DOORHAN®

RESIDENTIAL AND INDUSTRIAL SECTIONAL DOORS ISD01, ISD02

Installation Instructions

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INTRODUCTION

Thank you for purchasing products manufactured by our company!

We are sure you will be satisfied with the quality of DoorHan sectional doors!

Please, read these Instructions carefully before installation. These Instructions provide detailed installation procedure and operating and maintenance instructions for DoorHan sectional doors.

In addition to these Instructions, it is recommended to use the materials from product index sheet to complete DoorHan sectional doors during installation.

Compliance with door operating, maintenance and installation procedures, as specified in these Instructions, will provide long-term operation of unit and will significantly reduce the risk of accidents during installation and operation of door.

Safety instructions shall be strictly observed during the execution of works.

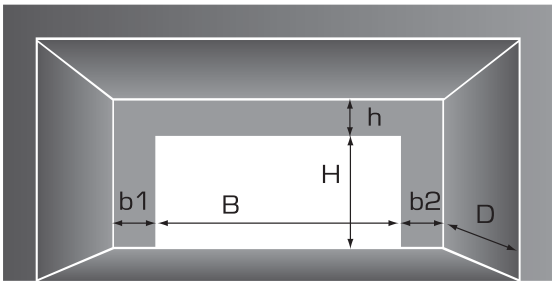
If you lose these Instructions, you can request a duplicate by sending a notice to: DoorHan s.r.o. Kralovky Vrch 2018 Kadan 43 201 Czech Republic Tel.: +420-474-319-111 E-mail: europe@doorhan.com.

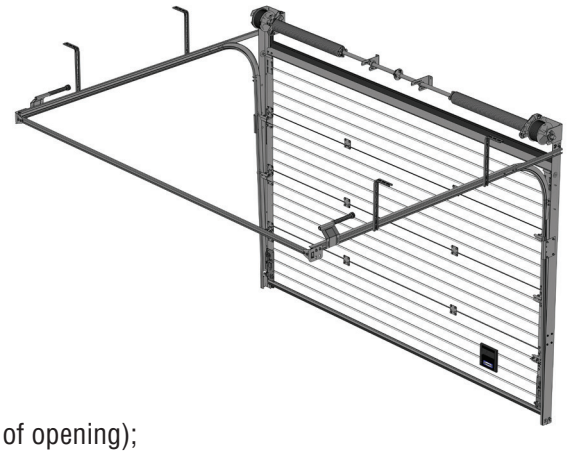
The manufacturer (DoorHan) does not exercise direct control of installation, maintenance and operation of sectional doors and can not be responsible for the safety of installation, operation and maintenance of sectional doors.

The content of these Instructions cannot serve as the basis to raise any claims.

DoorHan reserves the right to change the design of sectional doors, as well as these Instructions without prior notice of the customers.

REQUIREMENTS TO OPENING





Needed dimensions:

H — opening height (the distance from the floor to the top of opening);
B — opening width (distance from the left edge to the right edge of opening);
h — lintel height (distance from the top of opening to the ceiling) of at least 150 mm (chain electric motor drive excl.);
b1 and b2 — distance from the edge of opening to side interior wall of at least 120 mm,
if external shaft — 500 mm;
D — room depth (distance from the edge of opening to room interior wall) exceeding H + 500 mm.

Note. While measuring the above opening dimensions, it is recommended to measure each dimension at least at three points. While measuring H and B, the final dimension is always considered to be the highest value, and as for h, D, b1 and b2, the final dimension is required to be the smallest value.

In case of installation of electric motor drive

To install the door with a chain electric motor drive, the lintel (h) should be at least 200 mm.

To install the door with a shaft electric motor drive, one of the side distances (b1 or b2) should be at least 250 mm, in case of the shaft at bottom – 500 mm.

While measuring, it is necessary to pay special attention to additional parameters

Form of opening (openings can be both rectangular and other shape).

The surface of opening shall be flat and smooth. Difference of the floor level along the entire length of opening shall not exceed 1 cm.

Any space required to install the door shall be free and not cluttered.

If the customer prepares openings, which do not meet the above requirements, the customer is required to correct the deviation prior to the door installation.

GARAGE SECTIONAL DOOR RSD02

DoorHan garage sectional doors of RSD02 series open smoothly and do not require additional space in front of the garage, arranged compactly inside the garage. Different types of door construction, the possibility of manufacturing the doors with width up to 6 m and height up to 3 m allow to choose the perfect design for any objects. A rigid frame made of galvanized steel provides long-term operation of garage sectional doors, as well as protect against burglary.

H — opening height of 2020 mm to 3070 mm;

B — opening width of 2000 mm to 6000 mm;

h — lintel height (distance from the top of opening to the ceiling) of at least 150 mm (types of guides vary depending on lintel height);

b1 and b2 — distance from the edge of opening to side interior wall of at least 120 mm,

D — distance from the opening to the side interior wall exceeding H + 500 mm.

There are 3 types of constructions for door guiding system. There are a wide color palette for sandwich-panels and a wide range of accessories available.

INDUSTRIAL SECTIONAL DOOR OF ISD01 SERIES

First of all, industrial sectional doors of ISD01 series are installed in production facilities, warehouses, shops and terminals, where they are subject to much more stringent requirements than that for standard residential doors.

Usually industrial sectional doors are heavy constructions, operated daily with high intensity, they are resistant to wind loads and seal the entrance to the production facilities.

H — opening height of 2020 mm to 6120 mm;

B — opening width of 2000 mm to 8000 mm, up to 8000 mm at vertical lift;

h — lintel height (distance from the top of opening to the ceiling) of at least 150 mm (types of guides vary depending on lintel height);

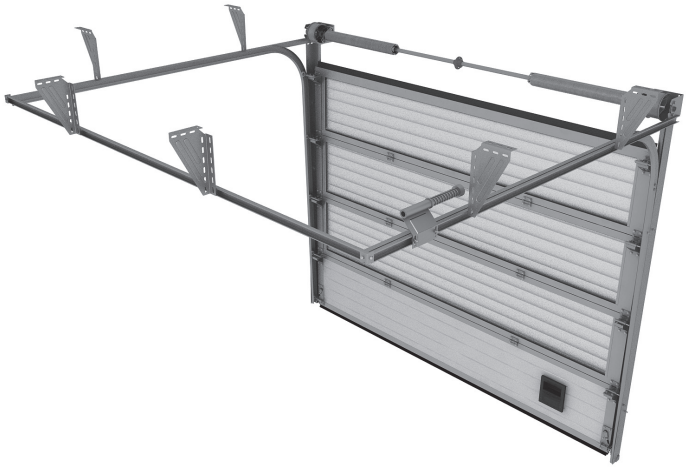
b1 and b2 — distance from the edge of opening to side interior wall of at least 120 mm,

D — room depth exceeding H + 500 mm.

There are 10 types of constructions for door guiding system.

INDUSTRIAL SECTIONAL DOOR OF ISD02 SERIES

DoorHan panoramic sectional doors of ISD02 series are very popular and are installed in buildings of modern architecture with glazed facades and fronts, car showrooms, exhibition and technical centers, where the interior of the objects shall be visible through the transparent glass.



H — opening height of 2020 mm to 6120 mm;

B — opening width up to 6000 mm;

h — lintel height (distance from the top of opening to the ceiling) of at least 150 mm (for low lift with cable drum at rear);

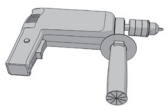
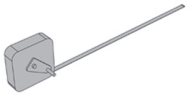
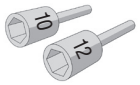
b1 and b2 — distance from the edge of opening to side interior wall of at least 120 mm,

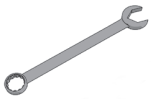
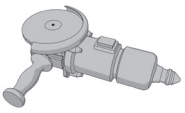
D — room depth exceeding H + 500 mm.

There are 10 types of constructions for door guiding system.

TOOLS

Use these tools to perform the installation:

1. Drill 
2. Riveting tool 
3. Measuring tape 5 m 
4. Cross screwdriver 
5. Drill nozzles S10, S12 

6. Building level 0.5 m 
7. Pencil 
8. Gloves 
9. Stepladder 2 pcs. 
10. Set of drills 
11. Hammer 
12. Goggles 
13. Mounting wrench 0.5m 2 pcs. 
14. Helmet 
15. Set of wrenches 
16. Knife 
17. Pliers 
18. Grinding machine 

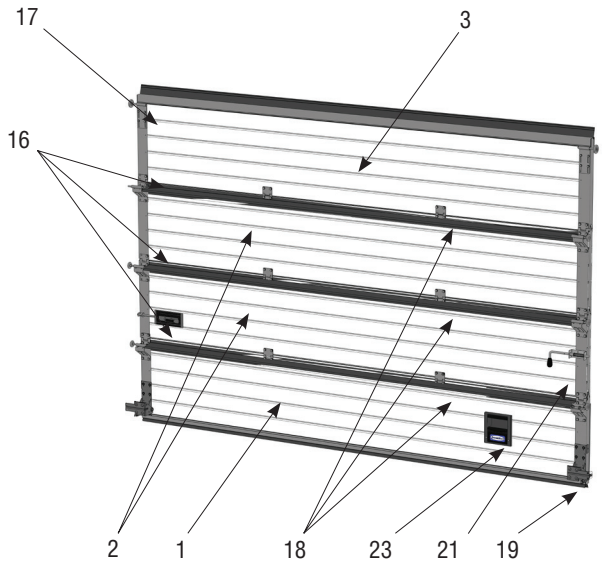
OPTIMAL SIZE OF INSTALLATION CREW

The optimal size of installation crew is 2-3 people, depending on the door dimensions. The average time of installation is 4-6 hours, depending on the door dimensions.

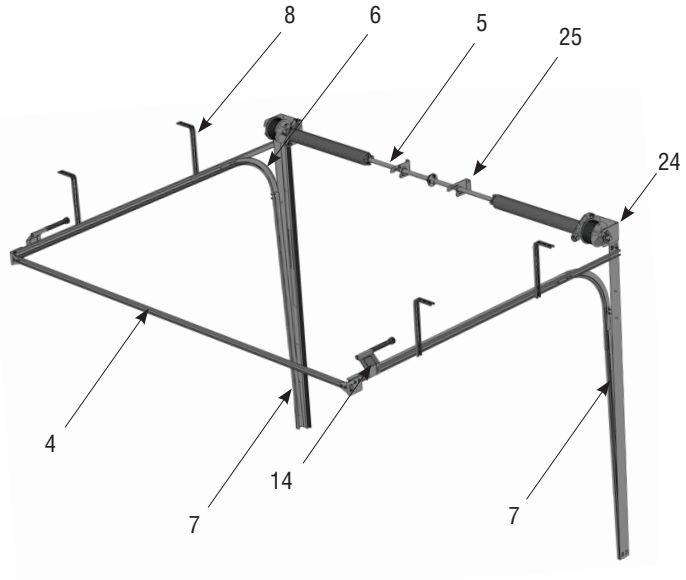
RECOMMENDED MATERIALS AND COMPONENTS USED FOR DOOR INSTALLATION

Various fastening elements can be used for door installation, their selection depends on the material characteristics of the opening. Any fastening elements shall be corrosion resistant.

COMPLETE SET

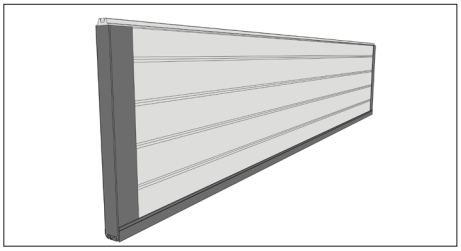


Leaf of sectional door

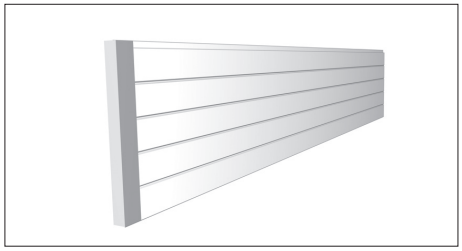


Guiding and braking systems

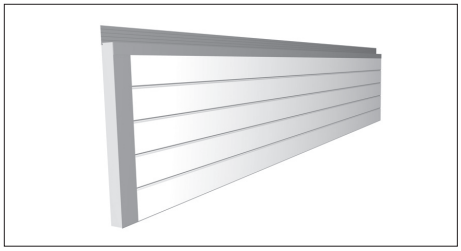
These Instructions refers to installation of sectional doors through an example of the standard lift door. Installation notes for sectional doors with various types of lift and complete set, as well as the installation of additional accessories.



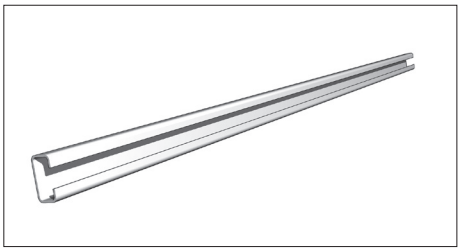
1. Bottom panel 1 pc.



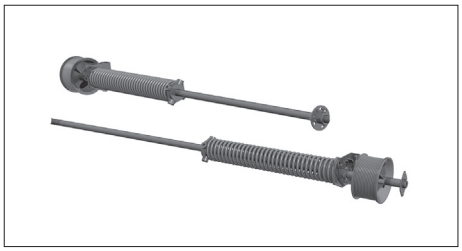
2. Central panel * pcs.



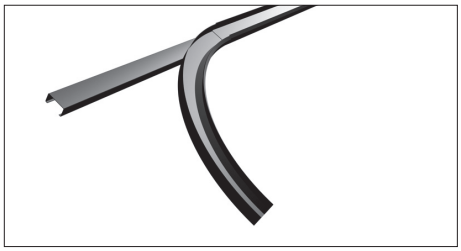
3. Upper panel 1 pc.



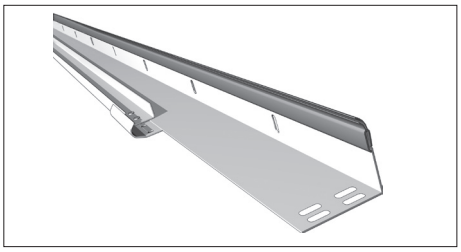
4. C-profile 1 pc.



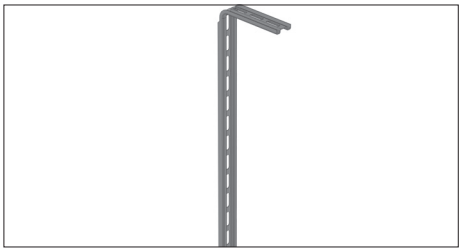
5. Torsion mechanism assembly * pcs.



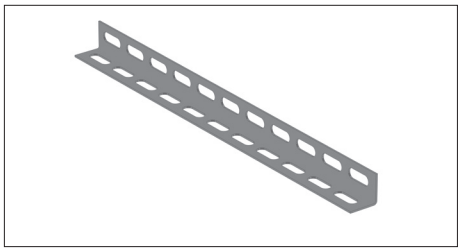
6. Horizontal guides assembly 1 pair.



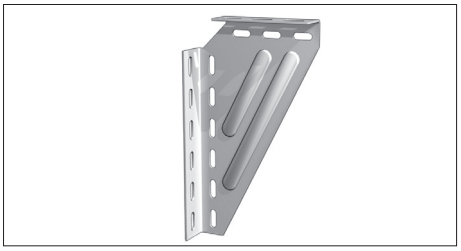
7. Corner support assembly with vertical guide and side seal 1 pair.



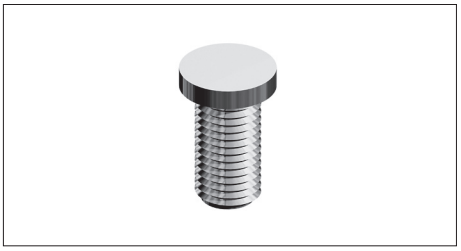
8. Mounting bracket for horizontal guides** * pcs.



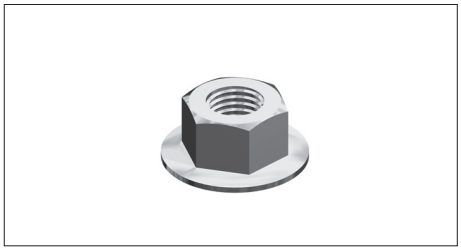
9. . Mounting profile ** (32×32×2 mm) * pcs.



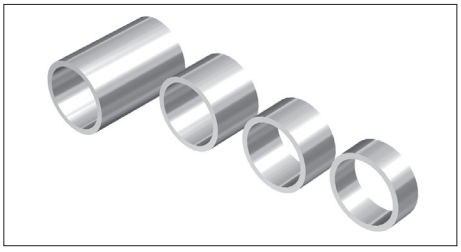
10. General purpose angle bracket ** for ceiling mounting * pcs.



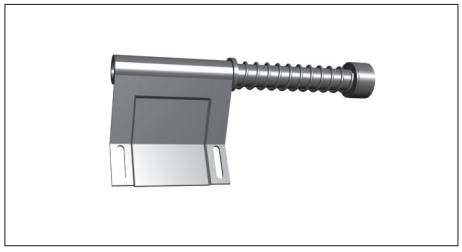
11. Bolt for guide assembly (1/4''×3/4'') * pcs.



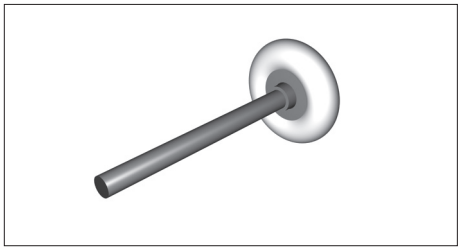
12. Nut (1/4'') * pcs.



13. Set of spacers 2 sets.

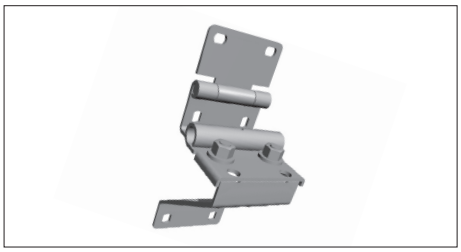


14. Spring bumper ** 1 pair.

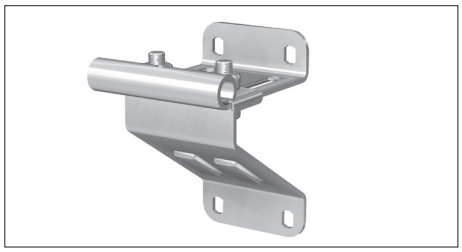


15. Roller * pcs.

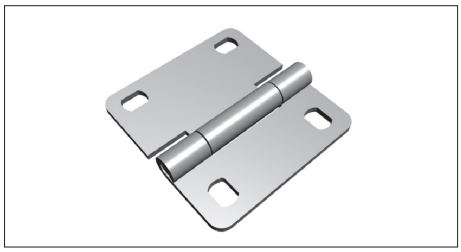
* The amount depends on the door dimensions.
** The installation depends on the door complete set.



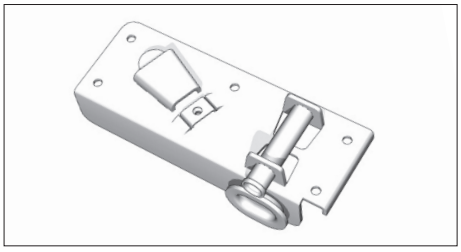
16. Side hinge with roller carrier
* pcs.

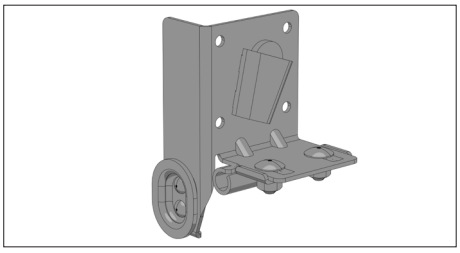


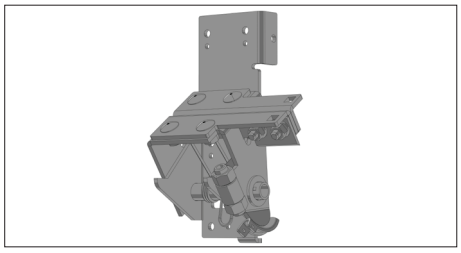
17. Upper support with roller carrier
2 pcs.



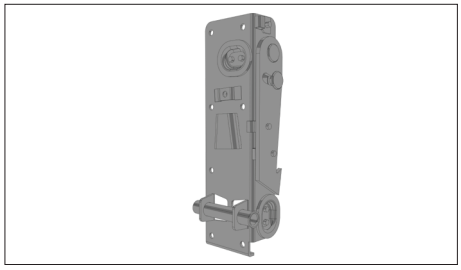
18. Internal hinges * pcs.



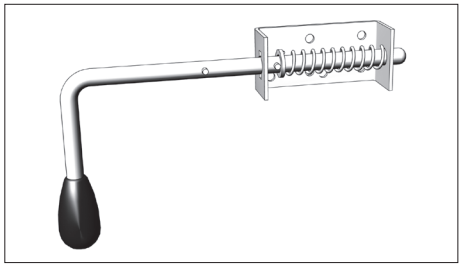




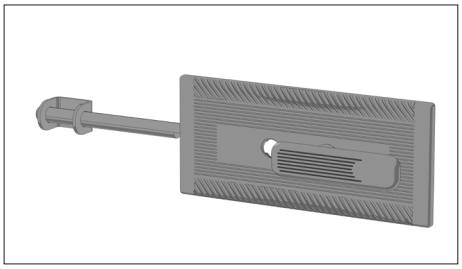
19. Adjustable cable break device
1 pair



20. Cable break device
1 pair

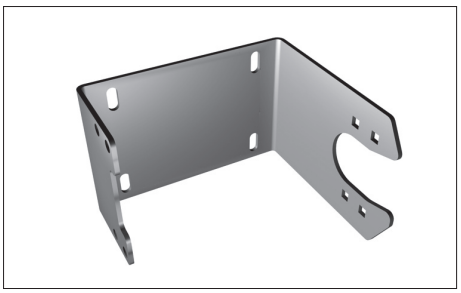


21. Shootbolt 1 pc.

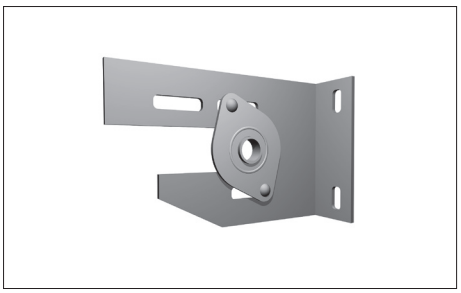


22. Lock for industrial sectional door** 1 pc.

23. Handle for industrial sectional door** 1 pc.

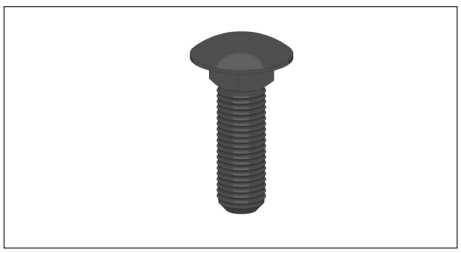


24. End support U-shaped bracket 1 pair

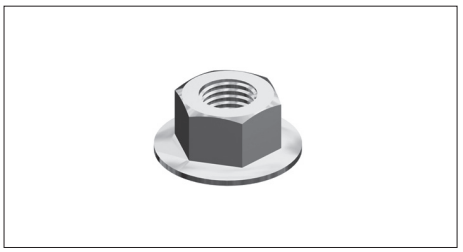


25. Internal Support Bracket * pcs.

26. Self-tapping screw 6,3×32 mm for door panels * pcs.

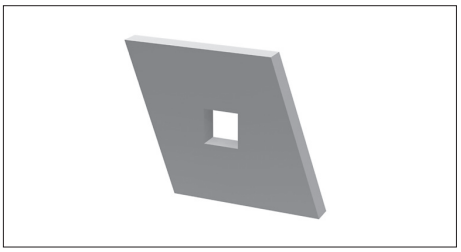


27. Lock bolt (M8×25) * pcs.



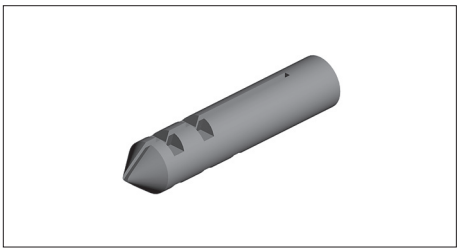
28. Nut with locking serration (M8) * pcs.

* The amount depends on the door dimensions.
** The installation depends on the door complete set.

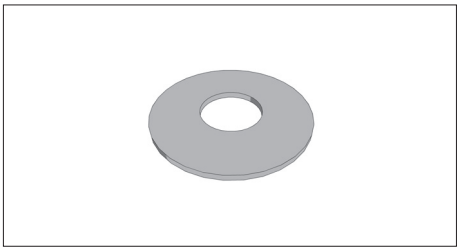


29. Connection plate * pcs.

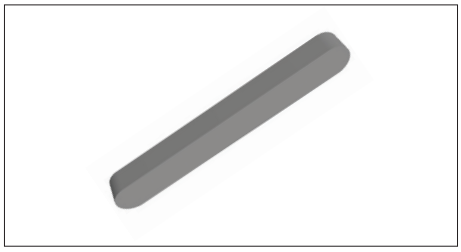
30. Self-tapping screw (8×70 mm) * pcs.



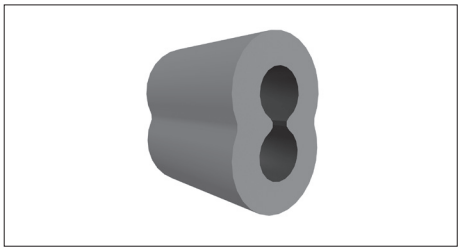
31. PVC wall plug * pcs.



32. Washer 8×24 * pcs.



33. Key * pcs.



34. Cable collar * pcs.

* The amount depends on the door dimensions.

SAFETY INSTRUCTIONS

Installation works shall be carried out only in work clothing, non-confining, as well as in protective helmet and gloves. One should use goggles when drilling materials that produce flying debris, when chopping and cutting of metals. For the purpose of respiratory protection from construction dust one should use respirator. Locksmith and sledge hammers should have smooth, slightly convex surface of the strikers, without dents, ramps, work hardening, chips and cracks. The length of hammer handle should be at least 250 mm; hammers should be firmly put on the handle and secured with wedges. Any tools with sharpened ends for handles should have the handles with length at least 150 mm. Wooden handles should be tightened by bandage rings. Percussion instruments should not be free from oblique and shot of heads, cracks, burrs. Wrenches should be free from cracks and dents, as well as fit the nuts and bolt heads; their jaws should be parallel, not separated and rolled. To carry working tools to the work place, one should use a special bag or box. Use special belts to arrange the tools while working. Putting the tools in the pockets of clothing is prohibited.

SAFETY INSTRUCTIONS WHEN WORKING AT HEIGHT

- Works at a height of 1.5 meters or more above the floor are considered as working at height. When working at height, one should use a safety belt. In case it is impossible to secure the safety belt to the elements of building structure, one should use a safety cable, wound up around the elements of building structure. In this case, works should be carried out by three installers. Tools and instruments should be fixed (attached) to prevent them from falling when working on structures with live parts under them.
- Use of safety belts with metal chain slings when working on structures with live parts under them is strictly prohibited.
- Delivering of door elements, tools and installation accessories should be carried out by «continuous» cable. Standing at the bottom installer should keep the cable to prevent sway and approach to live parts.

It is prohibited to:

- stand under the ladder in work;
- toss any items to deliver them upwards, delivery should be carried out by a strong cable.

SAFETY INSTRUCTIONS WHEN WORKING AT LADDERS AND STEP-LADDERS

Ladders and step-ladders should be equipped with a device to prevent the possibility of shear and overturning at work. The lower ends of ladders and step-ladders should have ferrules with sharp tips to install on the ground, and when using ladders on smooth surfaces (metal, tile, concrete), one should attach rubber slippers to them or other non-slipping material.

It is prohibited to:

- work with a ladder, standing on a step at a distance less than 1 m from the upper end thereof;
- work with a power tool from ladders;
- work on the top two steps of ladders with no railing or stops;
- stand on the steps of a ladder or step-ladder for more than one person;
- stand under the ladder in work;
- putting the instrument on the steps of ladders.

SAFETY INSTRUCTIONS WHEN WORKING WITH ELECTRIC POWER TOOLS

Working with electric power tools is allowed for specially trained and instructed persons, having the appropriate qualification group for electrical safety. One should use electric power tools operating at a voltage not exceeding 380/220 V during installation. Choice of class of electric power tools is carried out depending on the room category in hazard of electric shock.

- The metal housing of electric power tools operating at voltages above 42 V AC and 110 V DC in the premises with high risk,is especially dangerous and should be grounded for outdoor applications. Plug connection should have ground contact. Connect the tools to the grounded power source. Use extension cords with plug and receptacle having ground contacts. When working with such a tool, one should use protective equipment (rubber gloves, overshoes). Protective equipment should be tested in accordance with legislation.

Before works, one should:

- check the complete set and reliability of fastening parts;
- check by inspection the serviceability of the cable (cord), its protective tube and the plug, the integrity of the insulation covers, handles and brush holder caps, the availability of protective covers and their operation;
- check the grounding circuit (between the body and the grounding plug);
- check the breaker operation;

* The amount depends on the door dimensions.

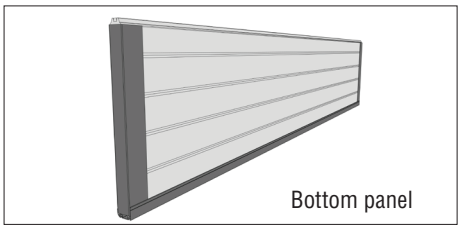
- check the electric power tools operation at idle.

Use only serviceable and checked tools for work. When executing works, prevent from fractures, bending of electrical wires, as well as laying them in the storage of structures, materials and traffic available. When working in rainy weather (snowfall), cable runs and work places for electric power tools should be equipped with roofs.

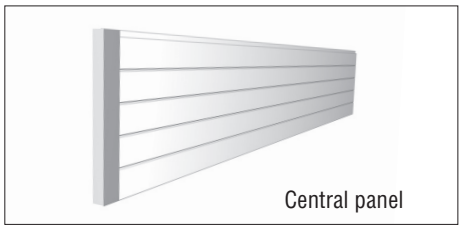
SAFETY INSTRUCTIONS AT INSTALLATION AND WIRING WORKS

Installation and wiring works should be carried out in accordance with Electrical Installation Code (EIC), in compliance with the safety rules for operation of customers' electrical installations (SR for operation of customers' electrical installations).

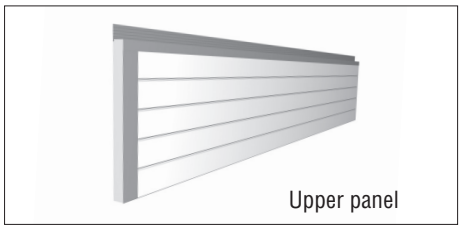
INSTALLATION OF STANDARD LIFT SECTIONAL DOOR



The bottom panel is supplied in complete set with side caps, bottom aluminum profile (riveted to the panel), bottom rubber.

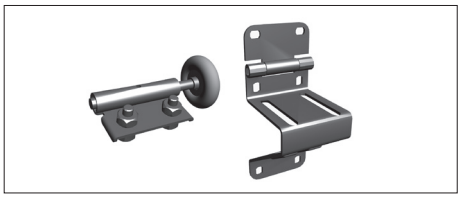


The central panels are supplied in complete set with side caps (riveted to the panels). There are holes drilled in the panels and used for inner hinges. The side caps have perforation holes to fasten lower parts of the side supports. Quantity depends on the opening height.

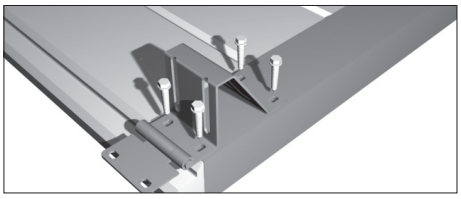


The upper panel is supplied in complete set with side caps, upper aluminum profile (riveted to the panel), upper rubber seal.

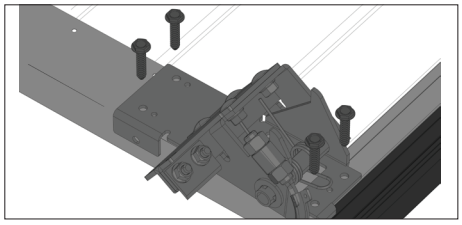
BOTTOM PANEL ASSEMBLING



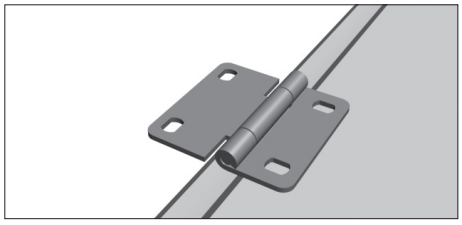
Disconnect roller carriers from side hinges.



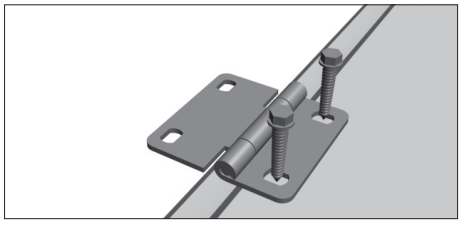
Install side hinges along drilled holes by 4 self-tapping screws 6,3×32 mm.



Install cable break device on the bottom panel. Set and drill the holes ∅4,2 mm to fasten it. Fix the bracket by 4 self-tapping screws 6,3×32 mm (as shown in the figure).

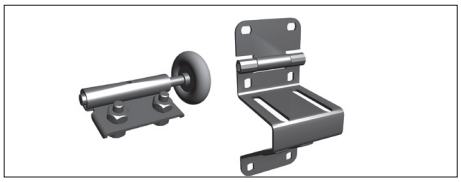


Install internal hinges along the holes in the panel, made in production. The holes in the bottom part of hinge should coincide with holes in the panel, made in production.

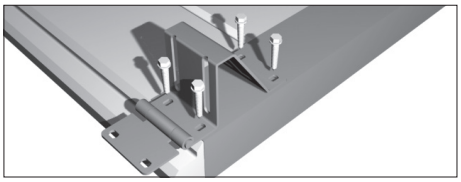


Fix the hinges by 2 self-tapping screws.

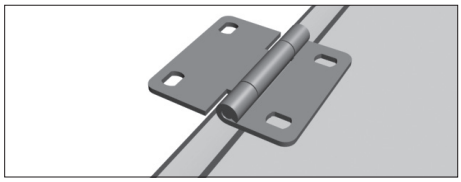
CENTRAL PANELS ASSEMBLING



Disconnect roller carriers from side hinges.

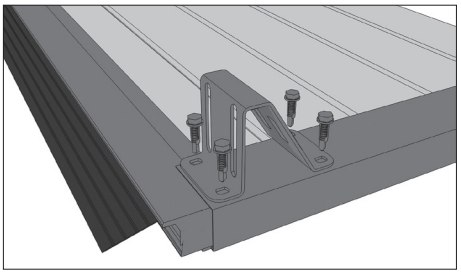


Install side hinges along drilled holes.



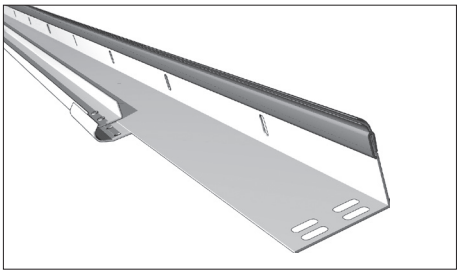
Install internal hinges along the holes in the panel, made in production. The holes in the bottom part of hinge should coincide with holes in the panel, made in production Fix the hinges by self-tapping screws as done for bottom panel.

UPPER PANEL ASSEMBLING

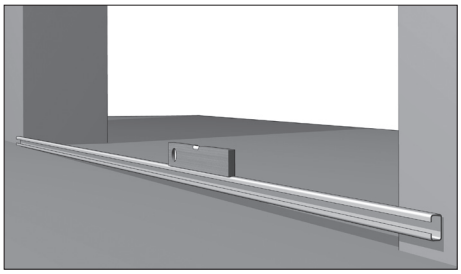


Install upper roller carriers and fix using panel self-tapping screws.

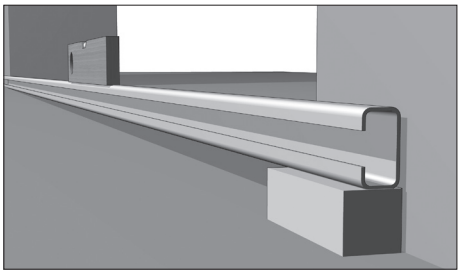
INSTALLATION OF THE VERTICAL GUIDE



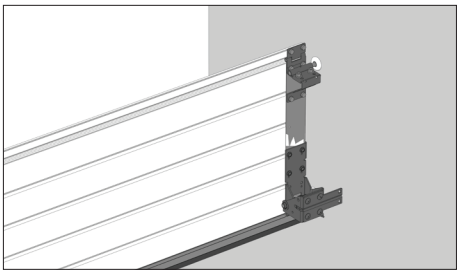
Vertical guides are supplied in complete set with angle supports.



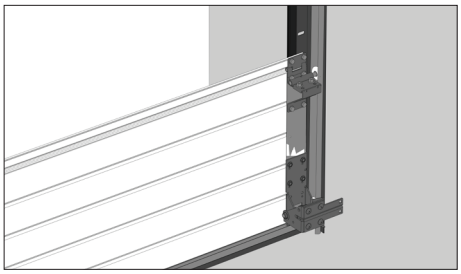
Before installation of vertical guides it's necessary to check the levelness of the floor. Put C-profile on the floor for this purpose and check it by building level

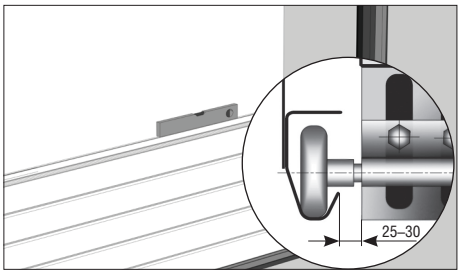


If there is a need for buttons to level C-profile, these buttons should be used during installation of vertical guides.

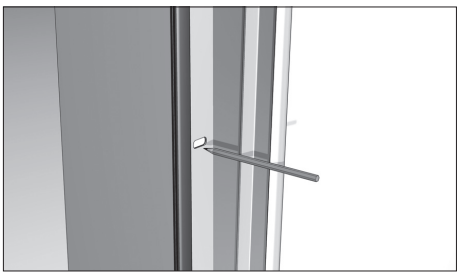


Prior to installation of guides, it's necessary to install bottom panel in way that its edges go beyond the opening from two sides equally.

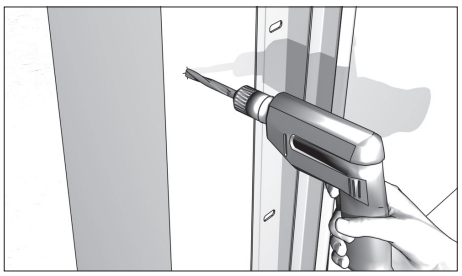




Then install vertical guides.
The distance from the face surface of the panel to the edge of the guides should be about 25-30 mm.



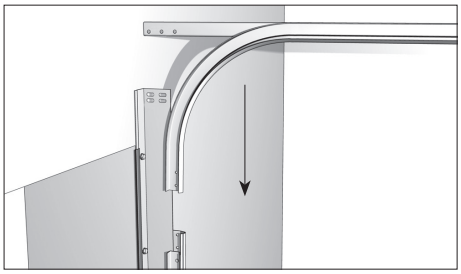
Mark the holes in the wall of the opening. Use the perforation in the angle support as a template.



Drill the holes of ∅10 mm in the wall of opening.
Nail the wall plugs in the holes.

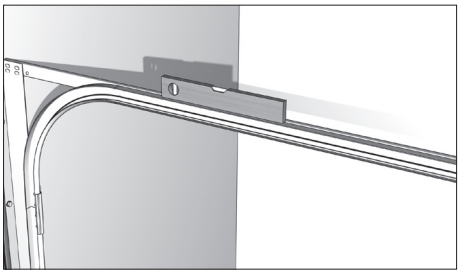
Fix angle supports to the opening wall by 2 self-tapping screws with washers, however, do not tighten them. Level vertical guides and then tighten self-tapping screws.

INSTALLATION OF HORIZONTAL GUIDES



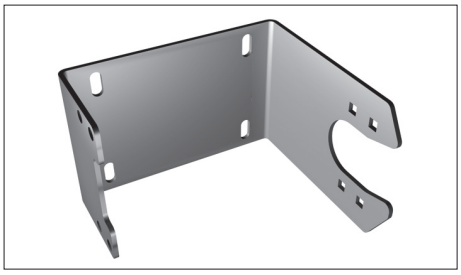
Horizontal guides are supplied in complete set with C-profile serving to increase the rigidity of the guides. There are holes to mount to vertical guides and angle support in C-profile and horizontal guides.

Fasten the horizontal with vertical guides by two bolts to assemble guides with nuts and connecting plate, which is located at the junction of guides.

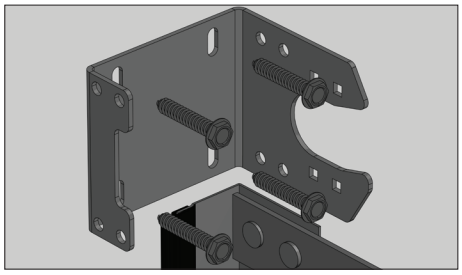


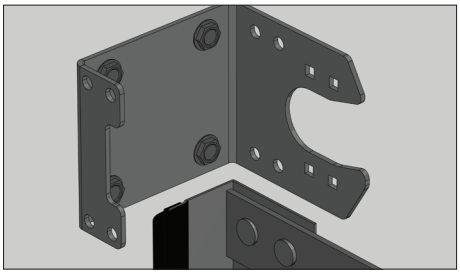
Attach C-profile by horizontal guide to the angle support. Before tightening the bolts, it's necessary to level the guides using a building level.

INSTALLATION OF U-SHAPED END SUPPORT BRACKETS

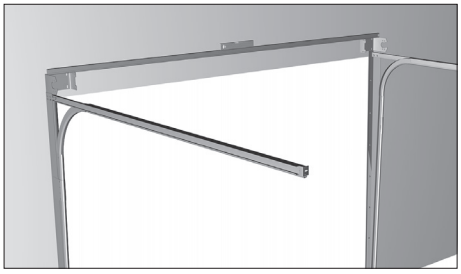


Use of U-shaped end support brackets allows for high technology assembly, installation and adjustment of the torsion mechanism.

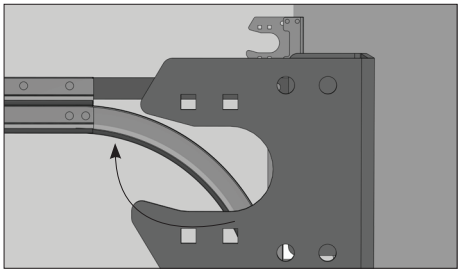




Install U-shaped bracket right up to the angle support. Align the corners of the bracket and angle support. The outer wall of bracket shall coincide with the surface of the angle support.
Mark the mounting holes in the wall of the opening by perforation in the bracket. Drill these holes by 12 mm drill. Nail wall plugs in the wall. Secure the bracket to the lintel by self-tapping screws (do not tighten them).

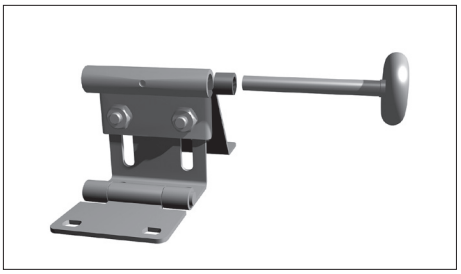


Check the levelness of brackets installation with C-profile (it is allowed to use a laser level).

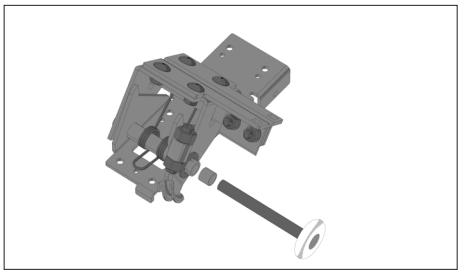


WARNING! install the bracket in a way so that the bracket bend upwards.

INSTALLATION OF SPACERS

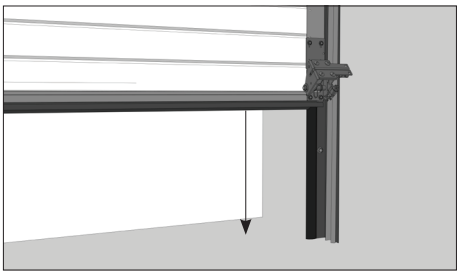


The spacers are used to limit the movement of door leaf along the opening area. Install the collars on the rollers axes of top and side hinges.

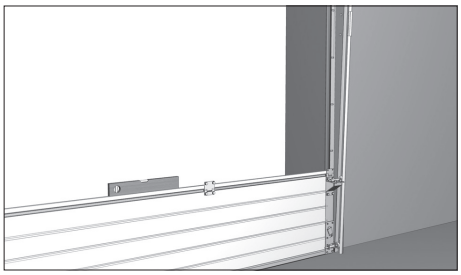


Depending on type of bottom angle brackets, select and install the spacers on the axes of the rollers in the bottom angle brackets.

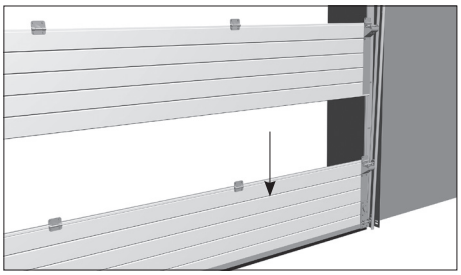
INSTALLATION OF PANELS



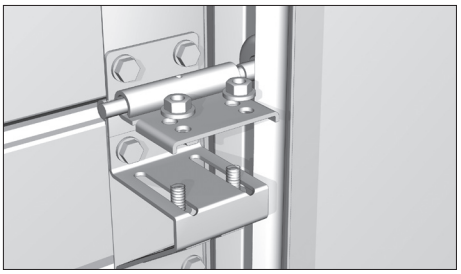
Insert the rollers in the roller holders of bottom angle brackets and install the bottom panel. Set the rollers with roller holders on the side hinges.



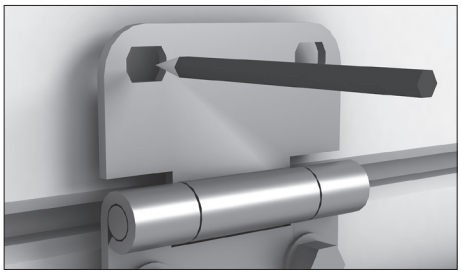
Align the bottom panel with building level. If necessary, use the buttons of suitable thickness.



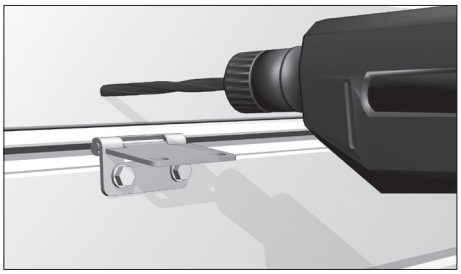
Install other panels in a similar way.



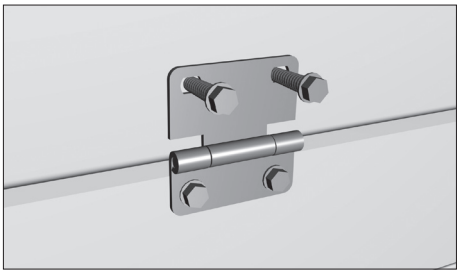
Install roller holders with rollers on the side hinges.



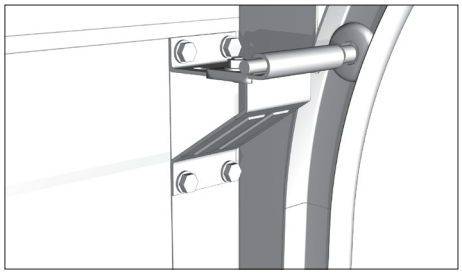
If the panel does not have drilled holes for upper hinge, mark the holes to fasten the upper parts of the internal hinges and side hinges.



Drill these holes of ∅4 mm with a depth of 25-30 mm.

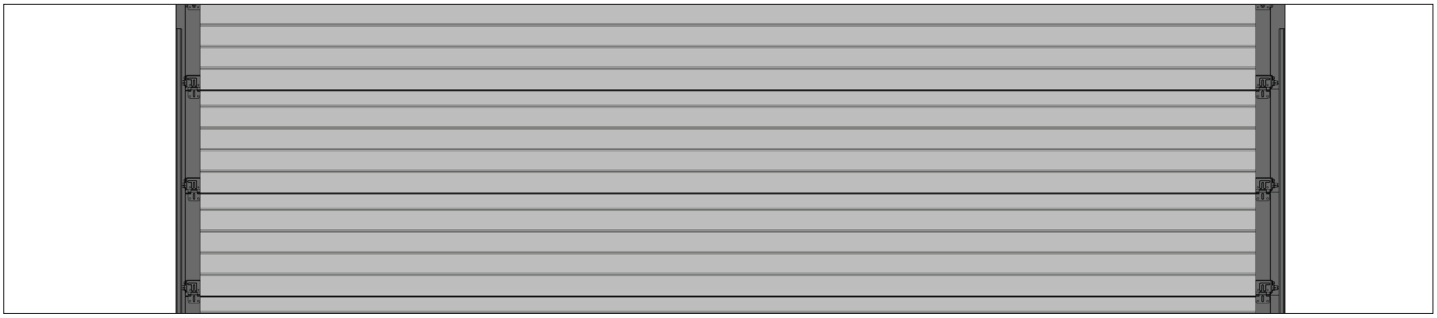


Secure the upper parts of hinges with panel self-tapping screws.

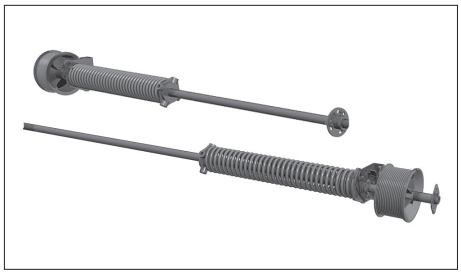


Install the upper panel. Adjust the position of the upper roller, ensure tight fit of the panel to the opening.

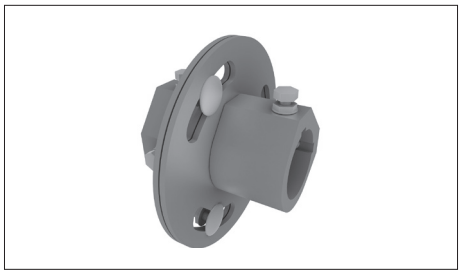
INSTALLATION OF TORSION MECHANISM



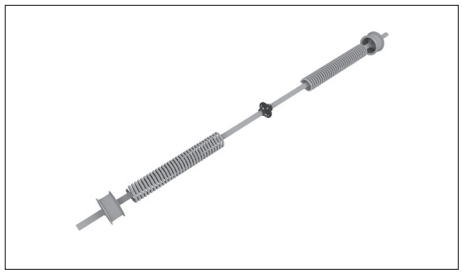
Number of turns to wind the spring on the right side, is marked by a black stripe. Number of turns to wind the spring on the left side, is marked by a red stripe.



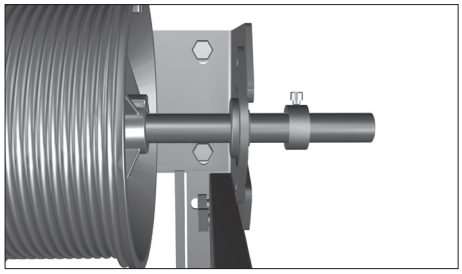
Torsion mechanism is installed in the U-shaped end support brackets and is additionally supported by general purpose internal bracket.



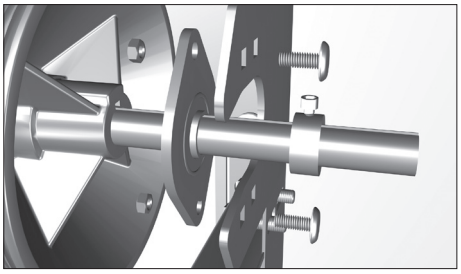
If the shaft consisting of two parts is installed, use the adjustable coupling to be able to adjust the cable.



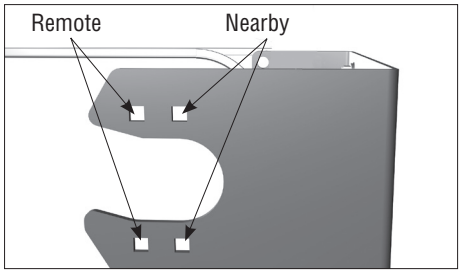
Connect the two parts of the shaft through the coupling by inserting the connectors into the keyhole slots of both parts of the coupling. Tighten the bolts connecting the two parts of the coupling.



Install the torsion mechanism assembly in a way that the end plate is placed flush with the outer wall of the bracket. Put the lock ring on the shaft right up to the bearing.



Secure the end plate with the bearing plate to the U-shaped bracket with 2 bolts (M10×25) with related nuts and washers. Secure the torsion mechanism on the other side in a similar way.

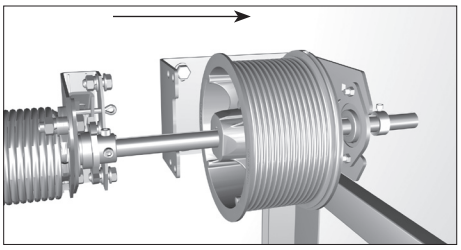


Installation of end plate with bearing plate vs. mounted U-shaped support brackets and type of cable drums is given in the table.

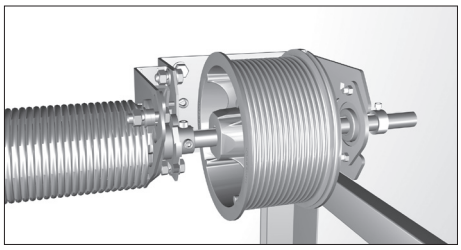
U-shaped end support bracket 127/152 mm	NEARBY	OMI8	OMI12	DH11000	DH11011	OMI54-HL-LD
	REMOTE	OMI18	OMI54HL			

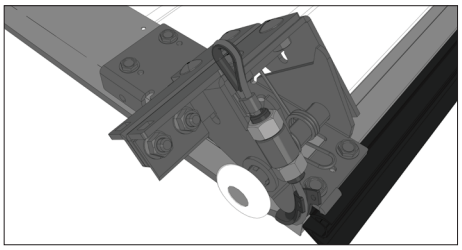
U-shaped end support bracket 174 mm	NEARBY	OMI11VL	OMI120HL	
	REMOTE	OMI32	OMI18VL	OMI164HL

U-shaped end support bracket 174 mm	OMI28VL

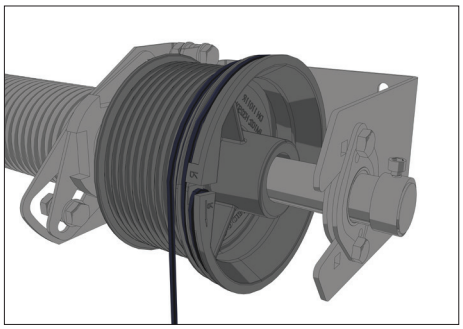


Secure the spring break device on U-shaped end support bracket with two sets of fasteners (bolt 10×25, nut M10, lock nut 10).

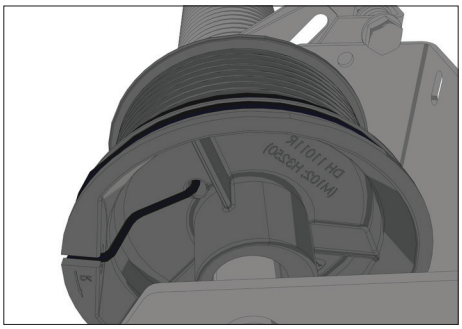




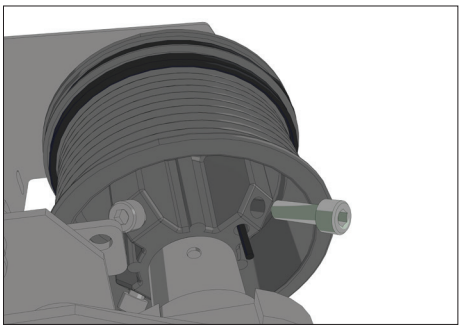
When installing cable break device to fasten the cable, it's necessary to put it into a threaded steel pipe in a way as shown in the figure



Wind the required length of cable on the cable drum (which is calculated individually, the information is given in the mounting card).

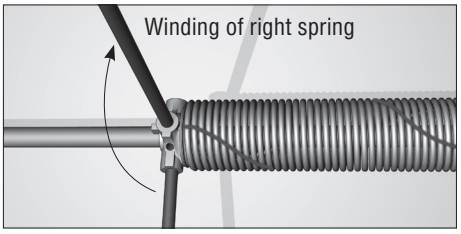


Bring the cable through the eye and pass it through a special hole.

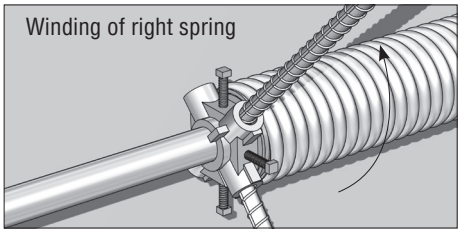


Tighten the crimping screw and secure the cable on the cable drum as shown in the picture.

WINDING OF SPRING WITH CYLINDRICAL SHAFT



There is a special marking stripe on the spring. It serves to indicate the number of turns. Estimated number of turns is indicated in the mounting card and on a marking on the door leaf.



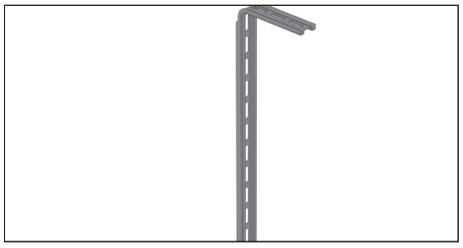
After winding the spring, fix it by putting limit stops under winding bars, tighten the bolts of the spring end to the shaft and pull out the winding bars..

WARNING! Winding of spring is carried out by two winding bars, inserted into the special holes at the end of spring.

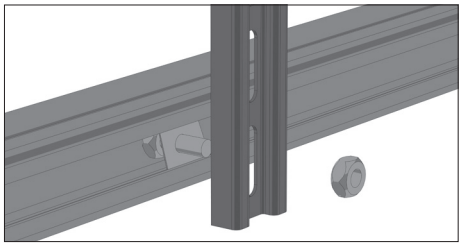
CEILING MOUNTING

Depending on the lintel height and dimensions of the door leaf, the guides are mounted to the ceiling using different types of brackets.

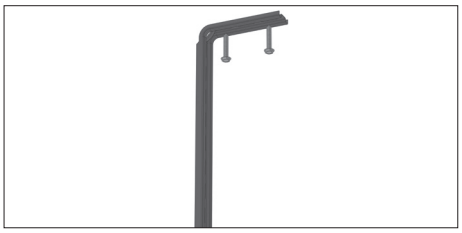
A) Mounting using brackets to fix horizontal guides.



Secure the bracket to the horizontal guide with the connection plate and bolt with a nut.

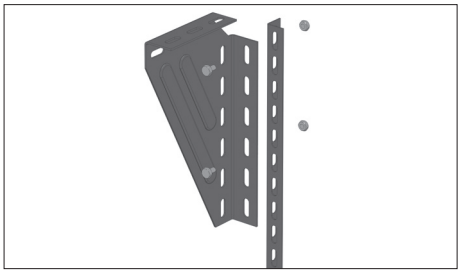


Mark the holes to fix the bracket to the ceiling.

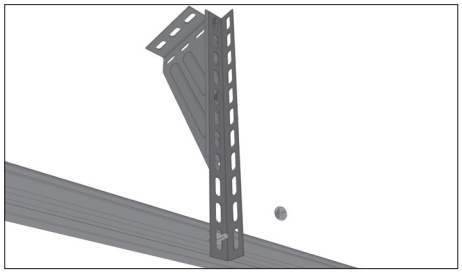


Drill the holes with ∅10 mm drill and insert the wall plugs. Secure the bracket with self-tapping screws and washers.

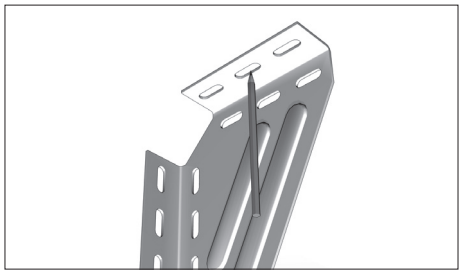
B) Mounting using angle brackets.



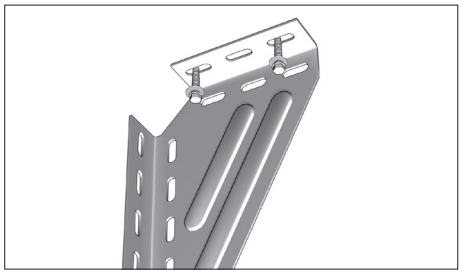
Secure the punched angle element 32×32 mm on the angle bracket by two bolts.



Attach the punched angle element to the guide.

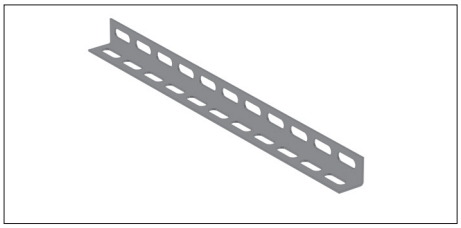


Mark the holes to fix the bracket to the ceiling.

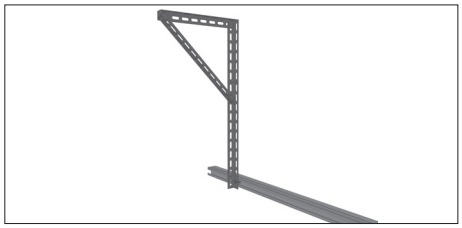


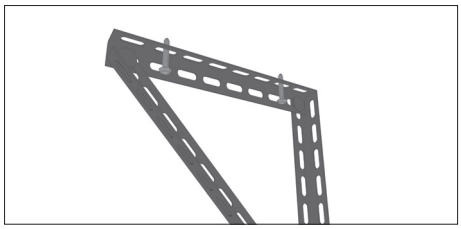
Drill the holes with ∅12 mm and insert the wall plugs. Secure the bracket with self-tapping screws and washers.

C) Mounting using punched angles.

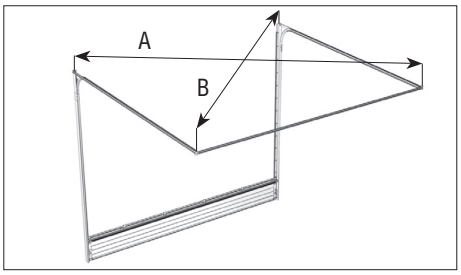


Mounting using punched angles of 32x32 mm, is made considering the distances from horizontal guides to the ceiling.





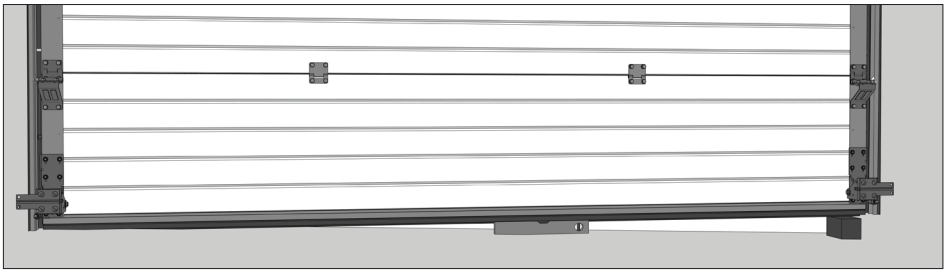
Attach the mounting angle element to the guides in the attachment. Mark and drill the holes in the ceiling. Attach the mounting angle element with self-tapping screws and washers, wall plugs.



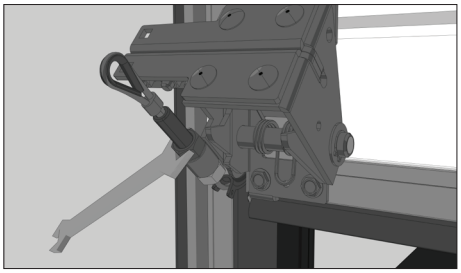
Check the levelness of guides with building level. If necessary, adjust the the levelness of guides by shifting the holes in the punched angle along the holes in the angle bracket. It is allowed to align diagonal of A and B by raising the door leaf to the uppermost position and checking the uniformity of gaps between the edges of the door leaf and the guides. Before the final fastening of guides to the ceiling, check the distance between opposite corners (diagonals A and B shall be equal).

ADJUSTMENT OF CABLE TENSION

A) Adjustment of cable tension by bottom angle brackets with adjustable cable.



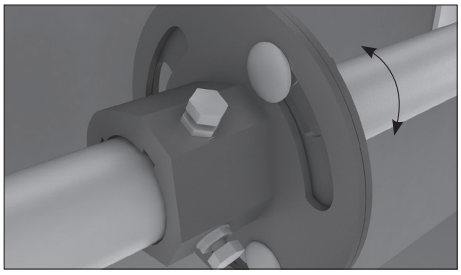
If the floor is uneven, put the button under the edge of leaf until it is aligned to the level.

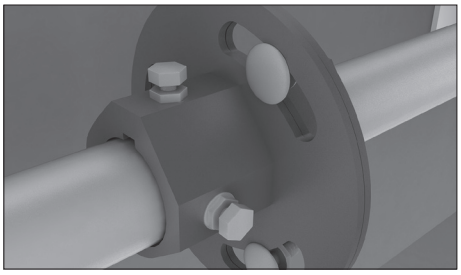


Adjust the cable by winding the nuts located on the metal collar with the cable passing. When unscrewing the top nut, cable tension decreases, when screwing, cable tension on the contrary increases. Once the leaf has the same contact with the floor on the one side and button on the other side, fix the metal collar by tightening the bottom nut.

B) Adjustment of cable tension using adjustable coupling with adjustable cable.

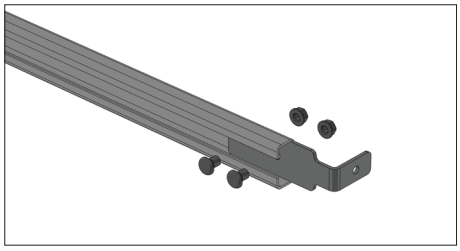
Before starting adjustment, make sure that the floor is level (without distortions). Otherwise, put buttons under the bottom panel of the door leaf.



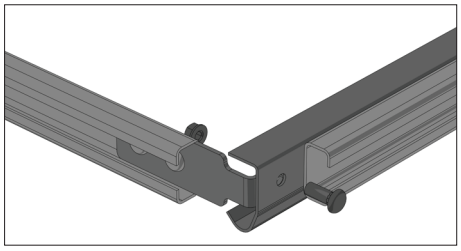


Loosen the bolts connecting two parts of the coupling. Adjust the cable tension by turning the two parts of the shaft. Fix the new position of coupling using bolts and nuts.

INSTALLATION OF C-PROFILE

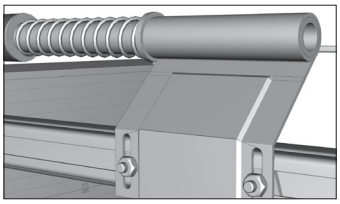


Attach the connector on C-profile with bolts 1/4×3/4 and nuts.



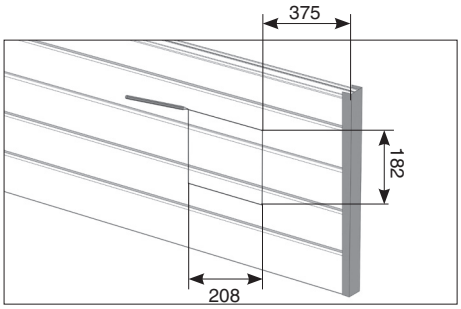
Attach C-profile to the ends of the horizontal guides with bolts 1/4×3/4 and nuts.

INSTALLATION OF SPRING BUMPERS

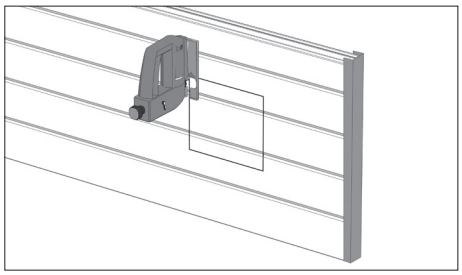


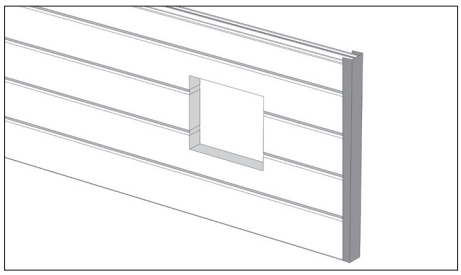
Attach the spring bumper to C-profile at both ends of guides using connection plates bolts and nuts. Install bumpers so that when the door is open it is compressed at least 50% of its stroke length.

INSTALLATION OF HANDLE

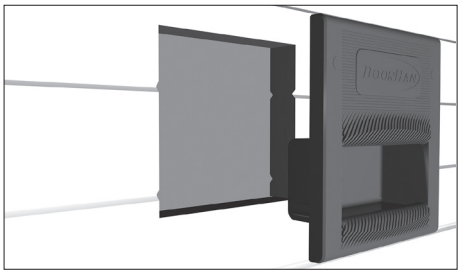


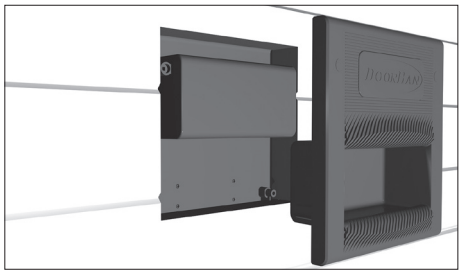
Mark the mounting holes for the handle.



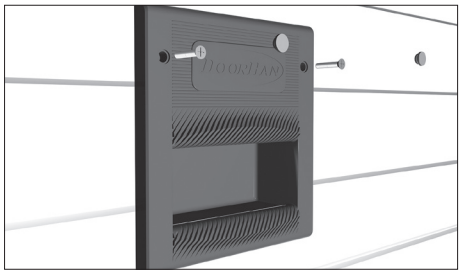


Using a fret saw, saw out the marked part of the panel.

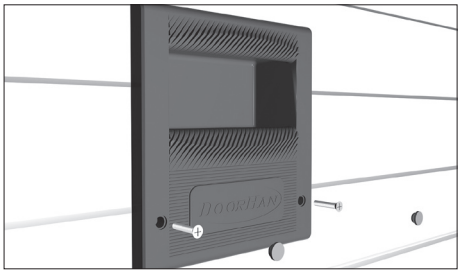




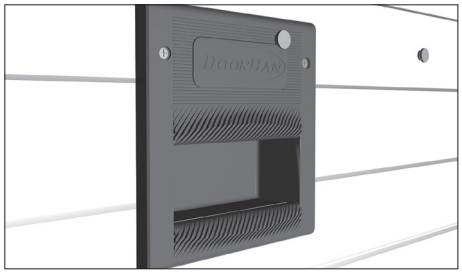
Install 2 parts of the handle asymmetrically to each other from different sides of sandwich-panel.



Insert the 2 self-tapping screws on the outer side of the door leaf.



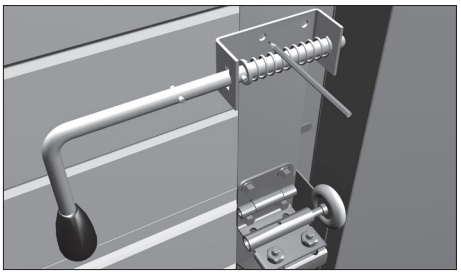
And 2 self-tapping screws on the inner side of the door leaf.



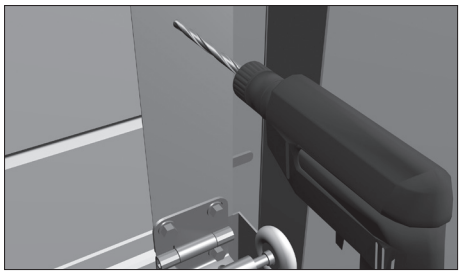
Tighten the screws, put plastic plugs on self-tapping screws.

The handle is ready.

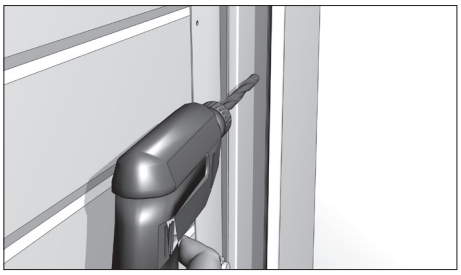
INSTALLATION OF SHOOTBOLT

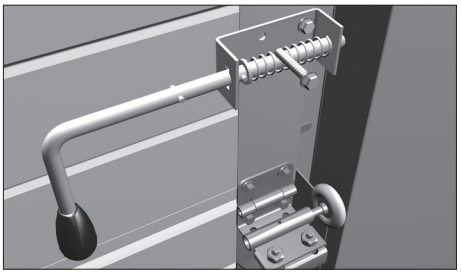


Install the shootbolt at a height convenient for the opening. Mark the holes for fastening.



Drill the holes of ∅4.2 mm to mount the shootbolt and the hole of ∅15 mm in the angle support for the tail of shootbolt.





Attach the shootbolt to the panel with four self-tapping screws. Operate the shootbolt.

WARNING! It is necessary to install the shootbolt after door balancing (winding of spring) in order to place the tail of shootbolt in the same axis with the hole in the guide.

DOOR MOVEMENT CHECK

It is necessary to check the door movement after installation. The door should move smoothly and shockless. Rollers should not be blocked in the guides. When setting the doors at any intermediate height position, they should not make spontaneous movement up or down.

If the door panels have tilt distortion during test opening, adjust the rope tension.

In the case of gap between the door leaf and opening, it's necessary to adjust the position of rollers. Lift the door leaf up to 50 mm and place wooden blocks. Adjust the position of roller holders with rollers so that the rollers are flat against the surface of the gaps in vertical guides. Remove wooden blocks and close the door. Check the clearance between the door leaf and opening, it shall be 12 mm.

OPERATION

Properly installed and operated doors ensure the reliability and long-term operation. To extend the service life of your doors , follow these Instructions. Manual opening and closing of the door is carried out with the handle only. When opening and closing the door by hand, do not apply significant force. Sharp opening and closing of the door are prohibited. When using the automatic drive, one should follow the Instructions supplied with the drive.

Opening the door by hand with any connected drive is prohibited.

Do not allow children to the automatic control devices of the door (keys remote controllers). Make sure that children and animals do not stand in the operation area of the door during its work.

It is strictly prohibited to pass or run under moving door leaf, as this can cause serious injury.

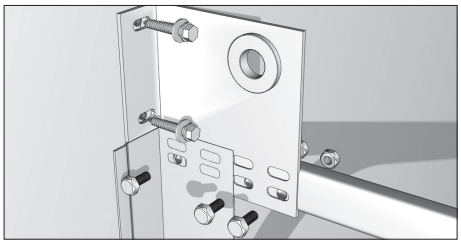
Do not expose the door to shocks and do not impediment from its free opening and closing. Do not dirty the guides and rollers, as this may lead to a breach in soft movement, and, if used with electric drive, it can lead to its overload and failure.

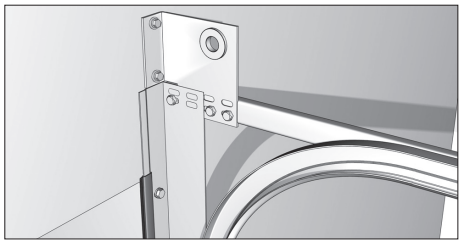
Make sure that during the leaf movement the opening is free from obstacles and debris. They can lead to distortions and jamming of the door. To avoid injury, do not touch moving parts of the door (rollers , side supports, panels, etc.) with hands while operating.

If the door is used for other purposes than that intended, the manufacturer is not responsible for its integrity and proper operation, as well as possible injury and damage caused to persons, animals or things.

ANNEX

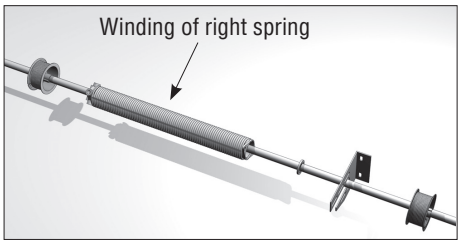
INSTALLATION OF END SUPPORT BRACKETS



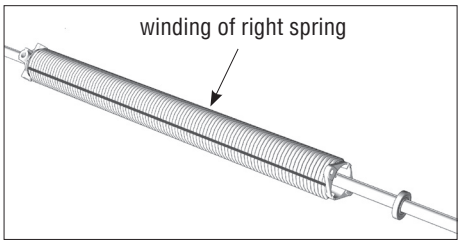


Install the end support bracket along the holes on the angle support. Mark the mounting holes in the wall of the opening by perforation in the bracket. Drill these holes by 8.5 mm and 12 mm drills. Nail wall plugs in the wall. Secure the end support bracket to the wall by self-tapping screws. Secure the end support bracket, C-profile and angle support with bolts M8×25 and nuts.

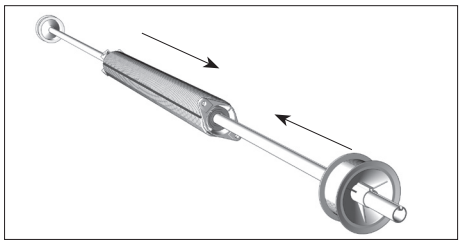
INSTALLATION OF TORSION MECHANISM WITH END SUPPORT BRACKETS



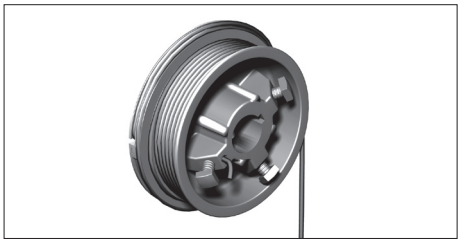
Torsion mechanism is installed in the end support brackets and is additionally supported by general purpose internal bracket.



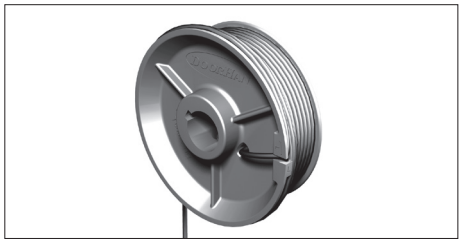
Install a spring on a for the right spring, the connection plug with bracket should be placed on the right. In this plug should be installed a bearing. Letf spring should be installed dissymmetrical.



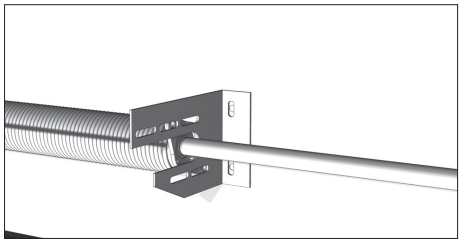
Install the cable drums on the shaft. Cable drums are marked: (L) for left side and (R) for right side; and are installed accordingly.



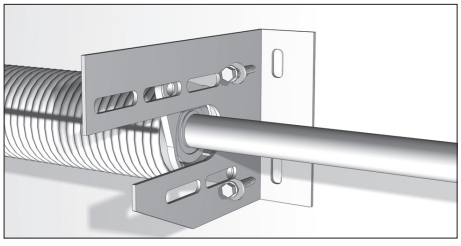
Bring the cable through a special hole . Tighten the crimping screw and secure the cable on the cable drum in such a way.



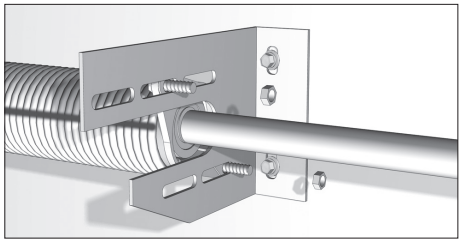
Bring the cable through the eye to the safety winding. The number of turns is calculated individually for each door. The information is given in the mounting card.



Lift the assembly and set in the bearings of support brackets. Mark the holes to mount general purpose internal bracket to the wall.



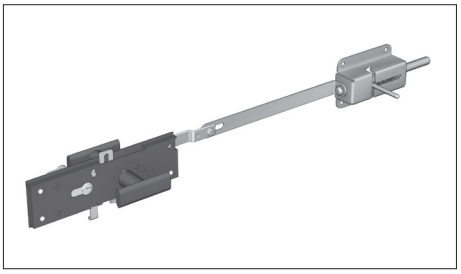
Drill these holes of 12 mm and fix the internal bracket with screws and washers, wall plugs.



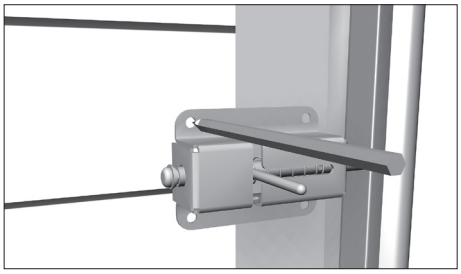
Install the bearing in the flange of the spring end, and then tighten the flange with bolts M10×45 and nuts on the general purpose internal bracket.

WARNING! When installing the balancing mechanism with two springs, the right spring is mounted on the left side of the shaft, and the left spring is mounted on the right side of the shaft.

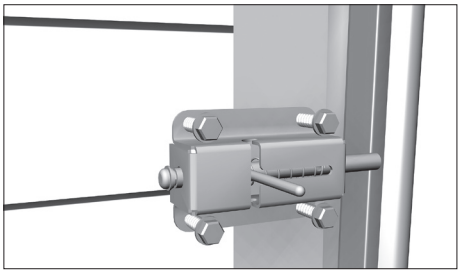
INSTALLATION OF DOOR LOCK



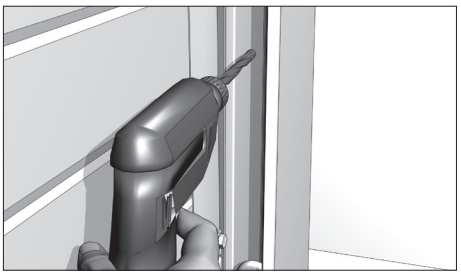
It is recommended to mount the lock on the second panel from the bottom on the right side of the door leaf (interior view).



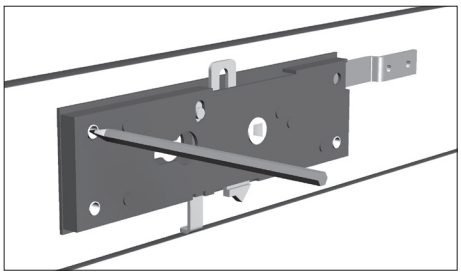
Mark and drill 4 holes by ∅4 mm drill to a depth of 15-20 mm from the inner side of the door to mount the shootbolt housing.



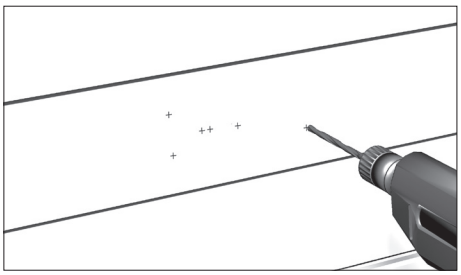
Attach the shootbolt housing to the door panel by 4 self-tapping screws.



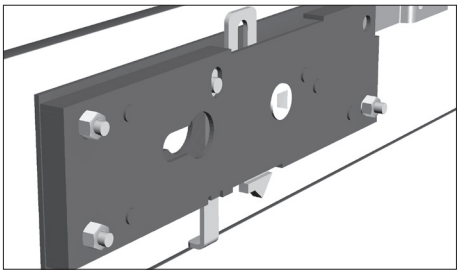
Open the door and drill the hole of ∅15 mm in the side support for the shootbolt tail.

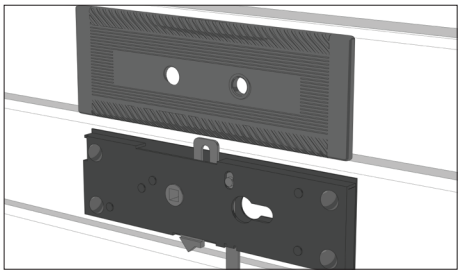


Attach the lock housing to the panel, considering the length of rod, connecting it to the shootbolt of lock and mark the holes to mount the lock for the handle of lock and its cylinder.

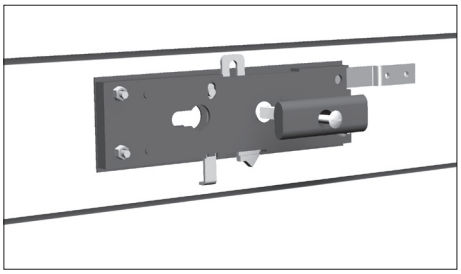


Drill these holes: 3 holes of ∅5.5 mm to mount the lock, for the handle of lock and its cylinder - by ∅19 mm drill.

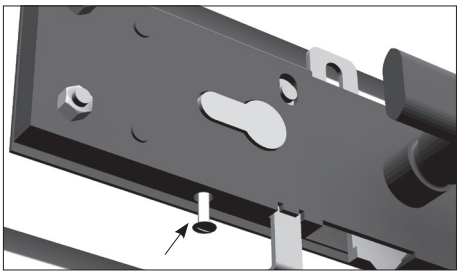




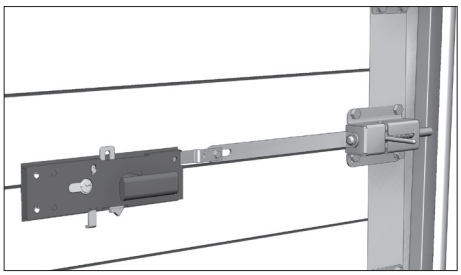
Install the outer cover and fasten it with the lock housing by three screws and nuts, supplied in the complete set of the lock.



Put the interior handle on the rod. Secure them with a screw.



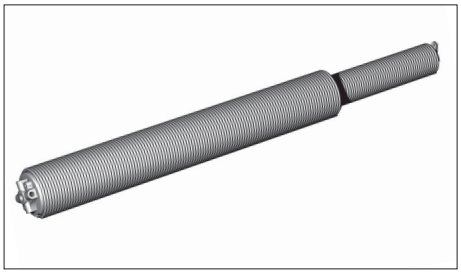
Install the cylinder and secure it to the lock housing with a screw.



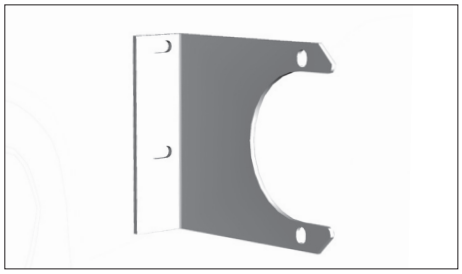
Install the rod that connects the corner of shootbolt and the bolt.

After installation, check the smoothness of the lock stroke and shootbolt operation.

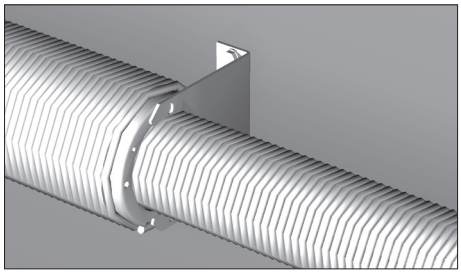
TORSION MECHANISM «SPRING-IN-SPRING»



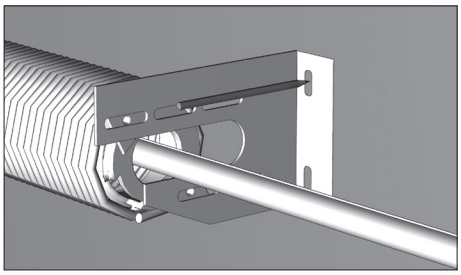
Torsion mechanism «spring in the spring» is set when the height of the opening is 1.5 times greater than the opening width, and usually at high or vertical lift. In this case, the springs are used with an internal diameter of 152 mm and 95 mm.



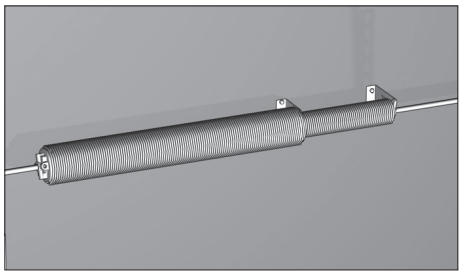
Install the additional bracket for dual springs under spring of ∅152 mm.



Mark the location for its attachment to the wall of opening.

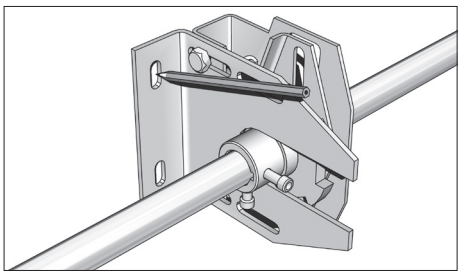


Attach the torsion mechanism on the shaft with clamping screws. Install general purpose internal bracket to mount the end of spring of 95 mm and mark the location for its mounting.

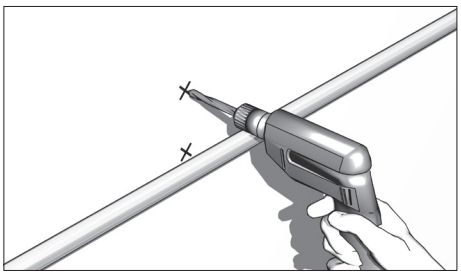


Drill these holes. Secure the brackets with wall plugs and self-tapping screws and washers. Attach the end of spring of ∅95 mm to the support bracket with bolts M10×45 with nuts, fix the end of the spring of ∅152 mm with bolt 3/8''×11/2''.

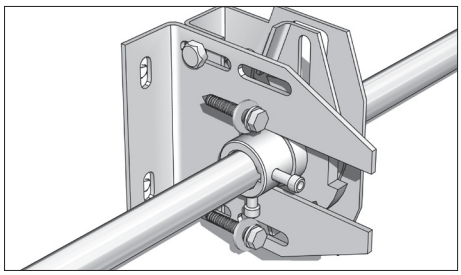
INSTALLATION OF SPRING BREAK DEVICE

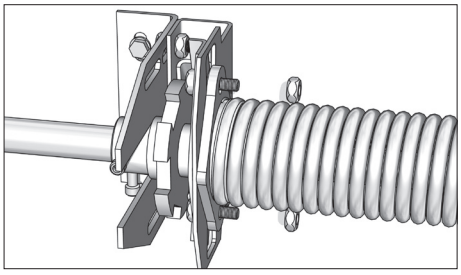


This device serves to prevent from leaf falling in case of spring break. Attach the bracket to the wall of opening and mark the holes.

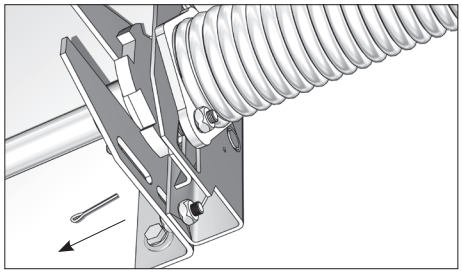


Fix the spring break device on the wall of opening with screws and washers.



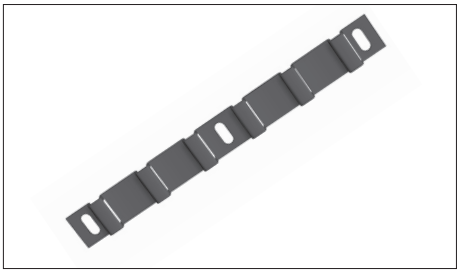


Secure the flange of spring to the lever of shootbolt with two bolts and nuts.

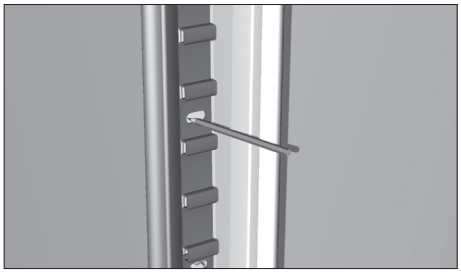


Wind the spring to the desired tension and remove the locking pin, thereby freeing the spring-loaded shootbolt.

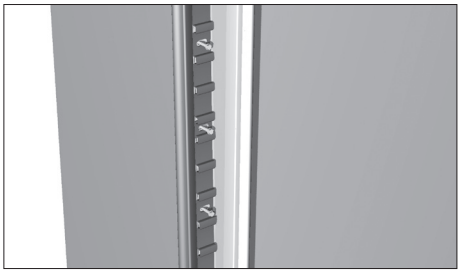
CABLE BREAK DEVICE



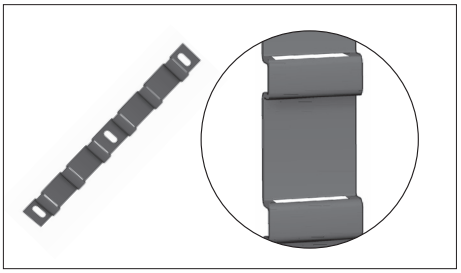
When installing the angle brackets with a cable break safety device, secure the covers for the safety device on the side supports.



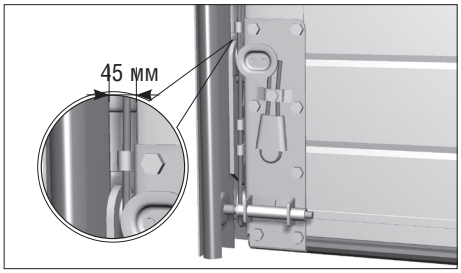
Before installation of the covers for the safety device, mark and drill additional holes, using the covers as a template.

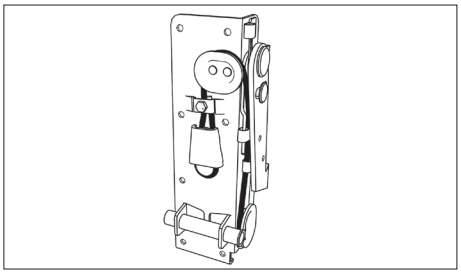


Install the covers over the holes in the angle support and fasten them with the support to the wall of opening with self-tapping screws and washers at the same time.



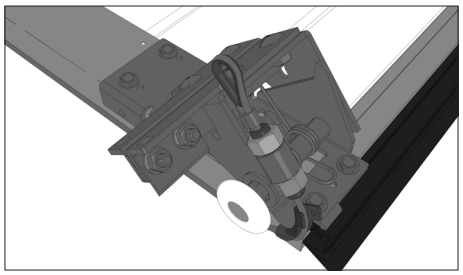
Covers are installed with perforations (on projections) up.



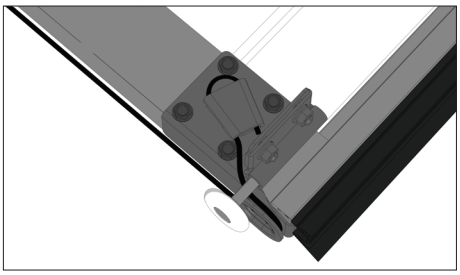


Cable break device is installed on the door leaf in the same way as the bottom angle bracket with fine adjustment of cable (with wedge-shaped bracket). When mounting the angle bracket with a cable break device, bring the cable to the wedge pocket on the bracket as shown in the figure. Pass the cable in the clamp on the hook in the bracket, place the wedge into a loop of cable, tighten the cable with a wedge in the wedge-shaped pocket.

INSTALLATION OF LOW ANGLE BRACKET WITH V-SHAPED CABLE MOUNTING

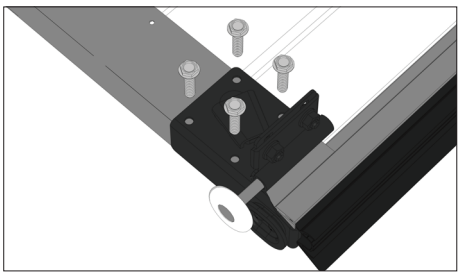


Install the bottom angle brackets on the bottom panel. Mark and drill the holes of ∅4,2 mm to fix it. Secure the bracket with 4 self-tapping screws of 6,3×32 mm (as shown in the figure).

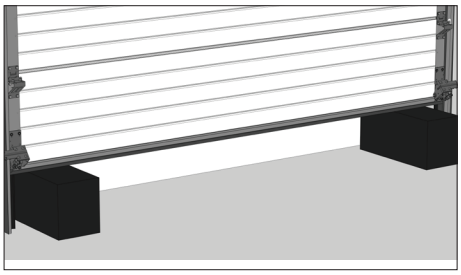


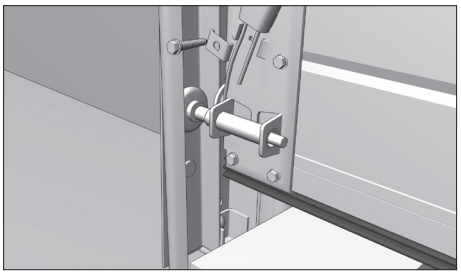
When installing the bottom angle bracket, bring the cable to the wedge pocket on the bracket, place the wedge into a loop of cable, tighten the cable with a wedge in the wedge-shaped pocket and secure with the clamp and self-tapping screw. Tighten the fifth screw, indicated by an arrow.

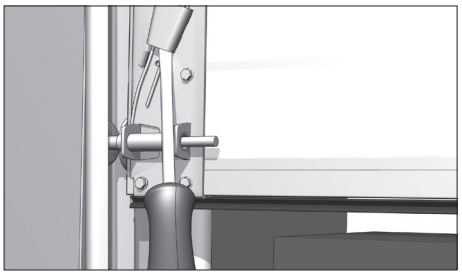
INSTALLATION OF LOW ANGLE BRACKET WITH V-SHAPED CABLE MOUNTING



Install the bottom angle brackets on the bottom panel. Mark and drill the holes of ∅4,2 mm to fix it. Secure the bracket with 4 self-tapping screws of 6,3×32 mm (as shown in the figure).

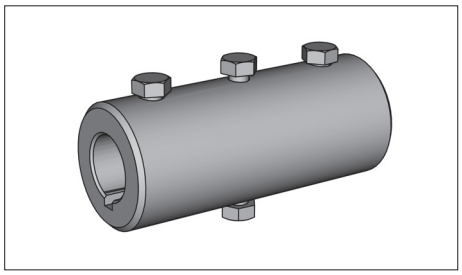


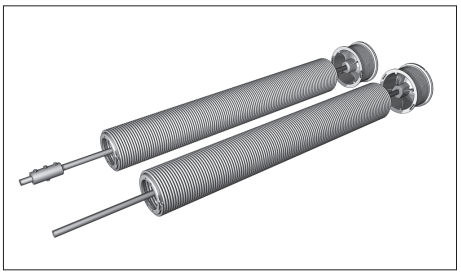


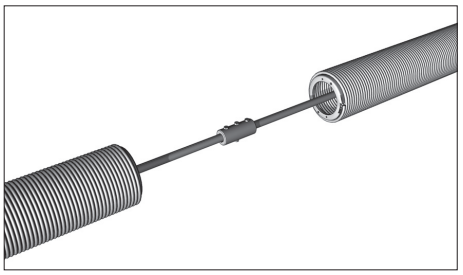


If the floor is not level, put the button under the edge of the leaf until it is aligned to the level.

INSTALLATION OF SOLID COUPLING FOR CYLINDRICAL SHAFT

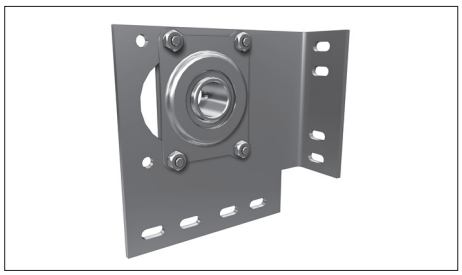


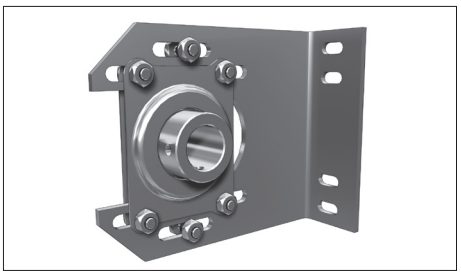




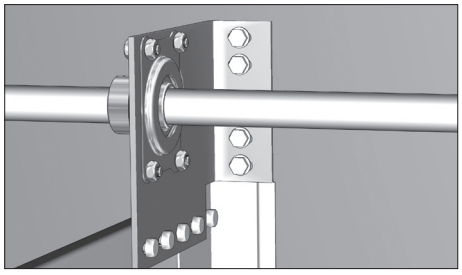
Solid coupling is installed in the same way as adjustable coupling.

INSTALLATION OF CYLINDRICAL SHAFT OF 31.75 MM IN DIAMETER

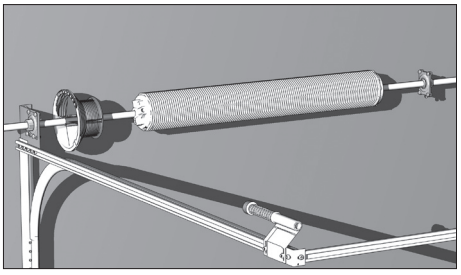




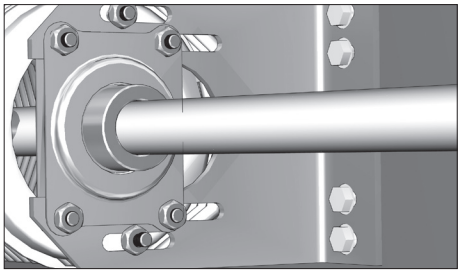
When installing cylindrical shaft of 31.75 mm, are used brackets with adjustable bearing instead of usual end support and general purpose internal brackets. Brackets have additional holes for mounting to the wall and angle support.



Secure the end support bracket to the wall of opening with four self-tapping screws, washers and bolts. Depending on the type of cable drum, position and secure the adjustable bearing along the holes in the bracket. Attach the other support bracket in the same way.



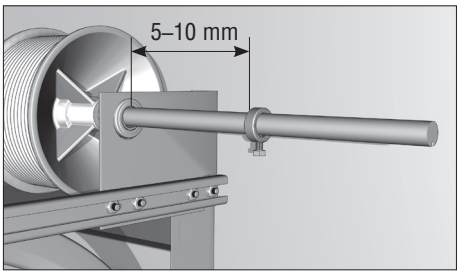
Install the cable drums, spring and bearing of general purpose support on the shaft. Insert the shaft into the bearings of support brackets.



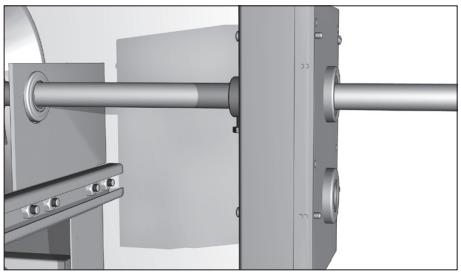
Install the general purpose internal bracket to the wall of opening, mark and drill the holes with 12 mm drill in the wall of opening. Insert the wall plugs and fix the bracket with 4 self-tapping screws and washers. Secure the adjustable bearing on the internal bracket with bolts M10 ∅ 45 mm. Attach the flange of spring to the internal bracket.

INSTALLATION OF HAND CHAIN DRIVE

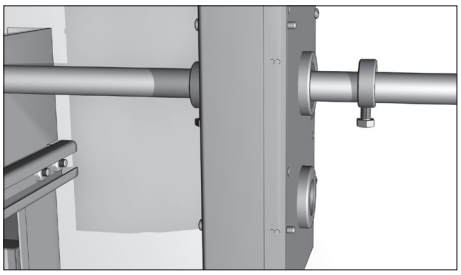
Hand chain drive can be mounted on either right or left side of the door.



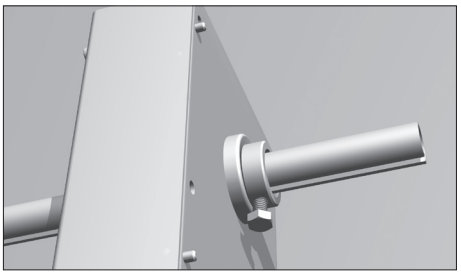
Set the lock ring on the shaft.



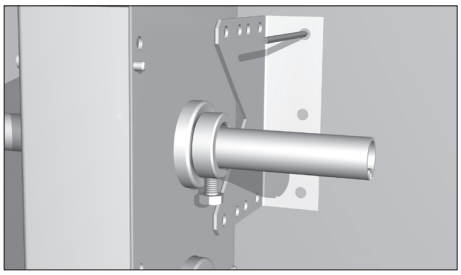
Install the hand chain drive on the shaft after inserting the connector into the keyhole slot.



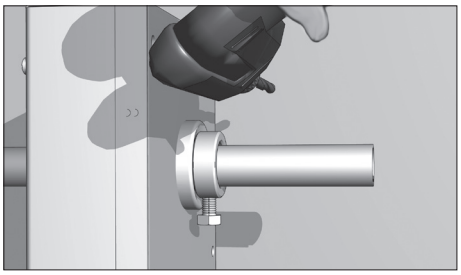
Set the second lock ring.



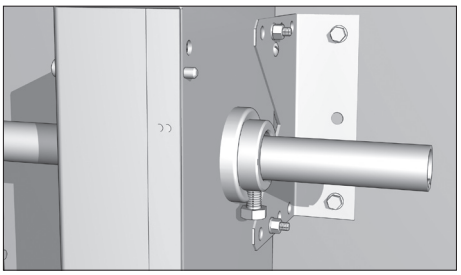
Tighten the lock ring on the shaft with bolts M8×25 mm (bolts should rest on the keyhole slot).



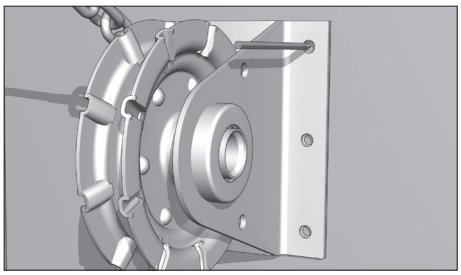
Attach the bracket to mount hand chain drive right up to the wall of opening and to the drive. Mark the holes to mount the bracket on the wall.



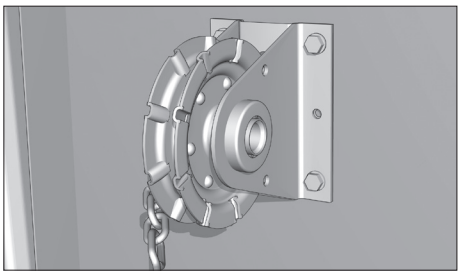
Drill these holes with ∅12 mm drill.



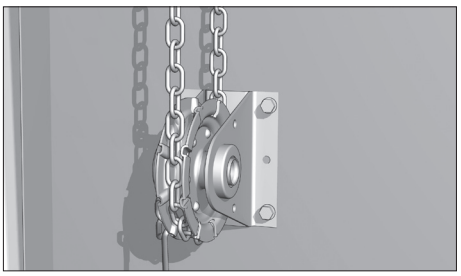
Insert the wall plugs and secure the bracket to mount the hand chain drive on the wall with self-tapping screws and to the drive using washers and nuts.



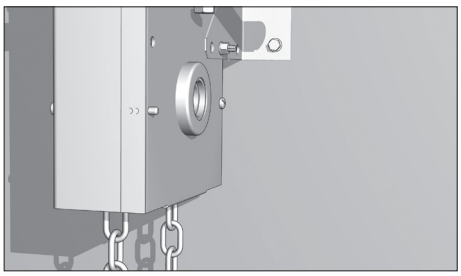
Set the chain wheel with chain lock at 1 m height and align it with the drive. Mark and drill the holes in the wall to mount the tension pulley.

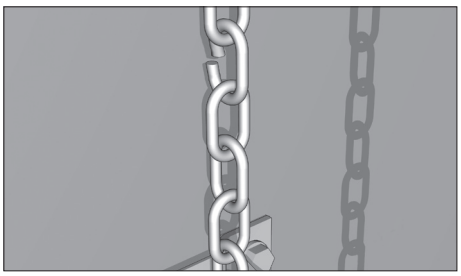


Insert the wall plugs into the drilled holes and secure the chain wheel with self-tapping screws.



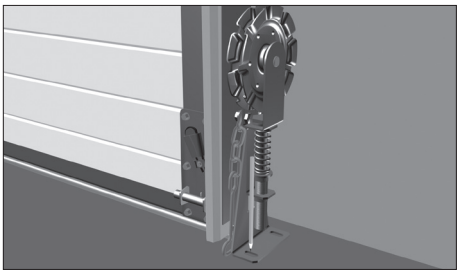
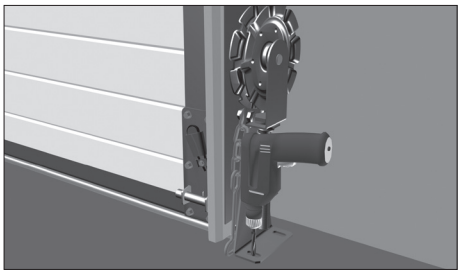
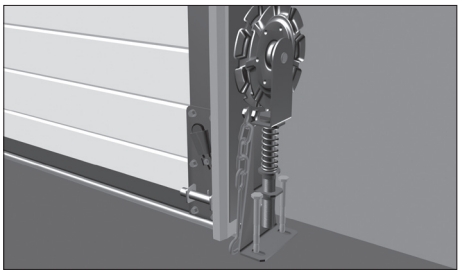
Bring the chain through the drive and chain wheel.





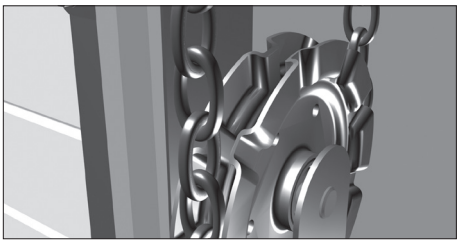
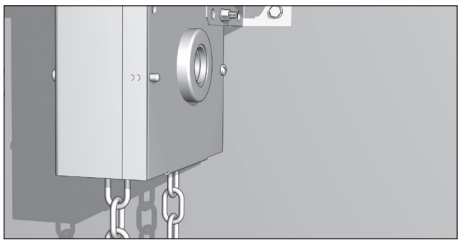
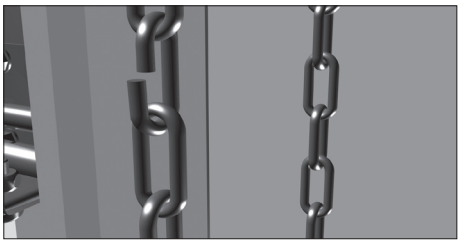
Secure the chain links with pliers.

If chain wheel is used:

Set the chain wheel on the floor on the same axis with the drive. Mark and drill the holes in the floor to mount the chain wheel.

Insert the anchor bolts in the drilled holes and tighten them.

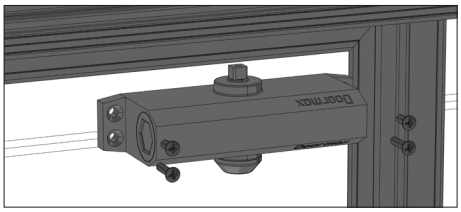
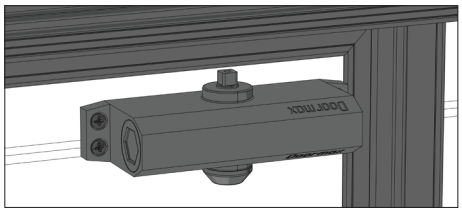




Bring the chain through the drive and chain wheel.

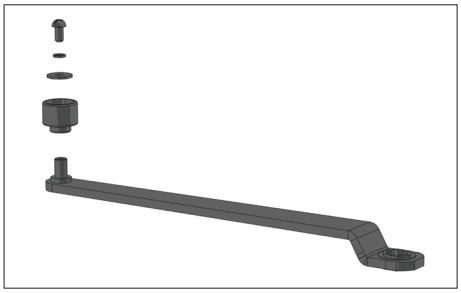
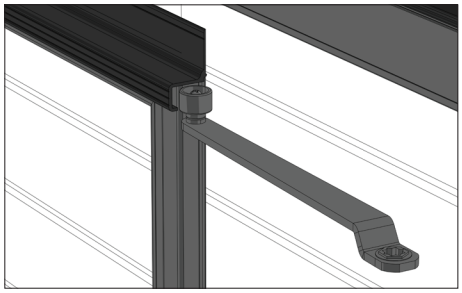
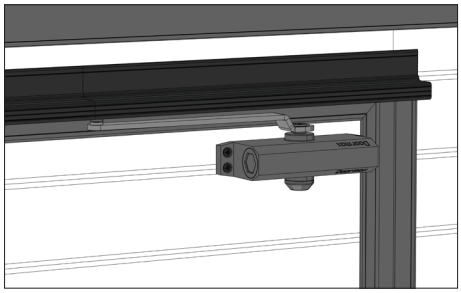
Secure the chain links with pliers.

INSTALLATION OF PASS DOOR CLOSER

If there is a pass door, it's necessary to install the door closer.

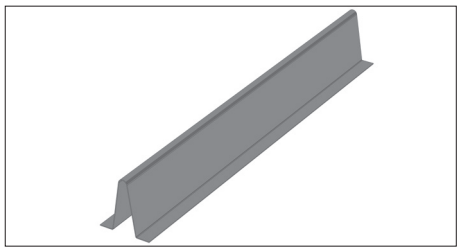
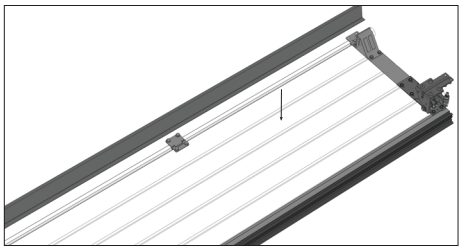
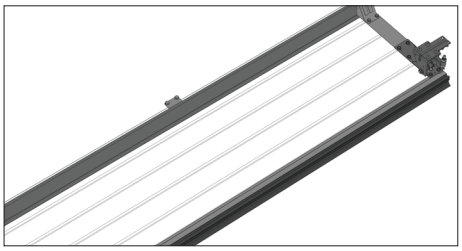
Mount the closer housing along 4 holes drilled in the gate leaf in the production.

Set the closer lever in the guide rail on the door leaf.

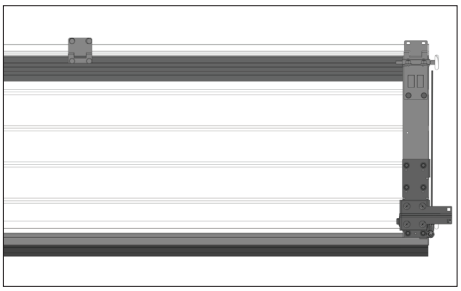
Secure the closer lever on the closer mechanism.

INSTALLATION OF DELTA-PROFILE

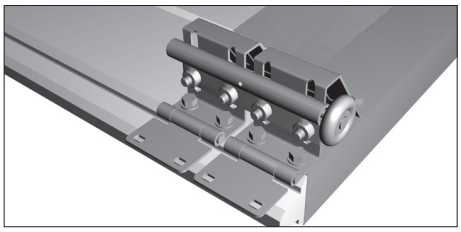
Delta-profile is installed on the openings with the leaf width > 4700 mm and high wind loads. Profile serves to increase the strength of the leaf in both vertical and horizontal positions.

It is recommended to install delta-profile under central hinges and secure it to the panel by self-tapping screws (on the inner side of panels).



INSTALLATION OF DOUBLE SIDE HINGES

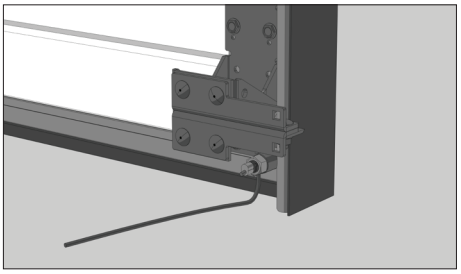
Double (strenghthened) side hinges with roller carrier are used in case of significant dimensions of the door leaf when the load per roller exceeds 35 kg.



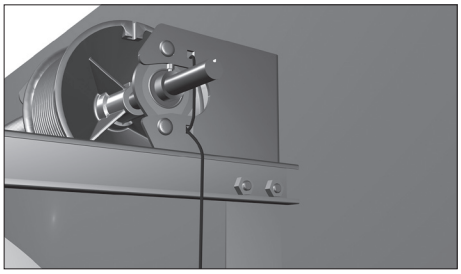
Disassemble the side hinges with roller carrier. Install the supports along the drilled holes and secure with panel self-tapping screws.

INSTALLATION OF SYNTHETIC CABLE

Synthetic cable serves to close the door manually in high opening.

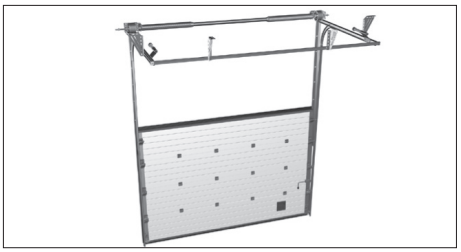


Fix one end of the synthetic cable to the roller collar on the bottom angle bracket.

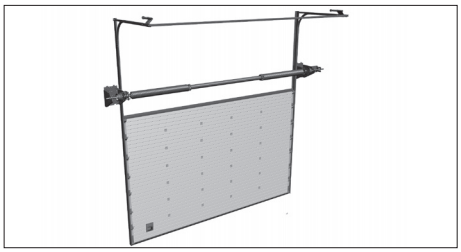


Fix its other end on any available hole of the angle support or end support bracket.

INSTALLATION NOTES FOR VERTICAL AND HIGH LIFT

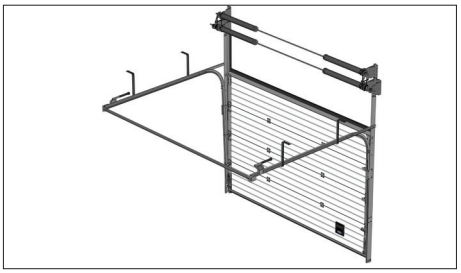


High lift.

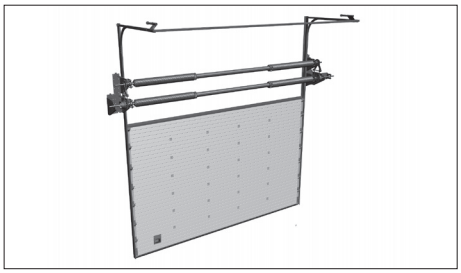


High lift with external shaft.

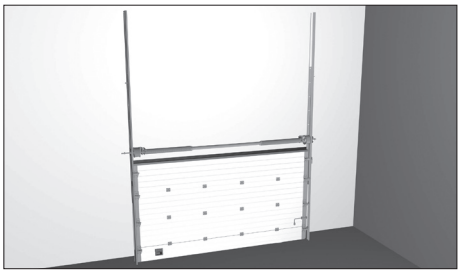
Vertical lift.



High lift, two-shaft system.

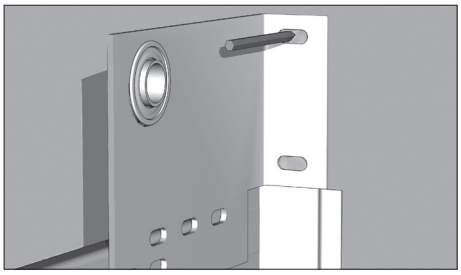


High lift, with external shaft, two-shaft system.

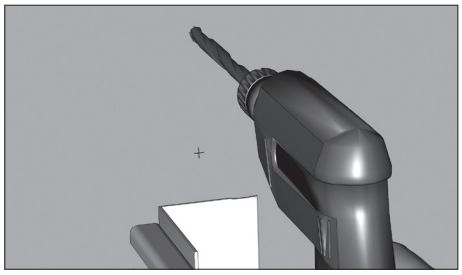


Vertical lift with external shaft.

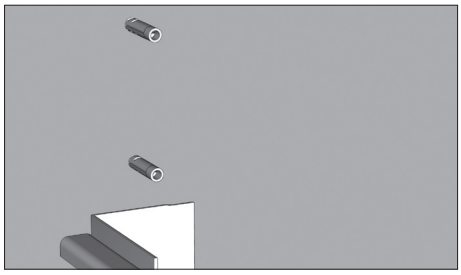
TWO-SHAFT SYSTEM ON END SUPPORT BRACKETS



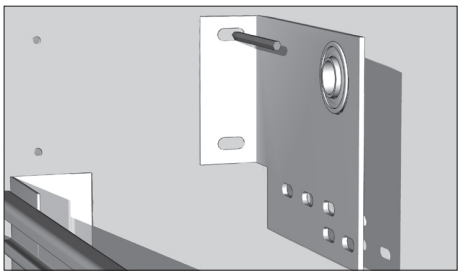
Install the support bracket against the wall and angle support, and align the holes in the bracket and support. Mark the holes to mount on C-profile and the wall of opening along the perforations in the support bracket.



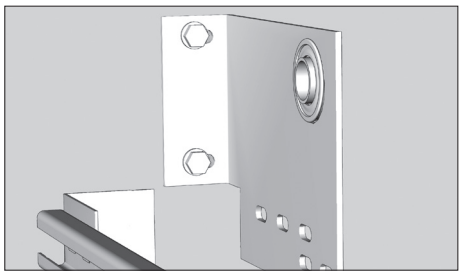
Drill these holes (in the wall with 12 mm drill, and with 8.5 mm drill in C-profile).



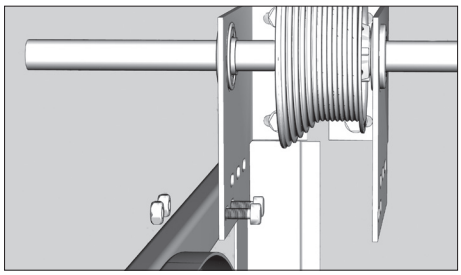
Insert the wall plugs into the holes in the wall. Mark the holes to mount the the bracket on the other side of opening in the same way.



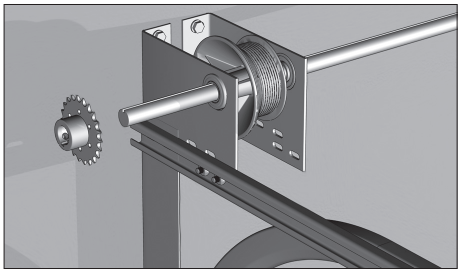
Symmetrically install the second support bracket on the internal side, by attaching it against the wall of opening and marking the points for its attachment to the wall. The distance between the brackets should be sufficient to place the cable drum.



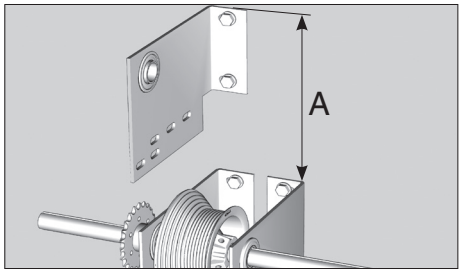
Drill these holes in the wall with ∅12 mm drill, insert wall plugs and fix the bracket with self-tapping screws. Attach the support bracket on the other side of opening in the same way.



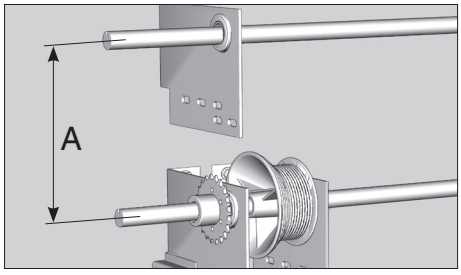
Insert the shaft with spring in the bearings of brackets and place the cable drums. Attach the left and right support brackets to the wall by self-tapping screws and washers and to angle supports with C-profiles by bolts and nuts.



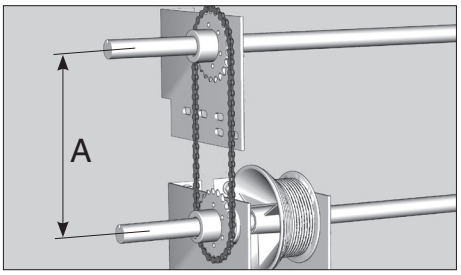
Install the sprocket on the shaft, after inserting the connector into the keyhole slot. Lock the sprocket on the shaft with lock bolts M8×25 mm. Fix the sprocket on the shaft from the other side of opening in the same way.



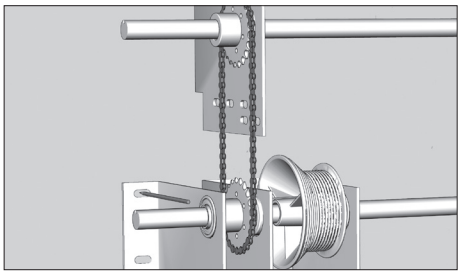
Attach the support bracket for the second shaft against the wall so that it is located vertically in a line with the bottom bracket, fixed on the wall and angle support. Depending on the height of lintel, the center distance between shafts (A) may vary from 240 m to 393 mm. Based on these dimensions, set the upper support bracket. The dimension is specified in the mounting card. Attach the support bracket for the second shaft on the other side of opening in the same way.



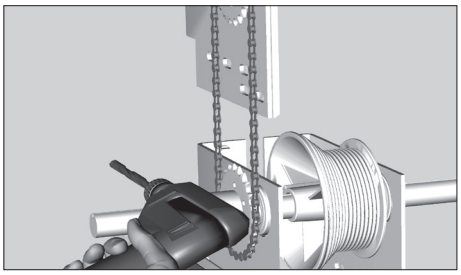
Insert the second shaft with spring into the bearings of upper support brackets.

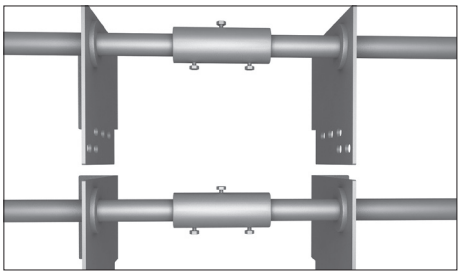


Install the sprocket on the second shaft so that it is aligned with the lower sprocket. Put a chain on them first. If the center distance between the shafts (A) is less than 393 mm, then shorten the chain according to table 1. Fix the upper sprocket on the shaft with lock bolts. Install the sprocket and chain on the other side of opening in the same way.



Install additional support bracket on the lower shaft byattaching it against the wall of opening, mark and drill the mounting holes.





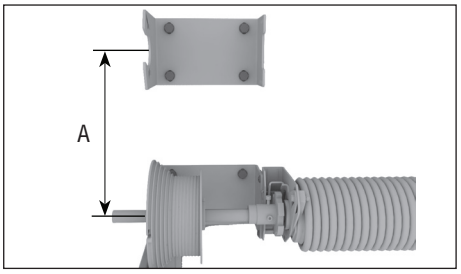
When using connection couplings, support brackets are installed on both sides of the coupling.

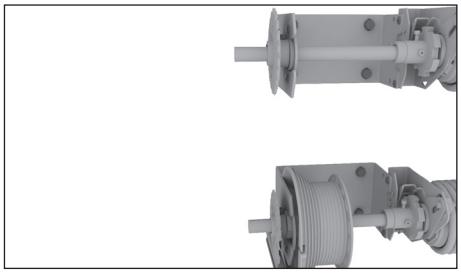
Table 1

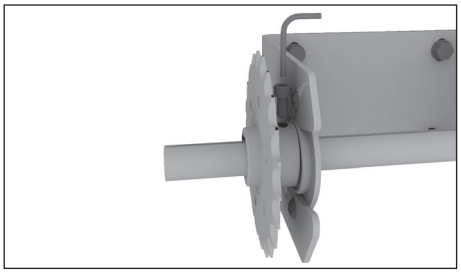
n, pcs.	108	106	104	102	100	98	96	94	92	90	88	86	84
A, mm	392,5	380	367,5	355	342	329,5	317	304	291,5	278,5	266	253,5	240,5

n—number of chain links, including the connection one (the original quantity - 108, minimum - 84)
A— center distance.

TWO-SHAFT SYSTEM ON U-SHAPED END SUPPORT BRACKETS

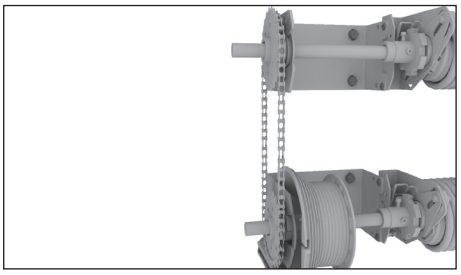






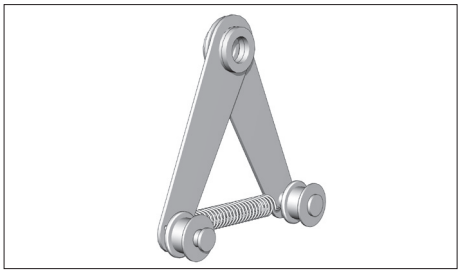
Install the sprockets on the upper and lower shaft so that they are located in the same line. Put a chain on them first. If the center distance between the shafts (A) is less than 393 mm, then shorten the chain according to table 1. Install the sprocket and chain on the other side of opening in the same way.

Fix the sprockets with lock bolts.

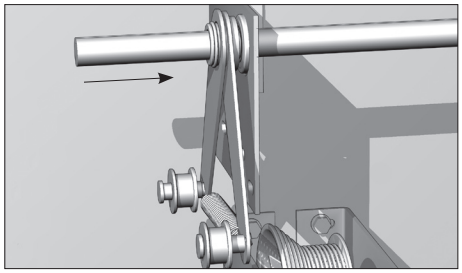


Set the connection chain on the sprockets. Depending on the center distance between the shafts, shorten the chain according to the table given in the mounting card.

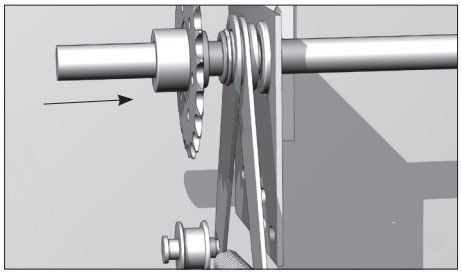
INSTALLATION OF CHAIN ADJUSTER



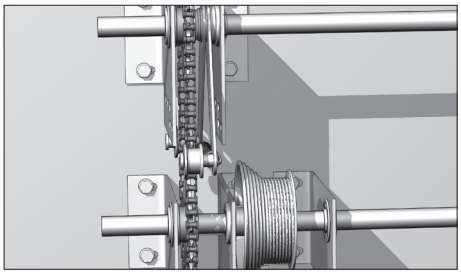
Chain adjuster serves to tension the chain when it is stretched and to damp vibrations arising from its operation.



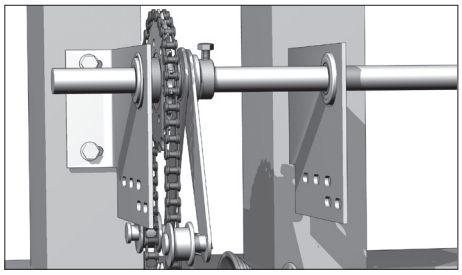
Install the adjuster on the upper shaft close to the end support bracket before installation of the sprocket and chain.



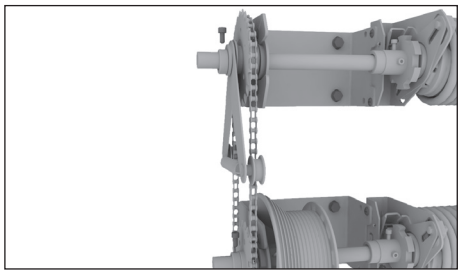
Install the sprocket with chain against the chain adjuster.



Place the chain wheel from the outside of the circuit.



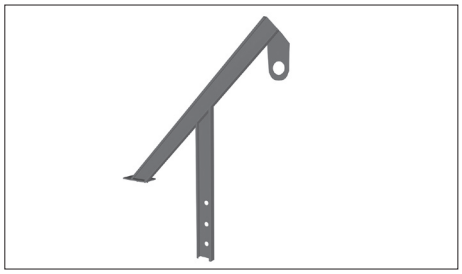
It's possible to install the lock ring, if the support bracket is away from the sprocket.



Set the chain adjuster on the upper shaft. Clamp the chain adjuster with lock ring.

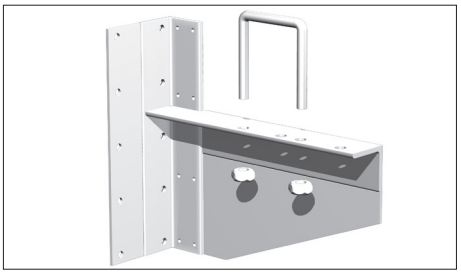
It is recommended to use mounting hoist and hand hoist with lift capacity of about 500 kg to facilitate the installation of torsion mechanism for industrial sectional doors.

Hand hoist

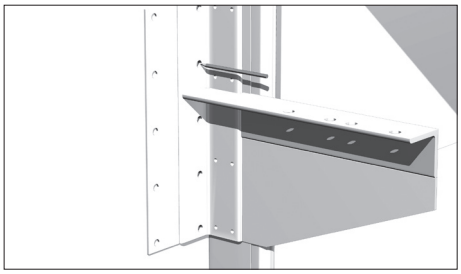


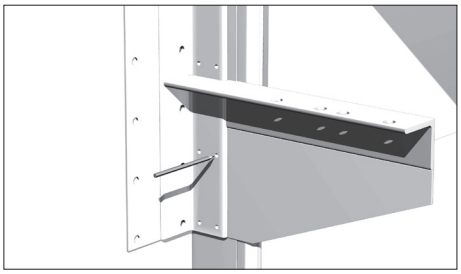
Mounting hoist

INSTALLATION OF TORSION MECHANISM WITH EXTERNAL CYLINDRICAL SHAFT

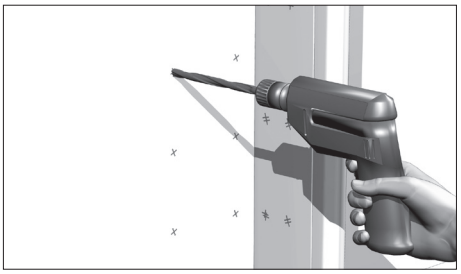


Disassemble the bracket of external shaft with clamp.

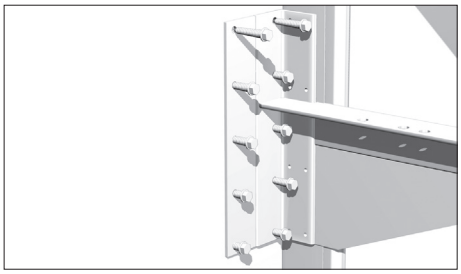




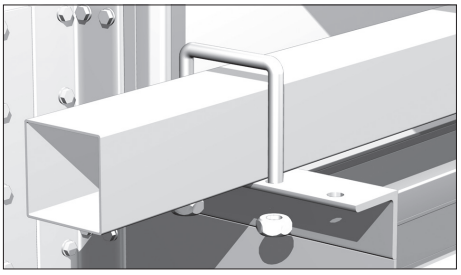
Attach the remote bracket for lower shaft to the wall of opening against the angle support (from outer side) according to the mounting card. Mark the points by perforation in the bracket to secure it to the wall and angle support.



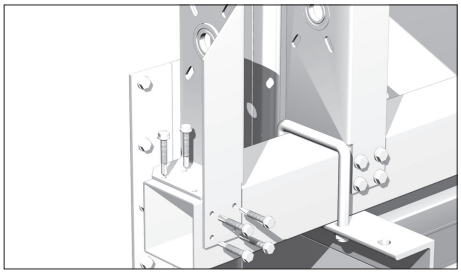
Drill ten holes in the wall of openining according to the marking with 12 mm drill and eight holes with 7 mm drill in the angle support.



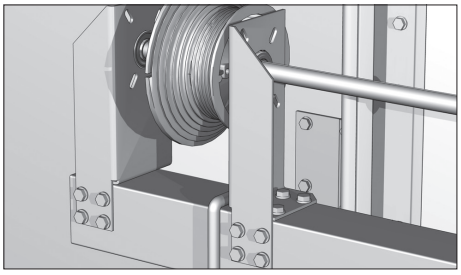
Secure the bracket to the wall with wall plugs ans self-tapping screws, and bolted joints to the angle support. Install the second bracket on the other side of opening in the same way.



Secure the tube to the brackets by clamps and nuts according to the mounting card.

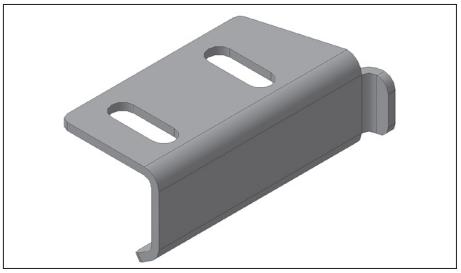


Install the internal outboard brackets to mount the cable drums on the tube according to the dimensions, specified in the mounting card, and secure them with self-tapping screws for metal.

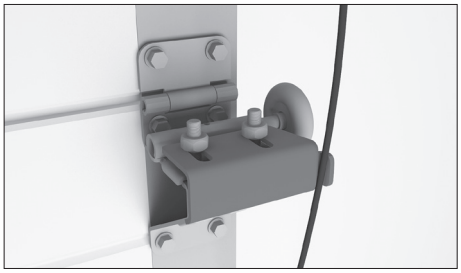


Insert the shaft with spring in the bearings of brackets and set the cable drums.

INSTALLATION OF CABLE SUPPORT

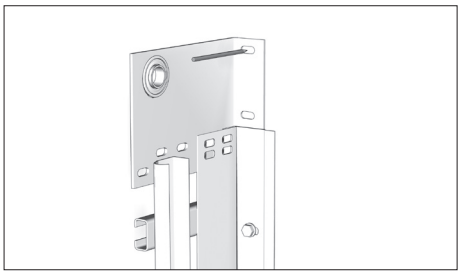


If installing sectional door with high / vertical lift with the cable drum at the bottom, cable supports should be installed on the side supports of the bottom panel to avoid wearing of cable by side hinge.

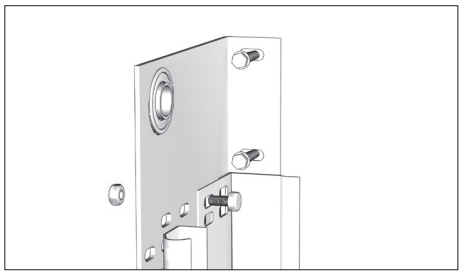


Secure the cable support to the side bracket with two bolts with cup head and two corresponding nuts. It's necessary to bring the cable to a special eye on the cable support.

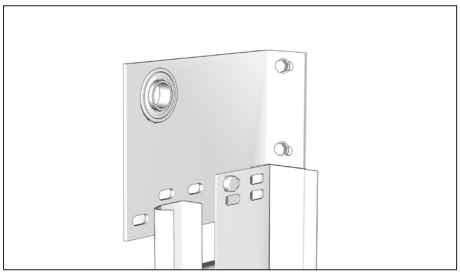
INSTALLATION OF END SUPPORT BRACKETS FOR VERTICAL LIFT



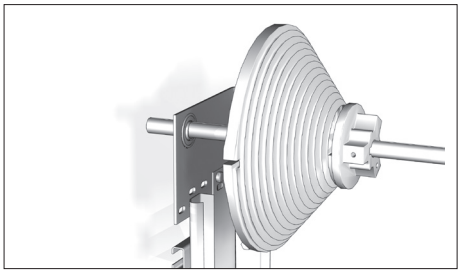
Install the end support bracket along the holes on the angle support and
mark the mounting holes in the wall of opening by its perforations.



Drill these holes in the wall by ∅12 mm drill. Nail the wall plugs into the wall. Secure the end support bracket and angle support by screws M8×25 with nuts.

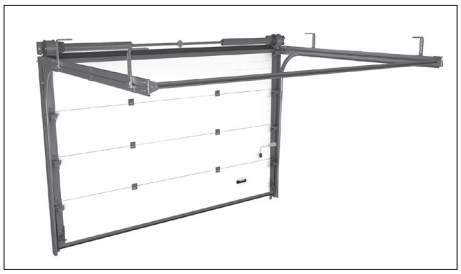


Attach the end support bracket to the wall with wall plugs and self-tapping screws.

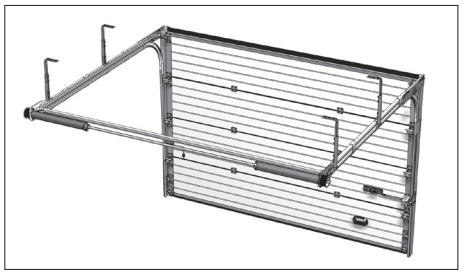


Insert the shaft assembly with spring and cable drums into support brackets.

INSTALLATION NOTES FOR LOW LIFT

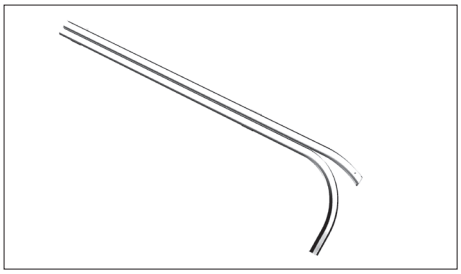


Low lift with the cable drum in front.

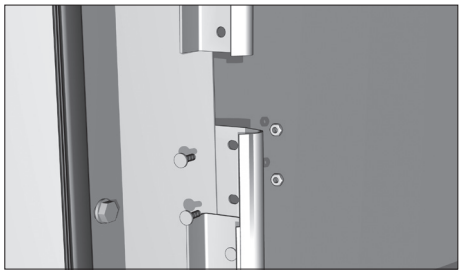


Low lift with the cable drum at rear.

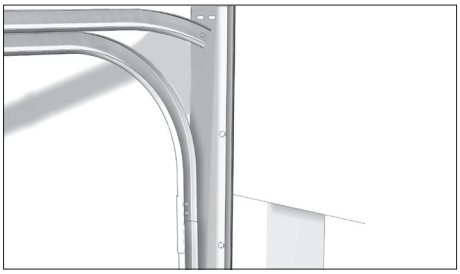
INSTALLATION OF HORIZONTAL GUIDES



Horizontal guides are delivered assembled. There are perforated holes to mount them on vertical guides.

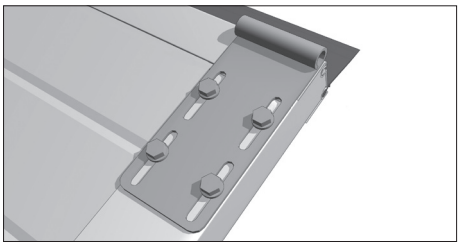


Fasten the horizontal and vertical guides by means of two bolts to mount the guides and nuts and connection plate, located at the guides joint.

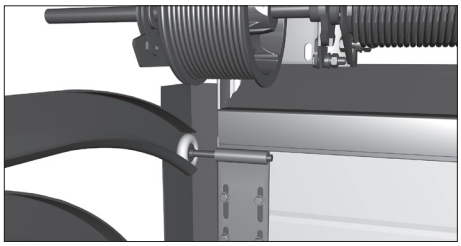


It is necessary to level the guides before tightening the bolts with building level.

INSTALLATION OF UPPER ROLLER CARRIER

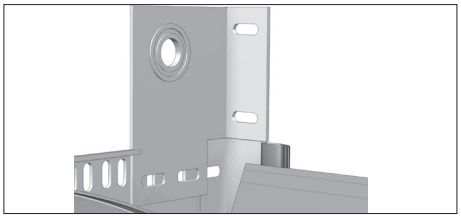


When assembling the upper panel, set the upper roller carrier. Align the edges of the angle bracket along the panel, drill 4 holes of 4.2 mm and secure it with panel self-tapping screws.

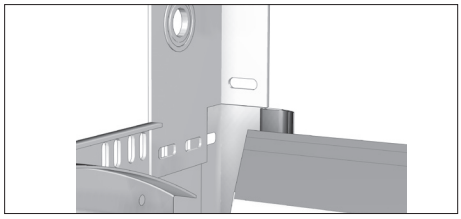


Install the roller carrier in the upper horizontal guide. Loosen self-tapping screws, adjust the upper roller carrier to ensure tight fit of the upper panel to the lintel. Tighten self-tapping screws.

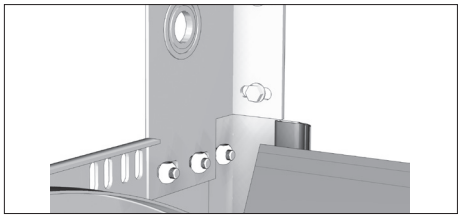
INSTALLATION OF END SUPPORT BRACKETS FOR LOW LIFT



Install the support bracket against the wall and angle support and align the holes in the support bracket, angle support and bracket at the same time to mount the pulley.

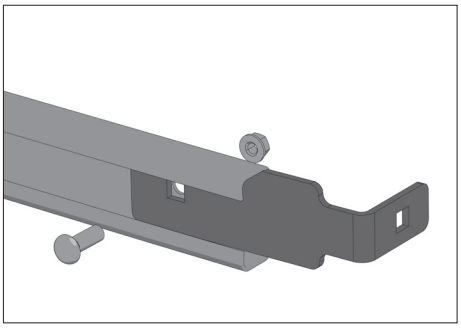


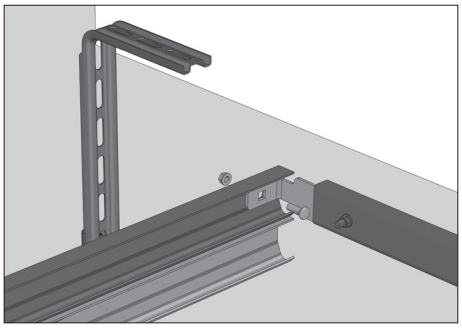
Mark and drill the holes with ∅10 mm drill to mount on the wall of opening along the perforation in the support bracket.



Secure the bracket on the wall by wall plugs and self-tapping screws with washers and by bolts and nuts to the pulley bracket and angle support.

INSTALLATION OF C-PROFILE

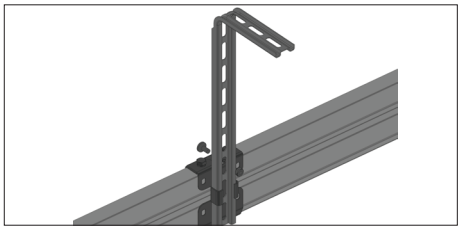




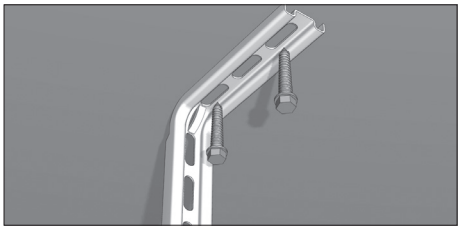
Attach C-profile at the ends of horizontal guides by bracket and bolts 1/4×3/4 with nuts.

MOUNTING HORIZONTAL GUIDES TO THE CEILING

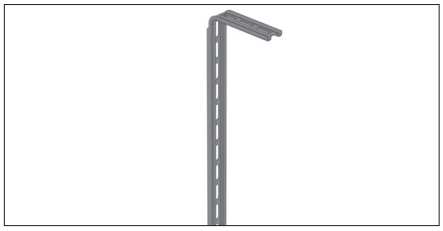
Depending on the height of lintel, the guides are mounted to the ceiling using of two types of brackets.
Mounting using horizontal guides brackets.



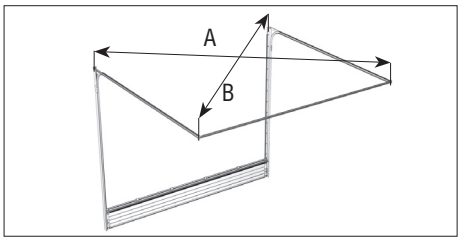
The guides are attached with four angle brackets, bolts and nuts. Attach the general purpose bracket on double guides with a bolt and nut.



Attach the angle bracket to the ceiling with self-tapping screws (2 pcs.) with wall plugs.

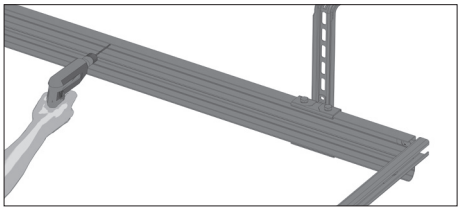


If the height of lintel is 400 mm to 650 mm, the guides are attached with four extended angle brackets, bolts and nuts.

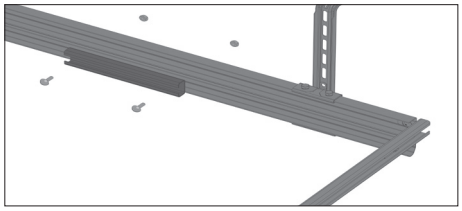


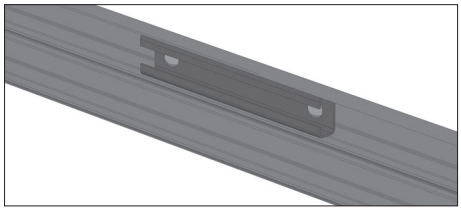
Check the levelness of guides with building level (adjust if necessary). Before the final fastening of guides to the ceiling, check the distance between opposite corners (diagonals A and B shall be equal).

INSTALLATION OF SPRING BUMPERS

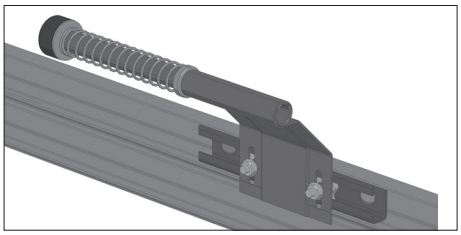


Mark and drill two holes of 8 mm in the bottom horizontal guides.



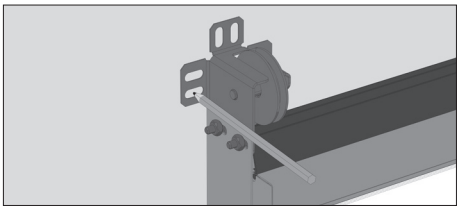


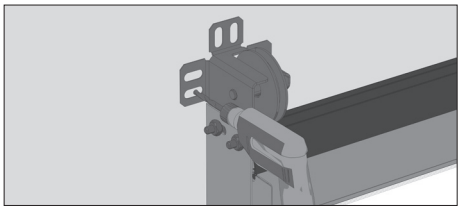
Attach C-profile with the bolts with cap head M8×25 and flange nuts.



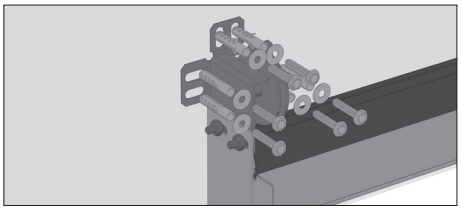
Secure the spring bumper by connection plates, bolts and nuts. Adjust the position of spring bumper and tighten the nuts.

LOW LIFT, WITH CABLE DRUM AT REAR, INSTALLATION OF PULLEY



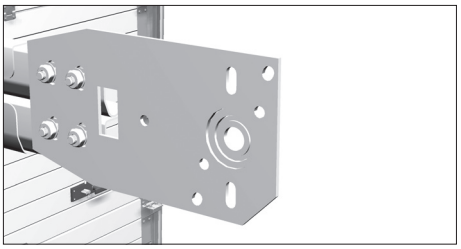


Set the pulley along the holes in the angle support, and secure it with 4 screws with cap head M8×16. Mark and drill holes of ∅8 mm in the wall of lintel.

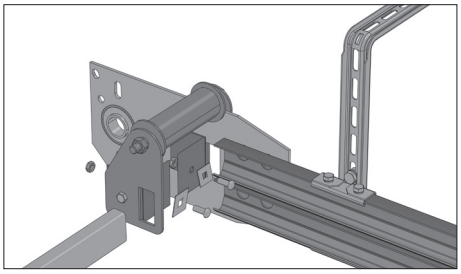


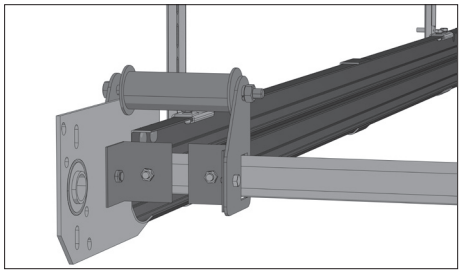
Insert the wall plugs and secure the end pulley bracket to the wall with self-tapping screws and washers.

LOW LIFT, WITH CABLE DRUM AT REAR, INSTALLATION OF TORSION MECHANISM WITH CYLINDRICAL SHAFT

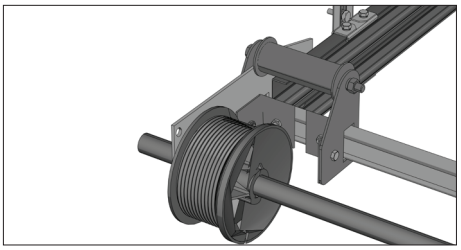


Secure the end support bracket to the double horizontal guides with bolts and nuts.

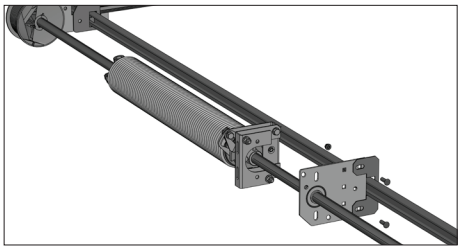


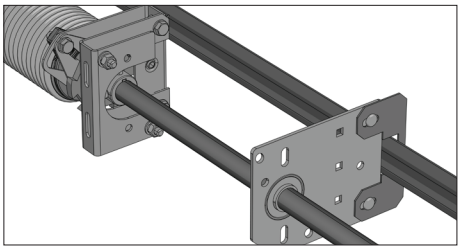


Set and fix the roller, guiding the cable, for the cable drum at rear with mounting angle element to mount a horizontal bar on the end support bracket with bolt and nut. Set and fix C-profile with mounting angle elements, connection plate plates with cap head bolts M8×25 and corresponding nuts.

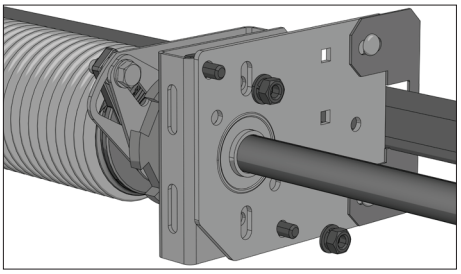


Insert the shaft into the bearings of end support brackets with the cable drums, spring and bracket to mount the cable drum at rear mounted at first.

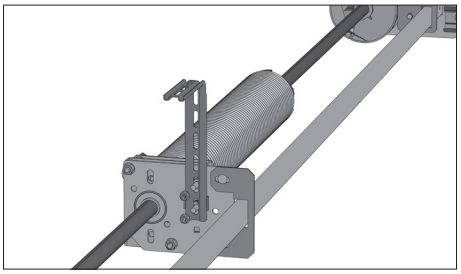




Attach the bracket to mount the cable drum at rear to C-profile by bracket to mount C-profile, mounting angle elements to set the horizontal bar, connection plate and bolt with nut.



Attach the spring to the bracket to mount the cable drum at rear with two bolts with nuts.



Mount the assembly to the ceiling using brackets (type of bracket depends on the height of lintel).

REMOVAL

Unplug the electric motor drive. Remove the electric motor drive according to Instructions. Close the door and release the spring. Then removal is carried out according to these Instructions in reverse order.

REDESIGN

It is prohibited to install any additional equipment or accessories, as well as replace or adjust any parts without instructions from the manufacturer.

It is recommended to use original spare parts and accessories only during installation and further operation of sectional doors.

The manufacturer is not responsible for any injury or damage caused to persons, animals or things in case of unauthorized redesign.

MAINTENANCE AND SERVICE

Sectional doors do not require any complex or specialized maintenance.

The panels of door leaf have resistant protective and decorative coating . It is recommended to wipe them from time to time with a damp cloth using neutral household detergent to maintain beautiful and neat appearance.

If there is a scratch in the hinges or axes of the rollers, it is necessary to apply some lubricant to the lubrication holes in the central part of the hinge curl or in the central part of the roller holder curl.

If there is a need for greater efforts to open and close the door, adjust the rollers. If there is a gap between the roller and the guide profile, loosen the bolts on the roller holder, slide the roller holder along the grooves until firm adherence of the roller against the guide and tighten loose screws on the roller holders.

In case of any scratch and knock on the torsion mechanism, clean them from dust and dirt with a dry cloth and apply any lubricant for metal surfaces in a stripe with width of about 3 cm along the spring. During the door operation, the lubricant will be evenly distributed along the spring winding.

Manual opening and closing of the door is carried out by handle.

When using the automatic drive, one should follow the Instructions supplied with the drive.

Keep the guides clean and tidy. Do not apply any lubricants for them!

It is necessary to check the spring mechanisms by a specialist after operating the door for about 20 000 times.

The check is performed depending on intensity of door operation:

up to 5 times a day - each 9 years;
up to 10 times a day - every 4.5 years;
up to 20 times a day - every 2.5 years;
up to 50 times a day - each year.

Any installation of doors, their adjustment or service should be carried out by a competent personnel.

DoorHan®

DoorHan thank you for purchasing our products.
We are sure you will be satisfied with the quality of our products.

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