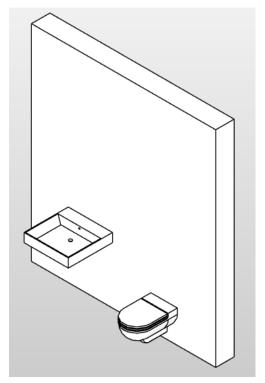
Create a simple, freestanding installation wall in the training example for the **Installation systems** module. Add two sanitary appliances, a WC and a washbasin to this installation wall.

Define the corresponding objects using the functions of the plug-in to calculate the installation wall and the sanitary appliances using the Geberit BIM Plug-in. Finally calculate the installation wall.

This chapter covers the following topics:

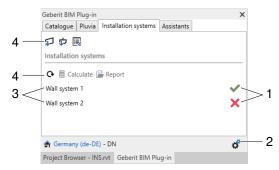
- · Drawing walls
- · Inserting sanitary appliances
- · Defining sanitary appliances
- · Calculating installation walls
- Exporting calculation results
- · Displaying material lists, cut lists and dimensional drawings

Once you have completed all the planning steps, the installation wall should look like this:



# 3.3.1 Overview

You will find the functions for the calculation of installation systems in the **Installation systems** tab.



- 1 Status of the calculation Open the **Calculation results** window
- 2 Call up the document settings
- 3 Available installation systems in the model
- 4 Planning and calculation functions

### 3.3.1.1 Calculation status

Symbol	Meaning
✓	Calculation successful
×	Calculation faulty
X	Calculation is processing
<b>-</b> ]	Calculation has been cancelled

3.3.1.2	Planning and calculation functions
---------	------------------------------------

Button	Function
$\mathbf{v}$	Defining a wall
$\checkmark$	Define the sanitary appliance
	Display and adjust the properties of one or more marked elements
G	Update the list of calculable installation walls in the model
	Calculate the system
P	Export the calculation in PDF or Excel format

# 3.3.2 Creating a new project

First create a new project in which you will work on the training example.

- 1. Create a new project in Revit®.
  - ✓ A message to select the market appears in the Geberit BIM Plug-in window.

Geberit BIM Plug-in		×
1	Please select a market.	
🖨 Select market		
Geberit BIM Plug-in	Project Browser - Project1	



2. Click on **Select market** and select the desired market (see "Selecting the market", page 7) as described in the Preparations chapter.

# 3.3.3 Adapting the project

In the first step, adjust the panelling of the installation wall.

- 1. Click on Settings.
  - ✓ The Document settings window appears.

Pluvia Installation systems			
General GIS Duofix			
Settings for offer			
Hourly rate:	50,	00 🗘	EUR/h
Value added tax:	19	9,0 🗘	%
Standard settings for installation walls Floor construction height:	10	D,O 🗘	cm
			cm
Installation system:	GIS	Ý	
Base wall:	Solid wall	×	

2. Show the Installation systems > GIS tab.

3. In the Wall calculation area, select the GIS panel with recesses as the Paneling.

Pluvia Installation systems			
General GIS Duofix			
Wall calculation			
Distance between building structure and GIS profile:		1,8	; cm
Only use long mounting bracket			
Gaps for profile connectors:		1,5	tm
Paneling: GIS panel		Ŷ	
Sound insulation: GIS panel			
Output the volume for calculating the insulating material files		2	
Fire protection panels between sanitary objects	*0		1
Prefabricate			
Prefabricate			
Maximum wall segment dimension 1:		260,0	cm
Maximum wall segment dimension 2:		130,0	cm

4. Click on **OK** to save the settings.

### 3.3.4 Drawing walls

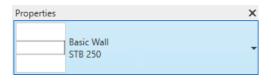
In the next step, draw the wall on which the sanitary appliances are to be planned and which will subsequently be defined as an installation wall.

1. Show the Architecture tab.



2. Click on Wall.

**3.** In the **Properties** window, select a wall that has a minimum thickness of 25 cm, e.g. **Base Wall STB 250**.



- 4. Click in the drawing area to set the starting point of the wall.
- 5. Draw the cursor to the right until the length of the wall is 2.50 m.



6. Click in the drawing area.

7. Press **ESC** twice to exit the drawing function.



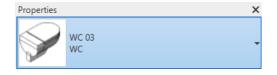
### 3.3.5 Inserting sanitary appliances

A WC and a washbasin are to be planned on the wall.

- 1. Show the **South** or **{3D}** view.
- 2. Show the Systems tab.



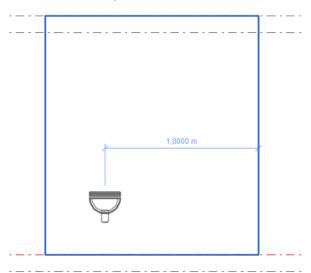
- 3. Click on Plumbing Fixture.
- 4. In the Properties window, select any wall-hung WC, e.g. WC 03.

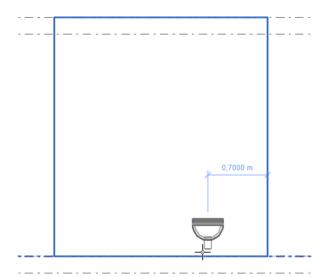


5. Make sure that **Place on Face** is activated in the **Placement** area of the **Modify** | **Place Plumbing Fixtures** tab.



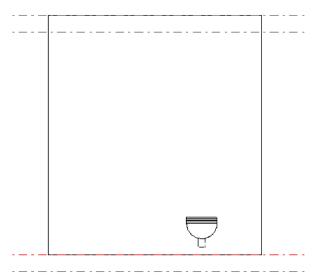
- 6. Move the cursor to the wall in the drawing area.
  - ✓ The WC is suspended from the cursor.



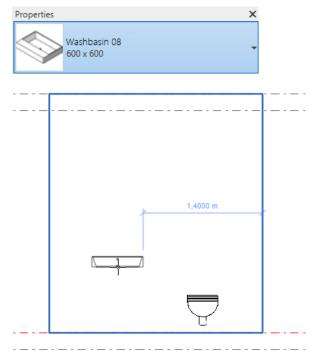


7. Place the WC at a distance of **0.70 m** from the outer edge of the wall.

- 8. Click in the working area to place the WC.
- 9. Press ESC twice to exit the drawing function.



 In the same way, place a washbasin at a distance of 1.40 m from the outer edge of the wall. You could use the Washbasin 600 x 600 for this.

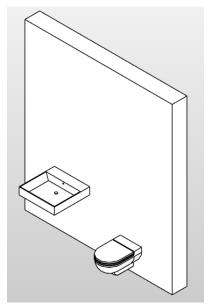


# 3.3.6 Calculating installation walls

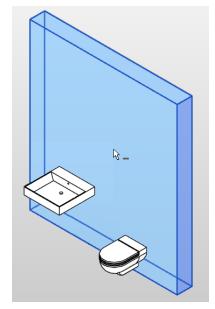
The installation wall and sanitary appliances need to be defined and the respective properties specified so that the Geberit BIM Plug-in can calculate them.

#### 3.3.6.1 Defining the installation wall

1. Show the {3D} view.



- 2. Show the Installation systems tab in the Geberit BIM Plug-in window.
- 3. Click on Select element and allocate wall.
- 4. Click on the wall in the drawing area.



5. Click on Finish in the Autodesk® Revit® menu bar.

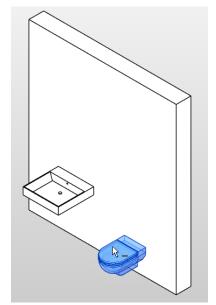
Multiple Finish Cancel			
Project Browser - Schulungsdatei Pluvia	V2_stp 🗙	😭 {3D}	
<ul> <li>The Properties window app</li> </ul>	bears.		
R Properties		- [	⊐ ×
Wall (1)			
Settings			^
Length:		270	,0 cm
Depth:		25	,0 cm
Wall height (from finished floor):		280	,0 cm
Floor construction height:		10,0	cm
Installation system:	GIS	·	·
Base wall:	Solid wall		*
✓ Room-height			
Wall calculation			_
Distance between building structure and GIS		1.8	cm v
		OK	Cancel

6. Exit the settings in the Properties window and click on OK.

#### 3.3.6.2 Defining sanitary appliances



- 1. Click on Select element and allocate sanitary appliance in the Installation system tab.
- 2. Click on the WC in the drawing area.



3. Click on Finish in the Autodesk® Revit® menu bar.

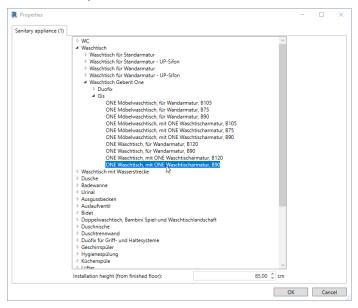
Multiple Finish Cancel Project Browser - Schulungsdatei Pluvia V2\_stp\_... × 🚱 (3D)

✓ The **Properties** window appears.

4. Select the GIS installation element Omega, 114 cm and leave the Installation height (from finished floor) at the preset value.

Properties		-		)
Sanitary appliance (1)				
2.00	4 WC			
	Stand-WC - UP-Spülkasten			
	Vand-WC - Monolith Sanitārmodul			
	Wand-WC - Wohlding samamoduli Wand-WC - UP-Spülkasten, Bet, oben			
	Wand-WC - UP-Spülkasten, Bet. oben     Wand-WC - UP-Spülkasten, Bet. vorne			
	<ul> <li>Valid-Wei-Spukasten, bet vome</li> <li>Duofix</li> </ul>			
	4 Gis			
	GIS Montageelement Omega, 114 cm			
	GIS Montageelement omega, 114 cm			
	GIS Montageelement Lymega, 100 cm			
	GIS Montageelement Sigma, 114 cm			
	GIS Montageelement Sigma, 114 cm, für Geruchsabsaugung Abluft			
	GIS Montageelement sigma, 114 cm, für Gerüchsabsaugung Abluft GIS Montageelement, 120 cm, mit Hygienespülung ohne Schnittstellen, 1 Ve			
	GIS Montageelement, 120 cm, mit Hygienespülung ohne Schnittstellen, 1 ve GIS Montageelement, 120 cm, mit Hygienespülung ohne Schnittstellen, 2 Ve			
	GIS Montageelement, 120 cm, mit Hygienespülung öhne schnittstellen, 2 ve GIS Montageelement, 120 cm, mit Hygienespülung für Volumenstrommessu			
	GIS Montageelement, 120 cm, mit Hygienespülung für Volumenstrommessu			
	Waschtisch     Wasserstrecke			
	Waschtisch mit Wasserstrecke     Dusche			
	Dusche     Badewanne			
	V Badewanne			
	Ausgussbecken			
	Ausgussbecken Auslaufventil			
	Auslaufventii  Bidet			
	Doppelwaschtisch, Bambini Spiel-und Waschtischlandschaft     Duschnische			
	Duschtrennwand			
	Duofix für Griff- und Haltesysteme     Contribution			
	Geschirrspüler     Hygienespülung			
	<ul> <li>Küchenspüle</li> </ul>			
	Kuchenspule     Löfter			
	Eutrer b Montagonatte f ür Gr			
	Installation height (from finished floor):			
				_
	OF	C	Can	el

- 5. Click on OK to define the WC.
- 6. Define the washbasin in the same way. Select the ONE washbasin with ONE washbasin tap, B90.



#### 3.3.6.3 Calculation

You can calculate the installation system once you have defined the installation wall, the WC and the washbasin.



1. Click on **Refresh the list of calculable systems** in the **Geberit BIM Plug-in** window to display the installation wall.

2. Mark the installation wall in the Geberit BIM Plug-in window.

Geberit BIM Plug-in			×
Catalogue Pluvia	Installation systems	Assistants	
🖈 🖈 📑			
Installation system	ms		
🕑 🖩 Calculate	🖹 Report		
Wall system 1	6		

**3.** Click on **Calculate**.

- ✓ The installation wall is calculated.
- ✓ If the calculation has been successful, the **Finished** symbol appears next to the installation wall in the **Installation systems** tab.
- ✓ If the calculation is incorrect, the **Failed** symbol appears next to the installation wall in the **Installation systems** tab.

✓ The **Calculation results** window appears once the calculation is complete.

lessages					
	Material	Precut mat list	Front side of installation wall	Rear of installation wall	
	ID			Description	
Calcula	ition (1)				
1		The calculation	on was carried out (10/16/2020	9:40 AM).	
<					
<					
					Close

If you have drawn several installation walls in your plan, you need to highlight the installation wall to be calculated for the calculation.

If errors or warnings are displayed in the calculation result, you can highlight the relevant element in the model by clicking on the message in the **Calculation results** window.

#### 3.3.6.4 Adjusting properties

You can proceed as follows if errors are displayed in the calculation or if you would like to subsequently adapt the properties or the installation wall or the sanitary appliances.

- 1. Close the Calculation results window.
- 2. Mark the required element in the drawing area.
- 3. Click on Change properties of elements in the Installation systems tab.
  ✓ The Properties window appears.
- 4. Carry out the required adjustments.
- 5. Click on OK to save the settings.



6. Click on Calculate.

# 3.3.7 Displaying the material list and cut list

After a successful calculation, you can see in the material list which materials are required to complete the system. The cut list shows the dimensions of the necessary profiles and panels.

#### ► Show the Material or Precut mat list tab.

lessages	Material	Precut mat list F	ront side of installation wall Rear of installation wall			
Quantity	Unit	Art. no.	Description	Assembly tim	Unit price	Article information (461.160.00.1)
1	Pcs	461.160.00.1	GIS Element für Wand-WC 114cm mit Omega UP-SPK 12cm Bet. Vorn	9,0 min	315,10 EUR	
1	Pcs	461.472.00.1	GIS Set Geberit ONE Waschtisch für ONE Wandarmatur, mit UP-Drehs	16,0 min	386,30 EUR	
1	Pcs	115.420.11.1	Fertigbauset für ONE Waschtisch ohne Unterschrank weiss-alpin	8,0 min	309,80 EUR	
1	Pcs	116.461.21.1	Geberit ONE WT-Armatur eckiges Design Wandmontage für UP-Funkt	10,0 min	543,80 EUR	
1	Pcs	500.390.01.1	ONE WT, schwebendes Design, 90x40cm o.HI., Ül.verdeckt, weiß/glanz	6,0 min	807,00 EUR	
55,27	m	461.000.25.1	GIS Profil Länge 5m		9,50 EUR	e
20	Pcs	461.002.00.1	GIS Montagewinkel Länge 7,5 x 5 cm	2,5 min	5,60 EUR	E GEEENT
20	Pcs	461.014.00.1	Schalldämmunterlage zu GIS Montagewinkel	0,5 min	1,90 EUR	
10	Pcs	461.037.26.1	GIS Schwerlastanker	2,0 min	3,00 EUR	
16	Pcs	461.022.00.1	GIS Verbindungslasche 13 x 3 x 0,4 cm	2,0 min	6,00 EUR	
0,89	Pcs	461.025.00.1	GIS Paneel 130 x 60 x 1,8 cm (GIS Tragsystem)	22,0 min	16,90 EUR	
28	Pcs	461.015.00.1	GIS Wandanbindung	2,5 min	15,50 EUR	
2	Pcs	461.660.00.1	GIS Bausatz für freistehende Systemwand	6,0 min	52,80 EUR	
50	Pcs	461.200.00.1	GIS Profilverbinder	2,0 min	2,70 EUR	
48	Pcs	461.030.00.1	Paneelschraube 4,2 x 35 mm (GIS Tragsystem)		0,10 EUR	
20,06	Pcs	461.025.00.1	GIS Paneel 130 x 60 x 1,8 cm	22,0 min	16,90 EUR	
428	Pcs	461.030.00.1	Paneelschraube 4,2 x 35 mm		0,10 EUR	
6,87	kg	464.015.00.1	GIS Spachtelmasse	5,0 min	7,00 EUR	
11	m	461.036.00.1	GIS Trennstreifen	1,0 min	2,40 EUR	
						- 🔯 🗑 🎼

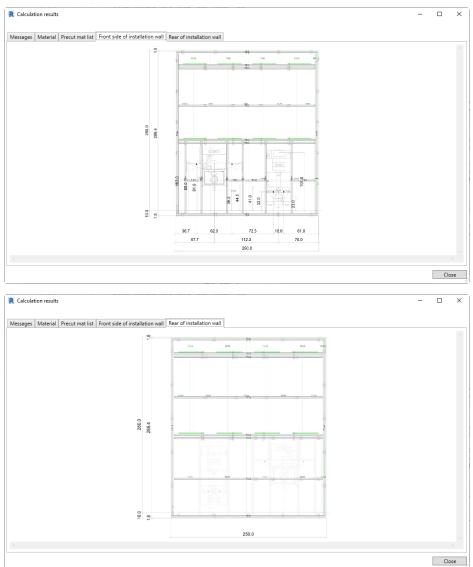
lessages	Material	Precut mat lis	st Front side	of installation wall	Rear of installation wall		
Item no.	Quantity	Unit	Precut mat	Unit N	PK no. Art. no.	Description	Article information (461.160.00.1)
-	1	Pcs			461.160.00.1	GIS Element für Wand-WC 114cm mit Omega UP	
	1	Pcs			461.472.00.1	GIS Set Geberit ONE Waschtisch für ONE Wandarr	
	1	Pcs			115.420.11.1	Fertigbauset für ONE Waschtisch ohne Unterschra	
	1	Pcs			116.461.21.1	Geberit ONE WT-Armatur eckiges Design Wandm	
-	1	Pcs			500.390.01.1	ONE WT, schwebendes Design, 90x40cm o.Hl., Ül.	· · · · · ·
T1/L1	4	Pcs	277,0	cm	461.000.25.1	GIS Profil Länge 5m	e
T1/L2	4	Pcs	246,4	cm	461.000.25.1	GIS Profil Länge 5m	Tenton
T1/L3	11	Pcs	237,0	cm	461.000.25.1	GIS Profil Länge 5m	1.1.1
T1/L4	6	Pcs	118,8	cm	461.000.25.1	GIS Profil Länge 5m	, .
T1/L5	1	Pcs	37,6	cm	461.000.25.1	GIS Profil Länge 5m	
T1/L6	1	Pcs	33,0	cm	461.000.25.1	GIS Profil Länge 5m	
T1/L7	2	Pcs	21,5	cm	461.000.25.1	GIS Profil Länge 5m	
-	20	Pcs			461.002.00.1	GIS Montagewinkel Länge 7,5 x 5 cm	
-	20	Pcs			461.014.00.1	Schalldämmunterlage zu GIS Montagewinkel	
-	10	Pcs			461.037.26.1	GIS Schwerlastanker	
	16	Pcs			461.022.00.1	GIS Verbindungslasche 13 x 3 x 0,4 cm	
-	0,89	Pcs			461.025.00.1	GIS Paneel 130 x 60 x 1,8 cm (GIS Tragsystem)	
-	28	Pcs			461.015.00.1	GIS Wandanbindung	
-	2	Pcs			461.660.00.1	GIS Bausatz für freistehende Systemwand	
-	50	Pcs			461,200.00.1	GIS Profilverbinder	. 📮 関 배운의



As soon as you have marked an article in the material list or cut list, you can call up a variety of additional information in the **Article information** area.

# 3.3.8 Displaying dimensional drawings

#### • Show the Front side of installation wall or Rear of installation wall tab.





Turning the mouse wheel lets you extend or reduce the dimensional drawing.
Right-clicking in the dimensional drawing lets you save the dimensional drawing as a graphic by clicking on **Save as**.

# 3.3.9 Exporting calculation results

At the end, you can export the calculation result as a PDF or Excel file. First adapt the data for the export cover sheet.

#### 3.3.9.1 Adapting the cover sheet details

1. Show the Manage tab.



Click on Project Information in the Settings area.
 ✓ The Project Information window appears.

roject Info	rmation				×
Family:	System Family: Project	Information	$\sim$	Load	
Type:			$\sim$	Edit Type	
Instance Par	ameters - Control select	ed or to-be-cre	ated instanc	e	
	Parameter		Value		^
Identity D	ata			\$	
Organizati	on Name				]
Organizati	on Description				
Building N	ame				
Author					
Energy An	alysis			\$	
Energy Set	tings		Edit		
Route Ana	alysis			\$	
Route Ana	lysis Settings		Edit		1
Other				\$	
D	D-+-				×
			ОК	Cancel	
			UK	Cancel	

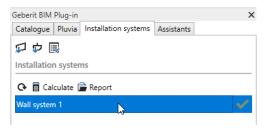
3. Enter the details for the cover sheet into the corresponding fields.

Details on the cover sheet	Field in the <b>Project Information</b> window
Project data	
Project number	Other > Project Number
Project name	Other > Project Name
Project description	Identity Data > Organization Description
Address	Other > Project Address
Status	Other > Project Status
Release date	Other > Project Issue Date
Plumber/sanitary engineer	
Company	Other > Client Name
Responsible person	Identity Data > Author

4. Click on **OK** to save the settings.

#### 3.3.9.2 Exporting calculation results

1. Mark the installation wall in the **Geberit BIM Plug-in** window.





If your model contains several installation walls, you can adjust the order of the installation walls with drag and drop in the **Installation systems** tab. As a result, the installation walls are calculated in the appropriate order and issued in a report.



To export the calculation result for several walls, you can highlight the installation walls in the **Installation systems** tab using the **CTRL** button and click on **Report**.



### 2. Click on Report.

✓ The **Report Options** window appears.

R Report Options		×
Output		
PDF O Excel		
Lists		
✓ All lists		
Cover sheet		
✓ Material list		
✓ Quote		
<ul> <li>Precut mat list</li> </ul>		
✓ Images		
Filename		
Project1		
	OK	Cancel

- **3.** Select whether you wish to export the report as a PDF or Excel file in the **Output** area.
- 4. Select the scope of the report in the Lists area.
- **5.** In the **Filename** area, click on the button with the three dots and define the storage location and the file name.
- 6. Click on OK to save the report.
  - ✓ After the report is created and saved, the report opens automatically.

## 3.3.10 Removing the installation wall definition

If necessary, you can remove a Geberit GIS or Geberit Duofix installation wall from your model without having to redraw the wall afterwards.

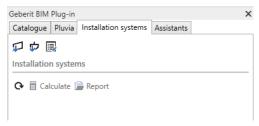
- 1. Right-click on the desired installation wall in the Installation systems tab.
- 2. Select Remove wall definitions in the pop-up menu.

Geberit BIM Plug-in X					
Catalogue Pluvia In	stallation systems	Assistants			
🗊 🖈 📑					
Installation systems					
📀 🖩 Calculate 🕒 Report					
Wall system 1		<b>√</b>			
Calculate					
🕒 Report					
Remove wall definitions					

✓ The **Remove wall definitions** window appears.

Remove wall det	initions	×
? Do yo	u want to remove the selected wall definit	ions?
	Yes	No

- 3. Confirm the Remove wall definitions window with Yes.
  - ✓ The installation wall has been deleted and no longer appears in the Installation systems tab.
  - $\checkmark$  The wall and the sanitary appliances in the drawing area are retained.



# 3.4 Training example - wizards

In the training examples for the **Assistants** module you will learn about the functions for splitting a pipe into smaller pipe sections and for labelling a pipe system. Finally, you prepare a cut list that helps to minimise scraps when cutting the pipes.

This chapter covers the following topics:

- splitting a pipe manually
- splitting a pipe automatically
- · labelling a pipe system
- · optimising the precut mat

To perform the training examples, you can use the Pluvia system from the roof drainage training example or a pipe system that you created yourself.

## 3.4.1 Splitting a pipe

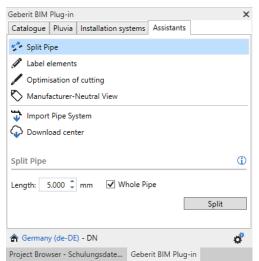
You can use the **Split Pipe** wizard to split pipes into freely definable lengths. The correct fittings are automatically placed at the resulting pipe connection points.

You can split the pipes manually or automatically.

#### 3.4.1.1 Splitting a pipe manually

In the case of manual splitting, you need to click on the pipe to be split for each pipe section. The splitting also begins at the pipe end that is closer to the point of the mouse click.

- 1. Open the project file with a roof drainage training example or a project with a pipe system that you created yourself.
- 2. Show the Assistants tab in the Geberit BIM Plug-in window.

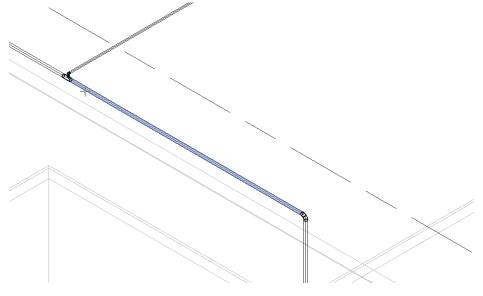


3. Enter the value 2,500 mm in the Length field in the Split Pipe area.

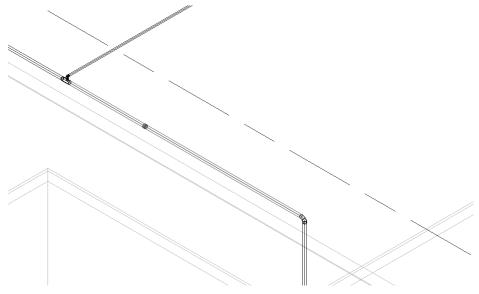
4. Deactivate the Whole Pipe checkbox.



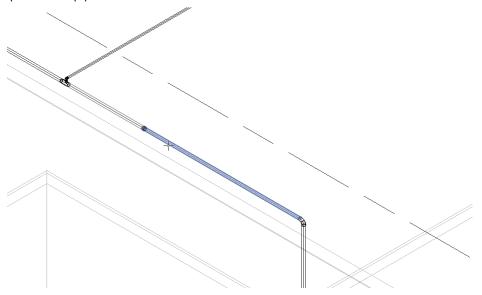
- 5. Click on Split.
- 6. Click on the pipe near the first branch fiitting in the model.



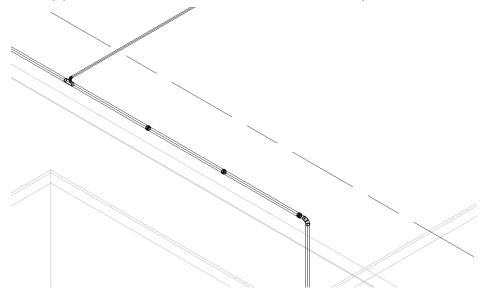
- ✓ The pipe is split into two pipe sections.
- ✓ The first pipe section is 2,500 mm long as indicated. The second pipe section is as long as the remaining length of the pipe.



**7.** Click on the pipe in the pipe section that has not been split to make further splits in the pipe.



- 8. Create all other pipe sections in the same way.
  - ✓ As soon as the remaining pipe length is shorter than the entered length of the pipe sections, the function is terminated automatically.



### 3.4.1.2 Splitting a pipe automatically

In the case of automatic splitting, the complete pipe is automatically split into the corresponding pipe sections. The splitting begins at the pipe end that is closer to the point of the mouse click.

- 1. Enter the value 2,500 mm in the Length field in the Split Pipe area.
- 2. Activate the Whole Pipe checkbox.

Split Pip	e		Œ
Length:	2.500 ‡ mm	✓ Whole Pipe	
			Split

- 3. Click on Split.
- 4. Click on the pipe near the first branch fiitting in the model.

 $\checkmark$  The pipe is split into corresponding pipe sections.

## 3.4.2 Labelling a pipe system

The elements of a selected pipe run can be numbered and labelled with a unique item number. All elements from the first selected element in the direction of the second selected element are taken into account. The numbering runs to the end of the pipe system or ends with branching off at the dividing point. The branch fitting is the last element. The dividing points are not taken into account.

You can compile the label freely using text and the following variables:

Variable	Description
%System name%	Shows the system name of the element.
%Level%	Shows the reference level of the element.
%Counter%	Shows a continuous counter.
	• The counter format is defined in the <b>Counter</b> field.
	<ul> <li>The last part of the number is automatically increased in the <b>Counter</b> field.</li> </ul>
	<ul> <li>If you enter a point, the part to the right of the last point is increased. The part to the left of the last point remains unchanged.</li> </ul>
	<ul> <li>The number value in the <b>Counter</b> field specifies the start value of the consecutive number.</li> <li>e.g.: Input 8 -&gt; Numbering starts at 8.</li> </ul>
	<ul> <li>The number of the digits in the Counter field or to the right of the last point indicates the length of the consecutive number. The leading zeros are filled as required.</li> <li>e.g.: Input 001 -&gt; Output 001, 002,, 009, 010,</li> </ul>

In the section below, label the main pipe of the previous training example with **Level 3\_Geberit PE\_01, Level 3\_Geberit PE\_02, ...** The label should start at the underground pipe connection and be saved in the standard **Labelling** parameter.

1. Show the Assistants tab.



- 2. Click on Label elements.
  - ✓ The Label elements area appears.

Label elen	nents	٩
Parameter:	Mark	Tags 💌
Counter:	1.01	
Pattern:	Nr.%Systemname%%Level%-%Counter%	
Example:	Nr.SNALevelA-1.01	
	Nr.SNALevelA-1.02	Label

**3.** Exit the **Labelling** setting for the **Parameter** field to save the label in the **Labelling** parameter.

4. Enter the value **01** in the **Counter** field in the **Label elements** area so that the numbering begins at 1 and so that a 0 prefixes the numbers 1 to 9.



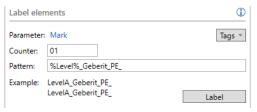
- 5. Delete the predetermined sample in the Pattern field.
- 6. Make sure that the cursor is in the Pattern field.
- 7. Select the Element level name entry in the selection field.

Label ele	ments			0
Parameter	: Mark			Tags 💌
Counter:	01		Element level name	
Pattern:	Nr.%Systemname?		Element system name	45
Example:	Nr.SNALevelA-01		Counter	
	Nr.SNALevelA-02	_	La	bel

- ✓ The %Level% variable is inserted in the Pattern field.
- ✓ The preview below the **Pattern** field is updated.

Label elements		<b>(</b> )	
Parameter	Mark		Tags 💌
Counter:	01		
Pattern:	%Level%		
Example:	LevelA LevelA		Label

8. Enter the text \_Geberit PE\_ in the Pattern field.



9. Select the **Counter** entry in the selection field.

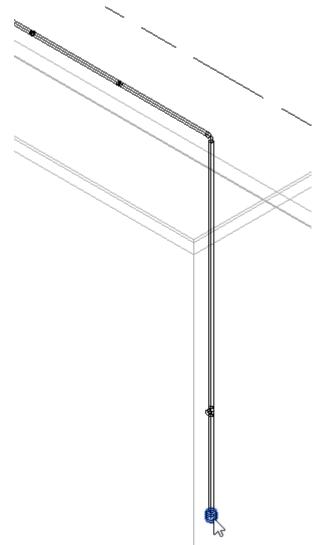
Label ele	ments	
Parameter	: Mark	Tags 💌
Counter:	01	Element level name
Pattern:	%Level%_Geberit_	Element system name
Example:	LevelA_Geberit_PE_	Counter
	LevelA_Geberit_PE_	Label

- ✓ The %Counter% variable is inserted in the Pattern field.
- ✓ The preview below the **Pattern** field is updated.

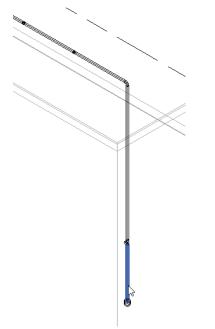
Label elements		<u> </u>
Parameter:	Mark	Tags 🔻
Counter:	01	
Pattern:	%Level%_Geberit_PE_%Counter%	
	LevelA_Geberit_PE_01 LevelA_Geberit_PE_02	Label

## 10. Click on Label.

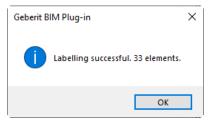
**11.** Click on the underground pipe connection in the drawing area to define the starting point of the label.



**12.** Click on the pipe downstream of the underground pipe connection to specify the direction of the label.

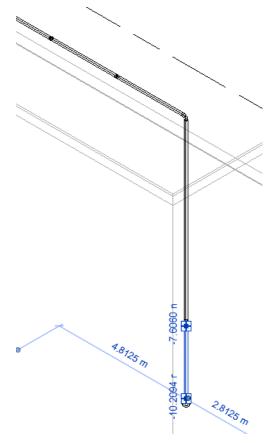


✓ The elements of the main pipe are labelled in the selected direction.

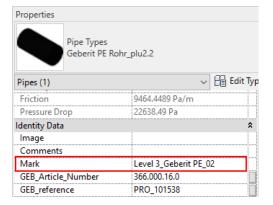


13. Confirm the message with OK.

14. Mark a pipe or fitting in the main pipe.



- 15. Show the **Properties** window.
  - ✓ The label appears in the **Identity Data** area in the preselected **Mark** field.



- **16.** Label the elements downstream of the branch fittings in the same way.
- **17.** Adjust the starting value of the numbering in the **Counter** field.

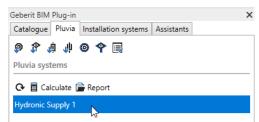
Label ele	ements	(i)
Paramete Counter:	ar: Mark	Tags 💌

## 3.4.3 Optimising the precut mat

In order to reduce the scraps during the waste water prefabrication of the required pipes, the **Optimisation of cutting** wizard can create a csv file with the optimal cutting lengths. The precut mats are assembled in such a way that as few scraps as possible are generated when cutting the individual pipes for the pipe system.

#### Prerequisite

- The pipe lengths have been defined with the Split Pipe wizard (see "Splitting a pipe", page 75).
- The pipes of the pipe system have been marked with the Label elements wizard (see "Labelling a pipe system", page 79).
- 1. Click on the pipe system in the **Pluvia** tab so that it is fully marked in the model.



- 2. Show the Assistants tab.
- 3. Click on Optimisation of cutting.
  - ✓ The Optimisation of cutting area appears.

Optimisation of cutting	٢
Parameter: Mark Cut Waste: 8 🗘 mm	
	Generate

- **4.** Exit the **Labelling** setting for the **Parameter** field as the pipe label has been saved in this parameter.
- 5. Enter the cutting width when cutting the pipes in the Cut Waste field.
- 6. Click on Generate.
  - ✓ The wizard calculates the optimal cutting lengths and creates a csv file.
  - ✓ The Save as window appears.
- 7. Save the csv file.

X	5.	e . 🖁 - :								
FILE HOME INSERT PAGE LAYOUT FORMULA						DATA RE	VIEW	VIEW		
$\begin{array}{c c} & & & \\ & & & & \\ & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & & \\ & & & \\ & & & & \\ & & & \\ & & & & \\ & & &$				1		= <b>-</b>   &		Wrap Text Merge & Center 🔹	Gene	eral
	Clipboard	r <u>s</u>	Font		5	A	lignment	G.		Number
A1 • : $\times \checkmark f_x$ Pipe Count										
	Α	В	с	D	Е	F	G	н		1
1	Pipe Count	Article-Nr	Description	DN	OD	Remainder	Length	Label		Element
2	7	361.000.16.0	PE Rohr d50x3 L:5m	50	50 mm	136	2503	Level 3_Geberit PE	_71	579853
3							1239	Level 3_Geberit PE	_44	579978
4							756	Level 3_Geberit PE	_73	579861
5							334	Level 3_Geberit PE	_65	579939
6		361.000.16.0				1063	2503	Level 3_Geberit PE	_72	579857
7							742	Level 3_Geberit PE	_63	579920
8							334	Level 3_Geberit PE	_46	579997
9							326	Level 3_Geberit PE	_75	579883
10		361.000.16.0				2489	2503	Level 3_Geberit PE	_61	579912

8. Open the csv file with Microsoft Excel or a text editor.

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