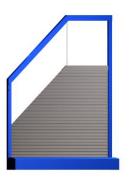


# **Assembly Instruction**

# Studio Star Roller Shutter Type GS -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 Rollladensysteme GmbH.

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Commission - No.	Date Installation and Instruction	Signature



#### Content

General Safety Information	2
Transport / Packaging / Unpacking	
Assembling / Installation/ Working on the facade	
Assembly Drawing - Outside Deflection	
Cord Guidance – Outside Deflection	4
Assembly Drawing - Inside Deflection	
Cord Guidance - Inside Deflection (with reveal)	6
Cord Guidance – Inside Deflection (without reveal)	7
Description of the basic procedure	
Copyright / References to this documentation	20
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#### **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.) is to be used.

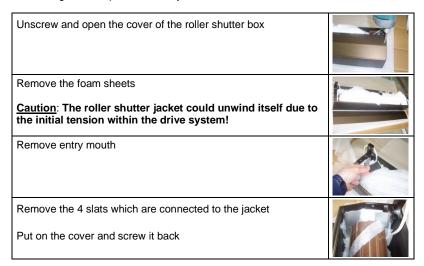
#### Transport / Packaging / Unpacking

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 safety devices:



#### 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!

Version: 16.05.23

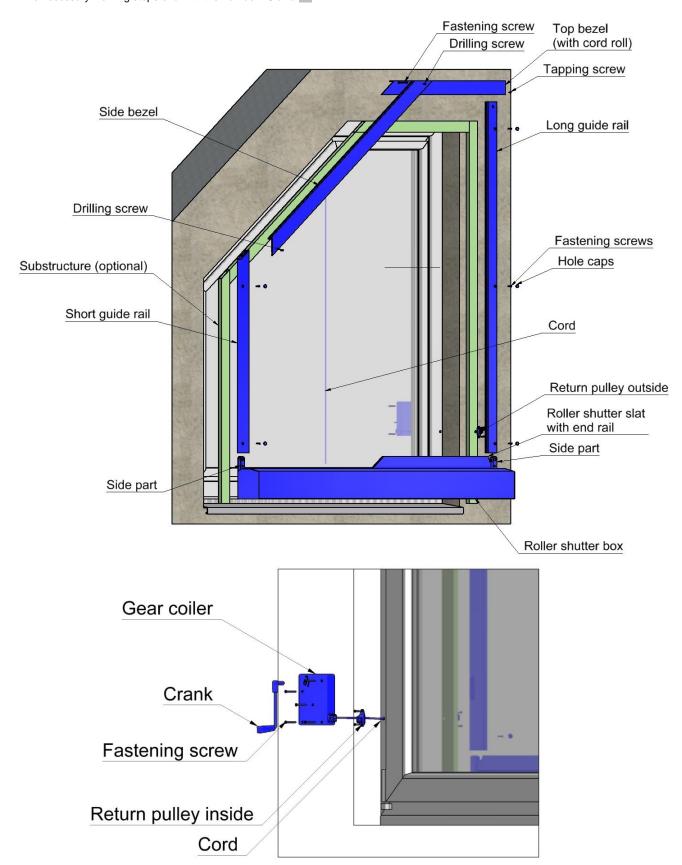
Under no circumstances may the shutter box be buried in the wall or stucco.

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



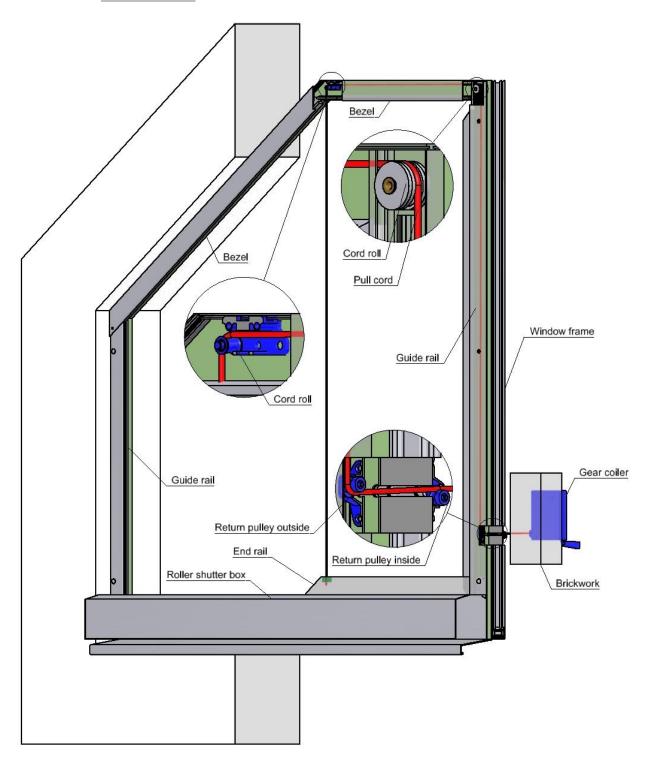
#### Assembly Drawing - Outside Deflection

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





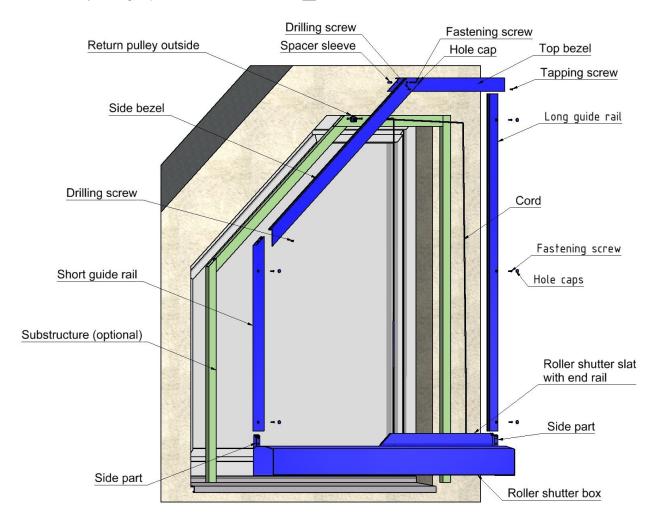
## Cord Guidance - Outside Deflection

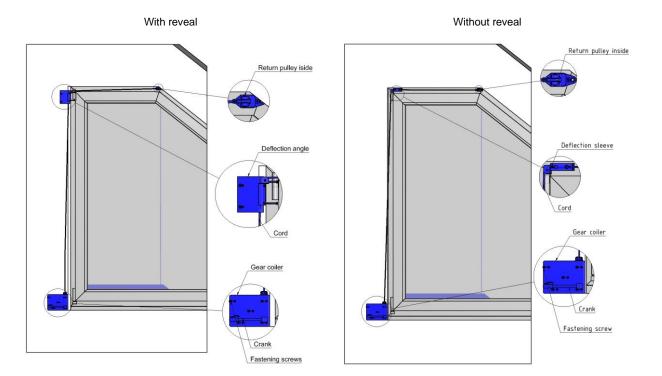




# Assembly Drawing - Inside Deflection

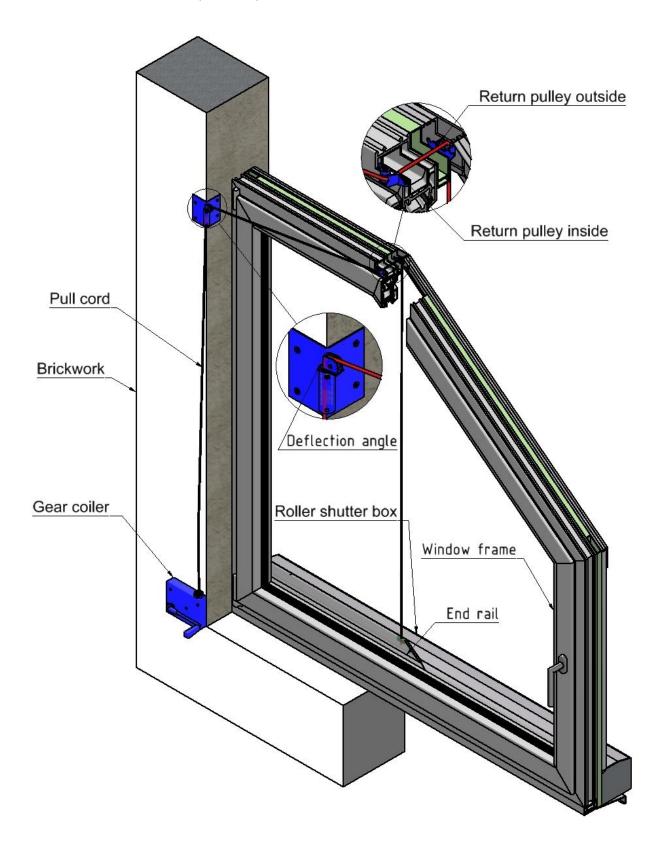
- The necessary working steps end with the number ..0 and ..5





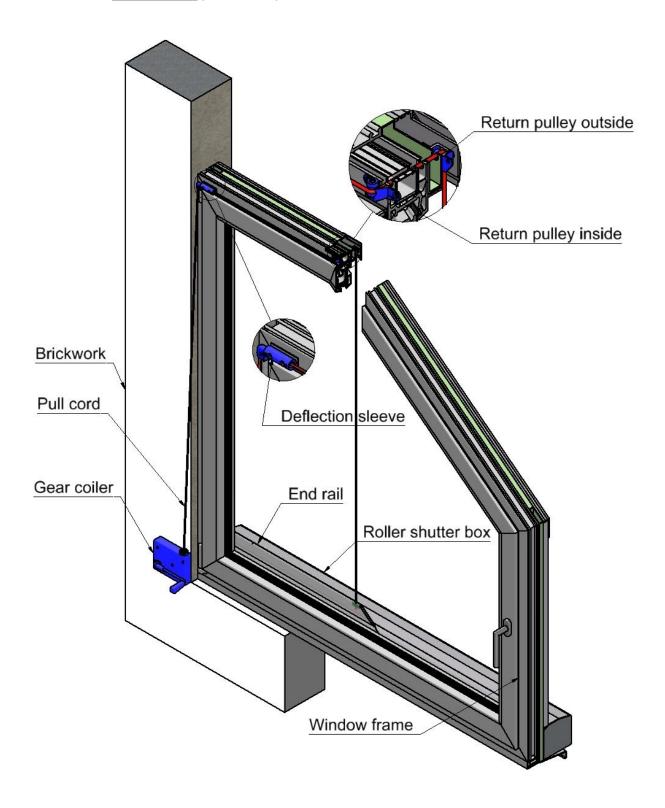


# Cord Guidance - Inside Deflection (with reveal)





# Cord Guidance - Inside Deflection (without reveal)





## Description of the basic procedure

Step No.	Operation	Note	Check
	Check delivery for completeness		<ul> <li>Delivery is complete</li> <li>Compare the goods with delivery note</li> </ul>
00	Screw substructure to the window frame with appropriate fixing material	Optional	donvery neto
10	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
21 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 it  Transmit the value of the x-axis 40 mm of the interior edge of the guide rail to the window frame (optional to the substructure)	x-axis (min. 250)	
25 Inside- Deflection	Mark the hole for the cord  - Lead the roller shutter rail into the guide rail and put on the box	y-axis = min. 15-20 x-axis =	
	<ul> <li>Transmit the value of the y-axis (min. 15 to 20 mm) to the window frame (optional: to the substructure) (according to site measurement)</li> <li>Transmit the value of the x-axis of the outer edge of the guide rail to the window frame (optional to the substructure) (according to site measurement)</li> </ul>	according to side 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	0	Mind the space on the inside for the installation of the return pulley
40	Attention: The teflon tube must be about 2 mm shorter than the length of the throughhole.  (substructure and window frame)  - Insert the teflon tube into the borehole	width substructure width window frame  width substructure + width window frame  - 2 mm safety = length teflon tube  substructure window frame  teflon tube	<ul> <li>The teflon tube about 2 mm shorter than the through-hole</li> <li>The teflon tube mustn't protrude on both sides</li> </ul>



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
5 <b>5</b> 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 the cord into the interior  - Pull the cord over the return pulley and 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		
65 Inside- Deflection	Feed the cord into the interior  - Pull the cord over the return pulley and through the slot in the guide rail		



Step No.	Operation	Note	Check
70	Attach long guide rail  Check the correct position using a spirit level  Screw the guide rail 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
8 <b>0</b>	Attach short guide rail  Put short guide rail on the box  Check the correct position using a spirit level  Screw the guide rail with appropriate fixing material and according to the number of fixing holes on the guide rail to the window frame (optional: Subconstruction)		



Step No.	Operation	Note	Check
9 <b>1</b> Outside- Deflection	Attach upper bezel with return pulley  Lead the cord over the return pulley and put on the bezel  If necessary adjust the position of the return pulley (unscrew the grub screw beforehand and then tighten it again after the correction)  Predrill a hole for the countersunk screw and lower it, then screw the bezel through the cord roll using appropriate screws, to the window frame (optional substructure).		<ul> <li>Position of the cord is perpendicular</li> <li>Do not damage the cord</li> <li>Mind the return pulley below the bezel</li> </ul>
	Substitucture).	(5,8)	
10 <b>0</b>	Attach upper bezel with a short tapping screw to the long guide rail		- Do not damage the cord
		20	



Step No.	Operation	Note	Check
110	Put on side bezel and attach it with drilling screw to the short guide rail		
		15	
12 <b>1</b> Outside- Deflection	Screw together the bezels - Align the bezels and srew them together with a drilling screw.	T.	<ul> <li>Do not damage the cord</li> <li>Mind the return pulley below the bezel</li> </ul>
		115	



Step No.	Operation	Note	Check
125 Inside-Deflection	Screw together the bezels  Align the bezels and screw them together with drilling screw  Predrill a hole for the countersunk screw and lower it, then screw the bezel through the cord roll using appropriate screws, to the window frame (optional substructure).  Place hole caps		<ul> <li>Do not damage the cord</li> <li>Mind the return pulley below the bezel</li> </ul>
13 <b>0</b>	Attach the cord  Pull the cord end in the end rail and through the end rail inset and knot it together  Overhangig cord should not be cut immediately after the knot – leave it longer for approximately 100mm  Melt the end of the cord with a cigarette lighter  Put the end rail inset into the end rail and stow the remaining cord in the end rail.		- Overhanging cord is completely within the end rail



Step No.	Operation	Note	Check
140	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
15 <b>0</b>	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.		
16 <b>1</b> 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
165 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 bottom edge of the reel is mounted centrally to the hole
175 Inside- Deflection	- Pull the cord through the deflection along a plant it according to the reveal using appropriate fixing material  - Pull the cord through the deflection along a plant it according to the source of		
	sleeve, align it according to the course of the cord and fix with the screw		



Step No.	Operation	Note	Check
17 <b>5</b> Inside- Deflection	Attach the deflection sleeve (without reveal)  - Screw the deflection sleeve to the window frame using apppropriate fixing material  - Pull the cord through the deflection sleeve, align it according to the course of the cord and fix with the screw		
	Attach the georgeil		
18 <b>0</b>	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
19 <b>0</b>	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 pliers 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
20 <b>0</b>	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)  Attention: 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.		<ul> <li>Mind the given direction of rotation of the crank</li> <li>The roller shutter is correctly attached and hole caps are available</li> <li>Water drain holes are clear</li> <li>Roller shutter is working</li> <li>Instruction took place</li> <li>Documentation handed over</li> </ul>

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