

 digipara® liftdesigner

# Elevator Design Fundamentals

A2



# Recommendation

ONLINE TRAINING



**Are you an attendee in a DigiPara LiftDesigner online training module?**

We recommend to print these out in advance so that you have a handout for your own editing and for your notes during your training.

# Agenda

## COMPONENT PROPERTIES AND ADVANCED OPTIONS

### A2.1 Component Properties

- Main Project Data & Component State
- Component Exchange

### A2.2 Component Options & Rules

- Product Options
- Options and Rules Docking Window
- Component Rules

# Agenda

PRACTICAL EXAMPLES: GENERAL

## A2.3 Rail Brackets

- Brackets & Bracket List
- Bracket Fixing Options
- Concrete Beam

## A2.4 Door Mountings and Installation

- Shaft Door Anchor Rails
- Entrance Pocket
- Additional Sill Options

## A2.5 Refuge Spaces and Platforms

- Car Balustrade
- Scaffoldings

## A2.6 Panels

- Hall Button
- Hall Display
- Wall Finish

# Agenda

PRACTICAL EXAMPLES: TRACTION ELEVATOR

## A2.7 Counterweight

- Counterweight Location
- Pulley Beam Settings
- Adding Load Hooks

## A2.8 Car Frame

- Pulley Beam Settings
- L-shaped Car Frame

## A2.9 Ropes & Wall Fixings

- Rope Fixing Position

## A2.10 Machine Base (MRL)

- Machine Beams - Central guided
- Gear Base Construction - for Self-Construction
- Gear Base Construction - Lateral guided

# Agenda

PRACTICAL EXAMPLES: HYDRAULIC ELEVATOR

## A2.11 Rail Brackets

- Rail Bracket Fixing Options

## A2.13 Summary

- Custom Q&A's

## A2.12 Machine Room

- Machine Room Basic Settings
- MR to MRL

# A2.1

Component  
Properties

COMPONENT  
PROPERTIES



# Training Preparation

CREATE AN ELEVATOR WITH THE FOLLOWING SPECIFICATIONS:

## Shaft Wizard

- 5 floors
- Typical floor to floor distance 3000 mm
  - Consider travel – no
  - Create building floor levels - no
- Traction elevator 2:1
- 13 persons / 1000 kg, 1 m/s
- Machine room
  - Below / left
- Car roping
  - 2 pulleys below
  - with CW safety gear
- Counterweight roping
  - 1 pulley top
  - Counterweight left
- Sheet Templates
  - LD Installation Drawing
  - LD Typical Views For Your Elevator

## Further specifications

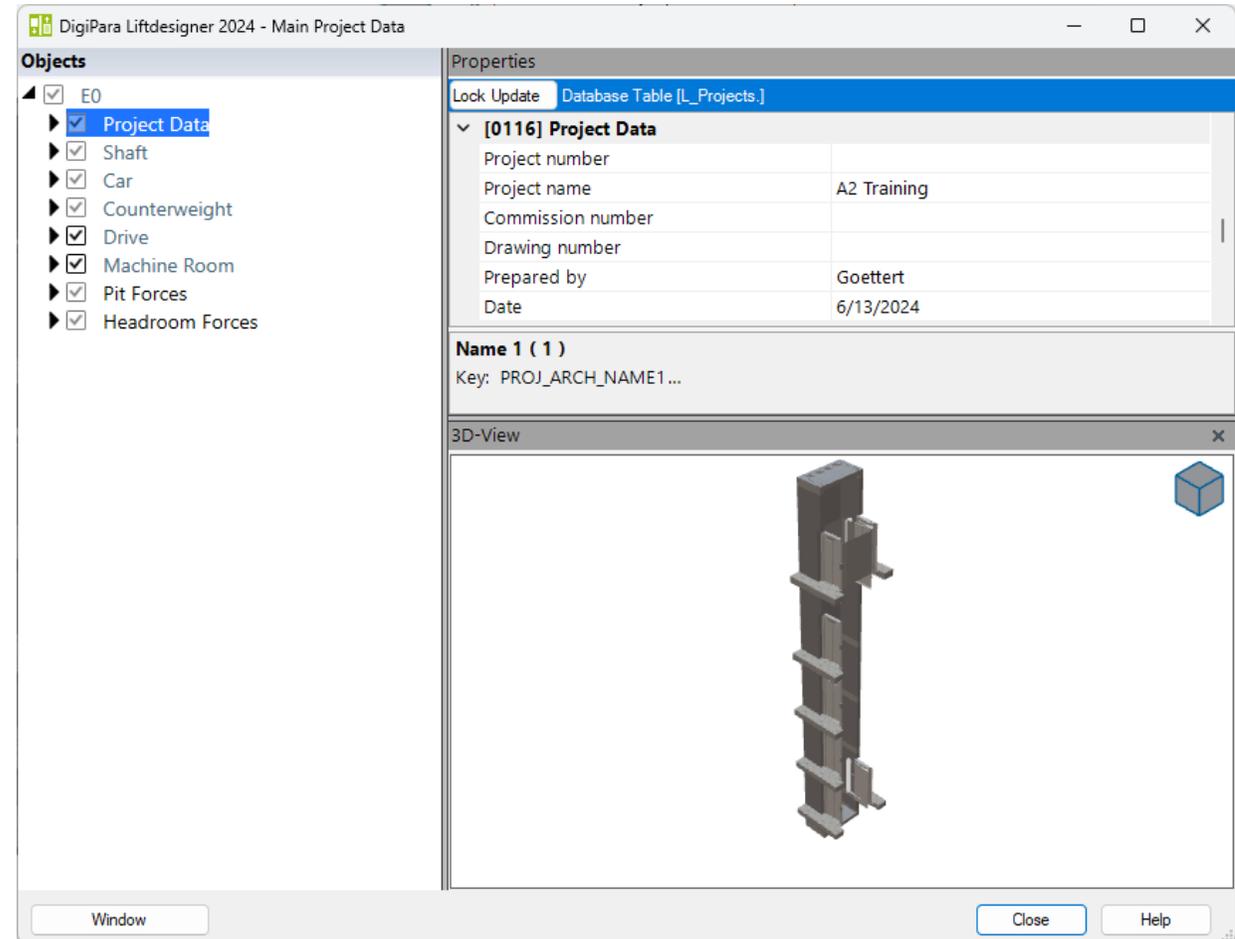
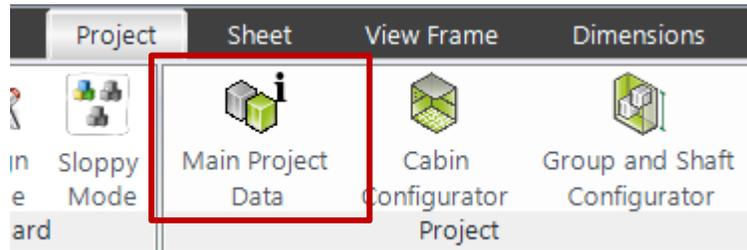
- Car size
  - Car width : 1600 mm
  - Car depth : 1400 mm
- Entrances
  - Front: all floors
  - Rear: first and last level
- Individual Floor to Floor Distance
  - Pit: 1200 mm
  - E1: 2900 mm
  - E2: 3000 mm
  - E3: 3000 mm
  - E4: 3800 mm
- Save the project under the following file name:  
LDTrainingSampleA2\_01.Id3

# Main Project Data & Component State

## A2.1 COMPONENT PROPERTIES

### Main Project Data

- The main project data dialog provides you with an initial simple overview of your elevator project.

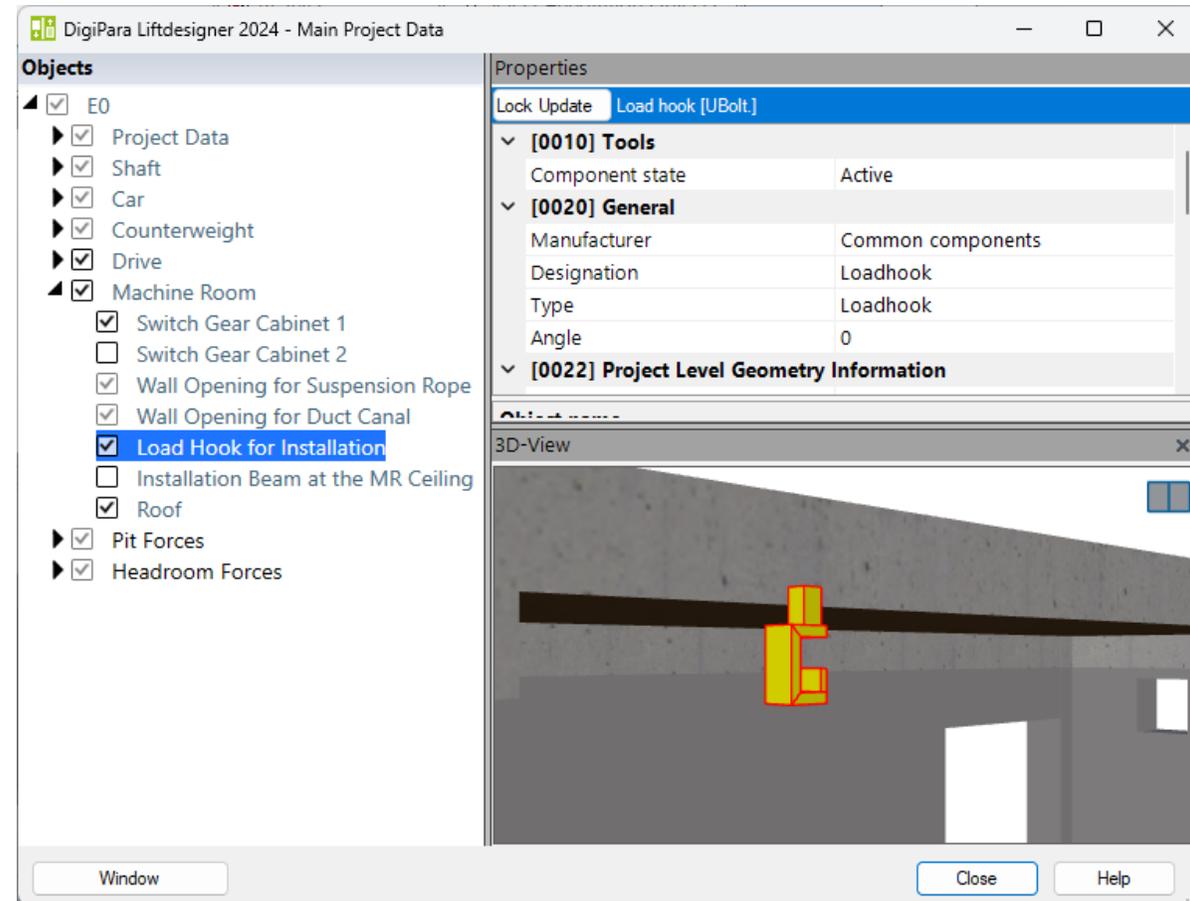


# Main Project Data & Component State

## A2.1 COMPONENT PROPERTIES

### Main Project Data

- In addition to the general project data, which is used for the content of the title blocks, for example, you will find the overarching component structure with the most important main components of your 3D elevator model.
- Here you have the opportunity to:
  - change values and properties
  - activate or deactivate components

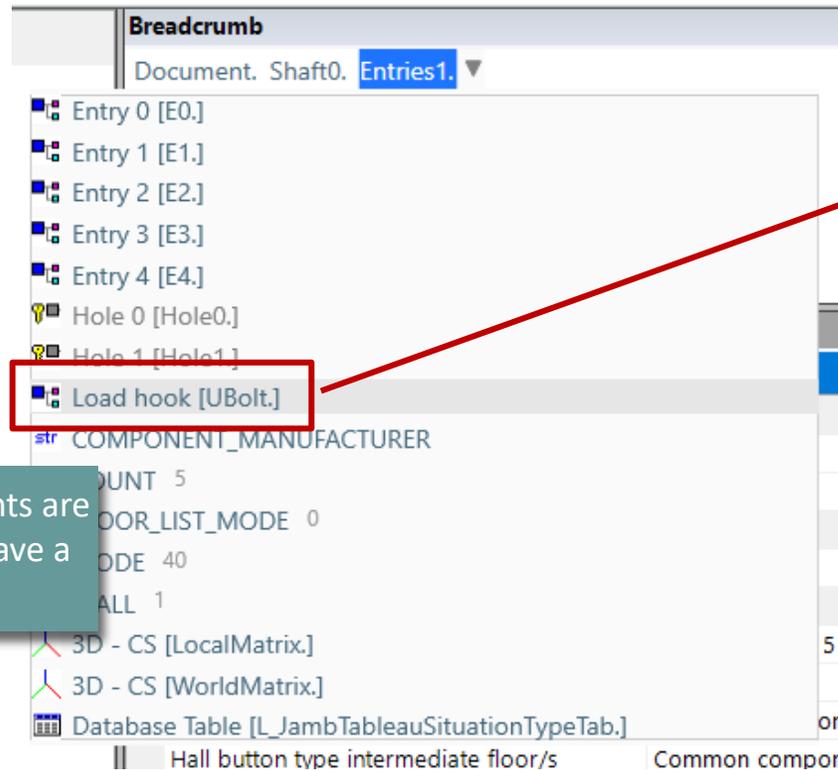


# Main Project Data & Component State

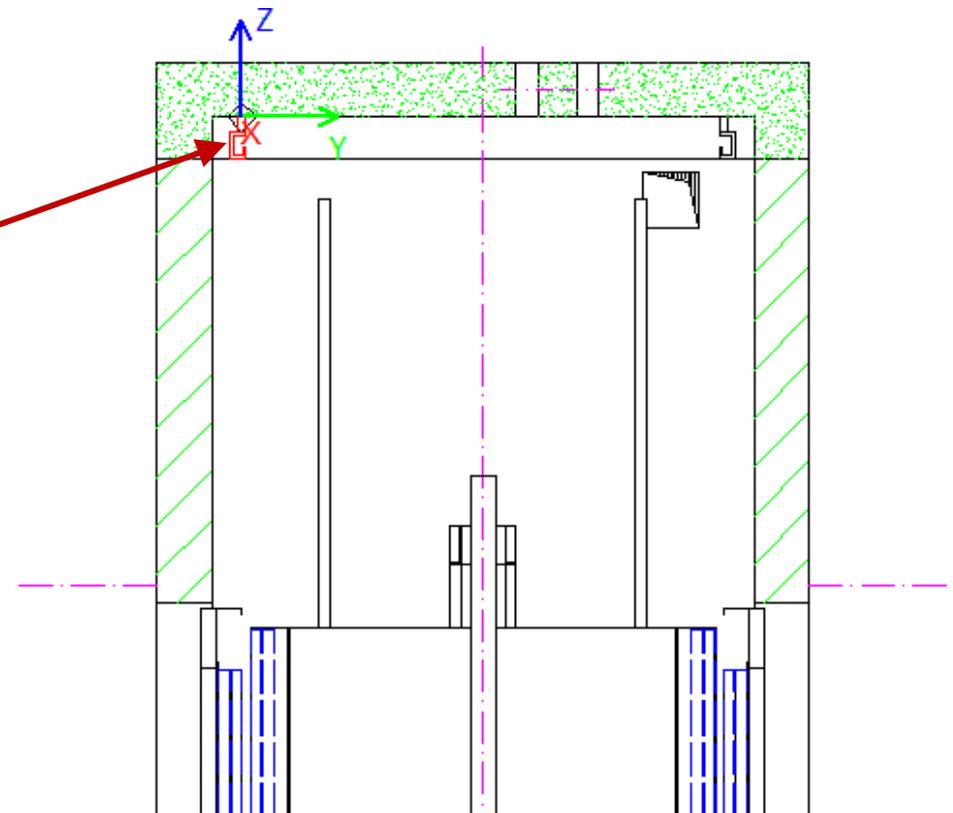
## A2.1 COMPONENT PROPERTIES

### Additional components that can be added to the project

- can be found via the Data tree or the Breadcrumb docking window



Inactive components are grayed out and have a key symbol.

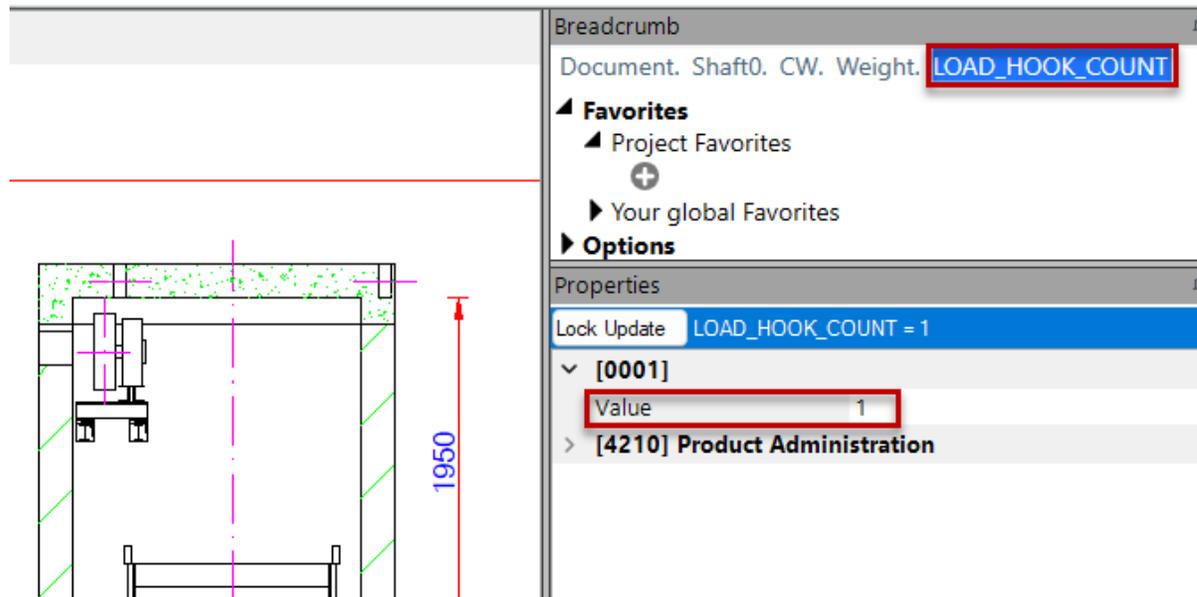


# Main Project Data & Component State

## A2.1 COMPONENT PROPERTIES

### Modifying the LOAD\_HOOK\_COUNT variable

- of the desired component (here counterweight)

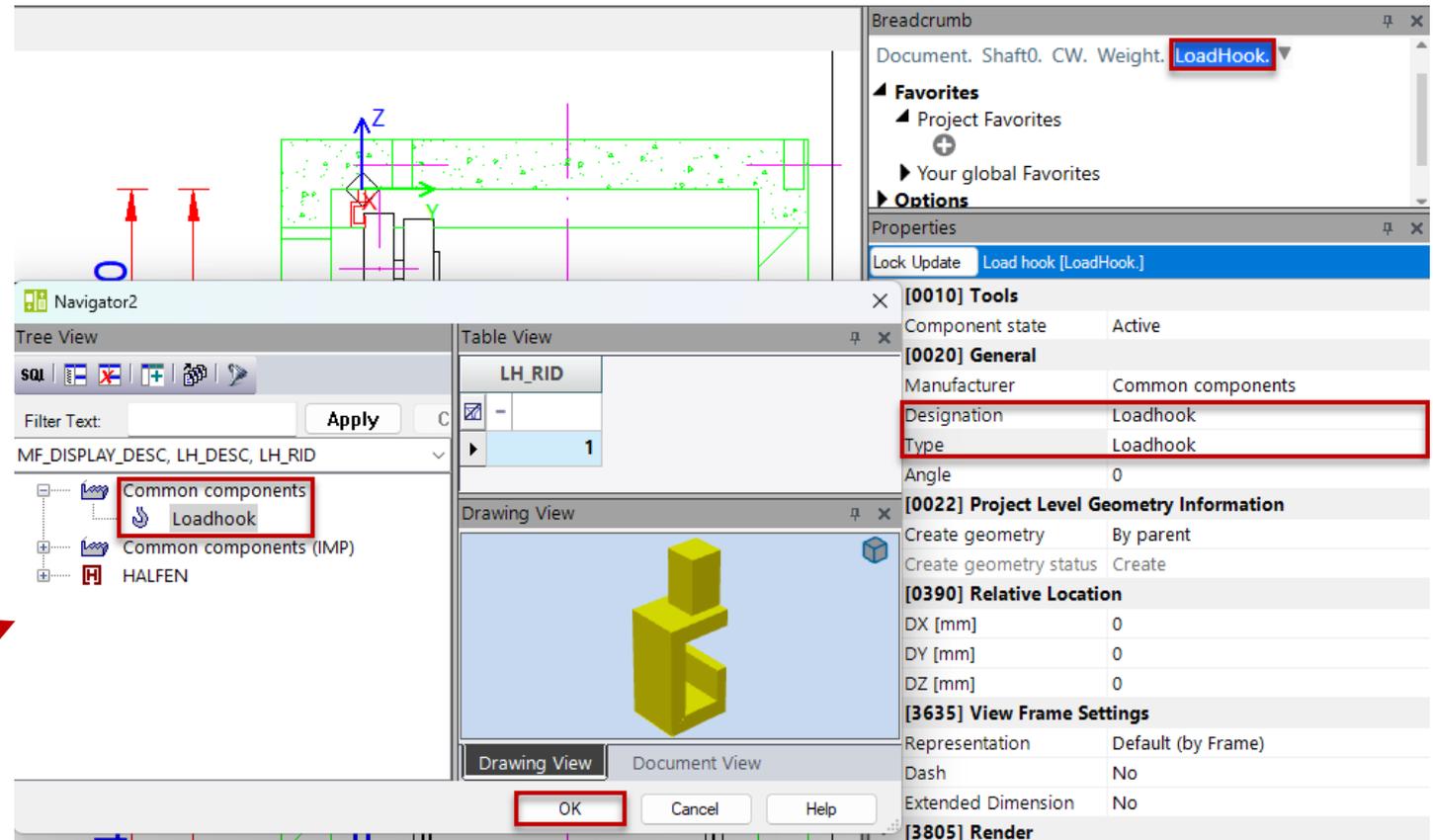
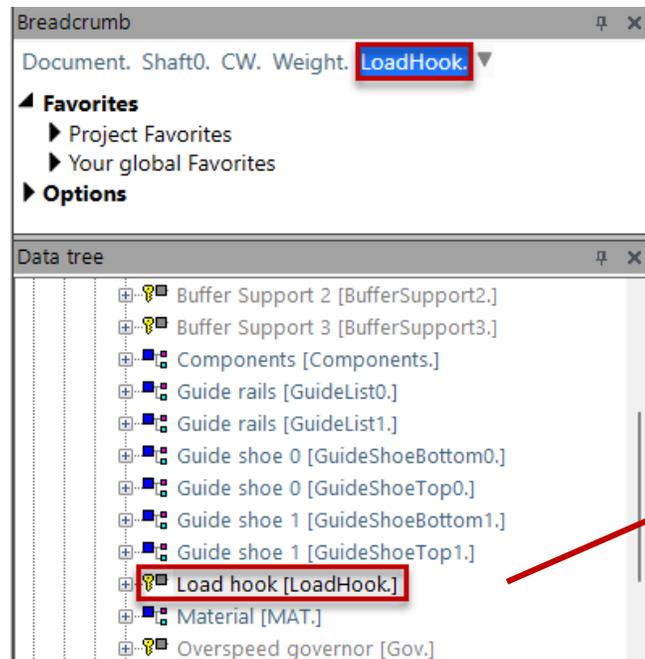


# Main Project Data & Component State

## A2.1 COMPONENT PROPERTIES

### Activate the components geometry

- select the load hook via the data tree
- select the type via the navigator

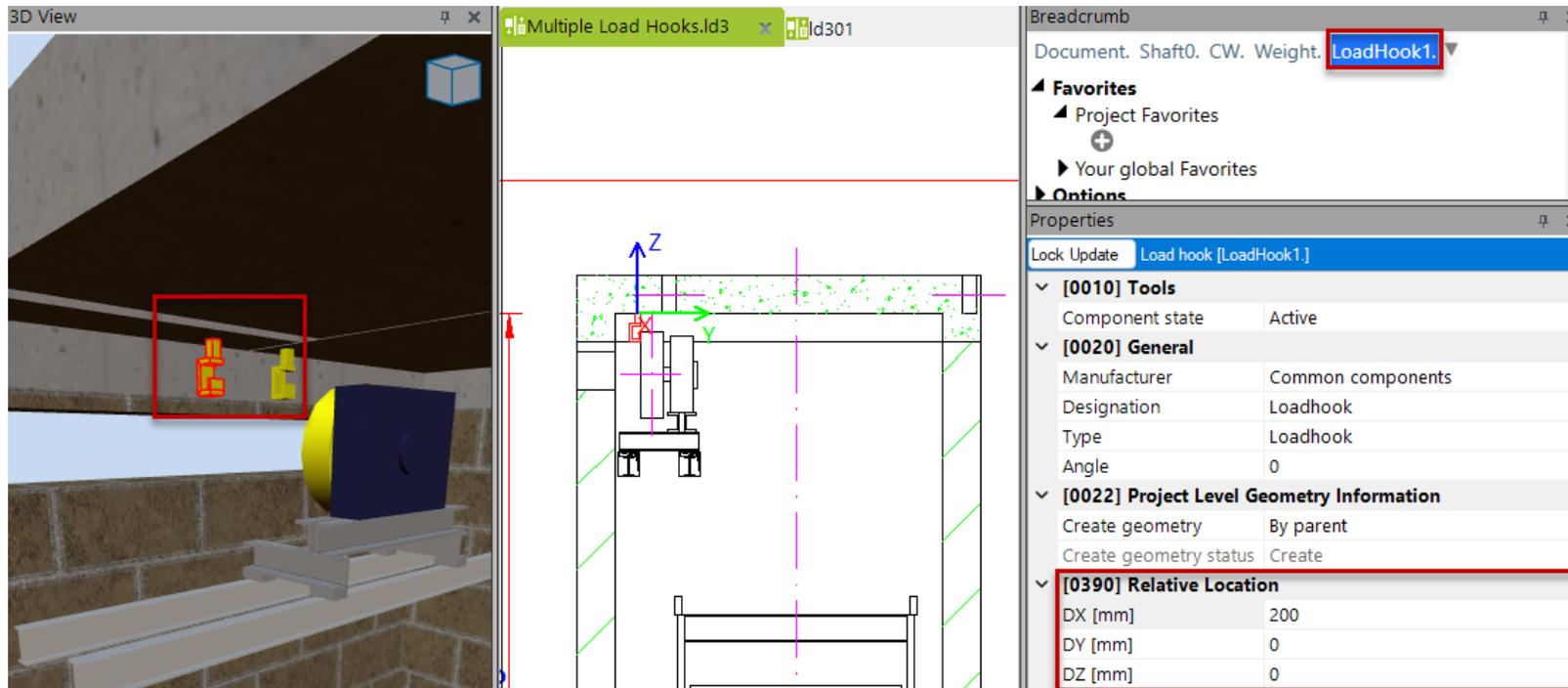


# Main Project Data & Component State

## A2.1 COMPONENT PROPERTIES

### Multiple load hooks

- set the count variable to the desired number
- optimize the relative positions of the individual load hooks

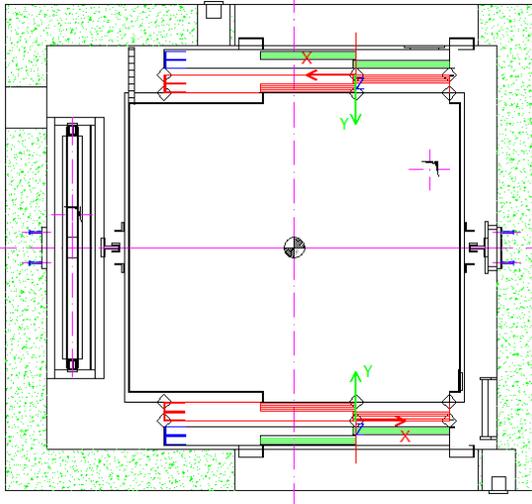


# Main Project Data & Component State

## A2.1 COMPONENT PROPERTIES

### Components State: Active / Inactive

- has an effect on the entire elevator model
- the associated logic for the component is also inactive



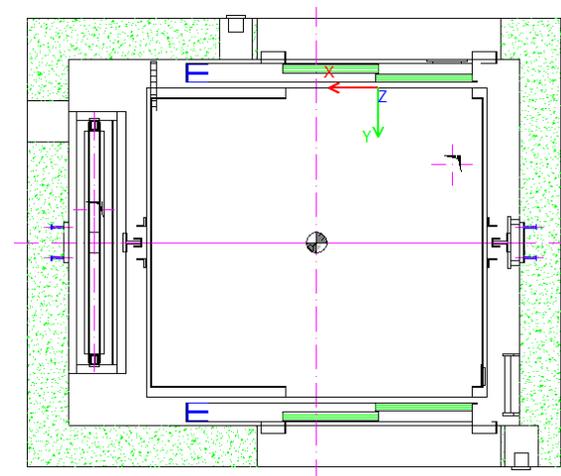
Breadcrumb: Document. Shaft0. Car. Door1. ▾

► Favorites  
► Options

Properties

Lock Update Car door Front [Door1.]

▼ [0010] Tools	
Component state	Inactive
▼ [0020] General	
Manufacturer	Common components
Designation	C2L
Type	900
▼ [0022] Project Level Geometry Information	

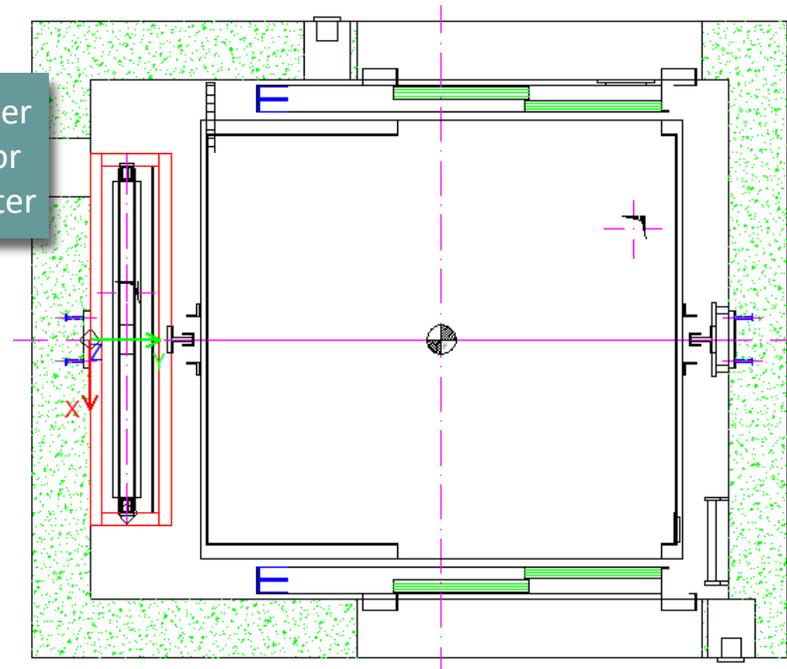
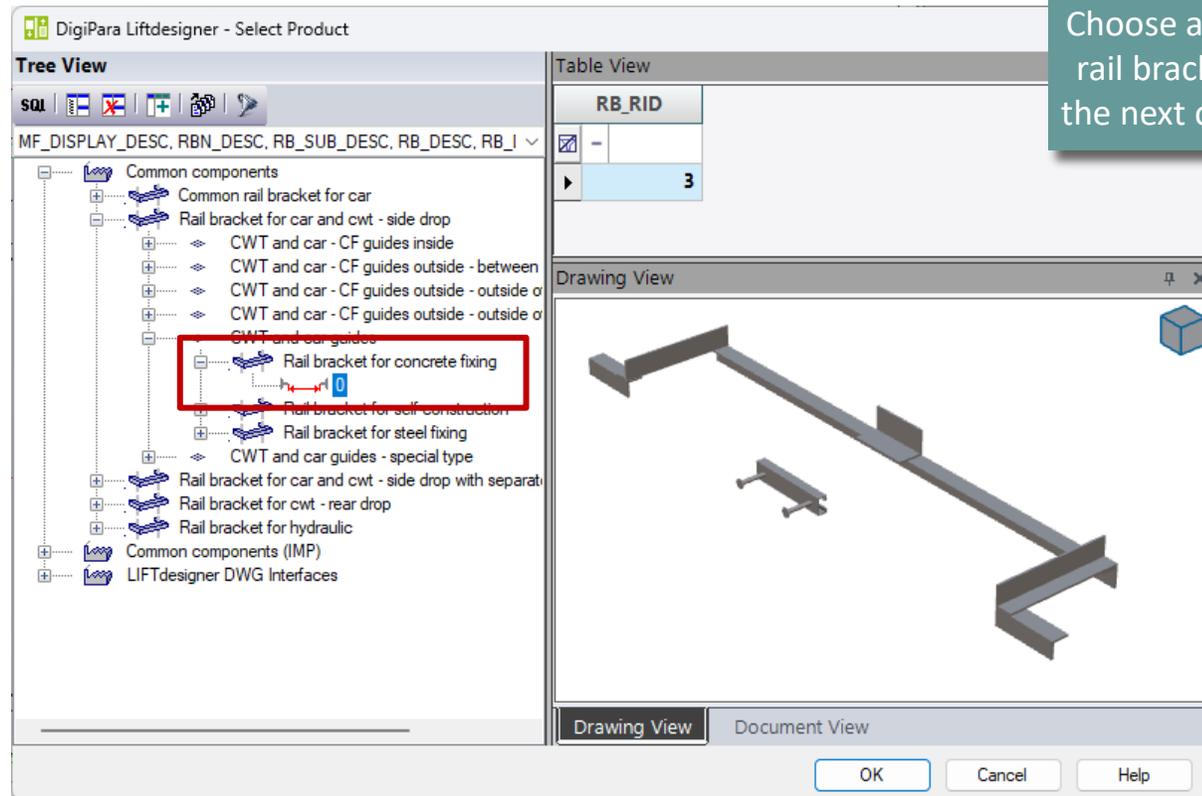


# Component Exchange

## A2.1 COMPONENT PROPERTIES

### Exchange components from the DigiPara library

- by double-clicking or using the Properties docking window



# A2.2

Component  
Options & Rules

COMPONENT  
OPTIONS  
RULES

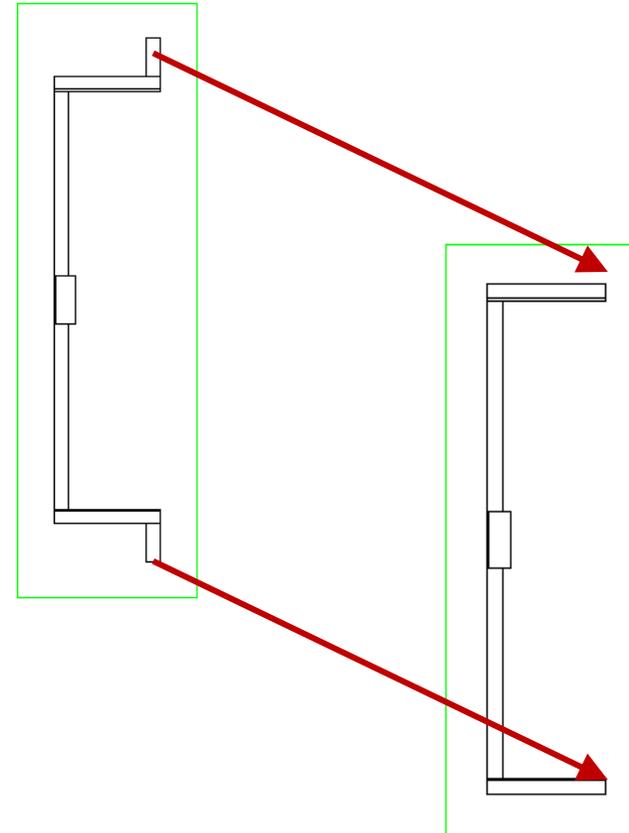


# Product Options

## A2.2 COMPONENTS OPTIONS & RULES

Are available by default for some of the DigiPara Liftdesigner BIM components e.g. for:

- Rail brackets
- Traction machines
- Gear frames
- Car frames
- etc.

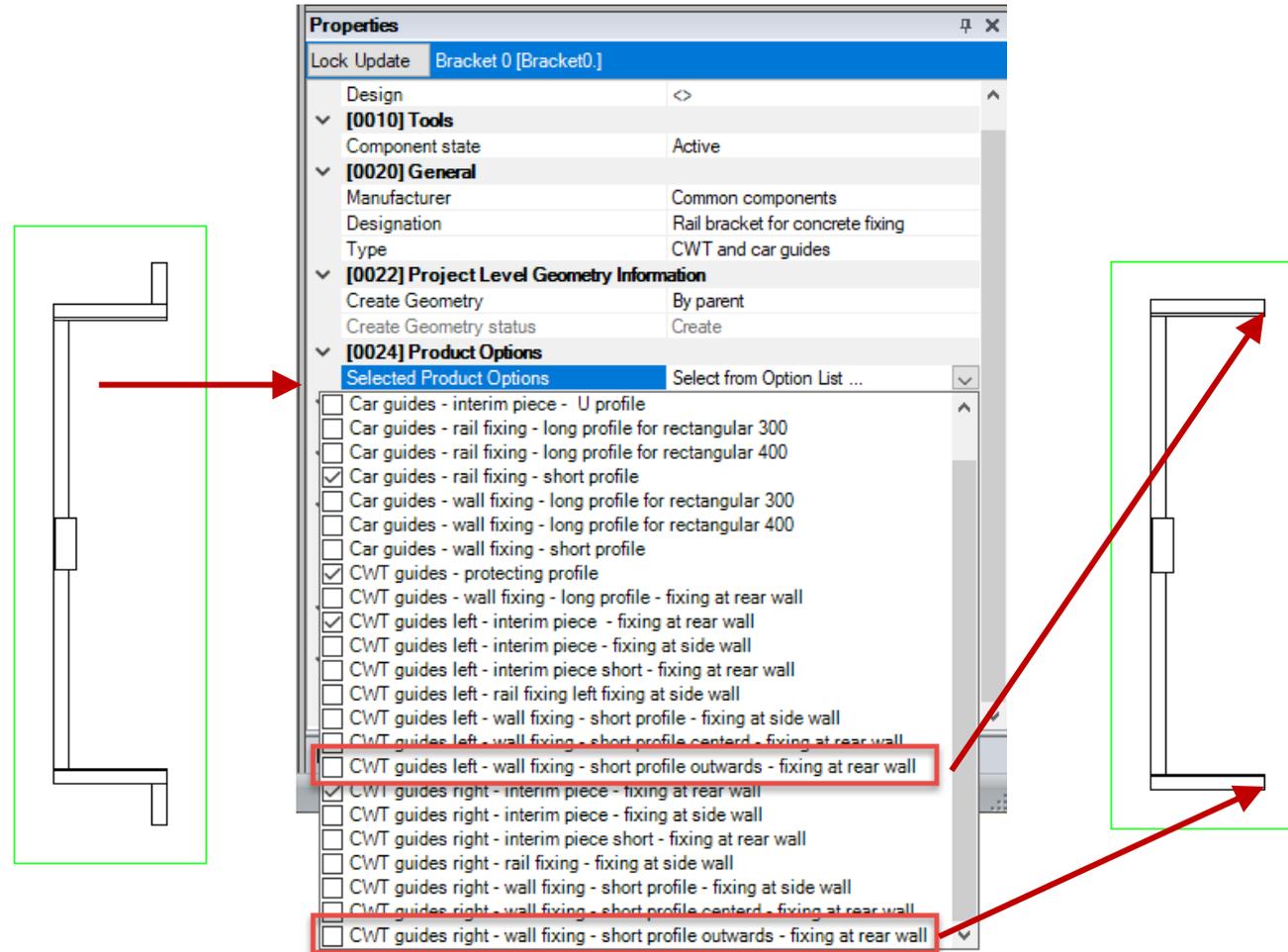


# Product Options

## A2.2 COMPONENTS OPTIONS & RULES

### Enabling and disabling

- via Properties docking window by adding or removing a check mark.
- Product Options can consist of one or more profiles.
- Switching off the bracket wall fixing profiles:
  - short profiles outwards left and right

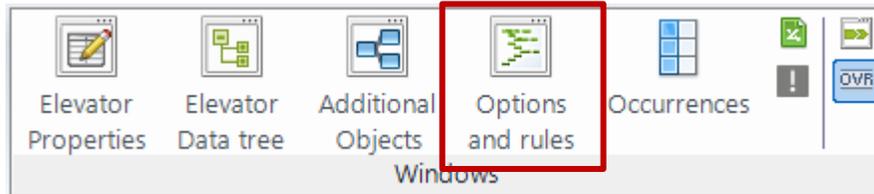


# Options and Rules Docking Window

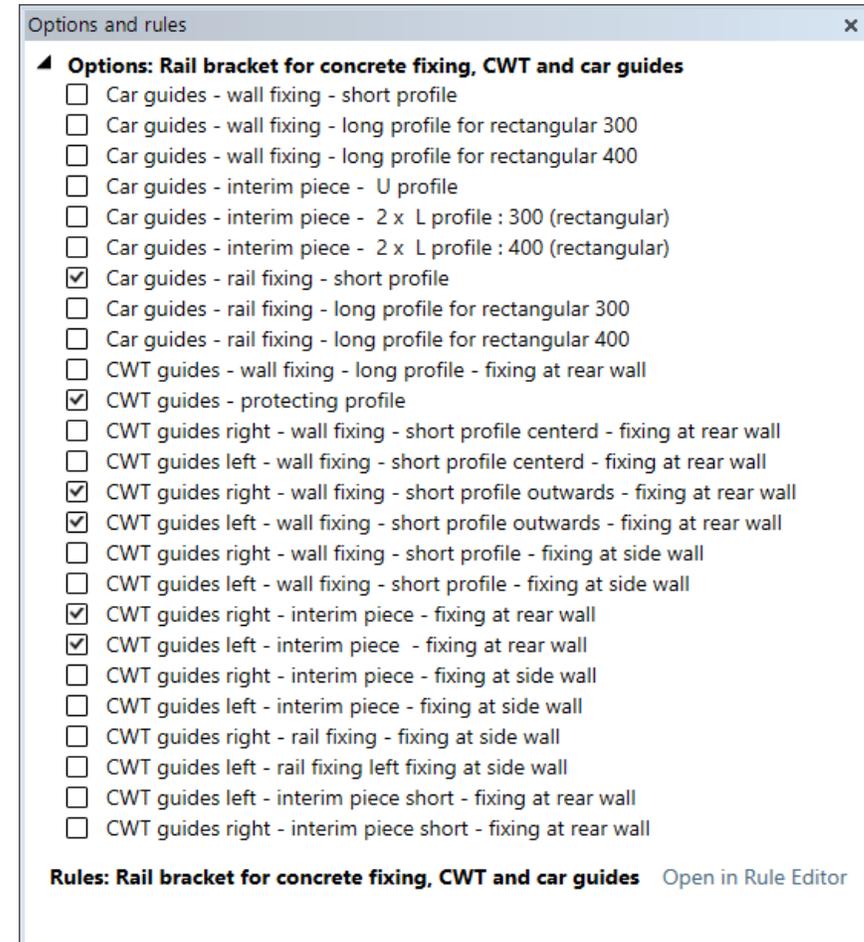
## A2.2 COMPONENTS OPTIONS & RULES

Not only intended for component developers, but also useful for Lift designer users.

- Activation via the Start tab



Common components are designed to be manufacturer-neutral and generally do not have rules governing their behavior when changes are made.

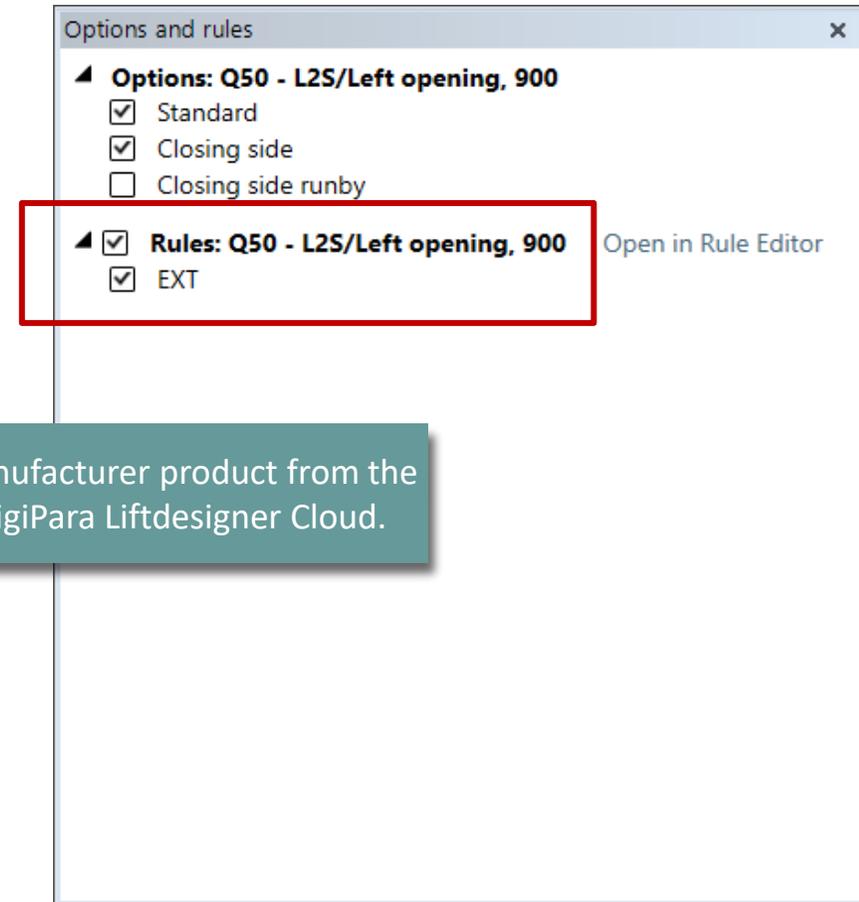
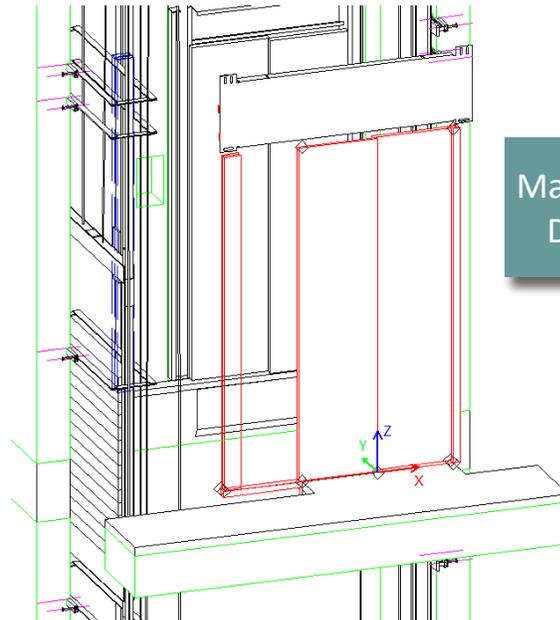


# Component Rule

## A2.2 COMPONENTS OPTIONS & RULES

### Component rules can be deactivated and reactivated

- by a check mark
- Only the manufacturer or developer of the component is authorized to change rules and save them permanently in the database.



Options and rules

- ▲ **Options: Q50 - L2S/Left opening, 900**
  - Standard
  - Closing side
  - Closing side runby
- ▲  **Rules: Q50 - L2S/Left opening, 900** [Open in Rule Editor](#)
  - EXT

Manufacturer product from the DigiPara Liftdesigner Cloud.

# A2.3

Rail Brackets

RAIL  
BRACKETS



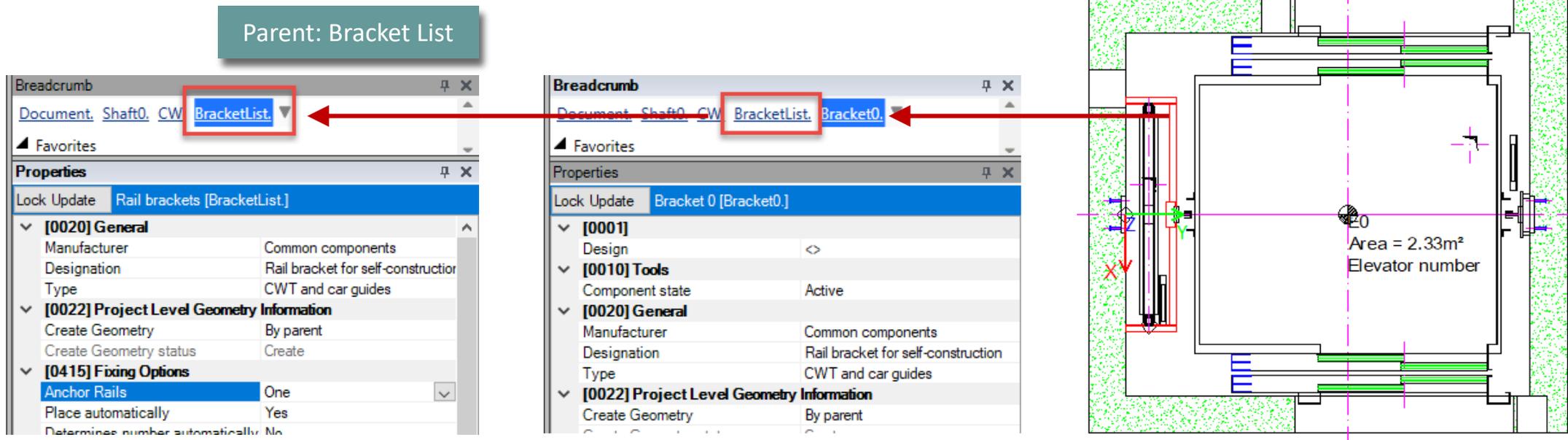
# Brackets & Bracket List

## A2.3 RAIL BRACKETS

### Rail brackets properties

- can be displayed by selecting a single bracket in the drawing and selecting the rail brackets parent object via the Breadcrumb window afterwards.

Parent: Bracket List



The image illustrates the process of navigating the software interface to view the properties of a rail bracket. It consists of three main parts:

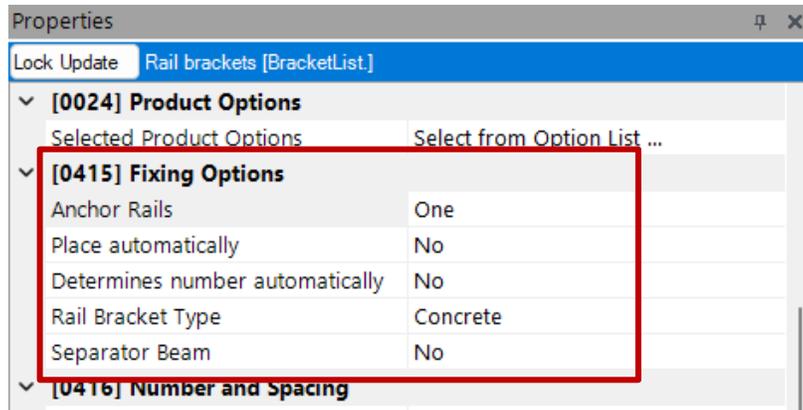
- Left Panel (Breadcrumb and Properties):** Shows the breadcrumb window with 'BracketList.' selected and highlighted by a red box. Below it, the properties window for 'Rail brackets [BracketList.]' is displayed, showing various configuration options like 'Anchor Rails' set to 'One'.
- Middle Panel (Breadcrumb and Properties):** Shows the breadcrumb window with 'BracketList. Bracket0.' selected and highlighted by a red box. Below it, the properties window for 'Bracket 0 [Bracket0.]' is displayed, showing details for a specific bracket instance.
- Right Panel (Technical Drawing):** Shows a cross-sectional drawing of a lift shaft with rail brackets. A red box highlights one of the brackets, and a red arrow points from this box to the 'Bracket0.' entry in the middle breadcrumb window. The drawing also includes a central circle labeled '20' with the text 'Area = 2.33m² Elevator number'.

# Bracket Fixing Options

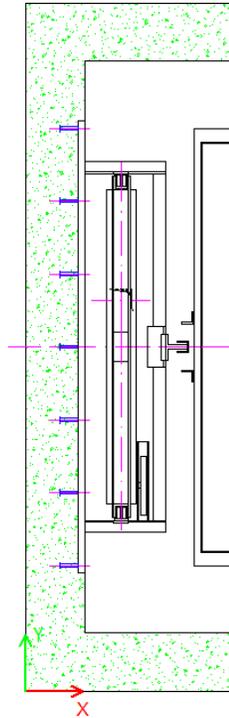
## A2.3 RAIL BRACKETS

### Rail bracket fixing options

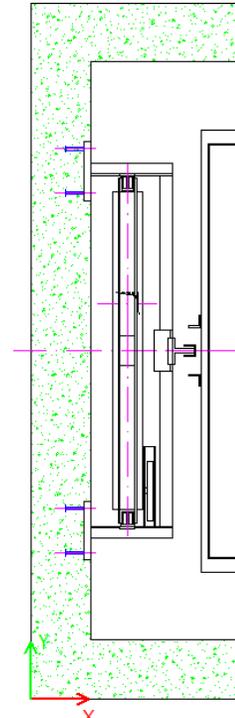
- can be changes via the Rail Brackets list



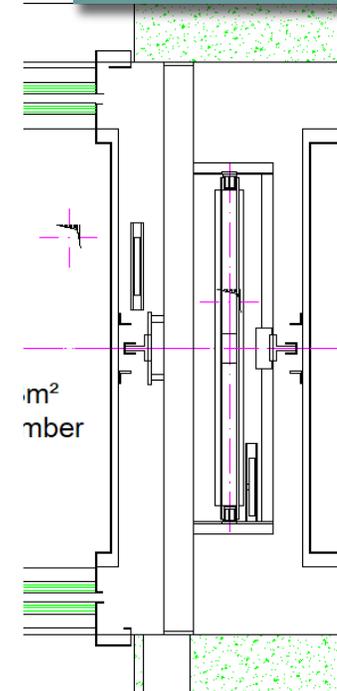
1 Anchor Rail



2 Anchor Rails



None and Separator Beam for shaft groups



Shaft Groups & High Rise

EL2

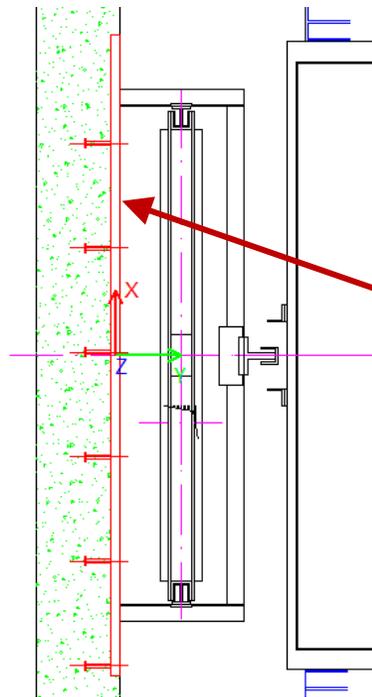
# Rail Bracket Fixing Options

## A2.3 RAIL BRACKETS

### Anchor rail lengths:

- Use standard from list or define your own lengths
  - YES (default): specified length from the database
  - NO: set length manually

If a manual length is set first and you reactivate the standard lengths, the closest fixed length will be chosen



[0100] Length	
Use standard lengths	Yes
Anchor rail length [mm]	1550
Bolts Calculation	100
Bolt X0	150
Bolt DX	200
Bolt Count	250
Wall thickness min.	300
[0801] Wall Segment	
Concrete beam enabled	350
Expose concrete beam	400
	550
[3635] View Frame Settings	
Representation	1050
Dash	1300
Extended Dimension	1550
[3805] Render	
All available Surfaces	1800
	2050
[4210] Product Administration	
Object name	LDXATICTOTRail, TQATICTOTRail

standard

[0100] Length	
Use standard lengths	No
Anchor rail length [mm]	1535
Bolts Calculation	Automatically
Bolt X0	25
Bolt DX	250
Bolt Count	6
Wall thickness min.	0
[0801] Wall Segment	
Concrete beam enabled	No

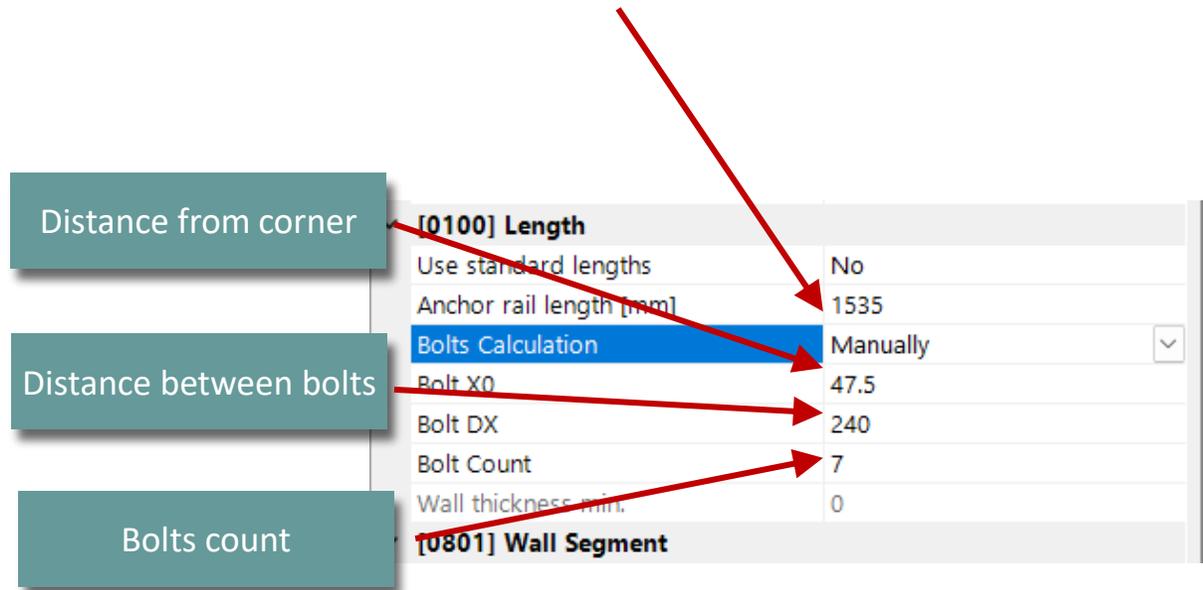
custom

# Rail Bracket Fixing Options

## A2.3 RAIL BRACKETS

### Anchor bolts:

- Adjust count and position manually

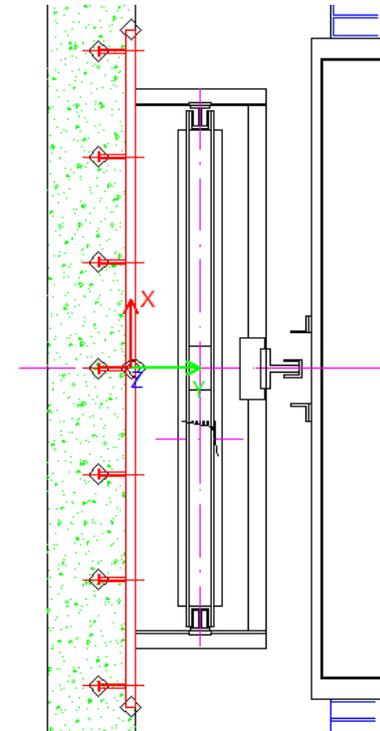


The screenshot shows a software interface for configuring rail bracket fixing. Three callout boxes on the left point to specific settings in the table:

- Distance from corner** points to the **[0100] Length** section.
- Distance between bolts** points to the **Bolt X0** setting.
- Bolts count** points to the **Bolt Count** setting.

[0100] Length	
Use standard lengths	No
Anchor rail length [mm]	1535
<b>Bolts Calculation</b>	Manually <input type="button" value="v"/>
Bolt X0	47.5
Bolt DX	240
Bolt Count	7
Wall thickness min.	0

**[0801] Wall Segment**

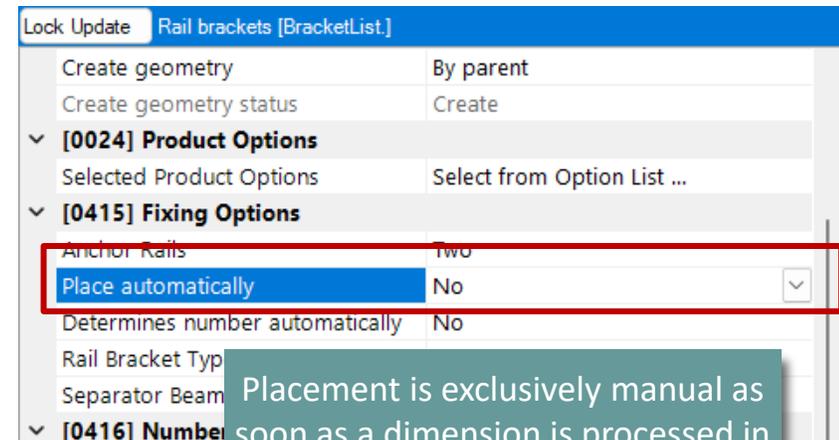
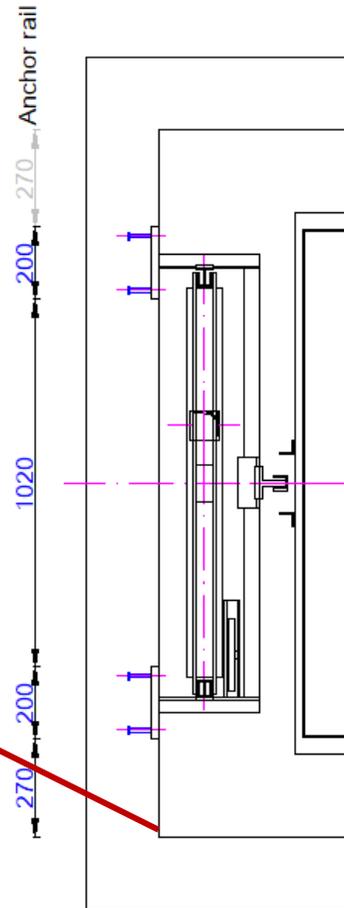


# Rail Bracket Fixing Options

## A2.3 RAIL BRACKETS

### Anchor rail position:

- Hint: activate the Design Mode
- select Dimension in current the view frame
- Dimensional chain starting at the shaft base point



Placement is exclusively manual as soon as a dimension is processed in the dimension chain.

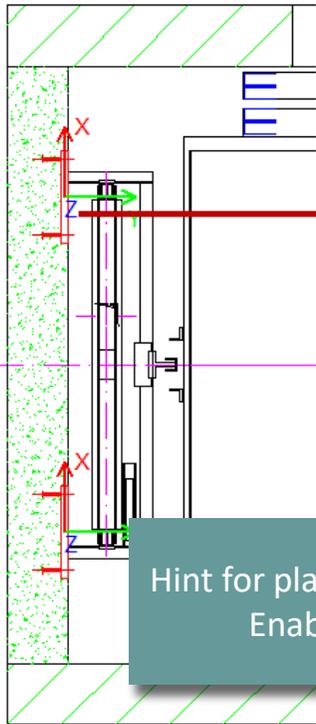
✓ Concrete Beam

# Concrete Beam

## A2.3 RAIL BRACKETS

### Concrete Beam for Anchor Rails

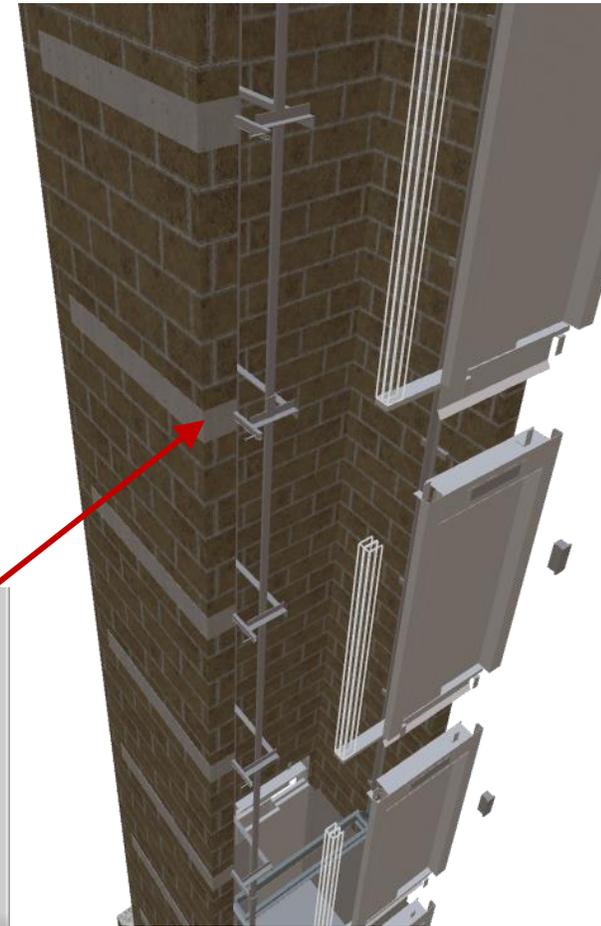
- How to activate



Hint for plan view representation:  
Enable section plane

Create Geometry	By parent
Create Geometry status	Create
▼ [0100] Length	
Use standard lengths	Yes
Anchor rail length [mm]	200
▼ [0801] Wall Segment	
Concrete beam enabled	No
Expose concrete beam	No
▼ [3635] View Frame Settings	
Representation	Default (by Frame)
Dash	No

Use standard lengths	Yes
Anchor rail length [mm]	200
▼ [0801] Wall Segment	
Concrete beam enabled	Yes
Concrete beam material	<input type="checkbox"/> Concrete Beam
Concrete beam size	Automatically
Concrete beam DZ	200
Concrete beam Z0	0
Expose concrete beam	Yes
▼ [3635] View Frame Settings	
Representation	Default (by Frame)

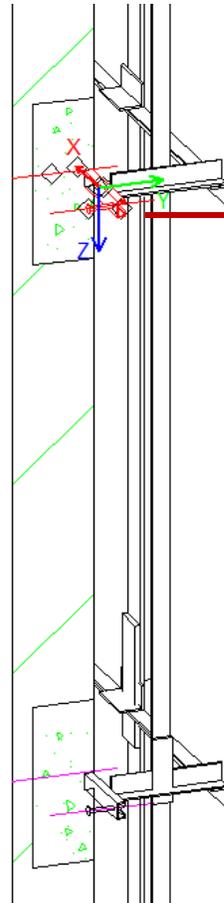


# Concrete Beam

## A2.3 RAIL BRACKETS

### Concrete Beam for Anchor Rails

- Change size and position



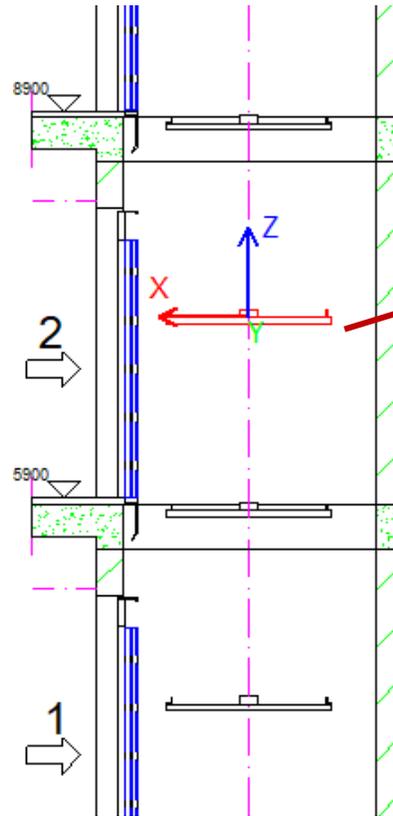
Bolt Count	2
Wall thickness min.	0
<b>[0801] Wall Segment</b>	
Concrete beam enabled	Yes
Concrete beam material	<input type="checkbox"/> Concrete Beam
Concrete beam size	Manually
Concrete beam DZ	400
Concrete beam Z0	0
Concrete beam DX right	430
Concrete beam DX left	1530
Concrete beam DY	150
Expose concrete beam	Yes
<b>[3635] View Frame Settings</b>	
Representation	Default (by Frame)
Dash	No
Extended Dimension	No
<b>[3805] Render</b>	
<b>Concrete beam size</b>	
Key: KEY_AR_BEAM_MANUAL_SIZE	
Class: DigiPara.Win.Properties.PLDXAnchorRail	

# Individuell Settings

## A2.3 RAIL BRACKETS

### Individuell settings for single brackets

- floor related



Breadcrumb: Document. Shaft0. CW. BracketList. **Bracket5.**

Properties: Lock Update Bracket 5 [Bracket5.]

[0024] Product Options	
Selected Product Options	Select from Option List ...
[0195] Grouping	
Grouping	This bracket is different
Anchor Rail and Beams	This bracket is different
[0415] Fixing Options	
Anchor Rails	Two
Place automatically	No
Determines number automatically	No
Rail Bracket Type	Concrete
Separator Beam	No
[0420] Z - Position	

# A2.4

Door Mounting &  
Installation

DOOR  
MOUNTING  
INSTALLATION



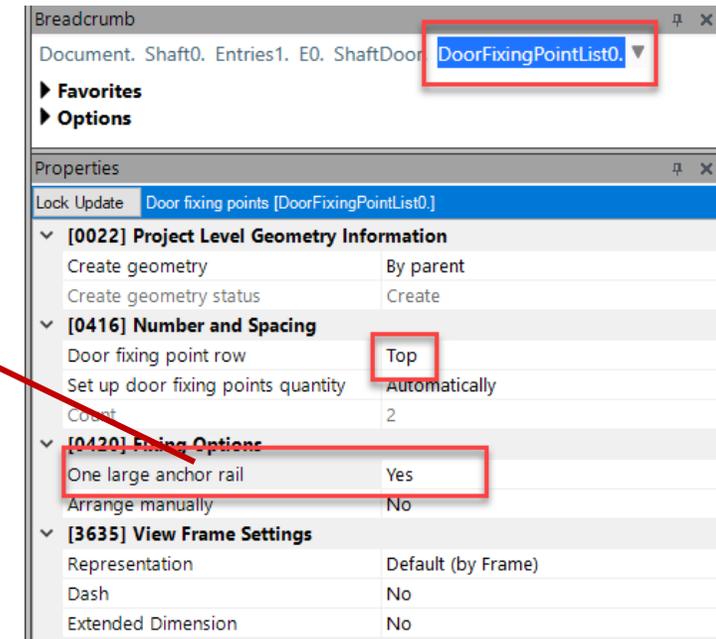
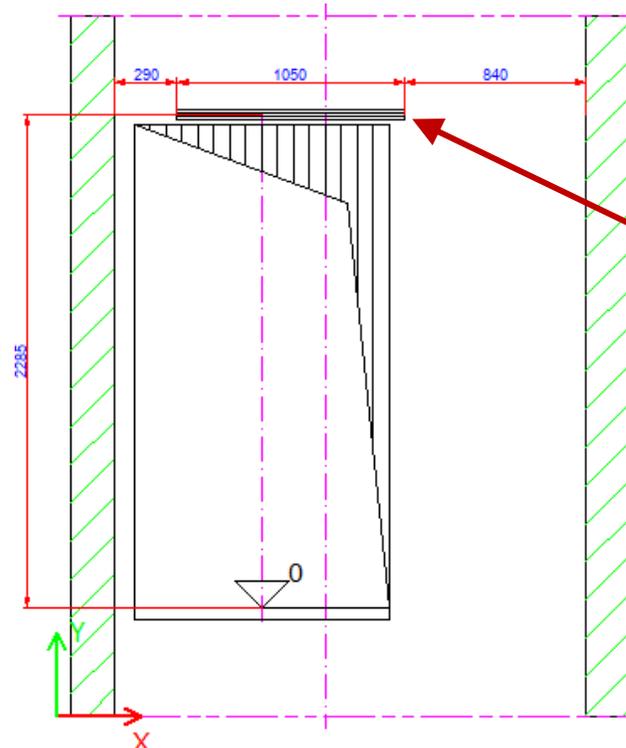
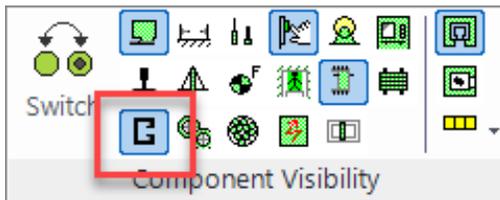
# Shaft Door Anchor Rails

## A2.4 DOOR MOUNTING & INSTALLATION

Top anchor rails can be added

- via the **ShaftDoor** using the **DoorFixingPointList0**. Properties
  - Fixing Options

- The component visibility of the anchor rails for the respective viewing frame must be switched on.

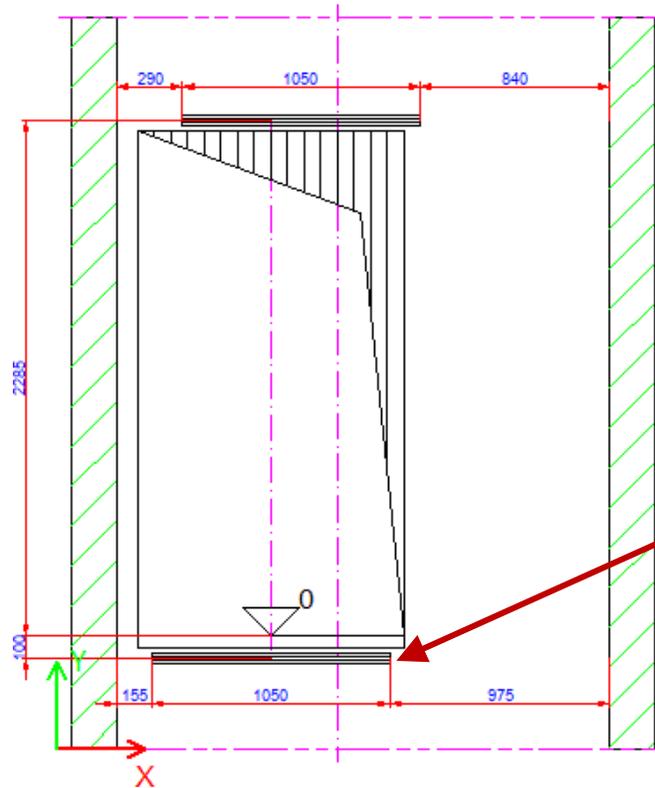


# Shaft Door Anchor Rails

## A2.4 DOOR MOUNTING & INSTALLATION

Bottom anchor rails can be added

- via the **ShaftDoor** using the **DoorFixingPointList1**. Properties
- Fixing Options



Breadcrumb: Document. Shaft0. Entries1. E0. ShaftDoor. DoorFixingPointList1.

► Favorites

► Options

Properties

Lock Update Door fixing points [DoorFixingPointList1.]

▼ [0022] Project Level Geometry Information

Create geometry By parent

Create geometry status Create

▼ [0416] Number and Spacing

Door fixing point row Bottom

Set up door fixing points quantity Automatically

Count 2

▼ [0420] Fixing Options

One large anchor rail Yes

Arrange manually No

▼ [3635] View Frame Settings

Representation Default (by Frame)

Dash No

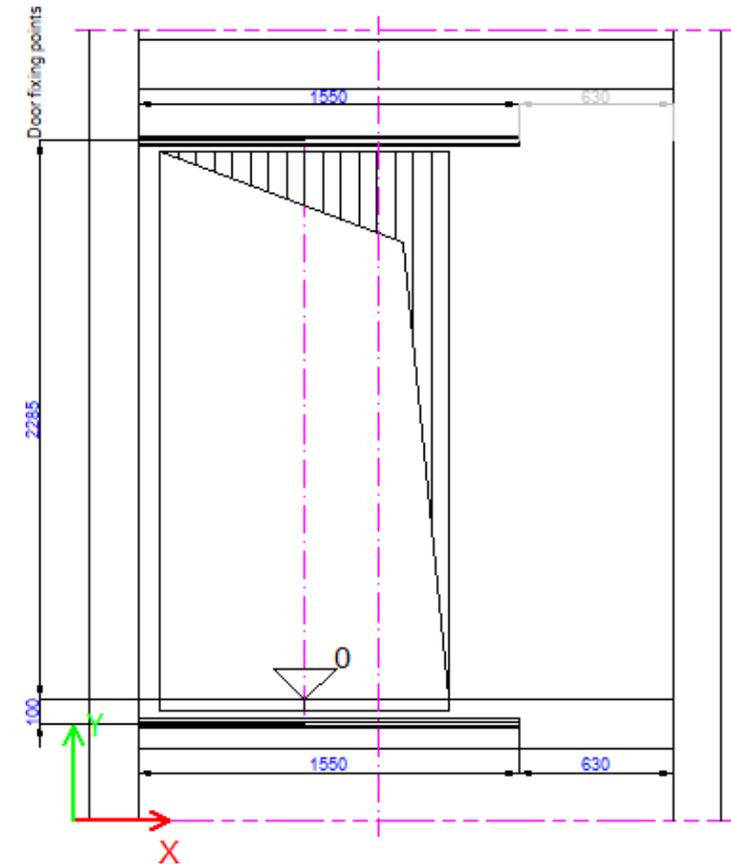
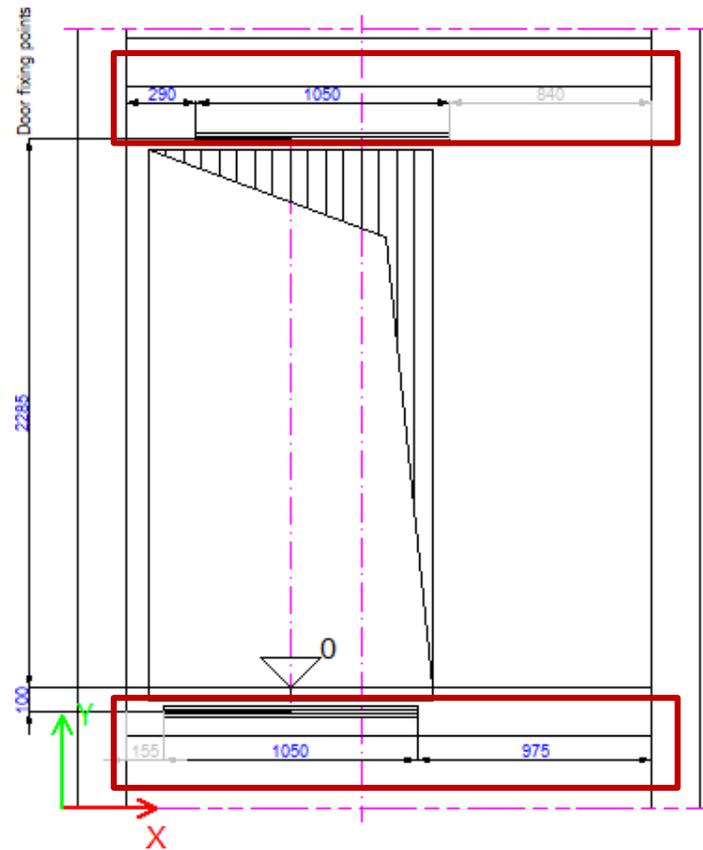
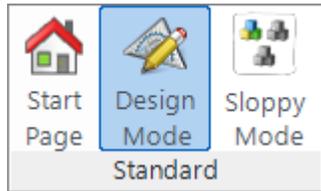
Extended Dimension No

# Shaft Door Anchor Rails

## A2.4 DOOR MOUNTING & INSTALLATION

### Adjust the position

- directly on the drawing in an entrance view



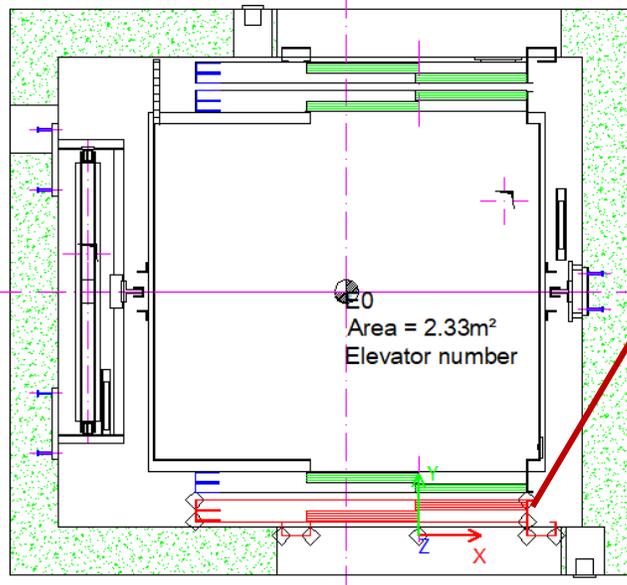
✓ Entrance Pocket

# Entrance Pocket

## A2.4 DOOR MOUNTING & INSTALLATION

### Display the **Pocket** properties

- The entry pocket properties can be displayed by selecting the landing door in the drawing first and selecting the entry pocket object via the Breadcrumb tree window afterwards.



**Breadcrumb**  
Document > Shaft0 > Entries1 > E0 > ShaftDoor.

**Properties**  
Lock Update: Landing Door [ShaftDoor.]

- [0010] Tools
  - Component state: Active
- [0020] General
  - Manufacturer: Common components
  - Designation: S2R
  - Type: 1000
- [0022] Project Level Geometry Information
  - Create Geometry: By parent
  - Create Geometry status: Create
- [0195] Grouping
  - Grouping: Modify with group
- [0196] Door Dimensions
  - Height [mm]
  - Width [mm]
  - Extended door di
  - Distance Sill to W
- [3635] View Frame
  - Representation
  - Dash
  - Extended Dimens
- [138051] Render

**Breadcrumb**  
Document > Shaft0 > Entries1 > E0 > Pocket0.

**Properties**  
Lock Update: Entry pocket [Pocket0.]

- [0022] Project Level Geometry Information
  - Create Geometry: By parent
  - Create Geometry status: Create
- [0295] Pocket Options
  - Grouping: Modify with group
- [0296] Pocket Dimensions
  - Pocket depth [mm]: 0
  - Pocket width option: Automatically (full width)
  - Pocket width [mm]: 2200
  - Distance to corner [mm]: 0
  - Pocket height above calculation: Rel. to door height
  - DZ [mm]: 500
  - Door height: 2000
  - Pocket height above [mm]: 2500
  - Pocket height below [mm]: 200
  - Resulting pocket height [mm]: 2700
- [3635] View Frame Settings
  - Representation: Default (by Frame)
  - Dash: No
  - Extended Dimension: No
- [4210] Product Administration
  - Object name: LDXEntryPocket, idEntryPocket

3D View | Properties | Data tree | Quick Help

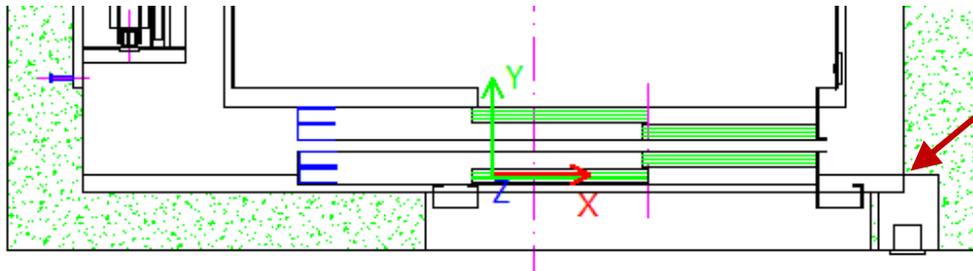
x. 5 cars

# Entrance Pocket

## A2.4 DOOR MOUNTING & INSTALLATION

### Edit the Pocket depth

- The entry pocket automatically gets created for all entries on the corresponding shaft wall side.



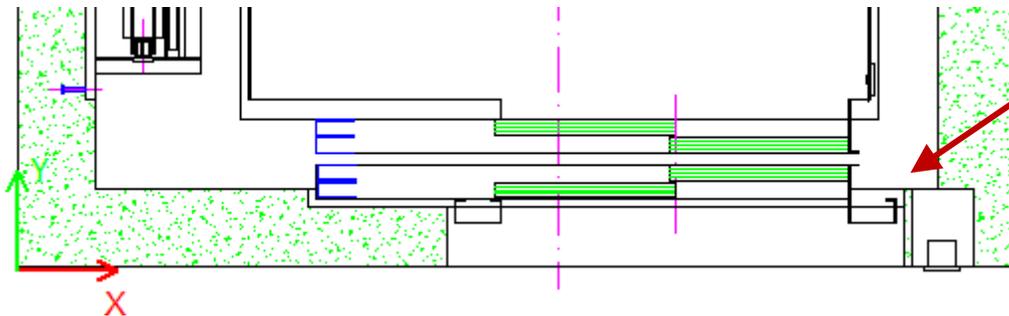
Properties	
Lock Update Entry pocket [Pocket0.]	
▼ [0022] Project Level Geometry Information	
Create geometry	By parent
Create geometry status	Create
▼ [0295] Pocket Options	
Grouping	Modify with group
▼ [0296] Pocket Dimensions	
Pocket depth [mm]	50
Pocket width option	Automatically (full width)
Pocket width [mm]	2180
Distance to corner [mm]	0
Pocket height above calculation	Rel. to door height
DZ [mm]	500
Door height	2000
Pocket height above [mm]	2500
Pocket height below [mm]	200
Resulting pocket height [mm]	2700
▼ [3635] View Frame Settings	
Representation	Default (for Frame)

# Entrance Pocket

## A2.4 DOOR MOUNTING & INSTALLATION

### Edit the Pocket width

- Switch to pocket width option: Manually



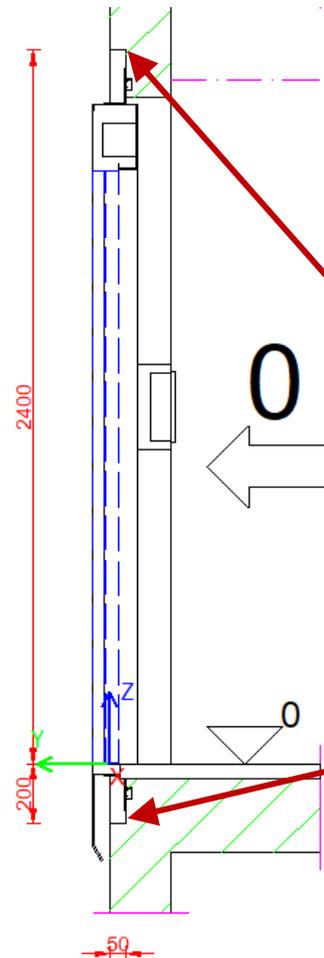
Properties		
Lock Update	Entry pocket [Pocket0.]	
>	[0022] Project Level Geometry Information	
∨	[0295] Pocket Options	
	Grouping	Modify with group
∨	[0296] Pocket Dimensions	
	Pocket depth [mm]	50
	Pocket width option	Manually
	Pocket width [mm]	1540
	Distance to corner [mm]	770
	Pocket height above calculation	Rel. to door height

# Entrance Pocket

## A2.4 DOOR MOUNTING & INSTALLATION

### Edit the **Pocket** height

- Rel. to door height
- Rel. to finished floor



**Properties** [Entry pocket [Pocket0]]

Lock Update

▼ [0022] Project Level Geometry Information

Create geometry	By parent
Create geometry status	Create

▼ [0295] Pocket Options

Grouping	This pocket is different
----------	--------------------------

▼ [0296] Pocket Dimensions

Pocket depth [mm]	50
Pocket width option	Manually
Pocket width [mm]	1540
Distance to corner [mm]	550
Pocket height above calculation	Rel. to door height
<b>DZ [mm]</b>	<b>400</b>
Door height	2000
Pocket height above [mm]	2400
Pocket height below [mm]	200
Resulting pocket height [mm]	2600

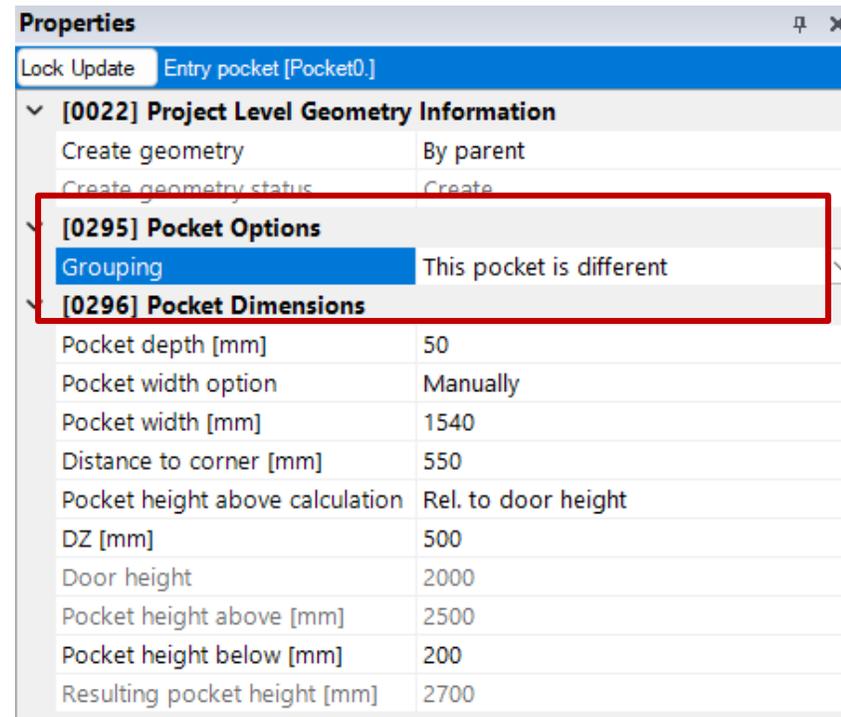
▼ [3635] View Frame Settings

# Entrance Pocket

## A2.4 DOOR MOUNTING & INSTALLATION

Individual pocket sizes for specific floors can be defined using the grouping function

- This pocket is different.

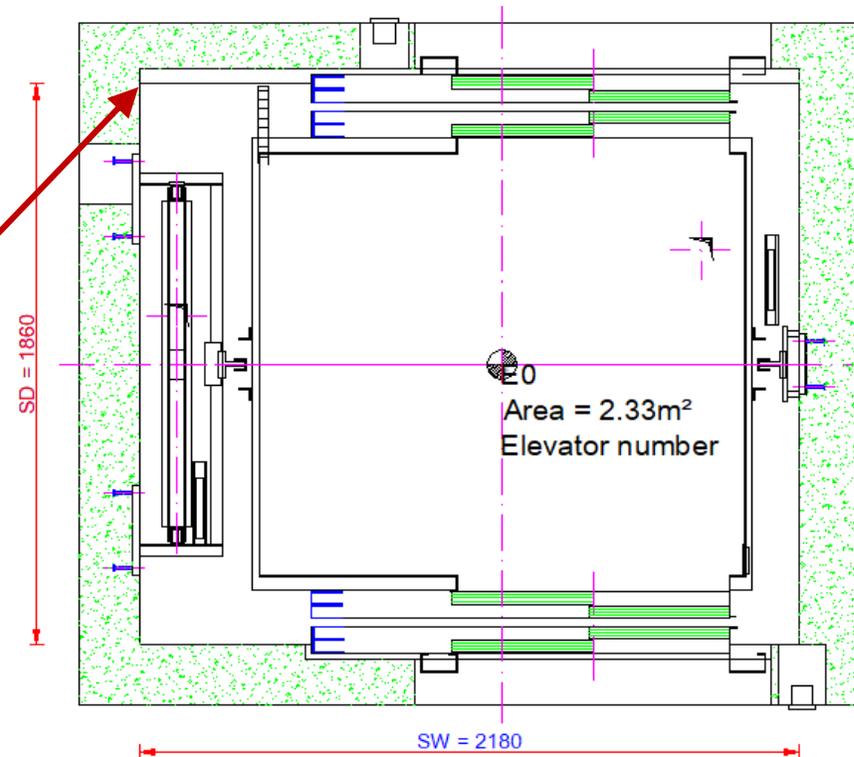


# Entrance Pocket

## A2.4 DOOR MOUNTING & INSTALLATION

The pocket depth can also be defined quickly and easily using the shaft dimensions.

Lock Update DEPTH = 1860	
▼ [0246] Shaft Depth	
Front pocket depth [mm]	50
Door / wall clearance front [mm]	-40
Front door depth [mm]	150
Door clearance front [mm]	30
Front car door depth [mm]	90
Car return front [mm]	50
Car depth [mm]	1400
Car return rear [mm]	50
Rear car door depth [mm]	90
Door clearance rear [mm]	30
Rear door depth [mm]	150
Door / wall clearance rear [mm]	-40
Rear pocket depth [mm]	50
Resulting shaft depth [mm]	1860
▼ [0495] General	
Value [mm]	1860



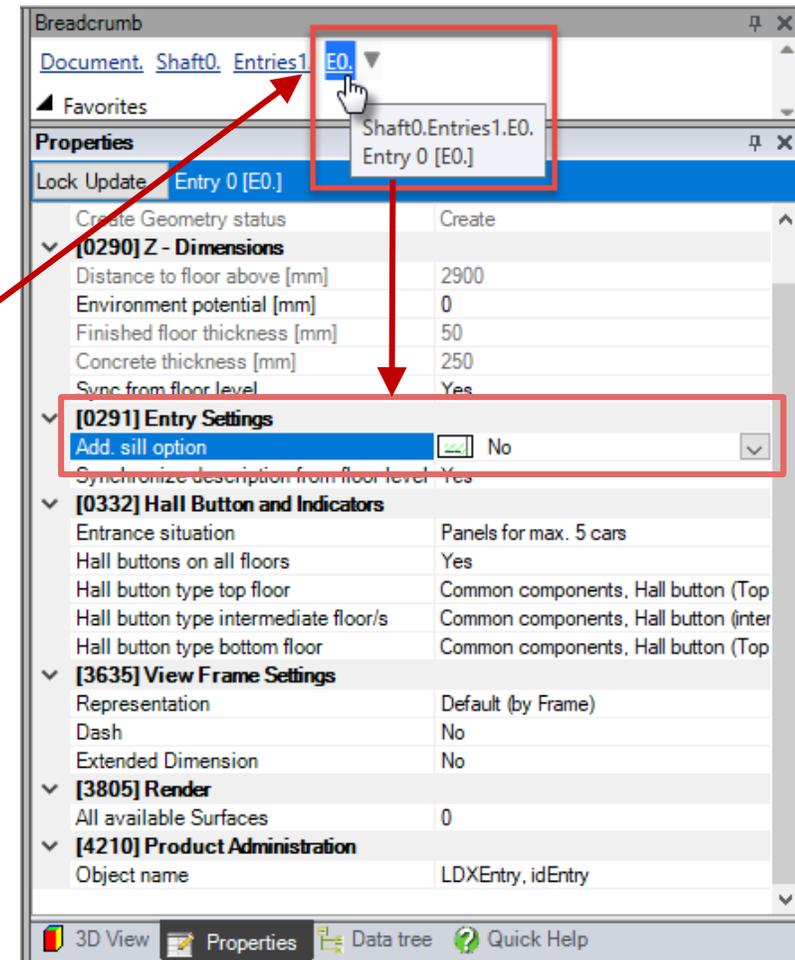
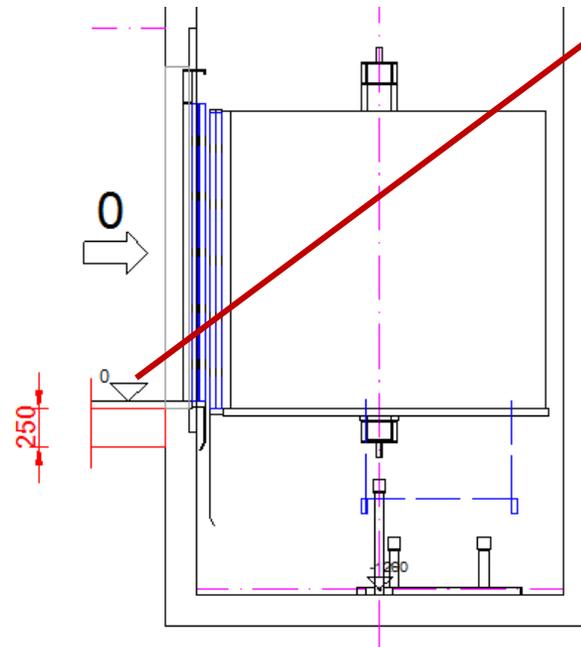
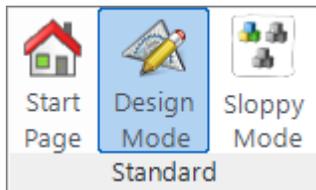
✓ Additional Sill Option

# Additional Sill Option

## A2.4 DOOR MOUNTING & INSTALLATION

### Display the Entry properties

- The entry properties can be displayed by selecting the entry concrete in a vertical view
- in edit mode:
  - hatches turned off

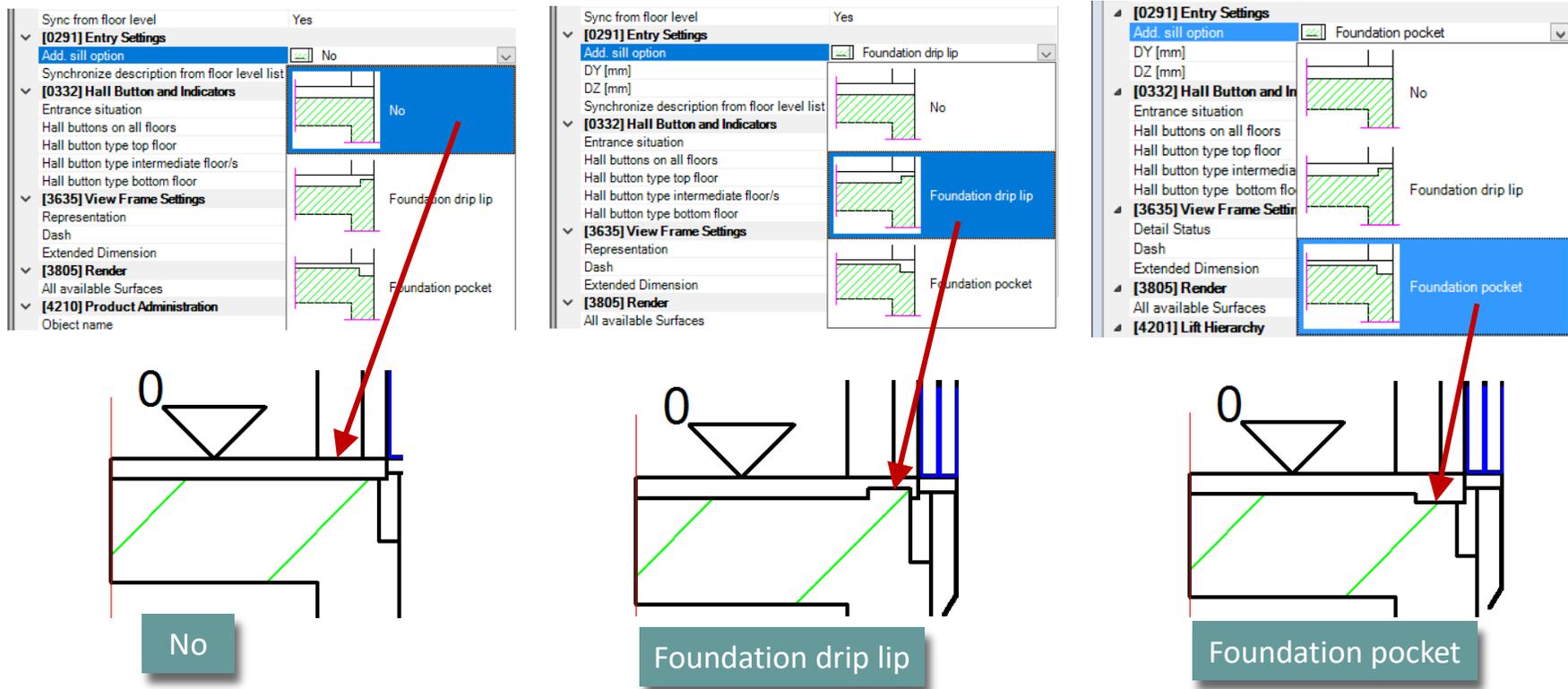


# Additional Sill Option

## A2.4 DOOR MOUNTING & INSTALLATION

### Select from 3 different sill options

- The **Add. sill option** will be applied to all entries on the corresponding shaft wall

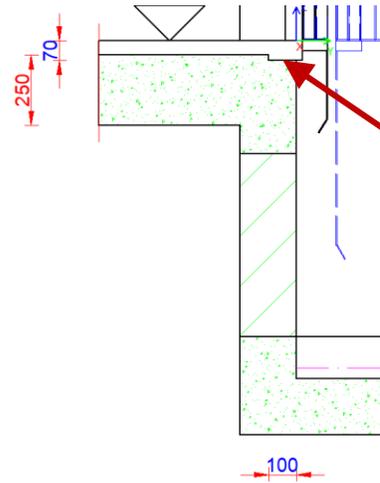


# Additional Sill Option

## A2.4 DOOR MOUNTING & INSTALLATION

### Entry Settings

- The depth and height of the sill can be defined using the DY and DZ dimensions.



**Properties** Entry 0 [E0.]

Lock Update

▼ [0022] Project Level Geometry Information

Create geometry	By parent
Create geometry status	Create

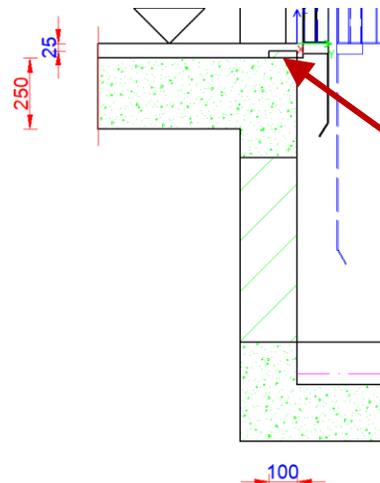
> [0290] Z - Dimensions

▼ [0291] Entry Settings

Add. sill option	 Foundation pocket
DY [mm]	100
DZ [mm]	70

Synchronize description from floor level Yes

Grouping Modify with group



**Properties** Entry 0 [E0.]

Lock Update

▼ [0022] Project Level Geometry Information

Create geometry	By parent
Create geometry status	Create

> [0290] Z - Dimensions

▼ [0291] Entry Settings

Add. sill option	 Foundation drip lip
DY [mm]	100
DZ [mm]	25

Synchronize description from floor level Yes

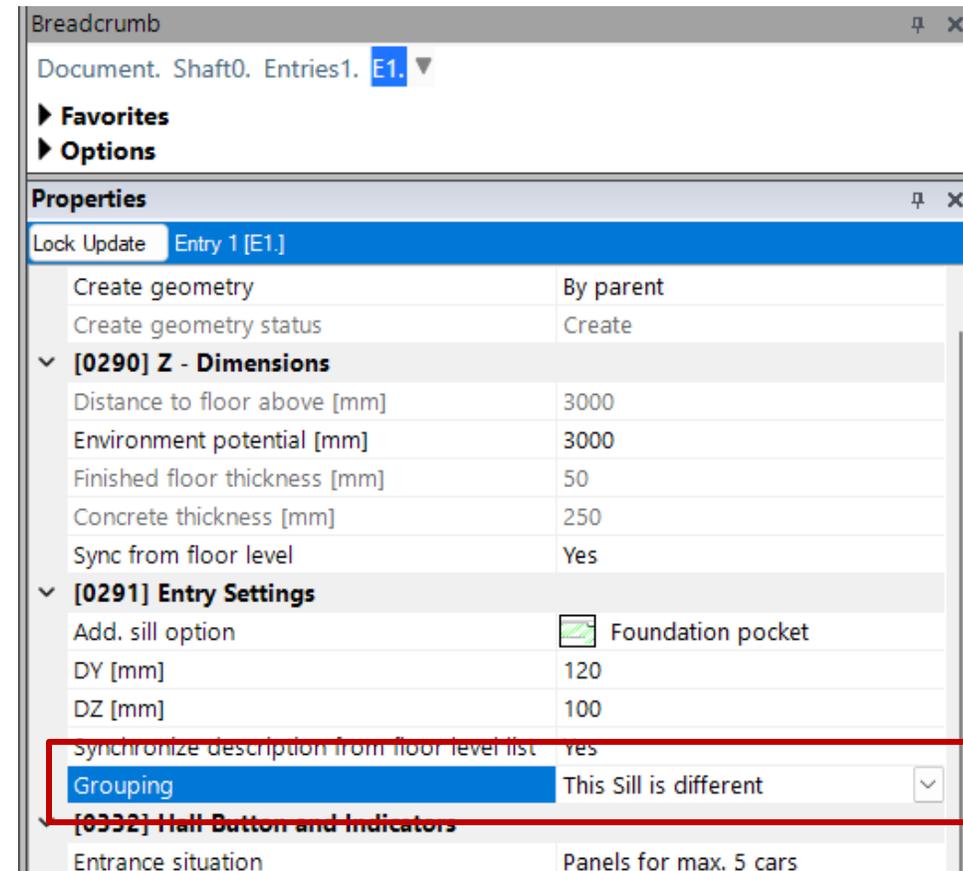
Grouping Modify with group

# Additional Sill Option

## A2.4 DOOR MOUNTING & INSTALLATION

### Set the **Grouping** option individually

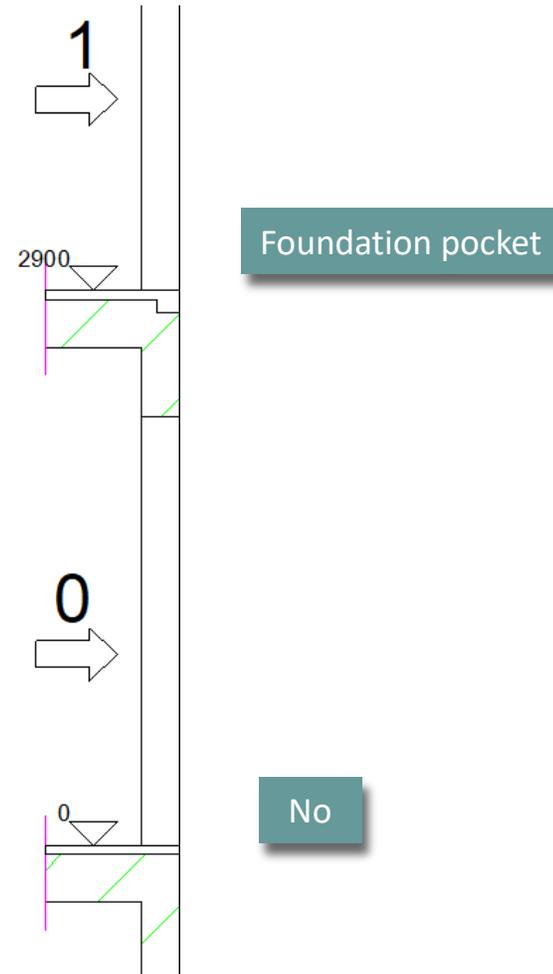
- Specify the Sill option for a single entrance only. The property must be set before the Add. sill option is applied.



# Additional Sill Option

## A2.4 DOOR MOUNTING & INSTALLATION

Individual sill options for different floor levels



# A2.5

Refuge Spaces &  
Platforms

REFUGES  
SPACES &  
PLATFORMS





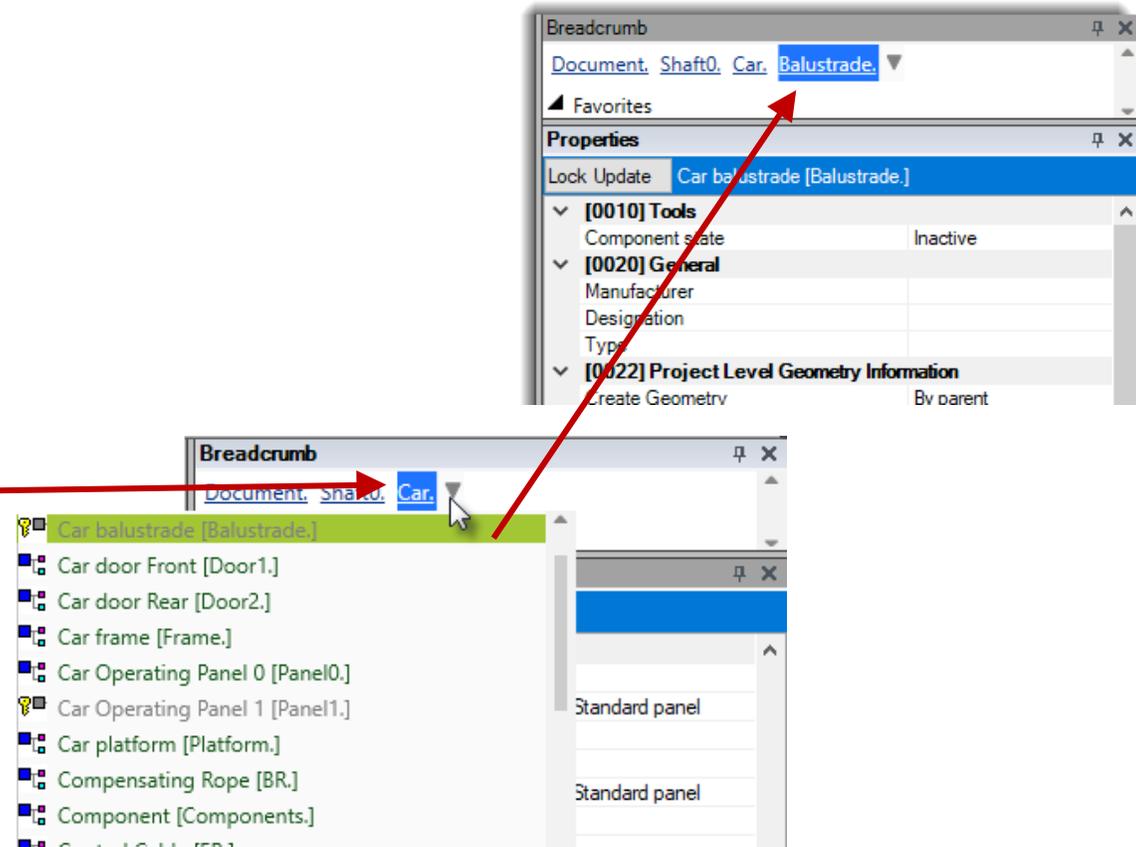
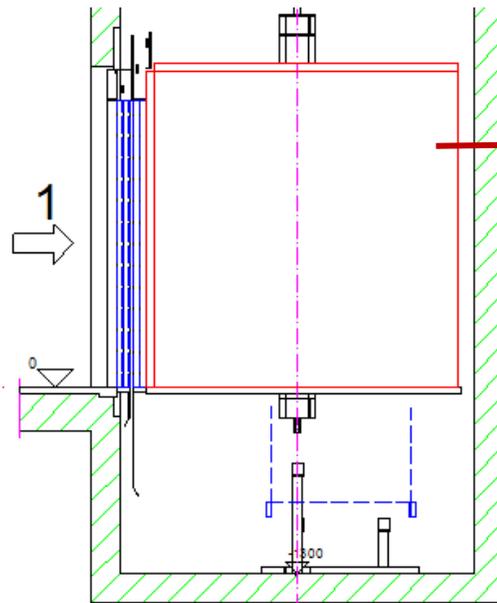
✓ Car Balustrade

# Car Balustrade

## A2.5 REFUGE SPACES & PLATFORMS

### Display the **Car Balustrade** properties

- The Car balustrade properties can be displayed by selecting the car in the drawing first and selecting the Car balustrade object via the Breadcrumb window afterwards.

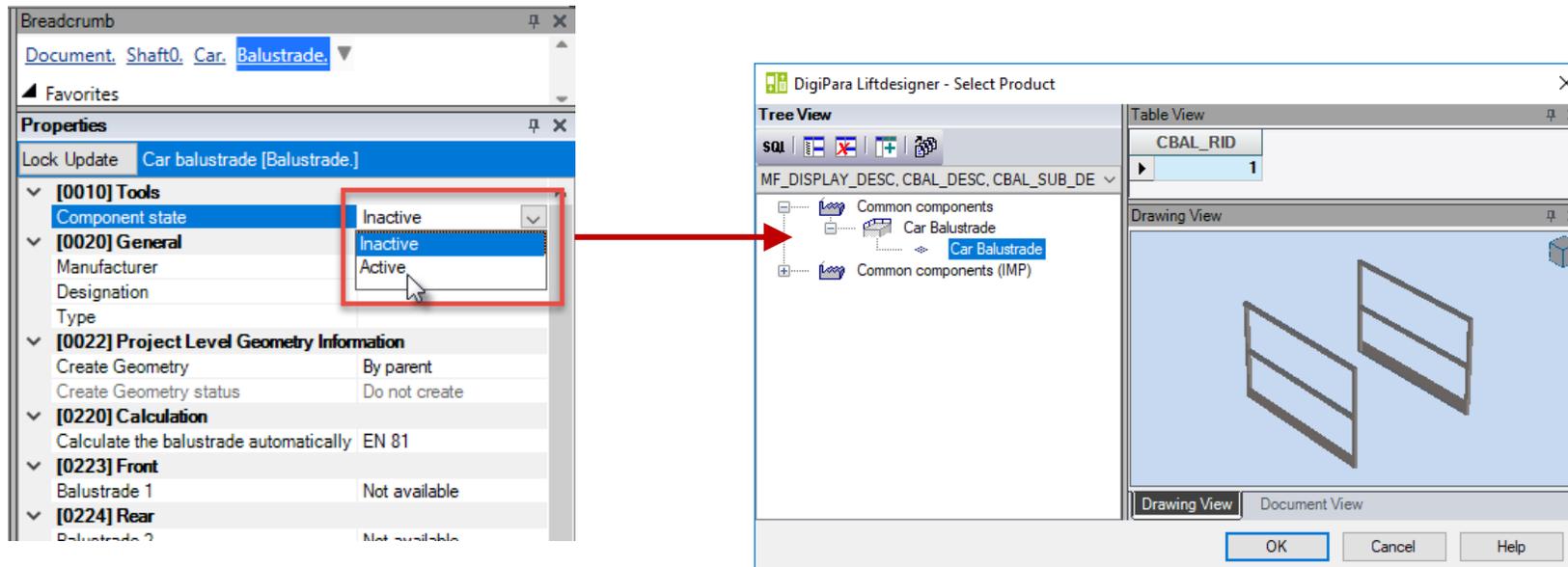


# Car Balustrade

## A2.5 REFUGE SPACES & PLATFORMS

### Activating and selecting the car balustrade

- Choose a component from the library

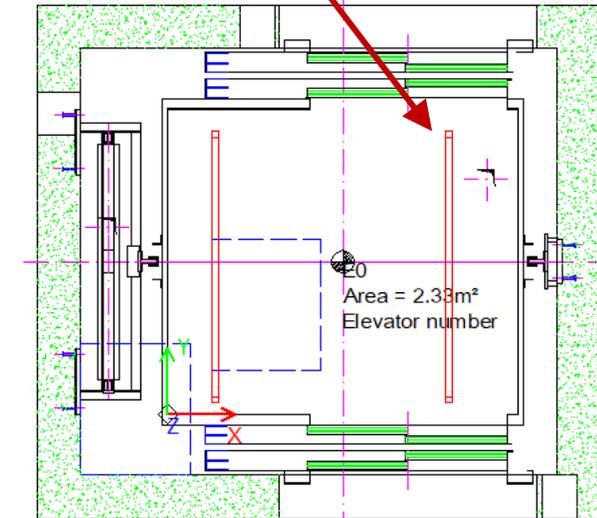
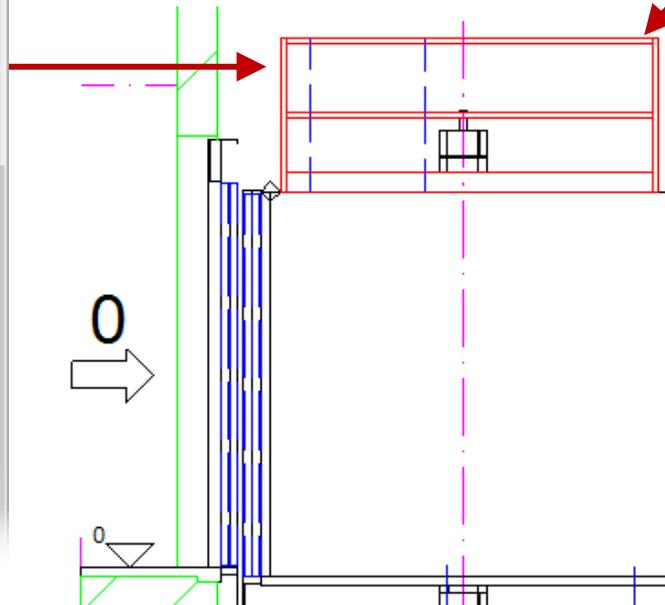
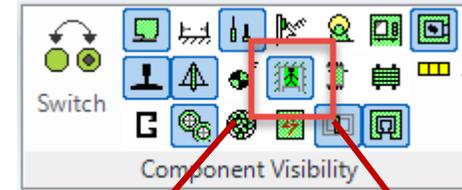


# Car Balustrade

## A2.5 REFUGE SPACES & PLATFORMS

Configuring the balustrade according to your requirements

Properties	
Lock	Update
Car balustrade [Balustrade.]	
▼ [0223] Front	
Balustrade 1	Available
Distance to front wall [mm]	50
Height front [mm]	800
▼ [0224] Rear	
Balustrade 2	Available
Distance to rear wall [mm]	100
Height rear [mm]	800
▼ [0225] Left	
Balustrade 3	Available
Distance to left wall [mm]	200
Height left [mm]	800
▼ [0226] Right	
Balustrade 4	Available
Distance to right wall [mm]	300
Height right [mm]	800
▼ [0635] View Frame Settings	
Representation	Default (by Frame)
Dash	No
Extended Dimension	No

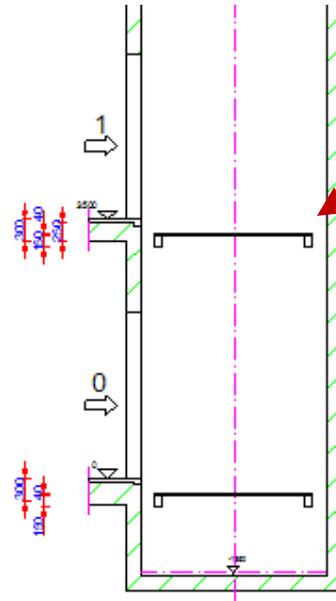
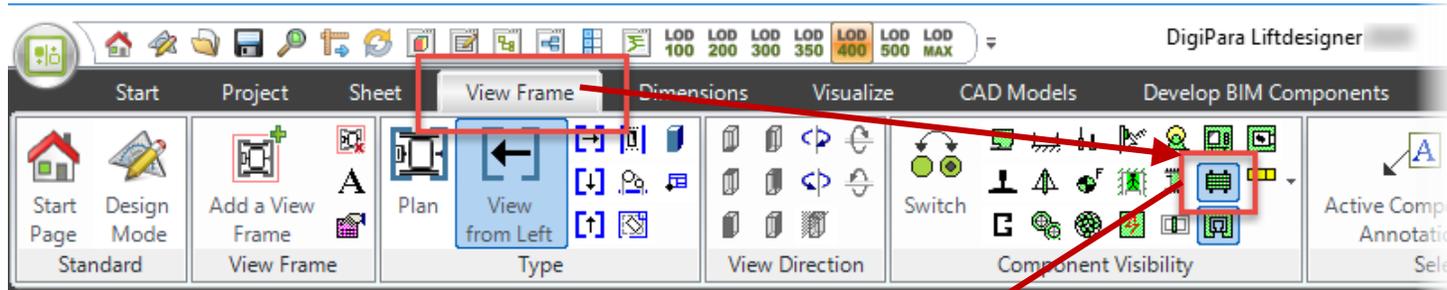


✓ Scaffoldings

# Scaffoldings

## A2.5 REFUGE SPACES & PLATFORMS

### Display the Assembly platforms



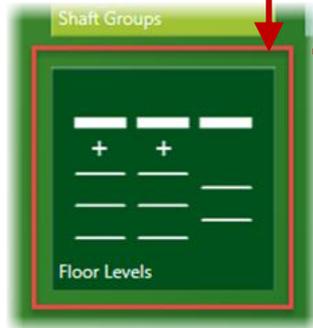
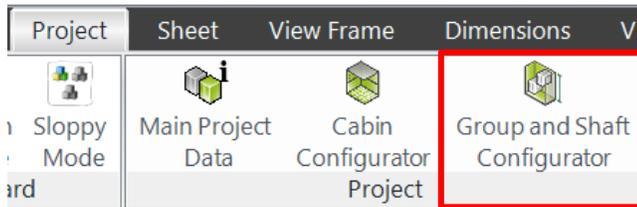
The Assembly platforms can be activated via the corresponding button in the Component Visibility ribbon group

# Scaffoldings

## A2.5 REFUGE SPACES & PLATFORMS

### Quantity

- The number of platforms per floor can be set via the group and shaft configurator.



HOME digipara® liftdesigner

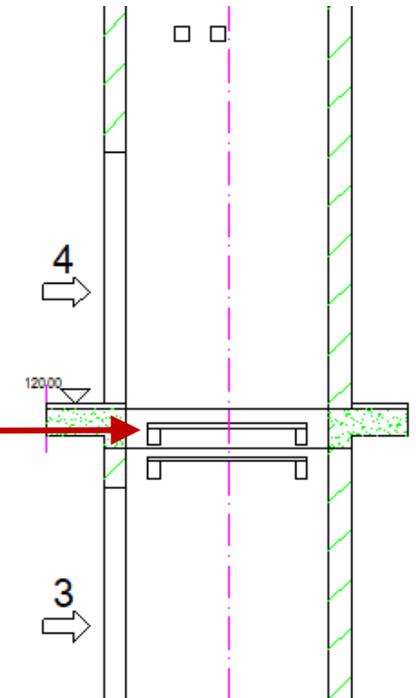
Setting extension

### Floor Levels

Building E0 P

Designation	Level	Floor To Floor Distance	Fr	Re	Scaffoldings
+1 +10					Headroom 4100
	4	12000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2
	3	9000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	2	6000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	1	3000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

+1 +10 Default for new floors 3000 Pit 1300

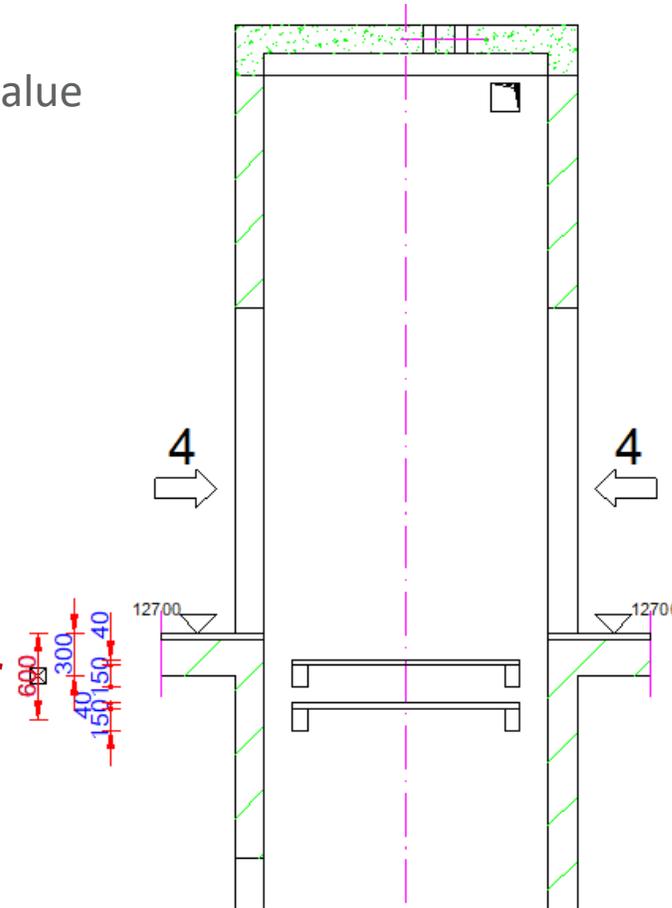
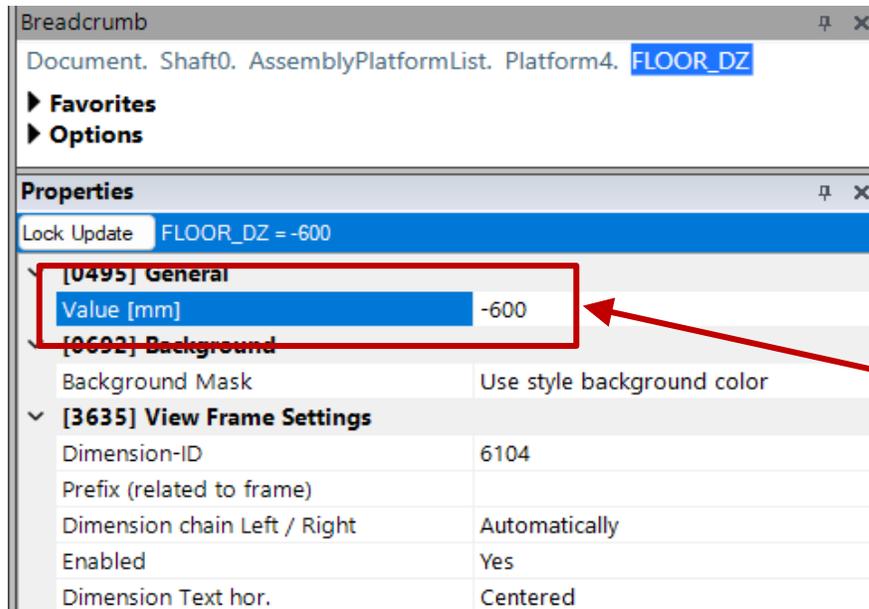


# Scaffoldings

## A2.5 REFUGE SPACES & PLATFORMS

### Location

- The position of new platforms is arranged as a negative value under the entry by default.

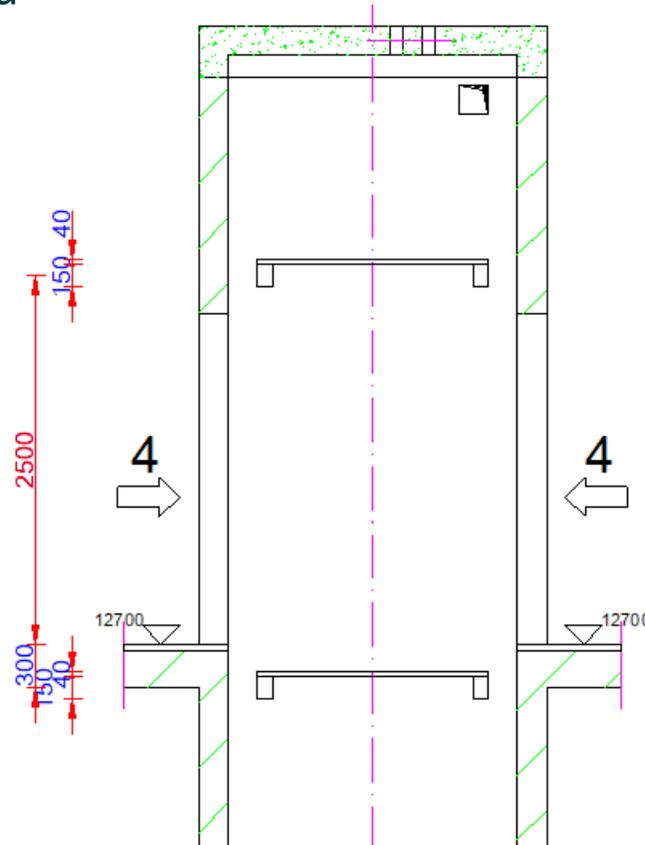


# Scaffoldings

## A2.5 REFUGE SPACES & PLATFORMS

### Placing a platform in the shaft head

- Set height as positive value



# A2.6

Panels

HALL  
BUTTON  
DISPLAY



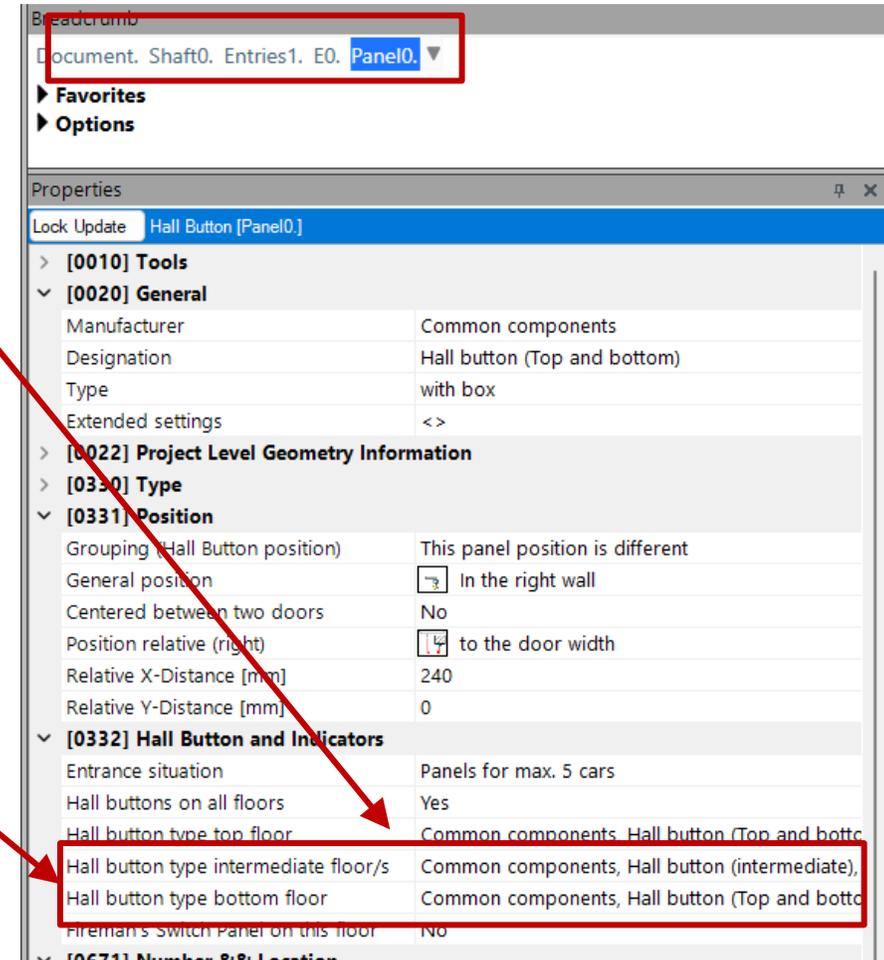
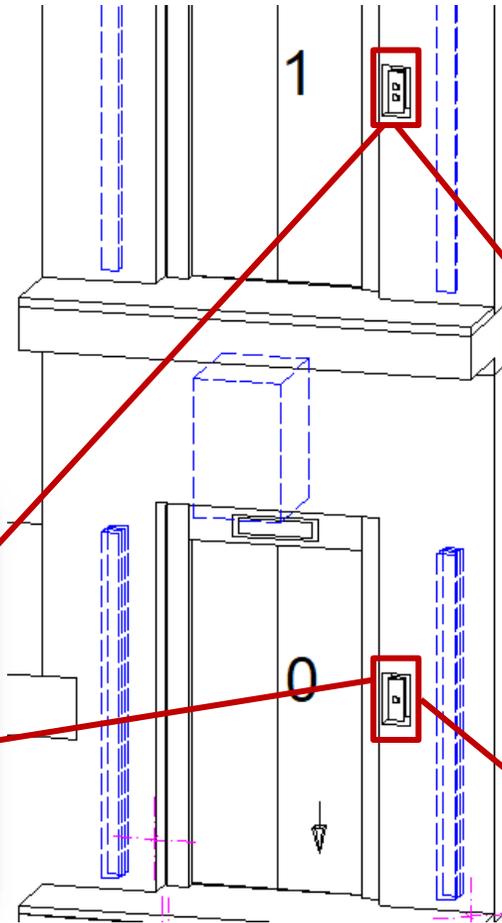
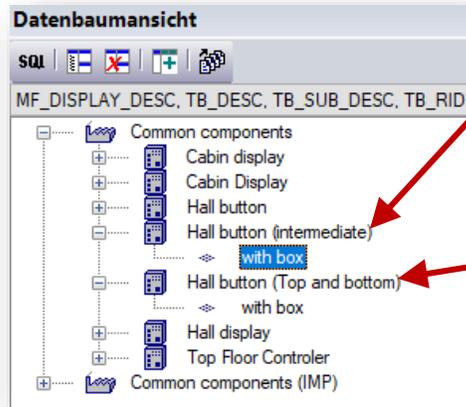
✓ Hall Button

# Hall Button

## A2.6 PANELS

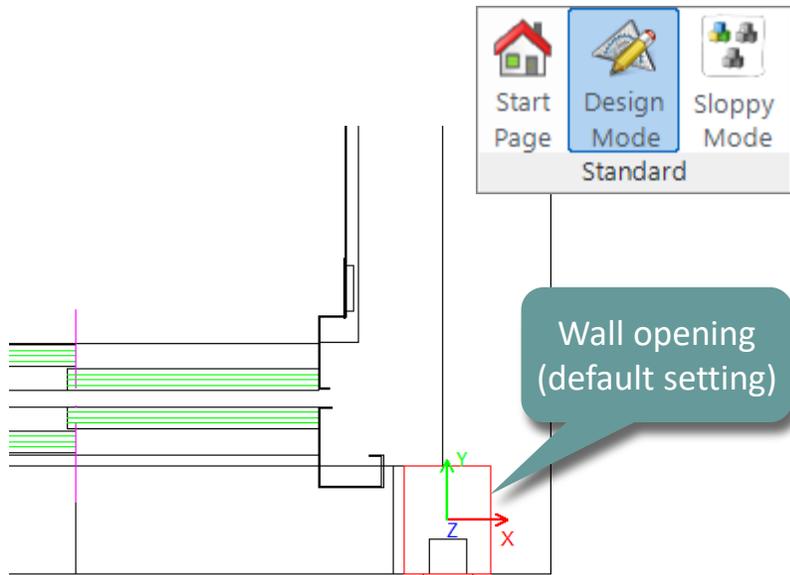
### Hall Button

- Type
  - can be set individually for the top and bottom floors and for the intermediate floors



## Hole

- The hole of the control panel can be changed or adapted via the properties.
  - Switch on the Design Mode to directly pick holes in the drawing
  - or use the Breadcrumb docking window



Breadcrumb

Document. Shaft0. Entries1. E0. Panel0. Hole0. ▾

► Favorites

► Options

Properties

Lock Update Hole 0 [Hole0.]

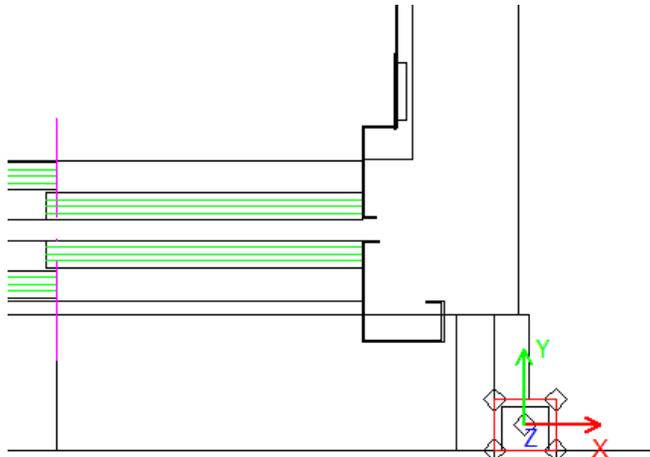
▼ [0002] Hole Height	
Clearance above [mm]	32.5
Height of the box [mm]	225
Clearance below [mm]	32.5
Resulting opening height [mm]	290
▼ [0003] Hole Width	
Clearance Left [mm]	45
Width of the Box [mm]	70
Clearance Right [mm]	45
Resulting opening width [mm]	160
▼ [0004] Hole Depth	
Depth of the box [mm]	65
Clearance behind box [mm]	400
Resulting opening depth [mm]	465

# Hall Button

## A2.6 PANELS

### Hole size

- Adapt the clearance
  - Hole Height
  - Hole Width
  - Hole Depth



Lock Update Hole 0 [Hole0.]	
▼ [0002] Hole Height	
Clearance above [mm]	10
Height of the box [mm]	225
Clearance below [mm]	10
Resulting opening height [mm]	245
▼ [0003] Hole Width	
Clearance Left [mm]	10
Width of the Box [mm]	70
Clearance Right [mm]	10
Resulting opening width [mm]	90
▼ [0004] Hole Depth	
Depth of the box [mm]	65
Clearance behind box [mm]	10
Resulting opening depth [mm]	75
▼ [0022] Project Level Geometry Information	

# Hall Button

## A2.6 PANELS

### Through hole size

- The associated through hole can also be edited using the corresponding properties.



Breadcrumb  
Document. Shaft0. Entries1. E0. Panel0. Hole0. ▾

▶ Favorites  
▶ Options

Properties  
Lock Update Hole 0 [Hole0.]

> [0002] Hole Height  
> [0003] Hole Width  
> [0004] Hole Depth  
> [0022] Project Level Geometry Information  
▼ [0070] Through Hole 1 Position

X0 [mm]	0
Z0 [mm]	0
Angle	0

▼ [0071] Through Hole 1 Size

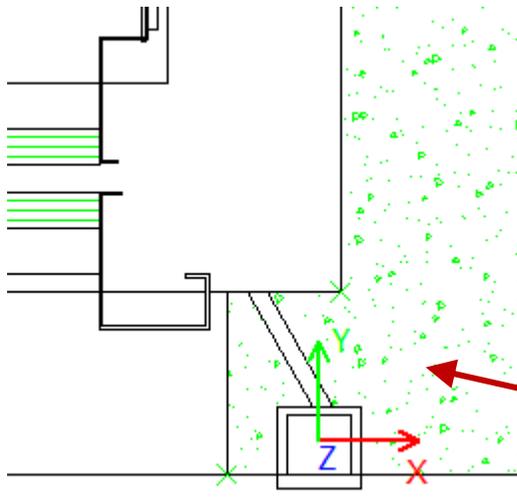
DX [mm] ( 1 )	20
DZ [mm] ( 1 )	50
Shape	Cylindrical

# Hall Button

## A2.6 PANELS

### Through hole position and angle

- The associated through hole can be positioned and inclined by setting an angle.



Breadcrumb  
Document. Shaft0. Entries1. E0. Panel0. Hole0. ▾

► Favorites  
► Options

Properties  
Lock Update Hole 0 [Hole0.]

> [0002] Hole Height  
> [0003] Hole Width  
> [0004] Hole Depth  
> [0022] Project Level Geometry Information

▼ [0070] Through Hole 1 Position

X0 [mm]	40
Z0 [mm]	0
Angle	-30

▼ [0071] Through Hole 1 Size

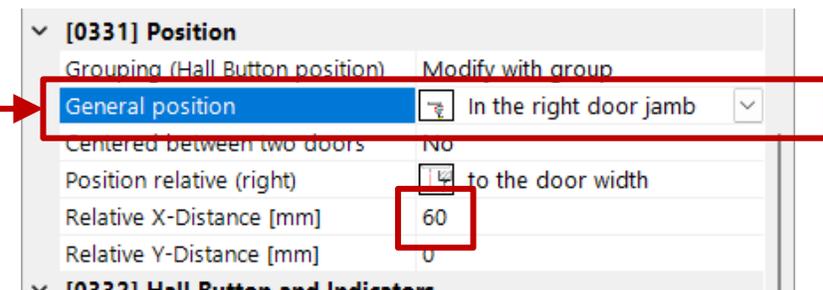
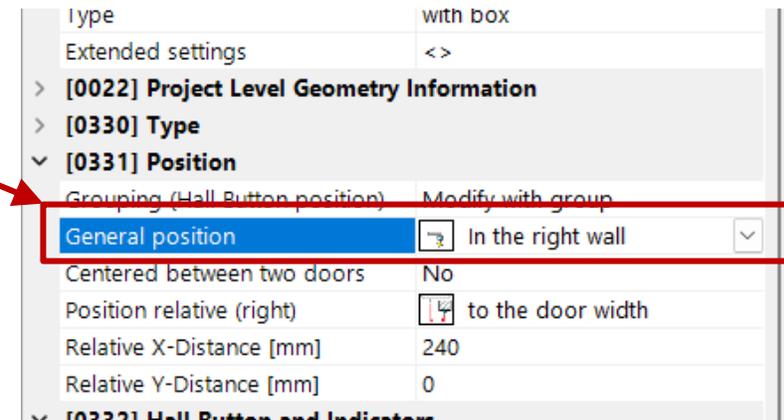
DX [mm] ( 1 )	20
DZ [mm] ( 1 )	50
Shape	Cylindrical

# Hall Button

## A2.6 PANELS

### Position

- is automatically positioned in the right wall by default
- different positioning options can be defined via the associated properties window
- Hint:
  - In the Design Mode, you can find components that are hidden in the shaft wall.

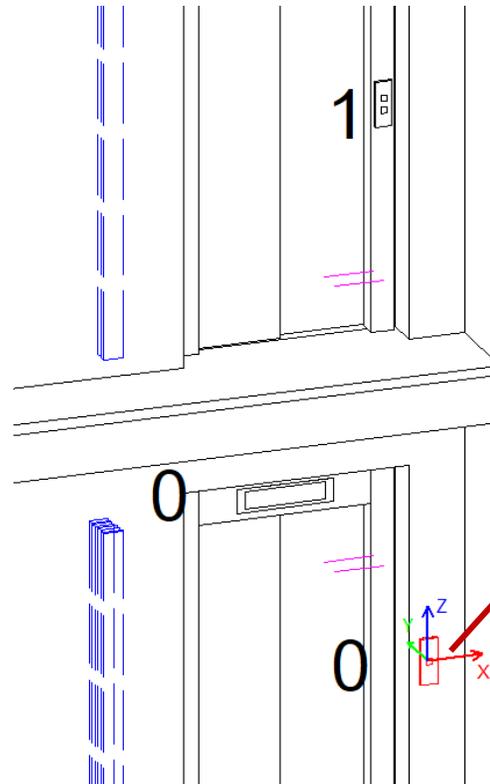


# Hall Button

## A2.6 PANELS

### Individual position for different floor levels

- Grouping (Hall Button position)
  - This panel is different



Lock Update Hall Button [Panel0.]

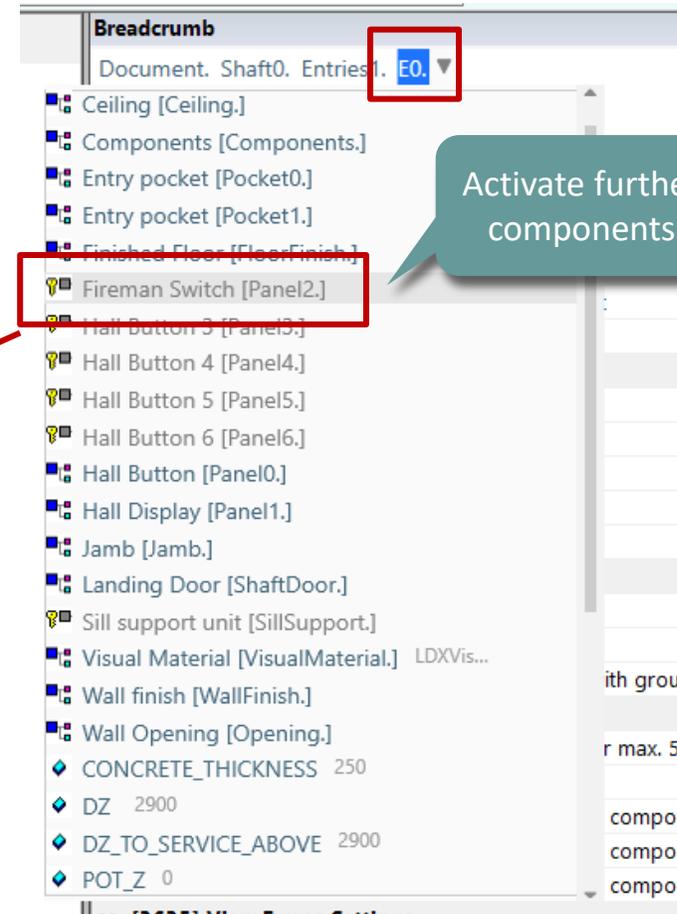
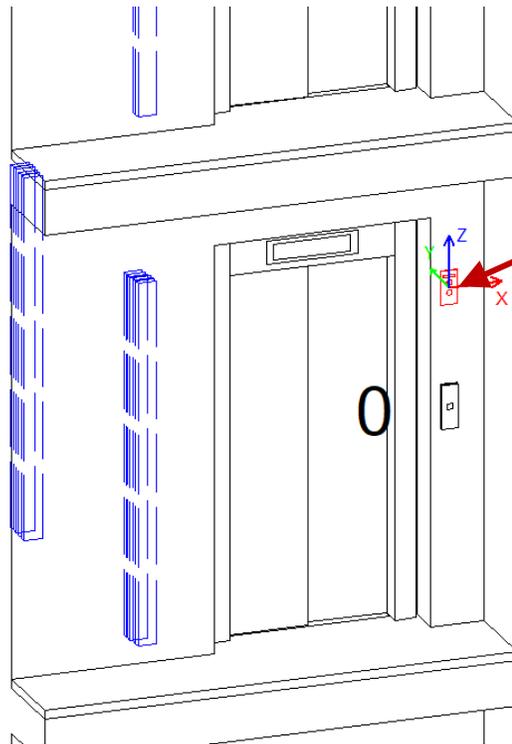
- > [0022] Project Level Geometry Information
- > [0330] Type
- ▼ [0331] Position
  - Grouping (Hall Button position) This panel position is different ▼
  - General position  In the right wall
  - Centered between two doors No
  - Position relative (right)  to the door width
  - Relative X-Distance [mm] 240
  - Relative Y-Distance [mm] 0
- ▼ [0332] Hall Button and Indicators

# Hall Button

## A2.6 PANELS

### How to activate further panel for a floor level

- via the entry



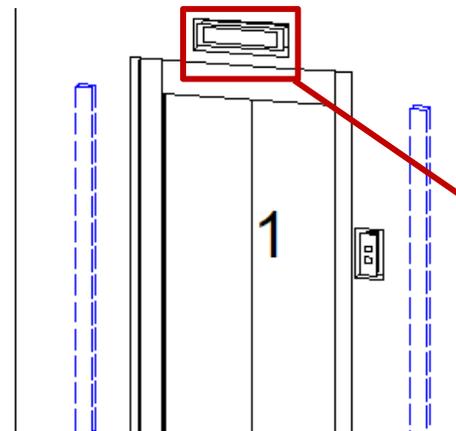
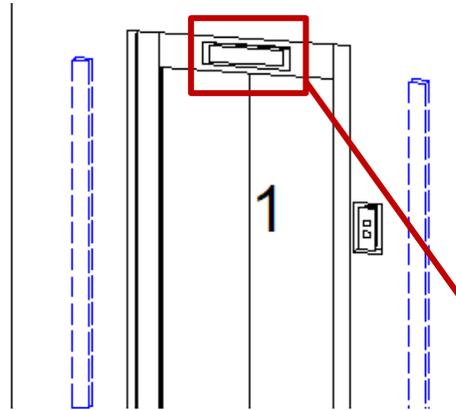
✓ Hall Display

# Hall Display

## A2.6 PANELS

### Position

- is positioned automatically in the door (default setting)
- can be defined via the associated properties window



Breadcrumb: Document. Shaft0. Entries1. E0. Panel1.

► Favorites  
► Options

Properties  
Lock Update: Hall Display [Panel1.]

> [0010] Tools  
v [0020] General  
Manufacturer: Common components  
Designation: Hall display  
Type: above landing door  
Extended settings: <>

> [0022] Project Level Geometry Information  
v [0330] Type  
Grouping: Modify with group  
Create holes in the wall: No

v [0331] Position  
Grouping (Hall Display positio): Modify with group  
Positioning calculation: Automatically  
Position relative: to the door height  
Relative distance [mm]: 100

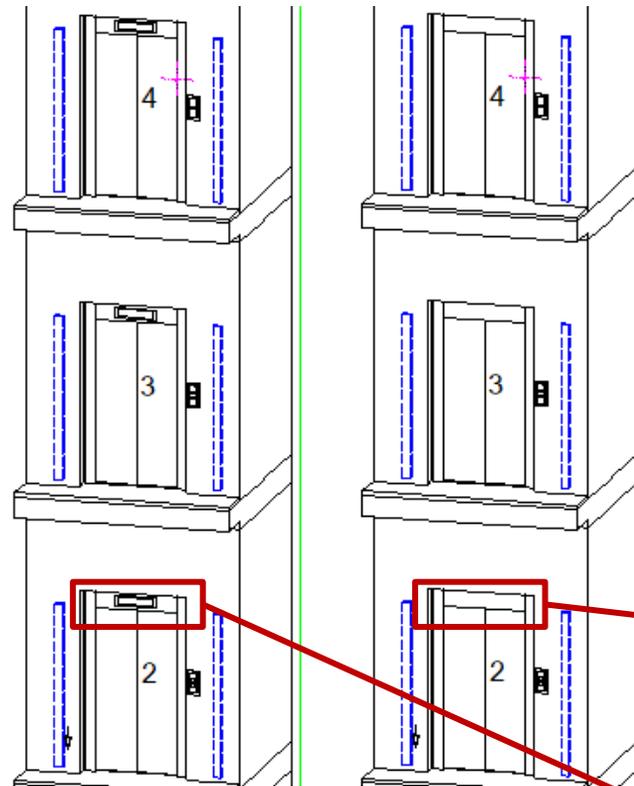
v [0331] Position  
Grouping (Hall Display positio): Modify with group  
Positioning calculation: Manually  
General position: in the wall  
Position relative: to the door height  
Relative distance [mm]: 400

# Hall Display

## A2.6 PANELS

### Hall Button & Hall Display

- can be shown and hidden via the properties on all floors for the elevator project



**Properties** [Panel1.]

Lock Update Hall Display [Panel1.]

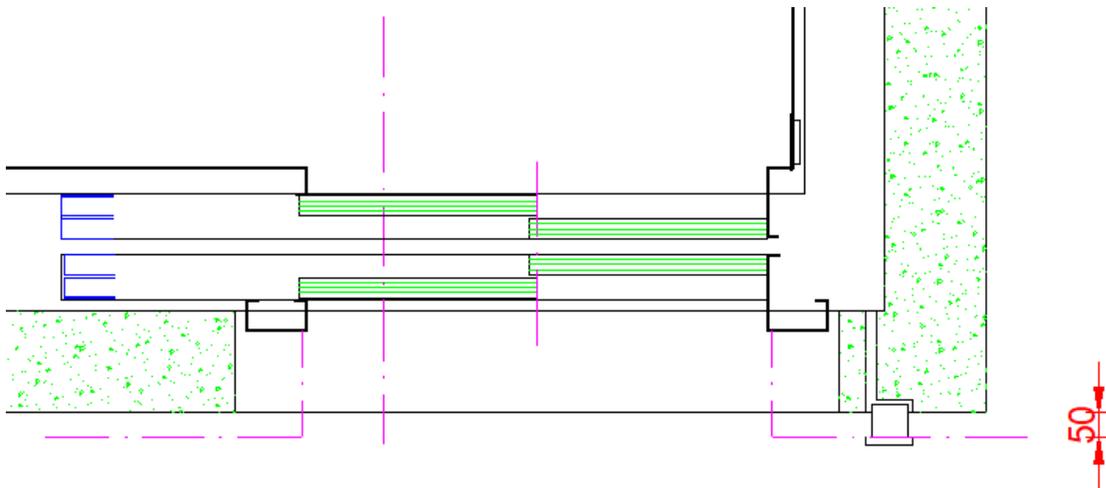
- > [0010] Tools
- ▼ [0020] General
  - Manufacturer Common components
  - Designation Hall display
  - Type above landing door
  - Extended settings <>
- > [0022] Project Level Geometry Information
- ▼ [0330] Type
  - Grouping Modify with group
  - Create holes in the wall Yes
- ▼ [0331] Position
  - Grouping (Hall Display position) Modify with group
  - Positioning calculation Automatically
  - Position relative to the door height
  - Relative distance [mm] 400
- ▼ [0332] Hall Button and Indicators
  - Entrance situation Panels for max. 5 cars
  - Hall Displays on all floors No
  - > [0671] Number && Location No
  - > [3635] View Frame Settings Yes
  - > [3805] Render
- ▼ [0332] Hall Button and Indicators
  - Entrance situation Panels for max. 5 cars
  - Hall Displays on all floors Yes
  - > [0671] Number && Location No
  - > [3635] View Frame Settings Yes
  - > [3805] Render

✓ Wall Finish

# Wall Finish

A2.6 PANELS

## Thickness (Wall)



Breadcrumb: Document. Shaft0. Entries1. E0. WallFinish. ▾

► Favorites  
► Options

Properties: Wall finish [WallFinish.]

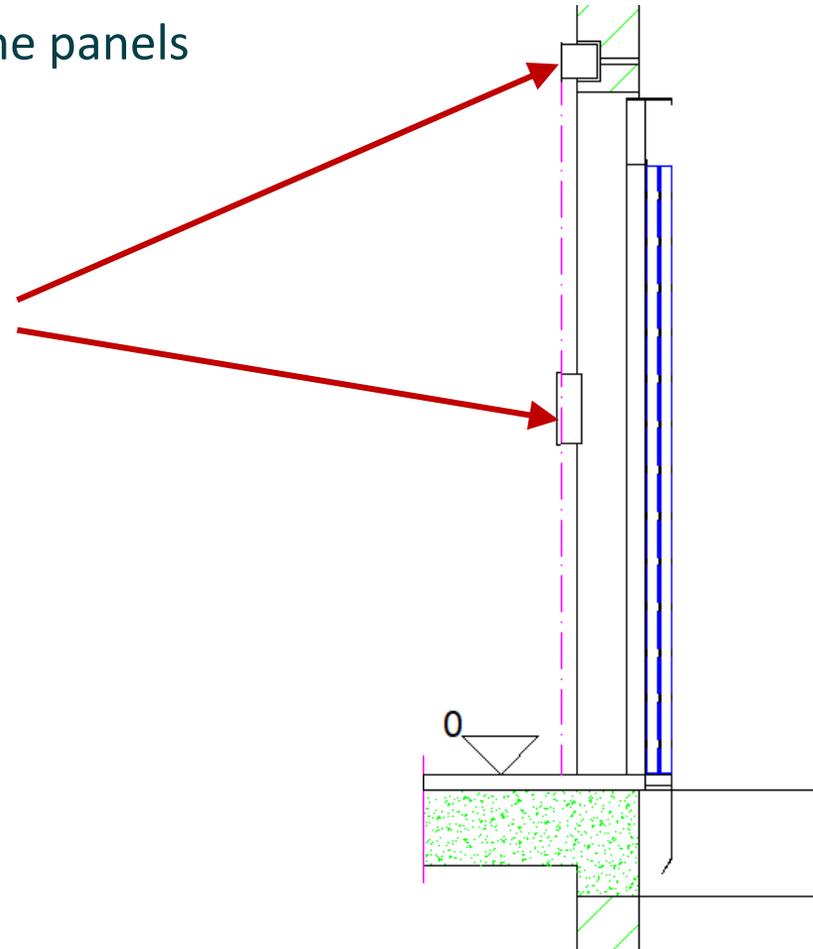
[0010] Tools	
Component state	Active
[0020] General	
Manufacturer	
Designation	
Type	
[0022] Project Level Geometry Information	
Create geometry	By parent
Create geometry status	Create
[0301] Wall Finish	
Thickness (Wall) [mm]	50
[0302] Entrance	
Left angle	0
Right angle	0
[3635] View Frame Settings	
Representation	Default (by Frame)
Dash	No

# Wall Finish

## A2.6 PANELS

### Automatic positioning of the panels

- Adapted to the wall finish



# A2.7

Counterweight

(Traction Elevators)



COUNTERWEIGHT  
COUNTERWEIGHT  
COUNTERWEIGHT

# Training Preparation

CREATE AN ELEVATOR WITH THE FOLLOWING SPECIFICATIONS:

## Shaft Wizard

- 5 floors
- Typical floor to floor distance 3000 mm
  - Consider travel – no
  - Create building floor levels - no
- Traction elevator 2:1
- 8 persons / 630 kg, 1 m/s
- MRL
  - top
- Car roping
  - 2 pulleys below
  - without CW safety gear
- Counterweight roping
  - 1 pulley top
  - Counterweight right
- Sheet templates
  - LD Installation Drawing
  - LD Typical Views For Your Elevator

## Further specifications

- Car size
  - Car width: 1100 mm
  - Car depth: 1400 mm
- Entrances
  - Front: all floors
  - Rear: no entrance
- Individual floor to floor distance
  - Pit: 1200 mm
  - E1: 2900 mm
  - E2: 3000 mm
  - E3: 3000 mm
  - E4: 3800 mm
- Save the project under the following file name:  
LDTrainingSampleA2\_02.Id3

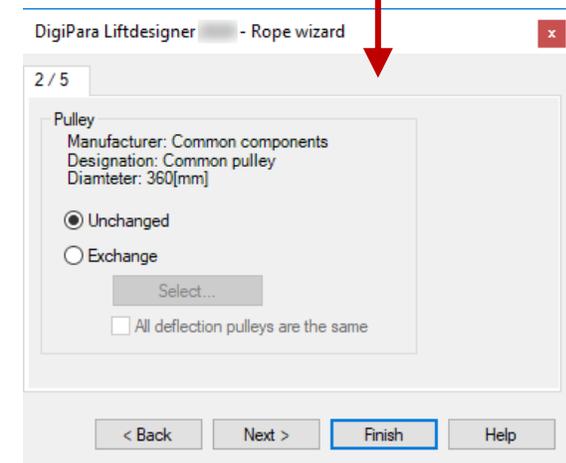
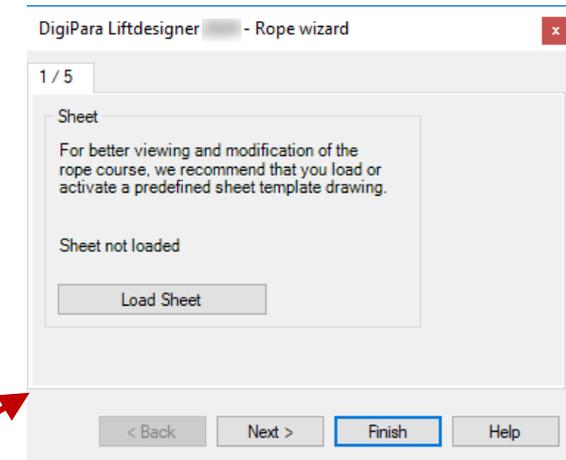
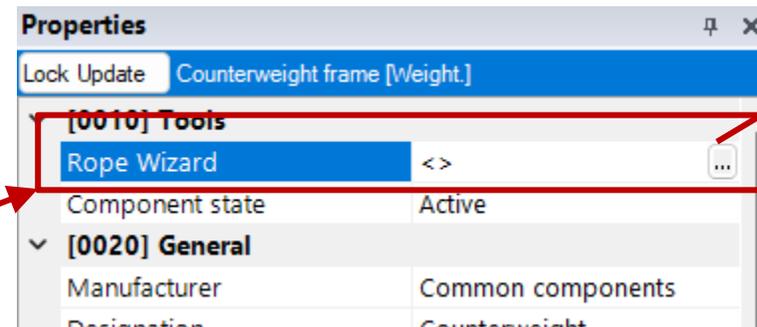
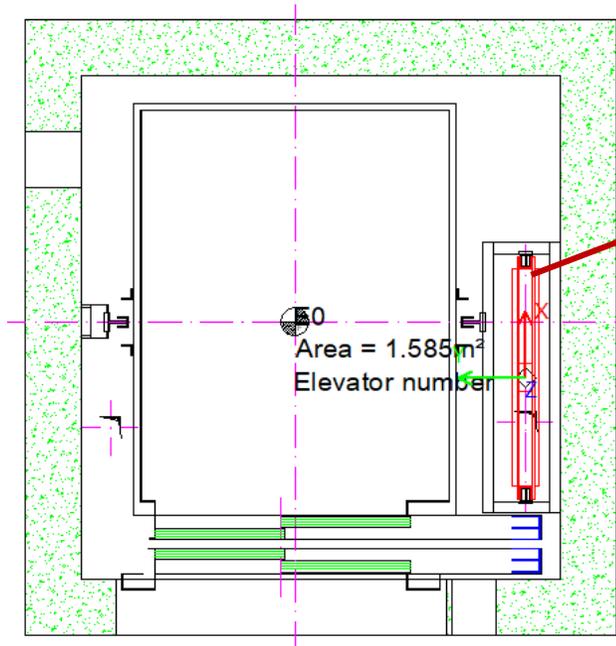
✓ Counterweight Location

# Counterweight Location

## A2.7 COUNTERWEIGHT

### Changing the counterweight location to another wall side

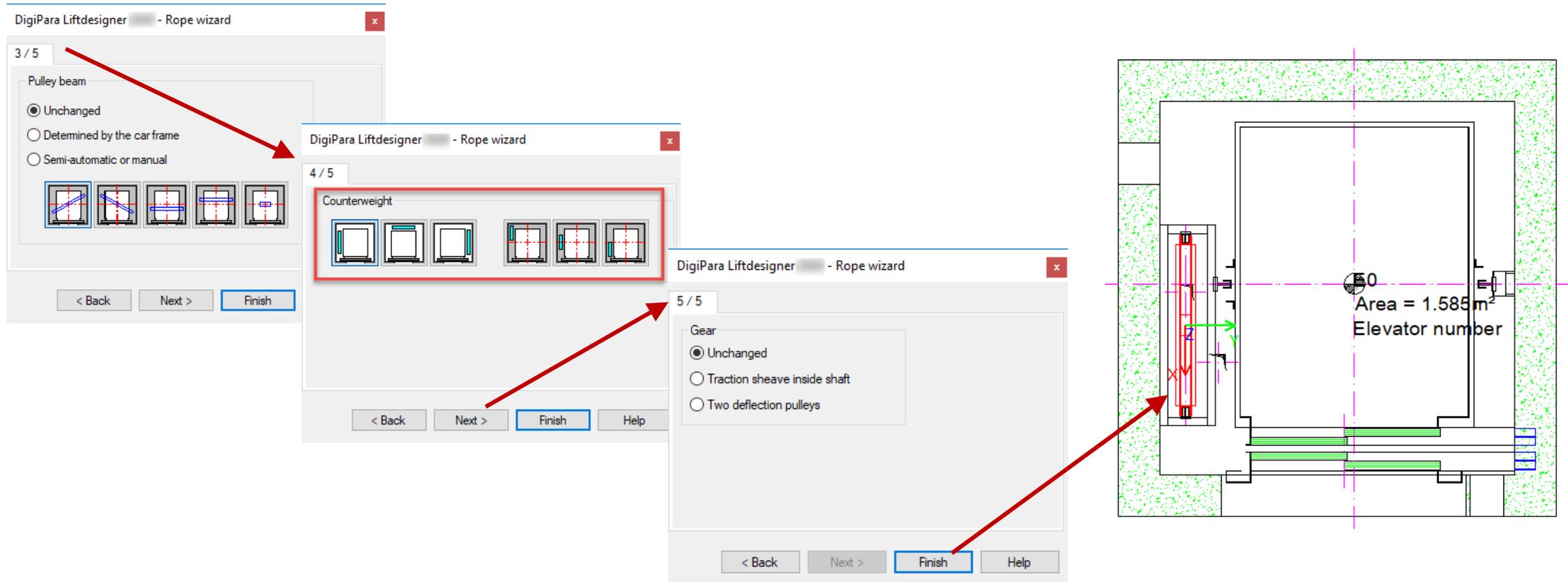
- via the Rope Wizard for existing projects
- The Rope Wizard can be activated via the traction machine, the counterweight, the pulley or the pulley beam properties.



# Counterweight Location

## A2.7 COUNTERWEIGHT

- Change the counterweight location via the Rope Wizard dialog 4/5



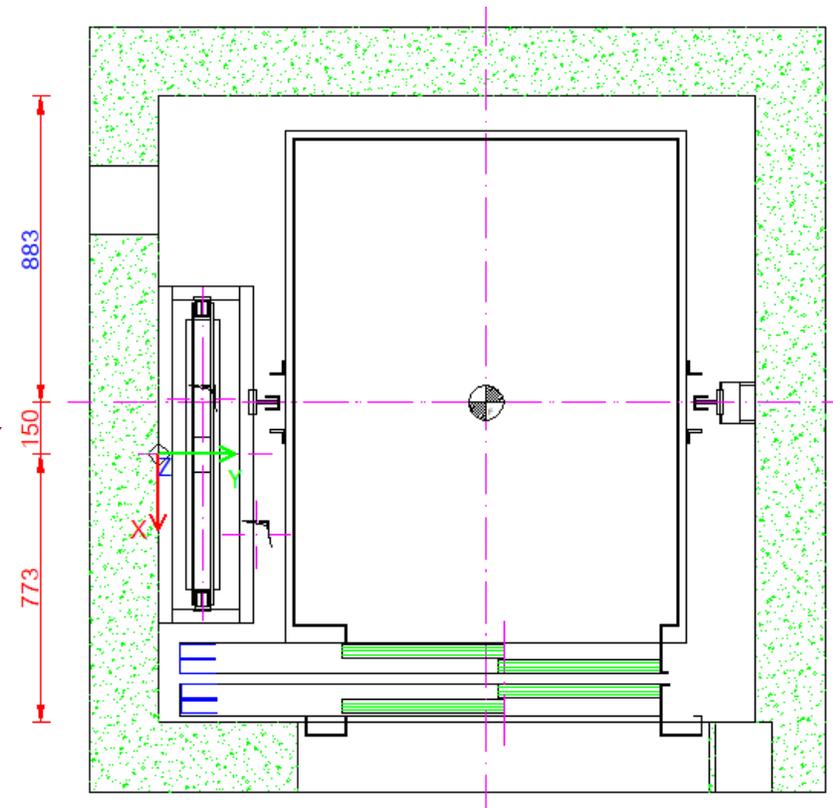
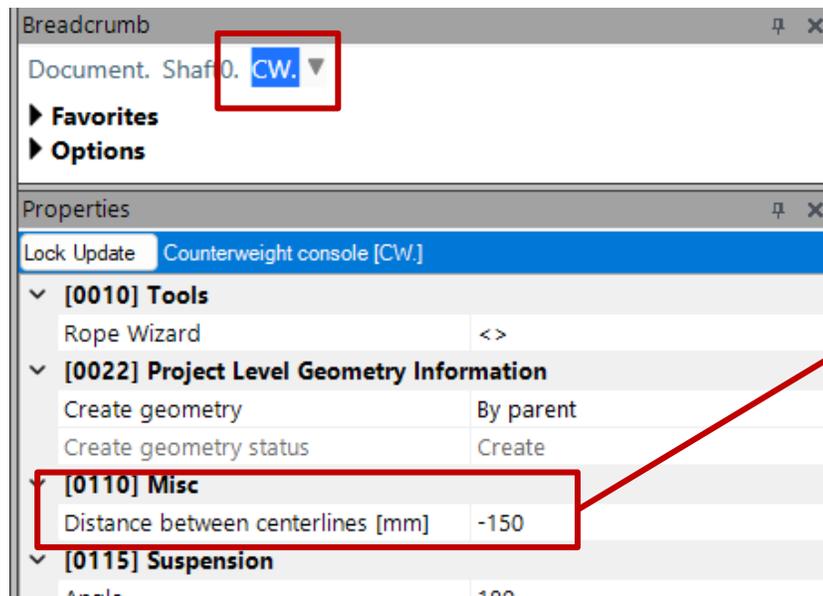
The image displays three overlapping dialog boxes from the DigiPara Liftdesigner software, illustrating the steps to change the counterweight location. The first dialog (3/5) shows the 'Pulley beam' options: 'Unchanged' (selected), 'Determined by the car frame', and 'Semi-automatic or manual'. The second dialog (4/5) shows the 'Counterweight' options, with a red box highlighting the selection area. The third dialog (5/5) shows the 'Gear' options: 'Unchanged' (selected), 'Traction sheave inside shaft', and 'Two deflection pulleys'. Red arrows indicate the flow from the first dialog to the second, and from the second to the third. To the right, a technical drawing shows a cross-section of the counterweight system with a red box highlighting the counterweight location, which is linked to the 'Finish' button in the third dialog box. The drawing also shows a green hatched area representing the counterweight's footprint, with the text 'Area = 1.585 m<sup>2</sup>' and 'Elevator number'.

# Counterweight Location

## A2.7 COUNTERWEIGHT

### Distance between the centers

- Can be changed in the properties of the parent counterweight object or directly via the corresponding dimension in the drawing.



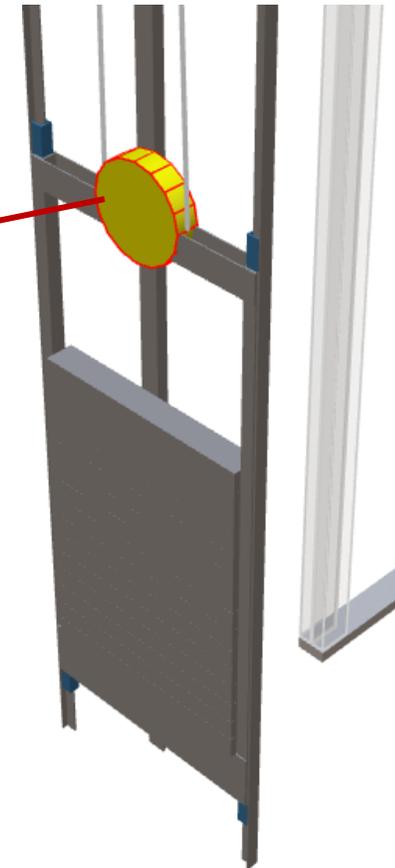
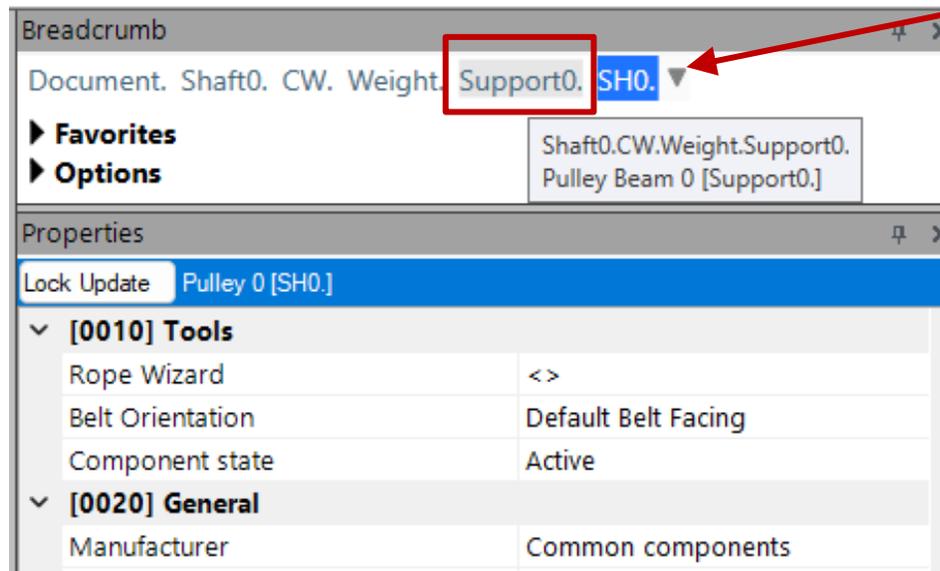
✓ Pulley Beam Settings

# Pulley Beam Settings

## A2.7 COUNTERWEIGHT

### Changing the pulley beam settings of the Counterweight frame

- via the pulley beam properties
- The pulley beam properties can be activated
  - via the pulley beam link in the Breadcrumb

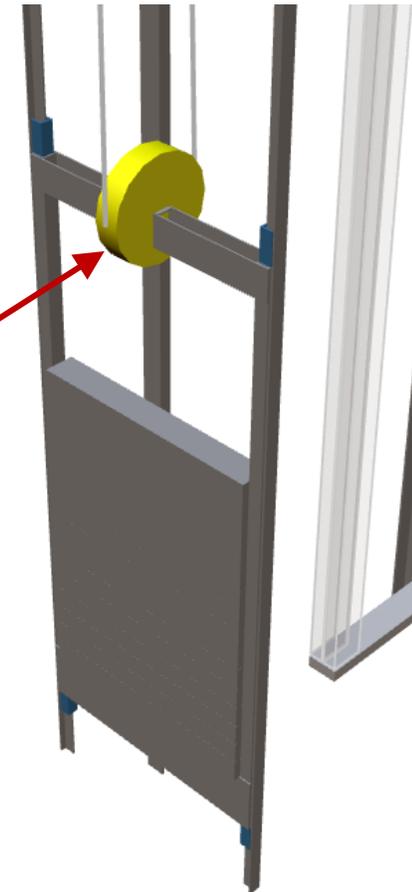
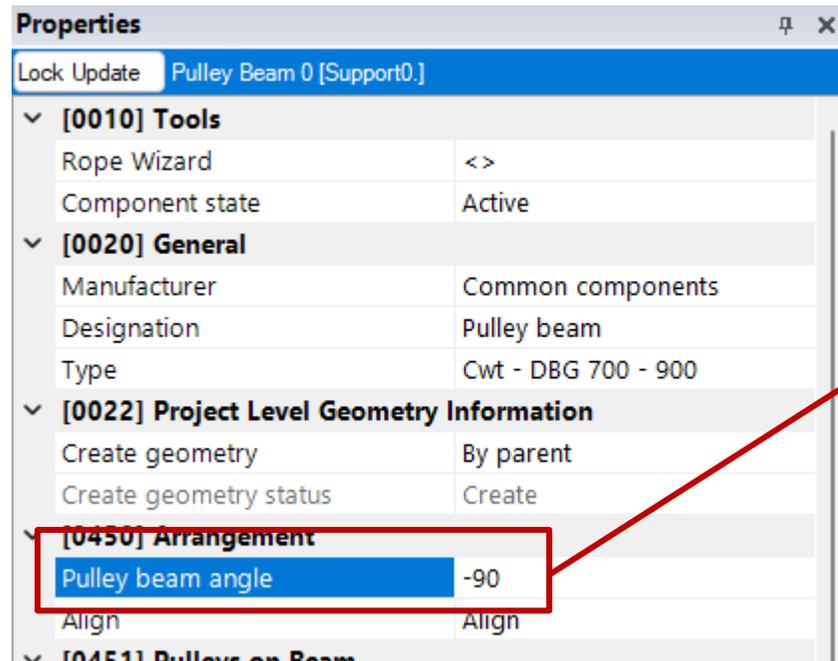


# Pulley Beam Settings

## A2.7 COUNTERWEIGHT

### Adapt the arrangement

- by changing the pulley beam angle

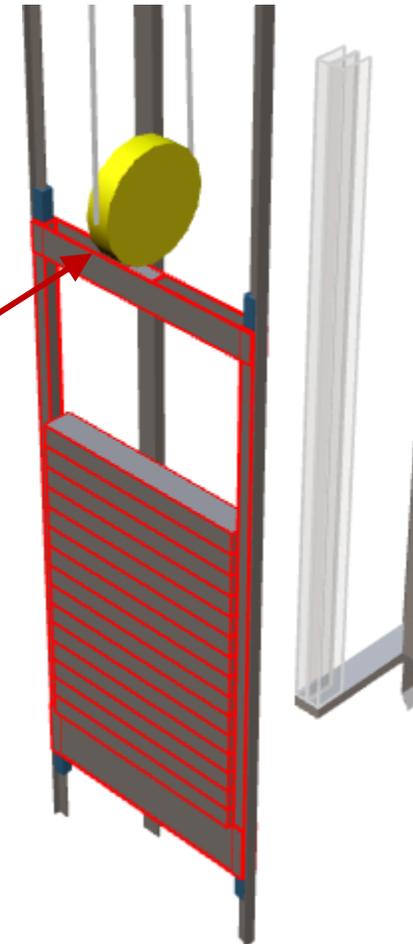
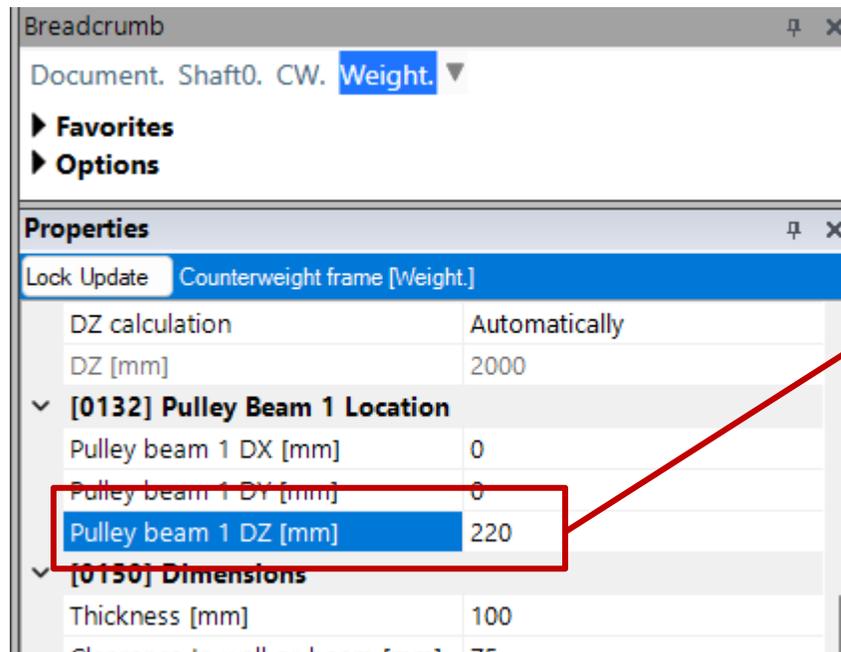


# Pulley Beam Settings

## A2.7 COUNTERWEIGHT

### Adapt the position

- via the counterweight frame properties



# A2.8

Car Frame

CAR FRAME  
CAR FRAME  
CAR FRAME  
CAR FRAME



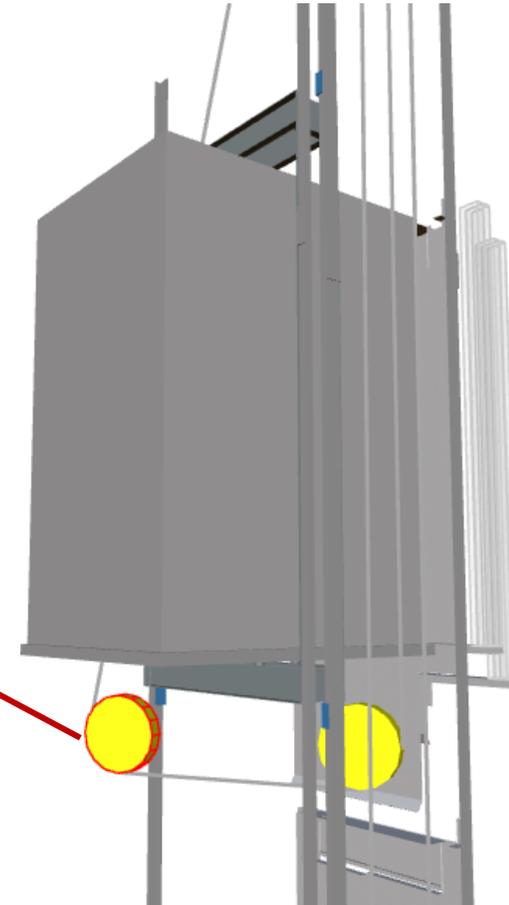
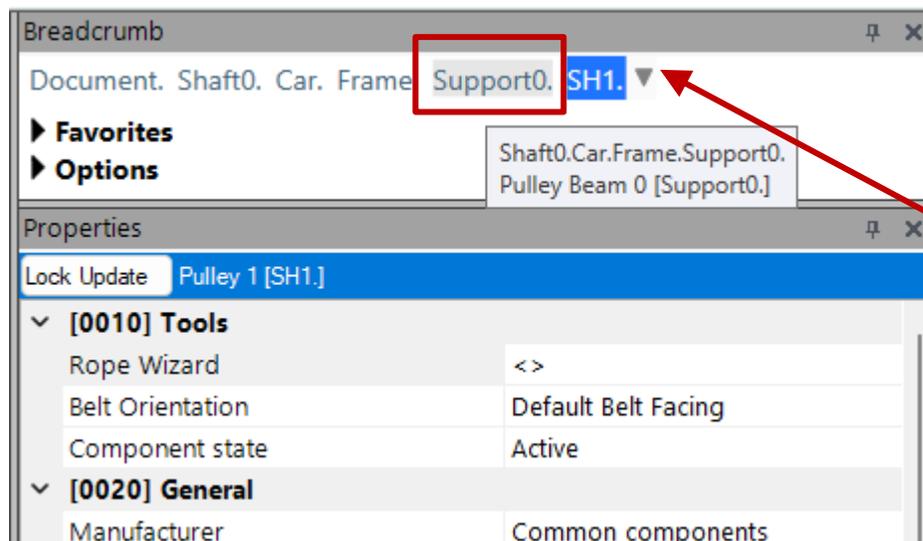
✓ Pulley Beam Settings

# Pulley Beam Settings

## A2.8 CAR FRAME

### Changing the pulley beam settings of the car frame

- via the pulley beam properties
- The pulley beam properties can be activated
  - via the pulley beam link in the Breadcrumb

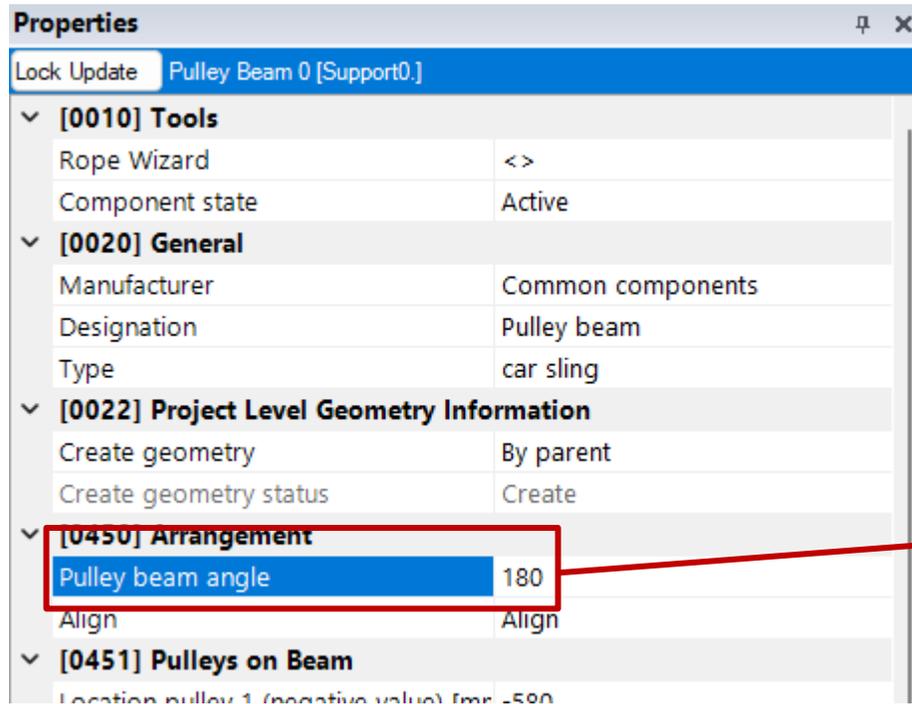


# Pulley Beam Settings

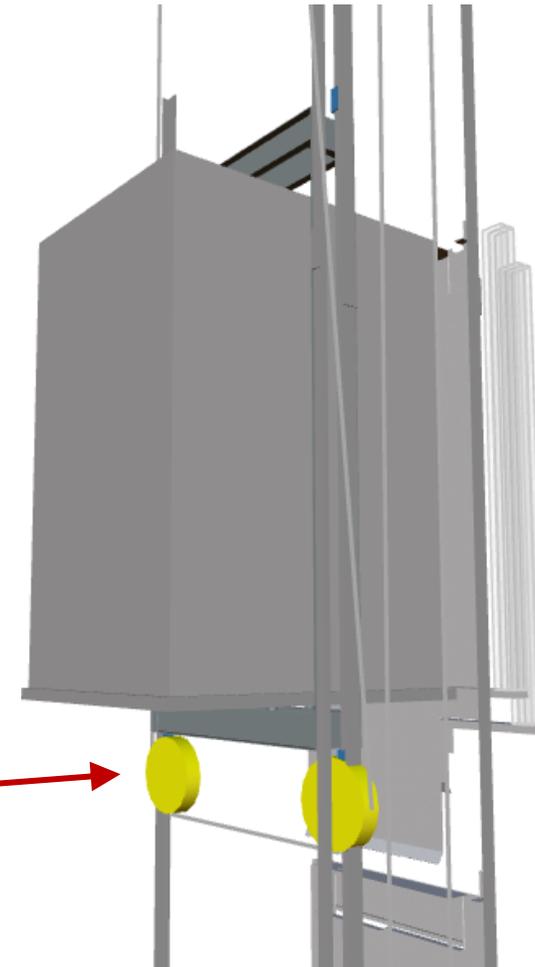
## A2.8 CAR FRAME

### Adapt the arrangement

- by changing the pulley beam angle



Properties	
Lock Update	Pulley Beam 0 [Support0.]
▼ [0010] Tools	
Rope Wizard	<>
Component state	Active
▼ [0020] General	
Manufacturer	Common components
Designation	Pulley beam
Type	car sling
▼ [0022] Project Level Geometry Information	
Create geometry	By parent
Create geometry status	Create
▼ [0450] Arrangement	
Pulley beam angle	180
Align	Align
▼ [0451] Pulleys on Beam	
Location pulley 1 (negative value) [mm]	-500

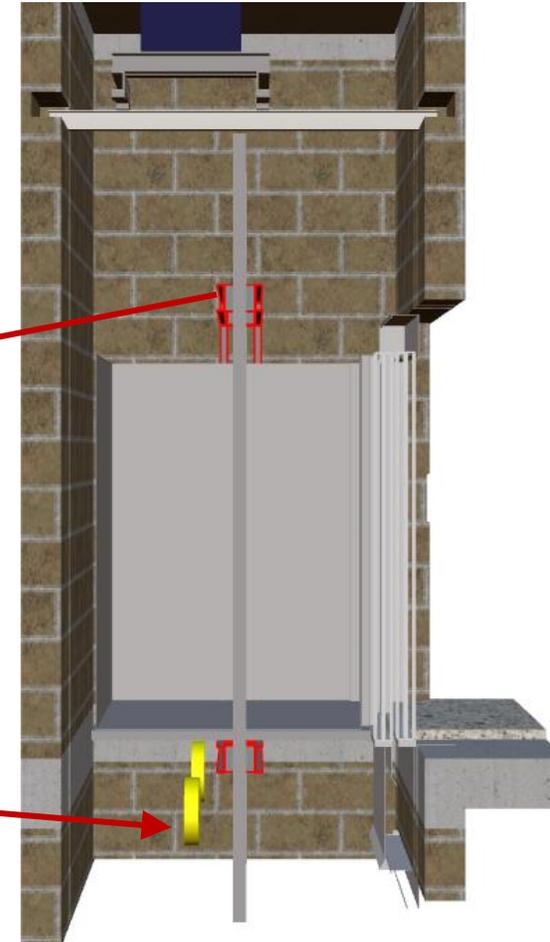
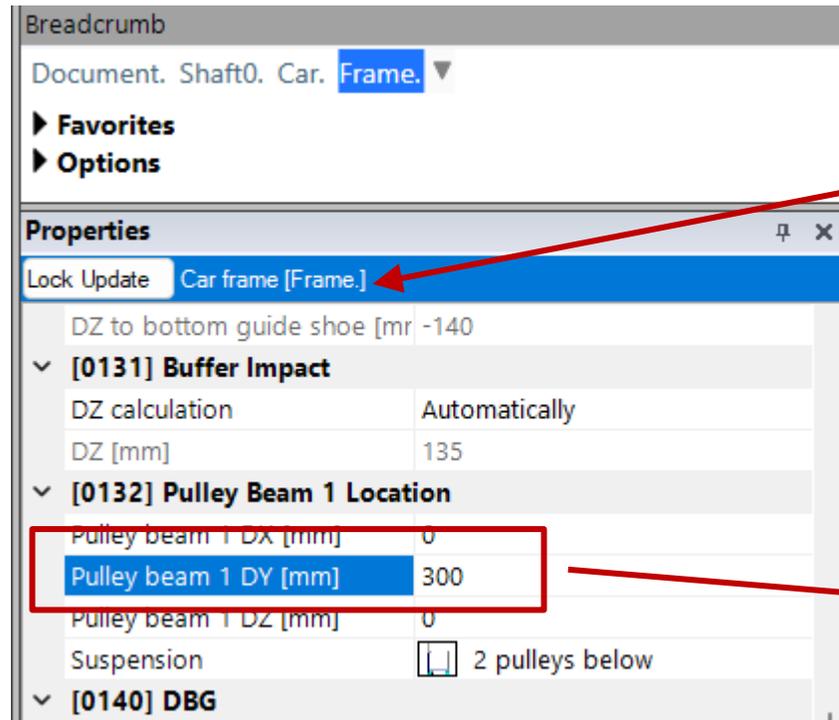


# Pulley Beam Settings

## A2.8 CAR FRAME

### Adapt the location

- via the car frame properties



# Pulley Beam Settings

A2.8 CAR FRAME

Adapt the pulley distance

Breadcrumb  
Document. Shaft0. Car. Frame. Support0. ▾

► Favorites  
► Options

Properties ⌵ ✕

Lock Update Pulley Beam 0 [Support0.]

> [0010] Tools

▼ [0020] General

Manufacturer	Common components
Designation	Pulley beam
Type	car sling

▼ [0022] Project Level Geometry Information

Create geometry	By parent
Create geometry status	Create

▼ [0450] Arrangement

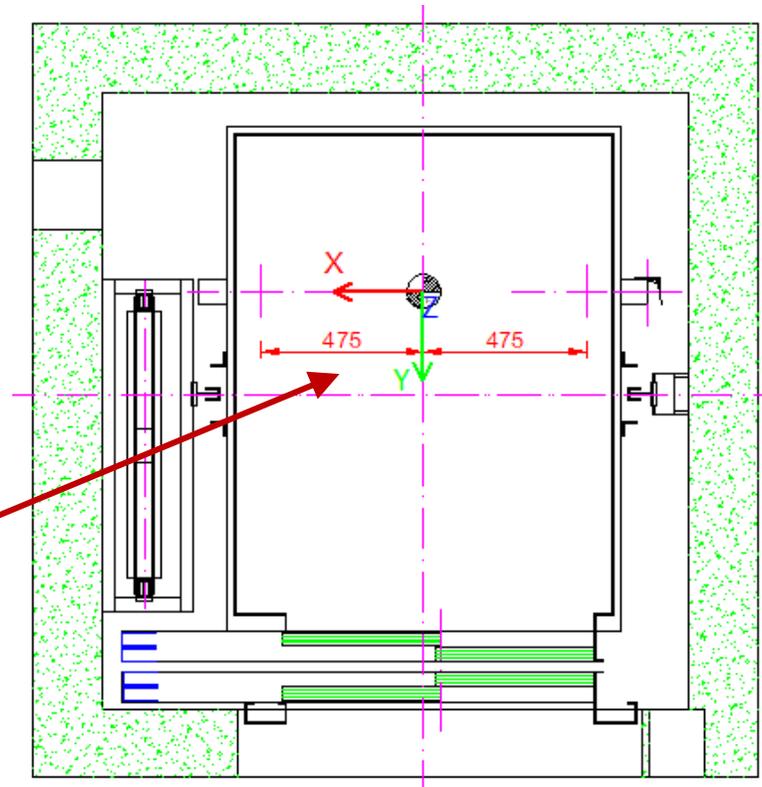
Pulley beam angle	180
Align	Align

▼ [0451] Pulleys on Beam

Location pulley 1 (negative value)	-475
Location pulley 2 [mm]	475

▼ [3635] View Frame Settings

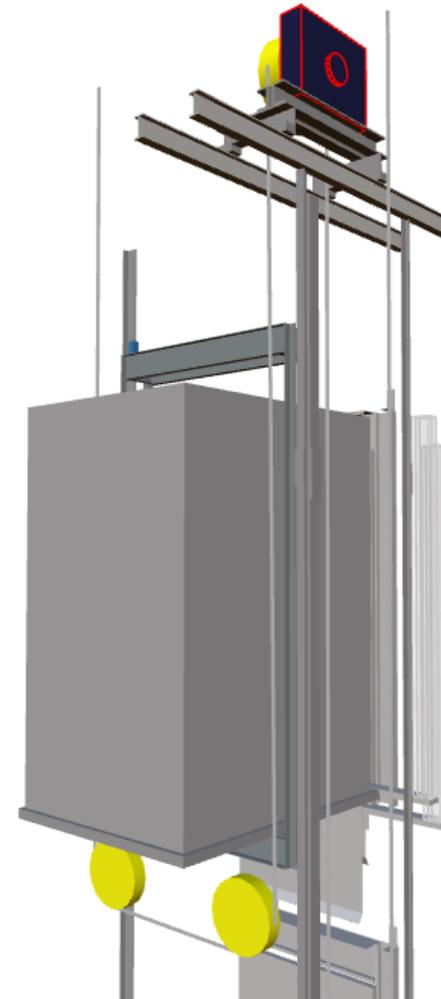
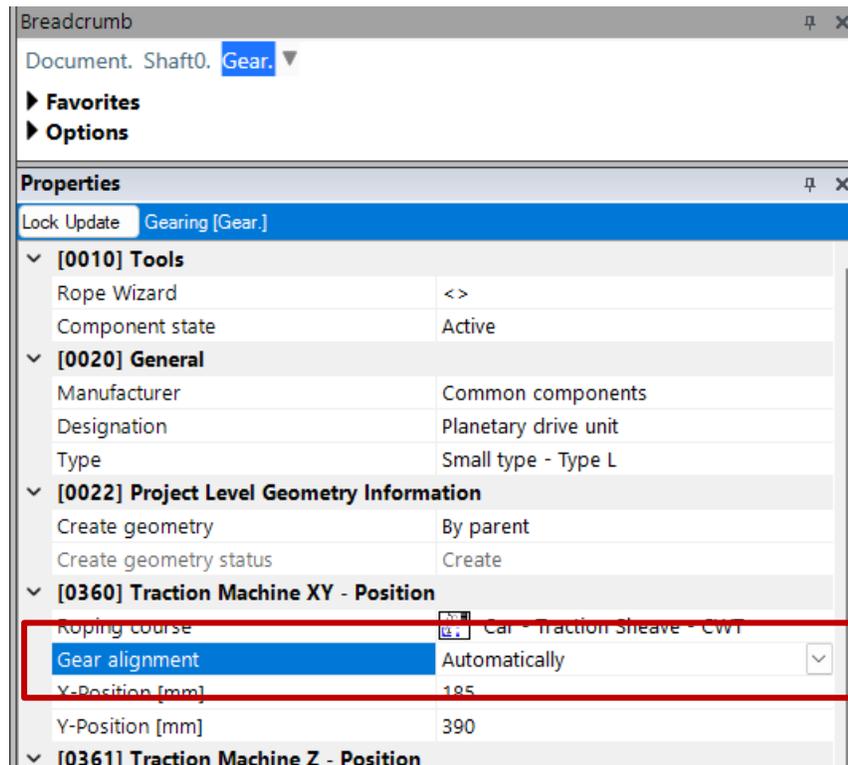
Representation	Default (bv Frame)
----------------	--------------------



# Pulley Beam Settings

## A2.8 CAR FRAME

The position of the machine can be adjusted so that it adapts to the pulley beam settings.



✓ L-shaped Car Frame

# Training Preparation

CREATE AN ELEVATOR WITH THE FOLLOWING SPECIFICATIONS:

## Shaft Wizard

- 5 floors
- Typical floor to floor distance 3000 mm
  - Consider travel – no
  - Create building floor levels - no
- Traction elevator 2:1
- 13 persons / 1000 kg, 1 m/s
- MRL
  - top
- Car roping
  - 1 pulley top
  - without CW safety gear
- Counterweight roping
  - 1 pulley top
  - Counterweight left
- Sheet templates
  - LD Installation Drawing
  - LD Typical Views For Your Elevator

## Further specifications

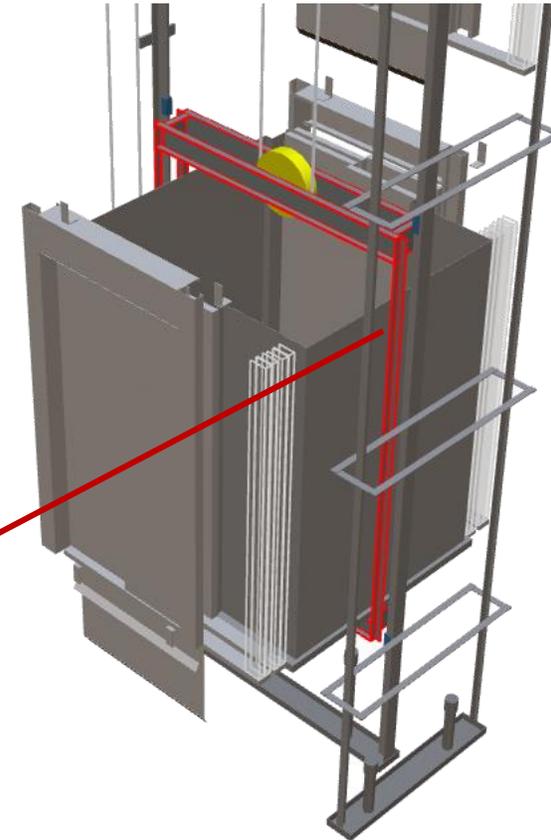
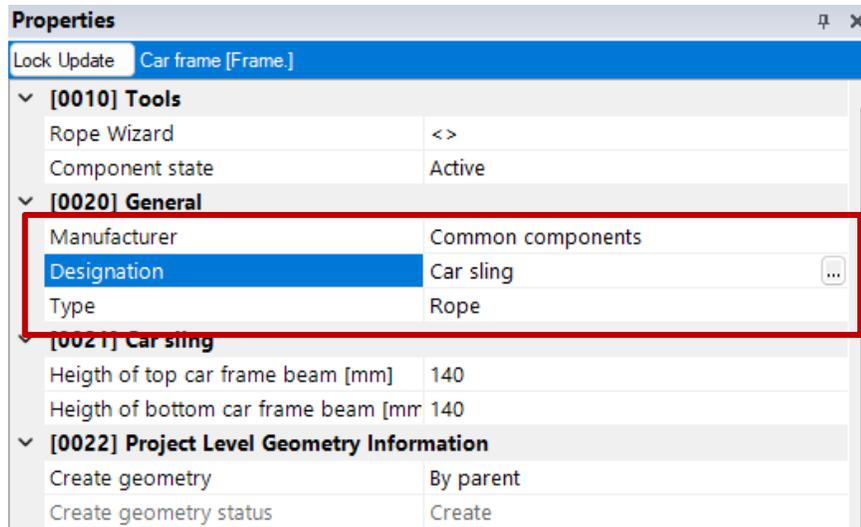
- Car size
  - Car width: 1600 mm
  - Car depth: 1400 mm
- Entrances
  - Front: all floors
  - Rear: first and last
- Individual floor to floor distance
  - Pit: 1200 mm
  - E1: 2900 mm
  - E2: 3000 mm
  - E3: 3000 mm
  - E4: 3800 mm
- Save the project under the following file name:  
LDTrainingSampleA2\_03.Id3

# L-shaped Car Frame

## A2.8 CAR FRAME

### Must be selected manually

- for non MRL elevators after the shaft wizard has been finished
- The next steps describe the replacement process of a central guided elevator into a lateral guided system for elevators with machine room.

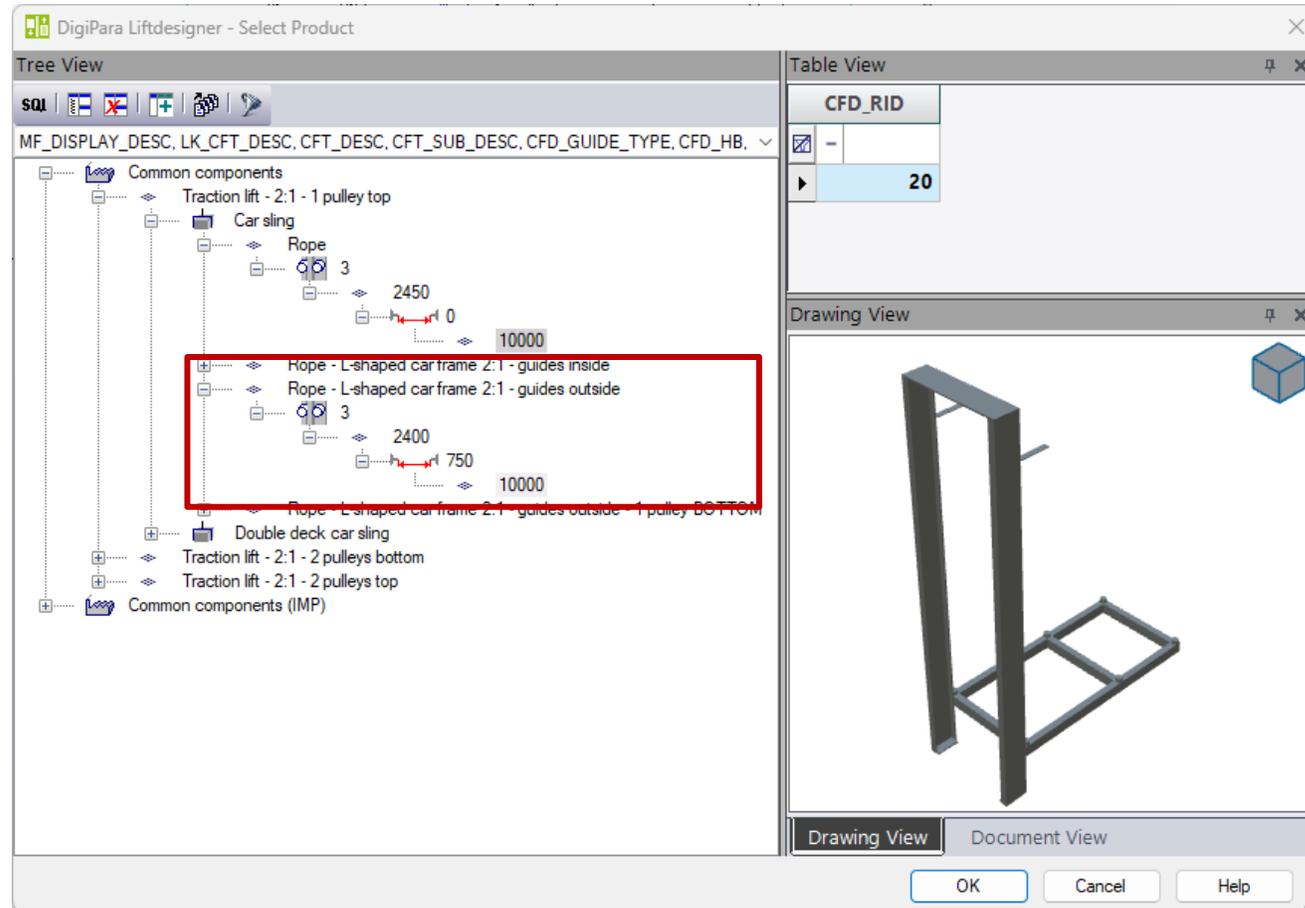
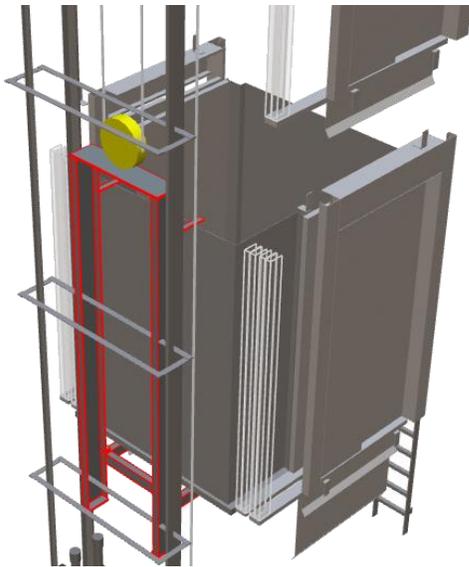


# L-shaped Car Frame

## A2.8 CAR FRAME

### Exchange of central guided in lateral guided car frame

- via the Component Navigator
  - Rope – L-shaped car frame 2:1 – guides outside

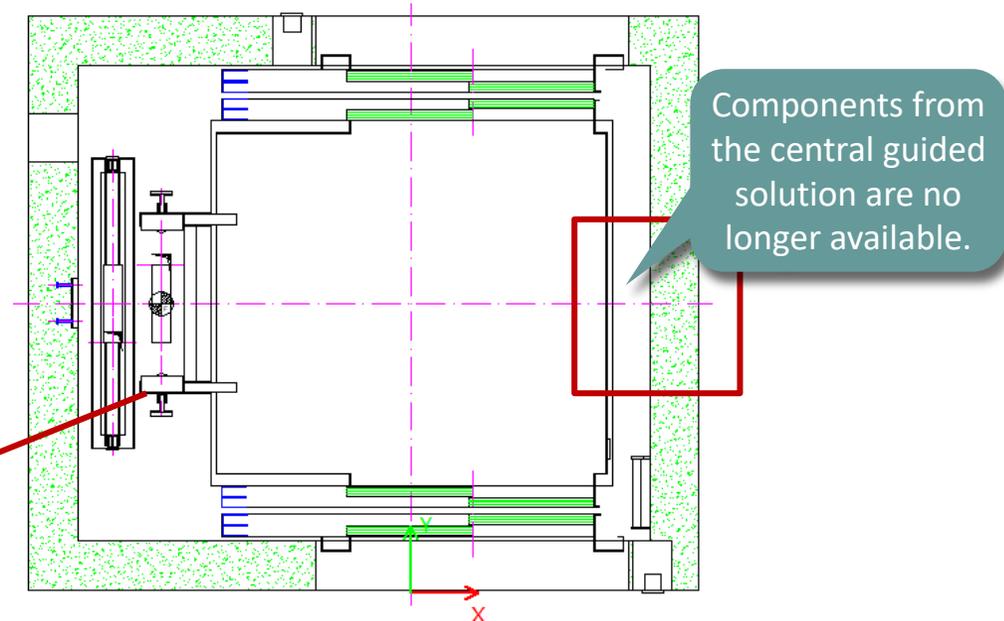
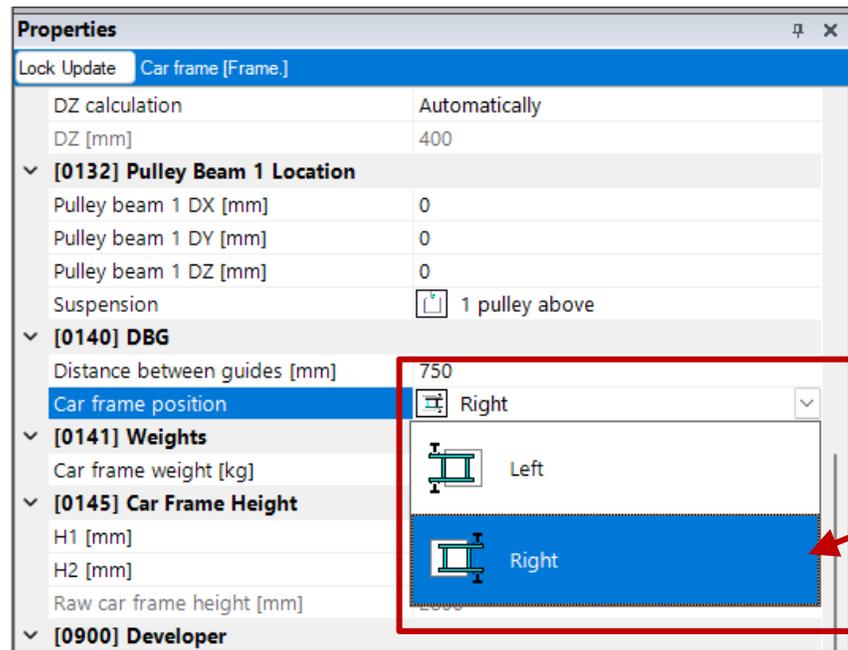


# L-shaped Car Frame

## A2.8 CAR FRAME

### Changing the car frame position

- via the Properties docking window
- A change of the car frame position is recommended in order to adapt the elevator system to the new requirements. A recalculation is carried out in the background.

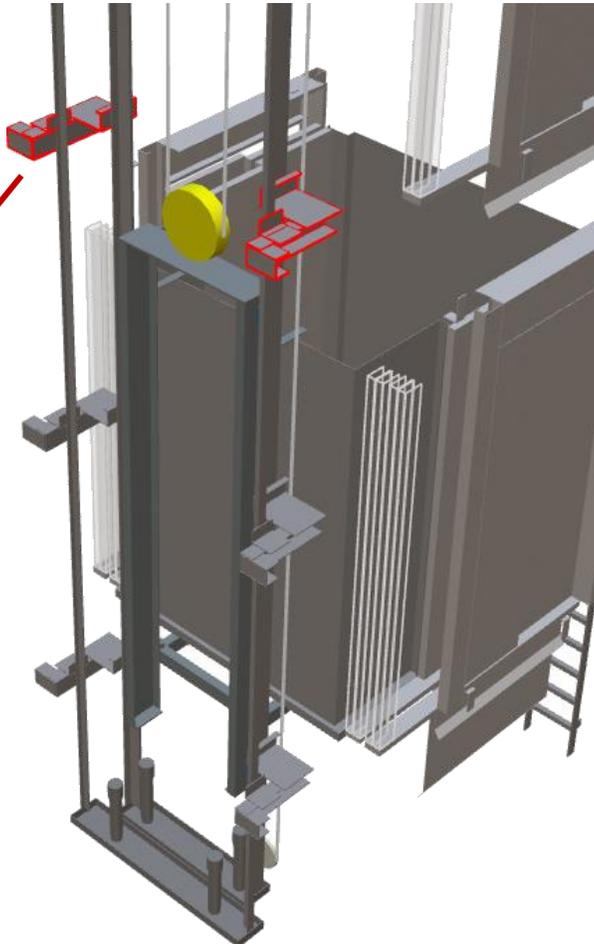
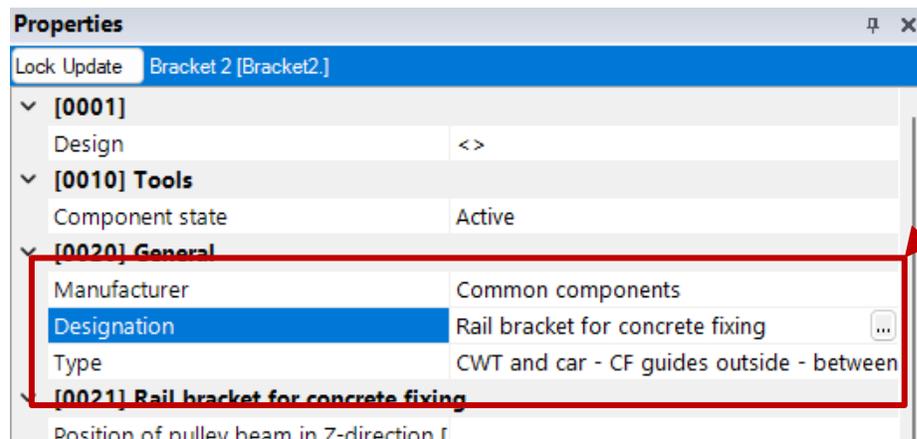


# L-shaped Car Frame

## A2.8 CAR FRAME

### Modifying the Rail Brackets

- via the Properties docking window



# L-shaped Car Frame

## A2.8 CAR FRAME

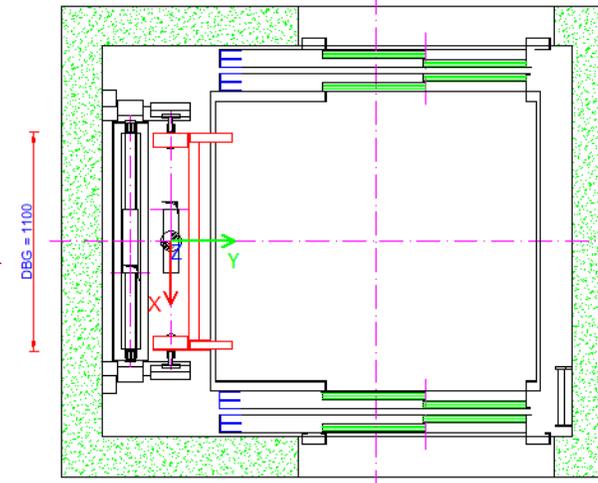
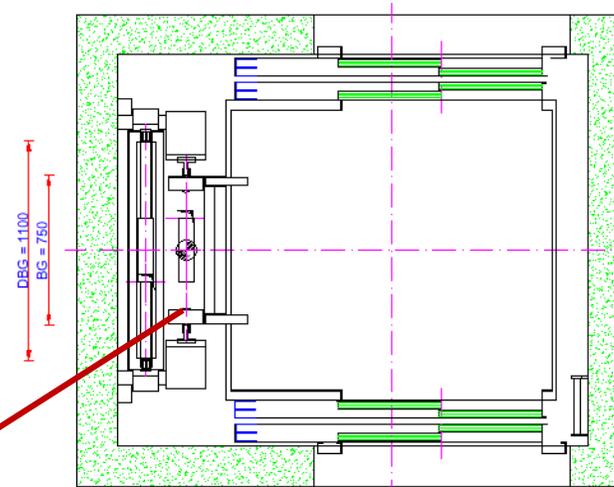
### Defining the distances between the guides

- via the dimension on the drawing or the corresponding Properties

**Properties** ⌵ ✕

Lock Update Car frame [Frame.]

Pulley beam 1 DY [mm]	0
Pulley beam 1 DZ [mm]	0
Suspension	<input type="checkbox"/> 1 pulley above
<b>[0140] DBG</b>	
Distance between guides [mm]	1100
Car frame position	<input type="checkbox"/> Left
<b>[0141] Weights</b>	
Car frame weight [kg]	0
<b>[0145] Car Frame Height</b>	



# L-shaped Car Frame

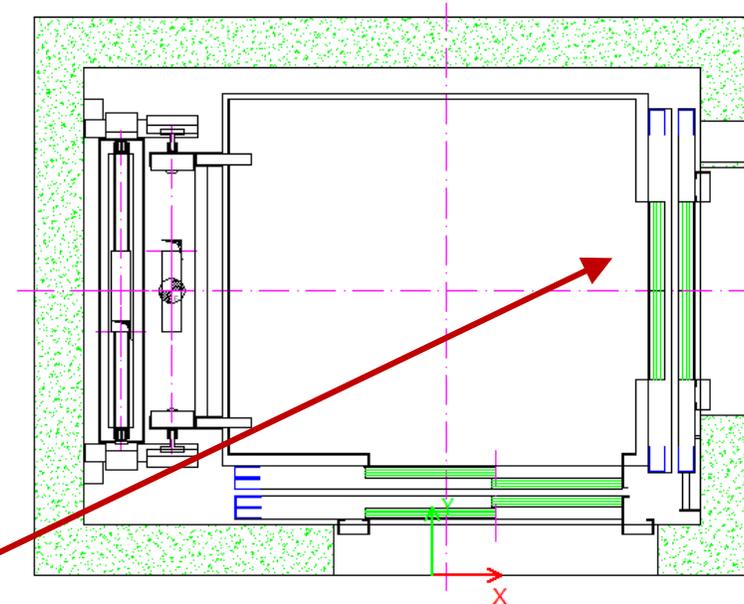
## A2.8 CAR FRAME

### Customize the entrance settings

- The switch to a lateral guided elevator system now offers the option of entrances on both sides of the shaft walls.

Floor Levels

Building			E0			P
Designation	Level	Floor To Floor Distance	Fr	Re	Ri	
+1 +10	<input checked="" type="checkbox"/> Edit		Headroom		4100	
	4	12700	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3	8900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	2	5900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
+1 +10	Default for new floors	3100	Pit		1200	



# A2.9

Ropes & Wall Fixings

ROPE  
WALL  
FIXINGS &

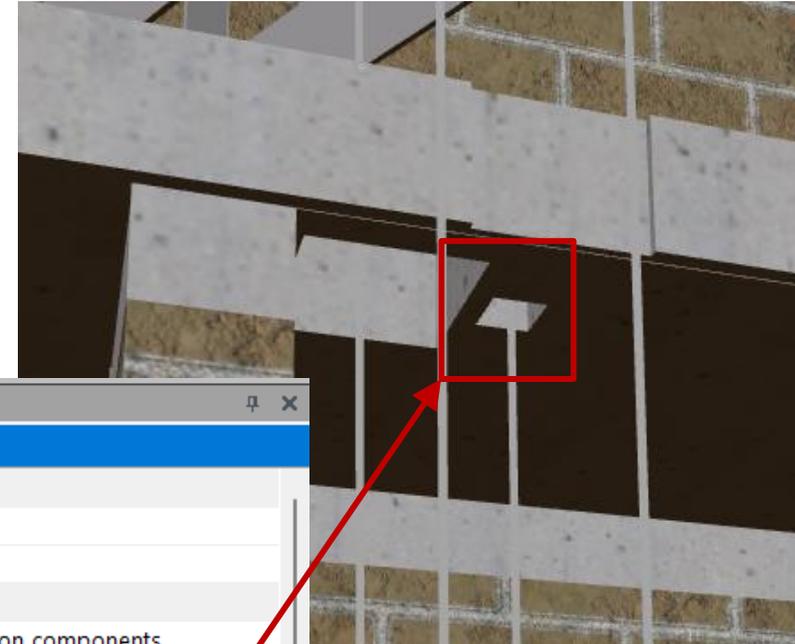
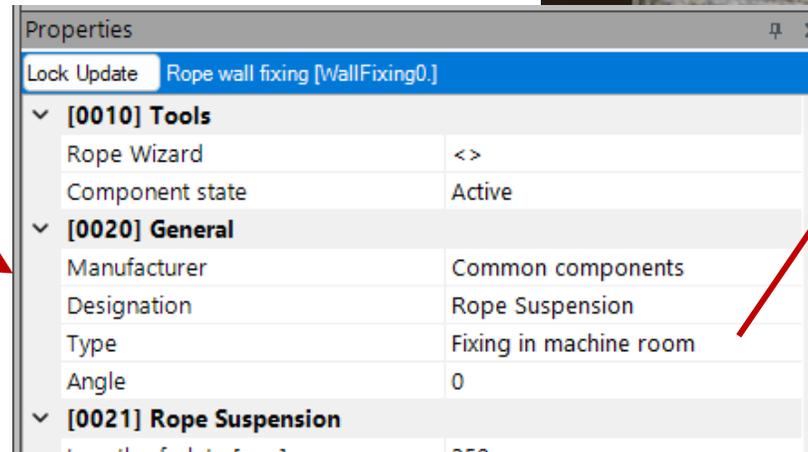
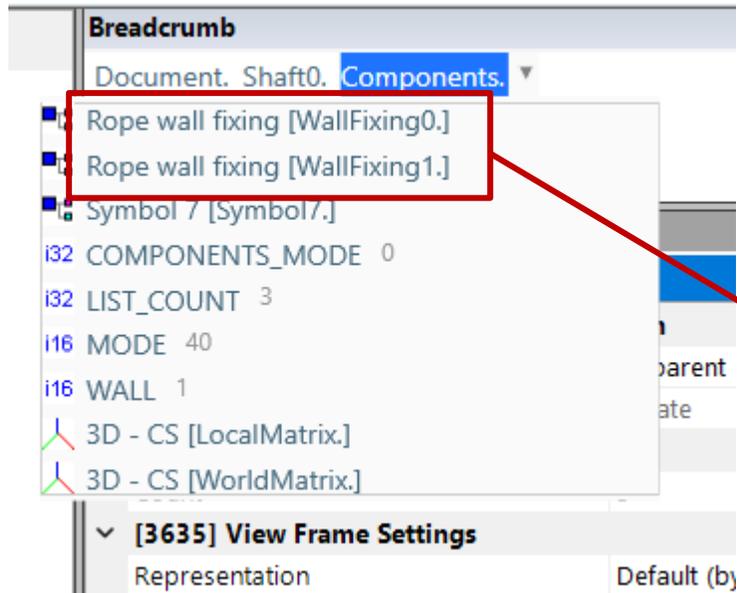


# Rope Wall Fixings

## A2.9 ROPES & WALL FIXINGS

Rope wall fixing components are available as child object of the current shaft

- the position determined automatically by default

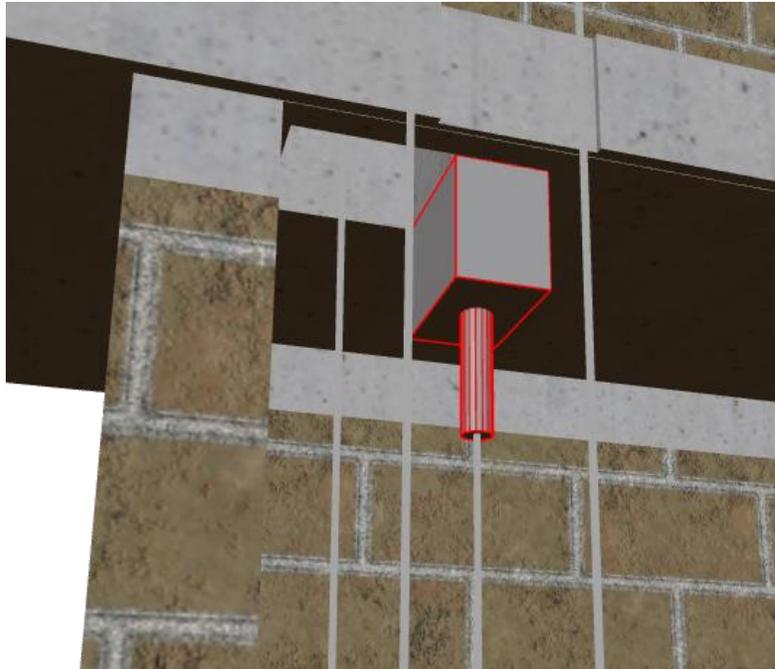


# Rope Wall Fixings

## A2.9 ROPES & WALL FIXINGS

Adapt the location and define the wall opening settings

- via the fixing options properties



**Properties** Rope wall fixing [WallFixing0]

<b>[0010] Tools</b>	
Rope Wizard	<>
Component state	Active
<b>[0020] General</b>	
Manufacturer	Common components
Designation	Rope Suspension
Type	Fixing at shaft ceiling
Angle	0
<b>[0021] Rope Suspension</b>	
Length of rope fixing (only rods) [mm]	400
Length of plate [mm]	150
Width of plate [mm]	250
<b>[0022] Project Level Geometry Information</b>	
Create geometry	By parent
Create geometry status	Create
<b>[0024] Product Options</b>	
Selected Product Options	Select from Option List ...
<b>[0480] Fixing Options</b>	
Determine X & Y Position automatically	Automatically
X0 [mm]	-1083
Y0 [mm]	160
Reference plane	Headroom
Reference plane location [mm]	-200
Wall opening	No
Z0 [mm]	17800

choose a suitable component

configure the associated geometry

switch on profiles

determine the position

remove openings that are no longer required

# A2.10

Machine Base (MRL)

MACCHINA  
BASE  
(MRL)



# Training Preparation

CREATE AN ELEVATOR WITH THE FOLLOWING SPECIFICATIONS:

## Shaft Wizard

- 5 floors
- Typical floor to floor distance 3000 mm
  - Consider travel – no
  - Create building floor levels - no
- Traction elevator 2:1
- 13 persons / 1000 kg, 1 m/s
- Drive Location in the shaft head (MRL)
- Car roping
  - 2 pulleys below
  - with CW safety gear
- Counterweight roping
  - 1 pulley top
  - Counterweight left
- Sheet Templates
  - LD Installation Drawing
  - LD Typical Views For Your Elevator

## Further specifications

- Car size
  - Car width : 1600 mm
  - Car depth : 1400 mm
- Entrances
  - Front: all floors
  - Rear: first and last level
- Individual Floor to Floor Distance
  - Pit: 1200 mm
  - E1: 2900 mm
  - E2: 3000 mm
  - E3: 3000 mm
  - E4: 3800 mm
- Save the project under the following file name:  
LDTrainingSampleA2\_04.Id3

# ✓ Machine Beams

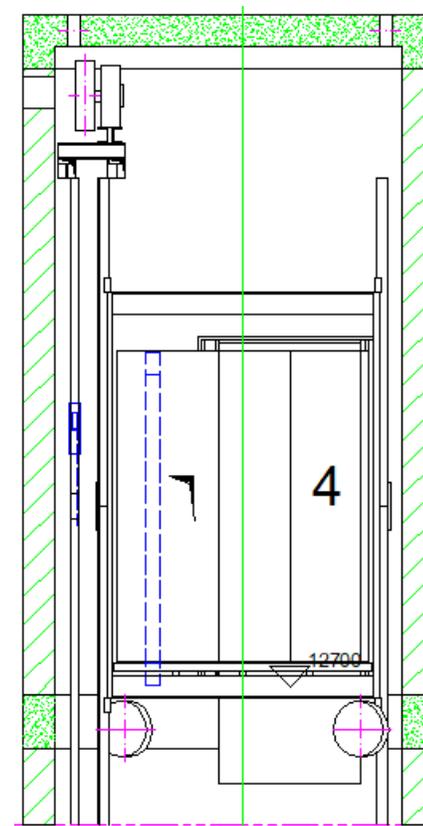
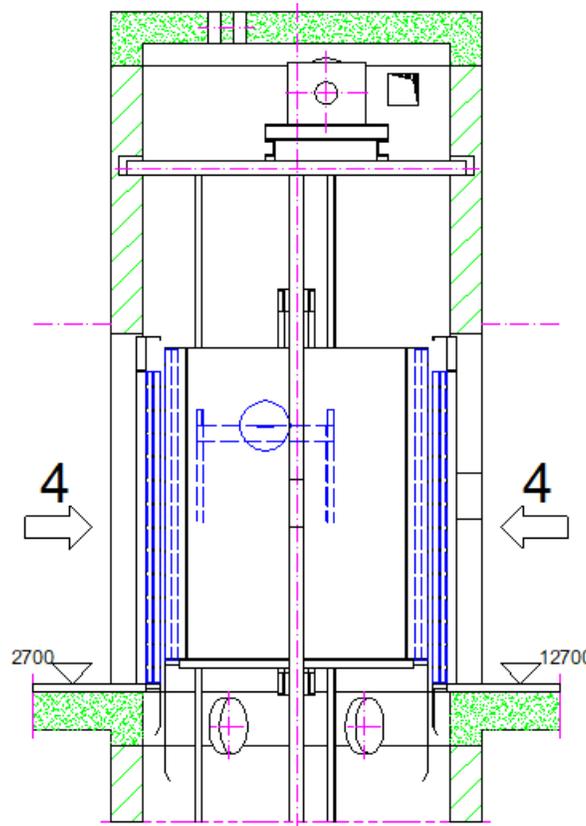
Central guided

# Machine Beams – Central guided

## A2.10 MACHINE BASE (MRL)

As default, the machine with the corresponding machine bed is placed in the shaft head on 2 configurable support beams

- for central guided MRL elevators.

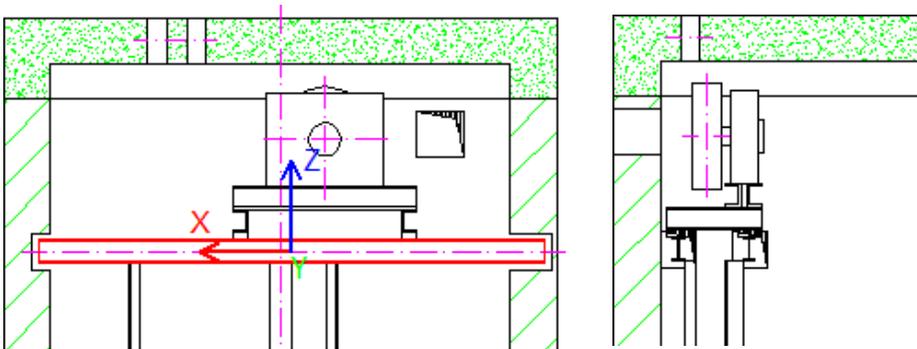


# Machine Beams – Central guided

## A2.10 MACHINE BASE (MRL)

In addition to the adjustable length and position of the beams, the corresponding openings can also be adjusted separately

- via the Properties docking window



length

wall openings

Properties	
Machine beam 1 [Beam1.]	
Designation	I-Profil
Type	100
▼ [0022] Project Level Geometry Information	
Grouping modify with group	
▼ [0373] Machine Bed mounting	
Machine bed	supported by 2 machine room beams
Beam support front [mm]	150
Beam support rear [mm]	50
▼ [0421] Machine Beam WO Clearances	
Left side of the profile [mm]	50
Right side of the profile [mm]	50
Above the profile [mm]	25
Below the profile [mm]	30
Front end of the profile [mm]	30
Rear end of the profile [mm]	30
▼ [0424] Machine Beam Locations	
Y0 Beam 2 [mm]	180
▼ [3635] View Frame Settings	

# ✓ Gear Base Construction

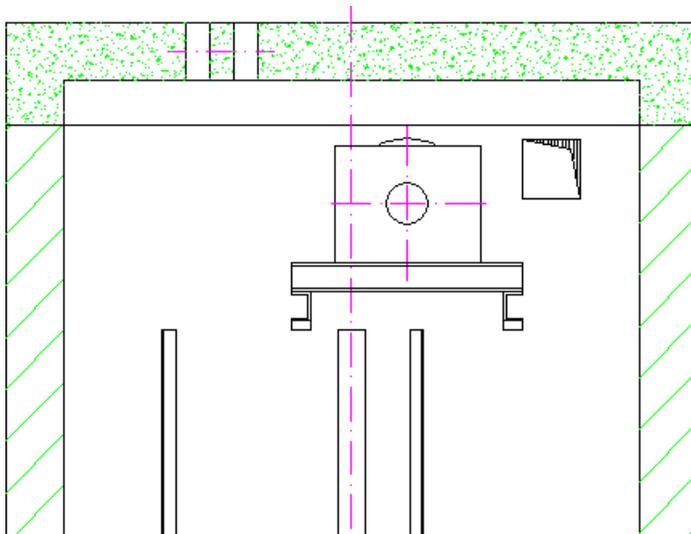
For Self-Construction

# Gear Base Construction – Self-Construction

A2.10 MACHINE BASE (MRL)

## Preparation Step

- switch of current support beams
  - directly on the machine room floor



Breadcrumb: Document. Shaft0. Gear. **Beam0.**

► Favorites  
► Options

Properties: Machine beam 0 [Beam0]

Lock Update

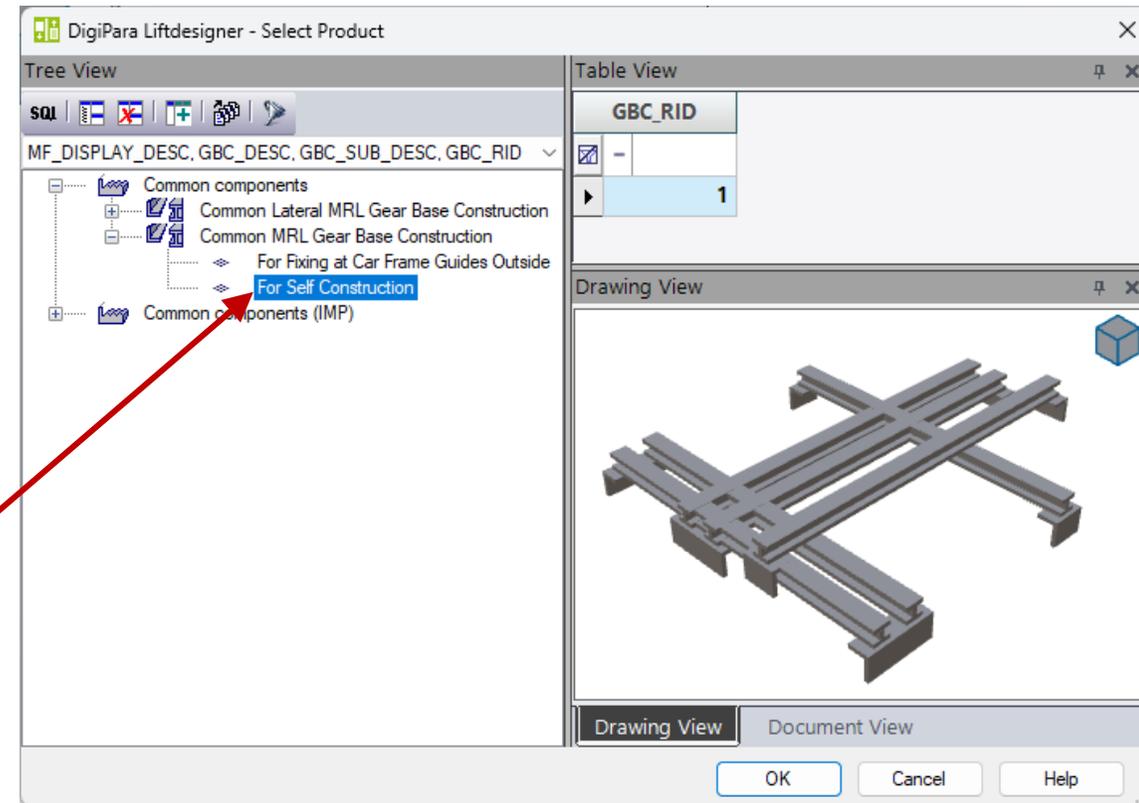
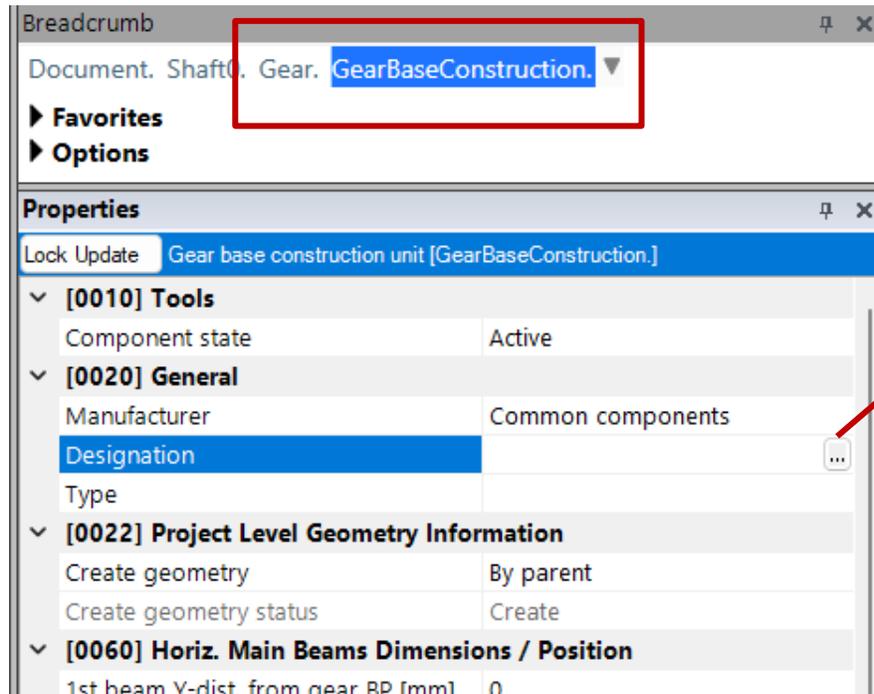
[0020] General	
Manufacturer	Common components
Designation	I-Profil
Type	100
[0022] Project Level Geometry Information	
Create geometry	By parent
Create geometry status	Do not create
[0367] Machine Beam Settings	
Grouping	Modify with group
[0373] Machine Bed mounting	
Machine bed	directly on the machine room floor
[0421] Machine Beam WO Clearances	
Left side of the profile [mm]	350

# Gear Base Construction – Self-Construction

A2.10 MACHINE BASE (MRL)

Gear Base Construction Units can be activated

- via the Properties docking window

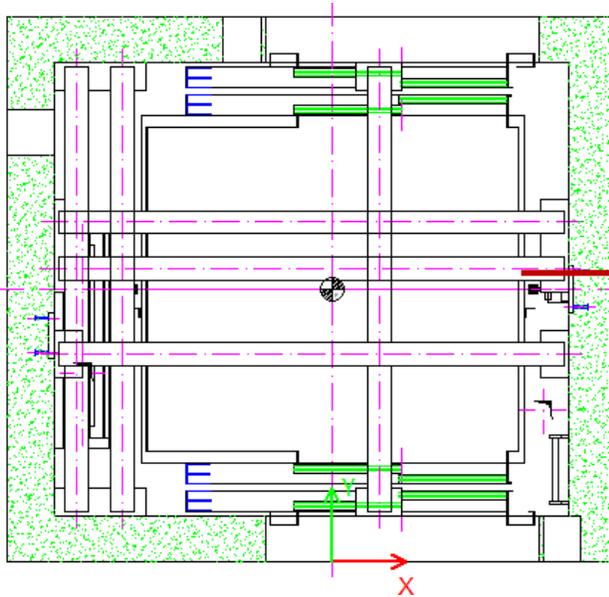


# Gear Base Construction – Self-Construction

A2.10 MACHINE BASE (MRL)

## Switch off unnecessary profiles

- Customize related Product Options

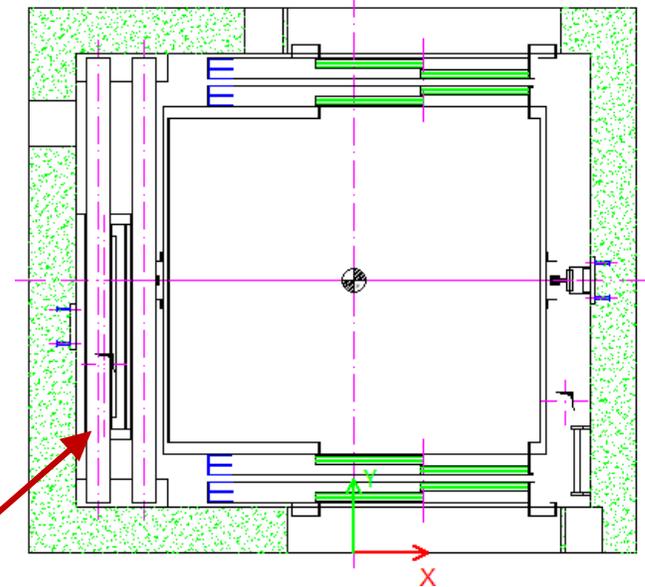


Breadcrumb: Document. Shaft0. Gear. GearBaseConstruction.

► Favorites  
► Options

Properties  
Lock Update Gear base construction unit [GearBaseConstruction.]

Component state	Active
▼ [0020] General	
Manufacturer	Common components
Designation	Common MRL Gear Base Construction
Type	For Self Construction
▼ [0022] Project Level Geometry Information	
Create geometry	By parent
Create geometry status	Create
▼ [0024] Product Options	
Selected Product Options	Select from Option List ...
▼ [0060] Horiz. Main Beams Dimensions / Position	
1st beam Y-dist. from gear BP [mm]	<input type="checkbox"/> Add beams - horizontal - profile
2nd beam Y-dist. from gear BP [mm]	<input type="checkbox"/> Add beams - horizontal - wall fixing 3
Height [mm] ( 1 )	<input type="checkbox"/> Add beams - horizontal - wall fixing 4
Width [mm] ( 1 )	<input type="checkbox"/> Add beams - vertical - profile
Overlap left [mm] ( 1 )	<input type="checkbox"/> Add beams - vertical - wall fixing 1
Overlap right [mm] ( 1 )	<input type="checkbox"/> Add beams - vertical - wall fixing 2
▼ [0061] Additional Horizontal Beams Dimensions / Position	
DY rel. to shaft BP [mm]	<input type="checkbox"/> Main beams - horizontal - profile 1
Z0 [mm] ( 1 )	<input type="checkbox"/> Main beams - horizontal - profile 2
Height [mm] ( 2 )	<input type="checkbox"/> Main beams - horizontal - wall fixing 3
Width [mm] ( 1 )	<input type="checkbox"/> Main beams - horizontal - wall fixing 4
Overlap left [mm]	<input checked="" type="checkbox"/> Main beams - vertical - profile 1
Overlap right [mm]	<input checked="" type="checkbox"/> Main beams - vertical - profile 2
	<input checked="" type="checkbox"/> Main beams - vertical - wall fixing 1
	<input checked="" type="checkbox"/> Main beams - vertical - wall fixing 2

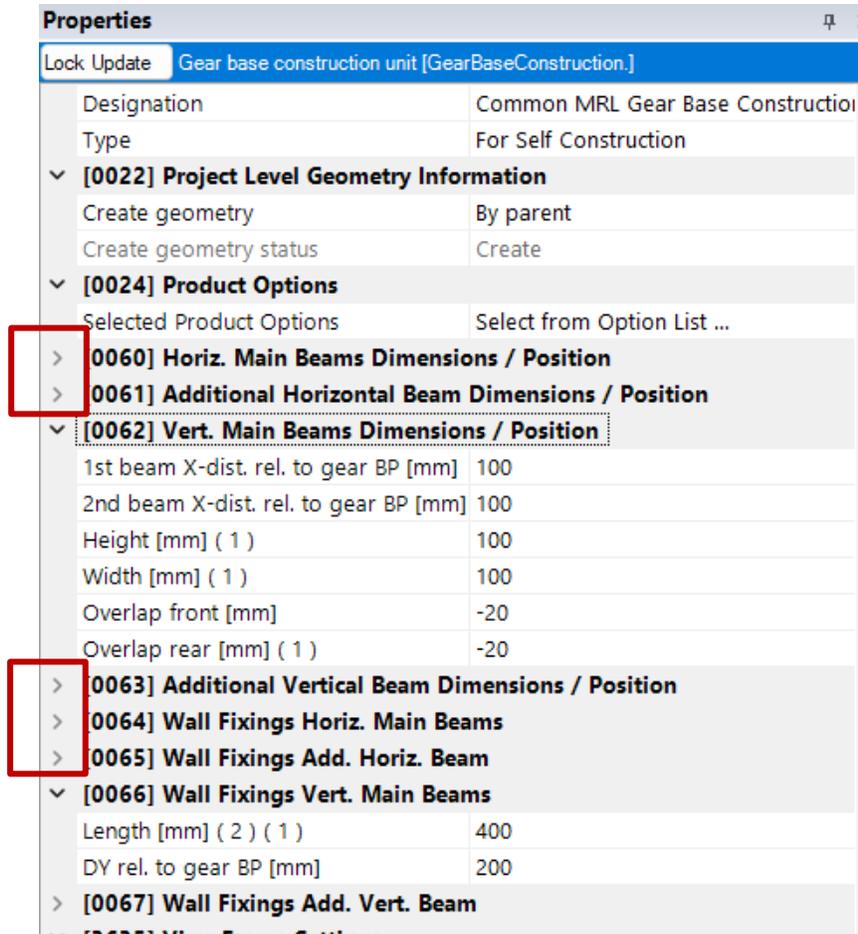


# Gear Base Construction – Self-Construction

A2.10 MACHINE BASE (MRL)

## Arrange the Properties window

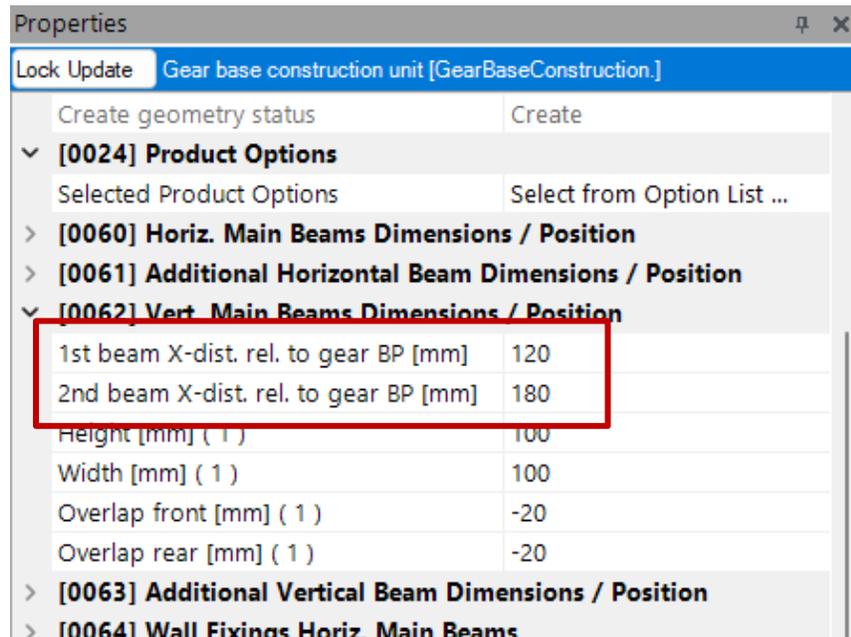
- Close unnecessary functions for a more organized overview.



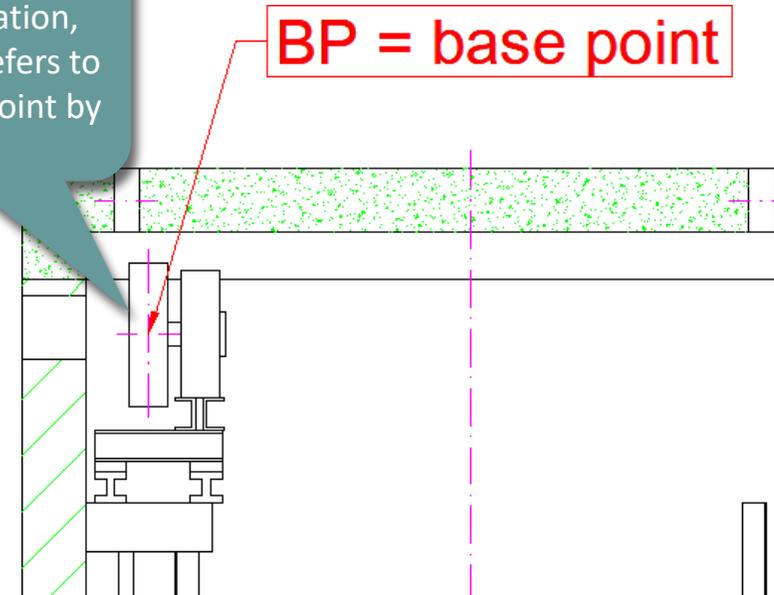
# Gear Base Construction – Self-Construction

A2.10 MACHINE BASE (MRL)

## Determine the Beams Dimensions and Position



Tip: Add a component-related annotation, which always refers to the reference point by default.

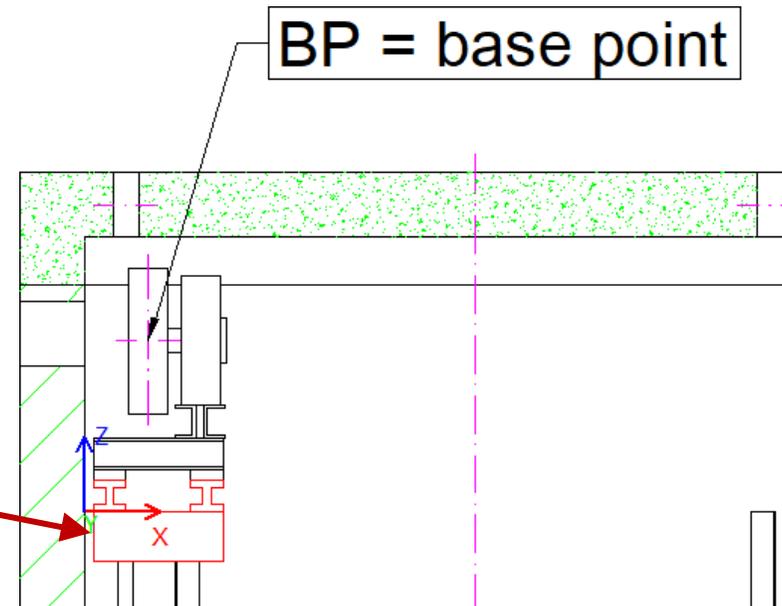


# Gear Base Construction – Self-Construction

A2.10 MACHINE BASE (MRL)

## Determine the Fixings settings

▼ [0062] Vert. Main Beams Dimensions / Position	
1st beam X-dist. rel. to gear BP [mm]	120
2nd beam X-dist. rel. to gear BP [mm]	180
Height [mm] ( 1 )	100
Width [mm] ( 1 )	100
Overlap front [mm] ( 1 )	-20
Overlap rear [mm] ( 1 )	-20
> [0063] Additional Vertical Beam Dimensions / Position	
> [0064] Wall Fixings Horiz. Main Beams	
> [0065] Wall Fixings Add. Horiz. Beam	
▼ [0066] Wall Fixings Vert. Main Beams	
Length [mm] ( 1 )	400
DY rel. to gear BP [mm]	170
> [0067] Wall Fixings Add. Vert. Beam	
▼ [3635] View Frame Settings	
Representation	Default (by Frame)
Dash	No



# ✓ Gear Base Construction

Lateral guided

# Training Preparation

CREATE AN ELEVATOR WITH THE FOLLOWING SPECIFICATIONS:

## Shaft Wizard

- 3 floors
- Typical floor to floor distance 3000 mm
  - Consider travel – no
  - Create building floor levels - no
- Traction elevator 1:1
- 13 persons / 1000 kg, 1 m/s
- Drive Location in the shaft head (MRL)
- Car roping
  - direct
  - Lateral Guided Car Frames Only
  - Without Counterweight Safety Gear
- Counterweight roping
  - direct
  - Counterweight left
- Sheet Templates
  - LD Installation Drawing
  - LD Typical Views For Your Elevator

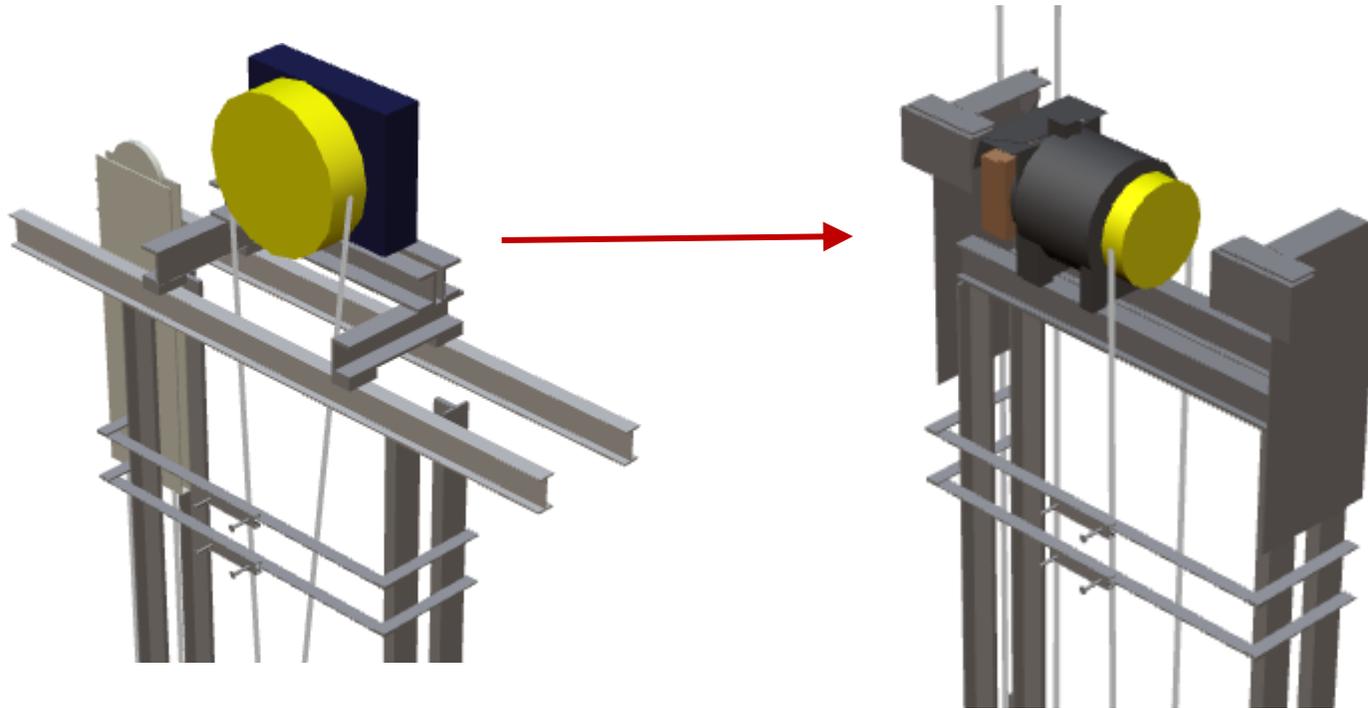
## Further specifications

- Car size
  - Car width : 1600 mm
  - Car depth : 1400 mm
- Entrances
  - Front: all floors
  - Right: top floor
- Save the project under the following file name:  
LDTrainingSampleA2\_05.Id3

# Gear Base Construction – Lateral guided

A2.10 MACHINE BASE (MRL)

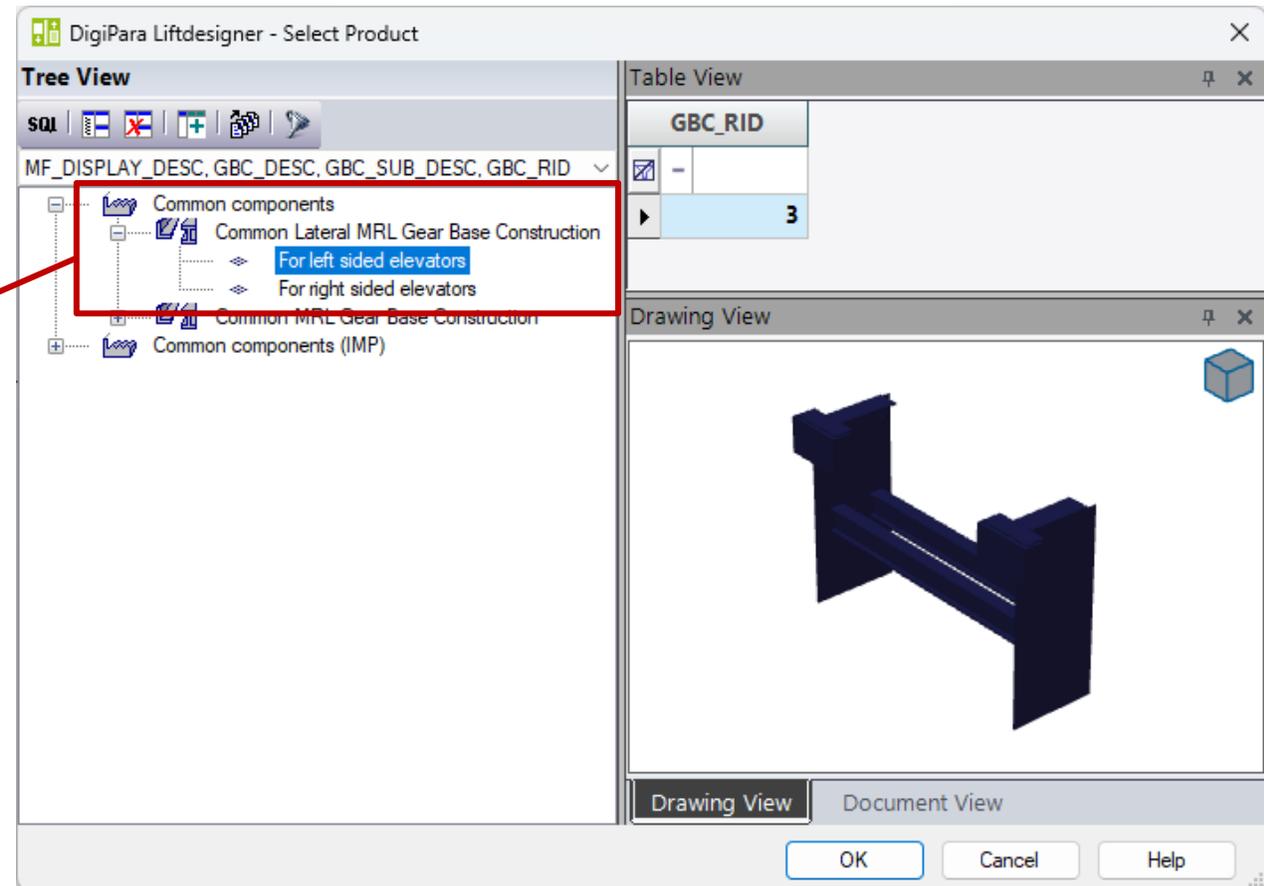
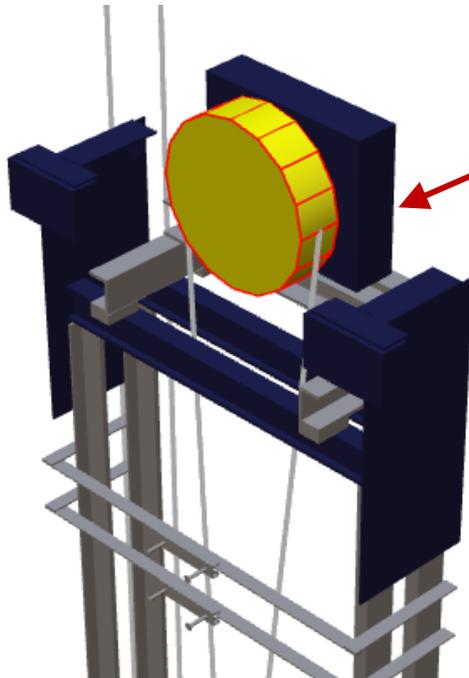
From machine beams to mounting between the guide rails



# Gear Base Construction – Lateral guided

A2.10 MACHINE BASE (MRL)

Switch off the default beam and choose a Lateral Gear Base Construction Unit

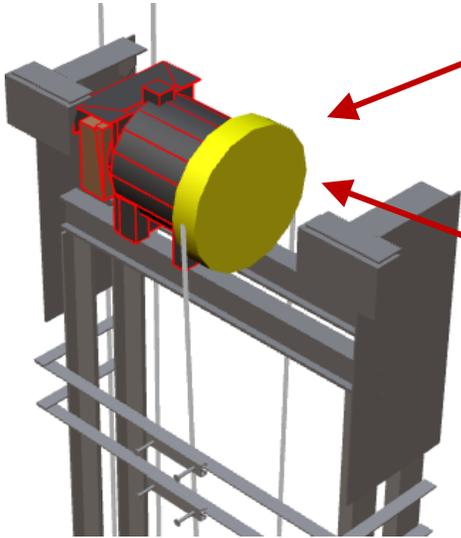


# Gear Base Construction – Lateral guided

A2.10 MACHINE BASE (MRL)

## Selection and alignment of the machine

- via the Gearing Properties



**Properties**

Lock Update Gearing [Gear.]

Component state	Active
<b>[0020] General</b>	
Manufacturer	Common components
Designation	Standard drive unit
Type	Common Lateral - Type R
<b>[0022] Project Level Geometry Information</b>	
Create geometrv	Bv parent

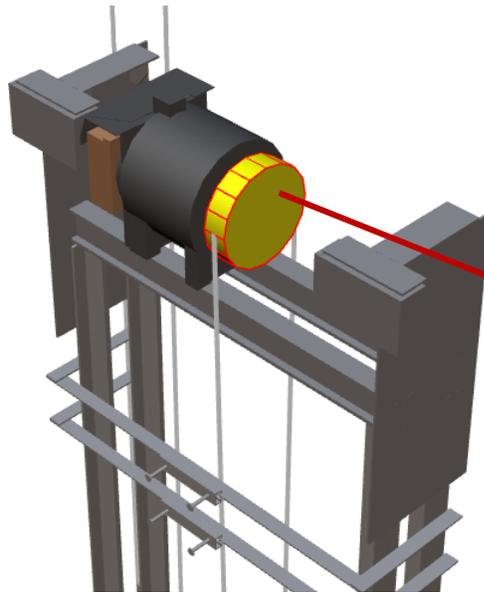
Distance between gear beams an	0
Height of the gear beams [mm]	0
Height of the machine bed [mm]	230
<b>[0362] Traction Machine Angle</b>	
Angle calculation	Manually
Angle	-180
<b>[0364] Traction Machine Above</b>	
Location	 Aligned to car
Alignment distance [mm]	0

# Gear Base Construction – Lateral guided

A2.10 MACHINE BASE (MRL)

## Customize the pulley diameter

- User defined



**Properties** Pulley 0 [SH0.]

Lock Update

<b>[0010] Tools</b>	
Rope Wizard	<>
Belt Orientation	Default Belt Facing
Component state	Active
<b>[0020] General</b>	
Manufacturer	Common components
Designation	Common pulley
Type	270 mm
<b>[0022] Project Level Geometry Information</b>	
Draw Default Pulley Geometry	Yes
Draw Center Lines	Yes
Create geometry	By parent
Create geometry status	Create
<b>[0445] Dimensions</b>	
User defined	Yes
<b>Diameter [mm]</b>	<b>270</b>
Width [mm]	65
Number of grooves	5
<b>[3635] View Frame Settings</b>	
Representation	Default (by Frame)

# A2.11

Rail Brackets

(Hydraulic Elevators)



RAIL  
BRACKETS

# Training Preparation

CREATE AN ELEVATOR WITH THE FOLLOWING SPECIFICATIONS:

## Shaft Wizard

- ALGI elevator solution (download from Cloud if not available)
  - ADH 1200 – 1Z1,2,3 – SM700 – KB 800
- 4 floors
- Typical floor to floor distance 3000 mm
  - Consider travel – no
  - Create building floor levels - no
- Traction elevator 1:1
- 16 persons / 1200 kg, 0,5 m/s
  - as specified
- Elevator Characteristics
  - as specified
- Sheet Templates
  - LD Installation Drawing
  - LD Typical Views For Your Elevator
- Save the project under the following file name: LDTrainingSampleA2\_06.ld3

# Rail Bracket Fixing Options

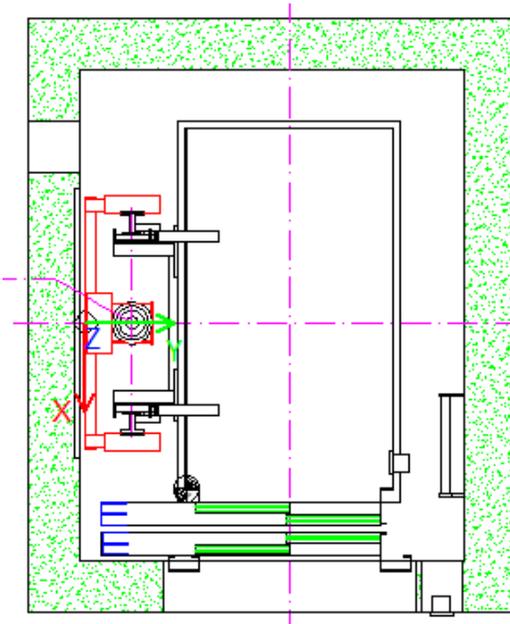
## A2.11 RAIL BRACKETS (HYDRAULIC ELEVATORS)

Can be configured manually

- via the corresponding component properties

A rail bracket can consist of one or more predefined fixing profile groups (similar to Product Options), e.g.

- Standard profiles
- Cylinder fixing profiles
- Guide rail fixing profiles
- etc.



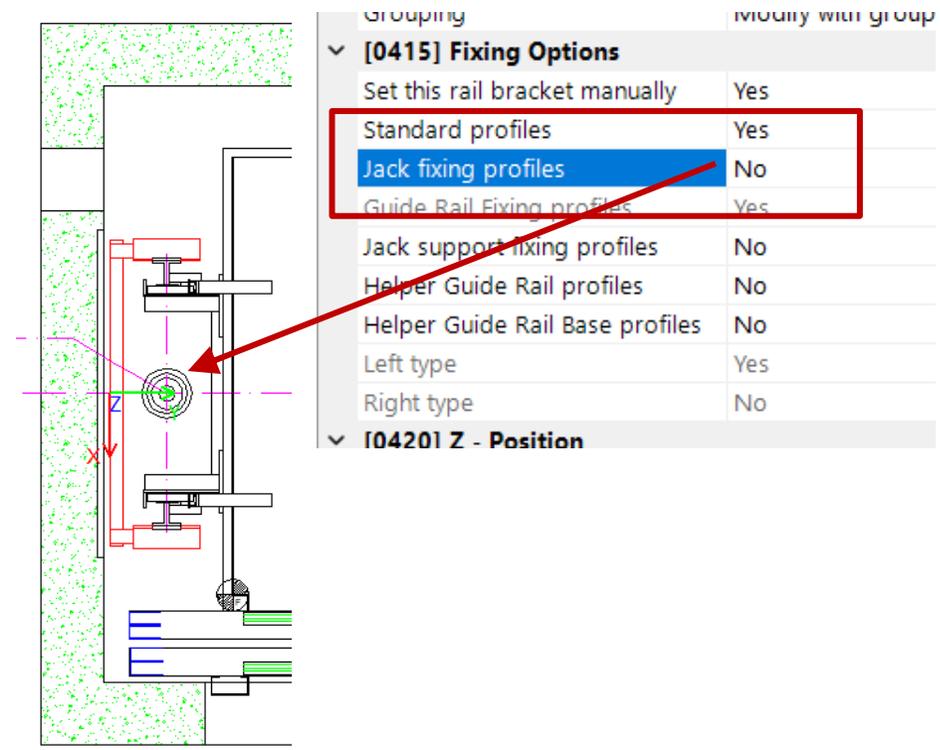
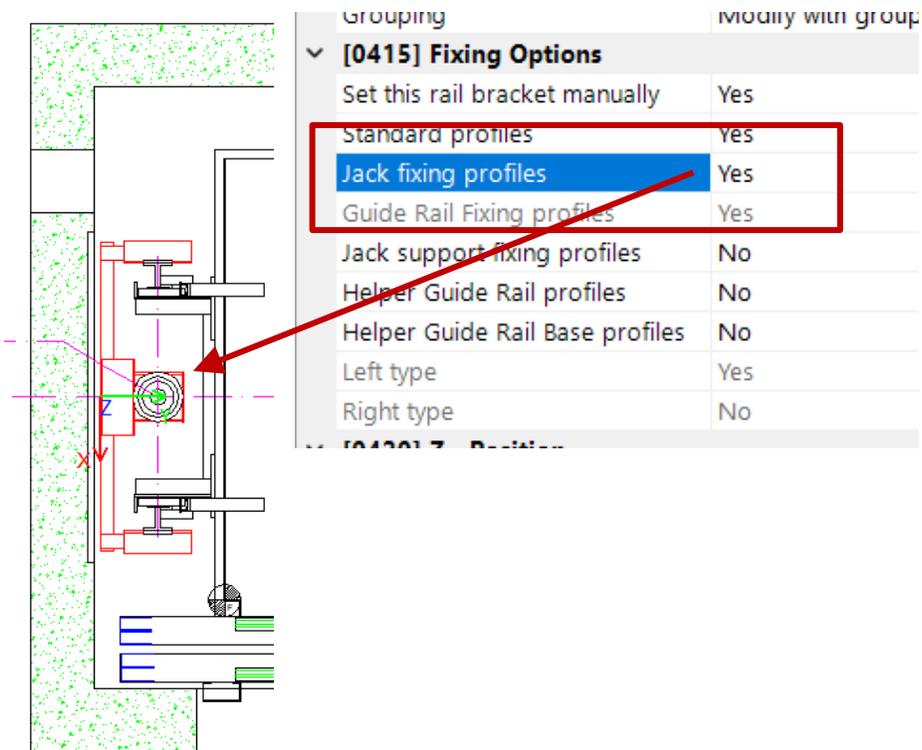
**Properties** Lock Update Bracket 0 [Bracket0.]

▼ [0020] General	
Manufacturer	ALGI
Designation	ADH 1200
Type	1Z1,2,3-SM 700
▼ [0022] Project Level Geometry Information	
Create geometry	By parent
Create geometry status	Create
▼ [0195] Grouping	
Grouping	Modify with group
▼ [0415] Fixing Options	
Set this rail bracket manually	No
Standard profiles	Yes
Jack fixing profiles	Yes
Guide Rail Fixing profiles	Yes
Jack support fixing profiles	No
Helper Guide Rail profiles	No
Helper Guide Rail Base profiles	No
Left type	Yes
Right type	No
▼ [0420] Z - Position	
Distance to pit / previous bracket	750
▼ [3635] View Frame Settings	

# Rail Bracket Fixing Options

## A2.11 RAIL BRACKETS (HYDRAULIC ELEVATORS)

### Switching off the Jack fixing profiles of the selected rail bracket



# A2.12

Machine Room

MACCHINI  
ROOM



✓ Machine Room Basic Settings

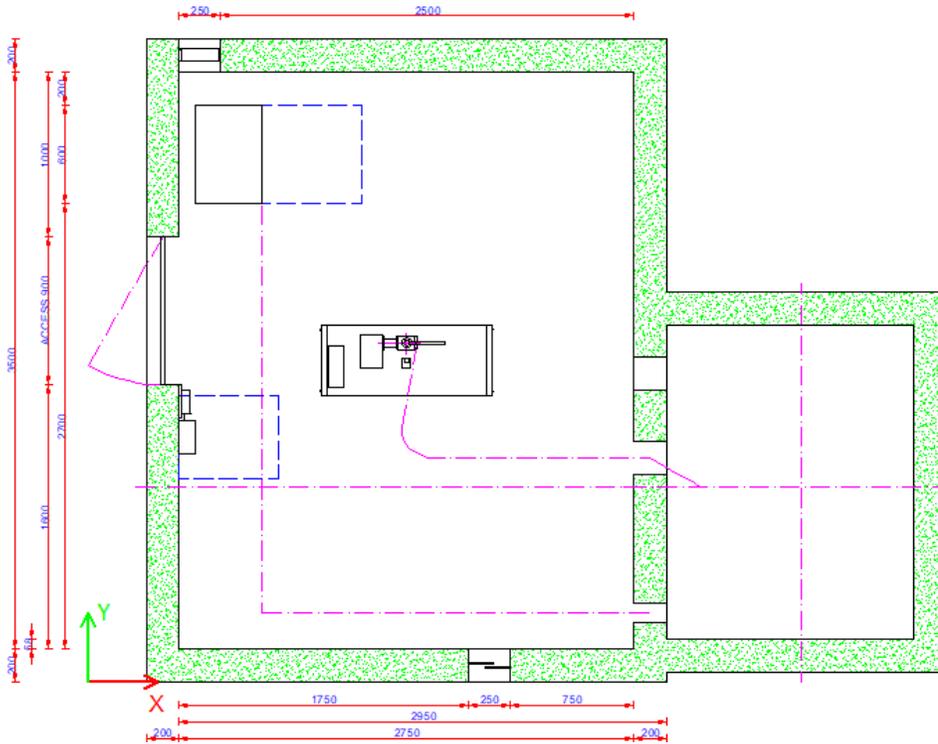


# Machine Room Basic Settings: Dimensions

## A2.12 MACHINE ROOM

The machine room dimensions can be set individually

- in the Properties window under [0250] Dimensions



**Properties** Machine room [MachineryRoom.]

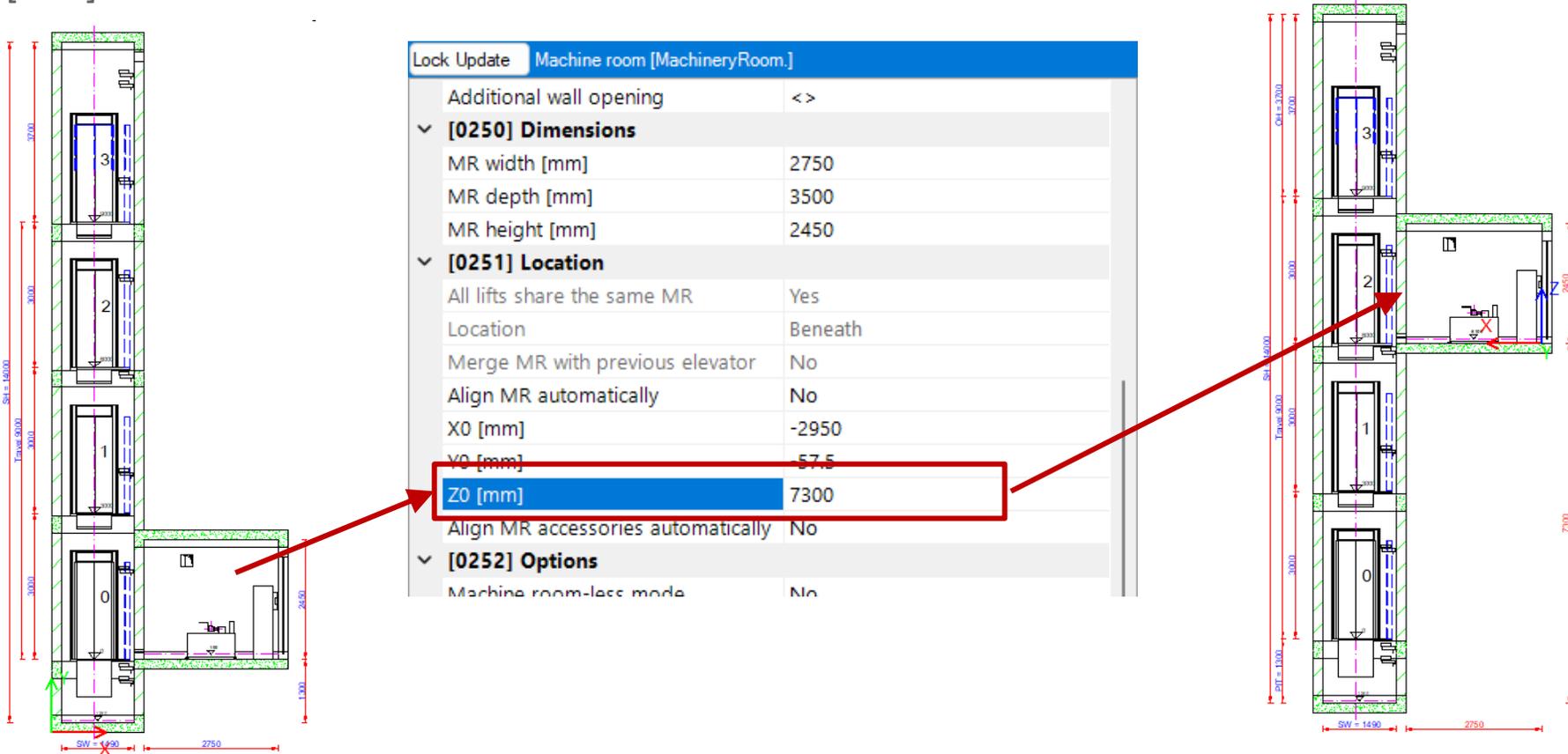
Lock Update	Machine room [MachineryRoom.]
Left [mm]	200
Right [mm]	200
Top [mm]	200
Bottom [mm]	200
<b>[0241] Options</b>	
Additional wall opening	<>
<b>[0250] Dimensions</b>	
MR width [mm]	2750
MR depth [mm]	3500
MR height [mm]	2450
<b>[0251] Location</b>	
All lifts share the same MR	Yes
Location	Beneath

# Machine Room Basic Settings: Positioning

A2.12 MACHINE ROOM

The machine room can be positioned individually in height (z-direction)

- Example: Z0 [mm]



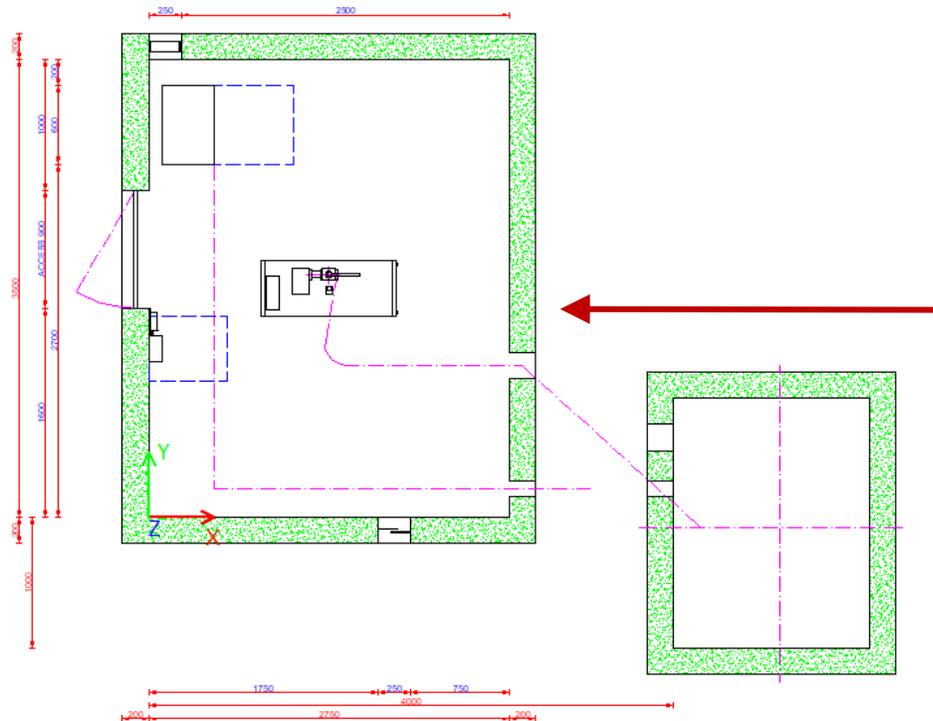
Lock Update Machine room [MachineryRoom.]	
Additional wall opening	<>
▼ [0250] Dimensions	
MR width [mm]	2750
MR depth [mm]	3500
MR height [mm]	2450
▼ [0251] Location	
All lifts share the same MR	Yes
Location	Beneath
Merge MR with previous elevator	No
Align MR automatically	No
X0 [mm]	-2950
Y0 [mm]	-57.5
Z0 [mm]	7300
Align MR accessories automatically	No
▼ [0252] Options	
Machine room-less mode	No

# Machine Room Basic Settings: Positioning

## A2.12 MACHINE ROOM

The machine room can be positioned in the same way in x and y direction

- Example: X0 [mm] / Y0 [mm]
- placed separately from the shaft



Lock Update Machine room [MachineryRoom.]	
MR width [mm]	2750
MR depth [mm]	3500
MR height [mm]	2450
▼ [0251] Location	
All lifts share the same MR	Yes
Location	Beneath
Merge MR with previous elevator	No
Align MR automatically	No
X0 [mm]	-4000
Y0 [mm]	1000
Z0 [mm]	7300
Align MR accessories automatically	No
▼ [0252] Options	
Machine room-less mode	No

✓ MR to MRL

# MR to MRL

## A2.12 MACHINE ROOM

Machine room-less Hydraulic elevators can be created manually

- via the machine room Machine room-less mode property

Lock Update Machine room [MachineryRoom.]	
MR width [mm]	2750
MR depth [mm]	3500
MR height [mm]	2450
▼ [0251] Location	
All lifts share the same MR	Yes
Location	Beneath
Merge MR with previous elevator	No
Align MR automatically	No
X0 [mm]	-4000
Y0 [mm]	1000
Z0 [mm]	7300
Align MR accessories automatically	No
✓ [0252] Options	
Machine room-less mode	No
✓ [3635] View Frame Settings	
Representation	Default (by Frame)
Dash	No

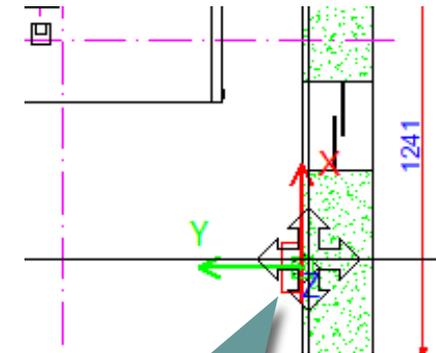
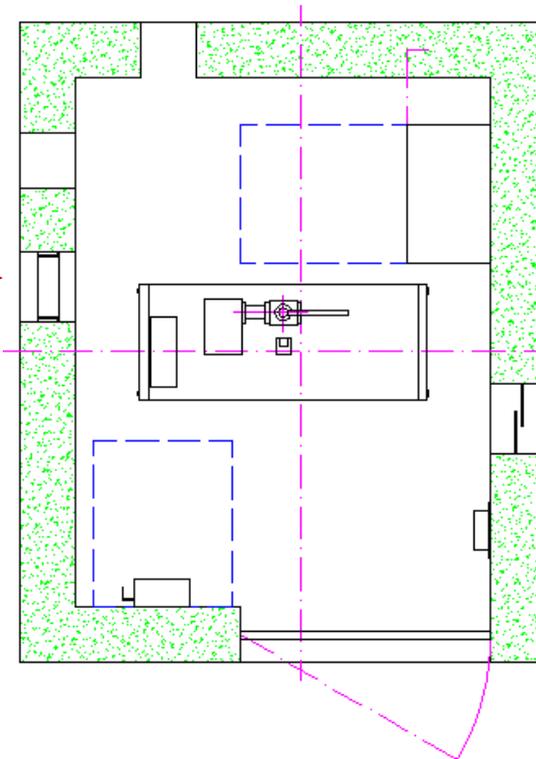
# MR to MRL

## A2.12 MACHINE ROOM

Machine room components are placed in the shaft pit automatically

- They can be deleted, moved
  - via the corresponding dimensions and component properties

Properties	
Lock Update	Machine room [MachineryRoom.]
All lifts share the same MR	No
Merge MR with previous elevator	No
Align MR accessories automatically	No
<b>[0252] Options</b>	
Machine room-less mode	Yes
<b>[3635] View Frame Settings</b>	
Representation	Default (by Frame)



Tip: All wall-related components can be quickly and easily moved to the correct position by holding down the left mouse button.



# A2.13

Summary & custom  
Q&A's

SUMMARY  
CUSTOM  
Q&A'S



# Congratulations

You reached the next level



 digipara<sup>®</sup> liftdesigner



Your instructor will be available for individual questions after the module training.

[training@digipara.com](mailto:training@digipara.com)





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