



Installation manual

Roller shutter VR60

Inside installation



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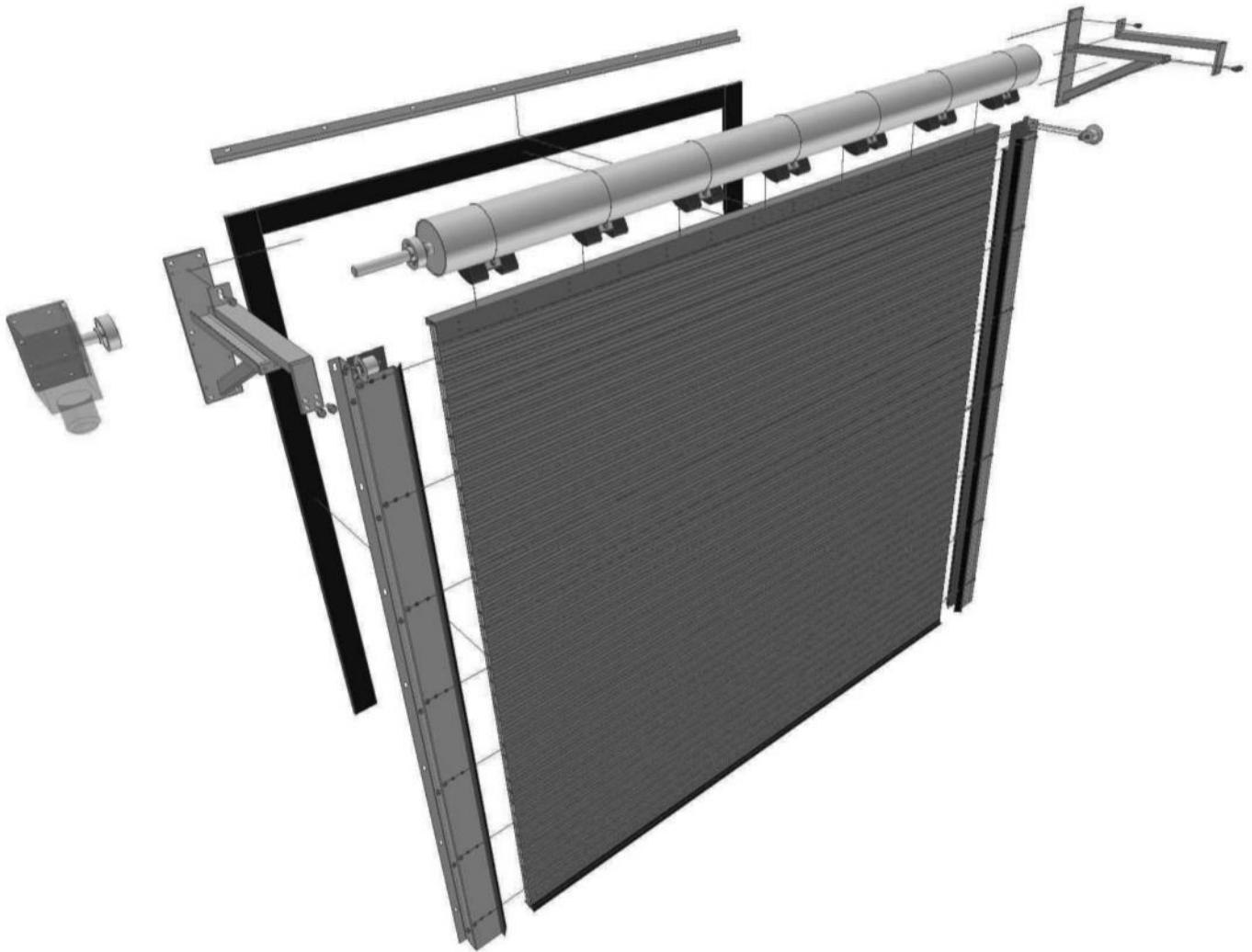
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Roller shutter

VR60

Inside installation



This manual is for the experienced fitters of industrial doors and shutters.

Otherwise, it is not recommended to install this product. The Flema fire-proof doors/shutters are designed for an indoor installation.

Flema declines any responsibility for problems in case of an outside installation.

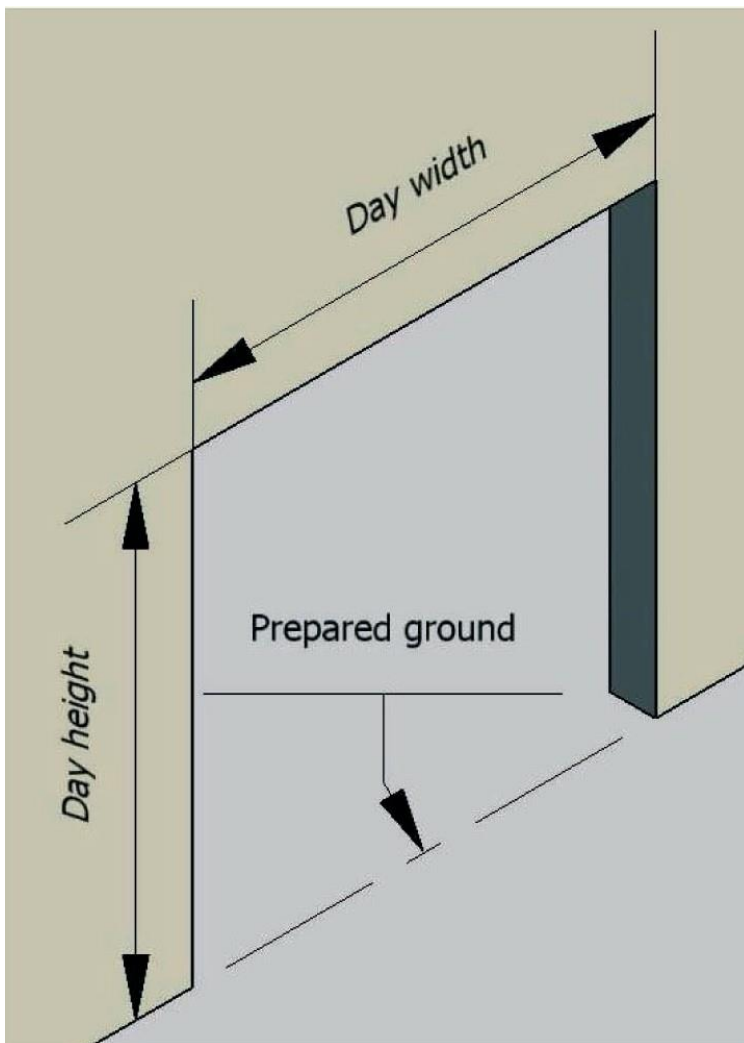
1 °

MEASUREMENTS

The day height and width must be measured as shown in the drawing below (drawing 1)

The floor tolerance is +/- 4mm. This is designed to retain the fire break properties.

-
- Before you start fitting, it is important to check the measurements of the worksite against the measurements as ordered.
-



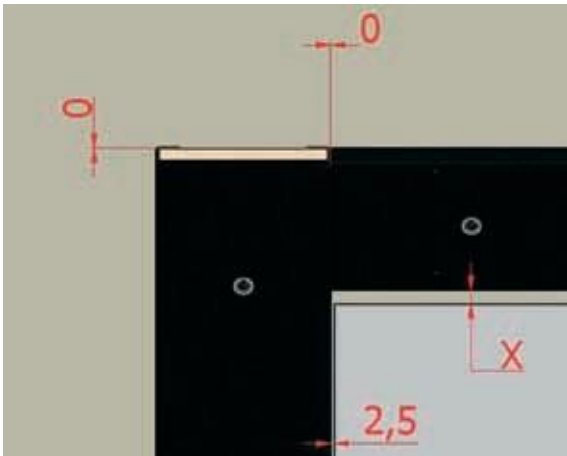
Drawing 1

2 °

INSTALLING THE FRAME

- 1° Install the left-hand vertical profile 2.5 mm (theory)* back from the side wall.
- 2° The upper frame is placed so that it is aligned with the end of the vertical profile. Fasten it so that there can be no possible daylight between the 2 uprights.
- 3° Place the right-hand vertical profile against the upper part of the frame.

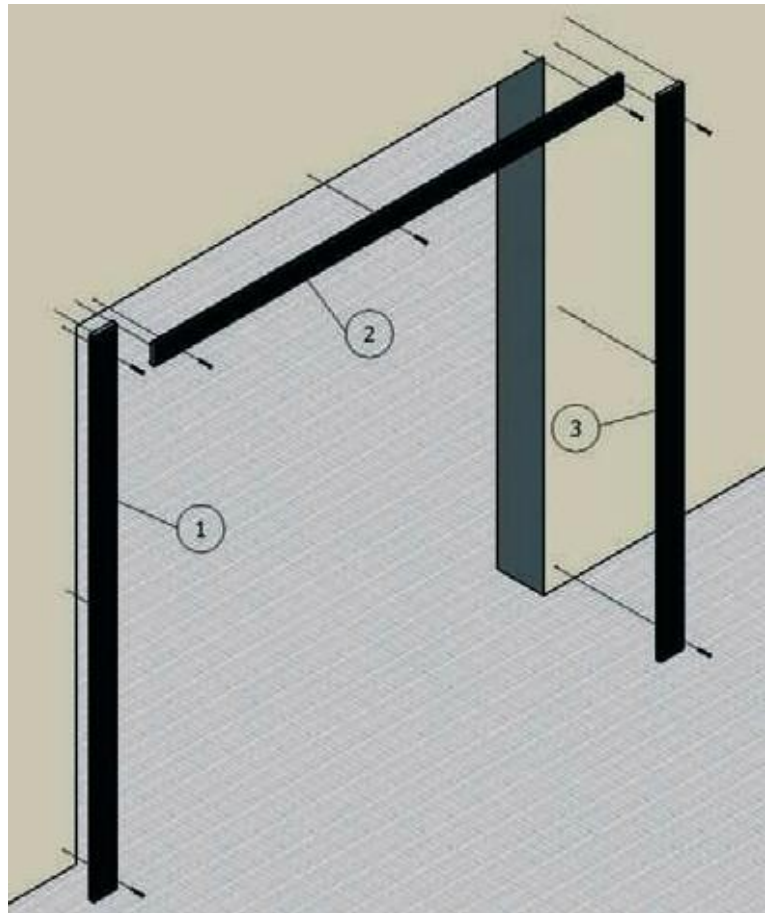
The distance X varies depending on the height of the door.



Drawing 3:

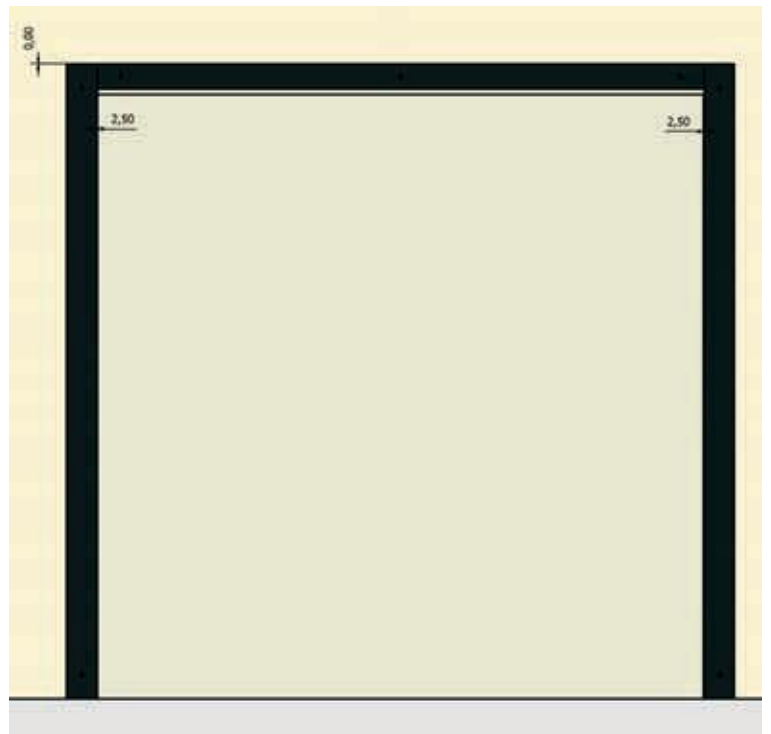
*The measure 2.5mm is a theory, based on a theoretic opening. So, check the exact dimension placing the profile n°2 on the floor in order to know the real dimension.

- The frame must be fitted level because the whole door system depends upon it.
- It is placed using fastening brackets, with one every meter.
- The screws must be countersunk into the profile.



Drawing 2

RESULT



Drawing 4

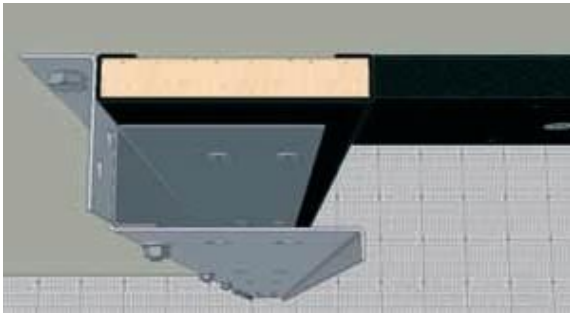
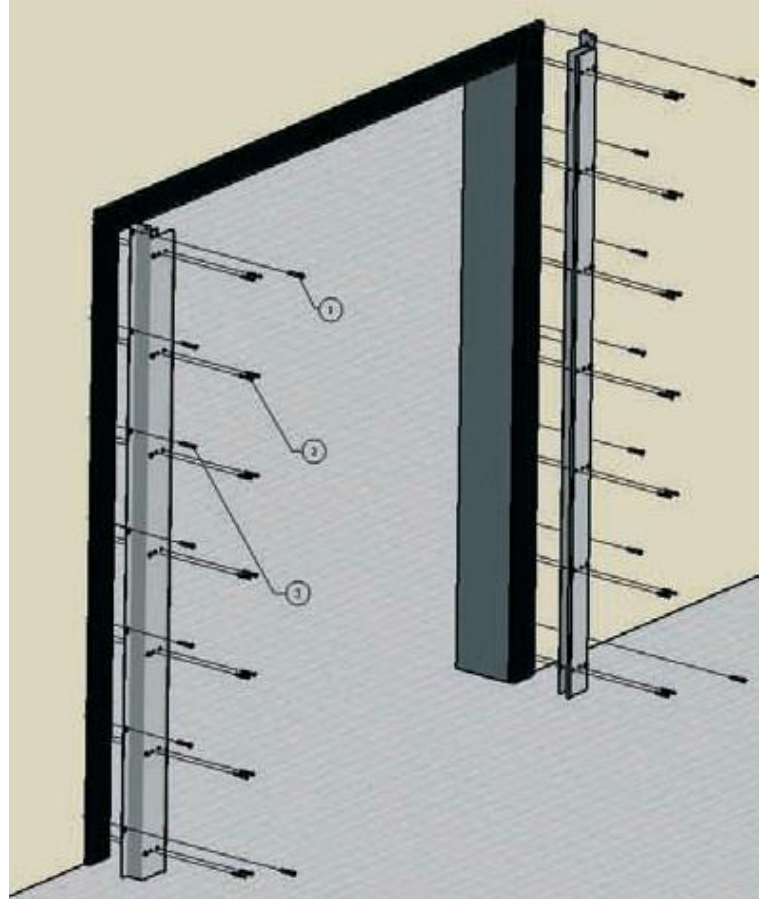
3 °

Drawing 5

PLACING THE VERTICAL GUIDES

The vertical guides (ref. 6001 and 6101) fit together against the frame.

For easy assembly, the best idea is to start by fastening the guides at the top and at the bottom.



Drawing 6

RESULT

- They must be fastened using all of the holes in order to guarantee that they will be firmly fixed in place in the event of a fire.
- The screws may not jut out by more than 2 mm.
- The screws go through the PVC profile and fix into the wall.
- Use countersunk screws for a hole with a diameter of 10.

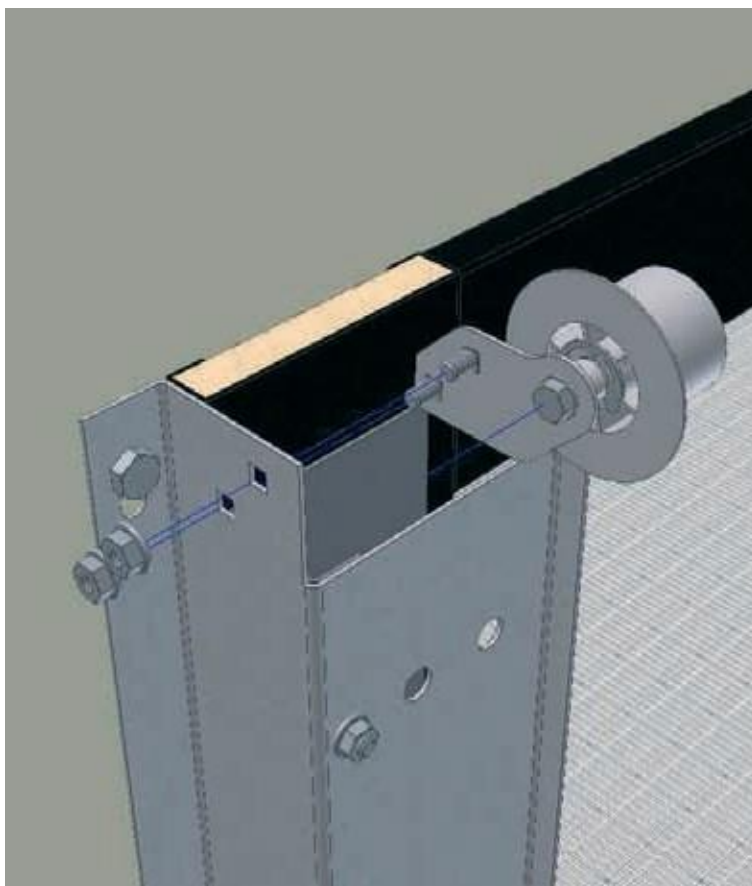


Drawing 7

4 °

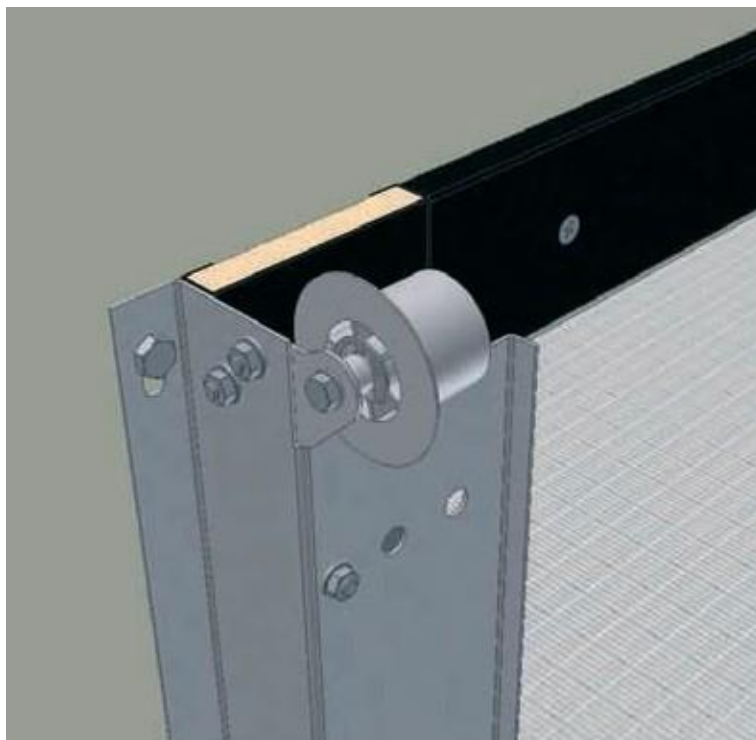
TRACKING ROLLERS

Place the tracking rollers (ref. 1001) as shown in the diagrams below (drawing 8).



Drawing 8

RESULT



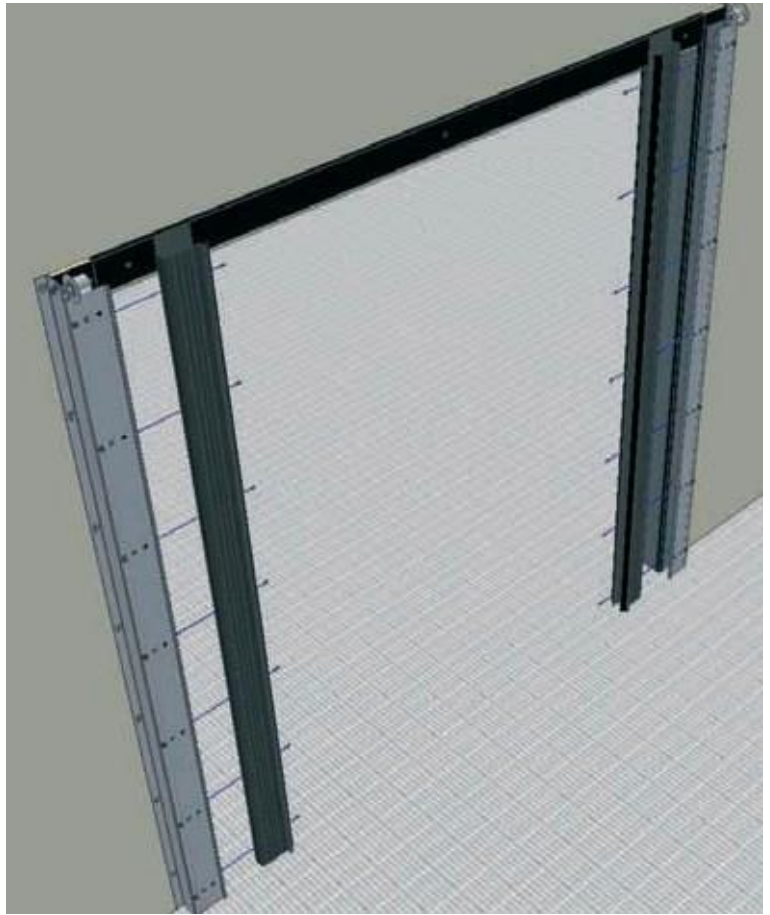
Drawing 9

5 °

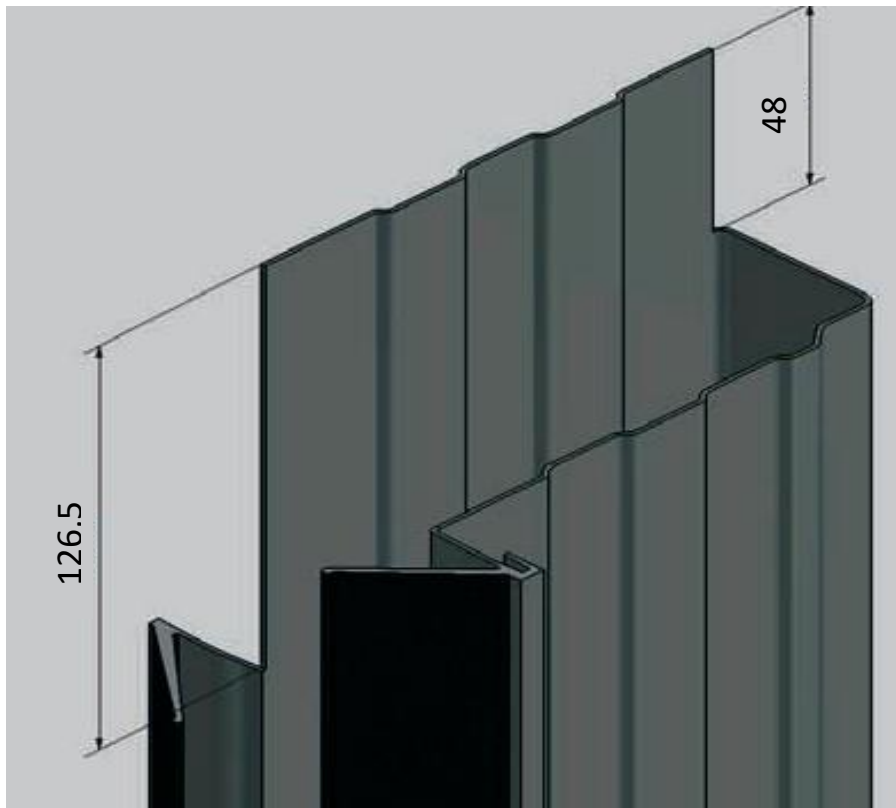
FINISHING PROFILE

OMEGA PROFILE (REF 2201)

- 1° Cut the left and right-hand sections (ref. 2201) as shown in the diagram below (drawing 11).
- 2° Insert the side profile Omega (ref. 2201) into the side guide.
- 3° Fasten this section every 300 mm on either side to make the sections rigid. Begin the fixation with the guide side. (Rivets/screws supplied)
 - guide side: rivets/screws
 - wood side: wood screws



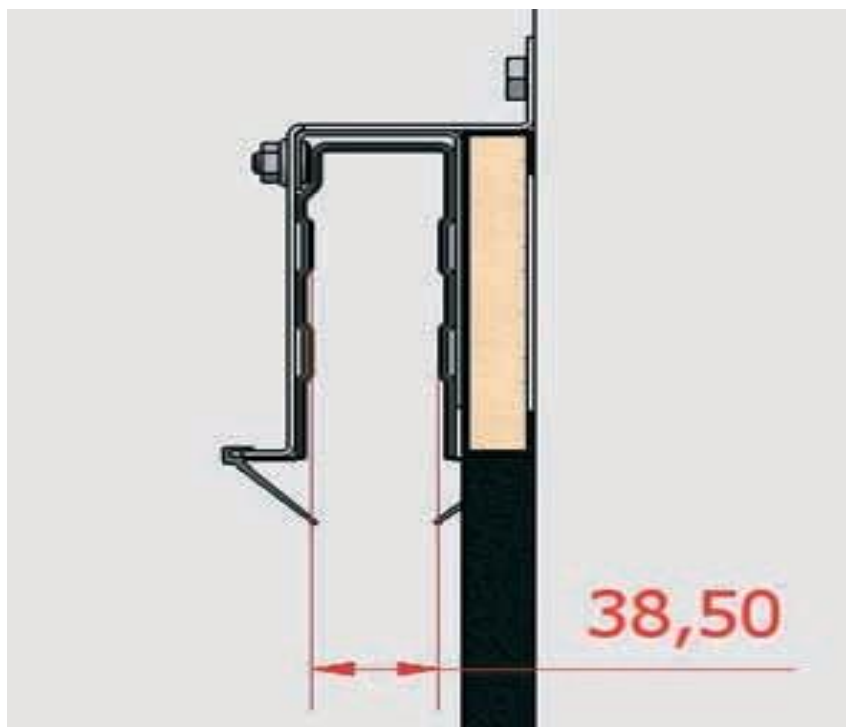
Drawing 10



Drawing 11

5 °

FINISHING PROFILE



Drawing 14

RESULT



Drawing 13

When fastening, it is essential to open the side profile Omega right out in order to obtain a space measuring at least 38 mm.

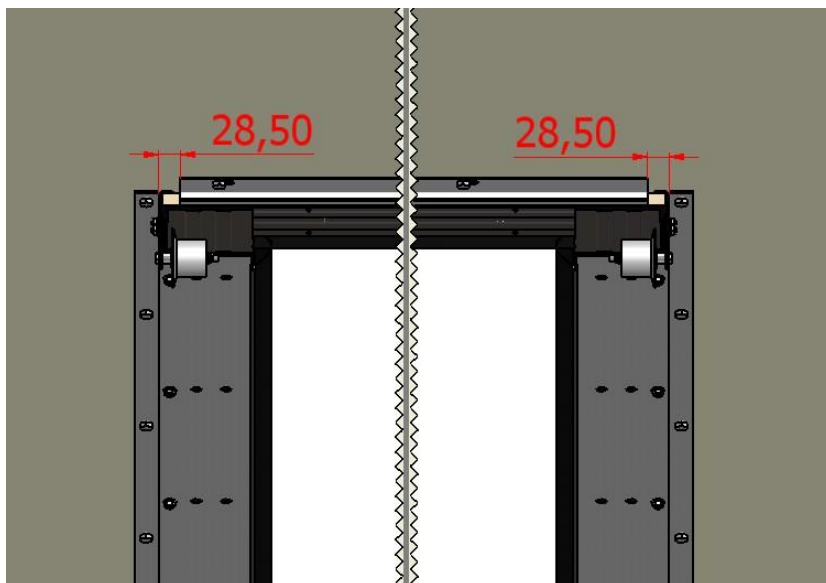
6 °

PLACING THE HORIZONTAL ANGLE OF LINTEL + PERLAU

The horizontal angle of lintel (ref. 6201) must be placed equidistant from the 2 sides (diagram 15). This determines the placement of the universal supports (ref. 1201).

It is placed upon the frame section by fastening each of the holes.

Place then a band of perlau 20x2mm horizontally in all de length of the horizontal angle.



Drawing 15

RESULT



Drawing 16

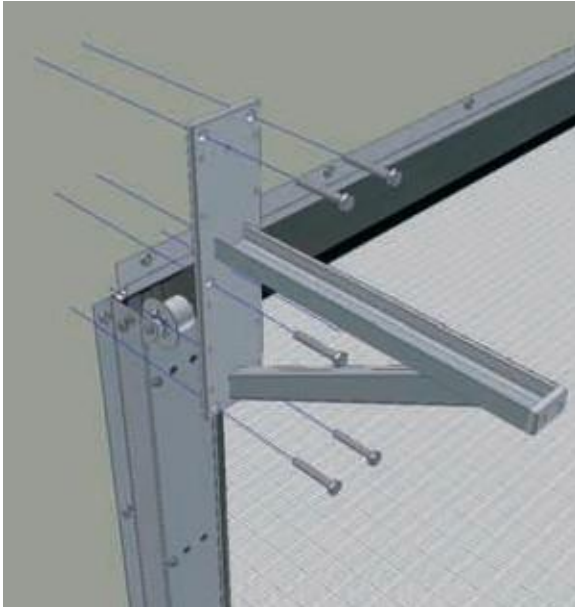
7 °

SUPPORTS

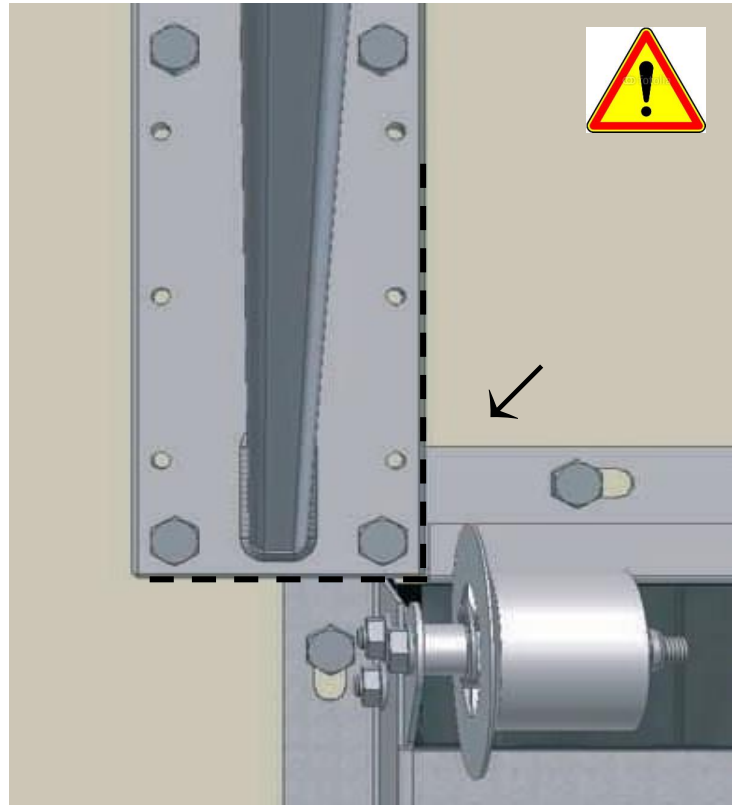


The universal supports (ref. 1201) are placed into the angle created by the vertical guide profile and the horizontal section of lintel (ref. 6201)
(Drawing 17)

They are placed using 6 fixing screws per support plate.



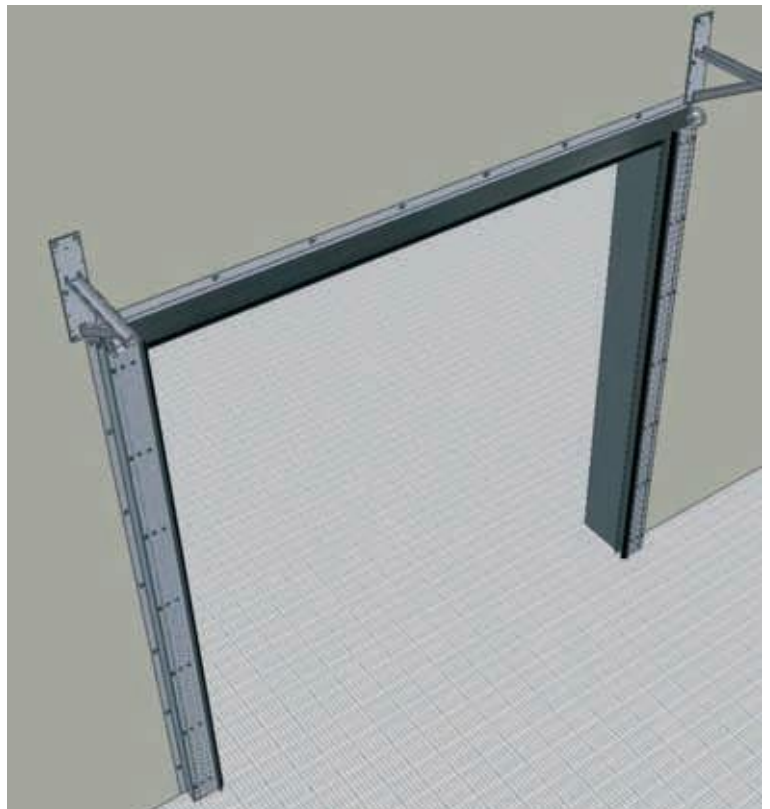
Drawing 18



Drawing 17

RESULT

→ It is mandatory to follow all the instructions of assembly and in particular the ones regarding **the parallelism and the horizontality** of the universal supports. This way to obtain the optimal operation of the roller-shutter.



Drawing 19

CURTAIN + MOTOR

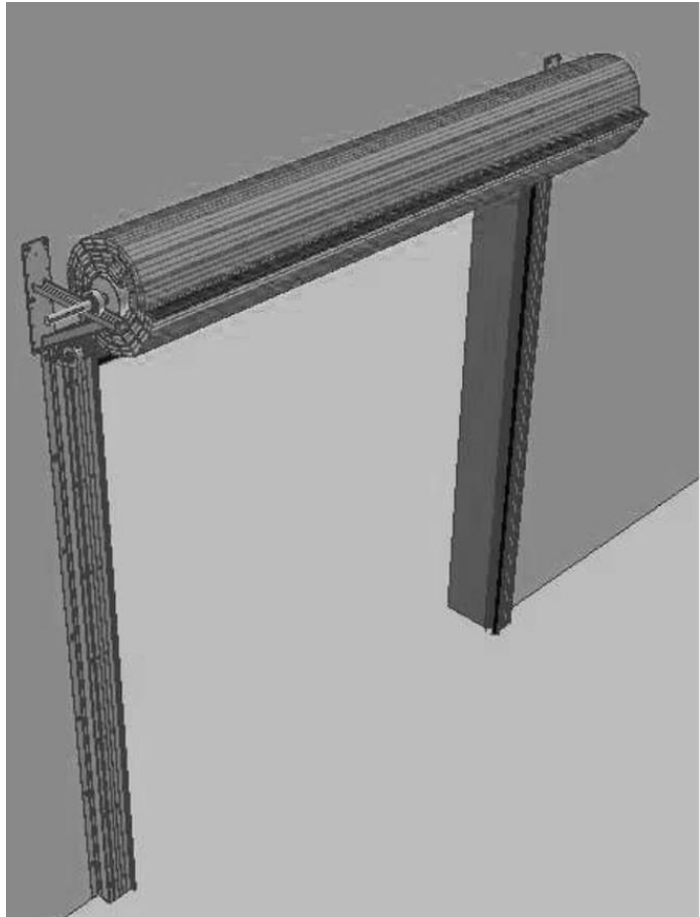
Place the door onto the supports so that the direction of movement is on the wall side.

- 1° Position the bearings on both sides of the shaft so that the oiler and the clamping screws are positioned on the side of the shutter.
- 2° Lubricate the bearings and remove the oiler so they freely move on the support.
- 3° Position the shutter on the supports so that the shutter unfolds on the wall's side.
- 4° Center the shutter to the supports.
- 5° Tighten the bearings.

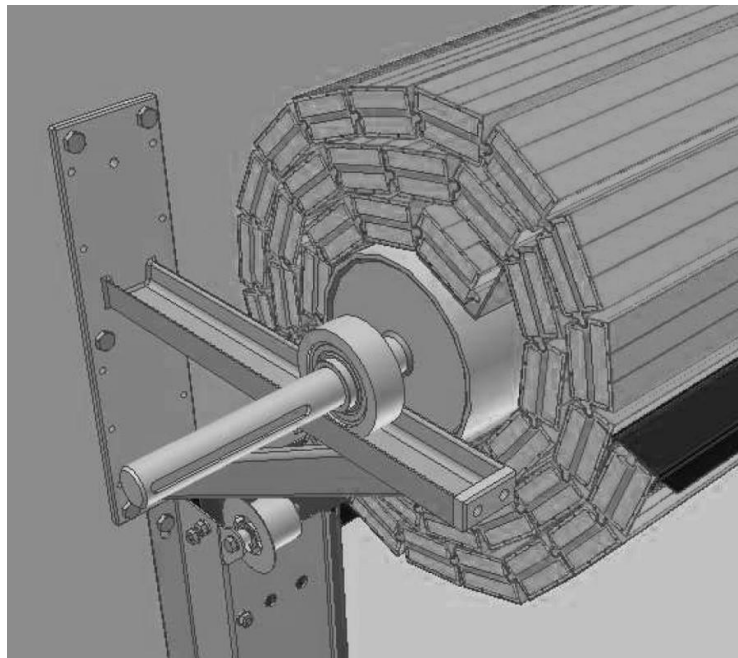
Ps : In order to facilitate the assembly of the motor, it can be placed on the axis of the shutter rolled up on the pallet before placing it in the supports.



“DON'T CUT THE STRIPS OF THE ROLLER-SHUTTER BEFORE HAVE MOUNTING THE MOTOR ON THE SHAFT, OTHERWISE, THE SHUTTER WILL UNWIND ABRUPTLY AND COULD INJURE SOMEONE.”



Drawing 20



Drawing 21

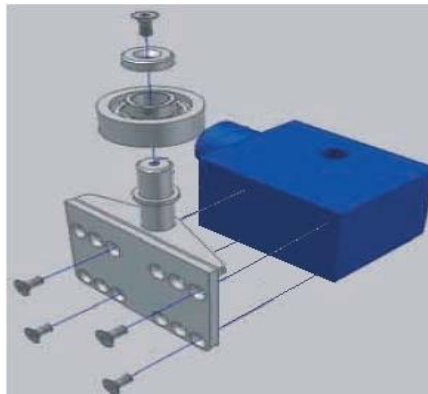
Assembly of the motor and the motor arm

(ref 4501)

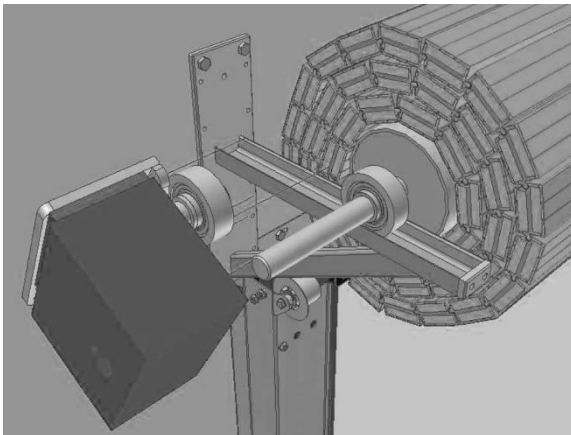
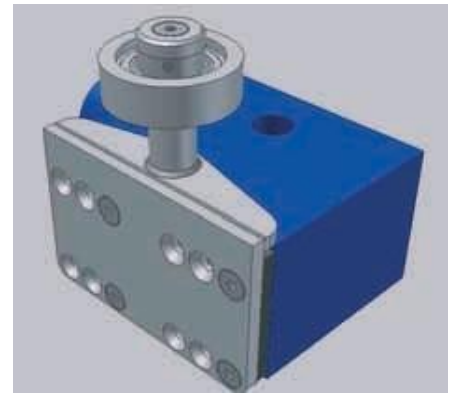
Drawing 22

Install the motor arm at the basis of the reductor using the countersunk screw M10x20mm.

The axis of the motor arm must be in the alignment of the axis of the shutter.

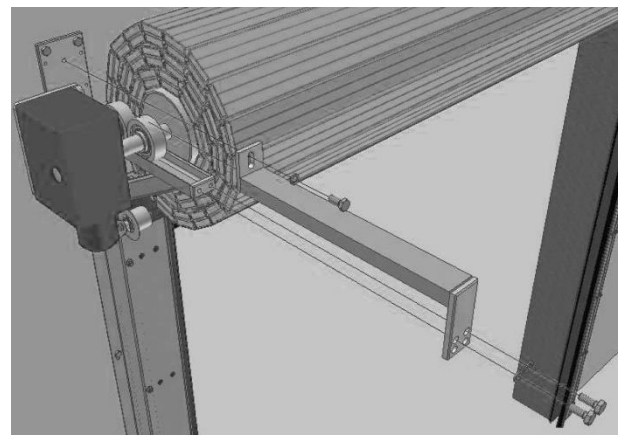


Drawing 23



Drawing 24

Slide the motor onto the shutter shaft.



Drawing 25

Close the bearing plate supports (ref. 1201) and fix them into place using 3 fastening brackets.

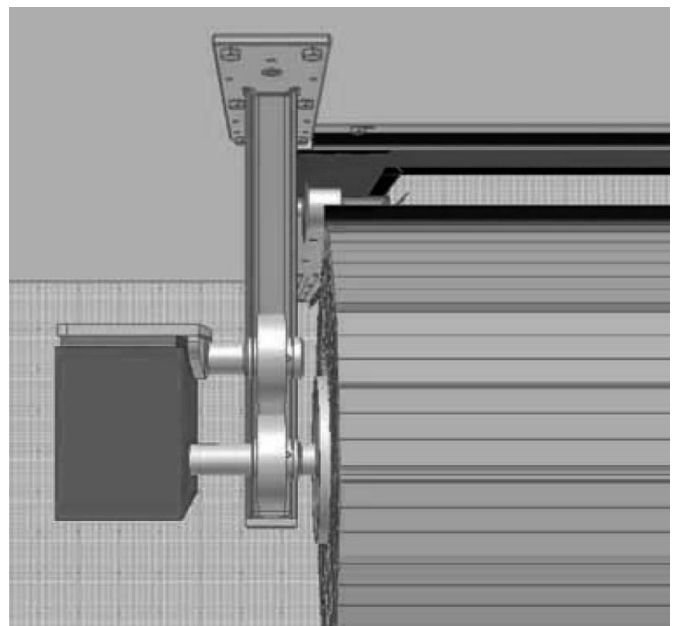
6° Install a bearing on the motor arm (drawing 22).

7° Lubricate the bearing and remove the oiler.

8° Align the bearing of the motor to the bearings of the shutter in the support (drawing 26) and tighten the screws.

9° Insert the shaft of the shutter in the adaptor of the motor by ensuring it stays in the motor.

RESULT

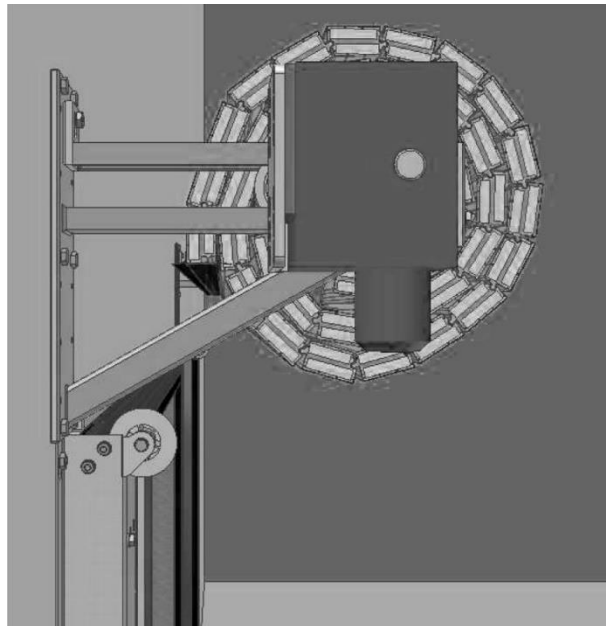


Drawing 26

STARTING UP THE SHUTTER

Bring the doorblade down into the vertical guides using the crank (drawing 27).

-
- Check the door's alignment compared to the tracking rollers (ref 1001) so the shaft freely moves in the supports.
-

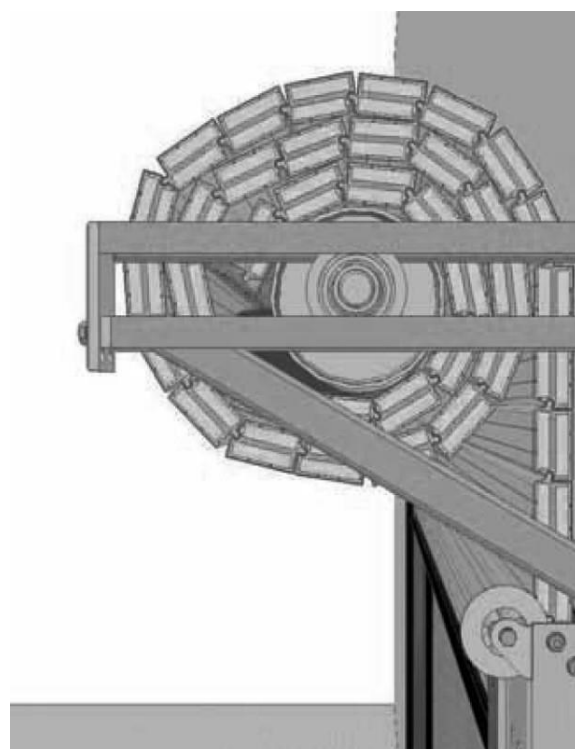


Drawing 27

→ **Regarding the roller shutter's motorization, please refer to the installation manual accompanying the motor.**

Once the shutter has been inserted 1 meter into the vertical guides, switch on the motor.

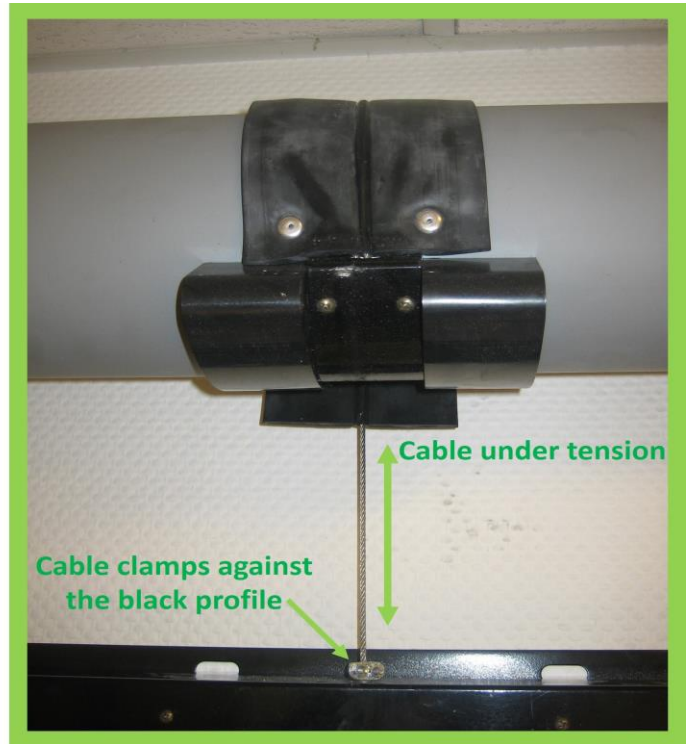
Then continue the operation by using the motor. (Drawings 28 and 29).



→ Adjusting the limit switches

When the door is closed, adjust the limit-switch and check that:

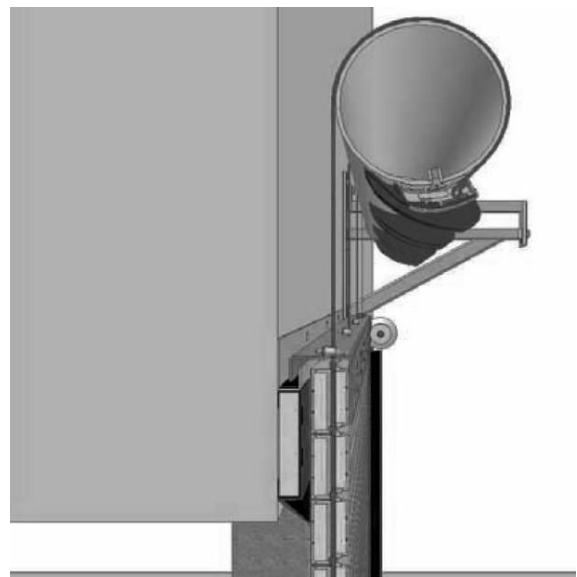
- the cables remain always under tension.
- the cables are parallel.
- adjust the door so it stays at a few millimeters above the ground.
- otherwise, there is a risk of damage of the door.



When the limit-switches are adjusted and when the door is closed:

- 1° If the tension of the cables needs to be fixed, adjust it by fastening the adjustable cable-fastener (ref. 2601)
- 2° Retighten the cable-clamps against the horizontal top profile of the door blade.

This operation is very important, it will guarantee that the door stays closed incase of fire and will avoid the premature rupture of the cables.



Drawing 29

FINAL RESULT



Pair of tracking rollers



ref 1001

Bottom bracket + inox cable



ref 1101

Universal support



ref 1201

Bearing



ref 1301

Bottom seal



ref 2001

Slat support



ref 2501

Side profile omega



ref 2201

Frame profile



ref 2451

Fixation de câble réglable



ref 2601

Cap



ref 2701

Grey slat



ref 3051

Blocking cap



ref 4001

Motor arm



ref 4003

Drum flask



ref 4004

Bolts M8 x 18



ref 4005

Motor



ref 4501

Safety device



ref 4550

Tube



ref 5001

Rubber of rolling up



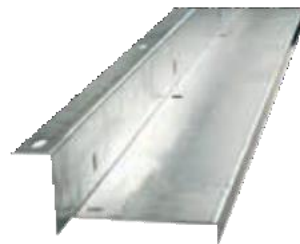
ref 5030

Bottom plate



ref 5050

Top external vertical angle



ref 6001

Universal external vertical angle



ref 6051

Universal internal vertical angle



ref 6101

Horizontal angle of lintel



ref 6201

Top horizontal angle



ref 6251

Perlau 20/2 mm



ref 7010

Perlau 35/2 mm



ref 7012

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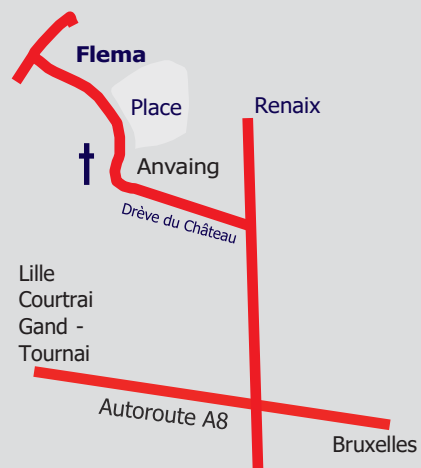
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