

USER MANUAL GARAGE DOOR RF350



1. Guarantee conditions

The manual has been prepared to be used by qualified workers and cannot be used by people who are not entitled. Should any questions or doubts occur, you are requested to contact company.

The manual presents correct way of montage of garage door hardware only. In order to assembly a garage door with sandwich panel and other devices, the producer should follow manuals of the sandwich panel and other devices. The sandwich panel and other devices should be produced according to European Union rules.

2. Assembly conditions

Unprofessional assembly, any variations of the assembly that are not in accordance with this manual, will be made on the garage door Producer's responsibility.

This also applies to any damages caused by improper use and not following the rules of this manual as well as improper service.

The system presented in this manual should be used in residential buildings only and can be assembled and run by qualified workers only.

3. Make sure that during working with electric devices the power is off.
4. Security devices should never be switched off!
5. Be careful in case of keen edges, use gloves.
6. If visible damages of sectional door occur, stop further using of the door.
7. While assembly/maintenance of the door it is recommended to always use gloves and protection shoes, and during drilling use the protection glasses.
8. Mark out the place of working with a tape so that the children and other people keep a distance.
9. It is recommended that maintenance to be carried out by a professional (company or person).
10. Provide proper lightning.
11. Use the suitable tools, especially for springs torsion.

3. Range of use

Garage door hardware has been designed for use in residential buildings only.

- Max. garage door width: 5000 mm
- Max. garage door height: 3000 mm
- Max. garage door weight: 160 kg

4. Material used to assembly garage door in the building

Fastening materials for assembly of garage door in the building aren't included in door elements set. Assembling person is obligated to use the suitable connecting materials, that connect the door

construction with lintel.

5. Assembly set

1. Track set (vertical and horizontal)
2. Spring breakdevice
3. Assembling elements of panel, according to used option (hinges, brackets etc.)
4. Steel cables
5. Tubularshaft
6. Springs with fittings
7. Perforated angle or underslung brackets system
8. Box with screws, bolts and other fastening elements.

6. Assembly tools

Tools necessary for proper and quick installation:

1. driller with drill of 8.0mm
2. flatwrench 10 mm,
3. flatwrench 13 mm,
4. pass-key,
5. clamp,
6. suspension line,
7. level,
8. assemblydrawings.

7. Control and service just after assembly

When assembly is finished worker should control if all elements are connected in accordance with the manual:

- lubrication of bearing brackets and rollers,
- lubrication of hinges,
- lubrication of steelcable,
- placement of Identification Card and required warning labels.

8. Passing the finished product to customer

Producer of door passes it to a user and shows him the way of working of the product, teaches him how to use the door and provide the following documents:

- manual of use and service,
- instructions what to do in case of incorrect working of door.

9. Garage door maintenance and overview

Door overview shall be signed in Door Service Book. After 3 months since door assembly, assembling

person (service person) makes:

- visual control of all elements,
- control of proper door operating and tighten the fasteners if needed.

After 6 months or after 700 cycles the user shall:

- remove impurities from door that have influence on correct working of door,
- lubricate the bearings and rollers,
- lubricate the hinges.

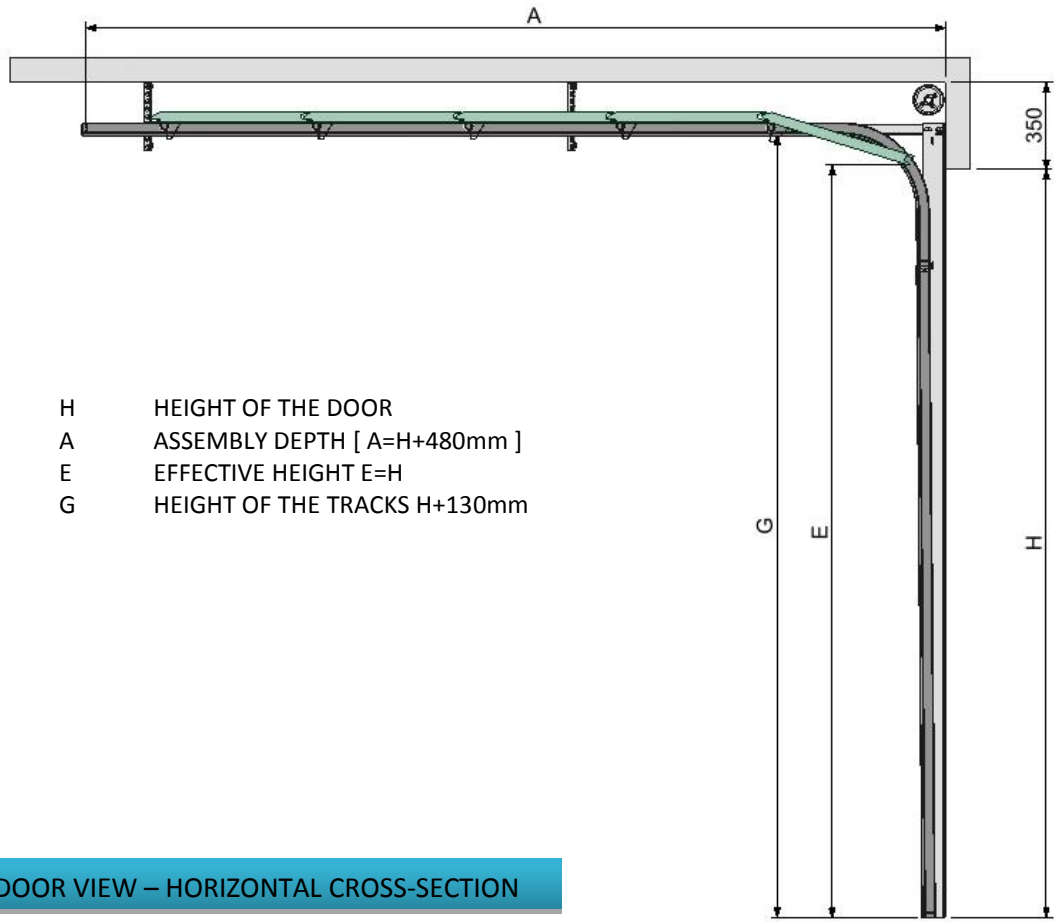
After 12 months since assembly repairer (assembling person) shall control and maintenance of proper door operating:

- roller (damages, materialconsumption, lubrication),
- control of steel cables consumption, especially connections with cable drums and bottom brackets and working places of cable pulleys if applied,
- control of cable pulleys consumption, if applied,
- spring breakdevicecontrol,
- control of vertical track connection with ceiling,
- control of shaft brackets and spring breaking devices,
- control of seals consumption, and damages
- control of shaft coupler, if applied.

10. Garagedoor operator

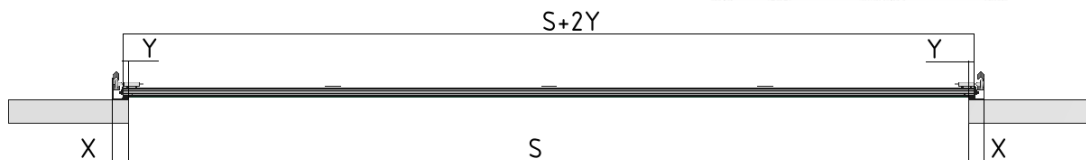
All electric devices (including operators) that are a part of garage door shall fulfill requirements of European Union standards. Assembly of operator shall be made in accordance with producer manual. In case of lack of power supply or if there is no separate entrance into the garage, door shall be equipped with drive releaser.

DOOR VIEW – VERTICAL CROSS-SECTION

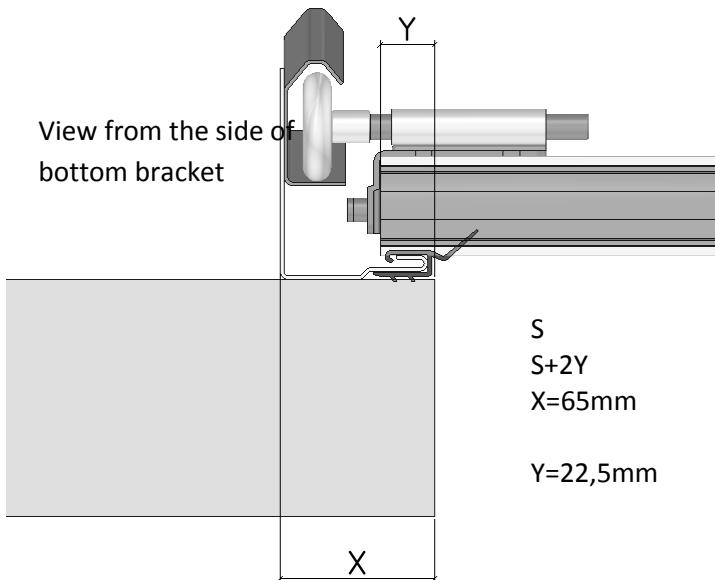


- H HEIGHT OF THE DOOR
- A ASSEMBLY DEPTH [$A=H+480\text{mm}$]
- E EFFECTIVE HEIGHT $E=H$
- G HEIGHT OF THE TRACKS $H+130\text{mm}$

DOOR VIEW – HORIZONTAL CROSS-SECTION

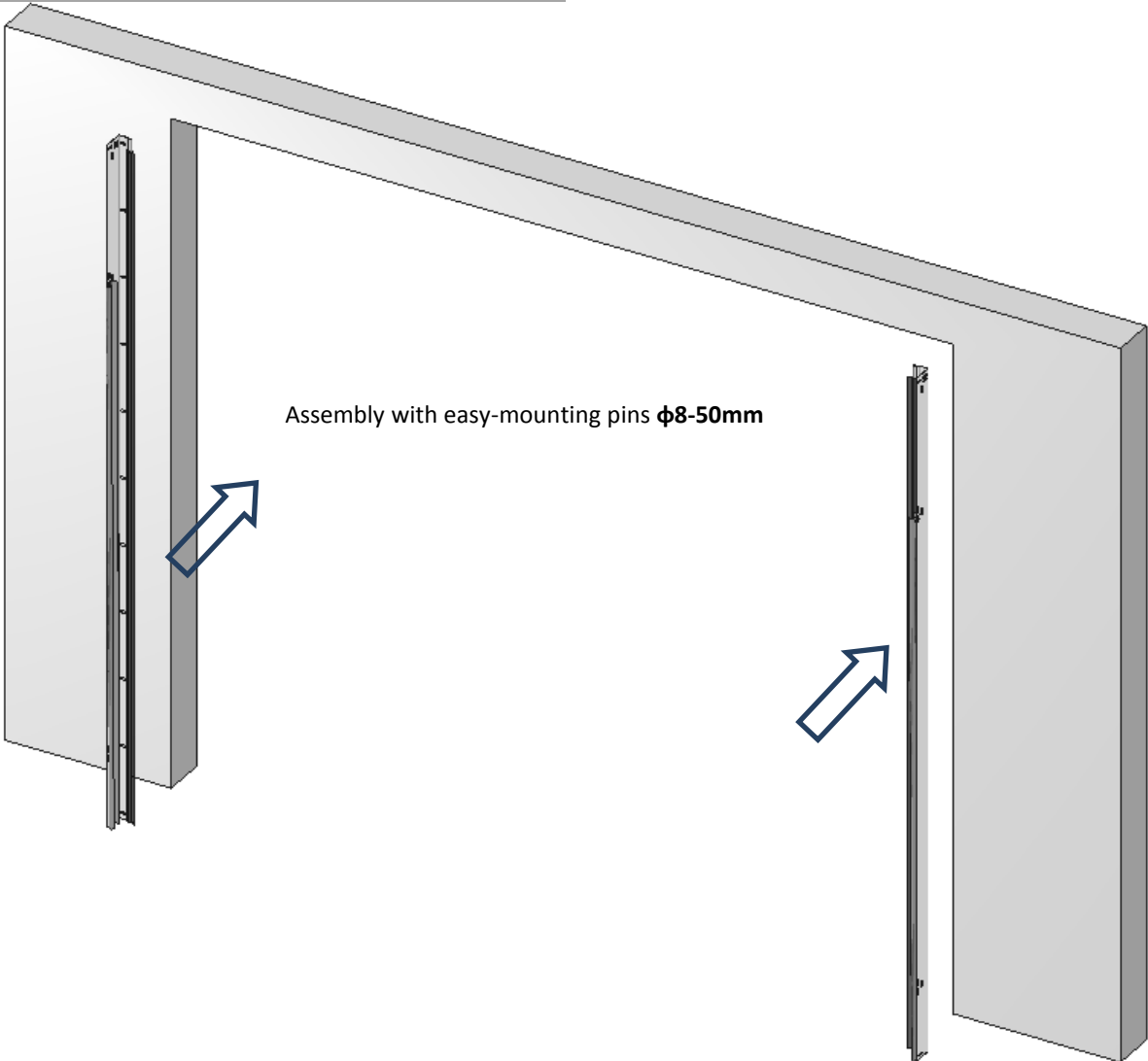


View from the side of bottom bracket

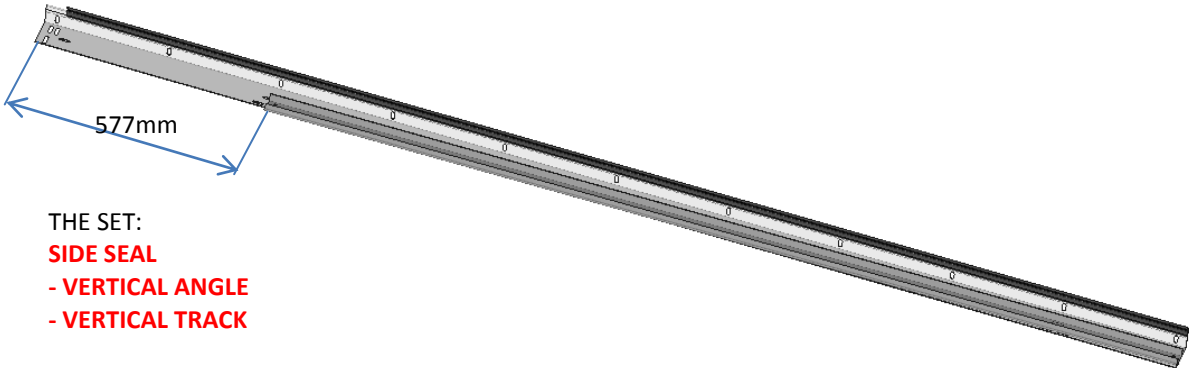


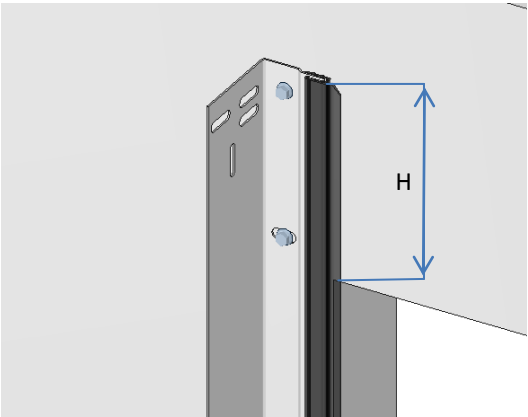
- S WIDTH OF THE DOOR
- $S+2Y$ WIDTH OF THE PANEL SECTIONS
- $X=65\text{mm}$ ADJUSTMENT OF THE ANGLE FROM THE WALL EDGE
- $Y=22,5\text{mm}$ DOOR PANEL ADJUSTMENT

ASSEMBLY OF VERTICAL TRACKS SET

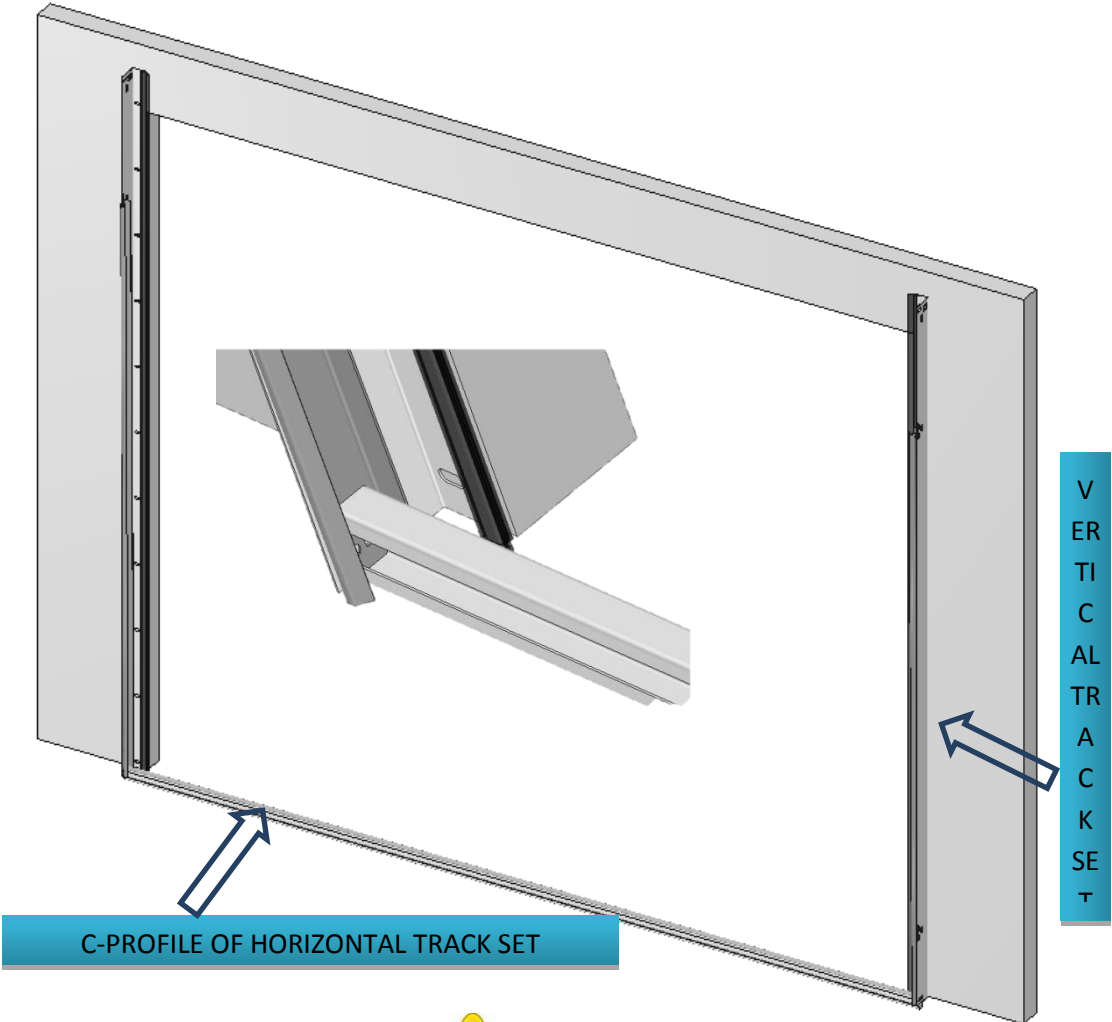


VIEW OF VERTICAL TRACK SET

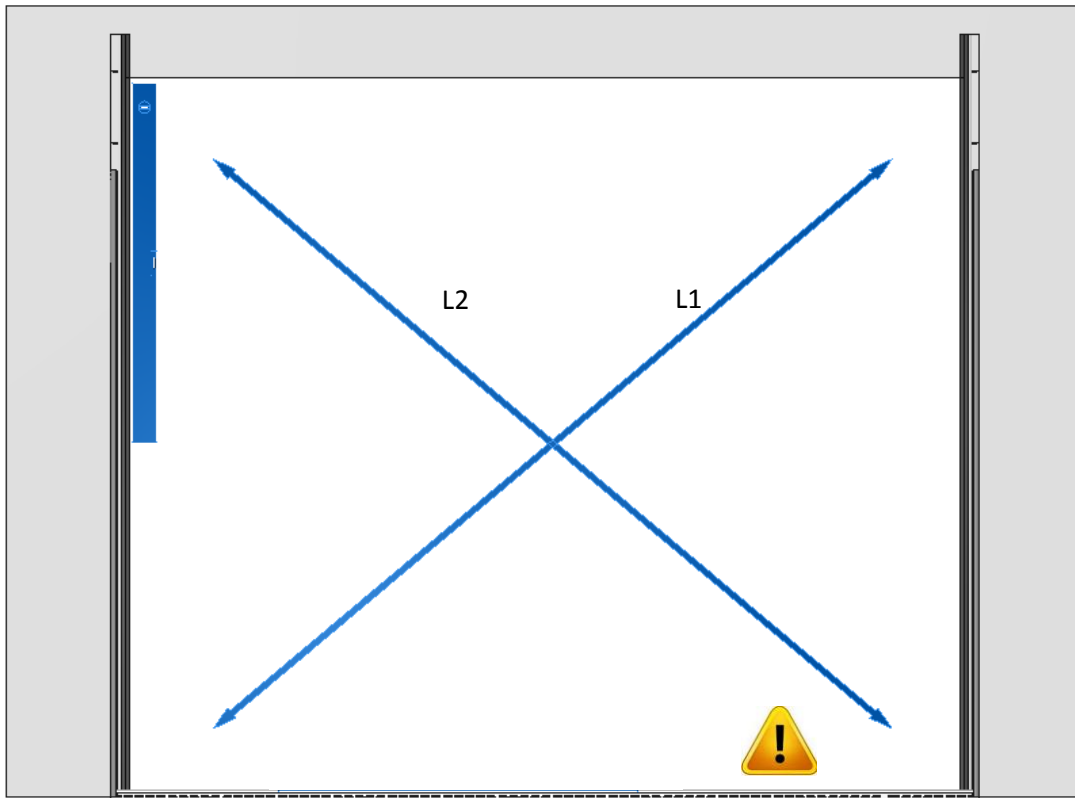




ADJUST THE EDGE OF THE SIDE ANGLE
OVER THE HEADROOM

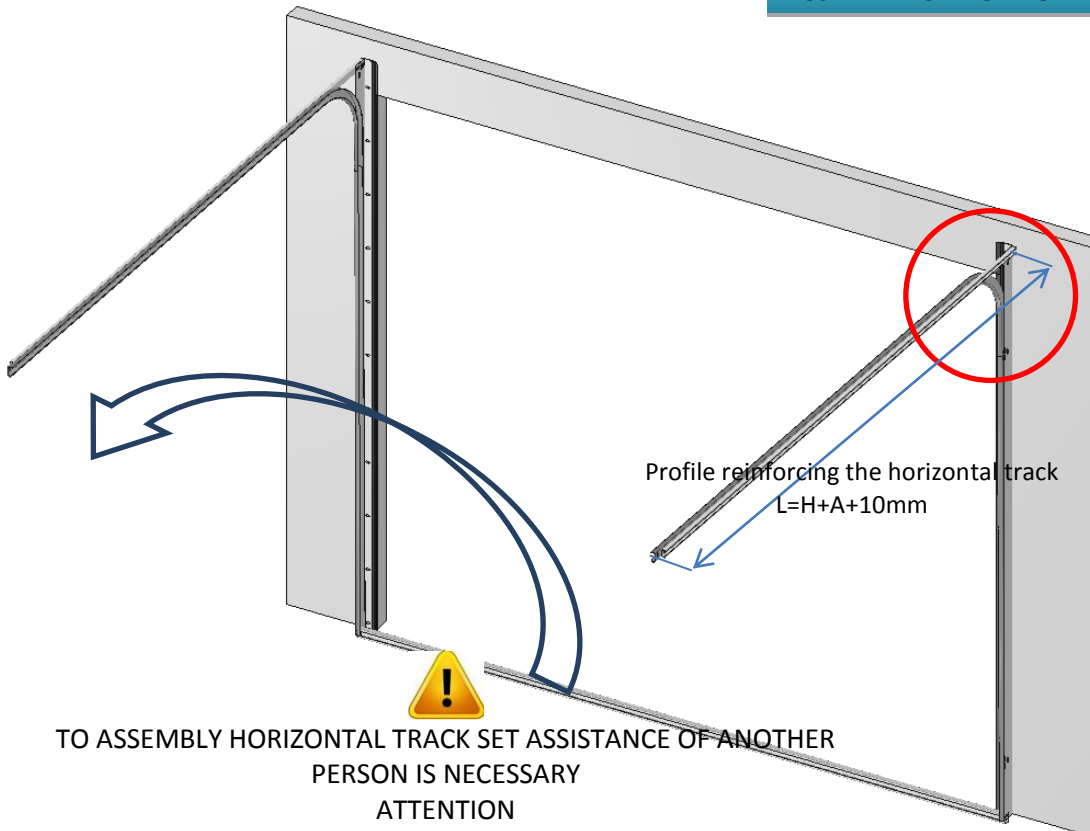


IN ORDER TO ADJUST THE VERTICAL TRACK SET PROPERLY USE THE DISTANCE OF C-PROFILE
ATTENTION
LENGTH OF THE PROFILE $C=S+124\text{mm}$



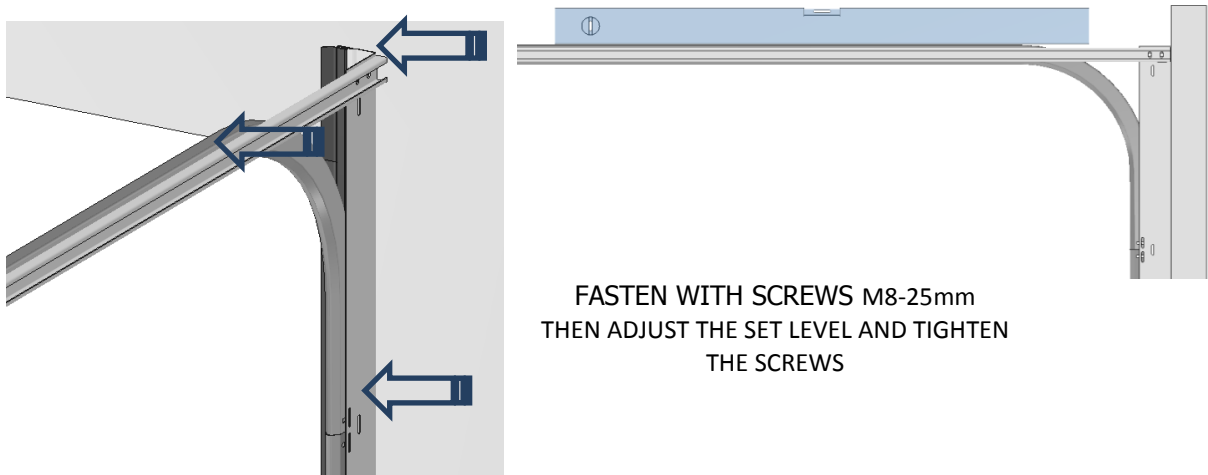
BEFORE TIGHTENING CHECK ALL VERTICAL AND HORIZONTAL ADJUSTMENTS AND LENGTHS OF DIAGONALS $L1=L2$

ASSEMBLY OF HORIZONTAL TRACKS



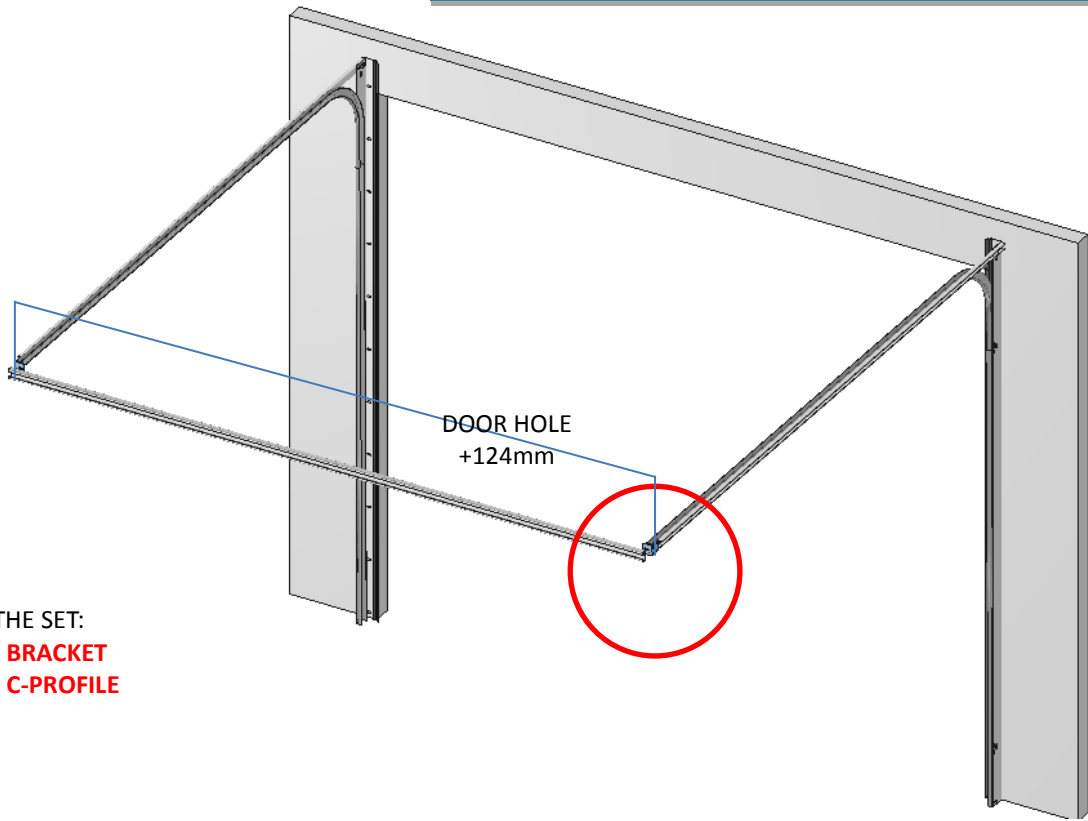
TO ASSEMBLY HORIZONTAL TRACK SET ASSISTANCE OF ANOTHER PERSON IS NECESSARY
ATTENTION

MOVE THE C-PROFILE TO THE END OF HORIZONTAL TRACK SET

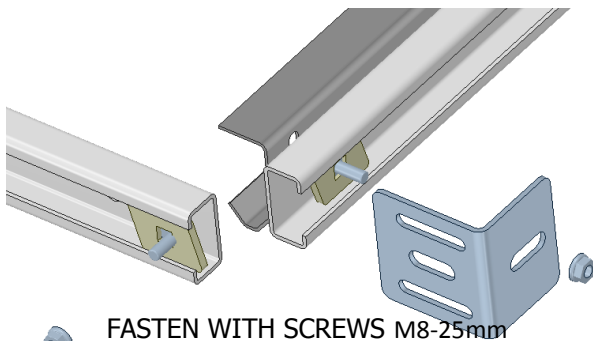


FASTEN WITH SCREWS M8-25mm
THEN ADJUST THE SET LEVEL AND TIGHTEN
THE SCREWS

ASSEMBLY OF C-PROFILE AT THE END OF HORIZONTAL TRACKS

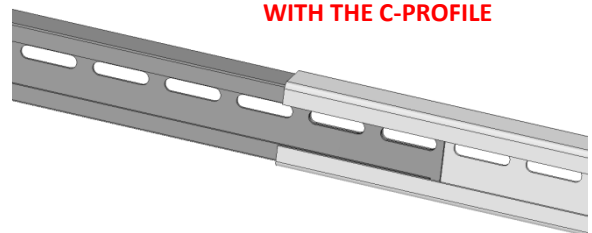


THE SET:
- BRACKET
- C-PROFILE

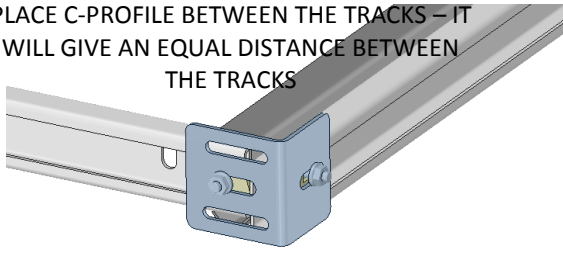


FASTEN WITH SCREWS M8-25mm
THEN ADJUST THE SET LEVEL AND TIGHTEN
THE SCREWS

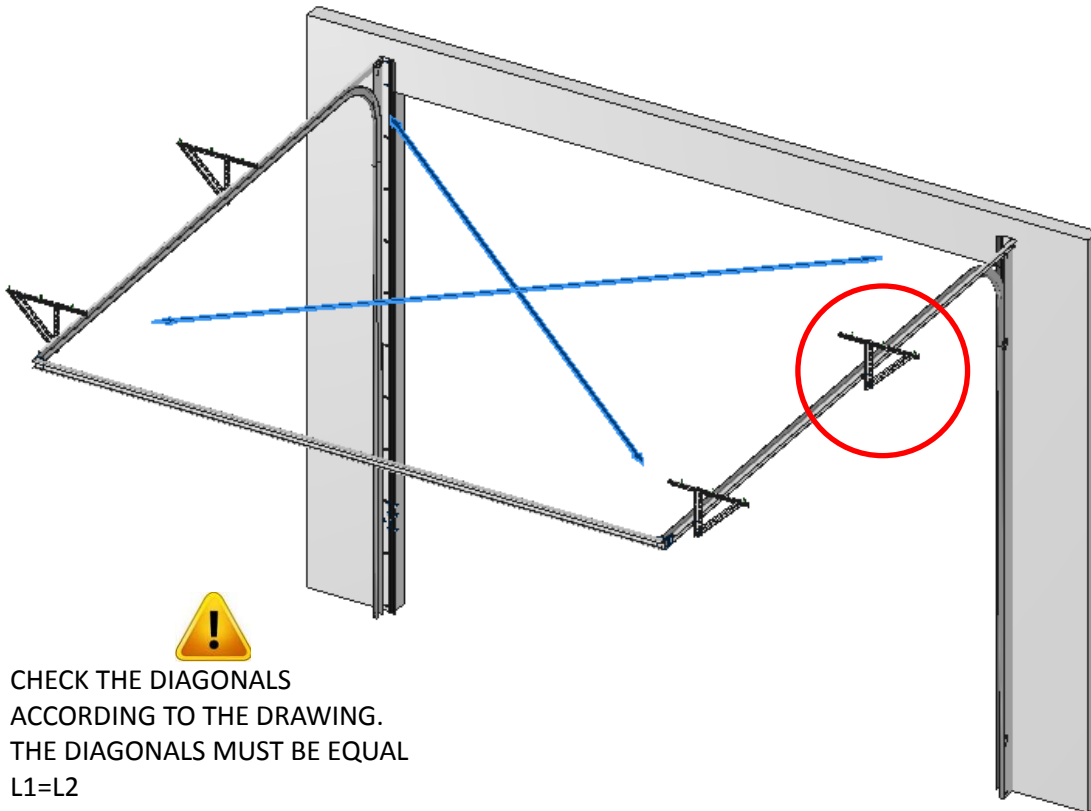
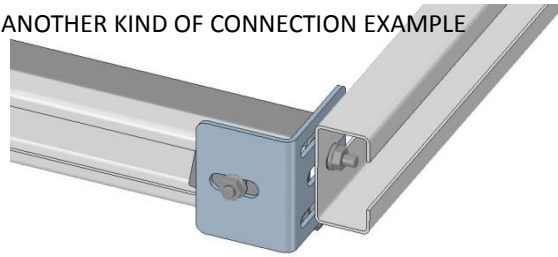
**OPTION: POSSIBILITY OF USING JOINING
WITH THE C-PROFILE**



PLACE C-PROFILE BETWEEN THE TRACKS – IT WILL GIVE AN EQUAL DISTANCE BETWEEN THE TRACKS

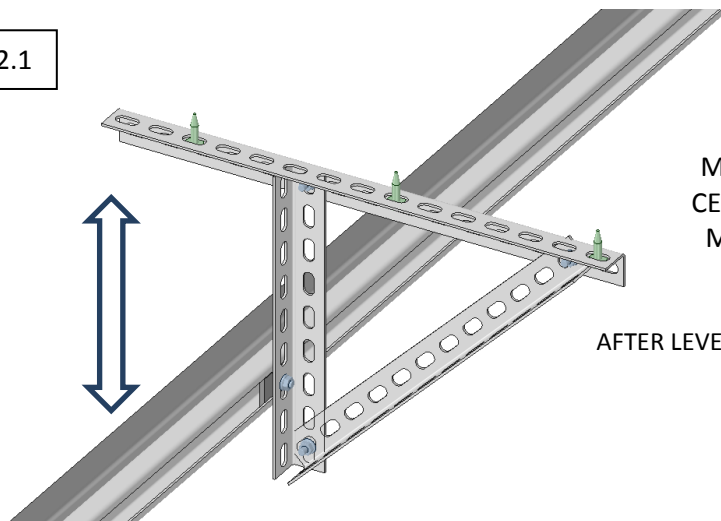


ANOTHER KIND OF CONNECTION EXAMPLE



CHECK THE DIAGONALS ACCORDING TO THE DRAWING. THE DIAGONALS MUST BE EQUAL $L1=L2$

2.1



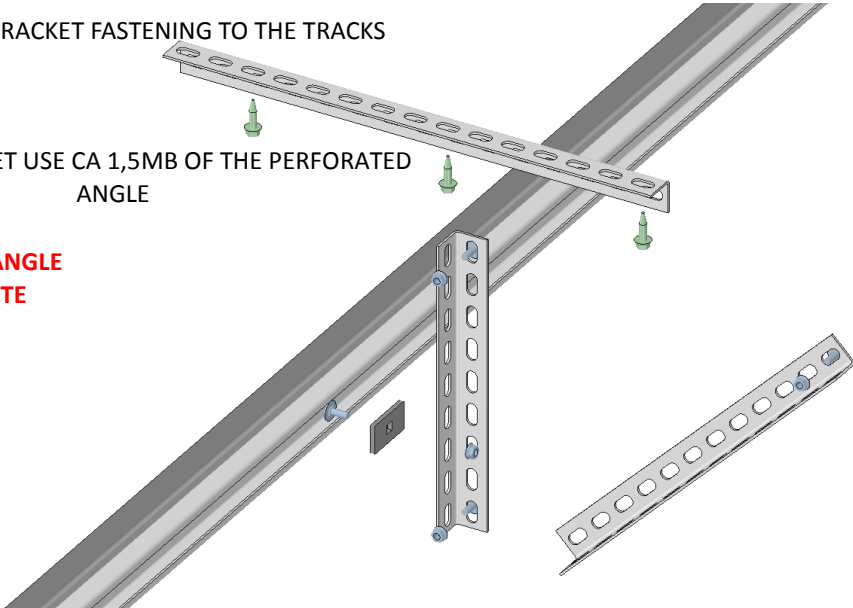
MAKE THE HOLES $\phi 8$ IN THE CEILING IN ORDER TO FIX THE MONTAGE PROFILE TO THE TRACKS

AFTER LEVEL ADJUSTMENT SCREW IT WITH THE BOLTS

SIMULATION OF BRACKET FASTENING TO THE TRACKS

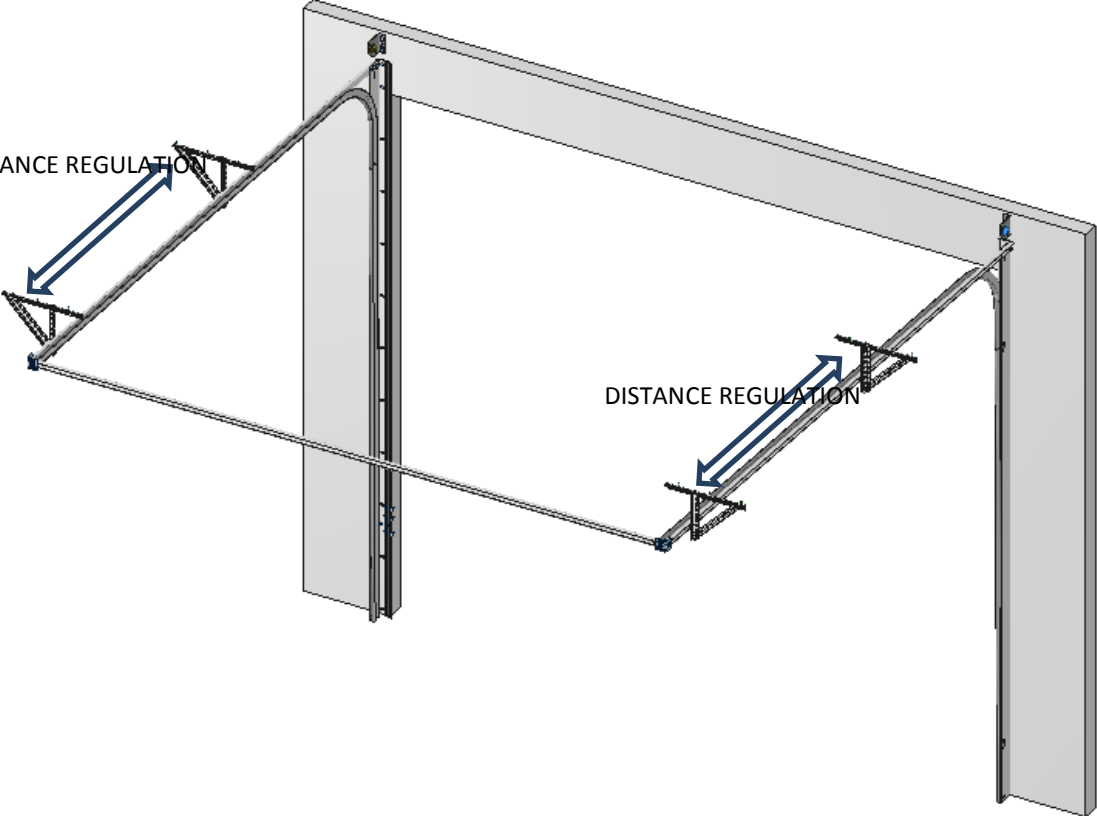
FOR ONE BRACKET USE CA 1,5MB OF THE PERFORATED ANGLE

- THE SET:
- PERFORATED ANGLE
- ASSEMBLY PLATE

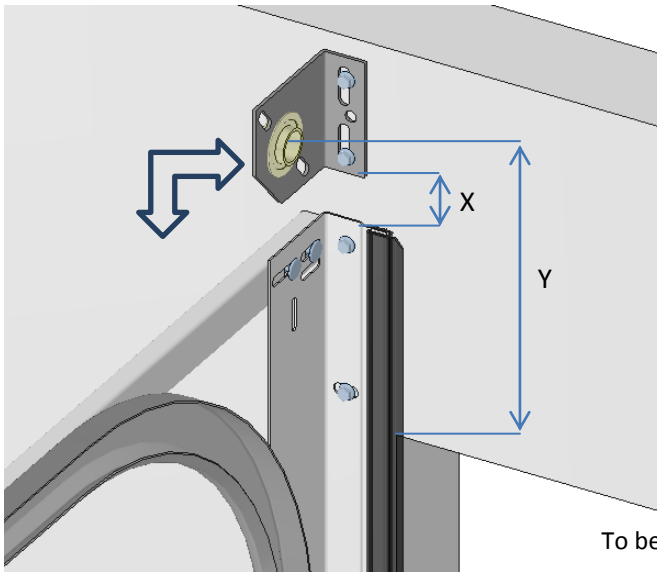


DISTANCE REGULATION

DISTANCE REGULATION



SHAFT BRACKET ASSEMBLY



THE SET:

- SIDE SHAFT BRACKET

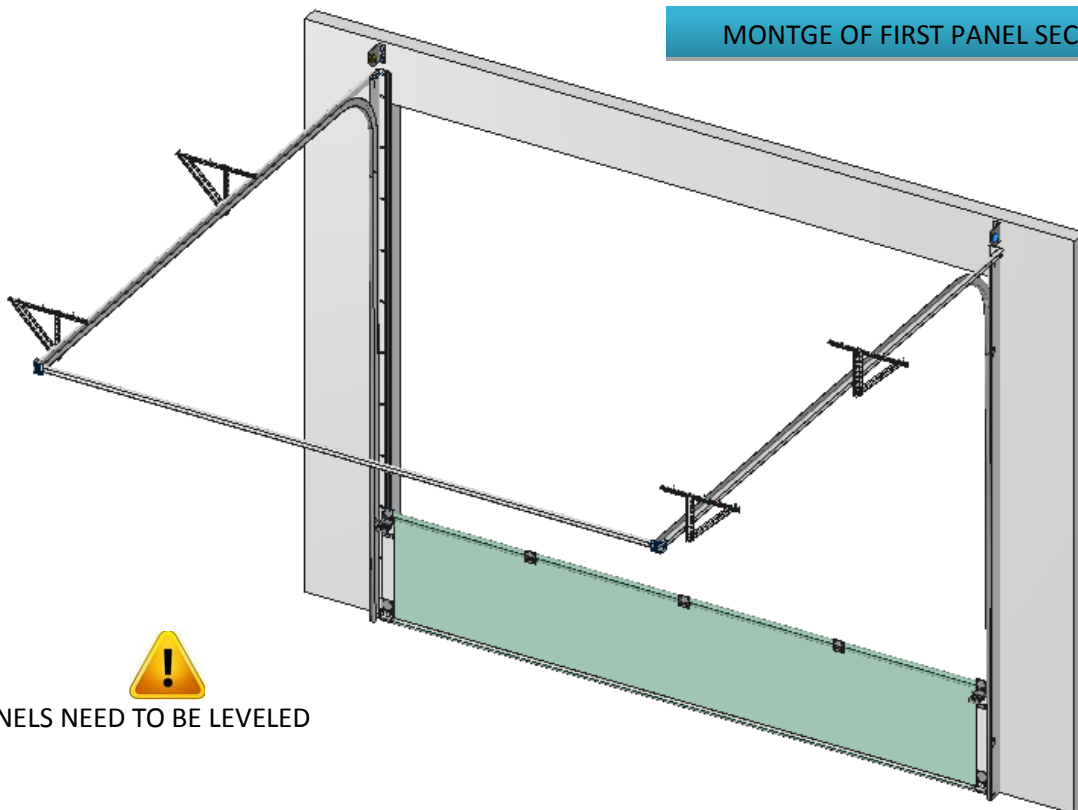
THE GIVEN VALUES APPLY TO MAX
ADJUSTMENT OF THE SHAFT AXIS
Xmin = 0 mm



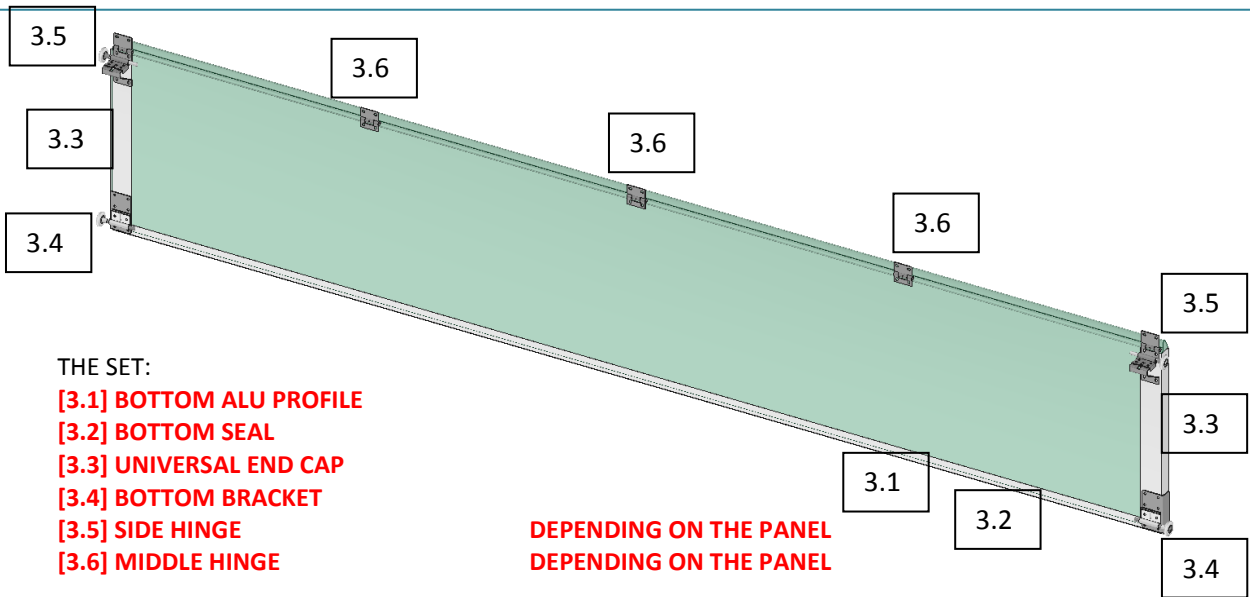
Xmax = 42mm [+/-2mm]
Ymax = 280mm

To be settled directly on the vertical angle.

MONTGE OF FIRST PANEL SECTION



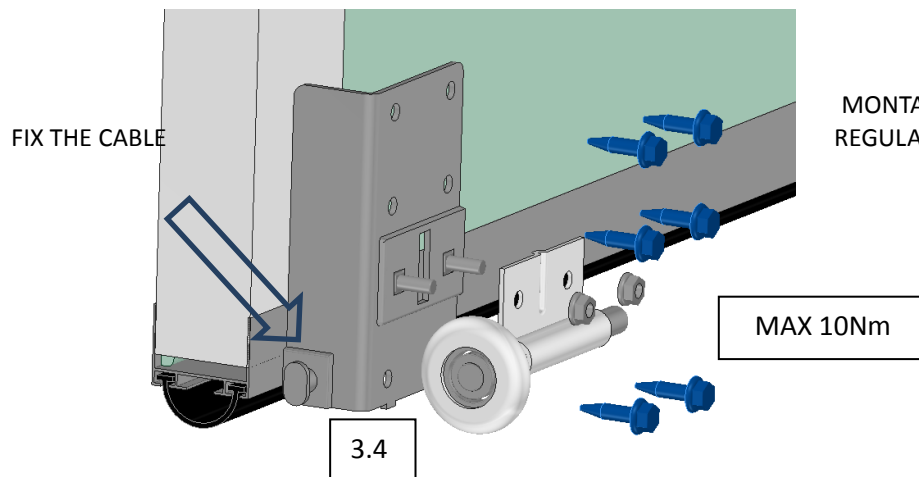
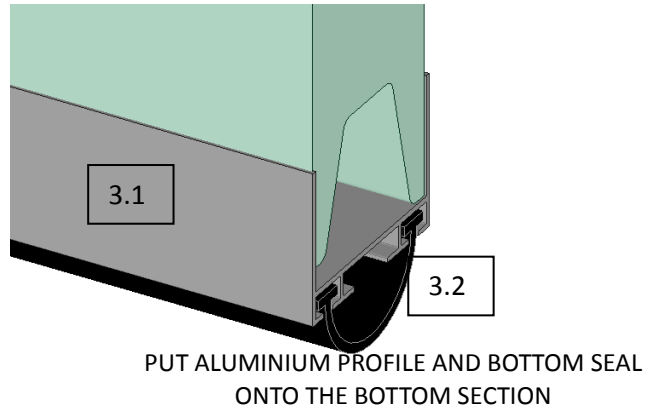
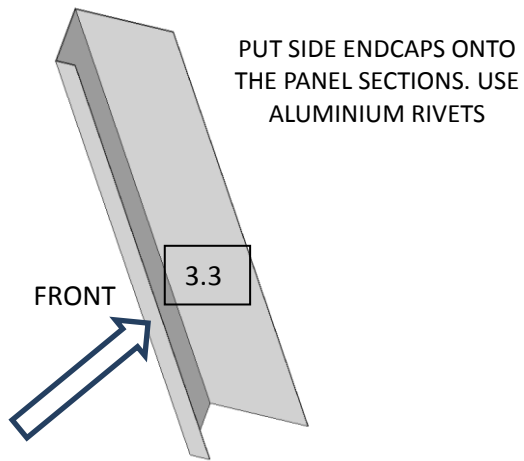
PANELS NEED TO BE LEVELED



THE SET:

- [3.1] BOTTOM ALU PROFILE
- [3.2] BOTTOM SEAL
- [3.3] UNIVERSAL END CAP
- [3.4] BOTTOM BRACKET
- [3.5] SIDE HINGE
- [3.6] MIDDLE HINGE

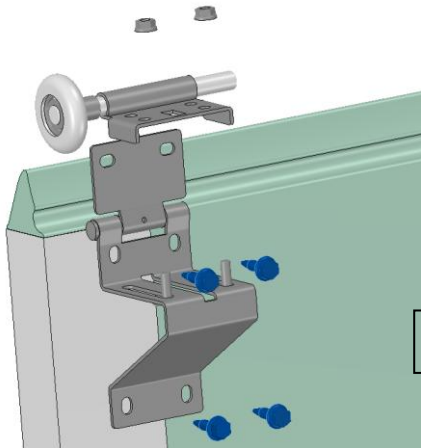
DEPENDENT ON THE PANEL
DEPENDENT ON THE PANEL



MONTAGE OF BOTTOM BRACKET.
REGULATE THE ROLLER INSIDE THE
TRACK

MAX 10Nm

3.5

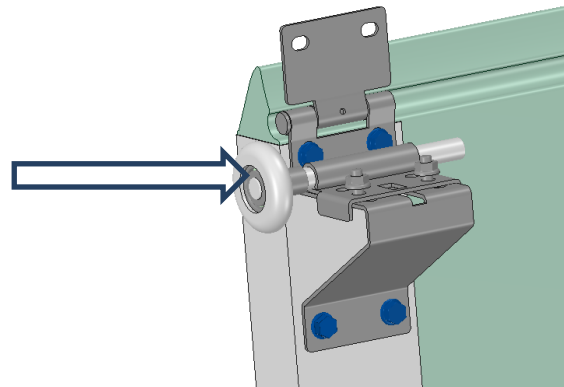


MAX 10Nm



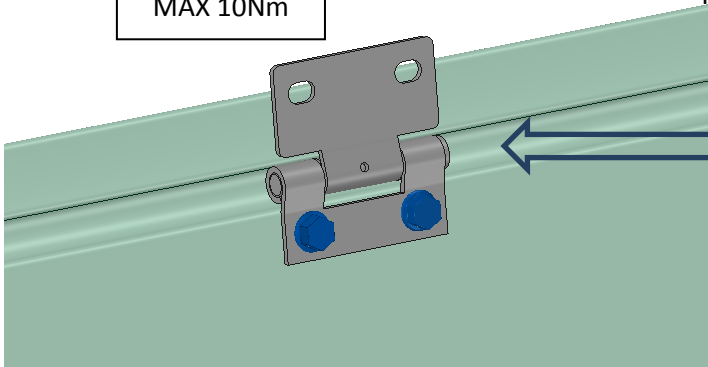
MONTAGE OF THE SIDE HINGE.
REGULATE THE ROLLER INSIDE THE
TRACK.

THE CENTRE OF THE SIDE HINGE TO BE
PRECISELY IN THE CENTRE OF THE HOLE OF
PANELS CONNECTION



3.6

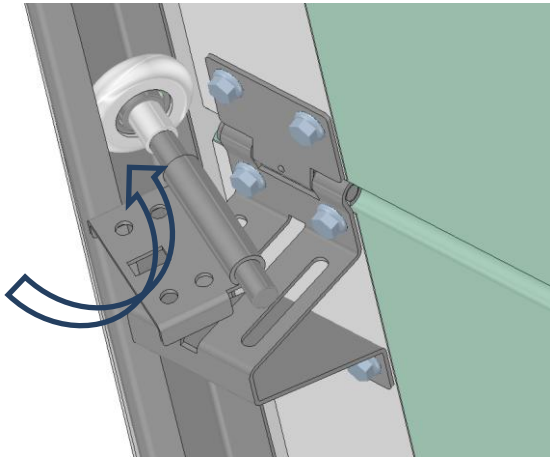
MAX 10Nm



THE CENTRE OF THE MIDDLE HINGE TO BE
PRECISELY IN THE CENTRE OF THE HOLE OF
PANELS CONNECTION

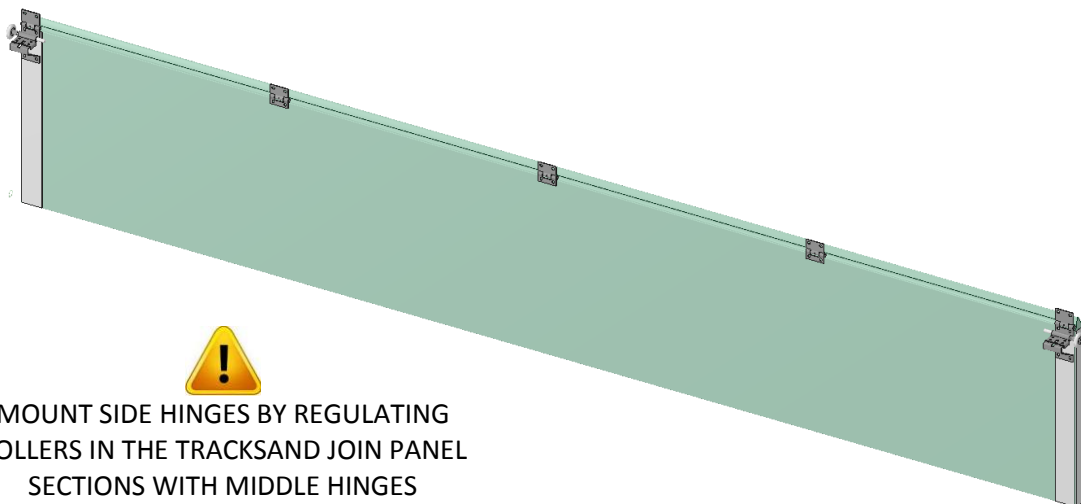
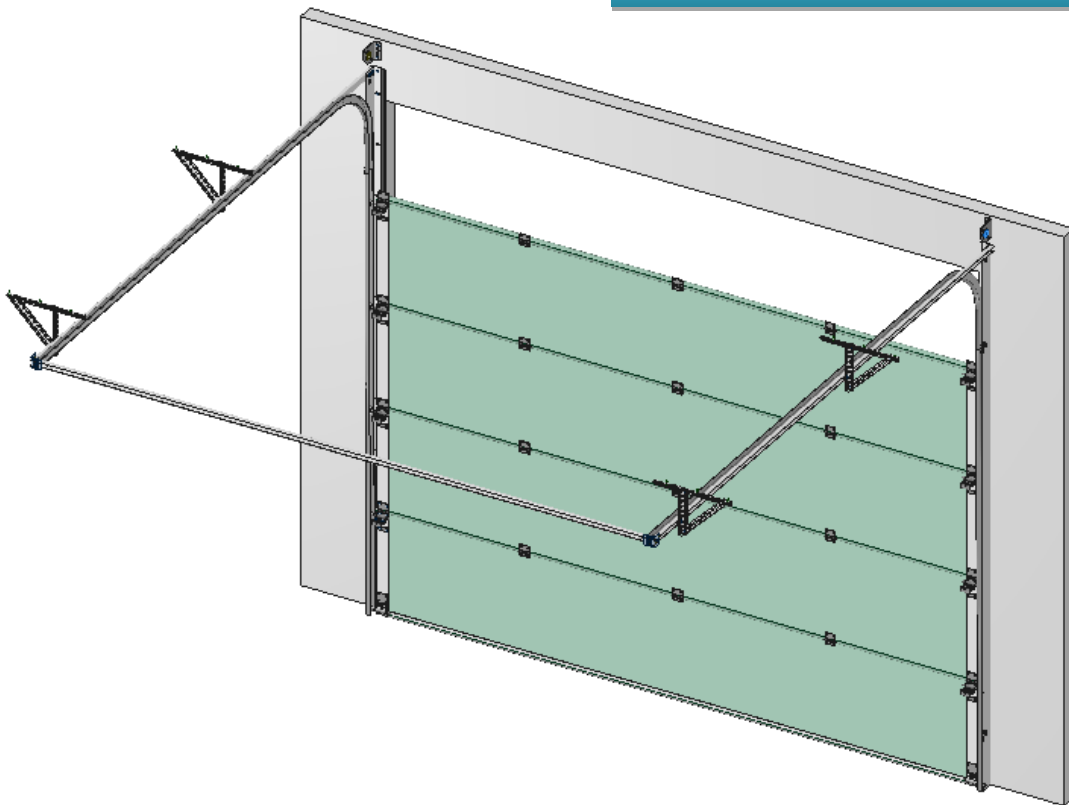
For proper selection of number of middle hinges, use the following table:

Door width	Number of middle hinges
0-2749	1
2749-3999	2
4000-4999	3



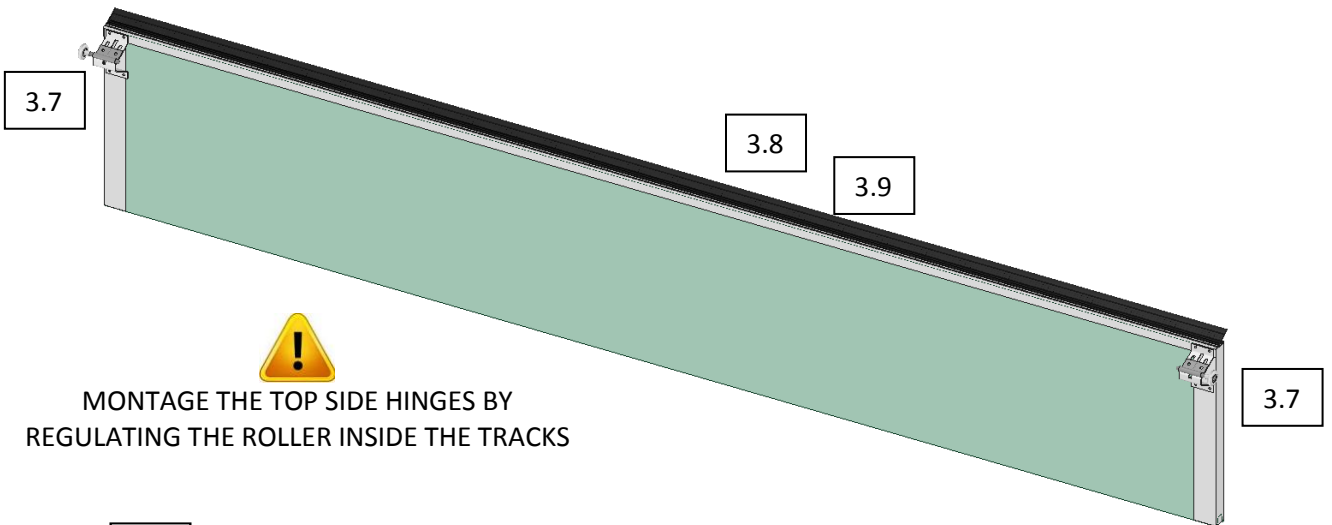
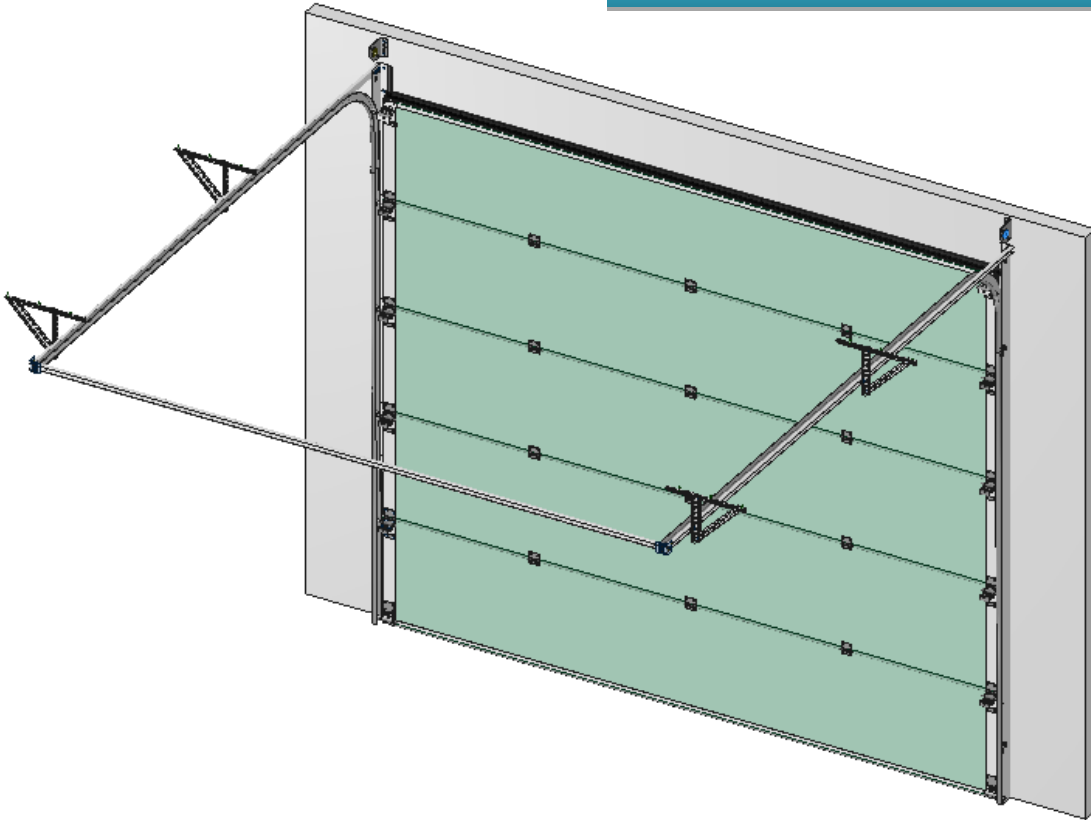
ATTENTION
PUT A ROLLER INSIDE A TRACK FIRST
AND THEN FIX IT TO THE HINGE

MONTAGE OF THE OTHER PANEL SECTIONS

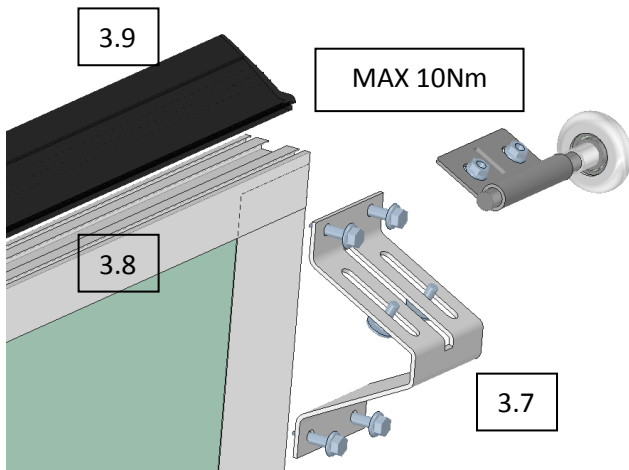


MOUNT SIDE HINGES BY REGULATING
ROLLERS IN THE TRACKS AND JOIN PANEL
SECTIONS WITH MIDDLE HINGES

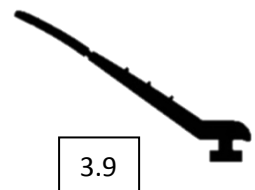
MONTAGE OF THE TOP PANEL SECTION



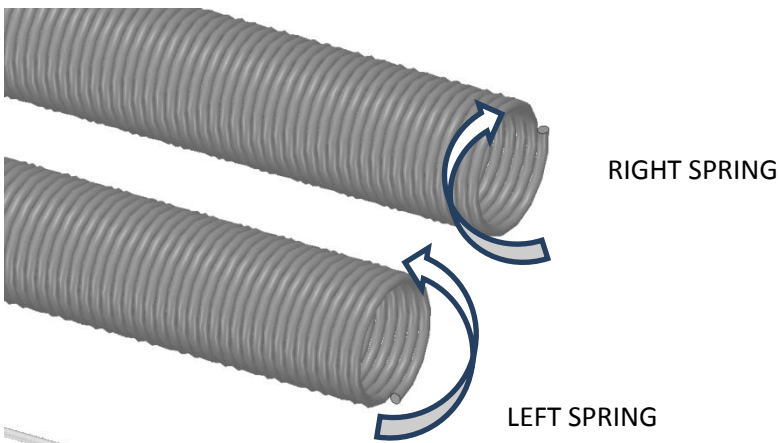
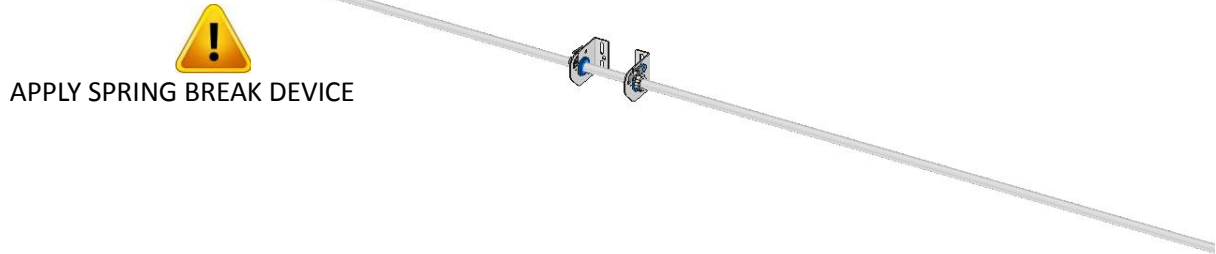
MONTAGE THE TOP SIDE HINGES BY REGULATING THE ROLLER INSIDE THE TRACKS



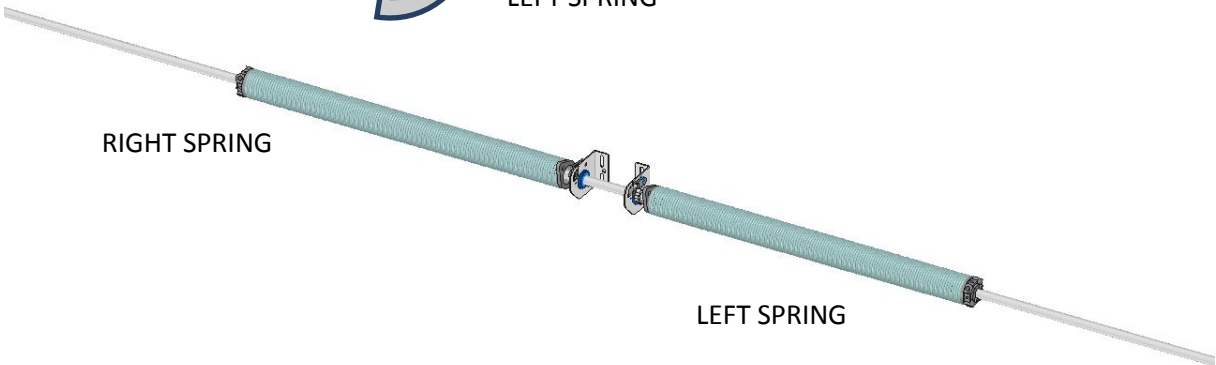
MONTAGE OF THE TOP HINGE. THE ROLLER TO BE REGULATED INSIDE THE TRACK.

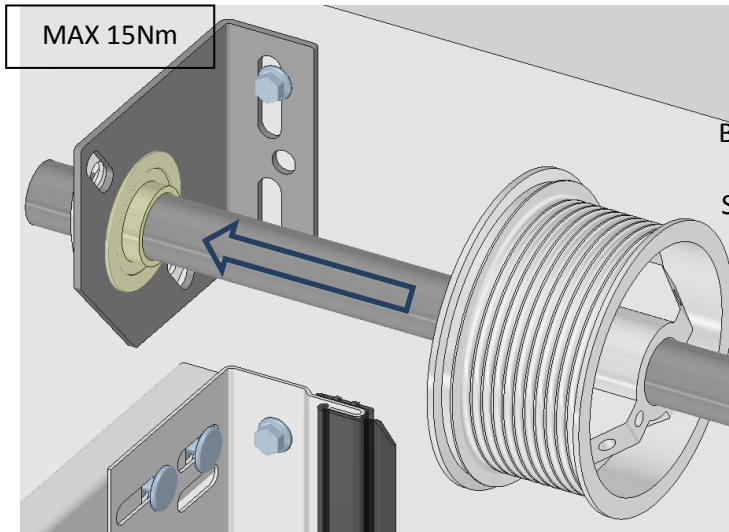


SHAFT ASSEMBLY – VIEW FROM INSIDE OF THE DOOR

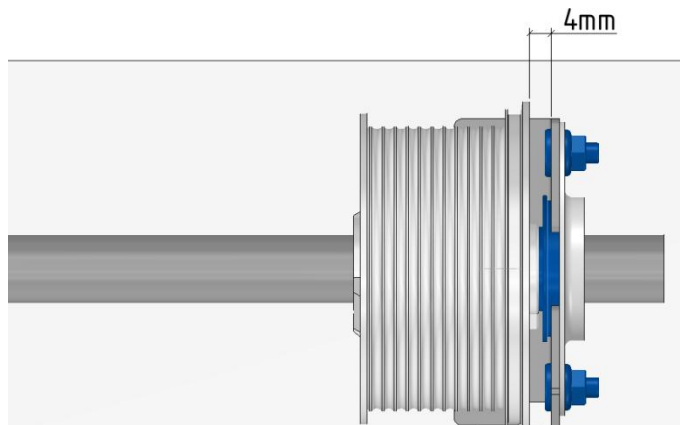


SPRINGS TO BE SELECTED FROM THE APPLICATION

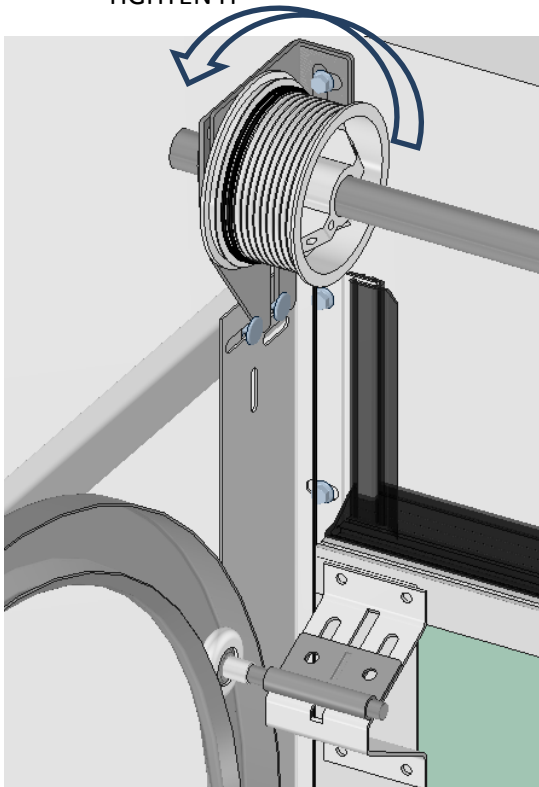




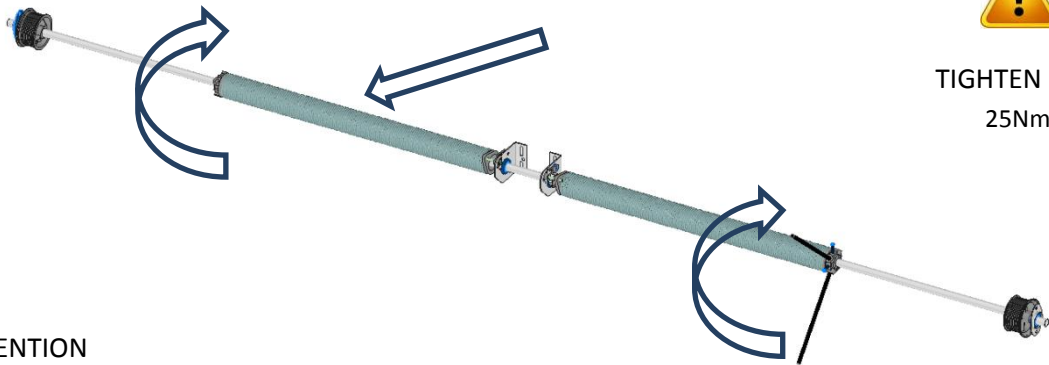

PLACE COMPLETE SHAFT IN SHAFT
BRACKET AND THEN APPLY THE BEARING
WITH RETAINER AT THE ENDS OF THE
SHAFT AND SCREW WITH THE M8 BOLTS



PUT THE CABLE
THROUGH THE
CABLEDRUM AND
TIGHTEN IT

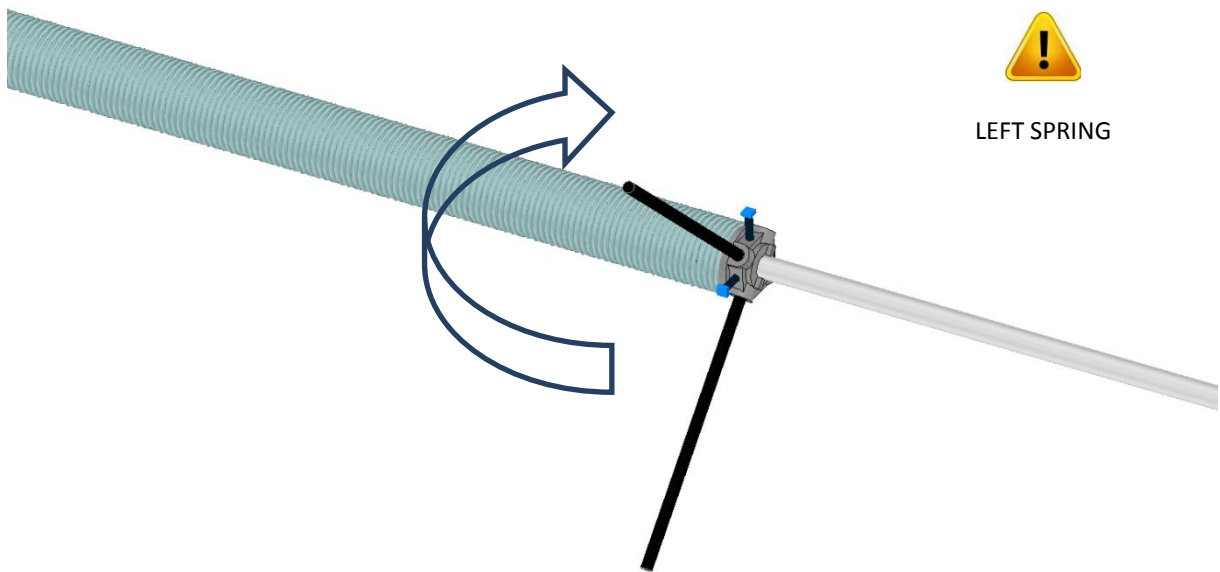


SPRING WINDING UP – INTERNAL SIDE VIEW

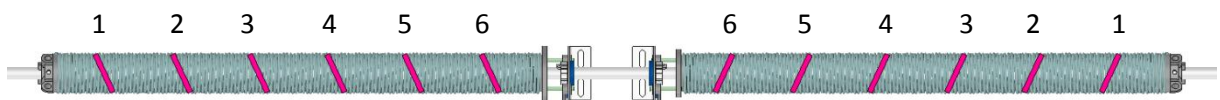



TIGHTEN MAX
25Nm

ATTENTION
DURING TURNING OF TORSIONS SPRING IT IS NECESSARY TO USE HIGH STRENGTH. BE CAREFUL.
MONTAGE, SERVICE, MAINTANANCE AND REPAIRS CAN ONLY BE PERFORMED BY QUALIFIED STAFF.




LEFT SPRING



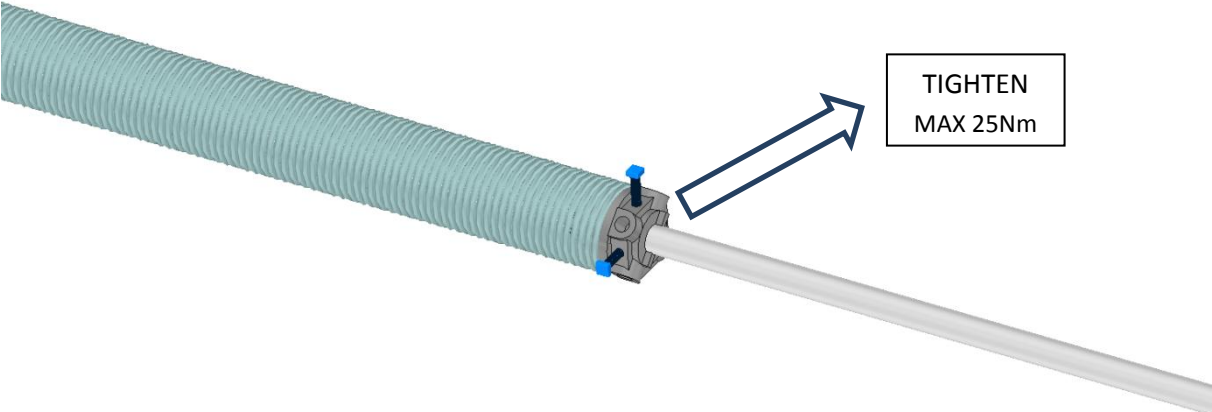
RIGHT SPRING

X=X

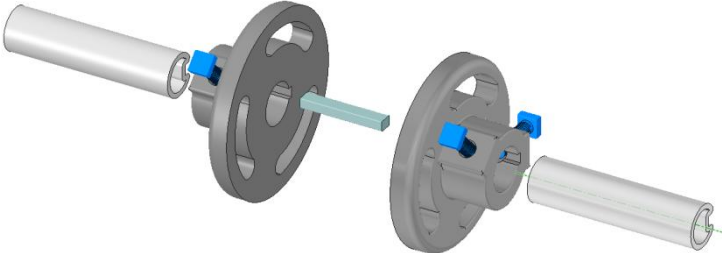
LEFT SPRING

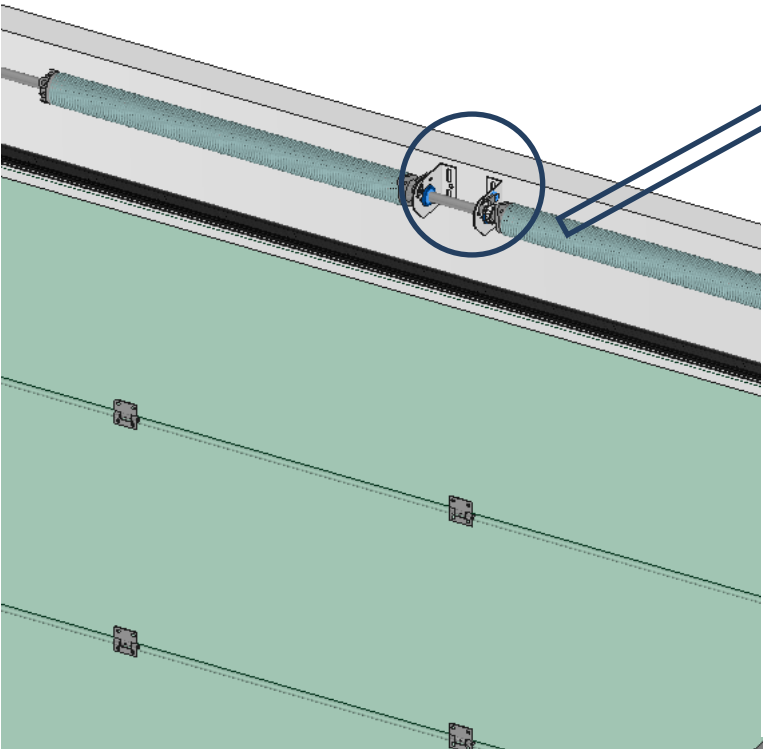
Number of spring turns:
See sticker on door panels


SPRINGS TO BE TURNED AS PER THE TABLE WITH
SPRING TURNS



FOR GARAGE DOORS OF HEIGHT $\geq 3000\text{mm}$ USE A SHAFT WITH KEYWAY AND A SHAFT COUPLER





The name or the identification sign and registered address of the producer

The last two digits of the year, when the marking was placed

EN 13241-1
The number of European norm

Description of the product and intended use
Identification number

Water resistance [technical class]

Wind load resistance [technical class]

Thermal resistance [value]

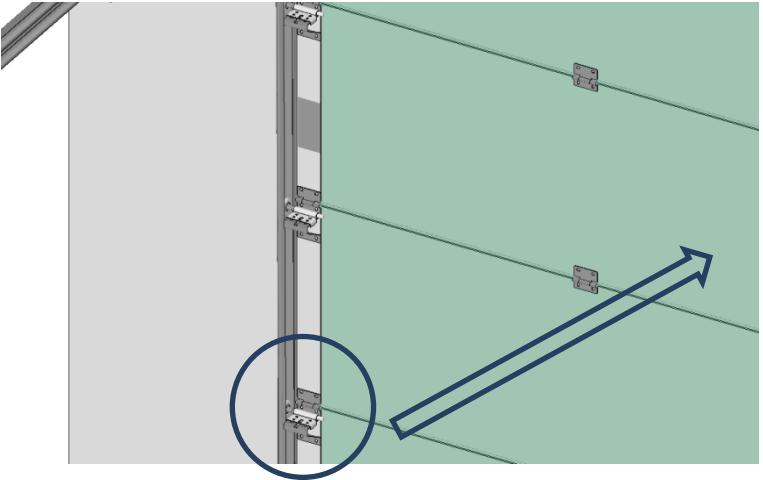
Air permeability [technical class]
Information about the required quality of the product

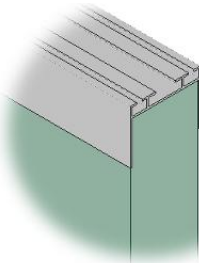
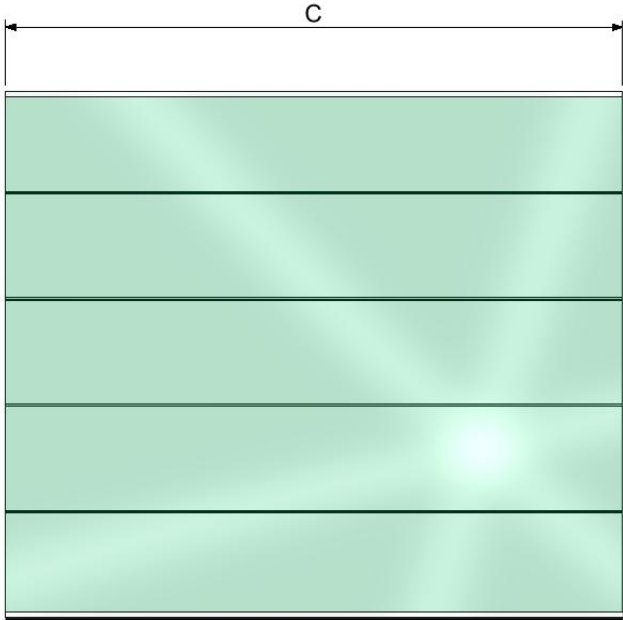
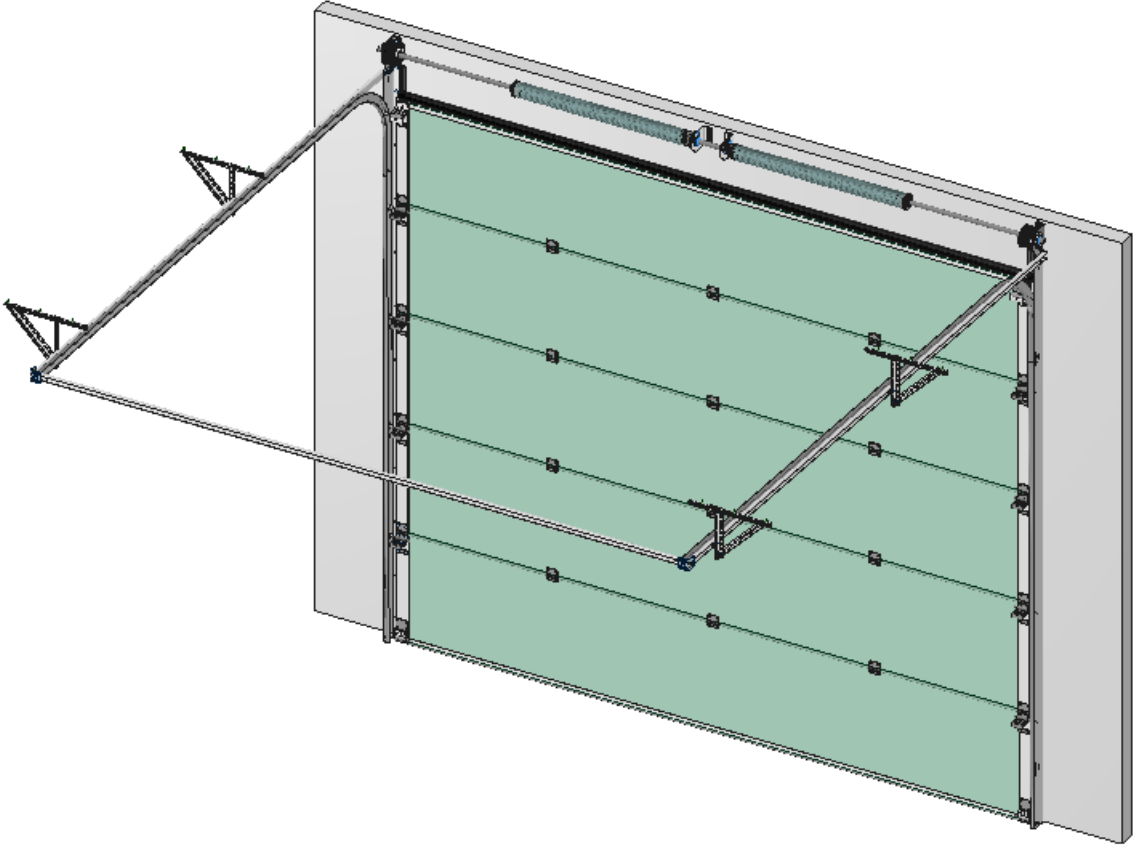
CE

Conformity CE marking by using CE mark
Determined in the directive 93/68/EEC

89/106/EEC; 98/37/EC; 89/336/EEC

Issuing appropriate directives





$C=S+45$ WIDTH OF THE PANEL
 $D=H+15$ HEIGHT OF THE PANEL

