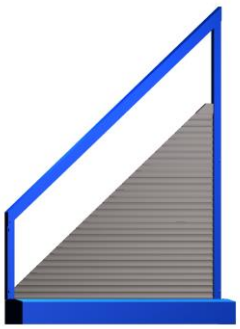
Assembly Instruction

Studio Star
Roller Shutter Type S
-Manual Drive-



This assembly instruction contains important information on assembling roller shutters as well as important safety instructions.

The assembly operation may only be carried out by specialized staff of Schanz Rollladensysteme GmbH or technicians especially authorized by Schanz Rollladen-systeme GmbH.

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Commission - No.	Date Installation and Instruction	Signature

Content

General Safety Information

This assembly instruction contains information for the correct installation of Schanz roller shutters. Due to the different types deviations may occur from this assembly instruction. However, this does not affect the security information.

Below described assembly steps may only be carried out by specialized staff of Schanz Rollladensysteme GmbH or technicians especially authorized by Schanz Rollladensysteme GmbH.

Adhere to the applicable regulations of the insurance association and take the necessary precautions for all work and consider the safety instructions in this document. Depending on accessibility, scaffoldings, ladders, fall protection devices, lifting devices and Personal Protective Equipment (e.g. safety helmet, safety boots etc.) are to be used.

Transport / Packaging / Unpacking

Depending on the route of transport and the expected conditions the roller shutter will be packed and the roller shutter jacket will be fixed in the roller shutter box. Depending on the type and size of the roller shutters they might be so heavy that a suitable load-carrying equipment and lifting tool has to be utilized.
Only use sufficiently dimensioned, safe and correctly fixated load-carrying equipment and lifting tools and avoid damages and injuries.
Check immediately if the product has been delivered without damage. Immediately complain about damaged roller shutters.

Removing the transportation protection:

Unscrew and open the cover of the roller shutter box	
Remove the foam sheets **<u>Caution</u>: The roller shutter jacket could unwind itself due to the initial tension within the drive system!**	
Remove entry mouth	
Remove the 4 slats which are connected to the jacket Put on the cover and screw it back	

Assembling / Installation/ Working on the facade

Each roller shutter is individually manufactured according to your window shape and size and must only be installed by Schanz Rollladensysteme GmbH or technicians especially authorized.

	The installation of the roller shutter has to be conducted following the information given in the assembly and safety instructions.

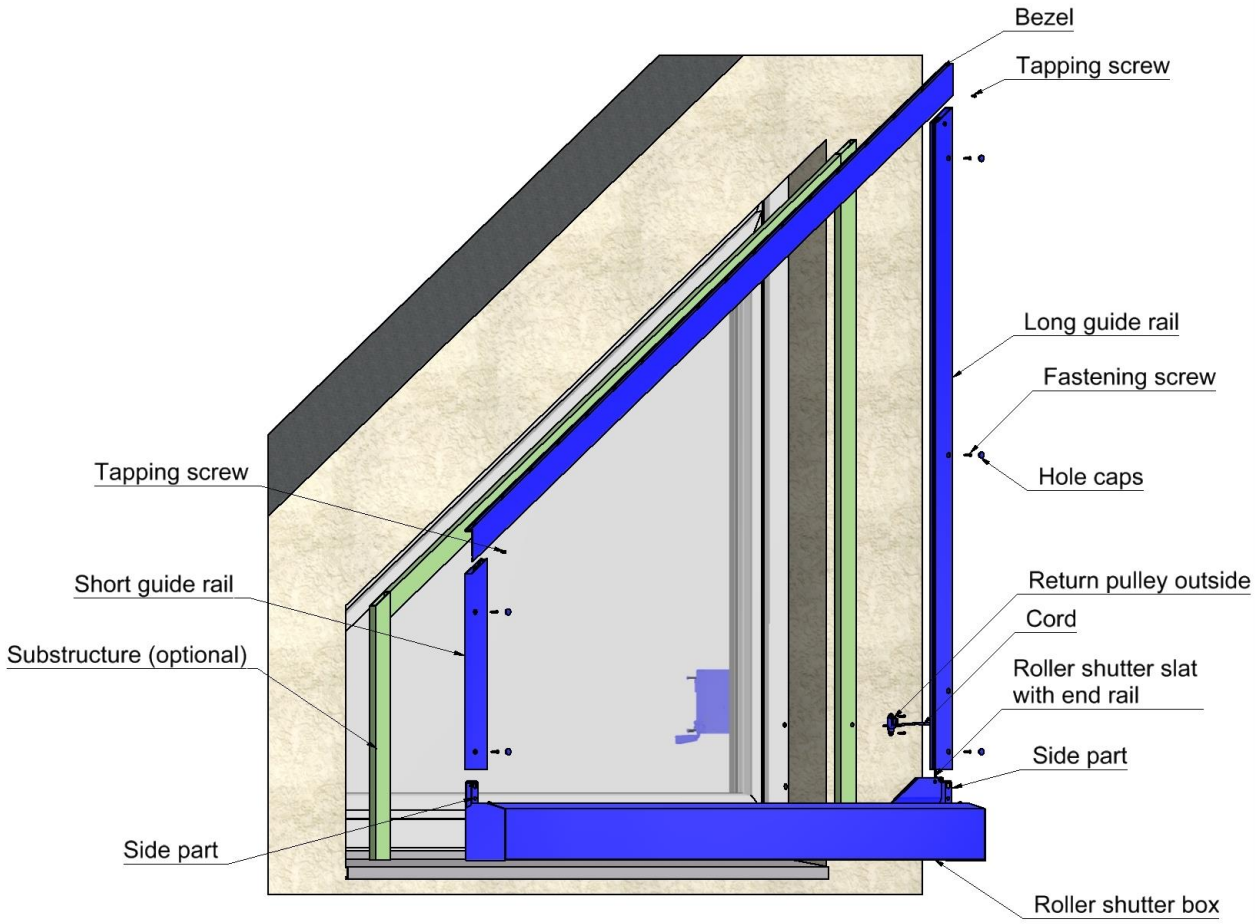
The installation of the roller shutters should only be conducted on ready-made rainproof facades!
The plastering of the roller shutter could lead to severe damages due to damp and furthermore make essential reparation difficult or even impossible.

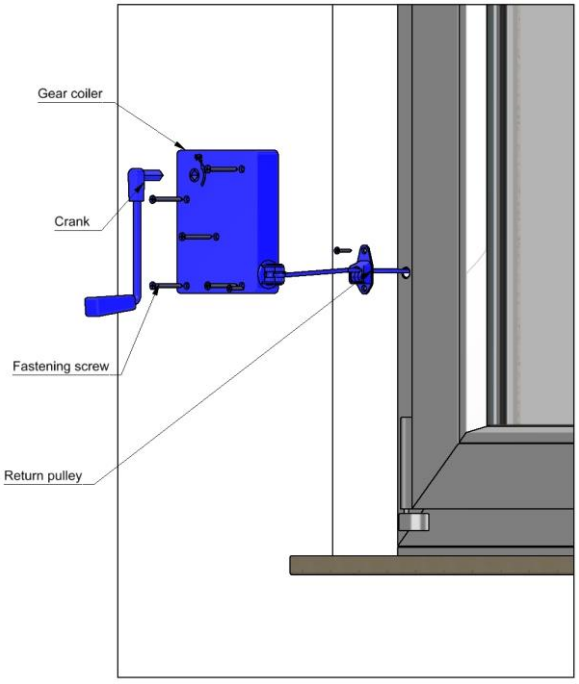
	The water drain holes on the bottom of the roller shutter box have to be clear at all times so that ingressed water can drain off! Under no circumstances may the shutter box be buried in the wall or stucco.

The roller shutter has to be fixed sufficiently and safe attuned to the ground!

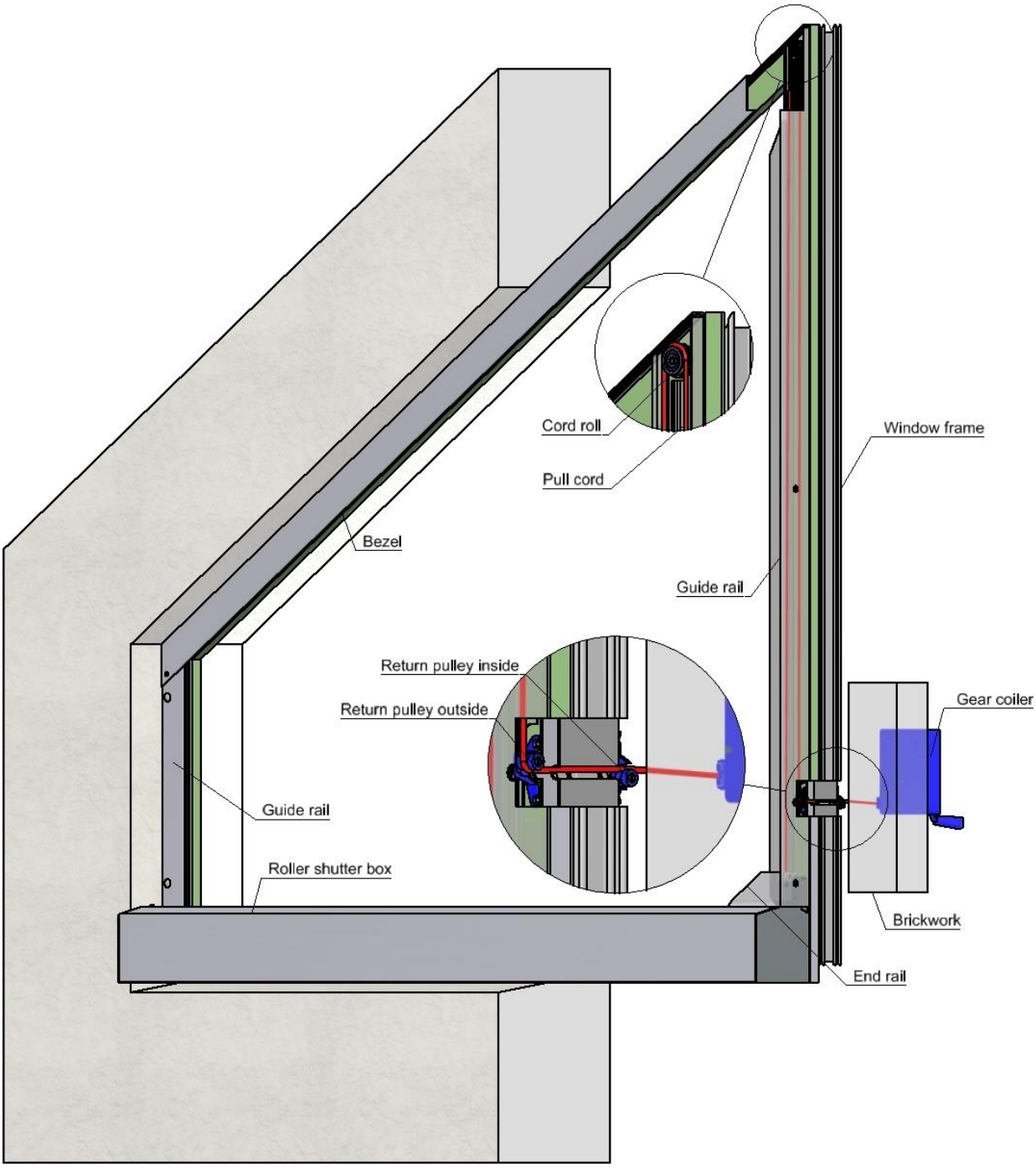
Assembly Drawing – Outside Deflection

- The necessary working steps end with the number **..0 and ..1**



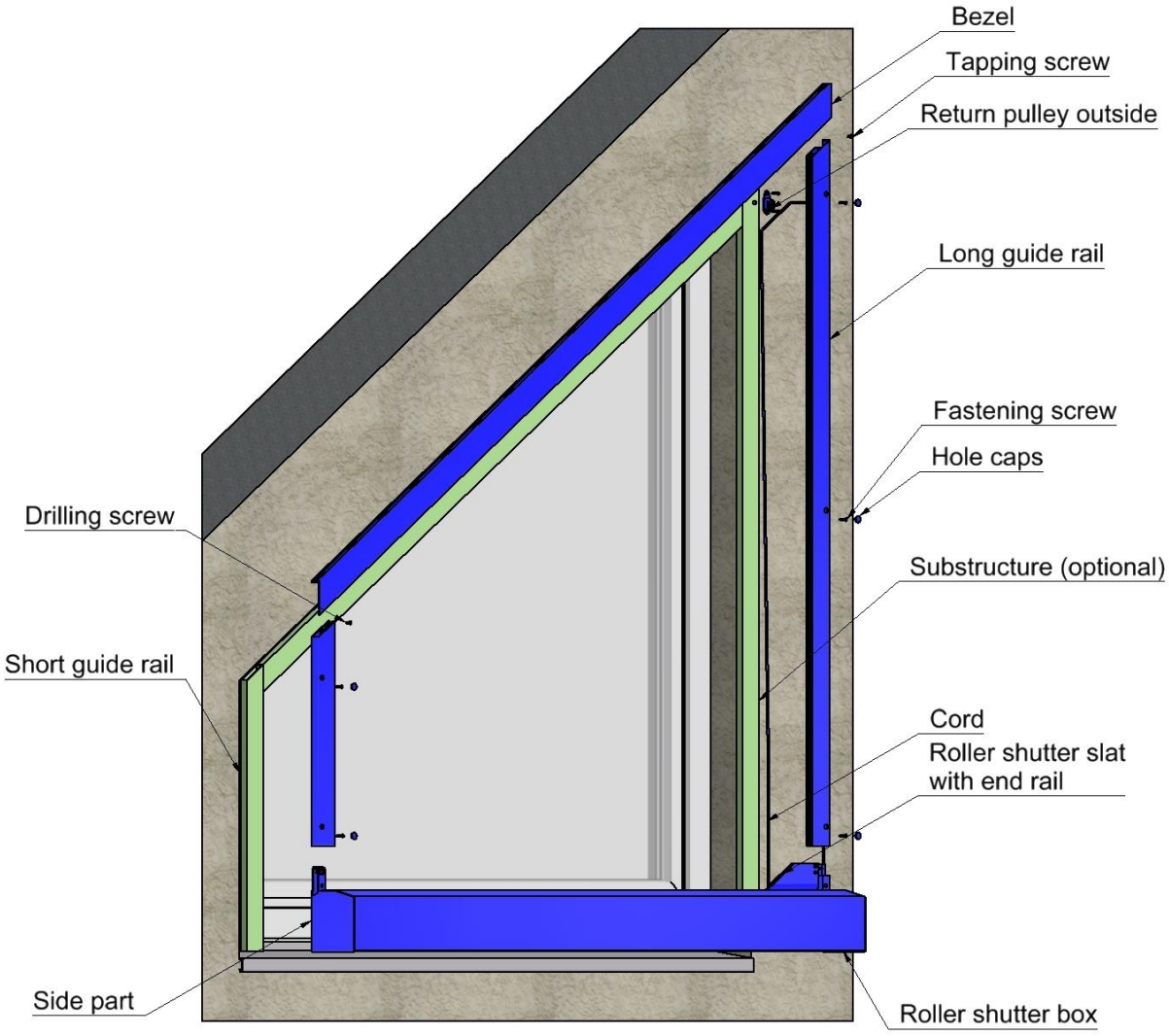


Cord Guidance – Outside Deflection

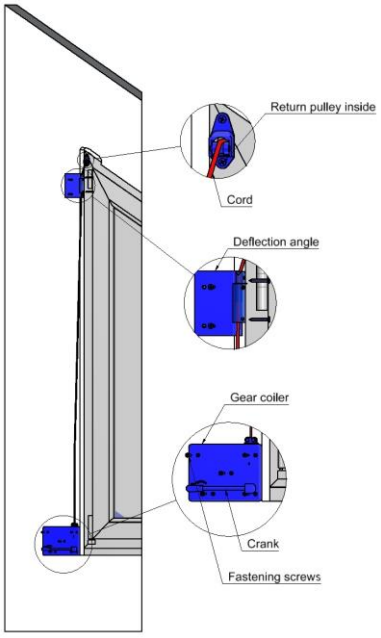


Assembly Drawing – Inside Deflection

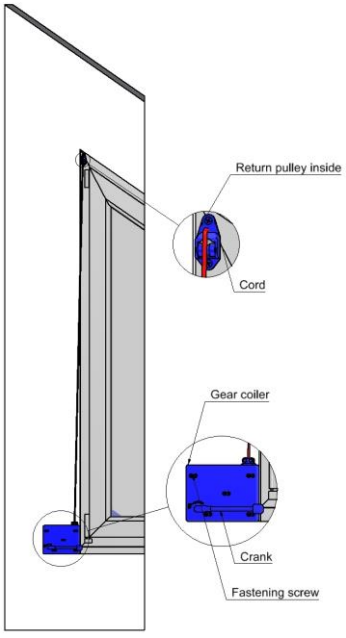
- The necessary working steps end with the number **..0 and ..5**



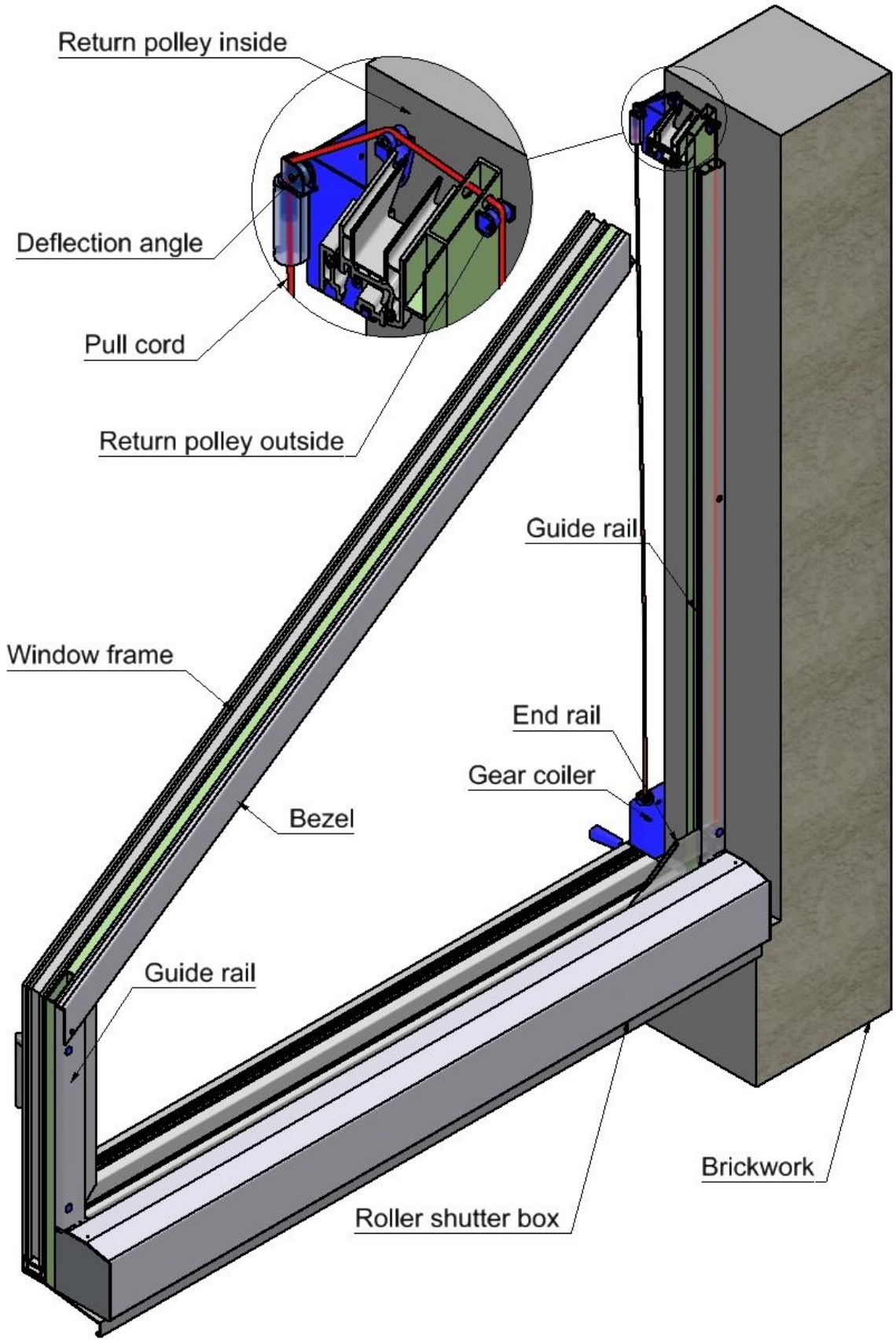
With Reveal



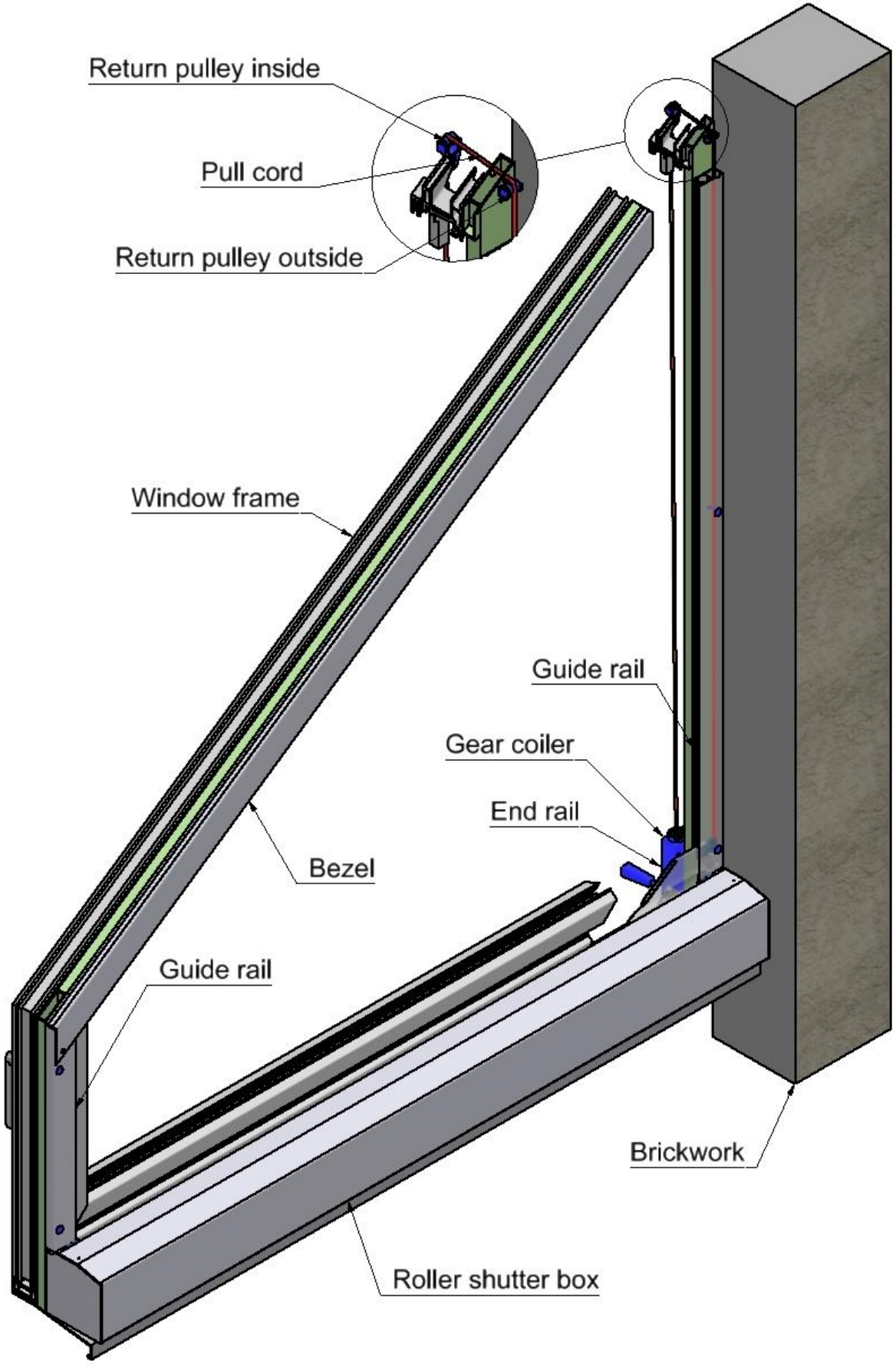
Without Reveal



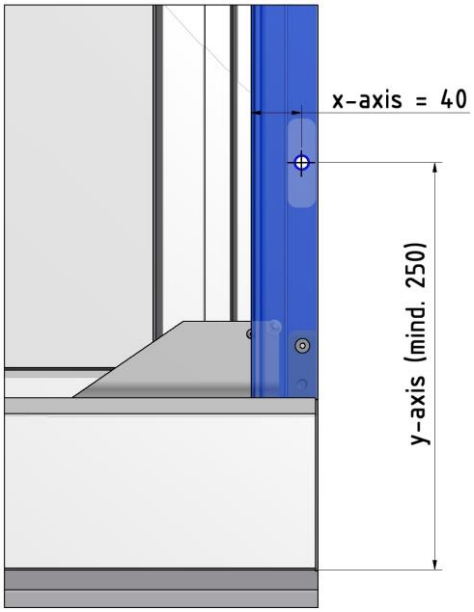
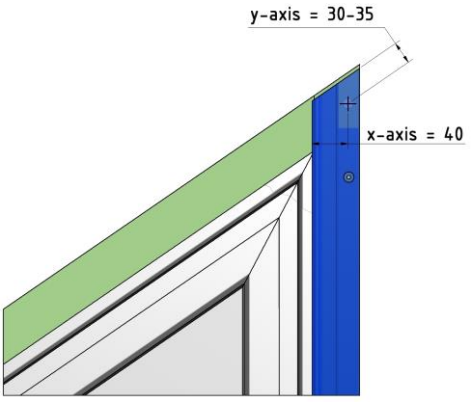
Cord Guidance – Inside Deflection (with reveal)

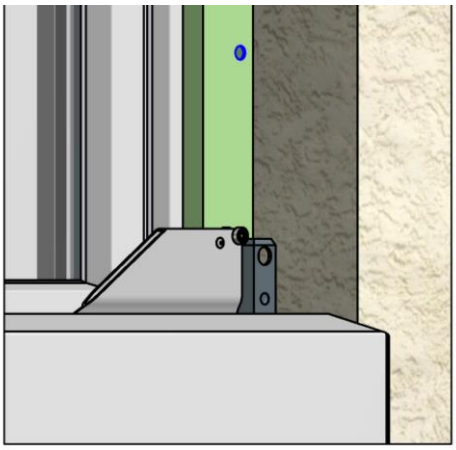
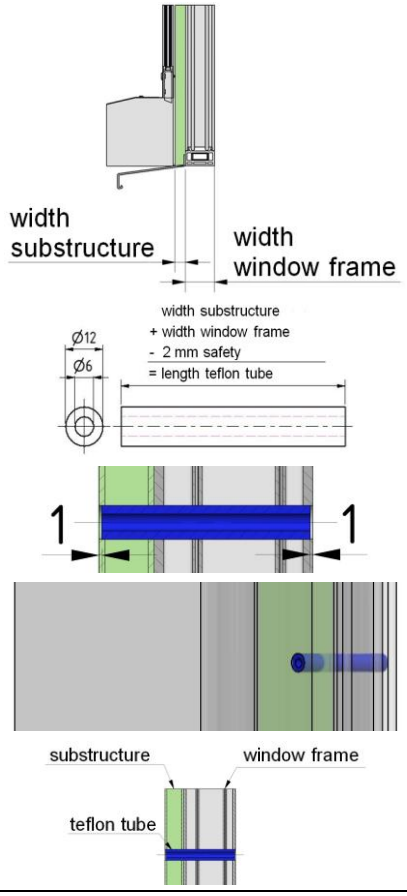


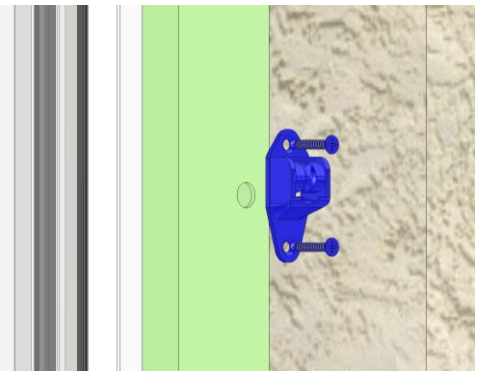
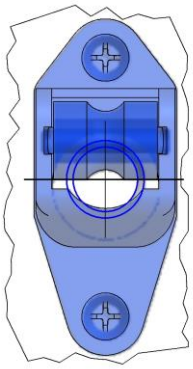
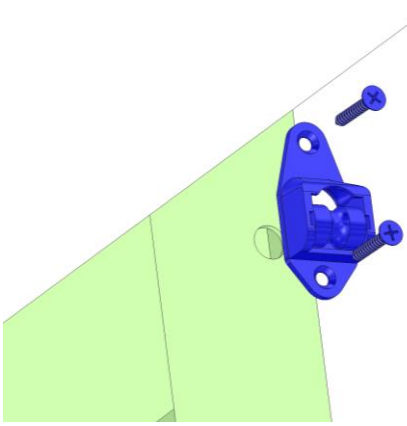
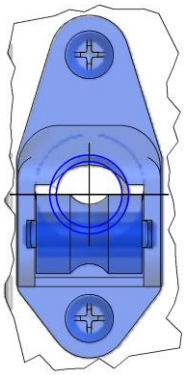
Cord Guidance – Inside Deflection (without reveal)

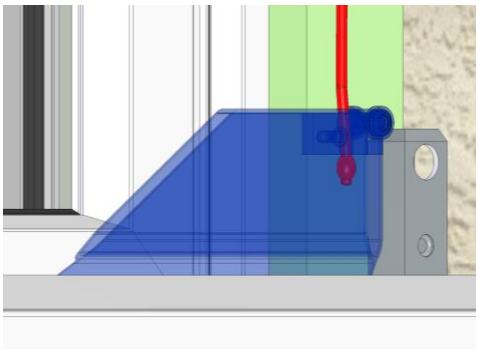
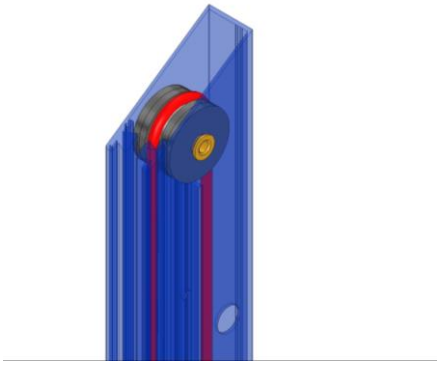
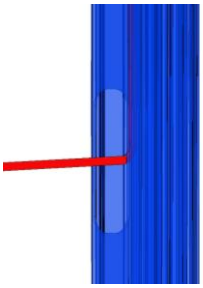
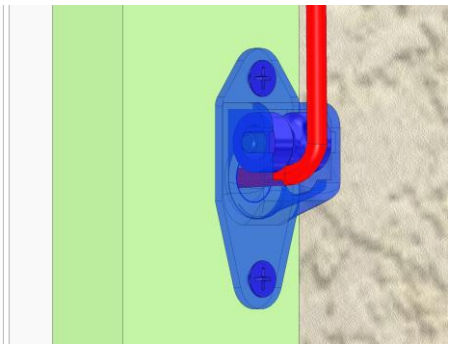
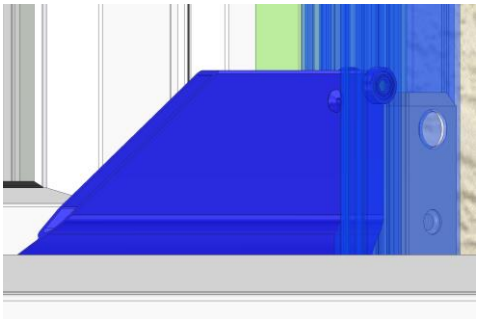


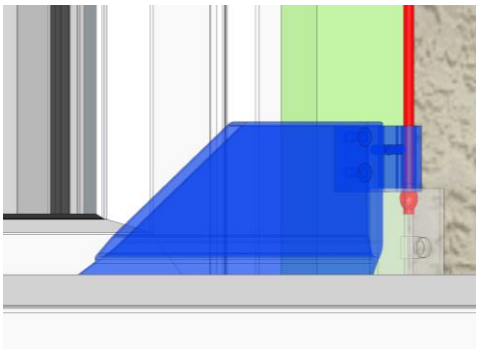
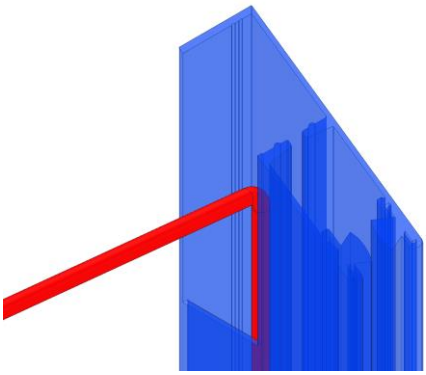
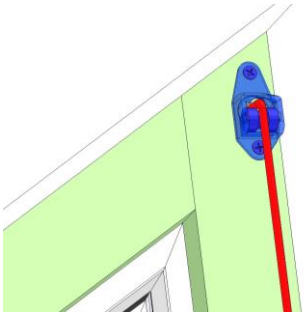
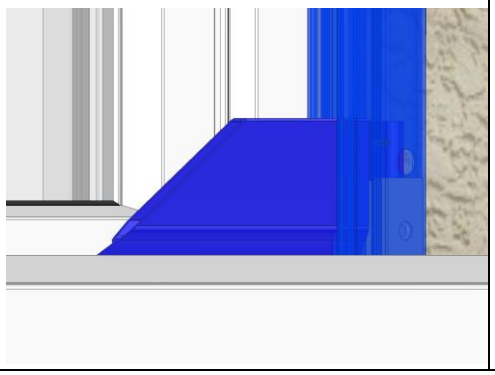
Description of the basic procedure

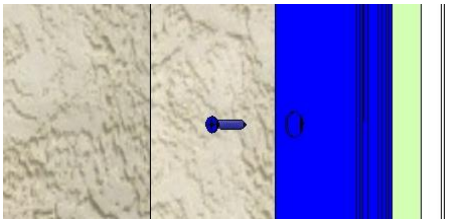
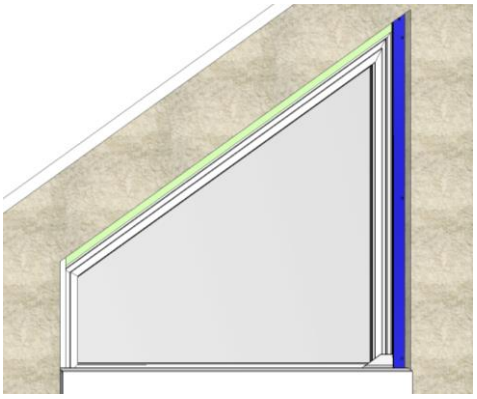
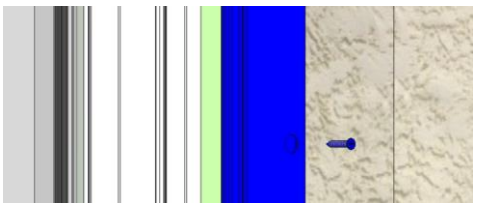
Step No.	Operation	Note	Check
	Check delivery for completeness		- Delivery is complete - Compare the goods with delivery note
00	Screw substructure to the window frame with appropriate fixing material	Optional	
1**0**	Align the roller shutter box - Put the roller shutter box to the window sill - Check if the shutter box mounts horizontally on the windowsill using a spirit level. If necessary underlay the shutter box. - **The drainage holes on the bottom of the roller shutter must be free so that ingressed water can drain off.**		- Overlay is necessary
2**1** Outside-Deflection	Mark the hole for the cord - Transmit the value of the y-axis (min. 250 mm) of the bottom edge of the box to the window sill (optional to the substructure) (according to site measurement) - Attach the long guide rail and align them - Transmit the value of the x-axis 40 mm of the interior edge to the window frame (optional to the substructure)		
2**5** Inside-Deflection	Mark the hole for the cord - Transmit the value of the y-axis (min. 30 to 35 mm) of he reveal edge to the window frame (optional: to the substructure) (according to site measurement) - Put on the long guide rail and align it - Transmit the value of the x-axis 40mm of the inner edge of the guide rail to the window frame (optional to the substructure) (according to site measurement)		

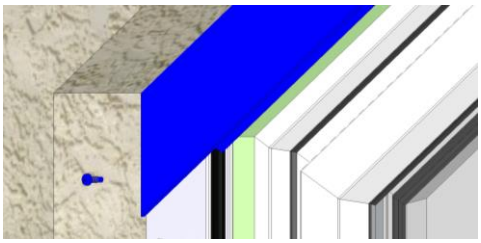
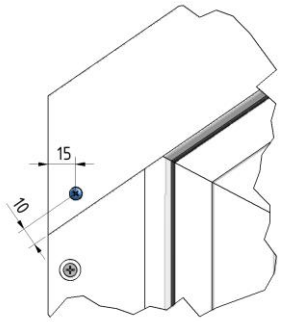
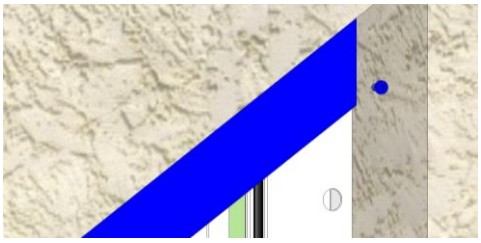
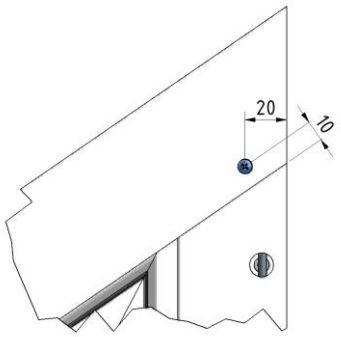
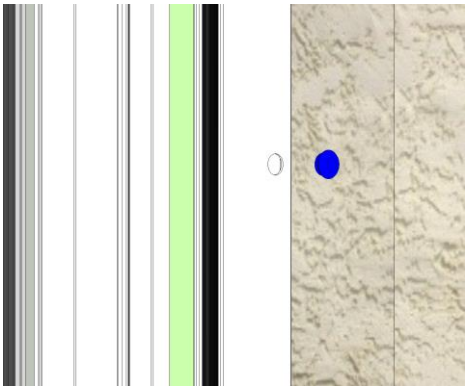
Step No.	Operation	Note	Check
31 Outside-Deflection	Drill the hole for the cord at the angle of 90° with a drill Ø 12 mm and deburr it		- Mind the space on the inside for the installation of the return pulley
35 Inside-Deflection	Drill the hole for the cord at the angle of 90° with a drill Ø 12 mm and deburr it		- Mind the space on the inside for the installation of the return pulley
40	Fasten the teflon tube **Attention:** The teflon tube must be about 2 mm shorter than the length of the through-hole. (substructure and window frame) - Insert the teflon tube into the borehole		- The teflon tube about 2 mm shorter than the through-hole - The teflon tube mustn't protrude on both sides

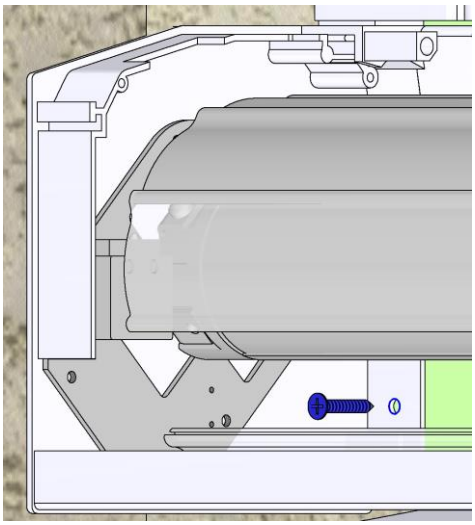
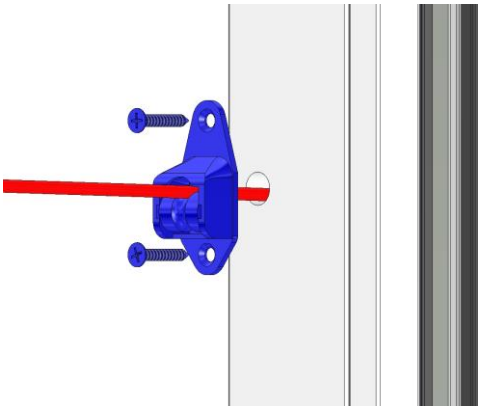
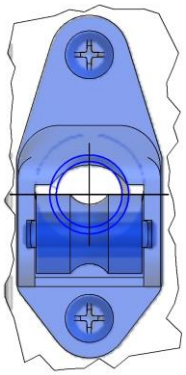
Step No.	Operation	Note	Check
51 Outside-Deflection	Install the outer return pulley - Screw the return pulley with appropriate fixing material to the window frame (optional: substructure)	 	- The course of the cord is in a 90° angle over the return pulley Position: - The bottom edge of the reel is mounted centrally to the hole
55 Inside-Deflection	Install the outer return pulley - Screw the return pulley with appropriate fixing material to the window frame (optional: substructure)	 	- The course of the cord is in a 90° angle over the return pulley Position: - The top edge of the reel is mounted centrally to the hole

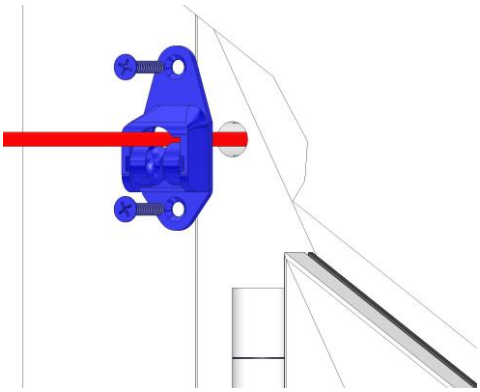
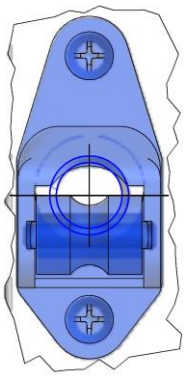
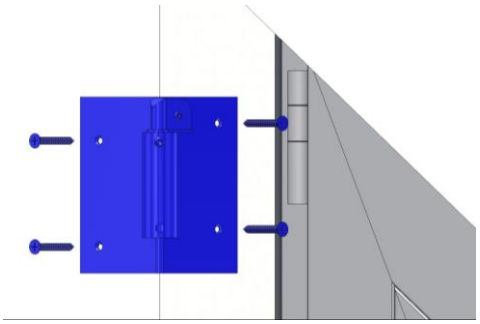
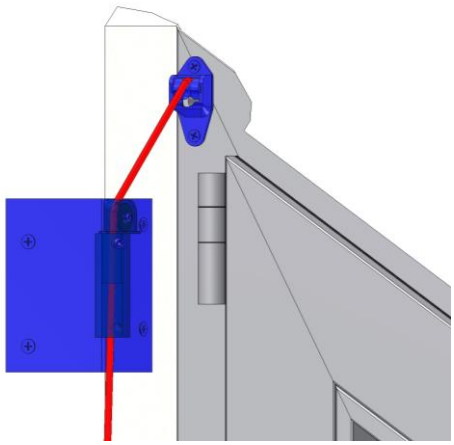
Step No.	Operation	Note	Check
61 Outside-Deflection	Feed cord into the interior - Pull the cord end in the end rail and knot it together - Overhangig cord should <u>not</u> be cut immediately after the knot – leave it longer for approximately 100mm - Melt the end of the cord with a cigarette lighter and stow the remaining cord in the end rail.		- Overhanging cord is completely within the end rail
	- Lead the cord through the long guide rail and over the return pulley		
	- Pull the cord through the slot in the guide rail		
	- Pull the cord over the return pulley through the hole into the interior		
	- Lead the roller shutter end rail into the guide rail and put on the box		

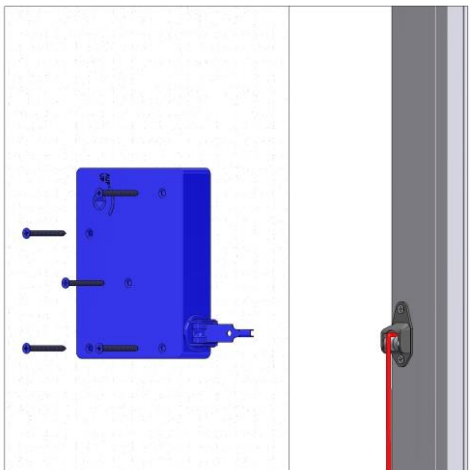
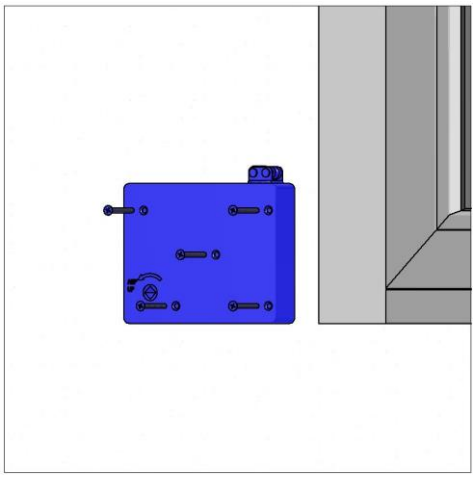
Step No.	Operation	Note	Check
65 Inside-Deflection	Feed the cord into the interior - Lead the cord end into the end rail and knot it - Cut overhangig cord behind the knot - Melt the end of the cord with a cigarette lighter		
	- Pull the cord through the slot of the long guide rail		
	- Pull the cord over the return pulley through the hole into the interior		
	- Lead the roller shutter end rail into the guide rail and put on the box		

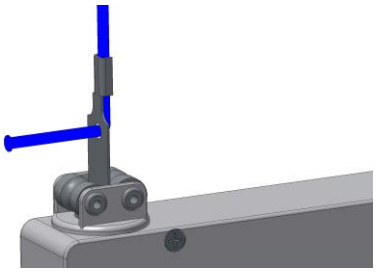
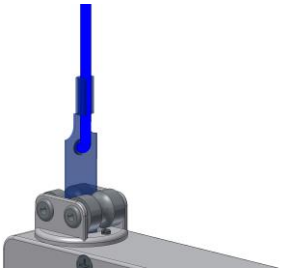
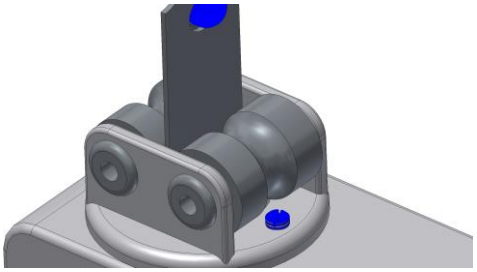
Step No.	Operation	Note	Check
70	Attach short guide rail - Put the guide rail on the box - Check the right position using a spirit level - Screw the guide rails with appropriate fixing material and according to the number of fixing holes on the guide rail to the window frame (optional: Subconstruction)	 	
80	Attach long guide rail - Check the right position using a spirit level - Screw the guide rails with appropriate fixing material and according to the number of fixing holes on the guide rail to the window frame (optional: Subconstruction)	 	- Do not damage the cord

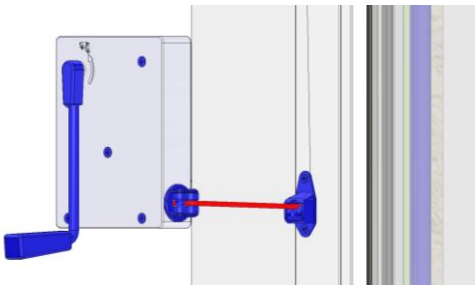
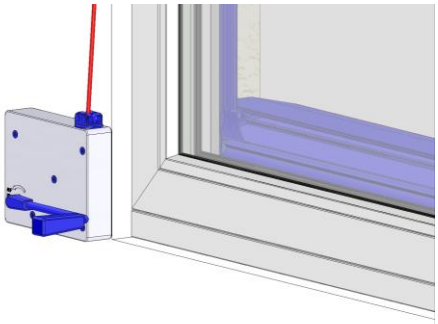
Step No.	Operation	Note	Check
9**0**	Put on the bezel and screw it with a drilling screw to the short guide rail	 	
10**0**	Put on the bezel and screw it with a a short tapping screw to the long guide rail	 	- Do not damage the cord
11**0**	Place the hole caps - Place the hole caps according to the amount of anchor points on the guide rail		- The roller shutter is correctly attached and hole caps are available - Water drain holes are clear

Step No.	Operation	Note	Check
12**0**	Attach Roller shutter box - Unscrew the screws of the box lid and open the roller shutter box - Screw the roller shutter box on the left and the right side through the side part and back panel with appropriate fixing material to the window frame (optional: substructure) **To prevent the box from twisting due to the forces acting, it must be fastened.**	 	
13**1** Outside-Deflection	Install the inner return pulley - Pull the cord through the return pulley - Screw the return pulley with appropriate fixing material to the window frame	 	Position: - The top edge of the reel is mounted centrally to the hole

Step No.	Operation	Note	Check
135 Inside-Deflection	Install the inner return pulley - Pull the cord through the return pulley - Screw the return pulley with appropriate fixing material to the window frame	 	Position: - The top edge of the reel is mounted centrally to the hole
145 Inside-Deflection	Attach the deflection angle (with reveal) - Screw the deflection angle to the reveal using appropriate fixing material - Pull the cord through the deflection sleeve, align it according to the course of the cord and fix with the screw	 	

Step No.	Operation	Note	Check
151 Outside-Deflection	Attach the gearcoil - Screw the gearcoil with appropriate fixing material and according to the number of fixing holes to the wall		- Mind an obstacle-free course of the cord and crank
155 Inside-Deflection	Attach the gearcoil - Screw the gearcoil with appropriate fixing material and according to the number of fixing holes to the wall		- Mind an obstacle-free course of the cord and crank

Step No.	Operation	Note	Check
16**0**	Fixing the cord to the gearcoil - The length of the cord should be dimensioned in a way that it is reeled up approx. 1m before the roller shutter moves upwards - Pull the cord through the drill hole of the metal strip and melt the end with a cigarette lighter and press the melted end against the metal strip. - Tighten the pull cord along the metal strip and press both flags with a forceps against the cord - If applicable align the deflection on the gear coil to the cord guidance and fix it again with the screw	  	

Step No.	Operation	Note	Check
17**0**	Completion of the installation and test run - Tighten the cord and by turning the crank in the UP-direction wind it into the gear coil - Always put fat spray on the guide rails in the area of the end rail guidance during the test run (only with inside deflection) <u>Attention:</u> The case should under no circumstances be opened because the spring-assisted self-locking of the gear coil can only be reassembled with special tools. To change an already built in pull cord proceed in reverse order. The metal strip can be pulled out using pliers. Carry out danger and usage instruction with the customer and hand over the provided documentation.	 	- Mind the given direction of rotation of the crank - The roller shutter is correctly attached and hole caps are available - Water drain holes are clear - Roller shutter is working - Instruction took place - Documentation handed over

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