

GEBERIT PROPLANNER 2025

TRAINING MANUAL

WASTE WATER PREFABRICATION

**KNOW
HOW**
INSTALLED

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Geberit ProPlanner 2025

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1 ABOUT THIS DOCUMENT

Use this Training Manual during training but also to repeat what you have already learned.







You will learn how to work with Geberit ProPlanner with the aid of planning examples.

The topics at a glance:

- User interface with toolbars
- Planning examples
- Keyboard shortcuts

1.1 Characters and symbols

The following characters and symbols are used in this training manual:

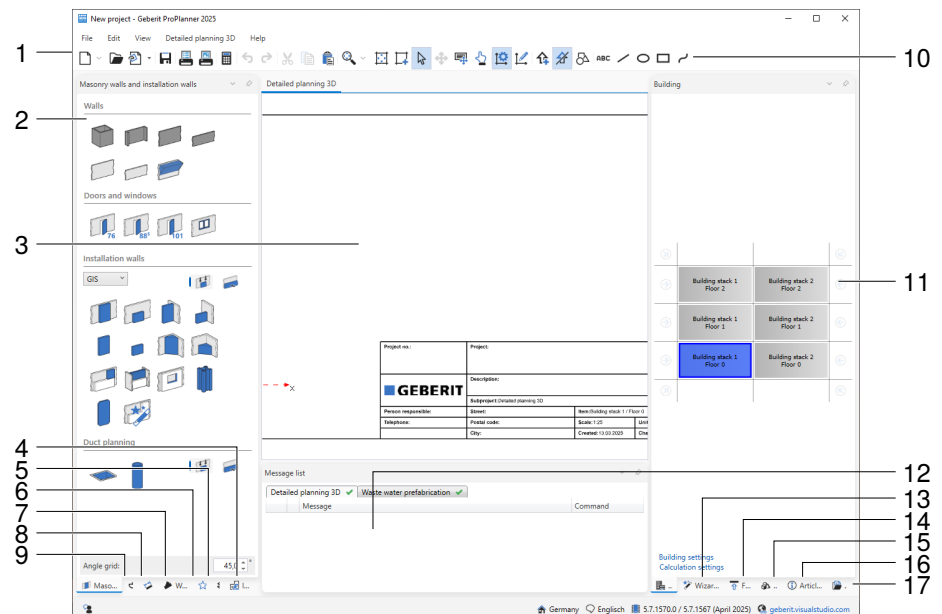
Symbol	Designation	Meaning
	Info	Reference to additional information on the subject under Help or in another training manual
	Hint	Hint for an easier or better approach
	Note	Basic information on a specific procedure
	Action	Instruction for action consisting of only one step
		Instruction for action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



Find further information using the **Help** menu or by pressing **F1**.

2 USER INTERFACE

The Waste water prefabrication module forms part of the Detailed planning 3D module. Therefore, you first need to create a new Detailed planning 3D project. The following window then appears:



- 1 General toolbar (see "General toolbar", page 11)
- 2 Drawing area
- 3 **Masonry walls and installation walls** window
- 4 **Import installation walls** window
- 5 **Layer** window
- 6 **Favourites** window
- 7 **Waste water prefabrication** window
- 8 **Dimensions** window
- 9 **Objects** window
- 10 Detailed planning 3D toolbar (see "Detailed planning 3D toolbar", page 12)
- 11 **Building** window
- 12 **Message list** window
- 13 **Wizards and settings** window
- 14 **Front views** window
- 15 **3D view** window
- 16 **Article information** window
- 17 **Project** window

2.1 Drawing area

Create your plan for masonry, installation walls and waste water prefabrication in the drawing area.

2.2 Walls and Installation Walls Window

The **Masonry walls and installation walls** window contains objects and functions for the planning of masonry and installation walls with Geberit GIS and Geberit Duofix. Individual drawing modes can be defined for the objects.

2.3 Importing Installation Walls Window

You can import and edit installation walls created with the Installation systems module.

2.4 Layer window

You can define the visualisation in the drawing area in the **Layer** window.

As soon as you use figures or CAD plans in your planning, the **Images and CAD plans** area also appears, in which you can manage figures and CAD plans.

2.5 Favourites Window

The **Favourites** window contains all objects that have been saved as Favourites.

2.6 Waste water prefabrication window

The **Waste water prefabrication** window contains functions with which you can plan the Waste water prefabrication for your installation.

2.7 Dimensions Window

The plan can be measured in various styles.

2.8 Objects Window

The **Objects** window contains sanitary objects, such as bathtubs, washbasins and WCs, as well as additional objects with which installations can be planned. The objects are shown as standard with large symbols in the **Objects** window.

You can select between the following views in the pop-up window:

- **Large symbols**
- **Tree**
- **Dropdown**

2.9 Building window

The building in the **Building** window comprises floors, building stacks and installation units and can be extended as required.

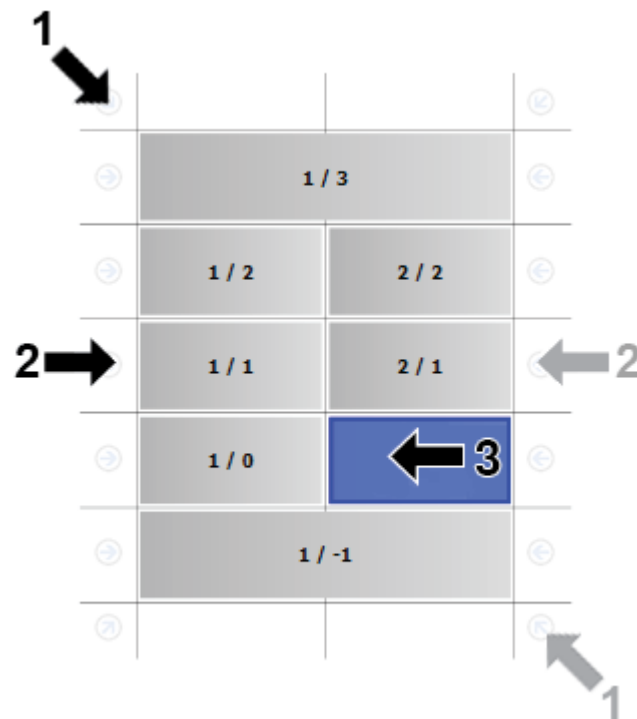
An installation unit is the smallest unit, in which it is possible to plan and for which a material list can be created. The installation unit can contain one or several rooms.

The plan of the installation unit highlighted in the **Building** window is shown in the working area. As soon as objects have been placed in the installation unit, the installation unit appears light-blue in the building.

Use the respective links to access the **Building settings** and the **Calculation settings**.

If you need to, you can alter the building structure using the pop-up menu and add or remove floors etc.

The following figure shows the position at which areas can be highlighted:



- 1 Area for highlighting the building
- 2 Area for highlighting a floor
- 3 Area for highlighting an installation unit



To retain an overview in the building, you can zoom into the building in the **Building** window by turning the mouse wheel.

2.10 Message list window

Depending on the calculation, the **Message list** window displays a report that contains the calculation errors, warning notes and information. Error messages are displayed with a red symbol and warnings with a yellow symbol. Information does not have a symbol. The messages for Detailed planning 3D and Waste water prefabrication can be called up using the various tabs.

The same messages are displayed grouped together. Clicking on ► shows all grouped messages.





- Clicking on the error message enlarges the fault in the drawing area and highlights it in a colour corresponding to the degree of severity.
- Errors can be corrected in the message list using the **Command** column or the tool tip in the drawing area.

2.11 Wizards and settings window

You can perform the following functions in the **Wizards and settings** window:

- Enter project data and subproject data
- Define building and calculation settings
- Define module settings for Detailed planning 3D

2.12 Front view and 3D view windows

Window	Function
	Front view Shows the front view of the view selected. Gives an overview of the profiles and dimensions required. <ul style="list-style-type: none"> • Zoom: Rotate the mouse wheel forwards or backwards or press the W and S keys • Move: Move the mouse while holding down mouse wheel
	3D view Gives a spatial impression of the planning. <ul style="list-style-type: none"> • Zoom: Rotate the mouse wheel forwards or backwards or press the W and S keys • Rotate: Move the mouse while holding down the right mouse key • Move: Move the mouse while holding down the mouse wheel

2.13 Article information window

As soon as a subproject has been calculated, you can call up views, dimensional sketches and installation manuals for articles from the Geberit product range in the **Article information** window. If available, you can call up installation videos on YouTube via a link. You need to be connected to the internet for this.

You can obtain the following information:

- Photo and drawing of a selected article
- Dimensional sketches
- Link to the Geberit product catalogue
- Installation manual and installation notes in PDF format
- ZIP file with CAD drawing in DWG or DXF format
- Links to YouTube videos



Access additional information under Help at **Detailed planning 3D > User interface**.

2.14 Project window

The **Project** window displays the project currently open with its subprojects.

You can execute the following functions in the **Project** window:

- Enter project data and subproject data
- Add, delete subprojects etc.
- Import subprojects from other projects

2.15 Toolbars






2.15.1 General toolbar

All basic functions of Geberit ProPlanner can be called up via the general toolbar.
















Deactivated buttons appear light-grey.

Button	Command
	Create a new project
	Open an existing project
	Add a subproject
	Save a project
	Show/print lists
	Show/print graphics
	Calculate a subproject
	Undo the last command
	Redo an undone command
	Cut an object and copy it to the clipboard
	Copy an object to the clipboard
	Paste an object from the clipboard
	Zoom into the drawing frame
	Extend a drawing

Button	Command
	Reduce a drawing
	Zoom in to all objects
	Select a zoom area with the mouse
	Adapt the drawing frame to the drawing
	Add a drawing frame

2.15.2 Detailed planning 3D toolbar











The following functions are available for the Detailed planning 3D module:






Button	Command
	Select objects
	Move object
	Move infotexts and dimensions
	Move drawing area
	Automatically assign reference point
	Set reference point
	Add front view
	Display front view arrows
	Import figure or CAD plan
ABC	Insert text
	Insert line
	Insert ellipse
	Insert rectangle
	Insert cotter pin

2.15.3 Waste water prefabrication window

Use the functions in the **Waste water prefabrication** window to draw auxiliary lines and routing axes, generate fittings and align them to one another, and place infotexts. You can also search for and place fittings.

The following buttons are available in the **Waste water prefabrication** window:

Button	Command
Auxiliary lines & routing axes	
	Draw auxiliary line
	Insert auxiliary lines on fittings The auxiliary lines are aligned to the central axes of the fittings.
	Remove all auxiliary lines
	Draw routing axes
	Remove routing axes
Fittings	
	Show connection points
	Add connection bends
	Generate fittings and pipes along routing axes
	Align two selected fitting axes to one another
	Align the second selected fitting axis at a defined distance from the first selected fitting, in other words the fixed fitting axis

Button	Command
Infotexts	
	Generate infotexts for all fittings and renumber
	Arrange highlighted infotexts in a circle
	Rearrange highlighted infotexts
	Move infotexts
	Remove all infotexts

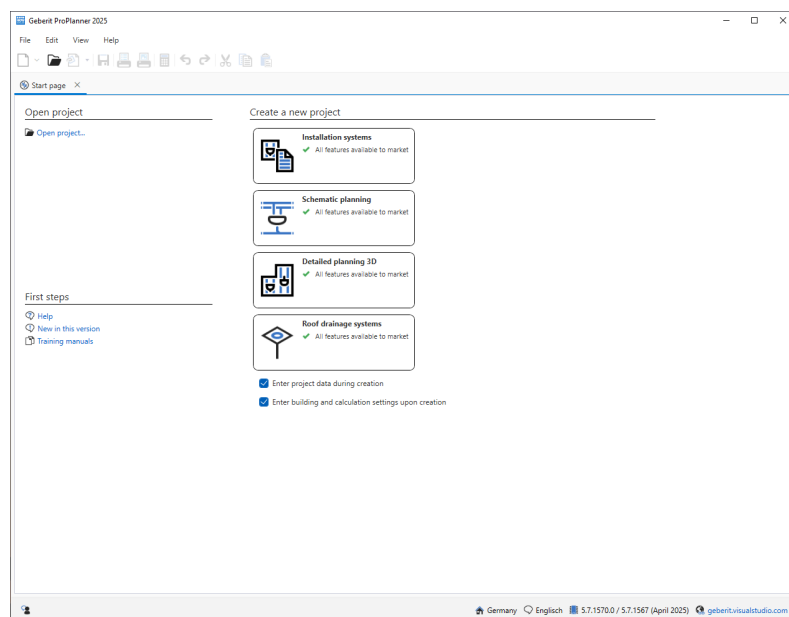
3 PREPARATION

First of all, create a new project for all planning examples in this training manual. Then adapt the building so that you have a stand-alone installation unit for every planning example. Then define the calculation settings for the entire building.

3.1 Creating a new project

1. Start Geberit ProPlanner.

✓ The Geberit ProPlanner start page appears after a few seconds.

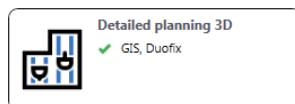


2. Make sure that **Enter project data during creation** and **Enter building and calculation settings upon creation** are activated.

✓ **Enter project data during creation**

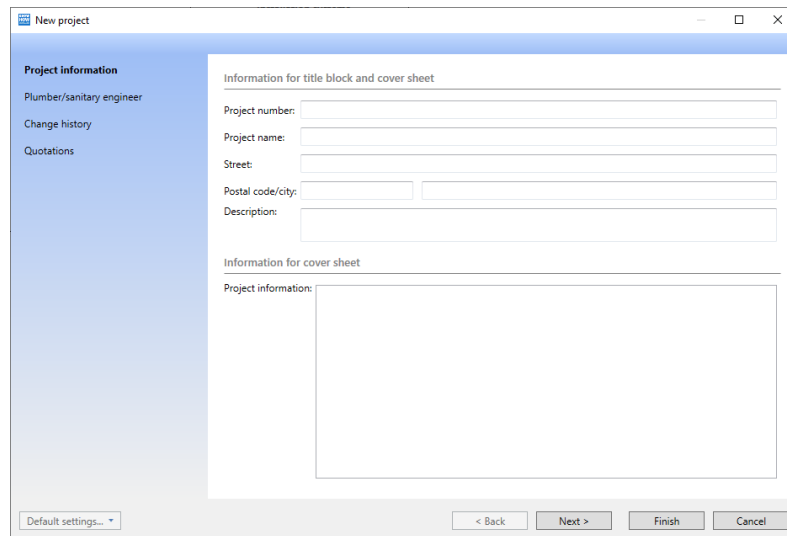
✓ **Enter building and calculation settings upon creation**

3. Create a new project by clicking on Detailed planning 3D.



✓ The **New project** window appears.

3.1.1 Entering project data



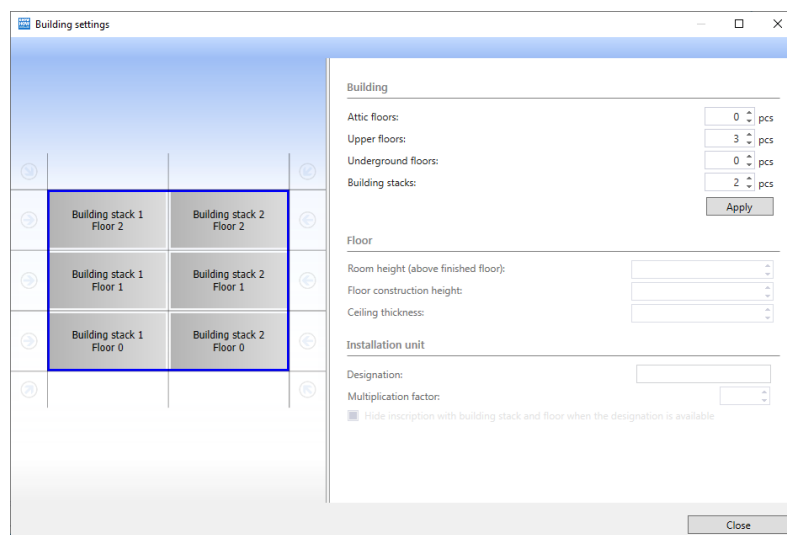
- Enter the required information and confirm with **Finish**.
 - ✓ The **New project** window is closed and the **Building settings** window appears.



More information on creating projects and subprojects is available in the training manual **Installation and basic functions** and in the Help at **Basics > Projects and subprojects**.

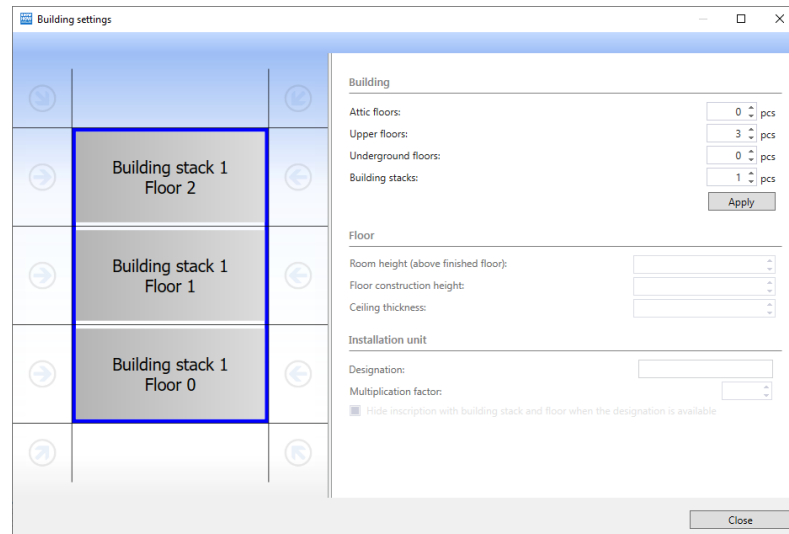
3.1.2 Adapting building and calculation settings

3.1.2.1 Defining the building size



1. Define the number of floors as follows in the **Building** area:
 - **Attic floors:** 0
 - **Upper floors:** 3
 - **Underground floors:** 0
 - **Building stacks:** 1

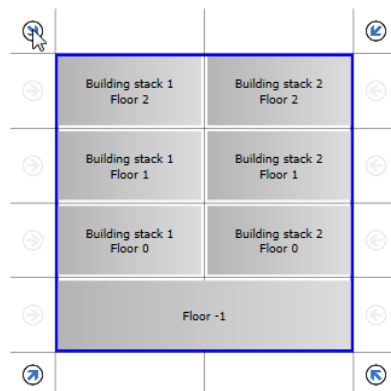
2. Confirm your entries with **Apply**.



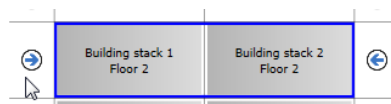
3.1.2.2 Selecting the Building, Floors and Installation Units

The building in the **Building settings** window and in the **Calculation settings** window consists of floors, building stacks and installation units.

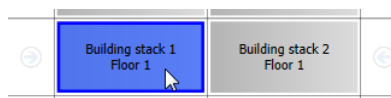
Click on one of the arrows at the corners of the building to select the complete building.



Click on one of the arrows on the right or left beside the floor to select a floor.



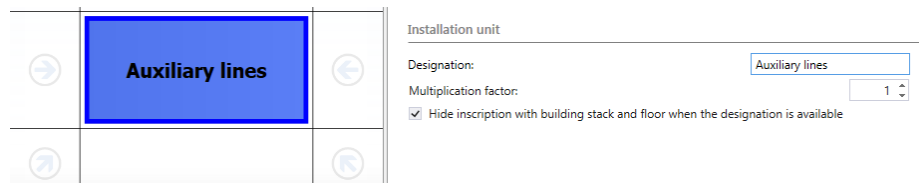
Click on the installation unit to select an installation unit.



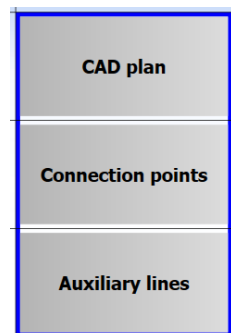
You can simultaneously select several installation units or floors by pressing **CTRL** at the same time.

3.1.2.3 Naming installation units

1. Highlight the installation unit **Building stack 1 Floor 0**.
2. Enter **Auxiliary lines** as the label in the **Designation** field in the **Installation unit** area.
3. Activate **Hide inscription with building stack and floor when the designation is available** to hide the labels given.

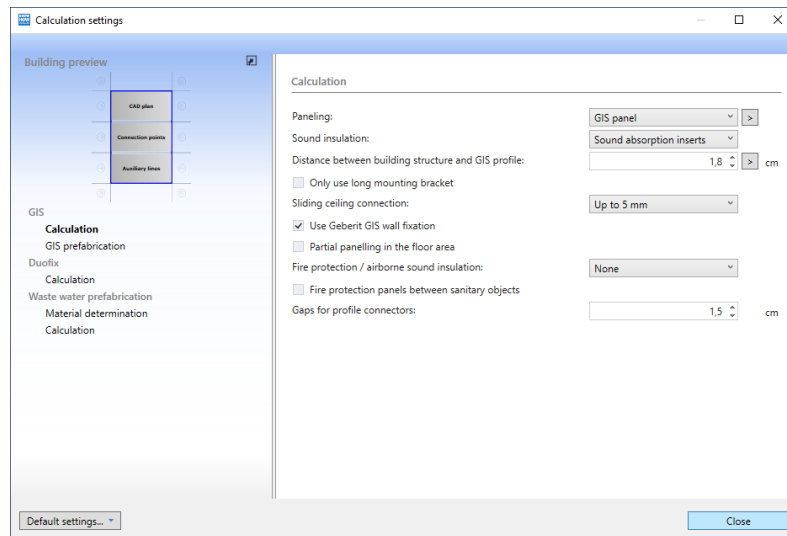


4. Name all the other installation units in this way as follows:



5. Click on **Close** to apply the settings.
✓ The **Calculation settings** window appears.

3.1.2.4 Defining calculation settings



The settings in the **Calculation settings** window apply to the entire building complete with all floors and installation units. You can define different properties for the single floors and installation units, if need be. To do this, highlight the required floor or installation unit and enter the settings. The settings of the building and the settings of other floors and installation units are retained.

1. Click on **Material determination** under **Waste water prefabrication**.
2. Enter the following settings:

Material determination

Preferred product range: Silent-db20

Preferred connection type: Butt welding

☒ Use concentric reducers

☐ Fit connector bends with a long upward leg

☒ Insert ring seal socket on upper side of bend



Use **Geberit PE** as the **Preferred product range** if **Silent-db20** is not available in your market.

3. Click on **Calculation** under **Waste water prefabrication**.
4. Activate the **Plan with a pipe gradient** checkbox and enter a **Standard slope** of **2 %**.

Calculation

☒ Plan with a pipe gradient

Standard slope: 2,00 %

☐ Calculate all changes in direction with precisely precut Geberit PE bends

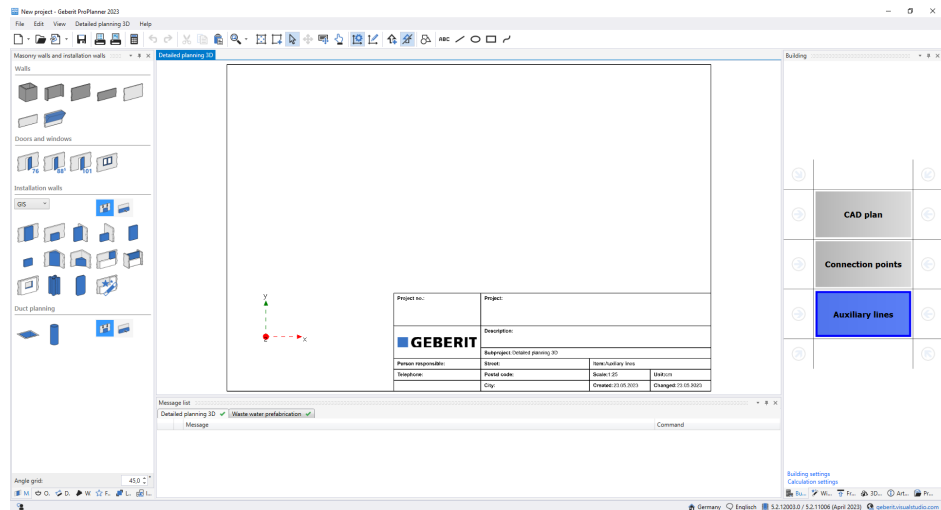


- The standard slope can only be set providing no waste water prefabrication objects have already been planned.
- If need be, enter a different slope for each line system when drawing the routing axes.



You can define the settings as default settings using the **Default settings** button if you wish to use the settings for other subprojects.

5. Click on **Close** to apply the settings.
✓ The detailed planning view appears.



3.2 Adapting the user interface

We recommend using the **Default window arrangement 1** when working with this training manual.



Find out in the **Installation and basic functions** training manual or under Help at **Basics > Window layout** how to call up and adapt this window layout.

3.3 Navigating in the floor plan, front view and 3D view

Navigate as follows in the floor plan, in the front view and in the 3D view:

Function	View	
	Floor plan/Front view	3D view
Enlarge or reduce view	Turn the mouse wheel or press the W or S key.	
Move the view	Move the mouse while holding down the mouse wheel.	Move the mouse while holding down the mouse wheel. - or - Move the mouse while holding down the left mouse key.
Turn the view	—	Move the mouse while holding down the right mouse key.

4 WASTE WATER PREFABRICATION PLANNING EXAMPLES

The Waste water prefabrication is integrated in the Detailed planning 3D module and can be called up using the **Detailed planning 3D > Waste water prefabrication** menu or the **Waste water prefabrication** window. You can create waste water plans here using Geberit PE or Geberit Silent-db20 fittings. Tradesmen can prefabricate all discharge pipes using these waste water plans. This significantly speeds up installation on building sites. Three examples illustrate various planning options below.

In the first planning example you will create a waste water plan with auxiliary lines, without drawing a room or having to place objects.

In the second planning example, you will use the functions of the Detailed planning 3D module to draw a simple room and place in it the objects which are to be connected to the drainage system.

In the third example, you will then learn how to create a waste water plan on the basis of an imported CAD plan.

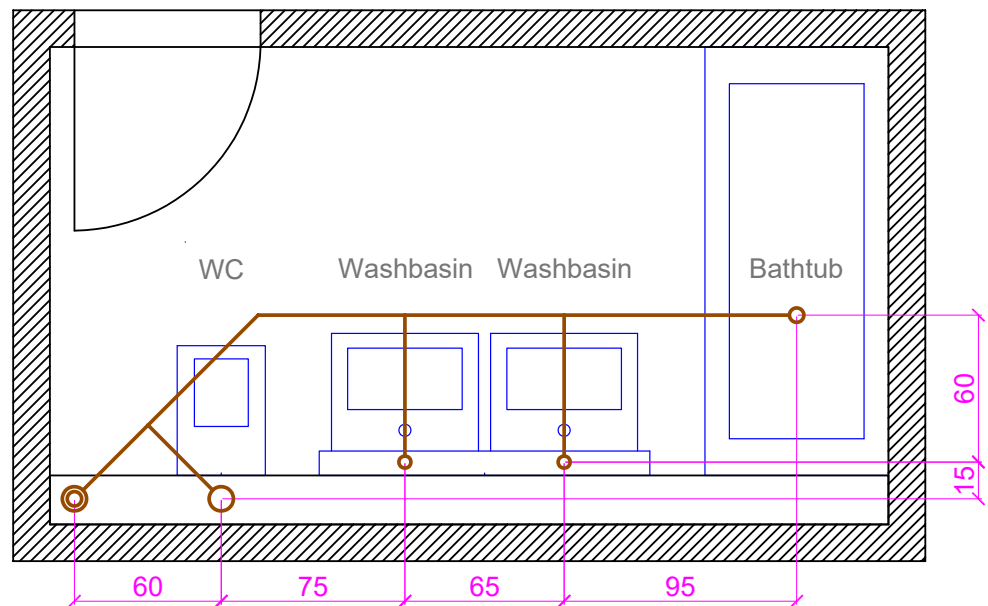
4.1 Drawing with auxiliary lines

In the planning example, entitled "Drawing with auxiliary lines", you will learn to plan a drainage system with auxiliary lines. You can therefore create a plan without previously having to draw a room and place the required objects. You will then meet functions that will enable you to dimension your plan and view it in a 3D view.

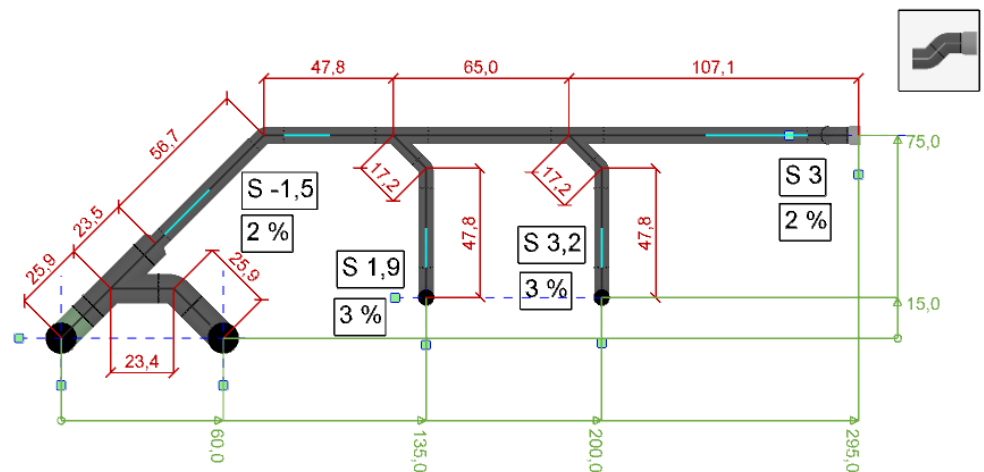
This chapter covers the following topics:

- Drawing auxiliary lines and parallel auxiliary lines
- Aligning and placing fittings
- Drawing routing axes
- Generating fittings
- Displaying front view and 3D view
- Dimensioning plans
- Displaying information on invert and slope

The following drainage system is planned in this planning example:



CAD plan

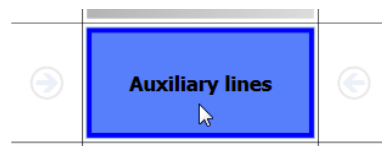


View in Geberit ProPlanner

4.1.1 Selecting an installation unit



- Select the **Auxiliary lines** installation unit in the **Building** window.



4.1.2 Drawing auxiliary lines

Auxiliary lines for the connection points of the objects are drawn in the following section. First draw the vertical and then the horizontal auxiliary lines. Then join the connections of the objects to the intersection points of the auxiliary lines.

4.1.2.1 Drawing vertical auxiliary lines

Draw the vertical auxiliary line to connect the stack as the first auxiliary line.



1. Show the **Waste water prefabrication** window.



2. Click on **Draw auxiliary line**.

3. Click in the drawing area to define the starting point for the first auxiliary line from the left.

4. Move the mouse upwards and draw the auxiliary line to the required length.



5. Click again in the drawing area to define the end point of the auxiliary line.



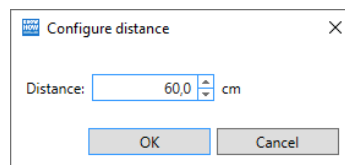
You can subsequently extend the auxiliary line if one of the vertical auxiliary lines is not long enough. Right-click on the auxiliary line and select **Change length** in the pop-up menu.

4.1.2.1.1 Drawing parallel auxiliary lines

Starting from the first auxiliary line, now create the other auxiliary lines using the **Draw parallel auxiliary lines** function at the distance of the connections. You will find the respective distances in the CAD plan at the end of the training manual (see "Drawing with auxiliary lines", page 108).

First create the auxiliary line for the connection of the WC.

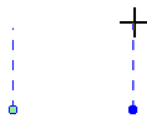
1. Right-click on the auxiliary line just created and select **Draw parallel auxiliary lines** in the pop-up menu.
✓ The **Configure distance** window appears.
2. Enter the value **60 cm** in the **Distance** field. This equates to the distance between the stack and the connection of the WC.



3. Confirm the entry with **OK**.
✓ The auxiliary line is suspended from the cursor. You can move the auxiliary line upwards or downwards, as well as to the left or right of the starting auxiliary line.
4. Move the auxiliary line to the right and approximately to the height of the first auxiliary line.



5. Click in the drawing area to set the starting point of the auxiliary line.
6. Move the mouse upwards and drag the auxiliary line approximately to the length of the first auxiliary line.

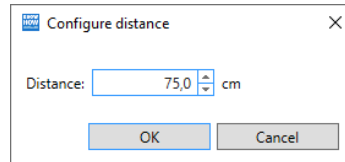


7. Click in the drawing area to define the end point of the auxiliary line.
✓ The second auxiliary line is inserted and the **Configure distance** window appears again.

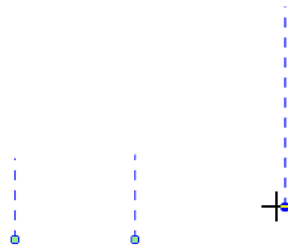


Now create the two auxiliary lines for the connections of the washbasins. Place them a little further up as the connections of the washbasins in the drawing are also a little higher.

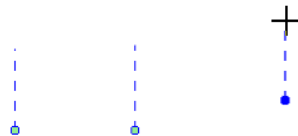
8. Enter the value **75** cm in the **Distance** field. This equates to the distance between the connection of the WC and the connection of the first washbasin.



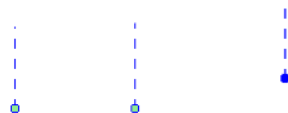
9. Set the starting point of the auxiliary line a little higher than the start of the first two auxiliary lines.



10. Move the cursor upwards and drag the auxiliary line to the required length.

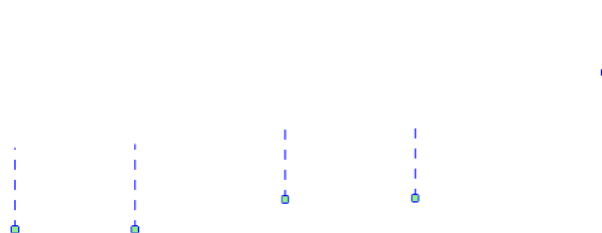


11. Click in the drawing area to set the end point of the auxiliary line.
✓ The third auxiliary line is inserted and the **Configure distance** window appears again.



12. Create the auxiliary line for the connection of the second washbasin at a distance of 65 cm and the auxiliary line for connection of the bathtub at a distance of 95 cm.

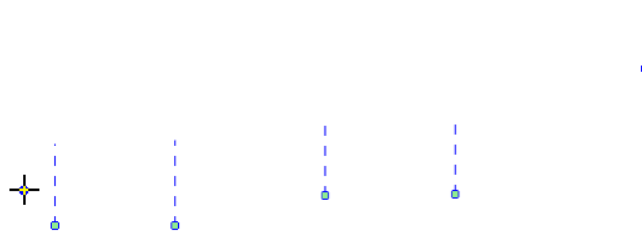
13. Click on **Cancel** in the **Configure distance** window.



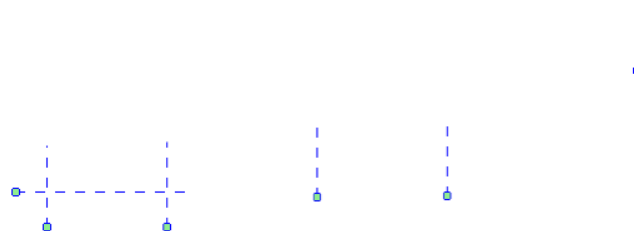
4.1.2.2 Drawing horizontal auxiliary lines



1. Click on **Draw auxiliary line**.
2. Click on the left beside the first auxiliary line in the drawing area to place the starting point of the auxiliary line.



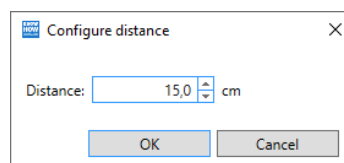
3. Move the mouse to the right and draw the auxiliary line over the first two vertical auxiliary lines.
4. Click again in the drawing area to define the end point of the auxiliary line.



4.1.2.2.1 Drawing parallel auxiliary lines

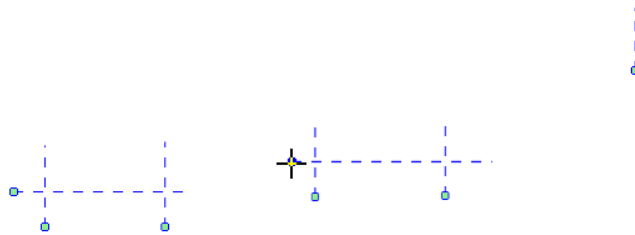
As with the vertical auxiliary lines, the other auxiliary lines are created with the **Draw parallel auxiliary lines** function.

1. Right-click on the horizontal auxiliary line just created and select **Draw parallel auxiliary lines** in the pop-up menu.
✓ The **Configure distance** window appears.
2. Enter the value **15 cm** in the **Distance** field. The equates to the distance between the connections of the stack and that of the WC to the connections of the washbasins.

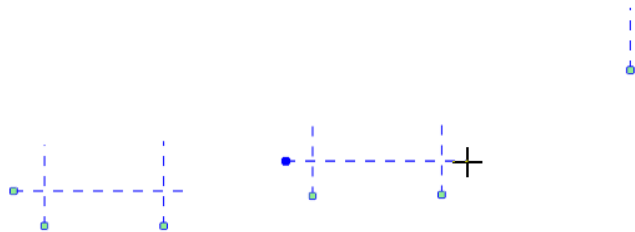


3. Confirm the entry with **OK**.
✓ The auxiliary line is suspended from the cursor. You can move the auxiliary line to the left or right, as well as above or below the starting auxiliary line.

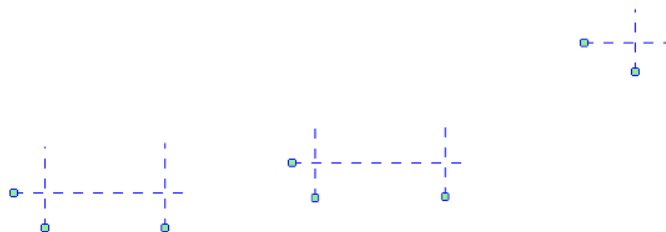
4. Move the auxiliary line to the right beside the vertical auxiliary line for connection of the first washbasin.



5. Click in the drawing area to set the starting point of the auxiliary line.
6. Drag the auxiliary line to the right above the two vertical auxiliary lines of the washbasins and click again in the drawing area to define the end point of the auxiliary line.



7. Create the horizontal auxiliary line for the bathtub connection at a distance of **60 cm** from the washbasin.
8. Click in the **Configure distance** window on **Cancel** once you have created the auxiliary line for the bathtub.



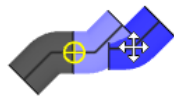
- ✓ You have now created all the required auxiliary lines and can place the fittings at the intersection points.

4.1.3 Placing fittings

Firstly place and align the connectors for the objects (waste fittings and traps). Then you can insert axes, which join the connections to each other. You can generate the other fittings once the axis grid has been created.

4.1.3.1 Capture mode

Geberit ProPlanner features a capture mode to let you align objects precisely to each other or to auxiliary lines. When the cursor is near an object, it automatically jumps to a capture point (object edge, object centre etc.). If an object is suspended from the cursor it is captured by an available object. The possible connection appears light blue until you click and place the object.



Capture mode also becomes active at the points of intersection of auxiliary lines. A pipe axis, for example, is automatically placed on the point of intersection.

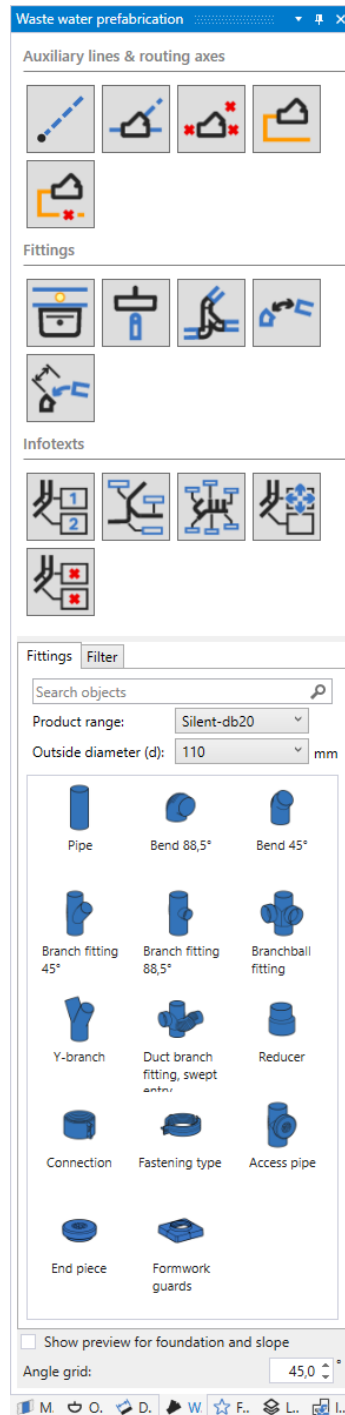
You can switch off capture mode by pressing **CTRL**.

4.1.3.2 Placing stack connectors

Branch fittings, bends, reducers, pipes and other materials are all available to you in the **Waste water prefabrication** menu.



1. Show the **Waste water prefabrication** window.

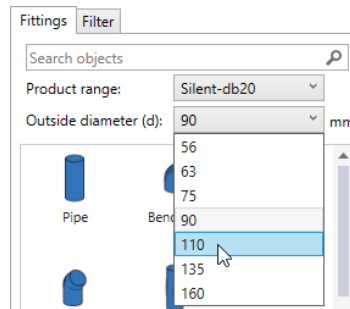


2. Select the **Product range Silent-db20**.



Select the **Geberit PE Product range** if the **Silent-db20 Product range** is not available in your market.

3. Select the value **110 cm** as the **Outside diameter (d)**.

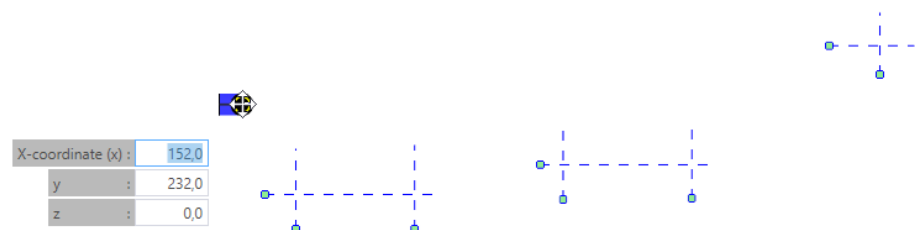


If this diameter is not available in your market or is not usual for stacks, select instead a common diameter used in your country for stacks.



4. Highlight the **branch fitting 88.5°**.

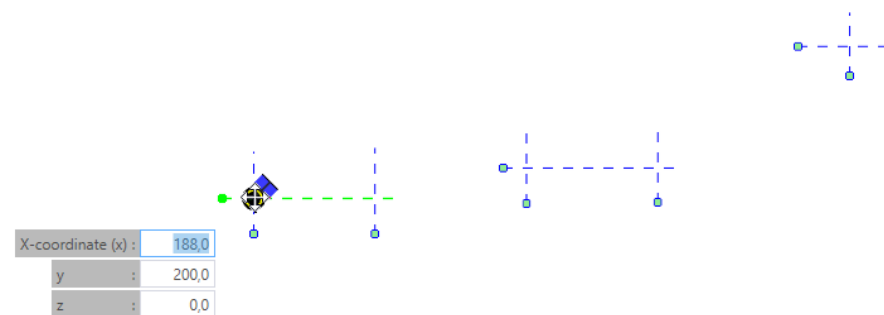
✓ The branch fitting is suspended from the cursor.



5. Use the **T** or **Z** key to rotate the branch fitting into the right position.



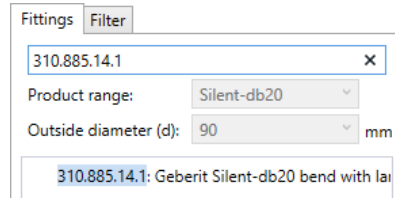
6. Place the branch fitting at the point of intersection for the stack connector and click on it.



4.1.3.3 Placing a bend for the WC

You can also search for and insert a fitting using the article number.

1. Select the **Fittings** tab in the **Waste water prefabrication** window.
2. Enter the article number **310.885.14.1** in the **Search objects** field.
✓ The fitting is listed.

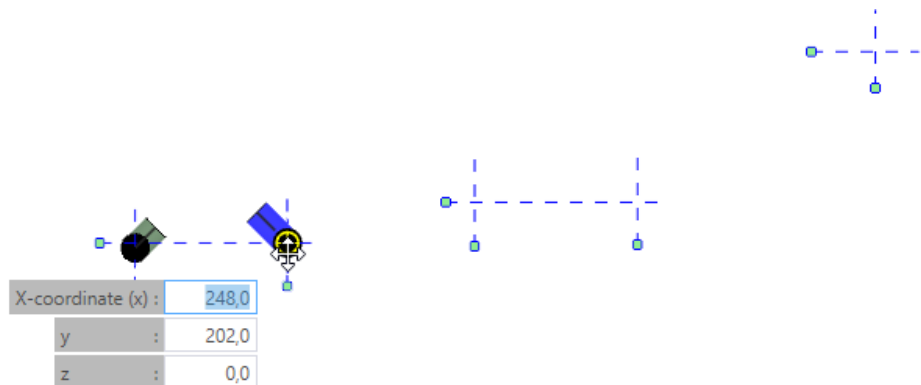


If this diameter is not available in your market or is not usual for WC connections, select instead a common diameter used in your country for WC connections.



You can call up views, dimensional sketches and installation manuals for articles from the Geberit product range in the **Article information** window. If available, you can call up installation videos on YouTube via a link. You need to be connected to the internet for this.

3. Click on the fitting in the list and move the cursor into the drawing area.
✓ The bend is suspended from the cursor.
4. Turn the bend into the right position using either the **T** or **Z** key.
5. Place the bend at the intersection of the auxiliary lines for the WC.

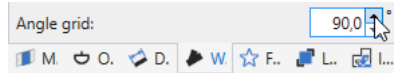



Press and hold down **CTRL** if the capture mode has placed the fitting at an incorrect position. The fitting can then be placed at will.

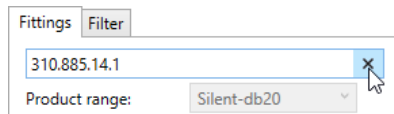
4.1.3.4 Placing bends for washbasins

You can use the **Angle grid** when turning objects to define the increments in which the fittings are to be turned. Adapt the angle grid to 90° before inserting the bends for the washbasins.

1. Set the **Angle grid** to 90.0°.



2. Click on  in the search field to hide the search result and show the fitting.



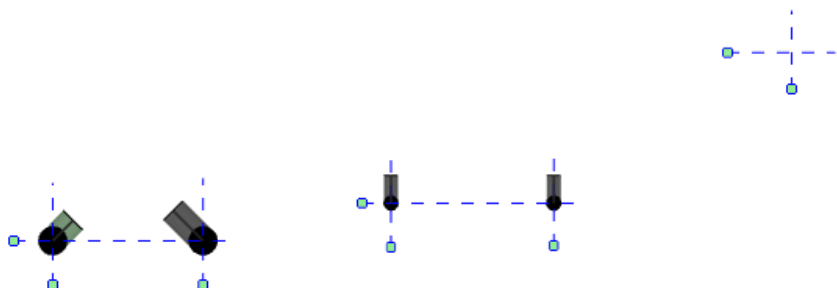
3. Select the value 56 cm as the **Outside diameter (d)**.



If this diameter is not available in your market or is not usual for washbasin connections, select instead a common diameter used in your country for washbasins.



4. Highlight the **88.5° bend**.
5. Place the bends for the two washbasins, as described for the WC. Pay attention to the correct alignment of the bends.



4.1.3.5 Placing a bend for the bathtub

Form the connection bend for the bathtub from several fittings. Learn how to move, shorten and group fittings. Insert a detailed view of the fitting created for a more exact visualisation.

4.1.3.5.1 Inserting bends

1. Set the **Angle grid** back to **45.0°** to enable you to turn the bends at a 45° angle.
2. Select the value **63 cm** as the **Outside diameter (d)** in the **Waste water prefabrication** window.



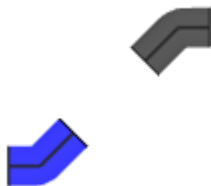
If this diameter is not available in your market or is not usual for bathtub waste couplings, select instead a common diameter used in your country for bathtubs.



3. Mark the **bend 45°**.
4. Turn the bend as shown and place it at a free point in the drawing area.

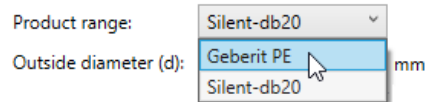


5. Place a second **bend 45°** as shown.



4.1.3.5.2 Connecting ring seal sockets to bends

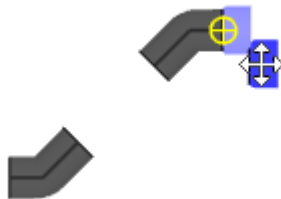
1. Select the **Product range Geberit PE** in the **Waste water prefabrication** window.



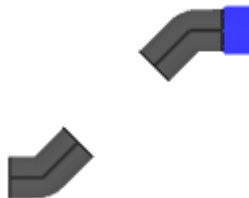
2. Select the value **63 cm** as the **Outside diameter (d)**.
3. Mark the **connection**.
4. Turn the ring seal socket so that the narrow side points to the bend.



5. Move the ring seal socket close to the first bend 45° until the ring seal socket is captured.

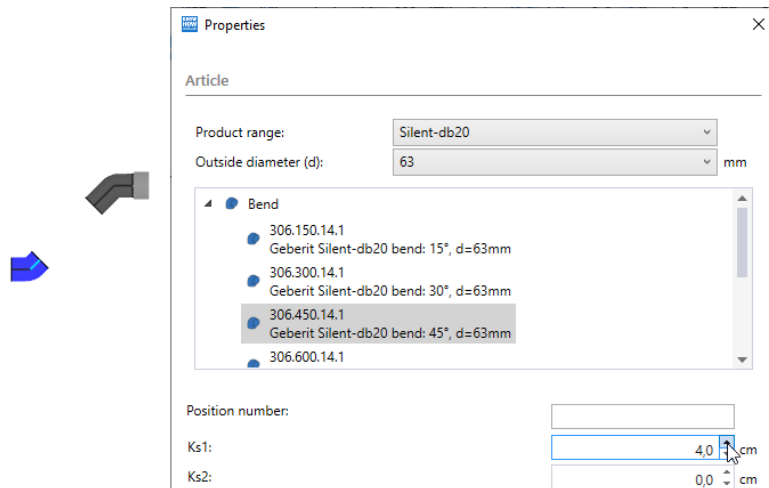


6. Click in the drawing area to connect the ring seal socket to the bend.



4.1.3.5.3 Shortening bends

1. Mark the lower bend.
2. Right-click on the bend and select **Properties** in the pop-up menu.
✓ The **Properties** window appears.
3. Enter the maximum possible value in the **Ks1** field.
✓ The bend is shortened.



4. Click on **OK** to close the **Properties** window and confirm the shortened bend.
5. Mark the upper bend.
6. Right-click on the bend and select **Properties** in the pop-up menu.
✓ The **Properties** window appears.
7. Re-enter the maximum possible value in the **Ks1** field.
✓ The bend is shortened.



8. Click on **OK** to close the **Properties** window and confirm the shortened bend.

4.1.3.5.4 Connecting bends

1. Highlight the lower bend.



2. Press **M** or select **Move object** in the toolbar.
✓ Reference points appear on the bend.



3. Click on the uppermost reference point.
✓ The bend is suspended from the cursor.



4. Move the bend close to the upper bend until the lower bend is captured.



5. Click in the drawing area to connect the bends.

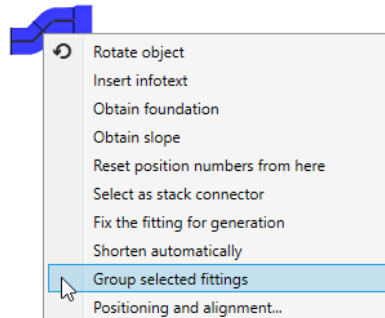


4.1.3.5.5 Grouping bends

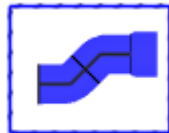
1. Press and hold down the left mouse key and draw a frame around both bends and the ring seal socket.



2. Right-click on the highlighted fittings and select **Group selected fittings** in the pop-up menu.

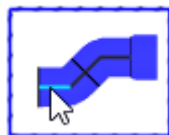


- ✓ The group appears within a blue frame.



4.1.3.5.6 Aligning bends

1. Highlight the lower left fitting axis.



2. Press **R** until the group appears as shown.



4.1.3.5.7 Moving fitting group to the connection point

Once you have created the grouped fitting, you can move it to the connection point.

1. Highlight the fitting group.



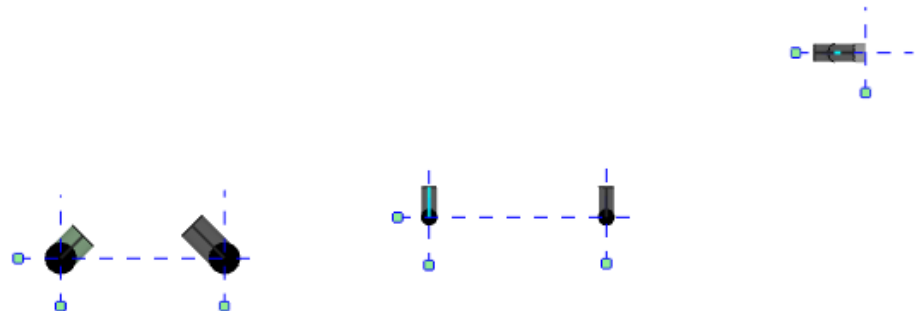
2. Press **M** or select **Move object** in the toolbar.

✓ Reference points appear on the elements of the fitting group.

3. Click on the outer reference point on the ring seal socket.

✓ The fitting group is suspended from the cursor.

4. Move the fitting group to the point of intersection of the auxiliary lines for the bathtub and click in the drawing area.

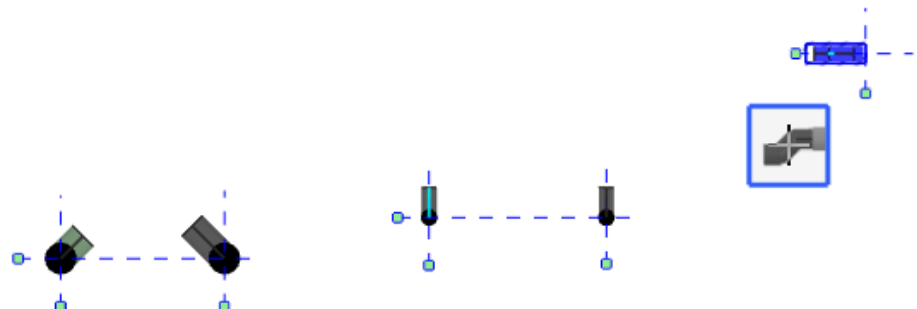


4.1.3.5.8 Adding detailed views

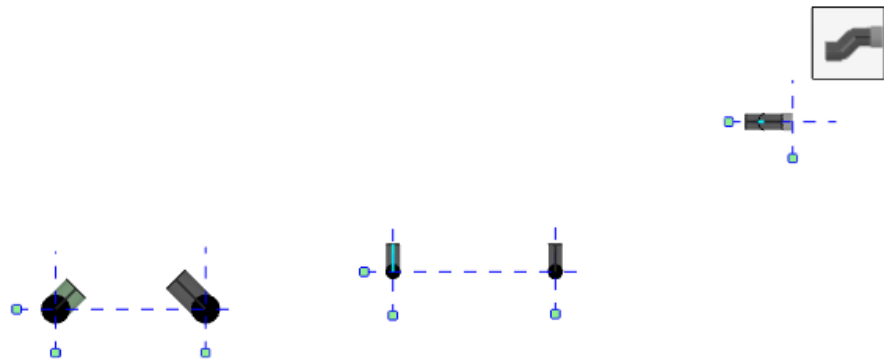
1. Highlight the fitting group.

2. Right-click on the fitting group and select **Add detail view of the fitting** in the pop-up menu.

✓ The detailed view is suspended from the cursor.



3. Move the detailed view to the required position and click in the drawing area.



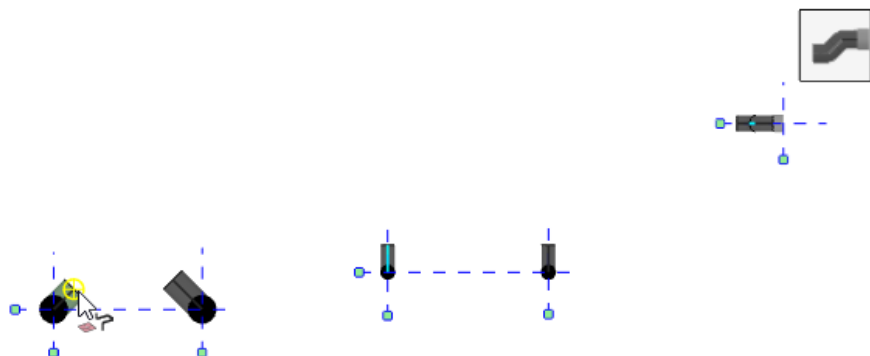
- If you wish to use the fitting group you have created in other plans, you can save it as a favourite.
- Refer to the training manual **Installation and basic functions** or in the Help at **Detailed planning 3D > Waste water prefabrication > Fittings > Favourites** to find out how to create, use and manage favourites.

4.1.4 Drawing routing axes

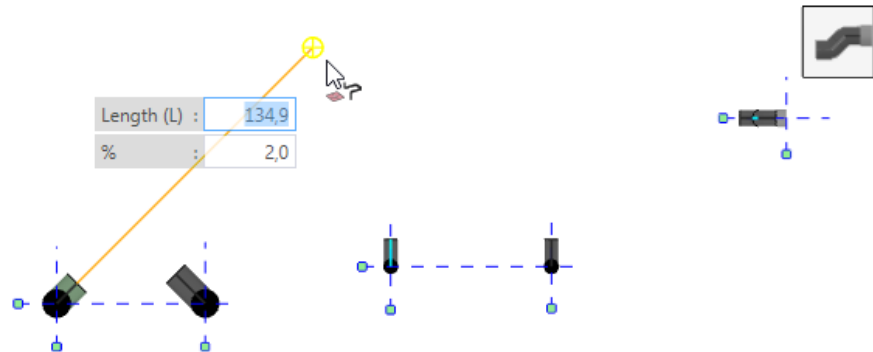
You can draw routing axes once the connections have been set. To do so, draw the routing axes to the fittings of the washbasin this time with a slope of 3 %. The following step describes how to generate the required fittings along the routing axes.



1. Click on **Draw routing axes** in the **Waste water prefabrication** window.
2. Click on the branch fitting for the stack.

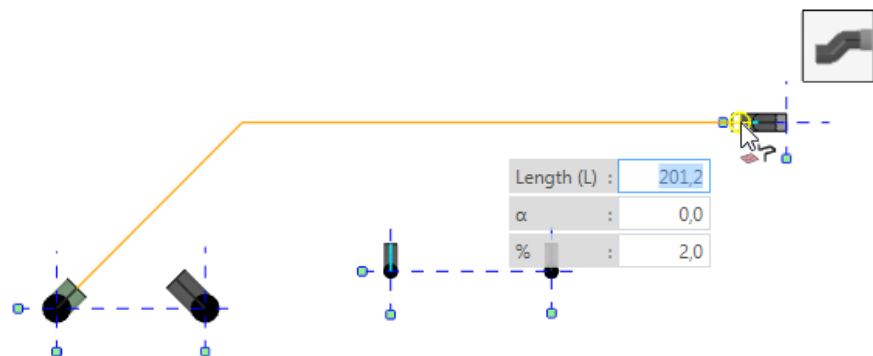


3. Move the cursor upwards and click in the drawing area.

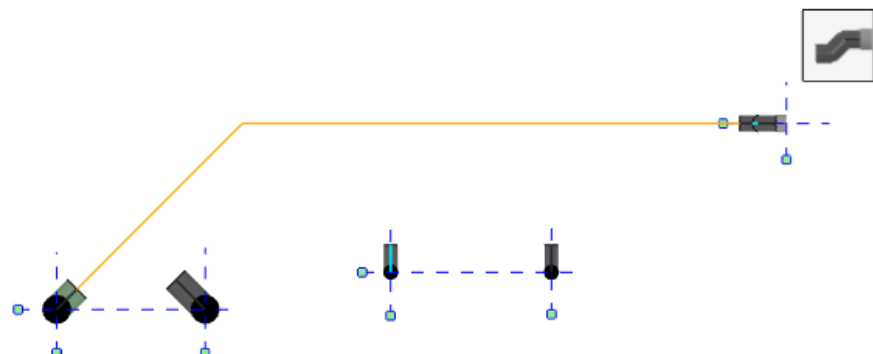


- The cursor entry appears on the cursor when drawing the routing axes. You can enter or adjust the values directly in the cursor entry.
- Use the Tab key to jump between the individual input fields.

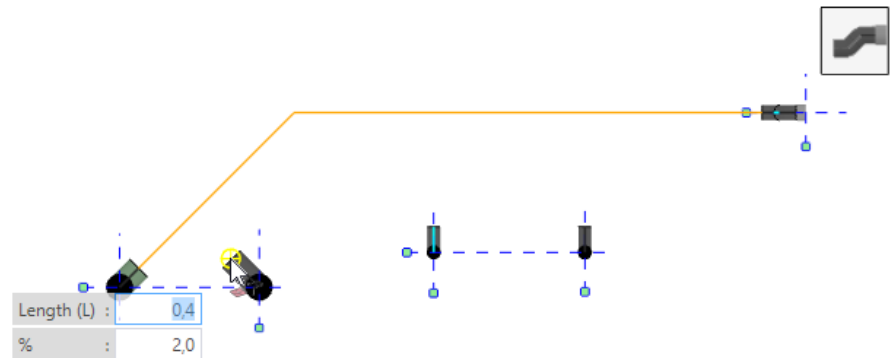
4. Move the cursor to the right onto the fitting for the bathtub.
 - ✓ Geberit ProPlanner automatically adapts the routing axes.



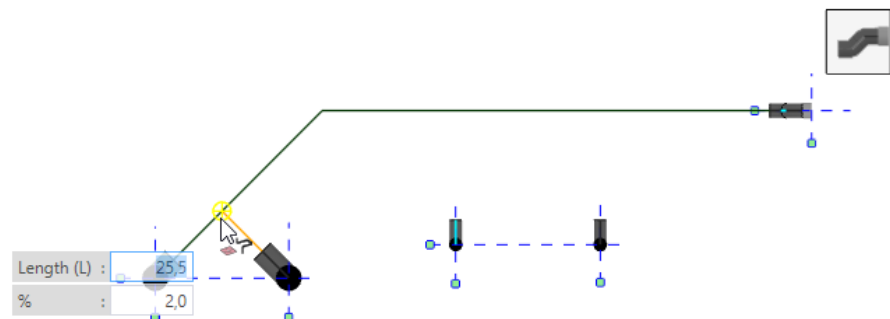
5. Click on the connection point on the fitting for the bathtub.
 - ✓ The connection on the stack and the connection on the bathtub are connected by a routing axis.



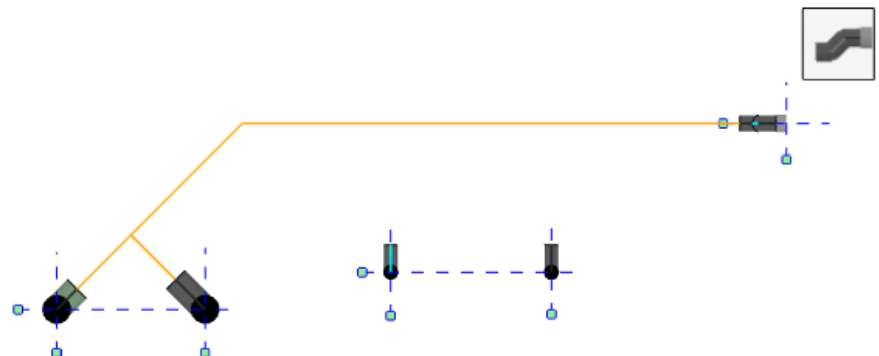
6. Click on the connection point on the bend of the WC.



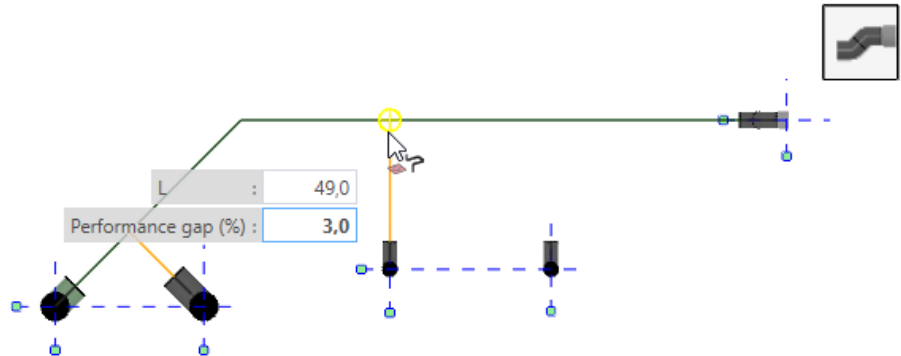
7. Drag the routing axis onto the routing axis already drawn.
✓ The routing axis turns green.



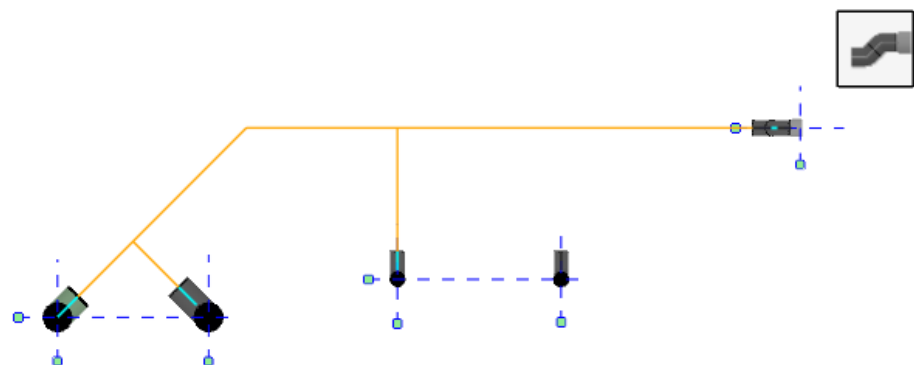
8. Click once more on the routing axis already drawn to connect both routing axes.



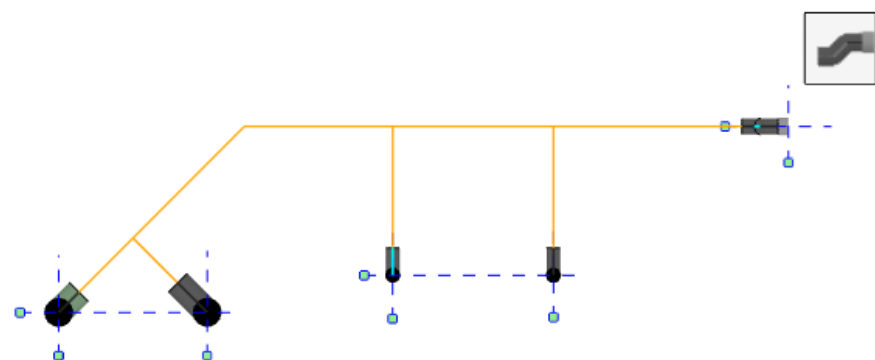
9. Click on the fitting of the first washbasin.
10. Move the cursor up and enter the value **3.0 %** in the **Performance gap (%)** field of the cursor entry.



11. Click once more on the routing axis already drawn to connect both routing axes.



12. Draw the routing axis of the second washbasin with a slope of 3% as well.



13. Press **ESC** to exit the function.

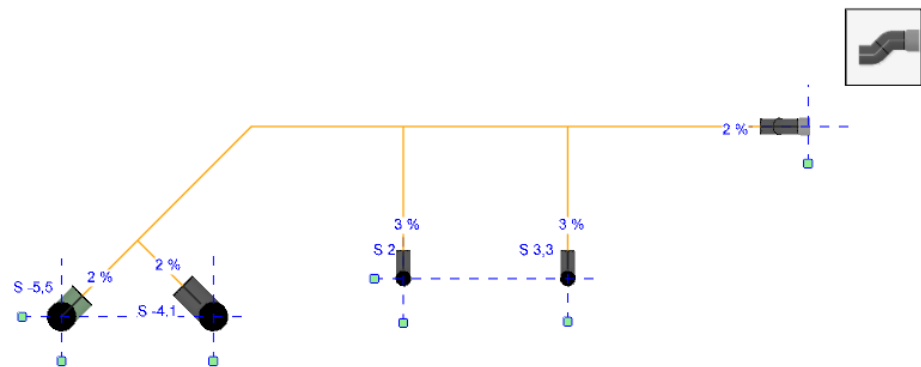
4.1.5 Displaying invert and slope

Check the invert and slope of your plan before generating the fittings by showing the relevant information.

- Click in the **Show preview for foundation and slope** in the **Waste water prefabrication** window.



- ✓ The invert and slope are displayed on the fittings and routing axes.



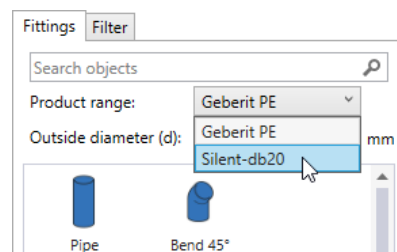
4.1.6 Generating fittings

You can generate the other fittings once all the routing axes have been drawn.



- To generate fittings, a fitting needs to be defined as a stack connector (drainage point). The fittings can thereby be generated corresponding to the direction of flow.
- Any number of fittings can be defined as drainage points via the pop-up menu. These fittings appear green.
- Some fittings (e.g. the branch fitting 88.5°) are automatically defined as stack connectors.

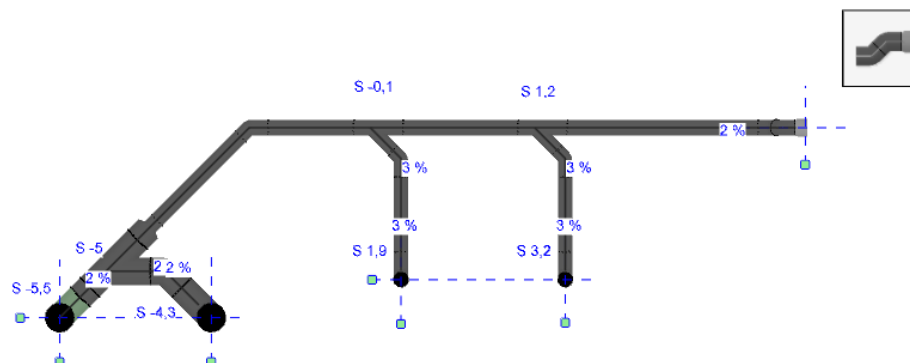
1. Select the **Product range Silent-db20** in the **Waste water prefabrication** window.



- Select the **Geberit PE Product range** if the **Silent-db20 Product range** is not available in your market.



2. Click on **Generate fittings and pipes along routing axes**.
✓ Geberit ProPlanner generates the fittings along the routing axes.



3. For further editing, hide the preview for invert and slope again.



When two fittings are cut and appear red, you can automatically adapt the length of the fittings. Right-click on the fitting and select **Shorten automatically** in the pop-up menu.



Access additional information under Help at **Detailed planning 3D > Waste water prefabrication > Fittings**.

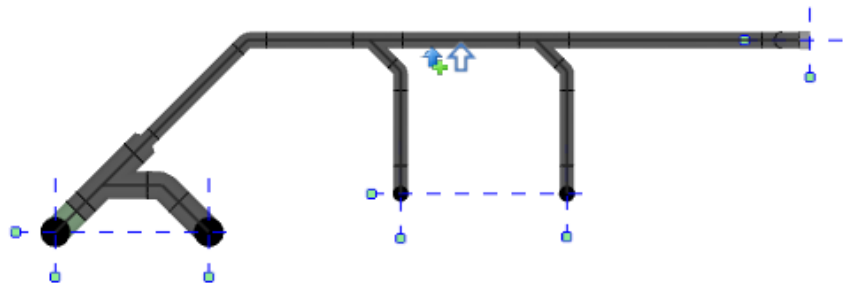
4.1.7 3D view

You can display your plan in a three-dimensional view to gain a spatial impression of your finished plan. To do so, first define the front view. Hide the auxiliary lines for the 3D view in advance to avoid the auxiliary lines disturbing the 3D view.

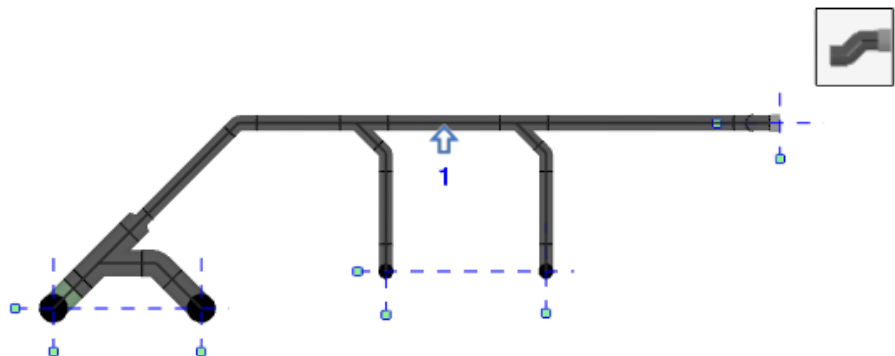
4.1.7.1 Creating front views



1. Click in the toolbar on **Add front view**.
2. Move the front view arrow to the pipe between the two washbasins.



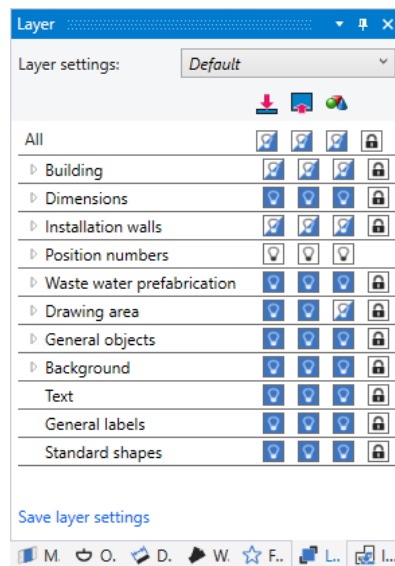
3. Click in the drawing area to place the front view arrow.



4.1.7.2 Hiding auxiliary lines

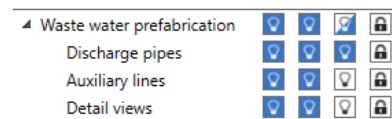


1. Show the **Layer** window.



2. Click on the triangle (▸) in **Waste water prefabrication**.

3. Hide **Auxiliary lines** and **Detail views** for the 3D view (🌐).



4.1.7.3 Showing the 3D view

► Show the **3D view** window.



Navigate around the 3D view as follows:

Function	Mouse/key
Enlarge or reduce view	Turn the mouse wheel or press the W or S key.
Move the view	Move the mouse while holding down the mouse wheel. Move the mouse while holding down the left mouse key.
Turn the view	Move the mouse while holding down the right mouse key.

4.1.8 Dimensioning plans

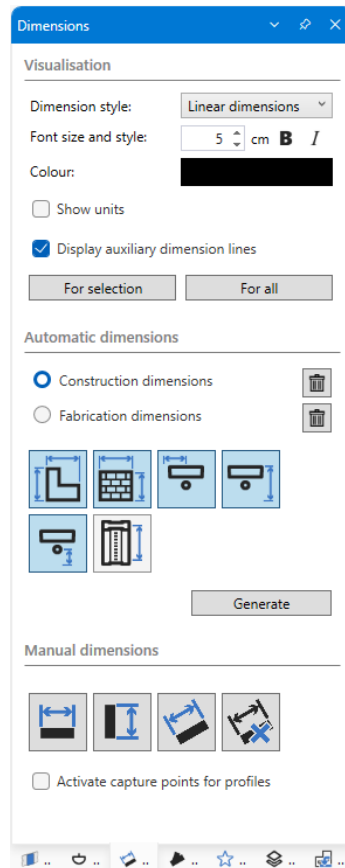
Once your plan has been fully created, you can now dimension it.

You can automatically or manually insert dimensions in Geberit ProPlanner. First add automatic fabrication dimensions for this planning example. Adapt them by deleting, moving and adding dimension lines. Then add manual construction dimensions to the dimensions.

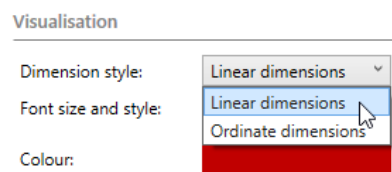
4.1.8.1 Inserting fabrication dimensions



1. Show the **Dimensions** window.



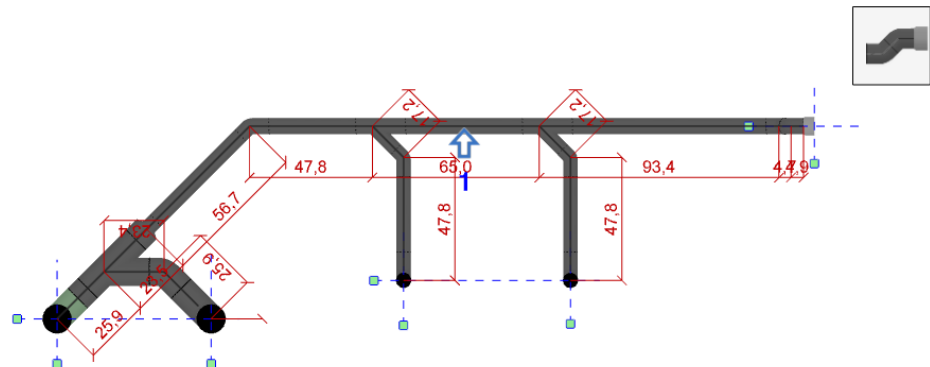
2. In the **Visualisation** area, select **Linear dimensions** as the **Dimension style** and dark red as the **Colour**.



3. Select the **Fabrication dimensions** in the **Automatic dimensions** area.

4. Click on **Generate**.

- ✓ Geberit ProPlanner inserts automatically created fabrication dimensions.



4.1.8.2 Adapting fabrication dimensions

You need to adapt the automatically created dimensions, as they are only partly legible. To do so, delete, move unfavourably placed dimension lines and add more dimension lines. Also adapt dimension numbers shown upside down.

4.1.8.2.1 Hiding the front view arrow

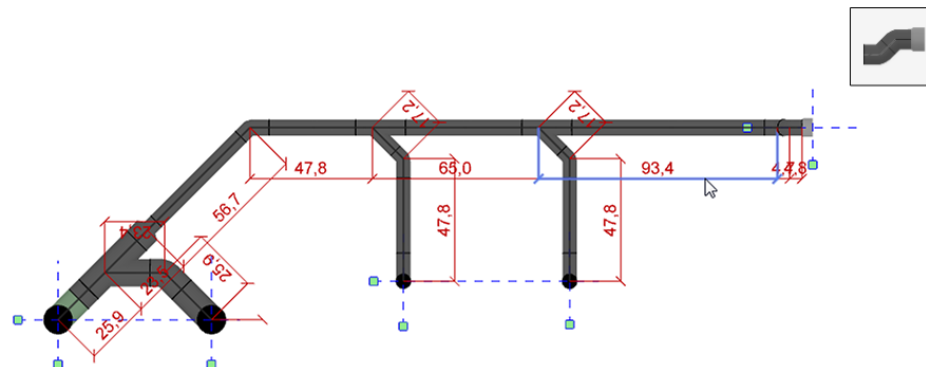
First hide the front view arrow to obtain a better overview.



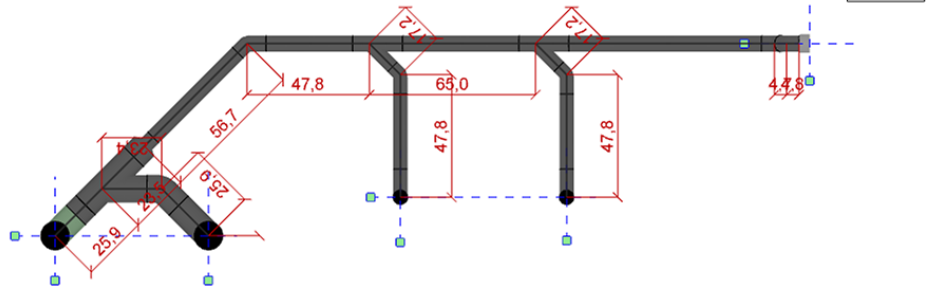
- Click in the toolbar on **Display front view arrow**.

4.1.8.2.2 Deleting dimension lines

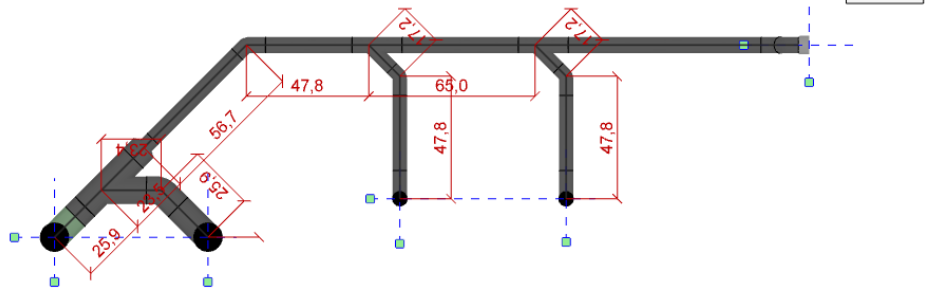
1. Click on the long dimension line between the branch fitting to the second washbasin and the connection of the bathtub.



2. Press **DEL** to delete the highlighted dimension line.



3. In the same way, delete the two short dimension lines at the connection of the bathtub.

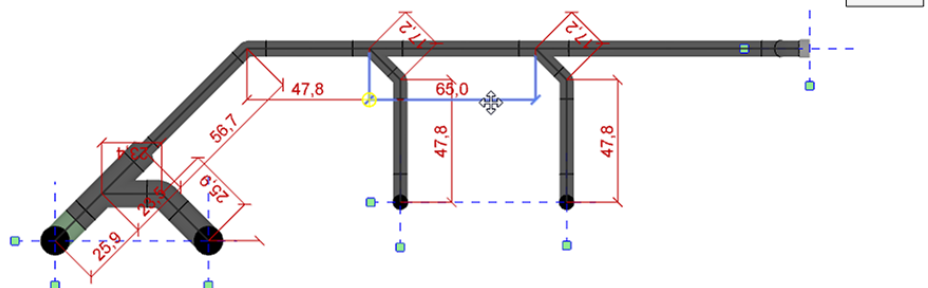


You can simultaneously delete several dimension lines by highlighting them by pressing and holding down **CTRL** and pressing **DEL**.

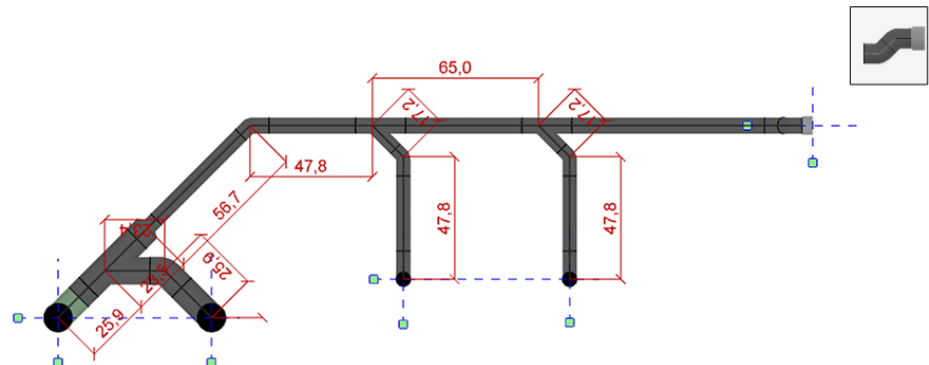
4.1.8.2.3 Moving dimension lines



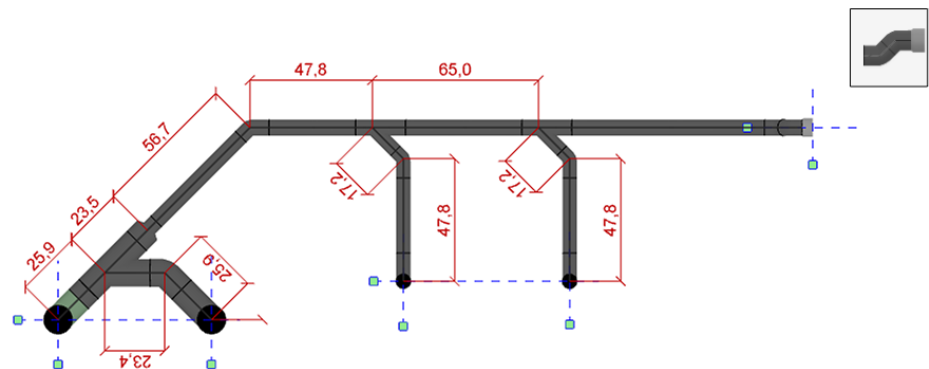
1. Click in the toolbar on **Move infotexts and dimensions**.
2. Click on the dimension line between the two branch fittings to the washbasins.



3. Hold down the left mouse key to move the dimension line upwards and release the mouse key.



4. Move all the dimension lines in the same way.



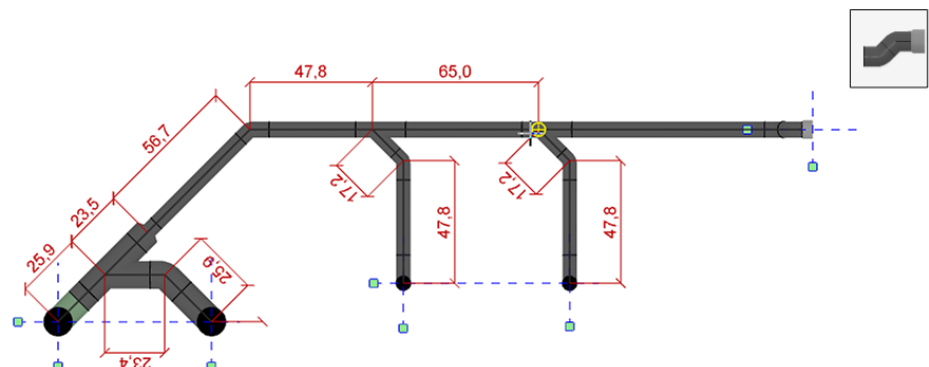
5. Press **ESC** to exit the function.

4.1.8.2.4 Completing fabrication dimensions

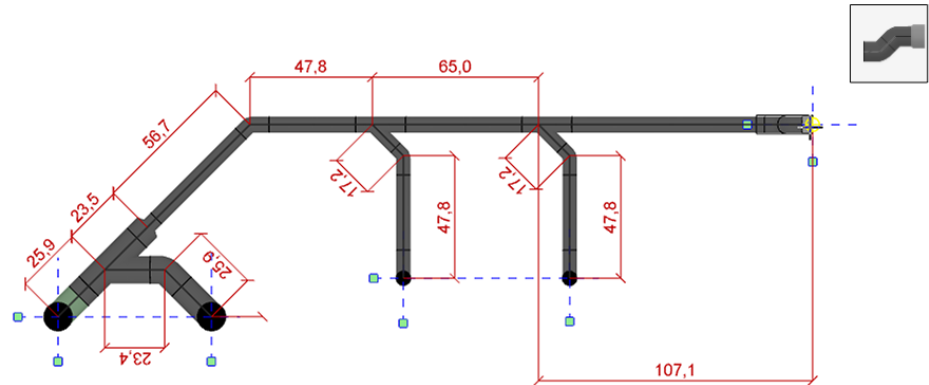
Now manually create a new dimension line for the dimension lines you have just deleted.



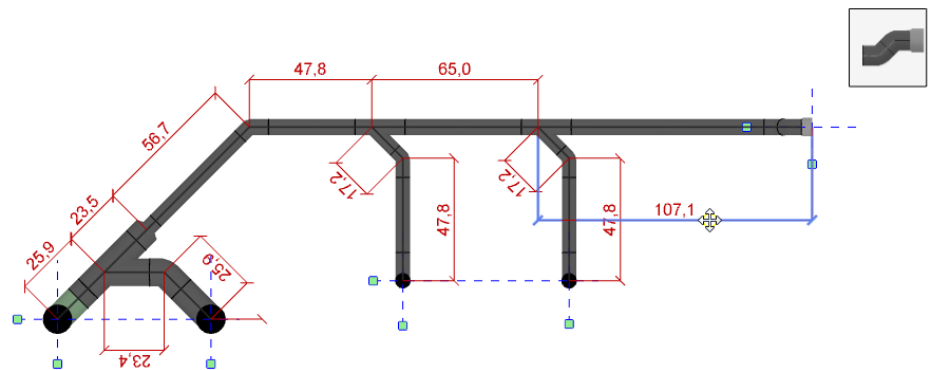
1. Click on **Insert horizontal dimensions** in the **Manual dimensions** area in the **Fabrication dimensions** tab.
2. Move the cursor to the branch fitting to the second washbasin until the cross-hair engages into the existing dimension line.



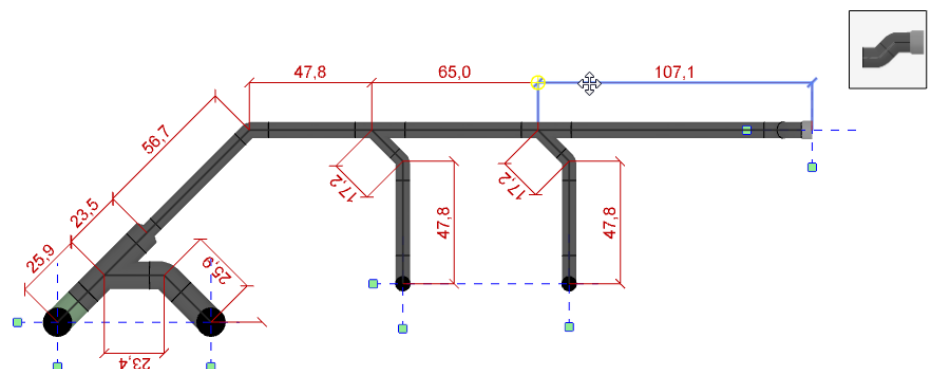
3. Click in the drawing area to define the starting point of the dimension line.
4. Move the cursor to the right to the end of the connection for the bathtub and click in the drawing area as soon as the cross-hair snaps into the end of the fitting.



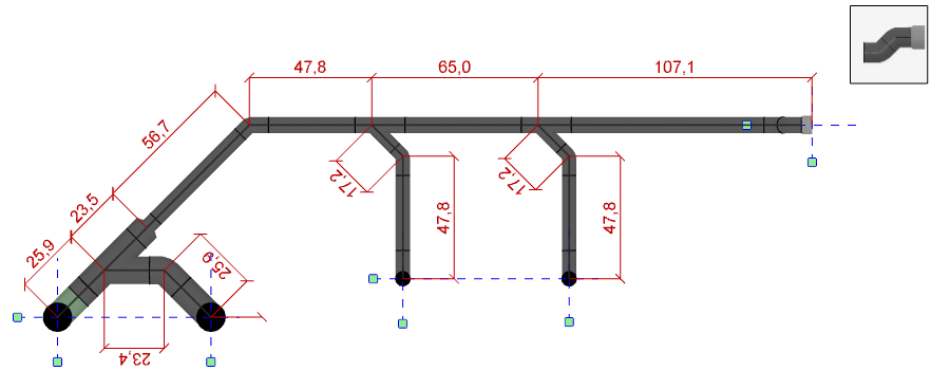
5. Press **Esc** to exit the drawing of the dimension lines.
✓ The dimension line is suspended from the cursor and can be moved.



6. Move the dimension line upwards until it snaps into the existing dimension line.



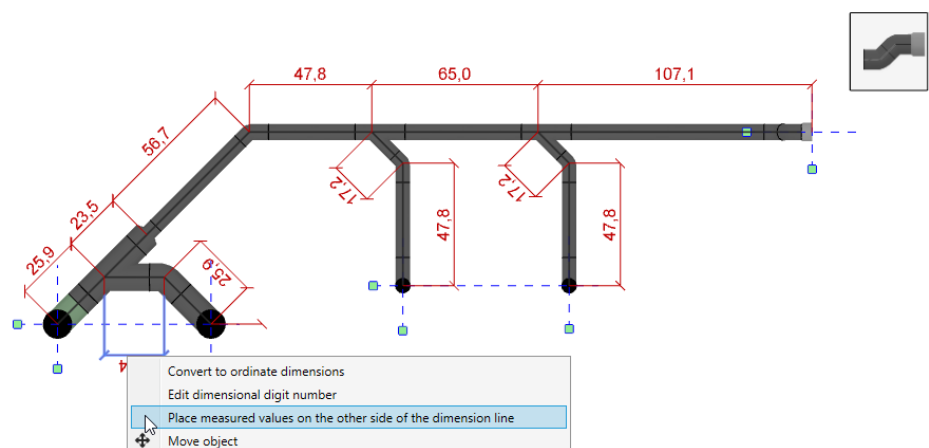
7. Click in the drawing area to place the dimension line.



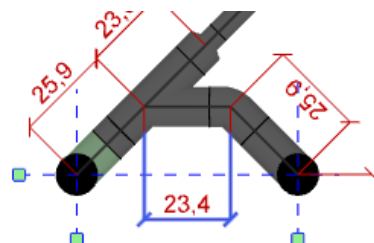
4.1.8.2.5 Adapting the alignment of the dimension numbers

To complete the adjustments, correctly adapt the dimension numbers shown upside down.

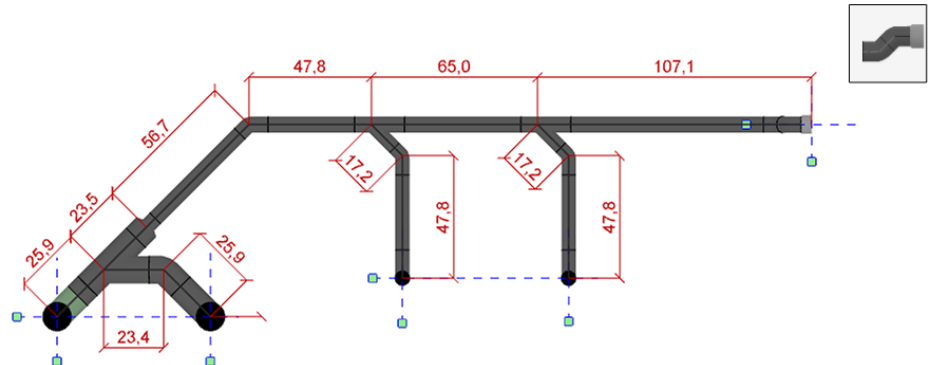
1. Right-click on the dimension line between the stack and the WC connection.
2. Select **Place measured values on the other side of the dimension line** in the pop-up menu.



- ✓ The dimension figure has been moved to the other side of the dimension line.



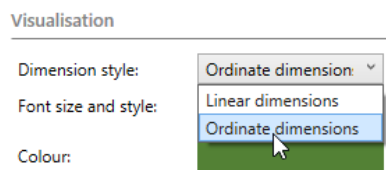
3. In the same way, adapt the alignment of all dimension numbers shown upside down.



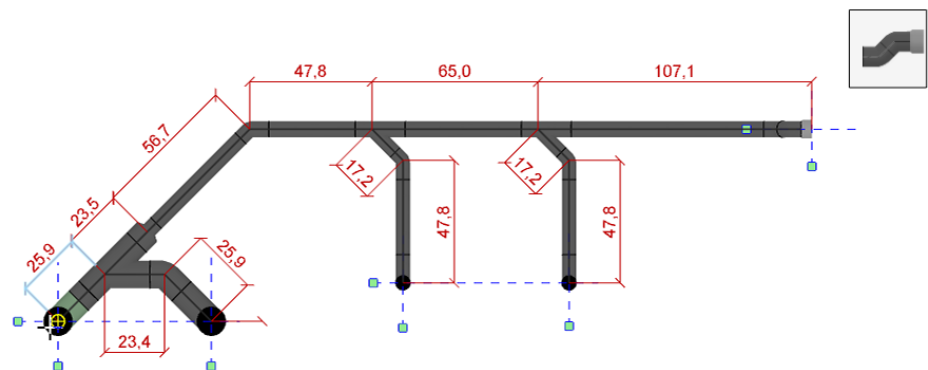
4.1.8.3 Inserting construction dimensions

Finally add the construction dimensions as a dimensional chain.

1. Switch to the **Construction dimensions** tab.
2. Select **Ordinate dimensions** as the **Dimension style** in the **Visualisation** area, and select green as the **Colour**.

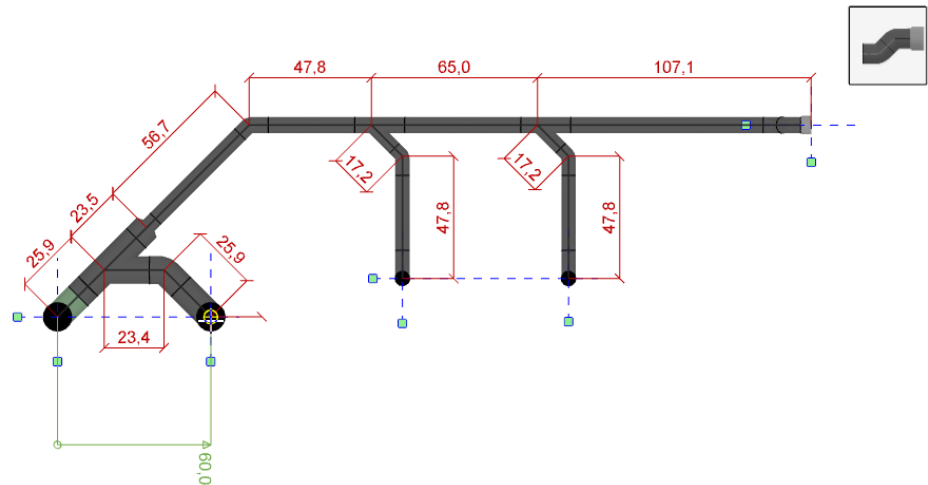


3. Click on **Insert horizontal dimensions** in the **Manual dimensions** area.
4. Move the cursor over the stack until the cross-hair snaps in.

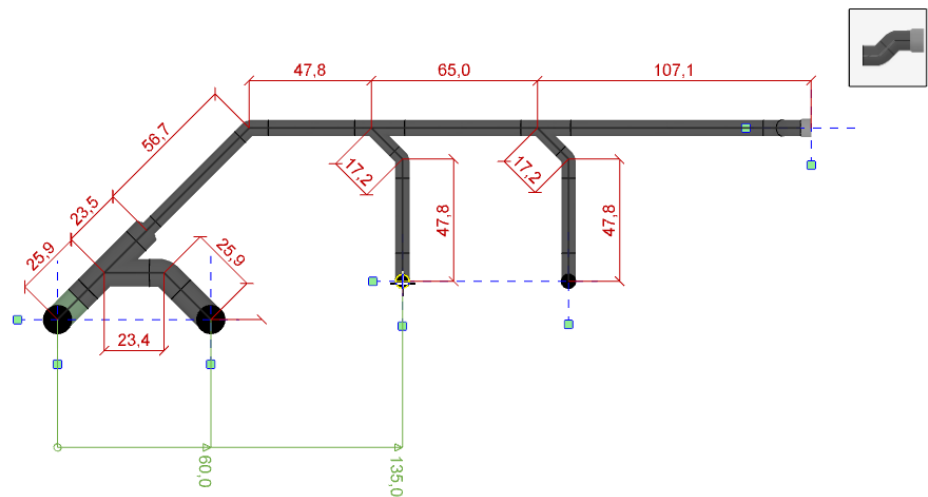


5. Click in the drawing area to set the starting point of the dimensional chain.

6. Move the cursor to the right to the connection of the WC.

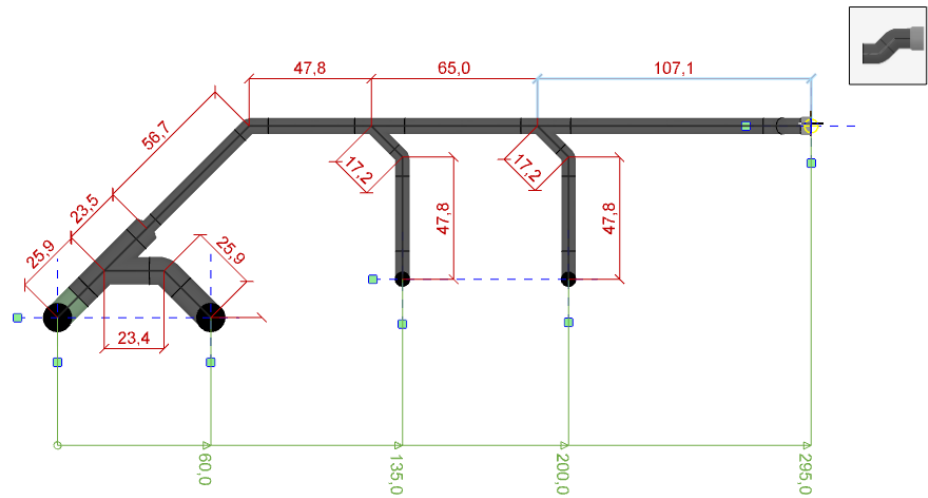


7. Click in the drawing area as soon as the cross-hair snaps into the fitting.
8. Move the cursor to the right onto the connection of the first washbasin.



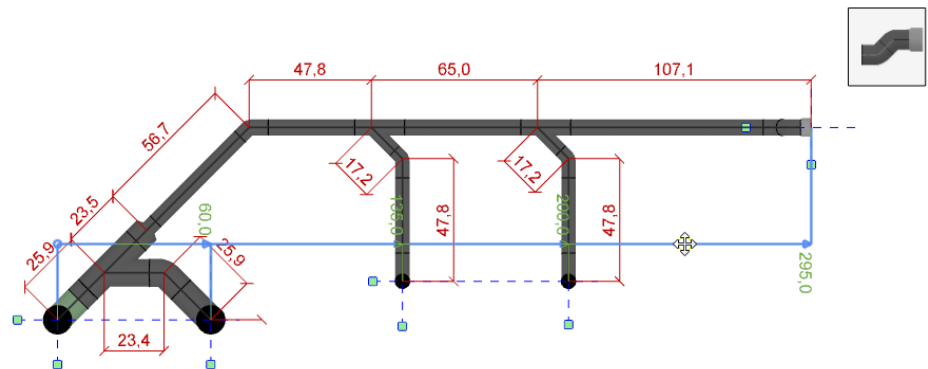
9. Click in the drawing area as soon as the cross-hair snaps into the fitting.

10. In the same way, extend the dimensional chain to the connection of the bathtub.

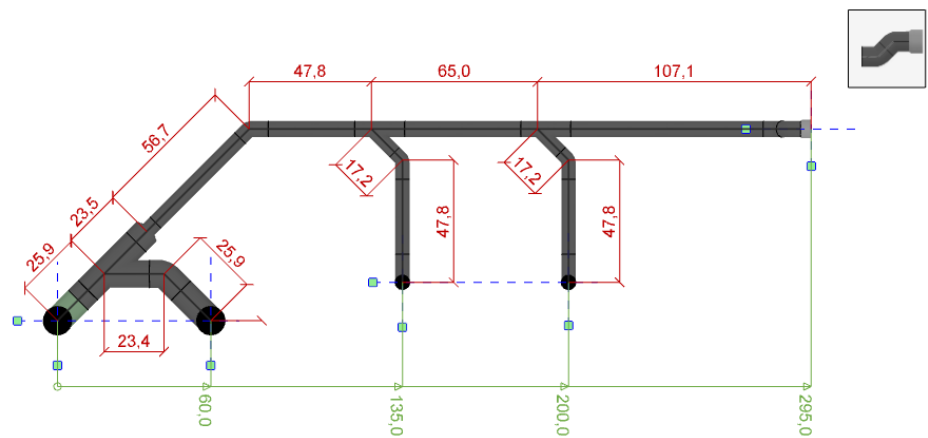


11. Press **ESC** to finish drawing the dimensional chain.

- ✓ The dimensional chain is now suspended from the cursor and can be moved upwards or downwards.

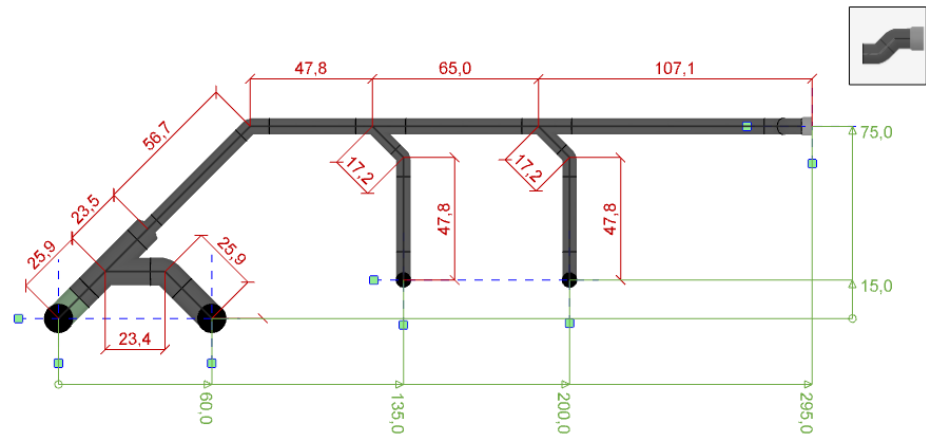


12. Move the dimensional chain to the required position and click in the drawing area.





13. Insert the vertical dimensions in the same way. Use the **Insert vertical dimensions** function for this.



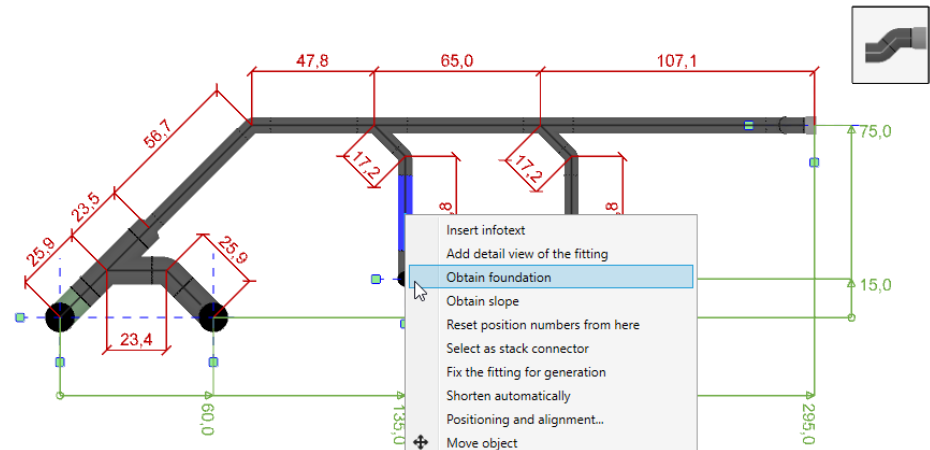
4.1.9 Inserting information on invert and slope

At the end of dimensioning, insert information on invert and slope.

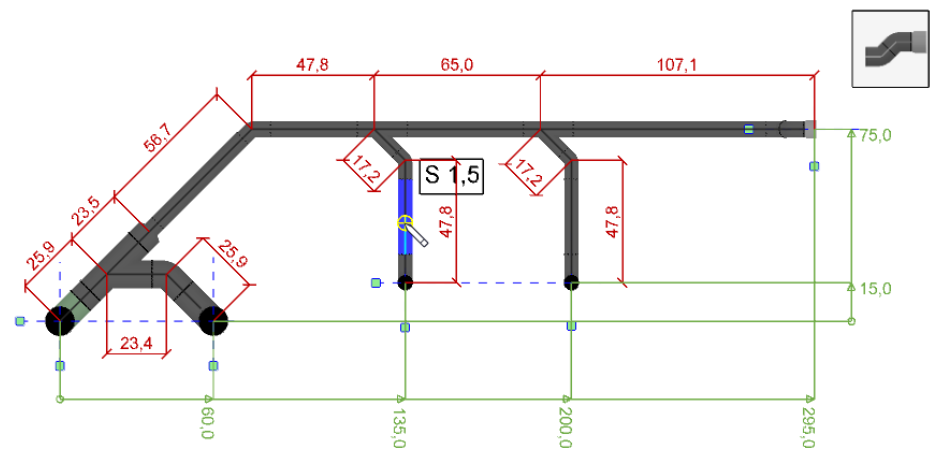
4.1.9.1 Obtaining foundation



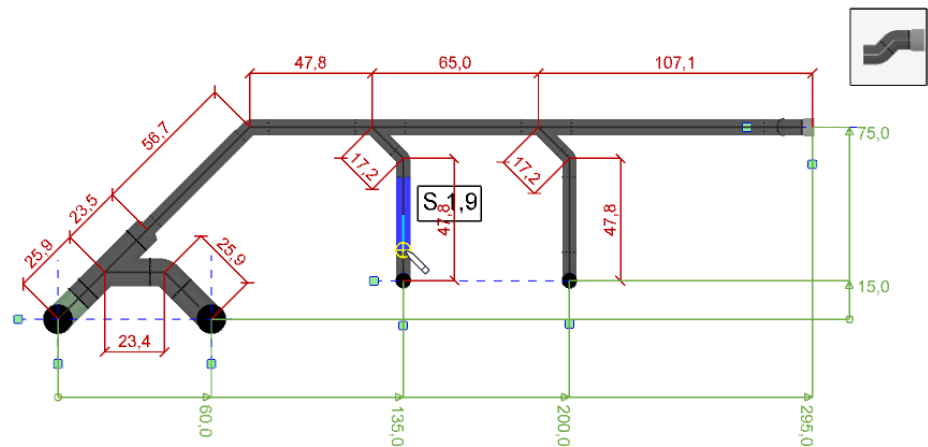
1. Show the **Waste water prefabrication** window.
2. Right-click on the pipe at the connection of the first washbasin and select **Obtain foundation** in the pop-up menu.



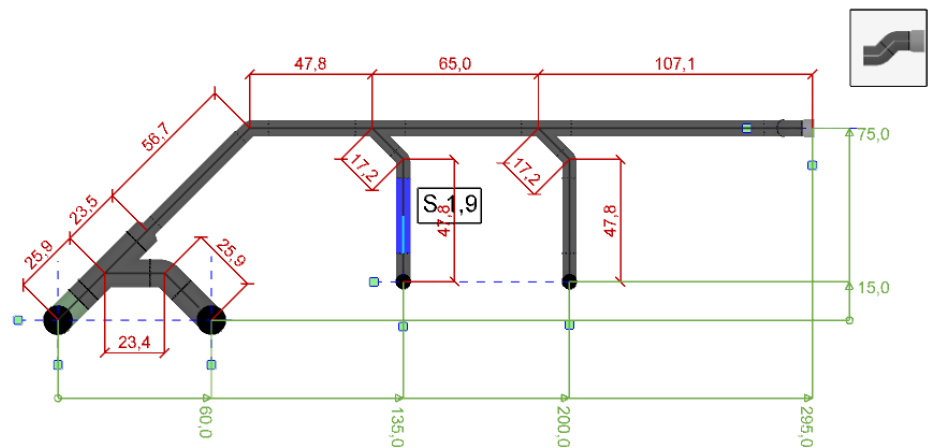
✓ The cursor changes to **Obtain foundation** mode.



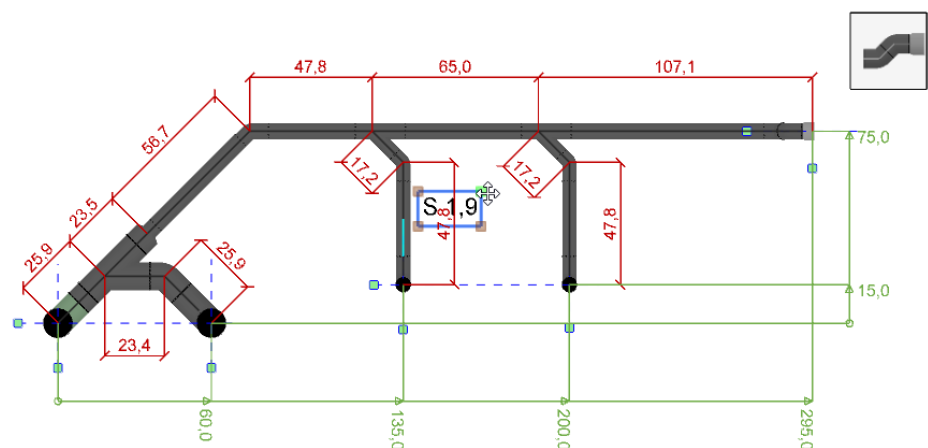
3. Move the cursor along the pipe and click in the drawing area on the transition to the fitting of the washbasin.



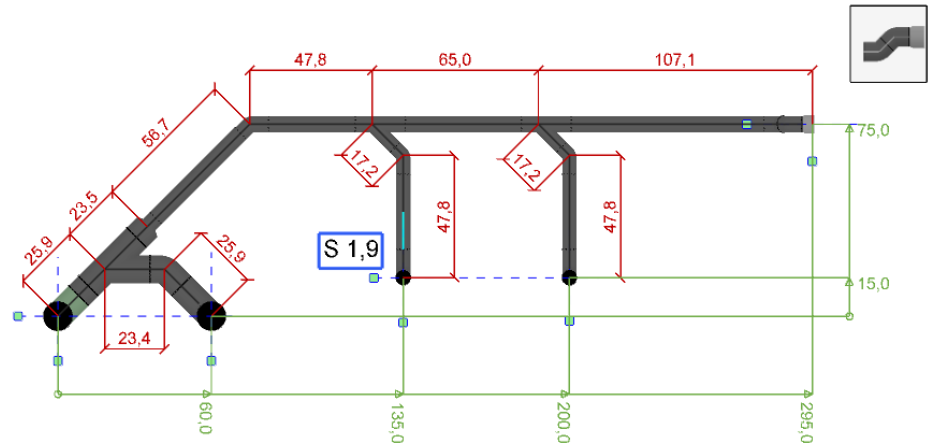
4. Press **ESC** to exit the function.



5. Highlight the text field with the information on invert and click on **Move object** in the toolbar.
✓ Reference points appear on the text field.
6. Click on one of the reference points.

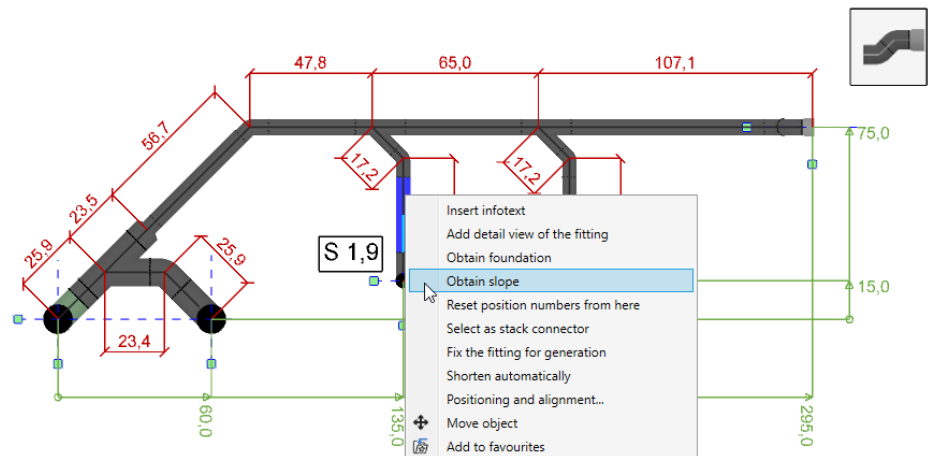


7. Move the text field into an area where it does not overlap the dimension lines and click in the drawing area.

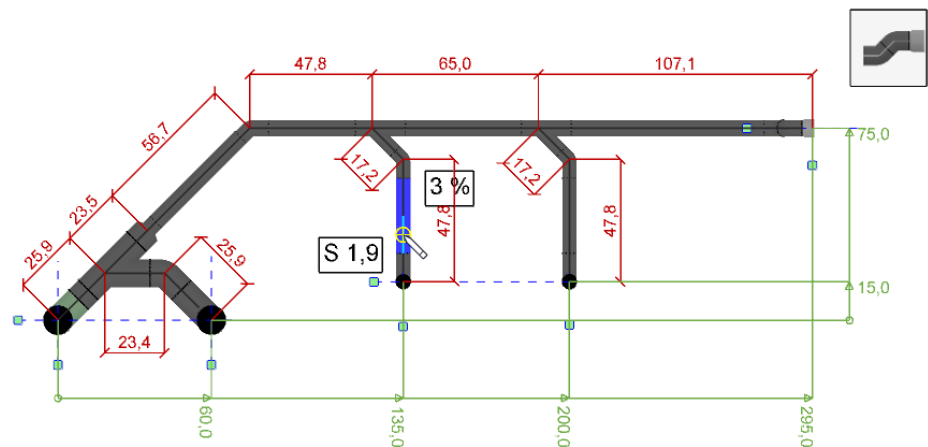


4.1.9.2 Obtaining slope

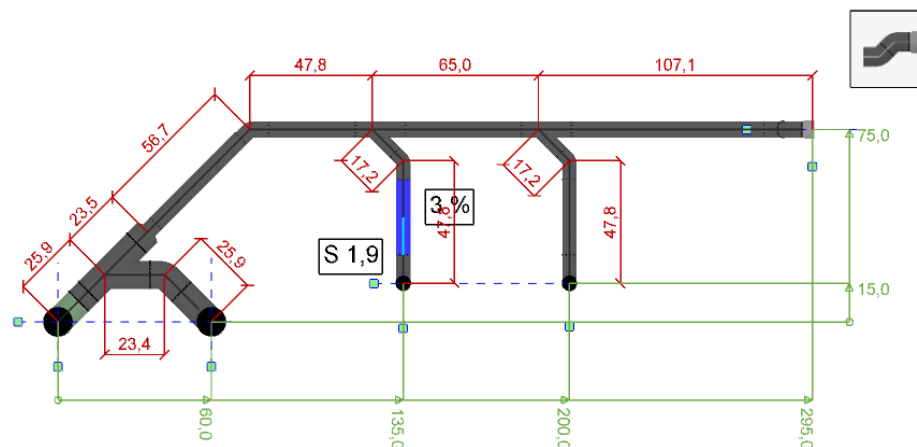
1. Right-click on the pipe at the connection of the first washbasin and select **Obtain slope** in the pop-up menu.



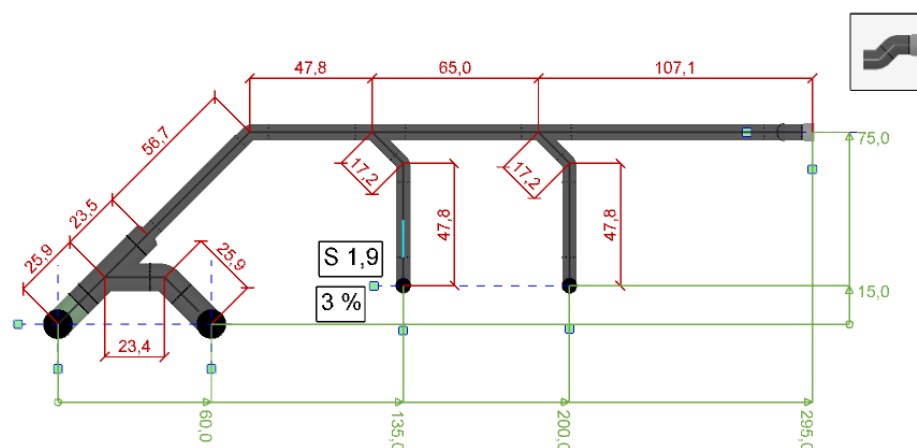
- ✓ The cursor changes to **Obtain slope** mode.



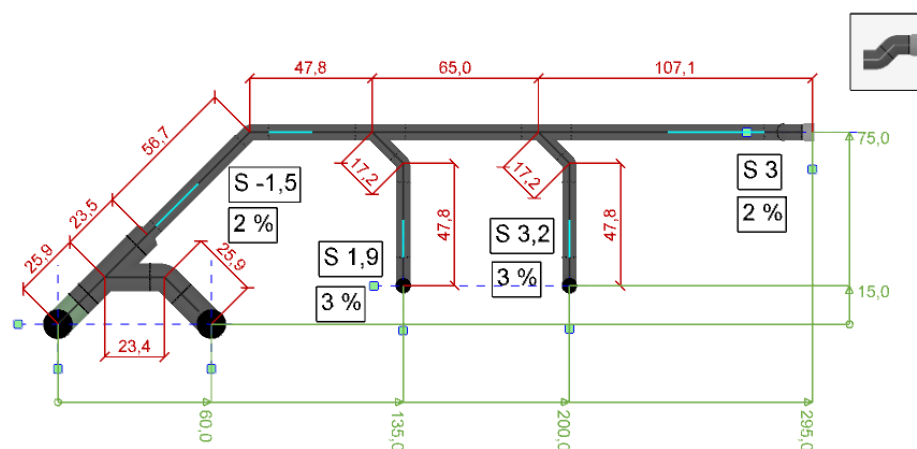
2. Move the cursor along the pipe and click in the drawing area.
3. Press **Esc** to exit the function.



4. Use the **Move object** function to move the text field back to a position where it does not overlap the dimension lines.



5. Insert the information on invert and slope to your plan at additional positions in this same way.



If need be, you can change the content of a text field by double-clicking on the text field.

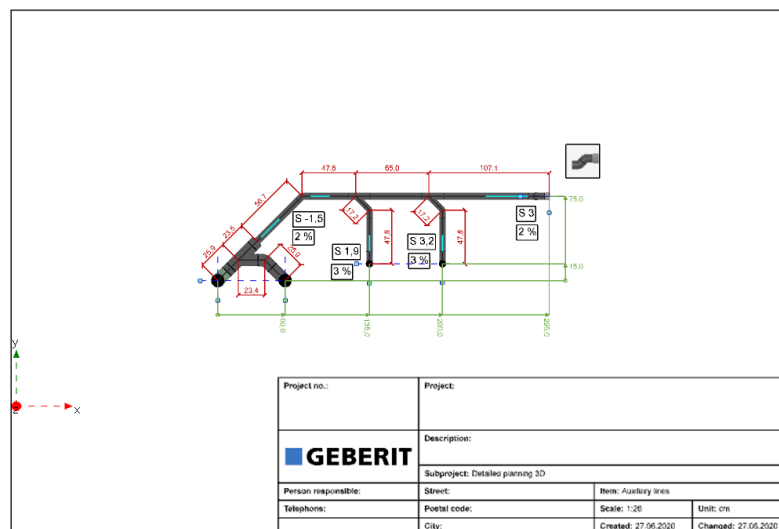
4.1.10 Defining the paper format and drawing scale

Once you have completed the dimensions, adjust the paper format, alignment and the drawing scale. Select a paper format and alignment supported by your printer.

4.1.10.1 Defining the paper format

1. Double-click on the title block in the drawing area.
✓ The **Properties** window appears.
2. Deactivate **Apply the default settings**.
3. Select **A4** as the **Paper format** and A4 and **Landscape** as the **Orientation** for this planning example.
4. Leave the predetermined drawing scale.

5. Click on **OK** to apply the settings.
✓ The drawing frame has been adapted.
✓ There is too much unused space around the drawing.



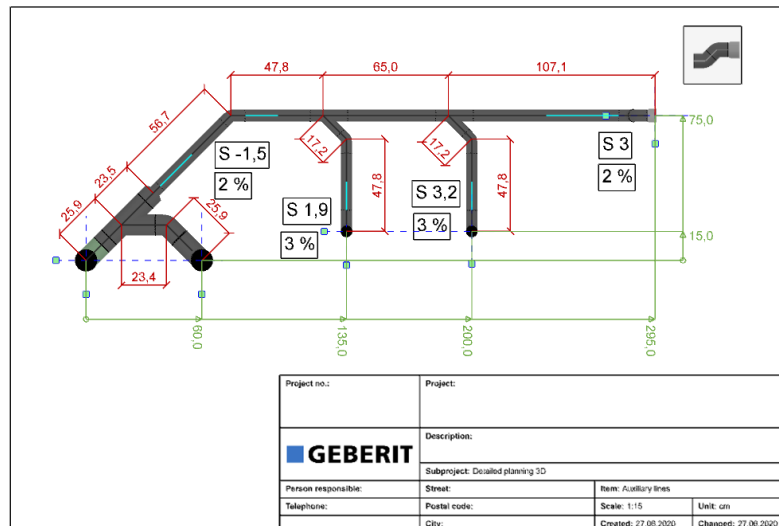
4.1.10.2 Defining the drawing scale

Adapt the drawing frame to display the drawing as large as possible in the drawing frame.



1. Click on **Adjust drawing frame** in the toolbar.

✓ The drawing frame is defined so that your plan is visualised to fill the space. This is the smallest scale with which you can print your drawing on the selected paper format.



2. Double-click on the title block in the design area window.

✓ The **Properties** window appears.

✓ The automatically calculated minimum scale, e.g. 1:14, appears in the **Scale** field.

3. Increase the scale to the next standard ratio (i.e. **1:15**).

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

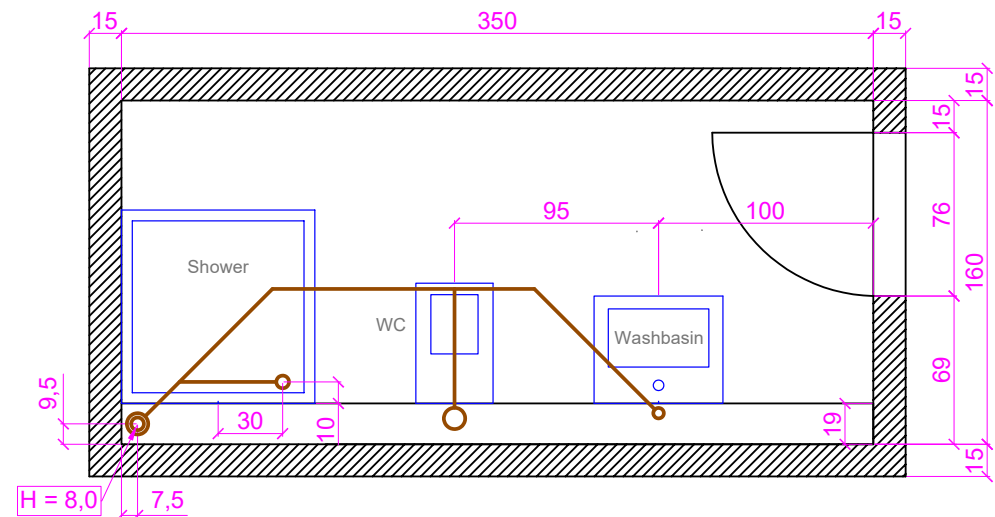
4.2 Drawing with connection points

You will learn in the "Drawing with connection points" planning example how to draw a simple room and place objects in the room. You will then use known functions to place and create fittings. Finally label your plan and create a mirrored copy of the room.

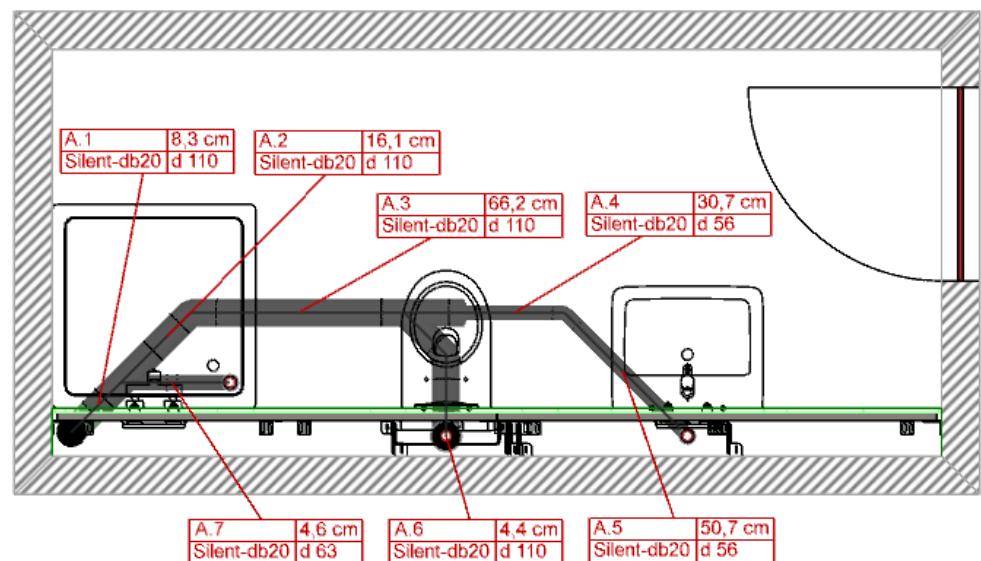
This chapter covers the following topics:

- Drawing a room and placing sanitary appliances
- Precisely positioning fittings
- Defining port positions of sanitary appliances
- Adding connecting points
- Displaying and positioning labels
- Mirroring plans

The following drainage system is planned in this planning example:



CAD plan



View in Geberit ProPlanner

4.2.1 Selecting an installation unit

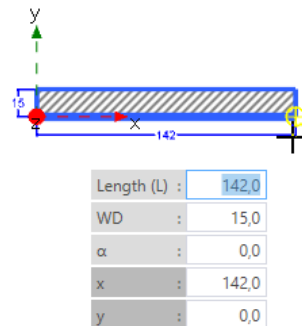
- Select the **Connection points** installation unit in the **Building** window.



4.2.2 Drawing rooms

You can draw rectangular rooms or rooms with single solid walls and lightweight walls. Opt for one version depending on your particular case. We will now show you how to draw a single rectangular room.

Use the cursor entry to define the dimensions of the room or wall respectively when drawing a room or a wall:



You can, for example, directly define the following dimensions using the cursor entry:

- Wall length
- Wall thickness
- Angle with reference to the reference point
- x and y coordinates with reference to the reference point

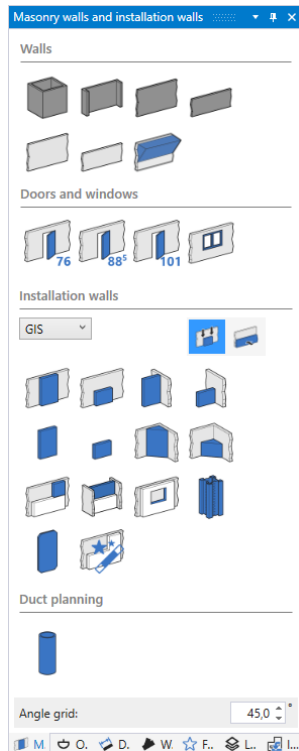
You can determine the wall length using the Length or the x and y coordinates.

Press the **Tab** key to switch between the single input fields.

4.2.2.1 Drawing rooms



1. Show the **Masonry walls and installation walls** window.

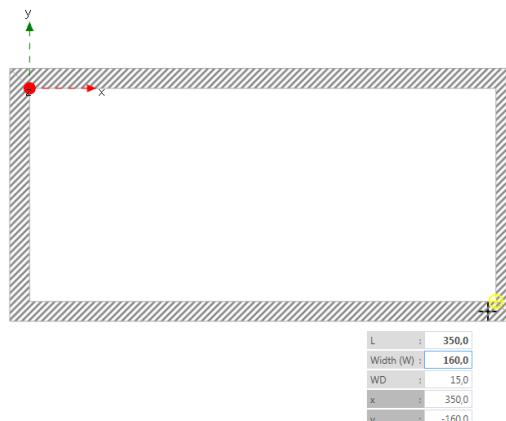


2. Select the **Room made of solid walls** function in the **Walls** area.
3. Move the cursor into the drawing area.
✓ The cursor entry appears at the cursor.



Wall depth (WD) :	15,0
x :	106,0
y :	247,0

4. Click in the drawing area to place the starting point.
5. In the cursor entry, enter the value **350** cm in the **Length (L)** field and the value **160** cm in the **Width (W)** field.

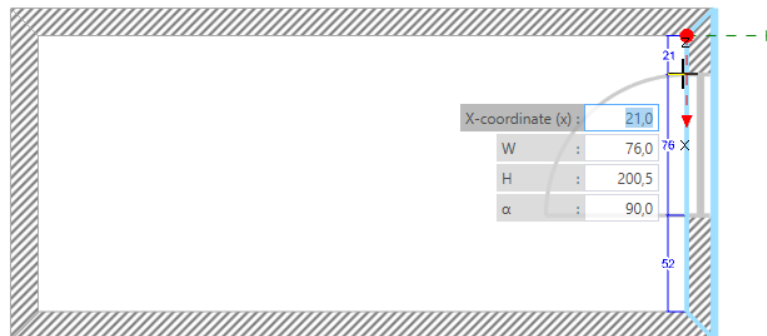


6. Confirm your entries with **Enter**.

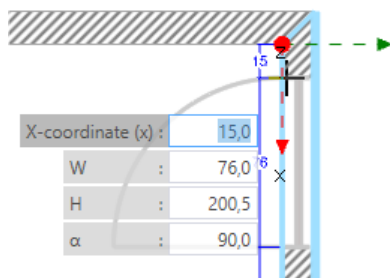
4.2.2.2 Inserting doors



1. Select the **Door (76x200.5)** in the **Doors and windows** area.
2. Position the cursor on the right wall and specify that the door opens inwards.



3. Enter the value **15 cm** in the **X-coordinate (x)** field. This equates to the distance of the door from the wall.



4. Confirm your entry with **Enter**.



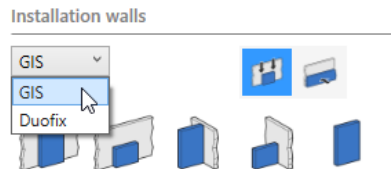
4.2.2.3 Changing the hinge side of the door

- Right-click on the door and select **Change hinge side** in the pop-up menu.



4.2.2.4 Inserting installation walls

1. Select the **GIS** installation system in the **Installation walls** area.



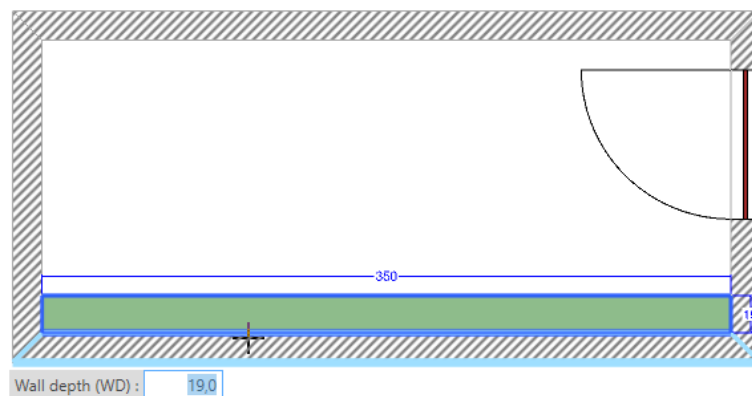
Select the **Duofix** installation system if the **GIS** installation system is not available in your market.



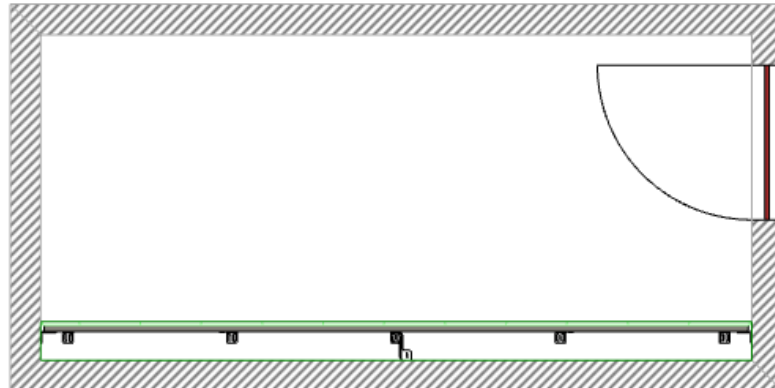
2. Select the **Room-height prewall**.



3. Select **Auto** drawing mode.
4. Position the cursor on the inside edge of the lower wall.
✓ A preview of the installation wall is displayed.



5. Enter the value **19 cm** in the **Wall depth (WD)** field and confirm with **Enter**.



Additional information on walls can be found under Help at **Detailed planning 3D > Placing and adapting walls > Drawing rooms and walls**.

4.2.3 Inserting objects

You can now insert your objects into the room just created. In doing so, you will also meet functions which Geberit ProPlanner can automatically rectify installation situations identified as being incorrect.

4.2.3.1 Reference Points

Geberit ProPlanner works with a reference point to which the walls and other objects are relatively aligned. The reference point is highlighted by a red point and two axes.



The reference point is automatically assigned by default and is reset according to the highlighted object. In some cases it may be advantageous if the reference point is assigned manually for the planning of distances.



- As soon as an object has been placed, the position of the cursor (for example on the inner or outer edge of a wall) affects where the reference point is placed.
- Align the axes of the reference point as required as soon as you manually set the reference point. Additional information can be found under Help at **Detailed planning 3D > Reference point**.

4.2.3.2 Inserting a washbasin

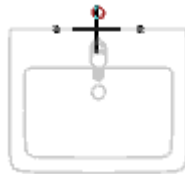
Insert the washbasin as the first object in your plan.



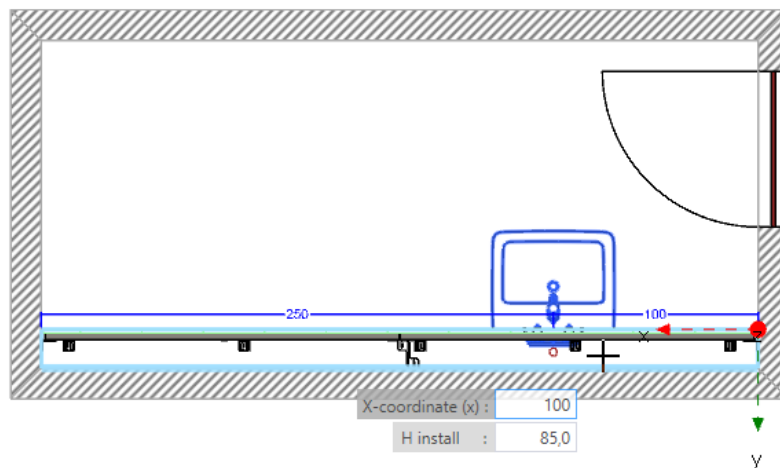
1. Show the **Objects** window.



2. Select the **Washbasin**.
✓ The washbasin is suspended from the cursor.



3. Move the cursor onto the installation wall. Make sure that the reference point lies to the right of the washbasin.
4. Enter the value **100** cm in the cursor entry in the **X-coordinate (x)** field. This equates to the distance of the washbasin from the right wall.



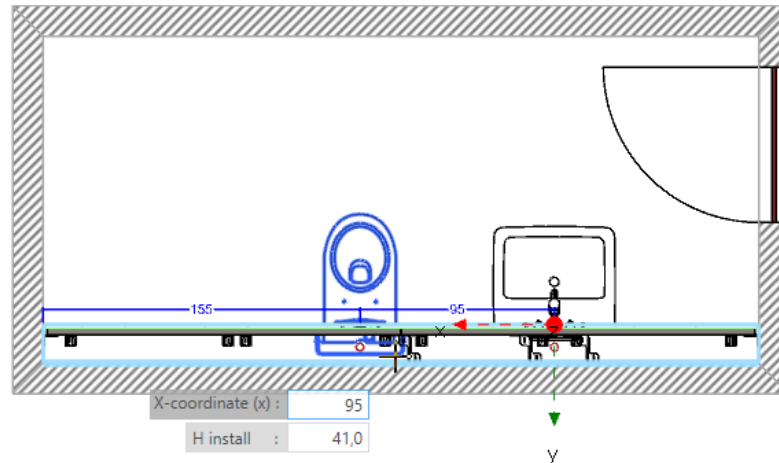
5. Confirm your entry with **Enter**.

4.2.3.3 Inserting a WC

Now insert the WC at the predetermined distance from the washbasin.



1. Select the **WC** in the **Objects** window.
2. Move the cursor onto the installation wall to the left of the washbasin so that the reference point lies to the right of the WC.
3. Enter the value **95** cm in the cursor entry in the **X-coordinate (x)** field. This equates to the distance of the WC from the washbasin.



4. Confirm your entry with **Enter**.

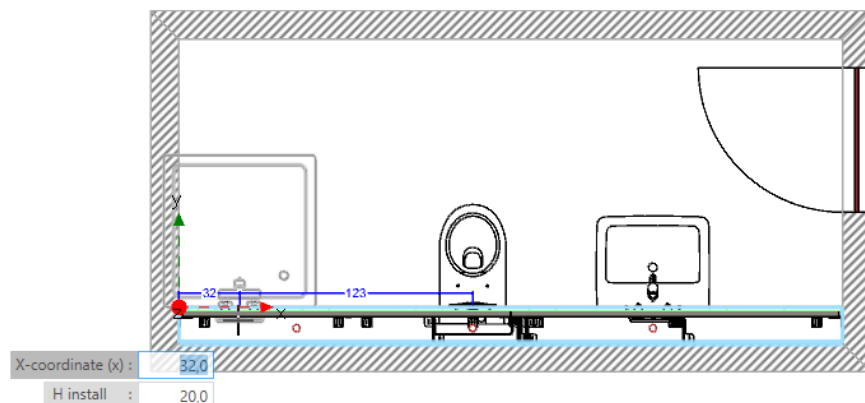
4.2.3.4 Inserting a shower

When entering objects, Geberit ProPlanner checks the respective installation situation. Incorrect installation situations are identified listed in the message list. In many cases, Geberit ProPlanner offers automatic correction of the error.

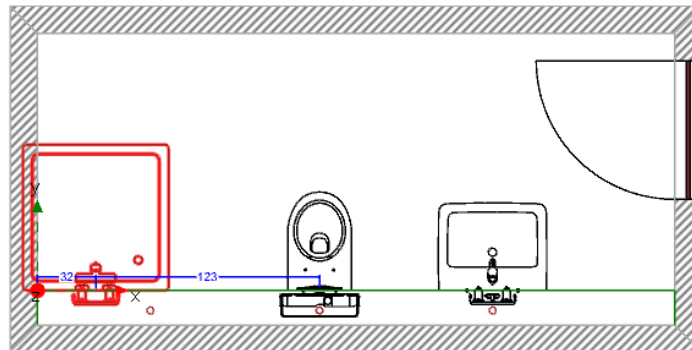
To understand this function, the shower is intentionally inserted incorrectly in the following step.



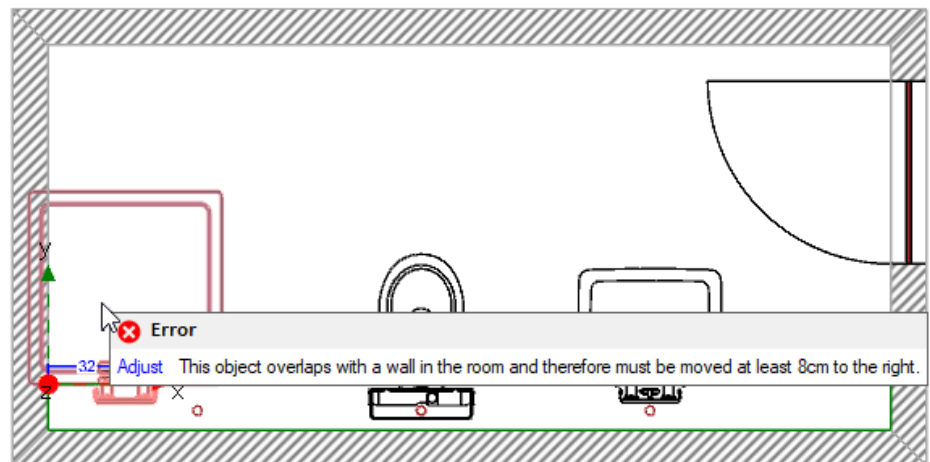
1. Select the **Shower** in the **Objects** window.
2. Use your mouse to place the shower so that the shower projects behind the wall.



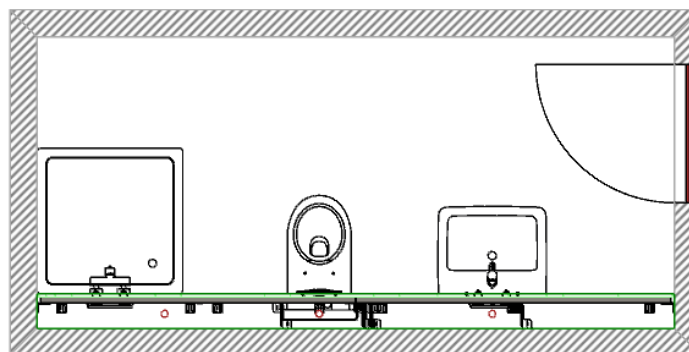
3. Click in the drawing area to insert the shower.
✓ The shower is inserted and appears red in the drawing area.



4. Hover with your cursor above the red highlighted shower.
✓ An error message appears.



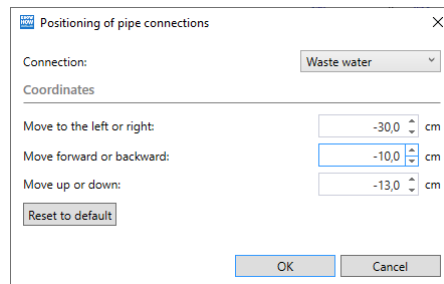
5. Click in the error message on the **Adjust** link to automatically rectify the error.
✓ The shower has been set at the correct distance to the wall.



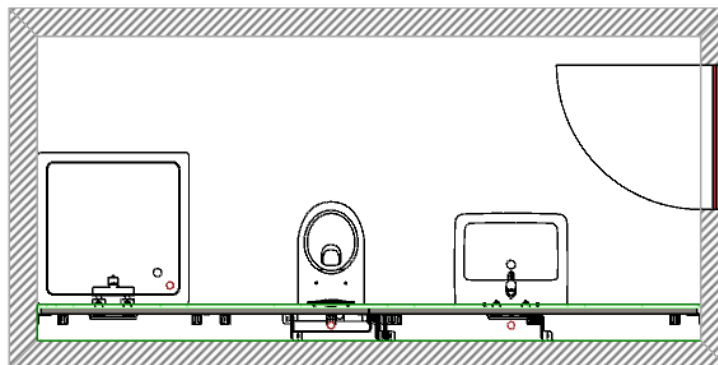
4.2.3.5 Moving the shower drainage connection

Move the drainage connection of the shower so that you subsequently have sufficient distance from the stack connector.

1. Right-click on the shower and select **Positioning of pipe connections** in the pop-up menu.
✓ The **Positioning of pipe connections** window appears.
2. Enter the value **-30** cm in the **Move to the left or right** field and the value **-10** cm in the **Move forward or backward** field. Leave **Move up or down** at its default value.



3. Click on **OK** to apply the settings.



4.2.4 Inserting fittings

In the next steps, insert the fitting for the stack connector and adjust its position precisely. Then show the connection points of the objects and draw the routing axis coming from them. Finally, have Geberit ProPlanner generate the required fittings.

As already described in the first training example, insert the fittings in the next steps.

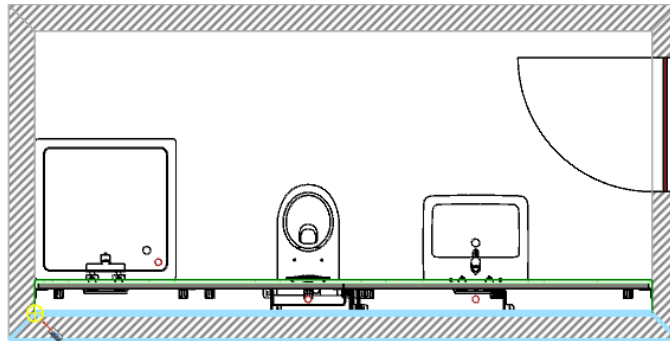
4.2.4.1 Manually placing reference points

The reference point is manually placed to insert the stack connector.

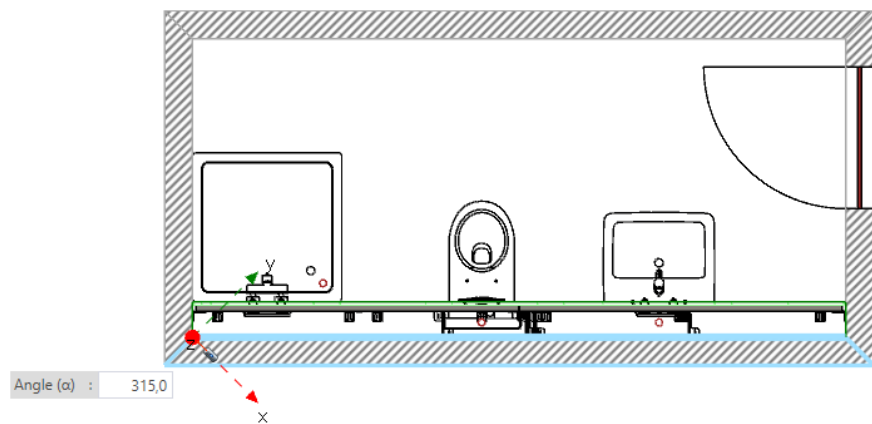


1. Activate the **Set reference point** function in the toolbar.

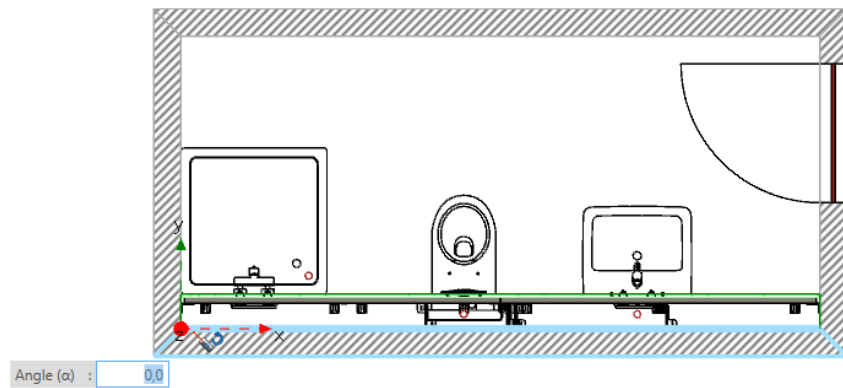
2. Move the cursor to the corner of the room shown.



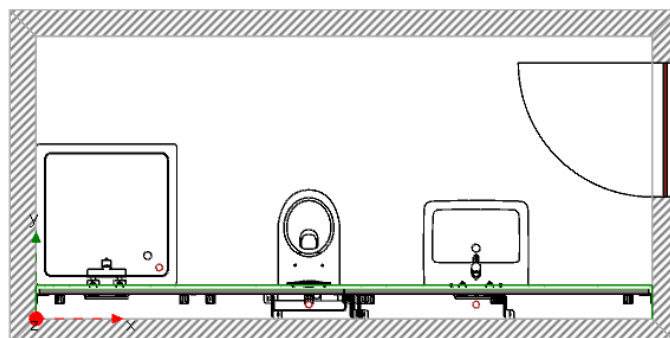
3. Click to place the reference point.



4. Move the cursor to define the alignment of the x and y-axis, as shown.



5. Click to place the reference point.

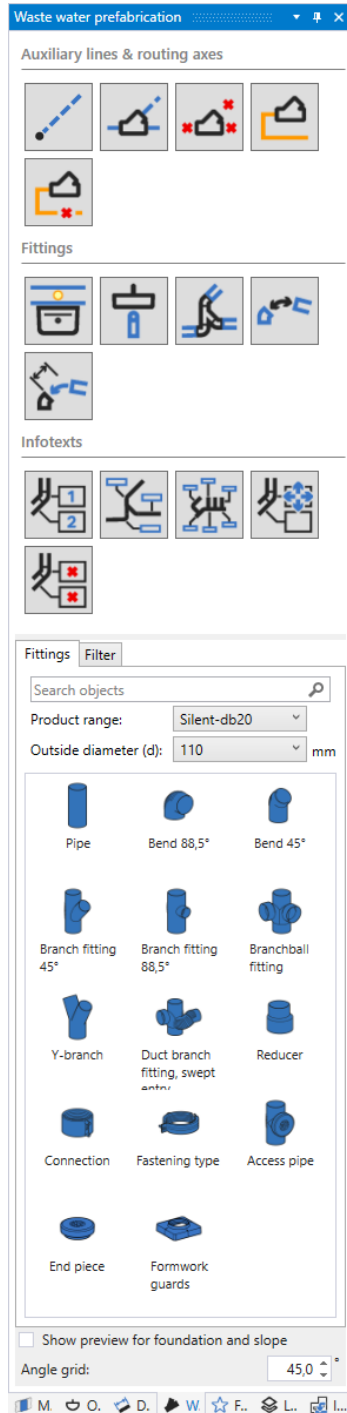


4.2.4.2 Inserting stack connectors

Roughly insert the stack connector in this step. Define the position more precisely in the next step.



1. Show the **Waste water prefabrication** window.

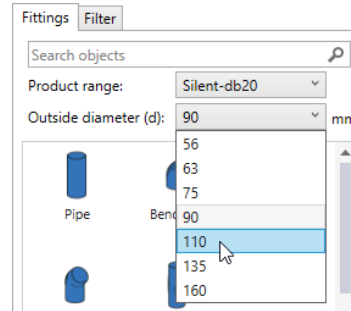


2. Select the **Product range Silent-db20**.



Select the **Geberit PE Product range** if the **Silent-db20 Product range** is not available in your market.

3. Select the value **110 cm** as the **Outside diameter (d)**.



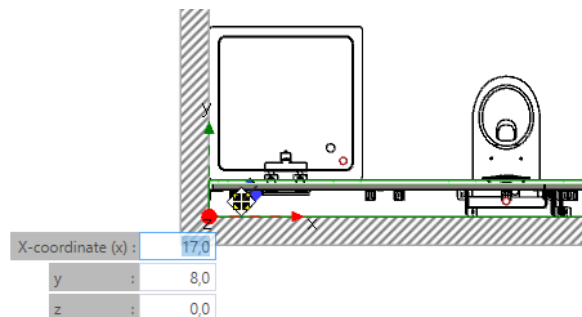
If this diameter is not available in your market or is not usual for stacks, select instead a common diameter used in your country for stacks.



4. Highlight the **branch fitting 88.5°**.
✓ The branch fitting is suspended from the cursor.
5. Use the **T** or **Z** key to rotate the branch fitting into the right position.



6. Move the branch fitting roughly onto the installation wall.

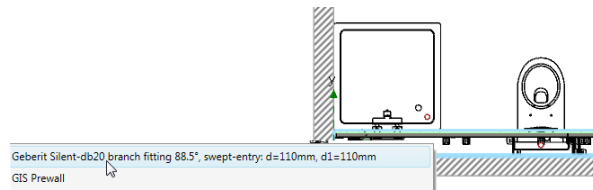


7. Click on the drawing area.
✓ The branch fitting appears as a stack connector (green).

4.2.4.3 Adapting the position of the branch fitting

Precisely define the position of the stack connector in this step. In doing so, you will also learn how to select a specific object below the cursor.

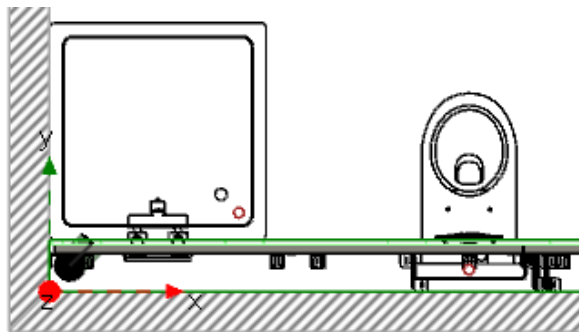
1. Place the cursor on the branch fitting and press the **Space bar**.
✓ A selection menu appears.
2. Select the branch fitting swept entry in the selection menu to highlight the branch fitting.



3. Right-click on the branch fitting and select **Positioning and alignment** in the pop-up menu.
✓ The **Positioning and alignment** window appears.
4. Enter the following values in the **Coordinates** area.

Coordinates		
X:	7,5	cm
Y:	9,5	cm
Z:	8,0	cm

5. Click on **OK** to apply the settings.



4.2.4.4 Automatically placing reference points

Switch back to the automatically placed reference point for the following steps.



- Click in the toolbar on **Assign reference point automatically**.

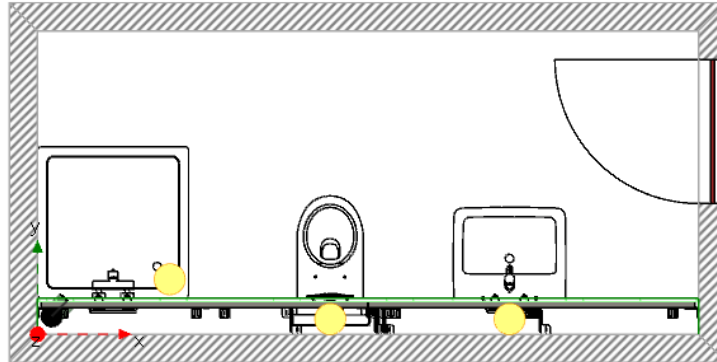
4.2.4.5 Showing connection points



1. Show the **Waste water prefabrication** window.



2. Click on **Show connection points**.

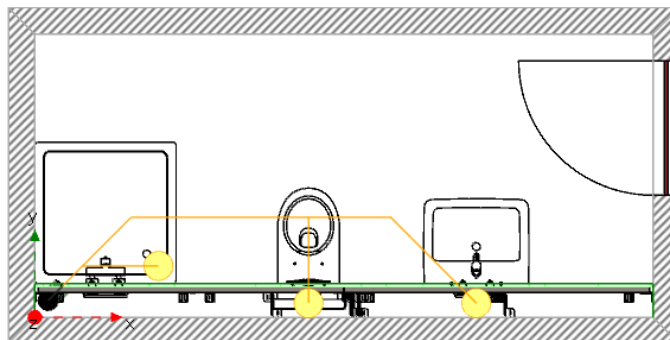


- If required, you can delete the single connection points. To do so, highlight the required connection point and press **DEL**.
- To show the single connection point, right-click on the respective sanitary appliance and select **Show connection points** in the pop-up menu.

4.2.4.6 Drawing routing axes

As in the first planning example, now draw the routing axis on which the required fittings are to be generated.

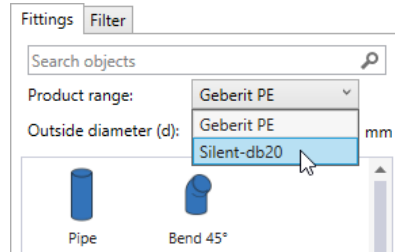
- As described in the "Drawing with auxiliary lines" planning example, draw the routing axis from the stack connector to the single connection points (see "Drawing routing axes", page 39). First draw the routing axis from the stack connector to the washbasin and then connect the shower and the WC.



4.2.4.7 Generating fittings

You can generate the fittings once all routing axes have been drawn.

1. Select the **Product range Silent-db20** in the **Waste water prefabrication** window.

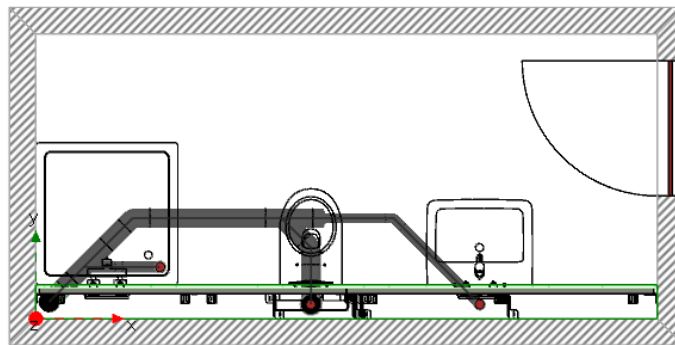


Select the **Geberit PE Product range** if the **Silent-db20 Product range** is not available in your market or generating with **Silent-db20** is not working.



2. Click in the **Generate fittings and pipes along routing axes** in the **Waste water prefabrication** window.

✓ Geberit ProPlanner generates the fittings along the routing axes.



Access additional information under Help at **Detailed planning 3D > Waste water prefabrication > Fittings**.

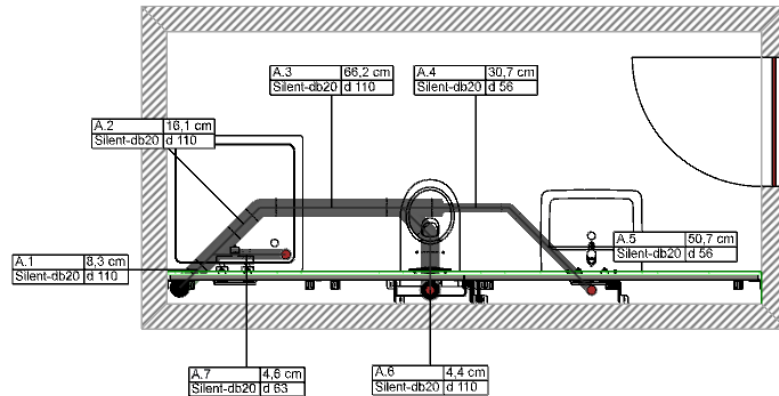
4.2.5 Labelling plans

At the end of this training example, label your plan with automatically generated infotexts. You can later move and adapt them.

4.2.5.1 Inserting infotexts



- Click on **Create and re-number infotexts for all fittings** in the **Waste water prefabrication** window.



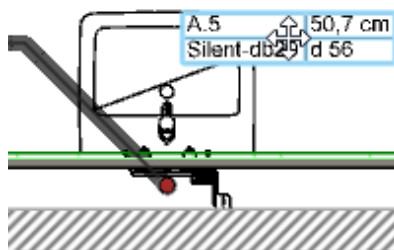
- You can add or remove single infotexts if required. To delete single infotexts, highlight the infotext and press **DEL**.
- Right-click on a fitting and select **Insert infotext** in the pop-up menu if you wish to add single infotexts.

4.2.5.2 Moving infotexts

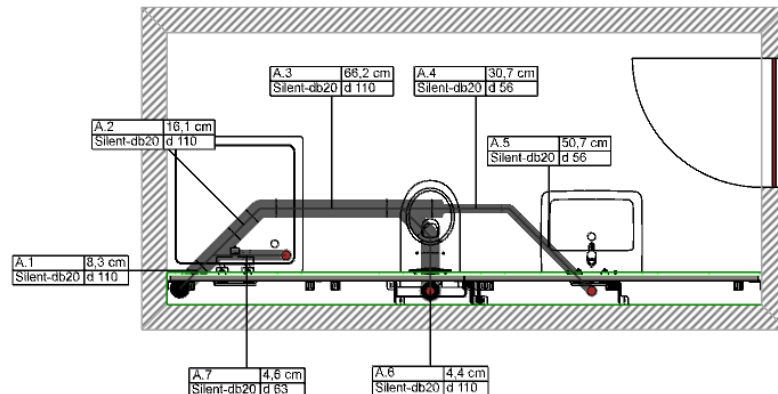
Move the overlapping labels to improve legibility and clarity.



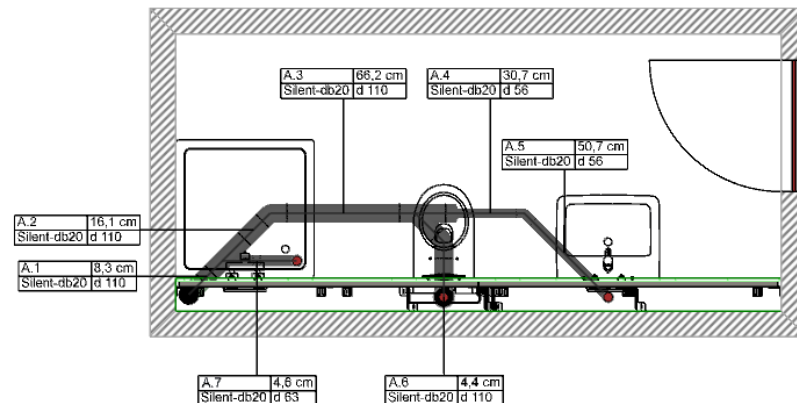
1. Click on **Move infotexts and dimensions** in the toolbar.
2. Click on an infotext and, holding down the left mouse key, move it into the required position.



3. Release the mouse key.



4. Arrange all other infotexts in the same way.




5. Press **ESC** to exit the function.



Click on **Rearrange selected information text** or **Arrange selected information text as a circle** to automatically arrange the infotexts.

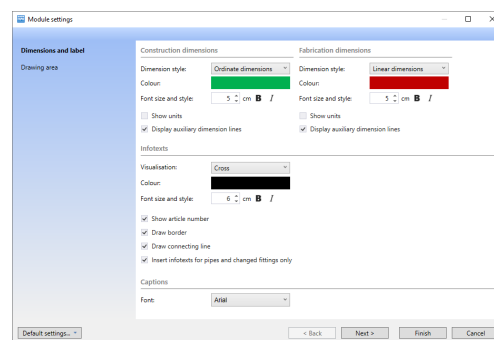
4.2.5.3 Adapting label settings

Geberit ProPlanner offers different visualisation options for the infotexts. You can also subsequently select and adapt them in the module settings.

Visualisation						
Cross	Circle	List				
<table><tr><td>A.1</td><td>8,3 cm</td></tr><tr><td>Silent-db20</td><td>d 110</td></tr></table>	A.1	8,3 cm	Silent-db20	d 110		<div>Item no.: A.1 Geberit Silent-db20 pipe: d=110mm Art. no.: 310.000.14.1 Cutting length: 8,3 cm</div>
A.1	8,3 cm					
Silent-db20	d 110					

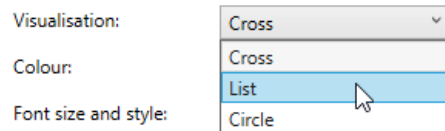
1. Click on **Module settings** in the **Detailed planning 3D** menu.

✓ The **Module settings** window appears.



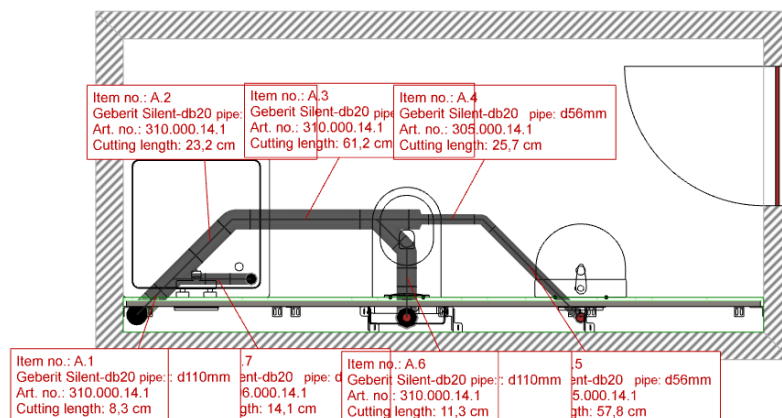
2. Select the **List Visualisation** in the **Infotexts** area.

Infotexts



3. Select dark red, for example, as the **Colour**.

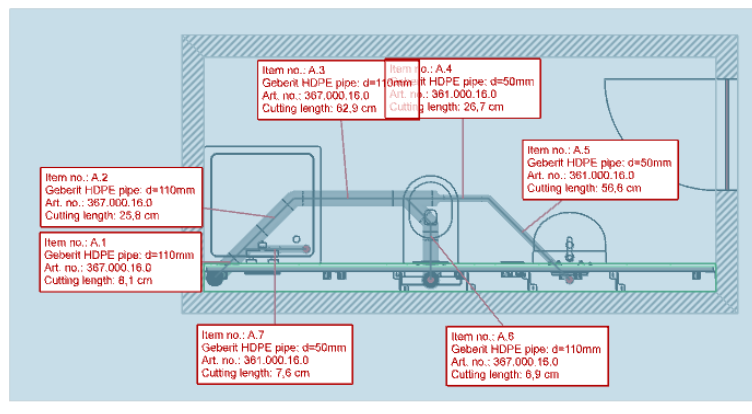
4. Click on **Finish** to apply the settings.



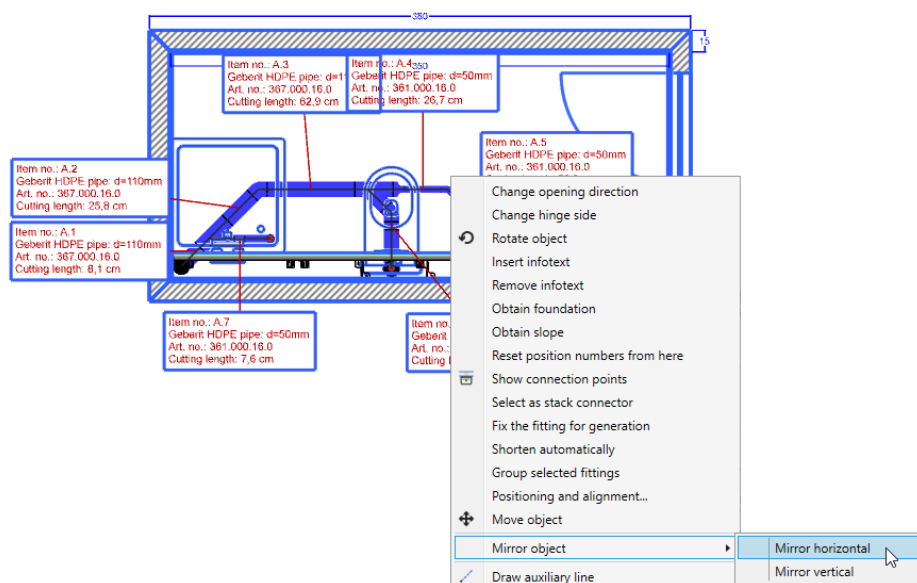
4.2.6 Mirroring plans

You can mirror single fittings or complete assemblies to simply create a mirrored copy of your plan. You will now create a mirrored copy of the complete room including all objects, assemblies and labels.

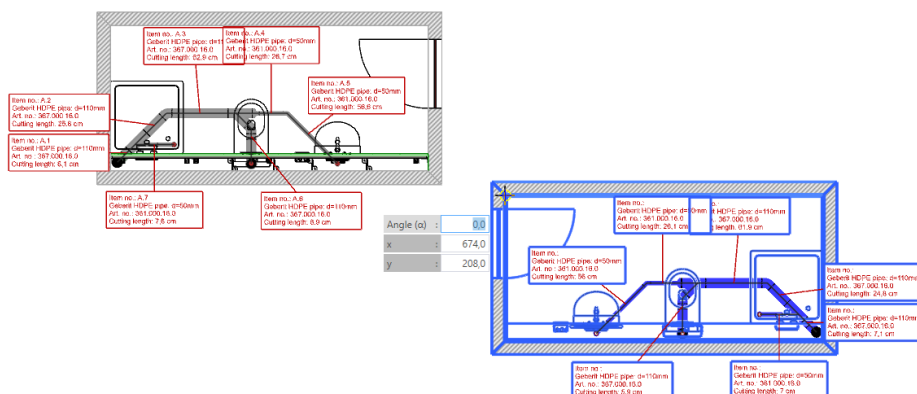
1. Draw a selection frame around the complete room.



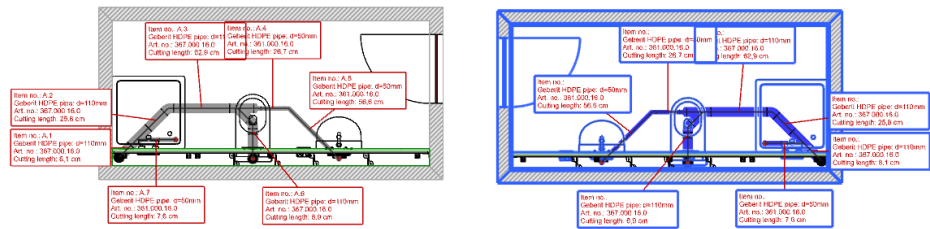
2. Right-click on the highlighted room and select **Mirror object > Mirror horizontal** in the pop-up menu.



✓ The room is suspended mirrored from the cursor.



3. Move the cursor to the required position.
4. Click in the drawing area to place the mirrored room.



4.2.7 Defining the paper format and drawing scale

Once you have finished this planning example, you can adapt the paper format, alignment and drawing scale. Proceed as described in the "Drawing with auxiliary lines" planning example (see "Defining the paper format and drawing scale", page 61).

4.3 Drawing on a CAD plan

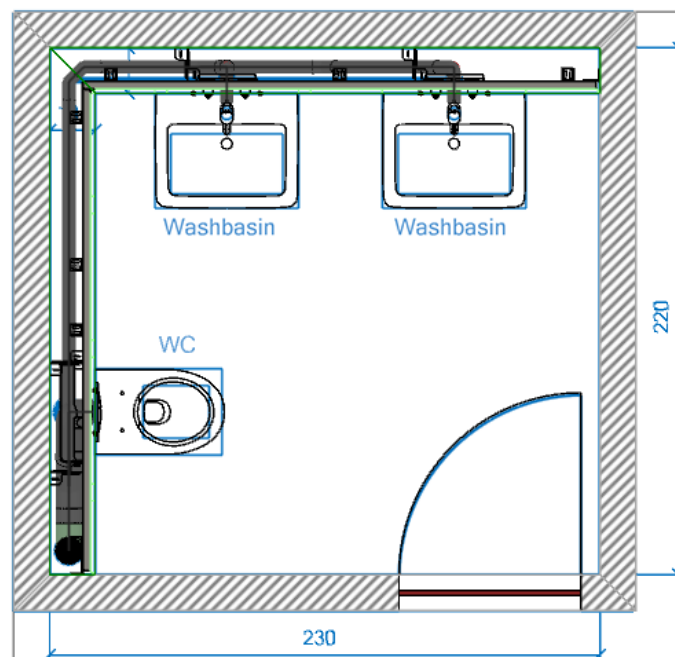
In the "Drawing on a CAD plan" planning example you will learn how to quickly and simply create a plan based on a CAD plan. This allows you to reproduce a plan exactly without having to input dimensions, walls and objects. When you are drawing, the cursor snaps into capture points of the CAD plan.

You will learn how to import a CAD plan into Geberit ProPlanner and reproduce walls and objects. You will then create the waste water installation using functions already known to you. Finally you will complete the plan in the front view.

This chapter covers the following topics:

- Reading and scaling CAD plans
- Reproducing rooms and objects
- Detailed fitting selection
- Drawing routing axes
- Drawing in the front view

The following drainage system is planned in this planning example:



View in Geberit ProPlanner

4.3.1 Selecting an installation unit

- In the **Building** window, select the **CAD plan** installation unit.



4.3.2 Importing CAD plans

4.3.2.1 Reading CAD plans

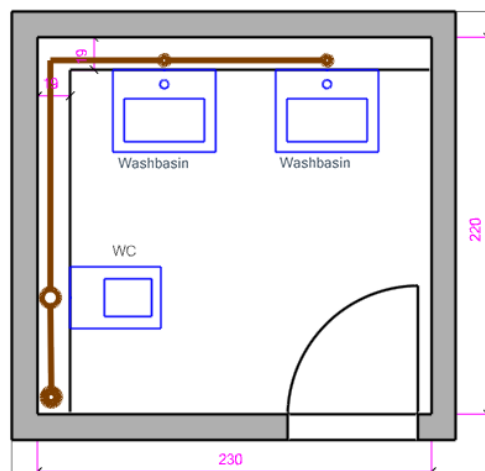
In the first step import the training file.



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



1. Click on **Import image or CAD plan** in the toolbar.
2. Select the training file **Bathroom.dwg** in the **Import image or CAD plan** window.
3. Click on **Open**.
✓ The CAD file is read and is suspended from the cursor.
4. Click in the drawing area to place the CAD plan.

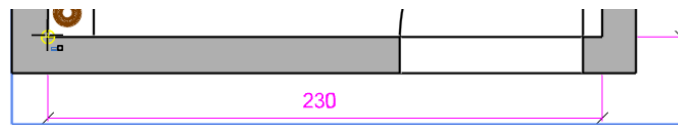


4.3.2.2 Defining the scale

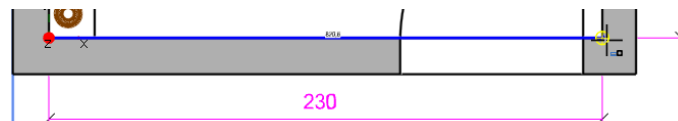
You need to specify the scale before being able to work with the scaled CAD plan. To do this, as long a section as possible is measured, the length of which is known.

1. Right-click on the CAD plan and select **Scale image/CAD plan** in the pop-up menu.

- Click in the CAD plan on the lower left inner corner of the room to place the starting point of the section.

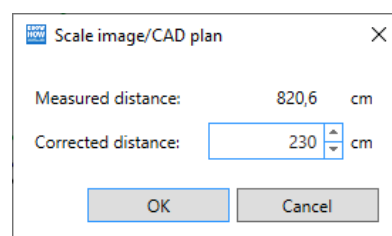


- Click in the CAD plan on the lower right inner corner of the room to place the end point of the section.



✓ The **Scale image/CAD plan** window appears.

- Enter the value **230 cm** in the **Corrected distance** field.



- Confirm with **OK**.

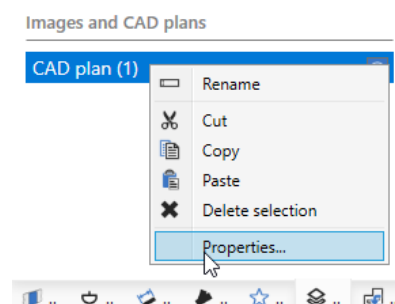
✓ The CAD plan has been scaled to the correct size.

4.3.2.3 Colouring the CAD plan

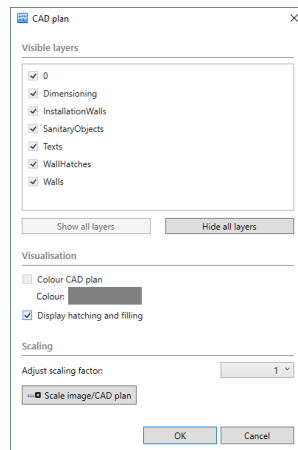
Colour the CAD plan to be able to identify the CAD plan and ensure that it differs from any later drawing.



- Show the **Layer** window.
- In the **Images and CAD plans** section, right-click on the CAD plan and select **Properties** in the pop-up menu.

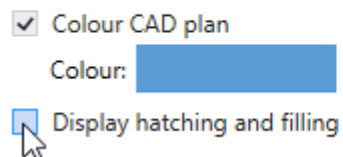


✓ The **CAD plan** window appears.

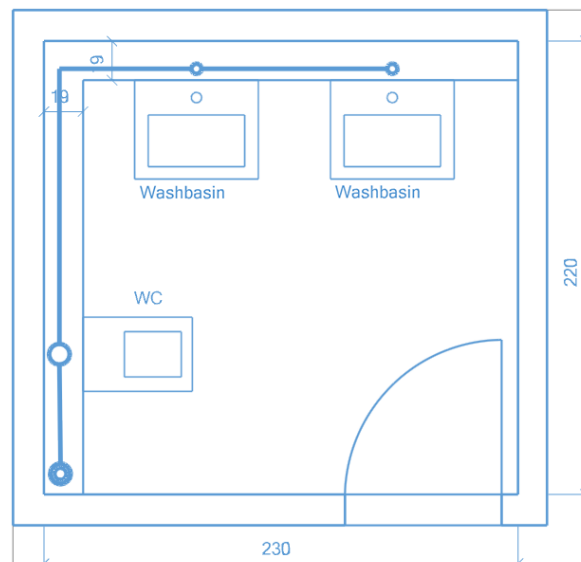


3. Activate the **Colour CAD plan** checkbox in the **Visualisation** area.
4. Click on **Colour** and select a colour.
5. Deactivate **Display hatching and filling**.

Visualisation



6. Confirm with **OK**.

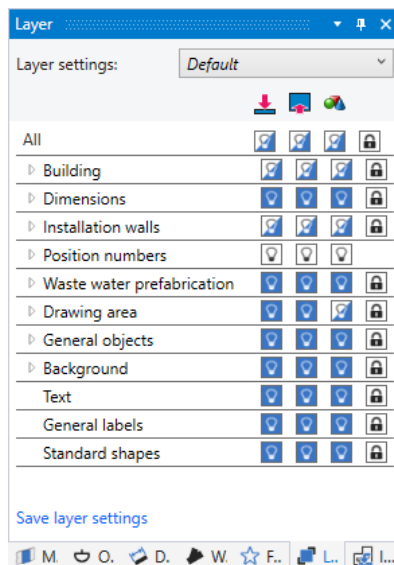



4.3.2.4 Fixing the CAD plan

We recommend fixing the CAD plan for the other steps. You can then draw objects in the drawing area without the CAD plan being moved.



1. Show the **Layer** window.



2. Click on the triangle ▸ in **Background**.
3. Click on the lock symbol in **CAD plans** until it has a blue background .



- ✓ The CAD plan can no longer be selected and thus cannot be inadvertently moved or changed when drawing.



Additional information on the use of CAD plans can be found under Help at **Detailed planning 3D > Figures and CAD plans**.

4.3.3 Drawing rooms

In the following steps you will reproduce the room and the installation walls on the CAD plan.

4.3.3.1 Reproducing walls



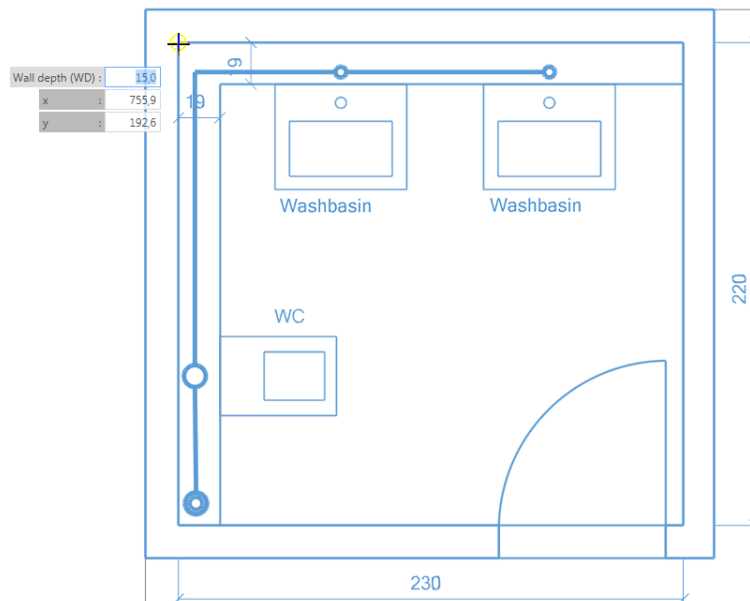
1. Show the **Masonry walls and installation walls** window.



2. Select the **Room made of solid walls** function in the **Walls** area.

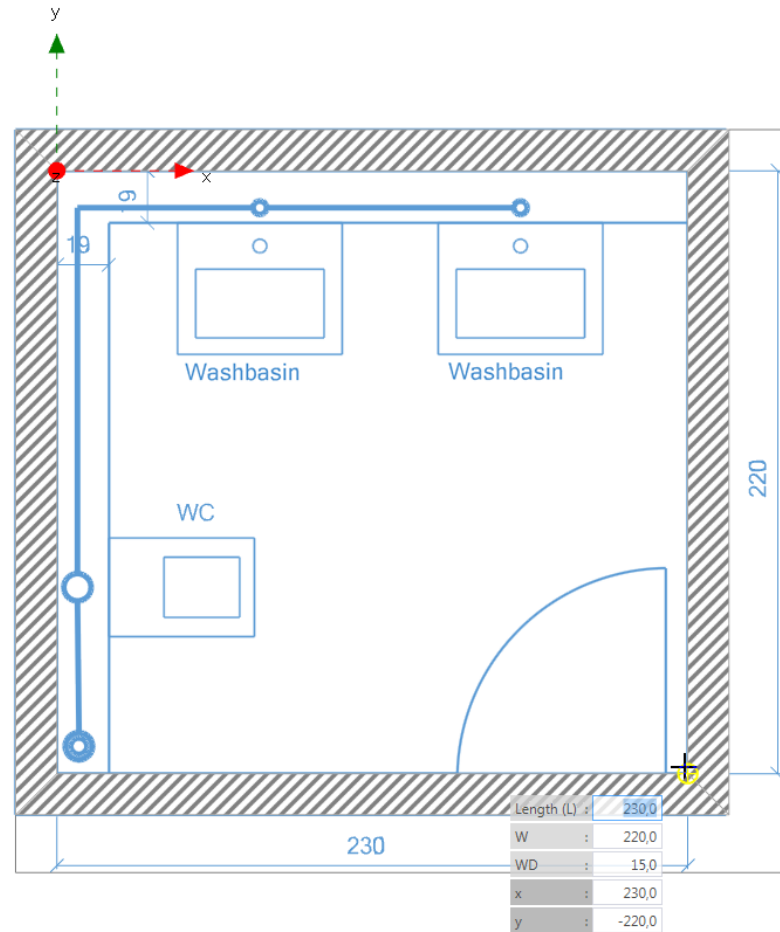
3. Move the cursor to the top left inner corner of the room.

✓ The cursor automatically snaps in at the capture point on the CAD plan.



When you are drawing on a CAD plan, the cursor automatically snaps into capture points of the CAD plan.

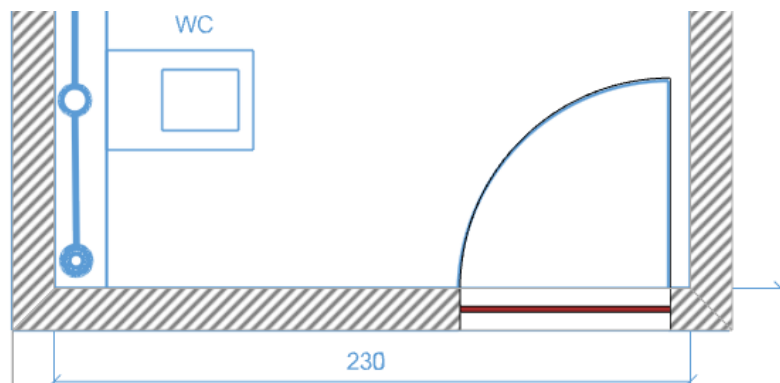
4. Click in the drawing area to start drawing the room.
5. Move the cursor to the lower right inner corner of the room and click in the drawing area.



4.3.3.2 Inserting doors

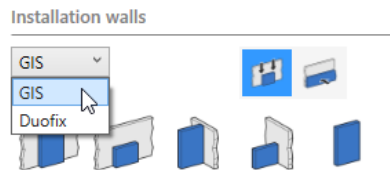


1. Select the **Door (76x200.5)** in the **Doors and windows** area.
2. Insert the door, as described in the "Drawing with connection points" planning example. Use the capture point of the CAD plan for positioning.
3. Change the hinge side of the door.



4.3.3.3 Inserting installation walls

1. Select the **GIS** installation system in the **Installation walls** area.



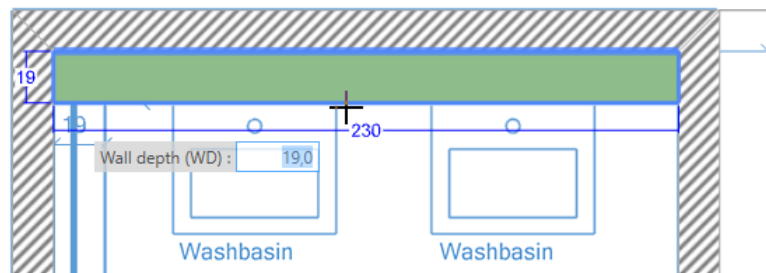
Select the **Duofix** installation system if the **GIS** installation system is not available in your market.



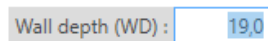
2. Select the **Room-height prewall**.



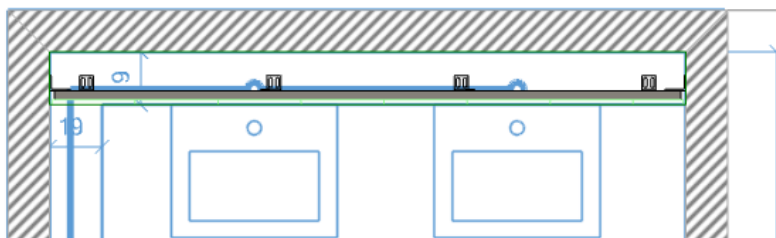
3. Select **Auto** drawing mode.
4. Move the cursor to the inside edge of the upper wall.
✓ A preview of the installation wall is displayed.



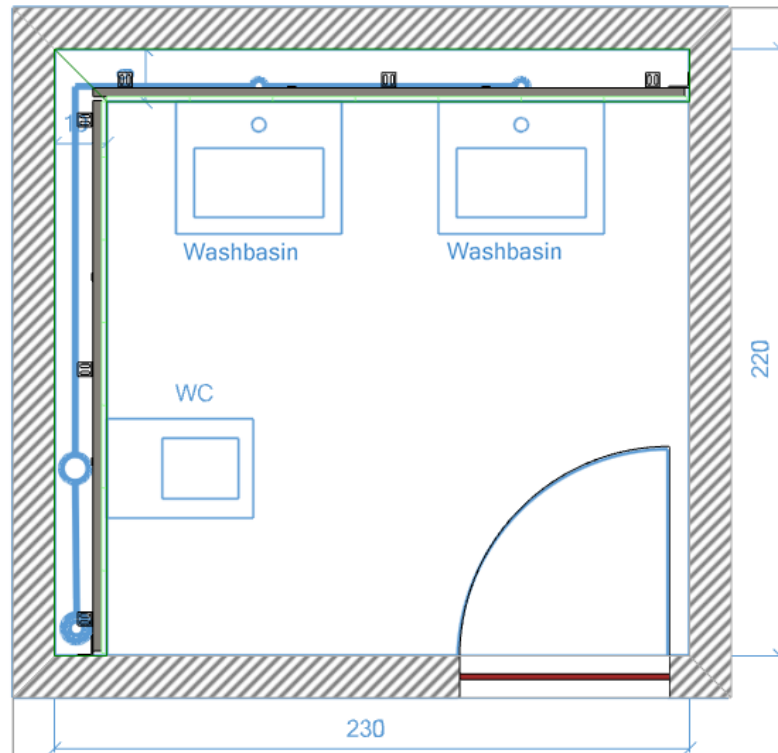
5. Enter the value **19** cm in the **Wall depth (WD)** field.



6. Press **Enter** to insert the installation wall.



7. Insert the second installation wall in the same way.



Additional information on walls can be found under Help at **Detailed planning 3D > Placing and adapting walls > Drawing rooms and walls.**

4.3.4 Inserting objects

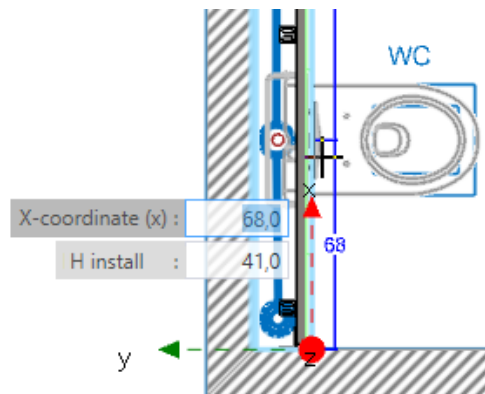
In this step, insert the objects into the room. When doing so, the objects snap into the capture points of the CAD plan.



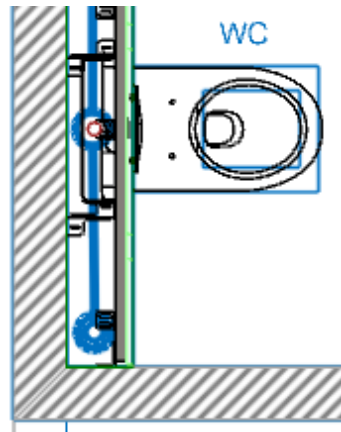
1. Show the **Objects** window.



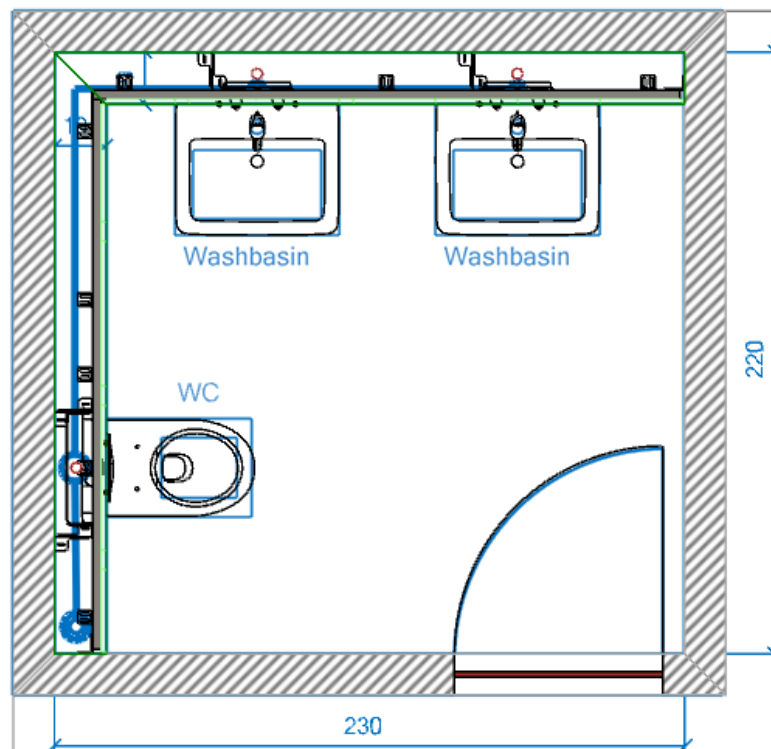
2. Select the **WC**.
3. Move the cursor onto the WC in the CAD plan.
✓ The cursor automatically snaps into the capture point of the WC.



4. Click in the drawing area to insert the WC.



5. Insert the two washbasins in the same way.



4.3.5 Inserting fittings

Once you have created the room and inserted the objects, you can insert the stack connector, as usual, and generate the fittings.

4.3.5.1 Inserting stack connectors

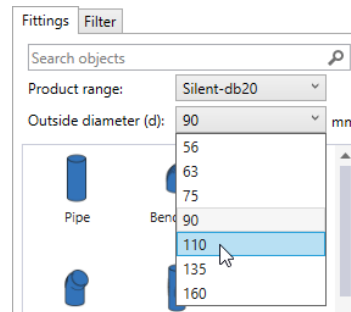


1. Show the **Waste water prefabrication** window.
2. Select the **Product range Silent-db20**.



Select the **Geberit PE Product range** if the **Silent-db20 Product range** is not available in your market.

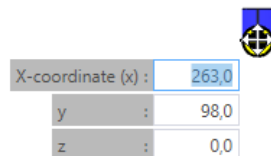
3. Select the value **110 cm** as the **Outside diameter (d)**.



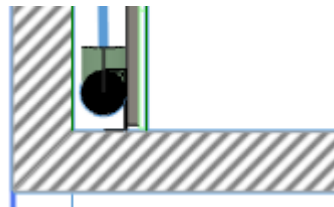
If this diameter is not available in your market or is not usual for stacks, select instead a common diameter used in your country for stacks.



4. Highlight the **branch fitting 88.5°**.
✓ The branch fitting is suspended from the cursor.
5. Use the **T** or **Z** key to rotate the branch fitting into the right position.



6. Move the branch fitting onto the stack connector in the CAD plan and click.



4.3.5.2 Drawing routing axes

Unlike in the first two planning examples, in the following section define the connection settings of the sanitary appliances when drawing the routing axes. This ensures that the pipes on the floor are created and that the pipes and fittings to connect the sanitary appliances in the installation wall are also planned. This lets you select another connection for the last washbasin. You can see the impact of this setting later in the front view.

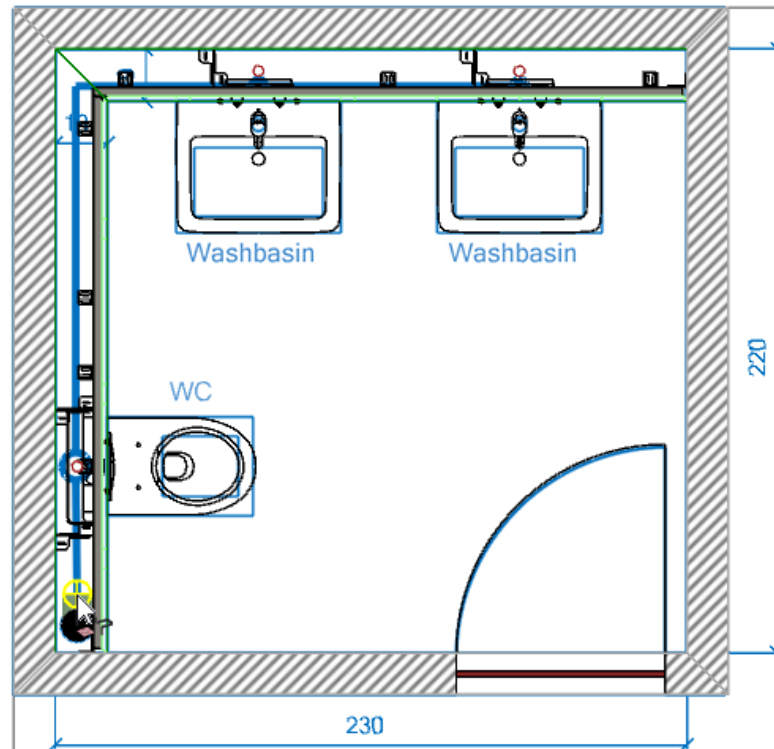


1. Show the **Waste water prefabrication** window.

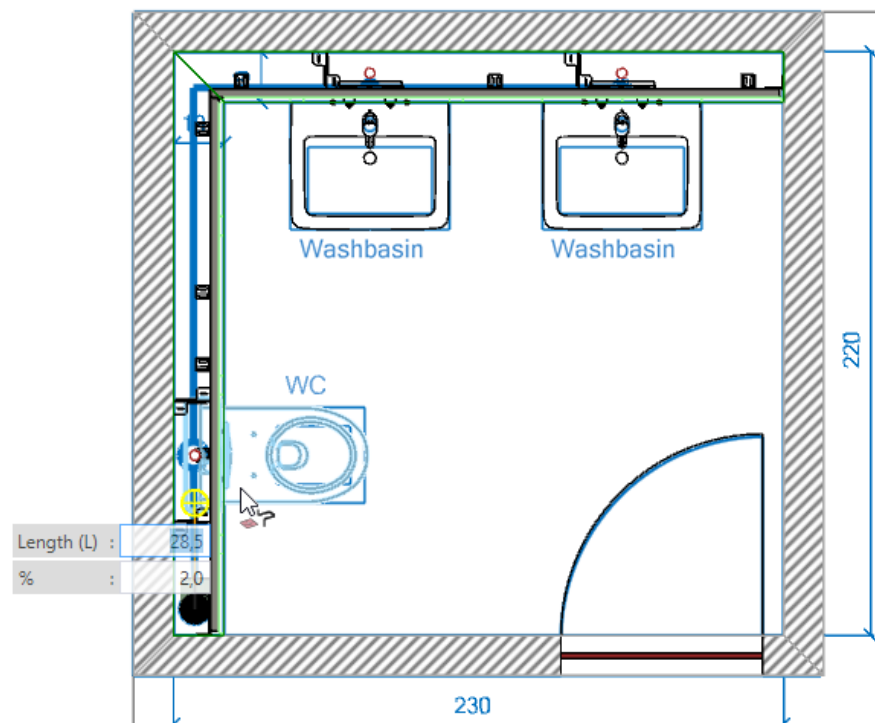


2. Click on **Draw routing axes**.

3. Click on the branch fitting for the stack.

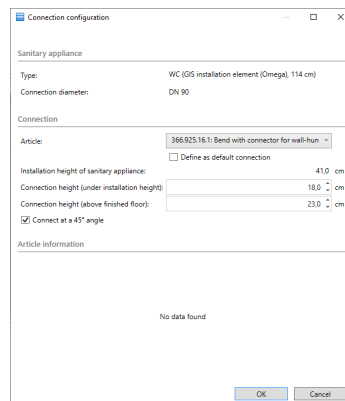


4. Move the cursor upwards onto the WC until the WC turns blue.



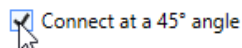
5. Click on the WC.

✓ The **Connection configuration** window appears.



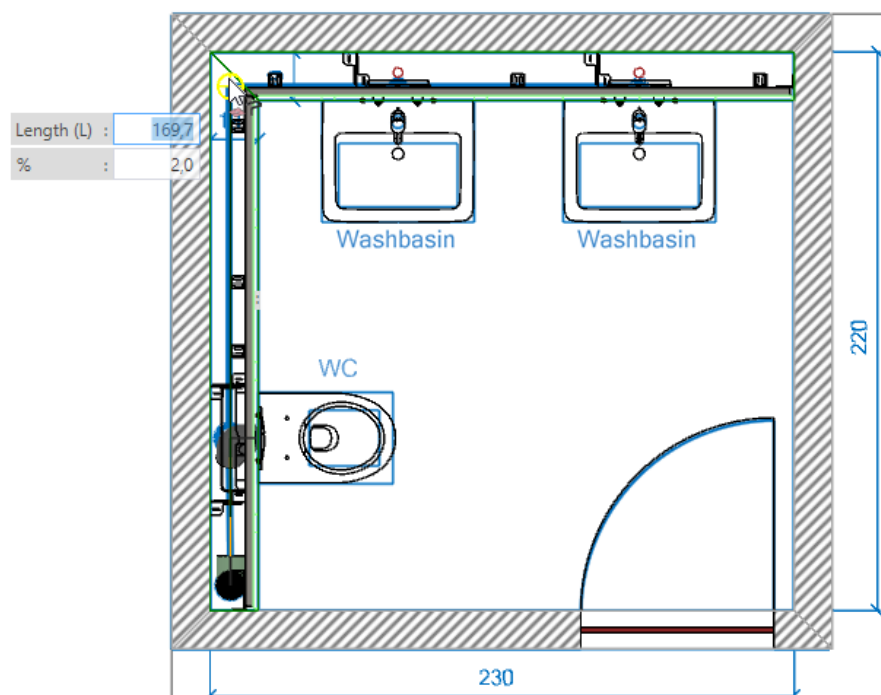
- You can adapt various settings of the drainage connection, e.g. type and height of the connection in the **Connection configuration** window.
- If your PC is connected to the internet, you can call up additional information, such as drawings or installation notes, in the **Article information** area.

6. Make sure that **Connect at a 45° angle** is activated in the **Connection** area.

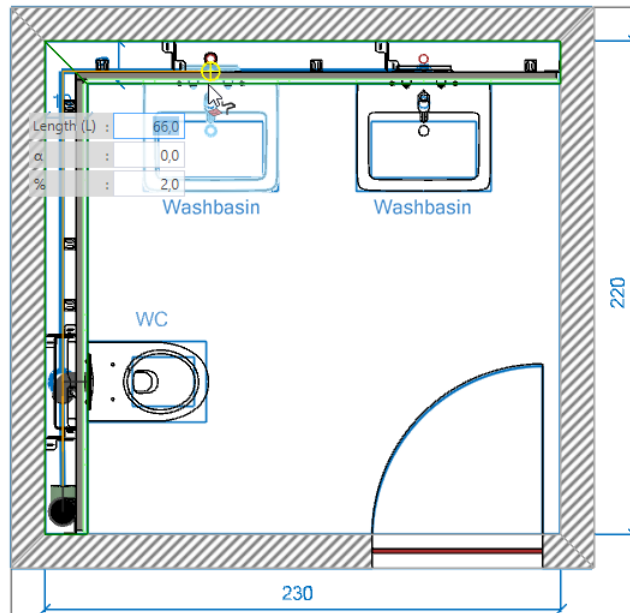


7. Confirm with **OK**.

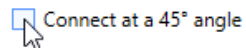
8. Draw the routing axis upwards into the corner of the two installation walls and click.



9. Draw the routing axis to the right onto the left washbasin until the washbasin appears blue.



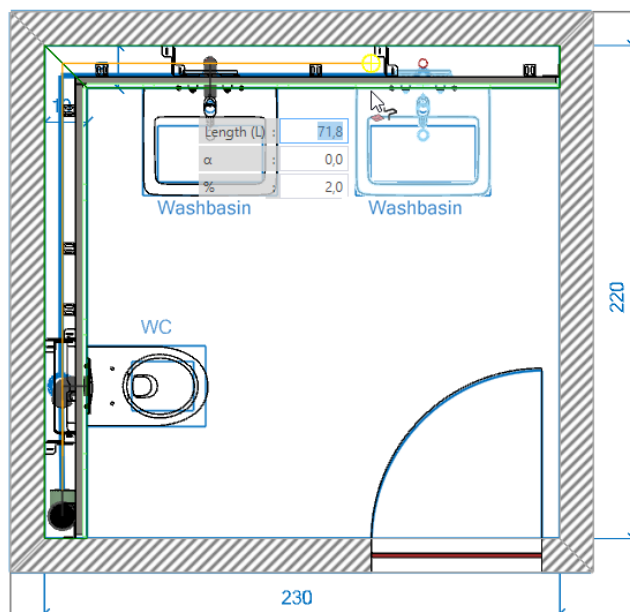
10. Click on the left washbasin.
✓ The **Connection configuration** window appears.
11. Make sure that **Connect at a 45° angle** is deactivated in the **Connection** area.



12. Confirm with **OK**.

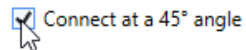
Then connect the second washbasin at a 45° angle. You can see the impact of this setting later in the front view.

13. Click on the right washbasin.



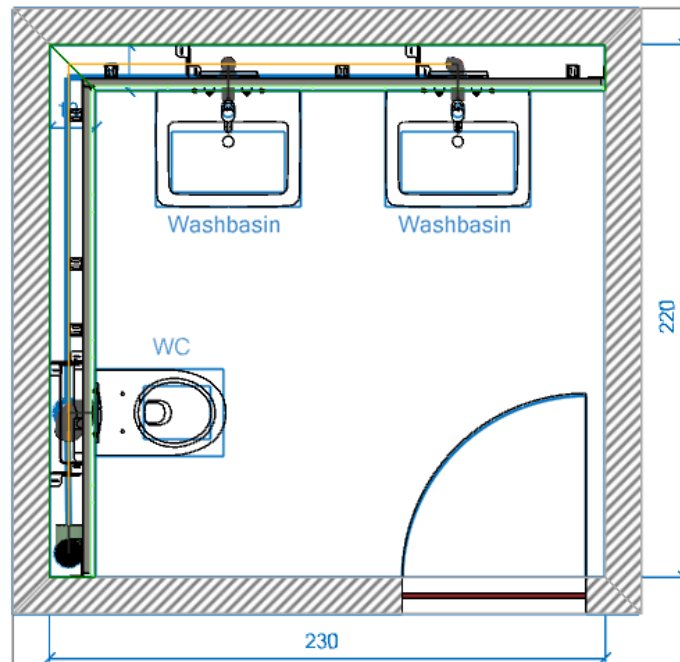
- ✓ The **Connection configuration** window appears.

14. Activate **Connect at a 45° angle** in the **Connection** area.



15. Click on **OK** to apply the settings.

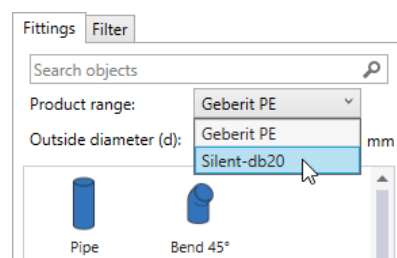
16. Press **ESC** to exit the function.



4.3.5.3 Generating fittings

You can generate the fittings once all routing axes have been drawn.

1. Select the **Product range Silent-db20** in the **Waste water prefabrication** window.

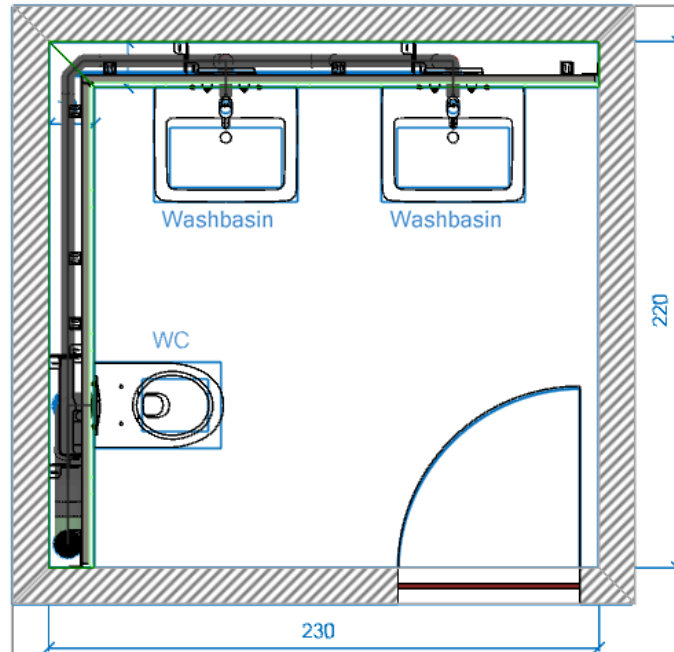


Select the **Geberit PE Product range** if the **Silent-db20 Product range** is not available in your market.



2. Click in the **Generate fittings and pipes along routing axes** in the **Waste water prefabrication** window.

✓ Geberit ProPlanner generates the fittings along the routing axes.



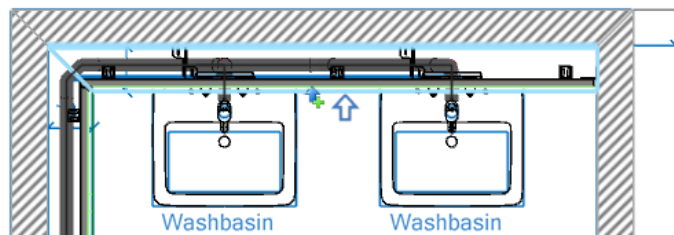
4.3.6 Viewing the plan in the front view

To see the impact of the various connection configurations of the washbasins, create in this step a front view of the wall with the washbasins.

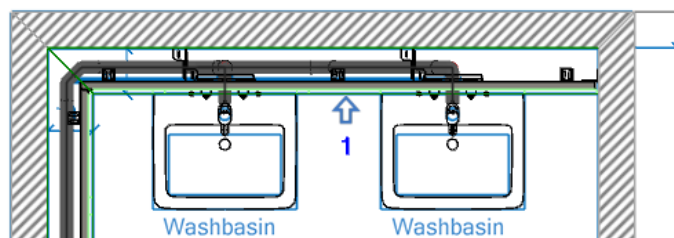
4.3.6.1 Creating the front view



1. Click in the toolbar on **Add front view**.
2. Move the front view arrow to the pipe between the two washbasins.



3. Click in the drawing area to place the front view arrow.

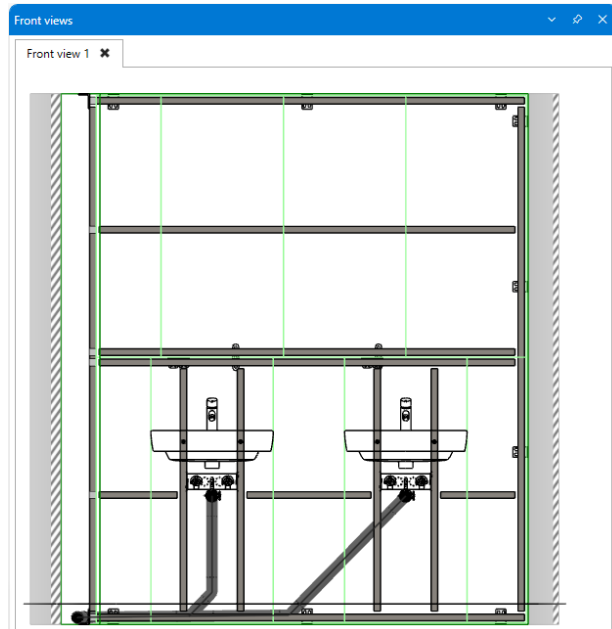


4.3.6.2 Viewing the front view

You can see the different pipe layouts with the washbasins in the front view. The **Connect at a 45° angle** option has been activated for the right washbasin.



- Show the **Front views** window and fix it, if required.

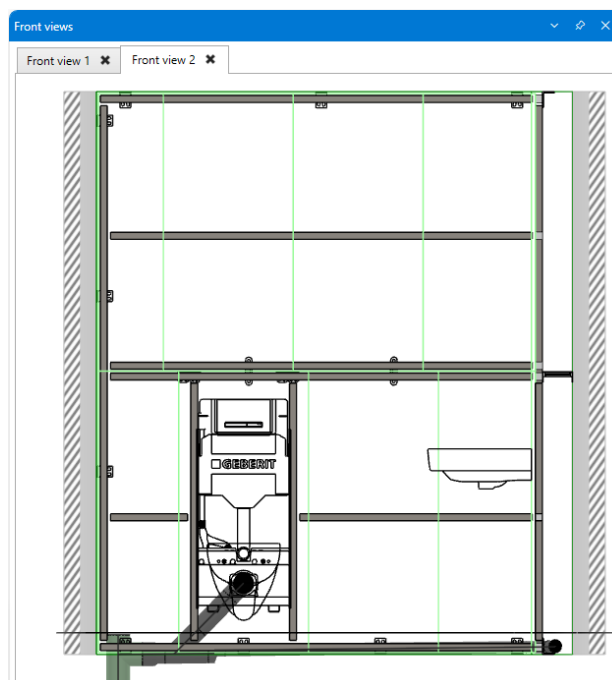


4.3.7 Editing the installation

At the end of this planning example, insert a continuous stack. Then create a front view of the wall with the WC. Then draw the stack in this front view.

4.3.7.1 Creating a front view of the WC wall

- Create a front view of the wall with the WC, as described for the washbasins, and show it.



4.3.7.2 Inserting expansion sockets

First insert an expansion socket in the front view.



If a ring seal socket is saved as standard in your market instead of an expansion socket, first insert the ring seal socket. Then replace the ring seal socket by an expansion socket (see "Replacing ring seal sockets by expansion sockets", page 101).



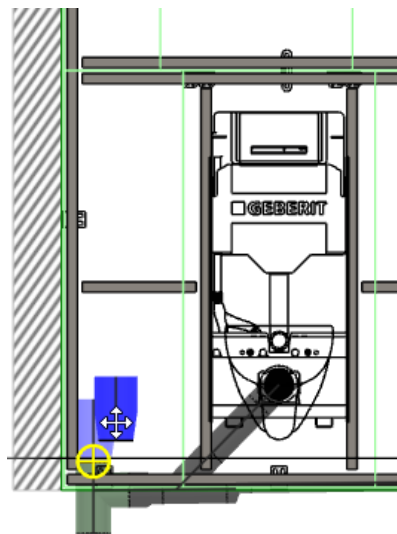
1. Show the **Waste water prefabrication** window.
2. Select the **Product range Silent-db20**.



Select the **Geberit PE Product range** if the **Silent-db20 Product range** is not available in your market.



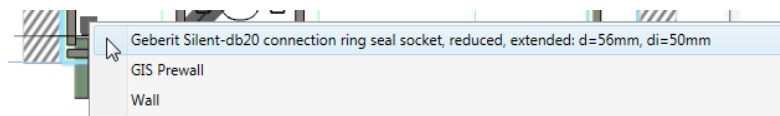
3. Select the **Connection**.
4. Use **X** to turn the expansion socket and insert it at the top of the stack connector.



4.3.7.2.1 Replacing ring seal sockets by expansion sockets

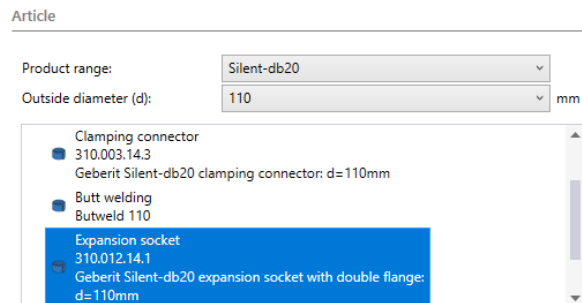
Only perform this step if a ring seal socket has been inserted instead of an expansion socket in your market.

1. Position the cursor on the ring seal socket and press the **Space bar**.
2. Select the ring seal socket.



3. Right-click on the ring seal socket and select **Properties**.
✓ The **Properties** window appears.

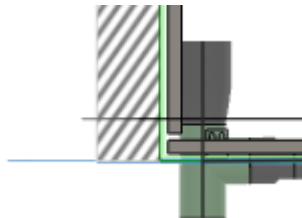
4. Select the **Silent-db20 Product range** and the **Outside diameter (d) 110** in the **Article** area.
✓ The available articles are listed.
5. Highlight the **Expansion socket**.



6. Click on **OK** to replace the ring seal socket.
7. Press **M** or select **Move object** in the toolbar.
✓ Reference points appear on the expansion socket.
8. Click on the lowermost reference point.



9. Move the expansion socket onto the connection of the stack and click in the drawing area.

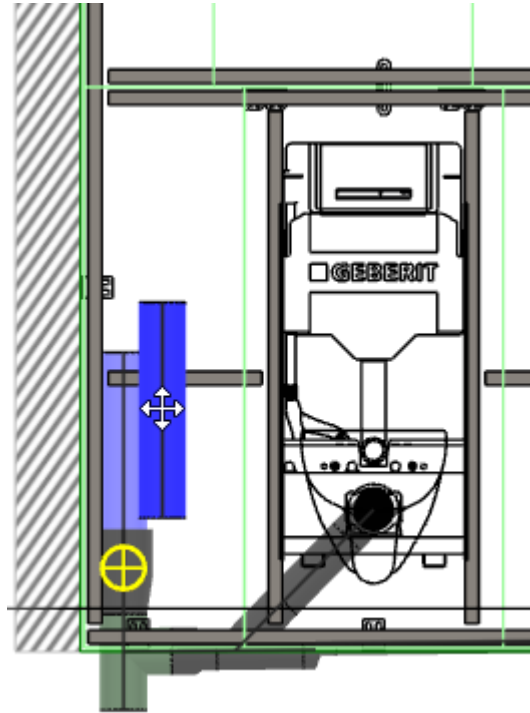


4.3.7.3 Inserting pipes

The pipe is inserted and adjusted once you have inserted the expansion socket.



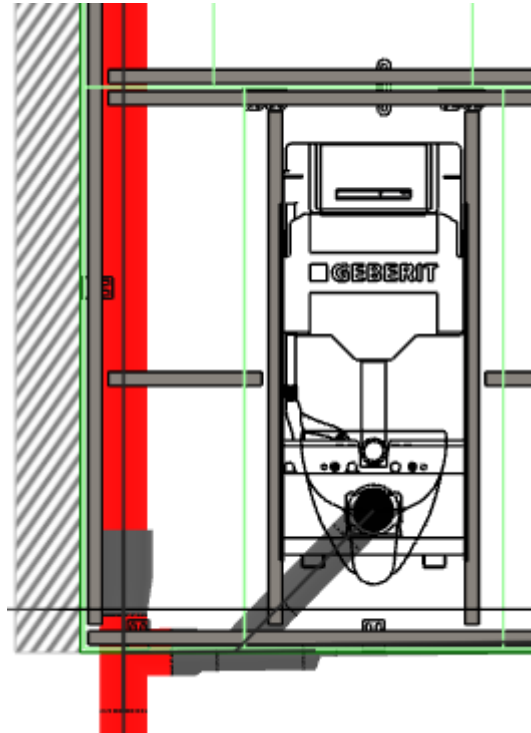
1. Mark the **Pipe** in the **Waste water prefabrication** window.
2. Place the pipe on the expansion socket and click on it.
3. If necessary, turn the pipe with the **Z** and **X** keys.



4. Right-click on the pipe and select **Properties** in the pop-up menu.
5. Select the value **250** cm as the **Length (L)** in the **Properties** window.

Length (L): cm

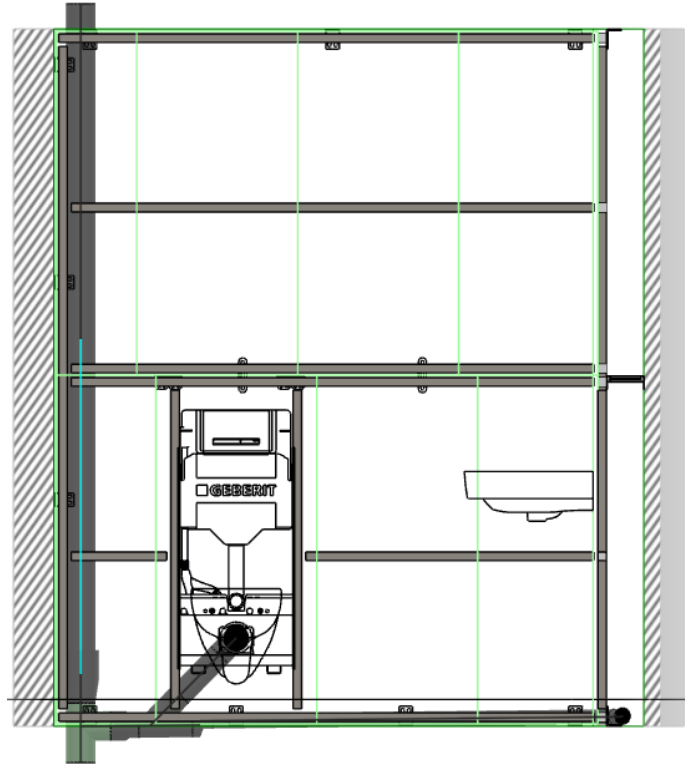
6. Click on **OK** to apply the settings.



7. Press **M** or select **Move object** in the toolbar.
✓ Reference points appear on the pipe.
8. Click on the lowermost reference point.



9. Move the pipe upwards and connect it to the expansion socket.



4.3.8 Defining the paper format and drawing scale

Once you have finished this planning example, you can adapt the paper format, alignment and drawing scale. Proceed as described in the "Drawing with auxiliary lines" planning example (see "Defining the paper format and drawing scale", page 61).

5 KEYBOARD SHORTCUTS

Use keyboard shortcuts to work faster with Geberit ProPlanner. Select from general keyboard shortcuts and combinations that apply to the specific module.

Country-specific keyboard shortcuts are not listed here and can be requested from the respective sales company's hotline.

Keyboard shortcuts for Swiss keyboards (English keyboard) are shown in brackets.

The keyboard shortcut for the respective functions is additionally displayed in brackets in the menus and tool tips.

5.1 General

Function	Keyboard shortcut
General	
Cancel/Exit	ESC
Select and edit	
Copy	CTRL + C
Paste	CTRL + V
Cut	CTRL + X
Select all	CTRL + A
Select several objects	CTRL + left mouse key
Undo and Redo	
Undo last command	CTRL + Z
Restore undone command	CTRL + Y
Open and save project	
Open existing document	CTRL + O
Save current project	CTRL + S
Print and export file	
Print/export file (lists)	CTRL + P
Print/export file (graphics)	CTRL + G
Calculate	
Calculate active subproject	F5
Calculate all subprojects	CTRL + F5
Navigation	
Change to the next line	Tab key
Change to the previous line	SHIFT + Tab key
Open pop-up menu	Right mouse key

Function	Keyboard shortcut
Objects	
Delete highlighted objects	DEL
Open properties of highlighted objects	Alt+Enter
Help	
Call up the Help function	F1

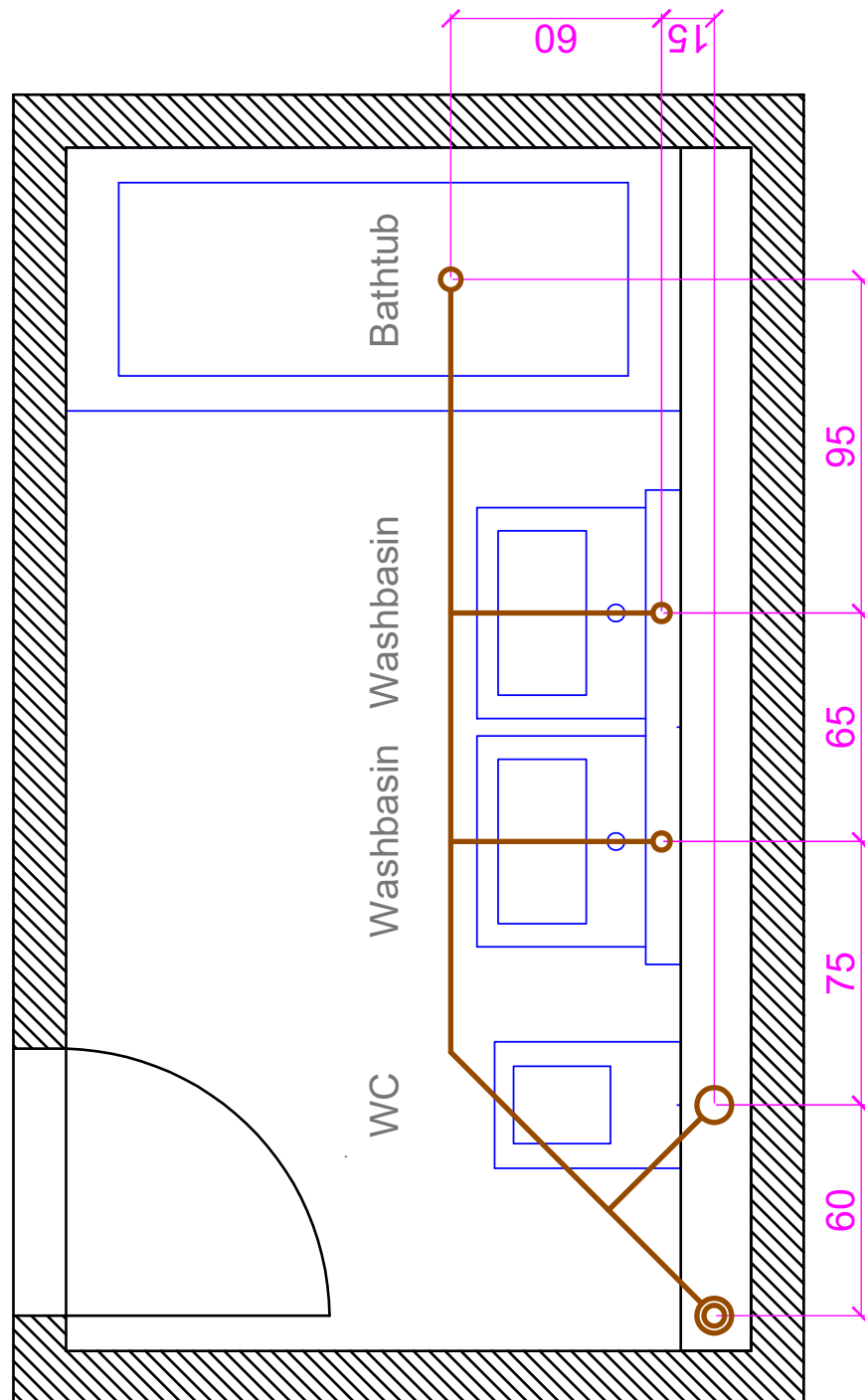
5.2 Waste water prefabrication

The following keyboard shortcuts are available in Waste water prefabrication in addition to Detailed planning 3D:

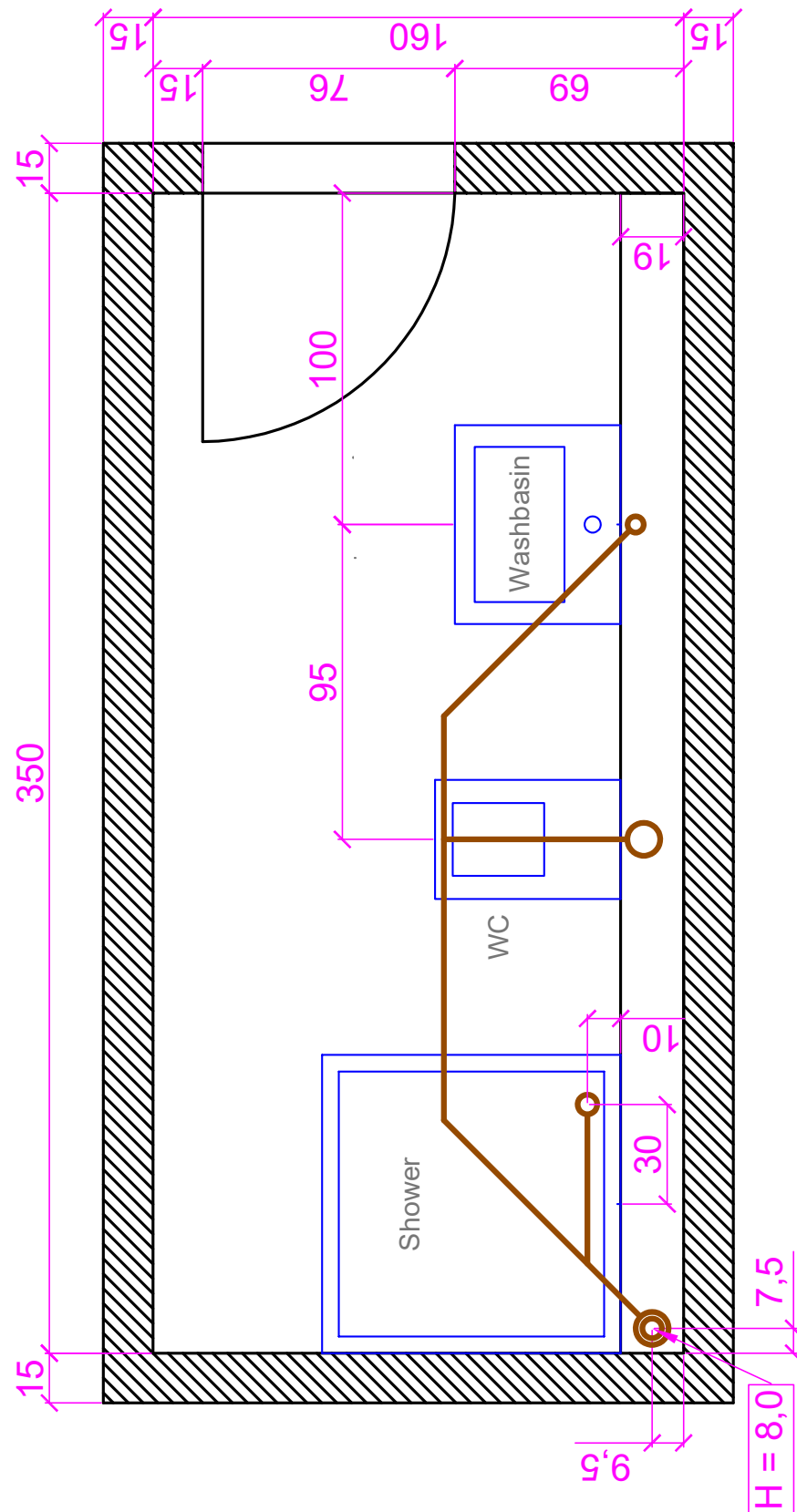
Function	Keyboard shortcut
Turn marked objects around their own central axis	R
Turn marked objects around the x-axis	X
Turn marked objects around the y-axis	Y
Turn marked objects around the z-axis (counterclockwise)	Z
Turn marked objects around the z-axis (clockwise)	T
Move marked objects	M
Mirror marked objects horizontally	H
Mirror marked objects vertically	V
Draw routing axes	L
Generate fittings and pipes along routing axes	P
Select marked fitting as a stack connector	F

6 OVERVIEW OF PLANNING EXAMPLES

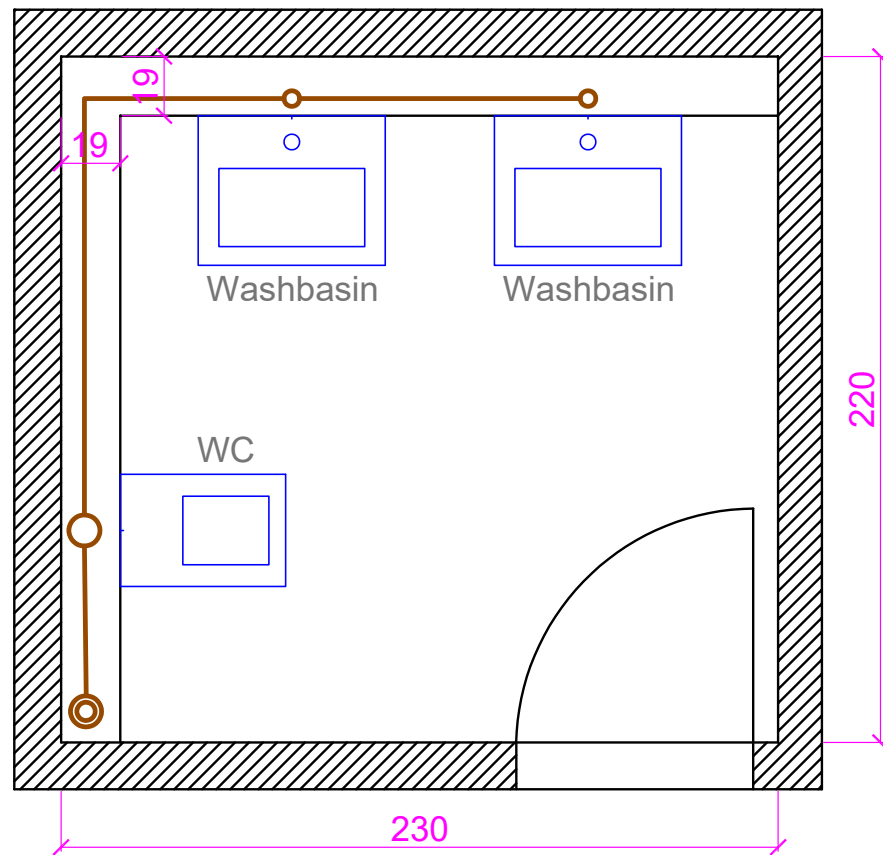
6.1 Drawing with auxiliary lines



6.2 Drawing with connection points



6.3 Drawing on a CAD plan



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