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AUTOMATIC RESIDENTIAL SLIDING GATE

Installation Manual



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[A000265] **Read this Installation Manual, as well as the "Residential sliding gate" Operating and Maintenance Manual, and observe all the instructions.**

1. GENERAL INFORMATION

[A000266] See: "Residential sliding gate" Operating and Maintenance Manual.

- [A000132] **The product may be installed and adjusted by a PROFESSIONAL INSTALLER only.**
- [C000445] The electric drive unit or the controller can only be installed and adjusted by a PROFESSIONAL INSTALLER who is competent in automation and mechanical engineering equipment for residential use and must do the installation and adjustments in accordance with the current laws of the country of use. [A000104] **Failure to comply with the safety regulations, legal requirements, and recommendations and sug- gestions contained in the Installation Manual and the Operating and Maintenance Manual will release the man- ufacturer from all liability and warranty obligations.**
- [A000097] **The manual covers the installation of the products with standard equipment and optional equipment components. The scope of standard and optional equipment is defined in the commercial offer.**

[A000179] The overview drawings provided in the manual can differ in terms of manufacturing details. These details are shown in separate drawings where necessary. During installation, make sure to observe the OHS regulations regarding: installation work, locksmithing work done with power tools depending on the installation technology used, and follow all the applicable standards and regulations, as well as the reference construction documentation. During the installation/refurbish- ment work, protect all the elements from plaster, cement, and gypsum splashes. They might leave stains. After completing the installation and making sure the product operates properly, give the Operating and Maintenance Manual to the owner. The manual should be protected from damage and kept safe.
[A000115] Assemble and install the product in accordance with the requirements of EN 13241.Install the product using only original fastening elements (e.g. bolts, screws, nuts and washers) supplied with the prod- uct, compliant with the EN or ISO standards.

[A000152] **Making any modifications or changes to the product accessories is strictly prohibited.**

[B000129] The product shipping packaging is intended to protect the product during transport only. Protect the products in the packaging against unfavorable weather conditions. Keep the packed product on a hard and dry surface (which must be flat, level and resist varia- tions in indoor conditions) located in sheltered rooms that are dry and well-ventilated; the storage location must be free from all external conditions which may damage the product components and its packaging.

Do not store in wet rooms and/or rooms with vapours which may damage paint coats and/or galvanic coats.

[B000025] Airtight foil packaging must be unsealed when storing the doors to avoid adverse change of microclimate inside the packaging. Failure to do so may result in the damage to painted and zinc plated coating.
[A000153] Secure the product against toppling and protect it from any sort of damage during assembly and storage.
[A000157] Waste and packaging materials (plastic, cardboard, polystyrene, etc.) comply with the applicable European standards. Nylon and polystyrene packaging should be kept out of reach of children.
[C000075] The wiring system and the electric shock protection installations are defined by current norms and regulations. Only a qualified installer is allowed to perform electrical works.
- The drive feed circuit should be equipped with a cut-off protection, a residual current circuit-breaker, and an overcurrent protection.
- The product's power supply should constitute a separate electrical circuit.
- Grounding of the drive unit is obligatory and should be done in the first place.
- Disconnect power supply prior to any works on the electrical system. Disconnect any backup batteries, if used.
- If fuses trip, identify the cause and eliminate the fault before restoring normal operation.
- In case a problem persists and information from this instruction fails to help, contact the manufacturer technical department.
- Any rework or repairs to the installation should be conducted only by a professional installer.
- Usage other than stated in this instruction is not allowed.
- Both children and adults should not be within the product's range of operation.

2. STANDARD TERMS AND DEFINITIONS

[A000266] See: "Residential sliding gate" Operating and Maintenance Manual.

3. DESCRIPTION OF SYMBOLS


this sign refers to a specific item in this Installation Manual.


symbol referring to a separate instruction manual for the accessory element


symbol referring to a specified page


indoor side or the product inner side


outdoor side or the product outer side


option


power operated product


supervision


tighten


unscrew


use little force

4. REQUIRED INSTALLATION CONDITIONS

[A000040] According to the current European regulations, a pow- er-operated gate must be manufactured in accordance with Directive 2006/42/EC. It must also meet the requirements of the standards: EN 13241, EN 12453 and EN 12635. Before proceeding with the installation, a risk analysis must be performed, including all safety conditions, as provided by Appendix 1 Machine Directive, to indicate solutions to be used with the installation (planning permission).

[B000149] The installation should be performed at a temperature not lower than 5°C, the structure should be protected against the adverse effects of ambient conditions such as water, snow, construction site dust, all types of mortars.



- [C000081] **The product cannot be installed in an explosive atmosphere. Safety hazard.**
- [C000449] **The door drive unit should be protected from contact with water.**

5. ENVIRONMENTAL PROTECTION

[A000266] See: "Residential sliding gate" Operating and Mainte- nance Manual.

6. INSTALLATION INSTRUCTIONS

[A000041] Proper operation largely depends on correct installation of the product. Safe and intended operation of the product can only be ensured by correct installation and maintenance carried out accord- ing to the Manual.

[A000164] Before you start the installation, check whether the product and all the components are fit for use. Make sure that all the materials and elements are in a perfect condition and are suitable for use.

[C000415] The stability of the fence largely depends on correct installation of the posts. When installing the posts, the Manual guidelines must be followed at all times to prevent incorrect installation and the potential loss of warranty rights.

[D000146] Before attempting the installation process, verify that the product the drive unit will be installed on is properly mounted and adjusted and can be operated to open and close easily. Also dismantle the fixing parts and the drive components which do not require pow- er supply.



- **Do not use the drive unit to operate a product which is defective.**
- **Disconnect the drive from a power source before proceeding with the installation works. Also a battery power supply should be disconnected if it has been delivered.**
- [C000451] **Do not connect the drive unit to a power source before completing the installation process.**

[B000096] When installing the drive unit, recommendations of the door manufacturer, manufacturer of the drive unit and the accessories should be observed. To connect the drive unit, only original subassemblies must be used.

[B000215] Fitting works should be carried out in accordance with the European directives and standards: 2014/30/UE; 2006/42/WE; 2014/35/UE; EN 13241 as amended. Follow the relevant standards to install safety devices (photocells, edge safety strips, etc.) which are required to pro- tect the users who may enter the operating range of the product from hazards of damage, collision, and injury to people and animals/pets and property damage.

- [A000165] **It is forbidden to use any additional end fittings or alter the existing ones without the Manufacturer's consent.**
- [A000129] **Install the operator using the holders and adapter brackets provided by the Manufacturer.**
- [A000026] **Keep the packaging (plastics, polystyrene, etc.) out of reach of children as these materials pose a serious safety risk.**
- [A000028] **During the performance of installation/renovation work, remove all jewellery and use personal protective equipment (clothes, goggles, gloves etc.).**
- [A000151] **Disregarding these basic recommendations may cause malfunctioning, damage or warranty loss of the door.**

[C000567] The product structure for a custom infill has been designed and manufactured in compliance with all technical requirements and standards. After the infill has been installed, the product must comply with the requirements of standards EN 13241 and EN 12453. The infill used must not contain any sharp-edged components or edges and must not cause any additional hazards in connection with the intended use of the product. Safe distances and presence detection capabilities must be ensured, as described in standards EN 12604 and EN 12453. Follow- ing the infill installation, a procedure to verify the product's compliance with legal requirements must be carried out immediately on site. Per- form a risk assessment, and archive and keep the analysis records for at least 10 years. If irregularities are found, they must be rectified so that the product put into service does not pose a risk during use. Where necessary, the product must be retrofitted with the necessary safety systems and the residual risk must be disclosed and labelled. In order to preserve the durability of the structure and ensure the proper oper- ation of the product, the infill must be installed permanently. The infill weight may not exceed **20 [kg/m2]**. Potential variations in the infill weight should be considered, e.g. due to the absorbent nature of the materials used. A maximum allowed infill ratio is **40%**. The installed infill should be made in such a way that its weight is distributed evenly over the surface of the product leaf. The way in which the infill material is joined to the product must not cause additional stresses on its structure, e.g. cause deformation of the product leaf. The infill and its installation must not create areas that could lead to corrosion of the product's structure. The materials used must not increase the fire load density. They must also not contain/release hazardous substances as defined by Europe- an law. In the case of additional national product safety requirements not covered by the above-mentioned provisions, compliance with such requirements must be verified and ensured.

6.1. PREPARATION ACTIVITIES

[D000491] Preparation activities include preparing foundation and the wiring system. The gate handing is always stated as viewed from the premises side. Foundation for the gate posts should be performed according to the attached drawings. The posts construction to which the gate will be assembled, should provide its stability and rigidity in all planes. Foundations for the whole fencing should go below the freezing depth, specific for the region where the installation takes place, but not less than 1200 [mm].



- [C000408] **The foundation design must follow EN 1992 and EN 1997!**
- [D000822] **Brackets should be installed with R-STUDS-16190-A4-FL + R-KEXII+R-STUDS-16190-16190-A4-FL chemical anchors or similar products of other manufacturers provided that the strength characteristics of the product correspond to the recommended anchor.**
- **Anchor the brackets to reinforced structural concrete with C20/25 strength or higher (minimum thickness of the wall: 300 mm).**
- **Before installing the brackets, make sure to check whether the materials used are compatible with galvanized and painted surfaces.**
- [D000446] Prior to construction of the fence, it must be checked if the materials used do not contain contraindications to the use with galvanized and painted coatings.
- [C000497] **Damage to the post or the fence is possible when the (minimum) depth of the post seating differs from the depth specified in the Installation Instructions.**

- [B000091] Other foundation depths are permitted only after surveying the local ground and water conditions of the installation site, and should be in accordance with the construction practices and technical knowledge.
- **Make expansion joints in accordance with the enclosed foundation work drawings!**
- [C000409] The installation of the posts must guarantee stability. The posts must not deviate from the vertical or become deformed.
- [A000151] **Disregarding these basic recommendations may cause malfunctioning, damage or warranty loss of the door.**

6.2. THE SEQUENCE OF INSTALLATION FOR A GATE WITH TWO FOUNDATION ANCHORS - B2

Make sure that preliminary works have been completed. Perform the initial inspection of the gate (check for manufacturing defects).

Fig. 12 Place the gate leaf including the track on the prepared anchors (in accordance with the OHS regulations; the use of a crane is recommended).
Use the installation kit (washer + nut) to fix the gate structure to the foundation.

Fig. 12.1 Make sure the gate leaf is level. Adjust the gate leaf position with adjustment screws as required.
Install the brackets.

Fig. 13
Fig. 14 Install the top connector as shown in the drawing.
Fig. 15 Make sure the post is plumb and adjust as required.
Move the gate manually between the end positions of the gate. Make sure the gate runs smoothly without resistance.

Fig. 26
Fig. 27 Install the gate leaf catcher as appropriate depending on the type of the catcher.
Fig. 28

Fig. 26.3
Fig. 27.3 Adjust the gate leaf catcher.
Fig. 28.2

Fig. 29 In gates fitted with an adjustable front rod, the gate leaf can be lifted and lowered as required.

Fig. 31 The method for disengaging the drive in the post.

Fig. 32 Install contact or magnetic sensors depending on the type of the controller.

Fig. 32.6 If the drive unit is integrated with the post, adjust the distance between the toothed bar and the toothed wheel using the positioning rod and drive unit adjustment screws (the drive can be adjusted vertically) in accordance with the drawing.

Fig. 33 When installing a gate with an external drive unit, follow the drive unit manufacturer's guidelines and the drawing.
Make sure that gate moves easily and smoothly.

Fig. 17

[D000210] **When the installation is complete, the gate should move freely along the whole gate leaf and be invariably balanced.**

6.3. THE SEQUENCE OF INSTALLATION FOR A GATE WITH THREE FOUNDATION SCREWS – B3

Make sure that preliminary works have been completed. Perform the initial inspection of the gate (check for manufacturing defects).

Fig. 18 Place the gate leaf including the track on the prepared anchors (in accordance with the OHS regulations; the use of a crane is recommended).
Use the installation kit (washer + nut) to fix the gate structure to the foundation.

Fig. 18.1 Make sure the gate leaf is level. Adjust the gate leaf position with adjustment screws as required.
Install the brackets.

Fig. 19
Fig. 26 Install the gate leaf catcher as appropriate depending
Fig. 27 on the type of the catcher.
Fig. 28

Fig. 26.3
Fig. 27.3 Adjust the gate leaf catcher.
Fig. 28.2

Fig. 29 In gates fitted with an adjustable front rod, the gate leaf can be lifted and lowered as required.

Fig. 31 The method for disengaging the drive in the post.

Fig. 32 Install contact or magnetic sensors depending on the type of the controller.

Fig. 32.6 If the drive unit is integrated with the post, adjust the distance between the toothed bar and the toothed wheel using the positioning rod and drive unit adjustment screws (the drive can be adjusted vertically) in accordance with the drawing.

Fig. 33 When installing a gate with an external drive unit, follow the drive unit manufacturer's guidelines and the drawing.
Make sure that gate moves easily and smoothly.

Fig. 21

[D000210] **When the installation is complete, the gate should move freely along the whole gate leaf and be invariably balanced.**

6.4. THE SEQUENCE OF INSTALLATION FOR A GATE WITH FOUR FOUNDATION SCREWS – B4

Make sure that preliminary works have been completed. Perform the initial inspection of the gate (check for manufacturing defects).

Fig. 22 Place the guiding frame on the prepared anchors (in accordance with the OHS regulations; the use of a crane is recommended).
Use the installation kit (washer + nut) to fix it to the foundation. Adjust the plumb and level.

Fig. 23 Remove the rail cap.

Fig. 23.1 Slide the leaf onto the carriages (in accordance with the OHS regulations; the use of a crane is recommended).
Adjust the leaf level.

Fig. 23.2 Fit the rail cap.

Fig. 26
Fig. 27 Install the gate leaf catcher as appropriate depending on the type of the catcher.
Fig. 28

Fig. 26.3
Fig. 27.3 Adjust the gate leaf catcher.
Fig. 28.2

Fig. 29 In gates fitted with an adjustable front rod, the gate leaf can be lifted and lowered as required.

Fig. 31 The method for disengaging the drive in the post.

Fig. 32 Install contact or magnetic sensors depending on the type of the controller.

Fig. 32.6 If the drive unit is integrated with the post, adjust the distance between the toothed bar and the toothed wheel using the positioning rod and drive unit adjustment screws (the drive can be adjusted vertically) in accordance with the drawing.

Fig. 33 When installing a gate with an external drive unit, follow the drive unit manufacturer's guidelines and the drawing.
Make sure that gate moves easily and smoothly.

Fig. 25

[D000210] **When the installation is complete, the gate should move freely along the whole gate leaf and be invariably balanced.**

6.5. DRIVE UNIT ADJUSTMENT

[A000266] See: "Residential sliding gate" Operating and Maintenance Manual.

6.6. OVERLOAD ADJUSTMENT

[A000266] See: "Residential sliding gate" Operating and Maintenance Manual.

6.7. MANUAL CONTROL BUTTONS

[C000008] Manual control buttons should be installed:
- at a location where the user has unobstructed view of the product in motion and its surroundings,
- in a place where the device cannot be turned on unintentionally,
- away from moving parts,
- at a height of at least 1.5 m.

6.8. FINISHING TASKS

[B000164] On completing the installation, check if the product has a nameplate, contact an authorised service company if it is not present.

On completing the installation, remove the plastic sheet from the product. Failure to do so will cause very strong bonding of the plastic sheet to the structure caused by heat and sunlight. This will make it almost impossible to remove the plastic sheet and may cause severe damage to the paint finish of the product.

[C000481] Affix the warning labels permanently and in visible locations on the product or the control panel.
[D000200] The installer is required to analyse the hazards present during operation of the product and to explain them to the user/owner. The following regular hazards occur during opening of the product: collision and crushing in the closing zone; collision and crushing in the opening zone; injury by pinching between the leaf and the receiver; snagging; and mechanical hazards related to the movement of the product. Before operating the product, make sure that all people are at a safe distance. Do not touch any moving part of the product while it is opening. Keep away at a safe distance from the product while opening: pass through the opening only when the product is fully opened and stationary.

Check the following before the final handover of the product to the owner:
• [D000201] proper functioning of all safety devices (photocells, etc.),
• manual start and stop,
• remote control start and stop,
• function logic,
• the safety devices operation in simulated emergency situations



- [B000209] **Verify proper adjustment of the product and its compliance with EN 13241, EN 12453.** Perform the inspection activities outlined in Section 6.5, 6.6, 6.7.
- [C000459] **Verify proper adjustment and performance of the manual drive unlocking.**
- [C000014] **Visually inspect the product and the installation to make sure there is no evidence of mechanical maladjustment, damage, wear, or damage of wiring and the installed drive unit components.**
- [B000302] **It is prohibited to keep using the door, if any faults in its operation, or damage of its components are found. Do not operate.**
- [B000216] **Check the emergency opening mechanism supplied with the operator.**
- [A000144] **The Professional Installer must explain proper operation of the product to its user, including the emergency procedures, and train the user in proper use.**
- [A000011] All the actions should be carried out as instructed in this Installation and Operating Manual. Please send any remarks and recommendations you might have to the owner in writing, e.g. note them in the Report Book or in the Warranty Sheet. After completing the inspection, confirm that the inspection was performed by adding an entry in the Report Book or in the Warranty Sheet.
- [A000180] **After making sure the product operates properly, give the Operating and Maintenance Manual to the owner.**
- [B000183] **Keep the door pack list for future reference.**
- [A000151] **Disregarding these basic recommendations may cause malfunctioning, damage or warranty loss of the door.**

6.9. DISASSEMBLY OF DOORS

[C000010] Disassembly of the gate should be carried in a sequence reverse to assembly. Turn off the power supply before the disassembly procedure.



[A000011] **All the actions should be carried out as instructed in this Installation and Operating Manual. Please send any remarks and recommendations you might have to the owner in writing, e.g. note them in the Report Book or in the Warranty Sheet. After completing the inspection, confirm that the inspection was performed by adding an entry in the Report Book or in the Warranty Sheet.**

[A000079] **The manufacturer reserves the right to introduce design modifications due to technological progress that do not alter the product functionality, without prior notice.**

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[A000048] **This document has been translated from Polish. In case of discrepancies, the Polish version prevails.**

7. FOUNDATION

Fig. 1 B2 – right gate - with drive unit
Fig. 2 B2 – left gate - with drive unit

[D000291] **Legend:**
F - Foundation length
RF - Spacing between centres of the wheeled carriages
So - Distance between the posts - ordering dimension
B - Gate operating length B=So+RF+400 [mm]
W - view from the premises side

Foundation works should be performed according to EN 1992 i EN 1997!

1. Cable laying place: 3x1.5 [mm2] (7) or 3x2.5 [mm2] (7); 3x0.5 [mm2] (8).
2. Foundation threaded anchor bolt 25-A-II, length 500 [mm] • installation with two screws - M20 anchor
3. Theoretical fencing post
4. Foundation: gravel concrete C20/C25, concentrated

[B000297] **The waterproofing of the foundation should be performed, the method and manner of the waterproofing depend on the soil-water conditions at the place of the product installation.**

5. The depth should go below the freezing depth, specific for the region where the installation takes place, but not less than 1200 [mm].
6. Control cables for photocells 2x0.5 [mm2] in steel or PCV pipe.
7. Supply voltage 3x1.5 [mm2] (7) or 3x2.5 [mm2] if the distance from the power source is more than 30[m]. The Electrical installation should be made acc. to PN-IEC 60364 “Electrical Installations for Buildings”.
8. 3x0.5 [mm2] push button control.
9. Gate leaf operating axis
10. The dimension should be calculated according to the table on the foundation drawing.
11. Safe distance from a fixed barrier.
12. Lay the cables with excess of 1000 [mm] for assembly.
13. 4x0.5 [mm2] (photocells).
14. IR barrier.
15. Finished driveway level.
16. Clear opening of the installation opening
17. Gate leaf axis line

- **Foundation anchors ends should be on the same level Maintain the true vertical of the foundation anchors when setting it into concrete.**
- **Power supply and control cables sections should not be changed as it may hamper or prevent the installation.**
- **Use leaf gate axes lines (17) when installing the gate; also check the measurements in line with the figure.**
- **Spacing between the centres of the foundation anchors.**

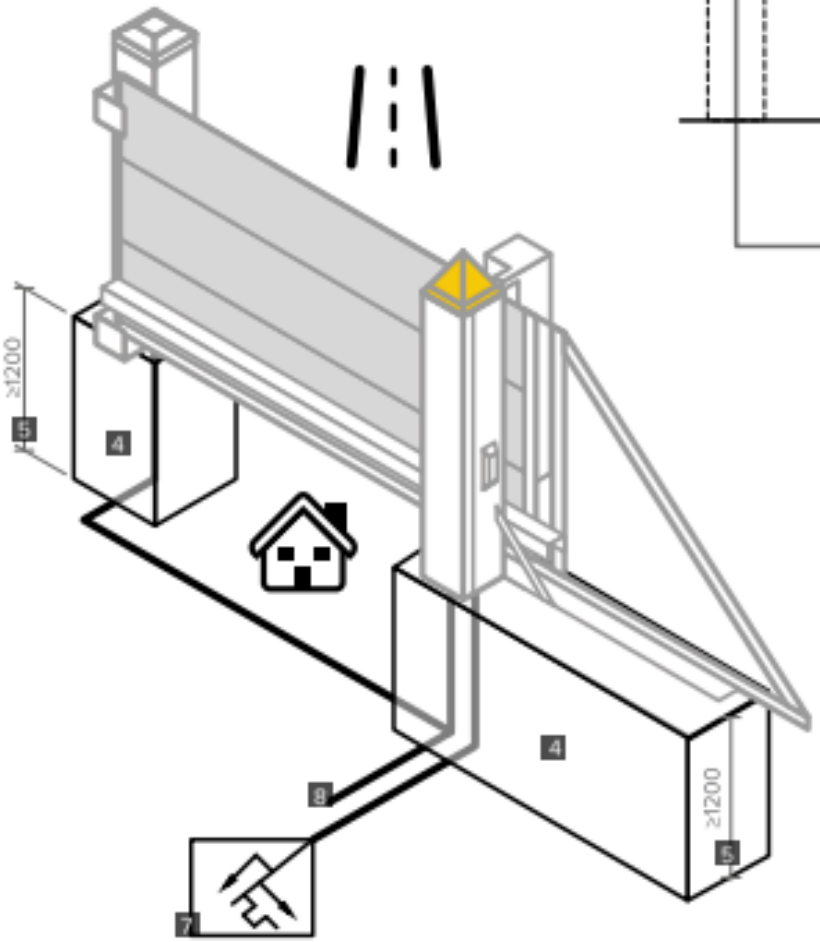
8. REINFORCEMENT

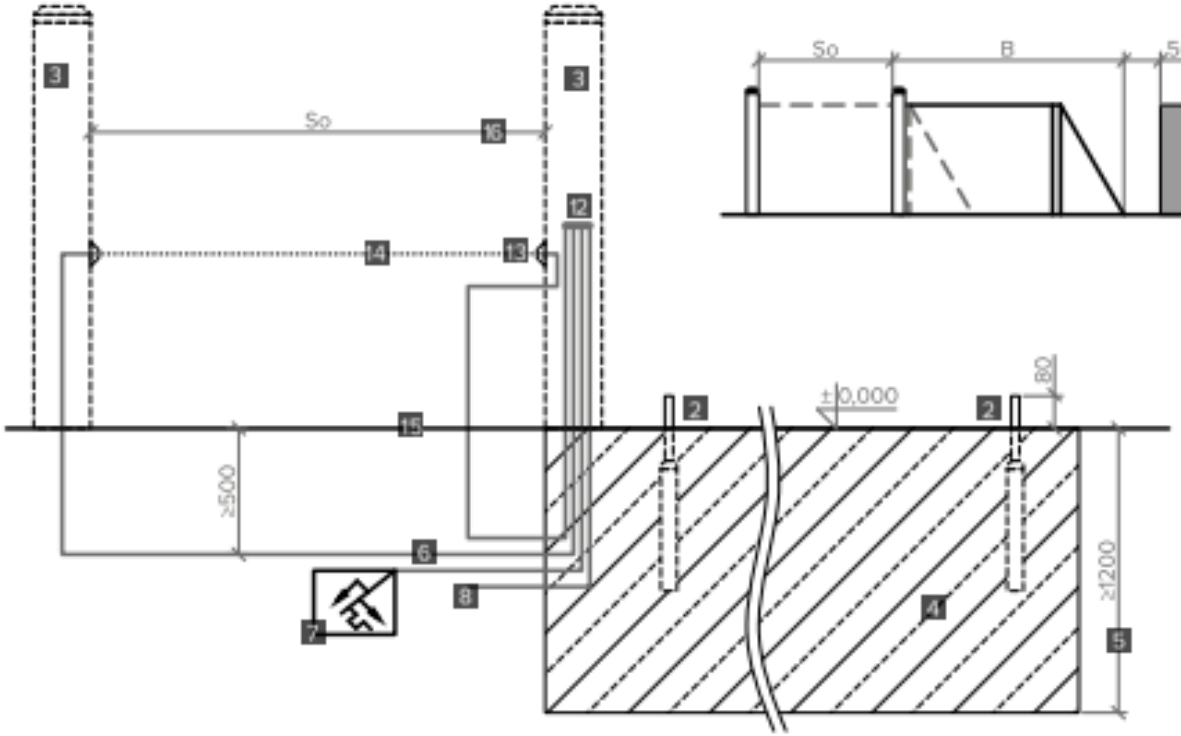
Fig. 10 B2

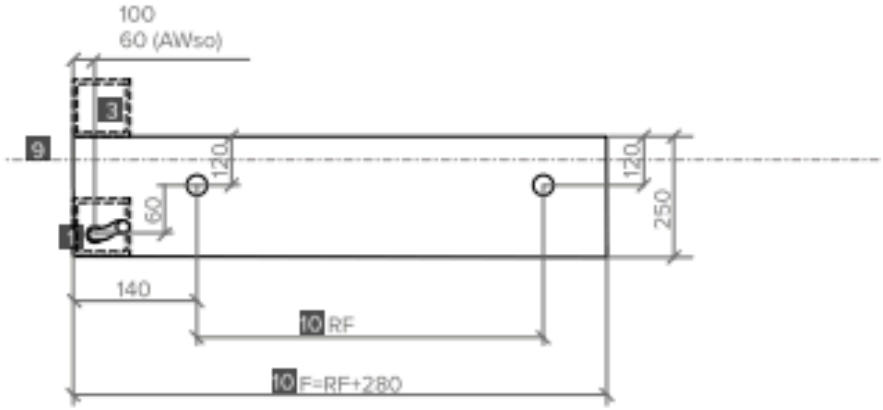
[D000257] Legend:
(*1) - the depth should go below the freezing depth, specific for the region where the installation takes place, but not less than 1200 [mm].
(*2) - List of steel reinforcing elements
(*3) - Diameter ø [mm]
(*4) - Length L [mm]
(*5) - Number per element of N piece
(*6) - Total length in [m] Ltot
(*7) - Bar No.
(*8) - Unit mass Mi [kg/m]
(*9) - Mass M [kg]
(*10) - Total mass Mtot [kg]
-(*11) - Steel A-IIIN (RB500)
-(*12) - Beton C20/25
(*13) - Otulina Cmin

The drawing presents the minimum required reinforcement. Whether the foundation is performed correctly depends on the local ground and water conditions. In individual situations, foundation should be designed.

So [mm]	RF [mm]
<3500	1100
3501 – 4000	1300
4001 – 5500	1500
5501 – 6000	1700

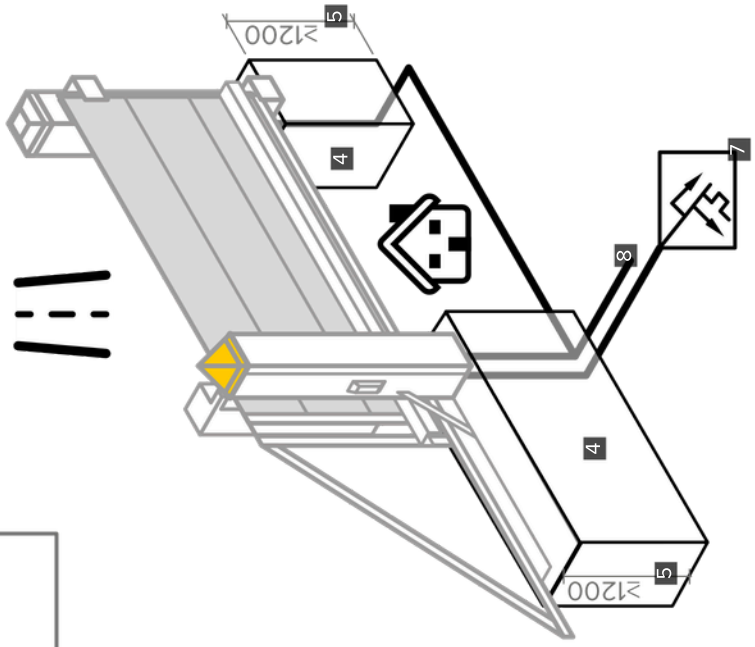


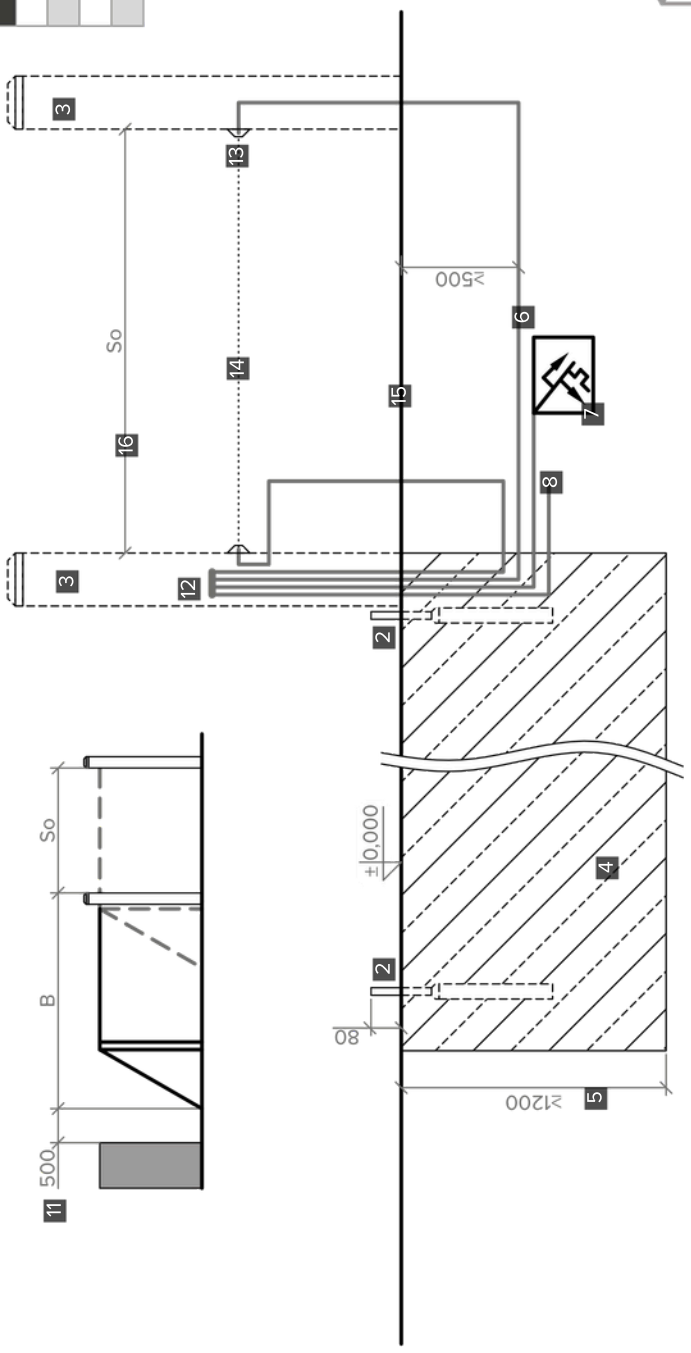


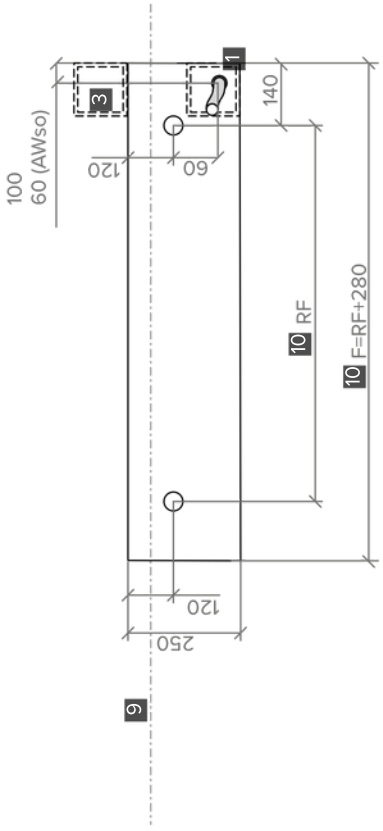


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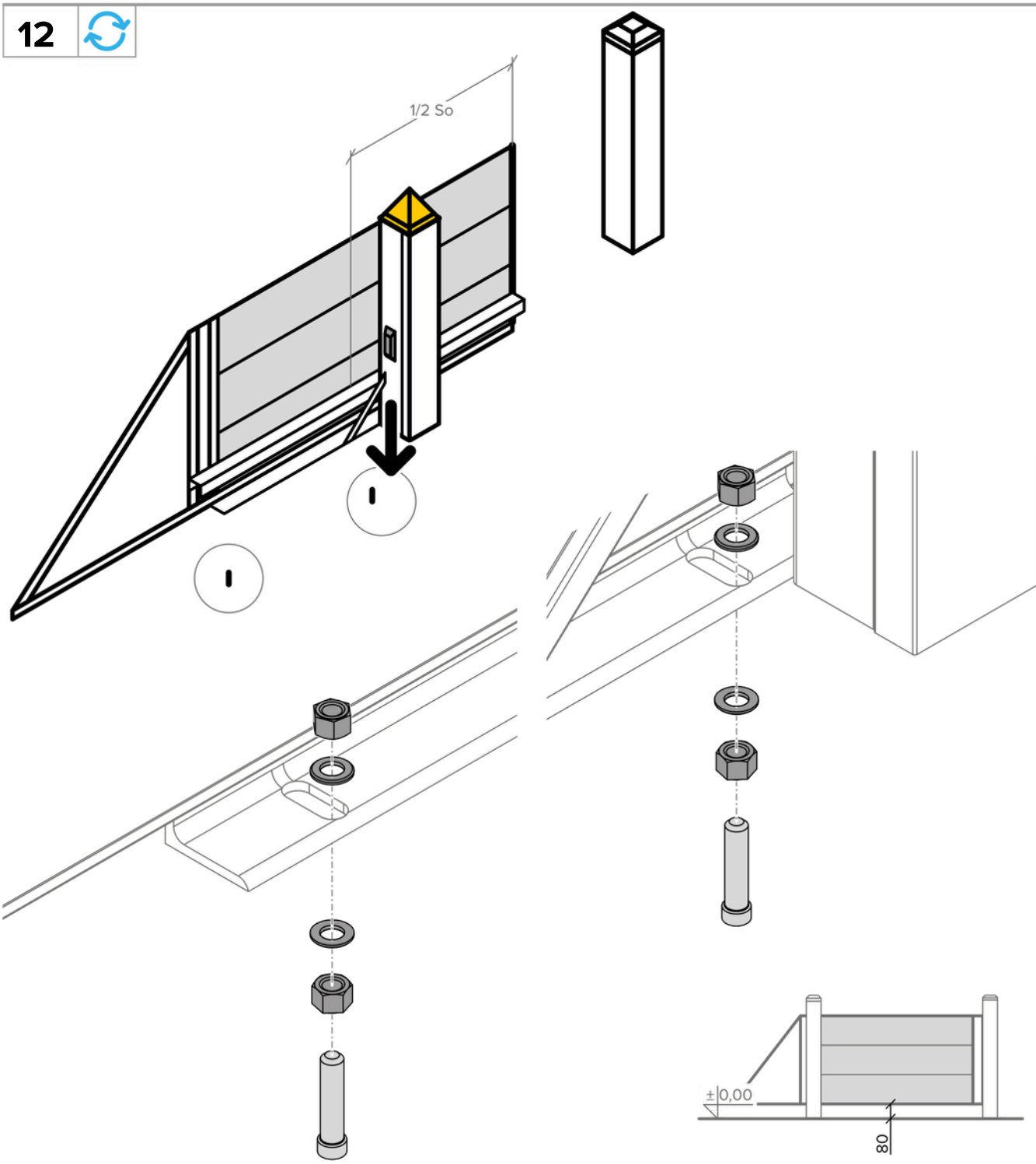
So [mm]	RF [mm]
<3500	1100
3501 – 4000	1300
4001 – 5500	1500
5501 – 6000	1700



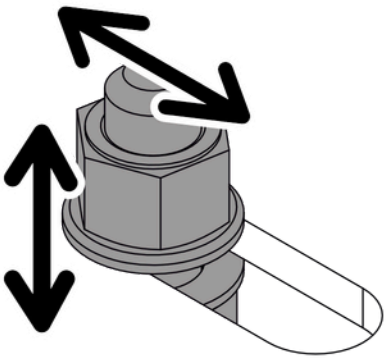


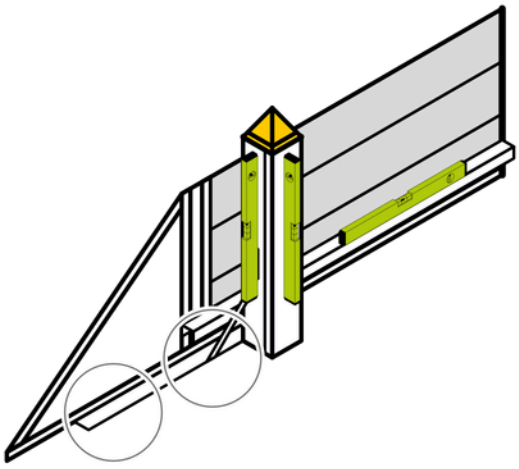


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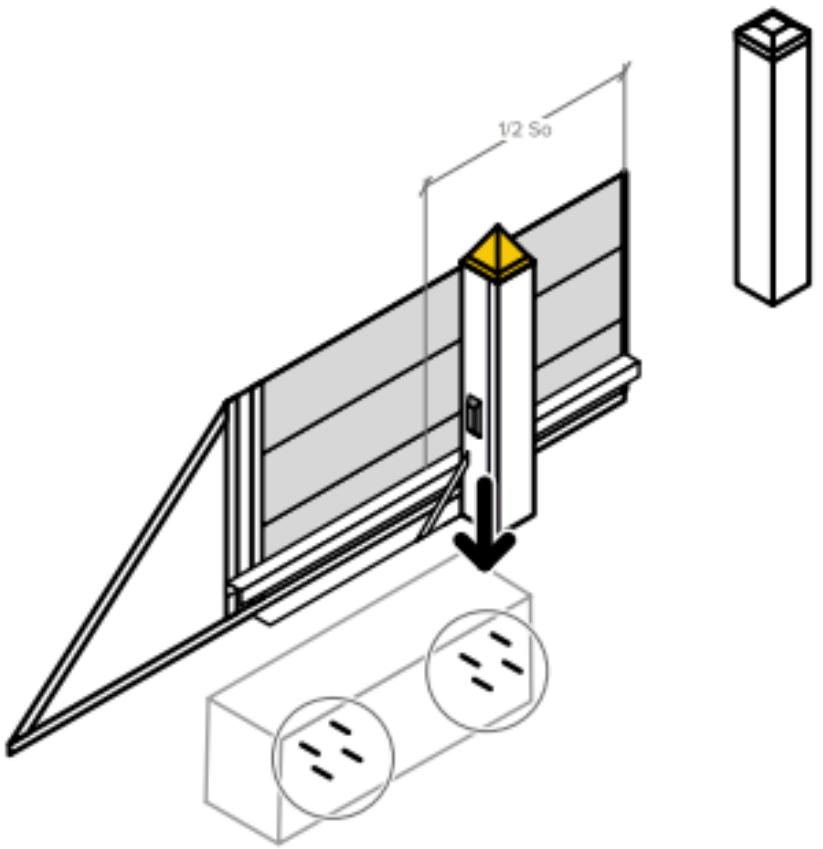


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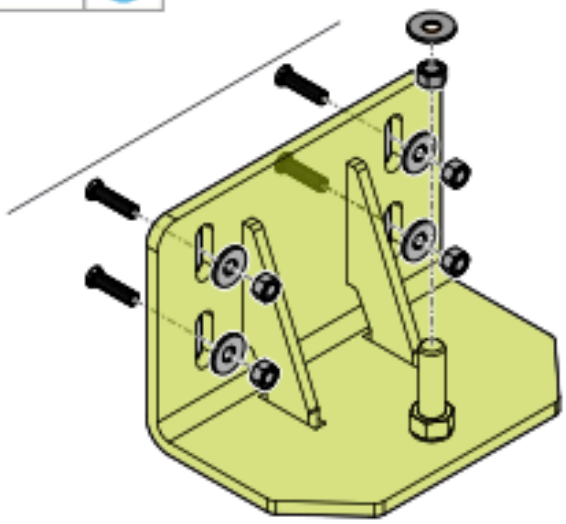




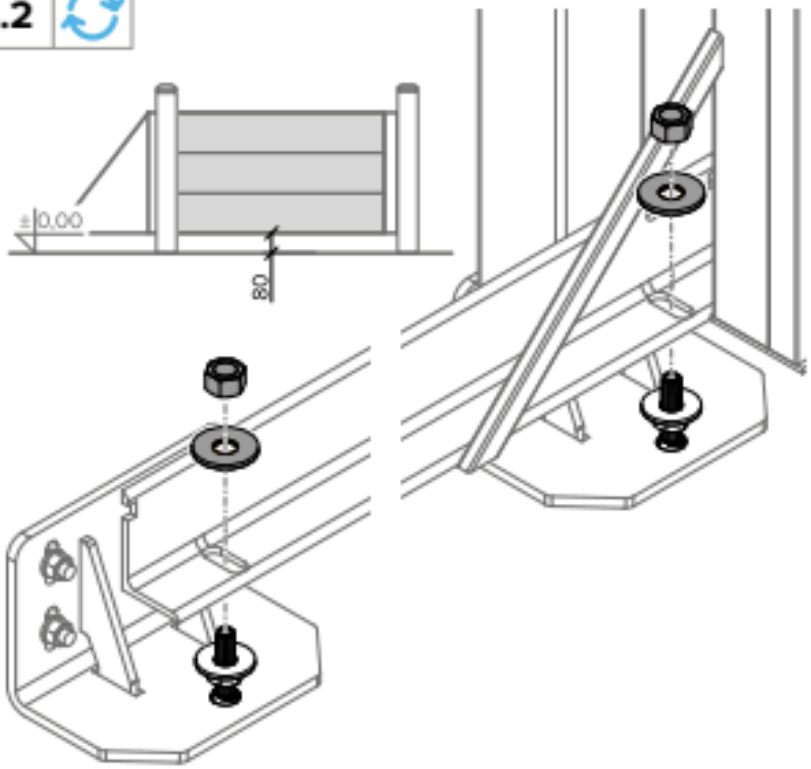
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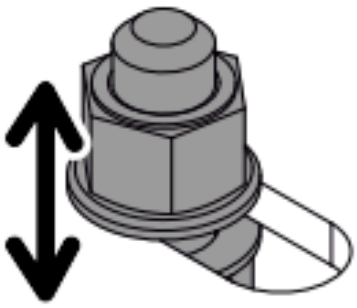
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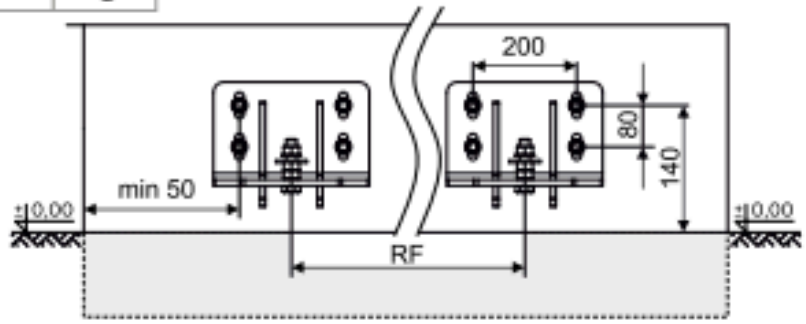
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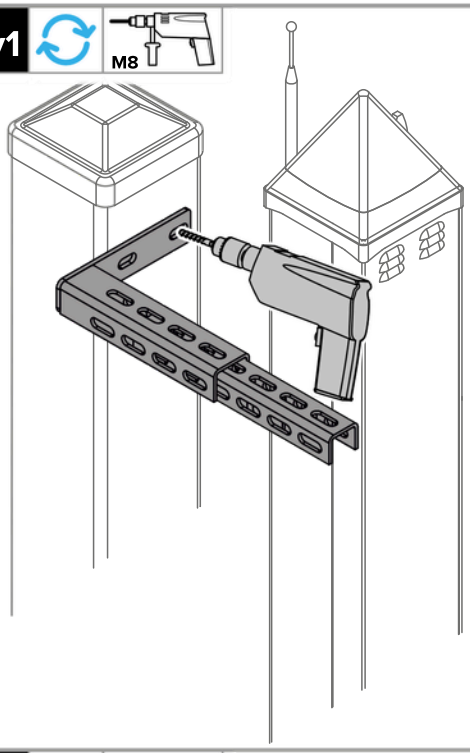
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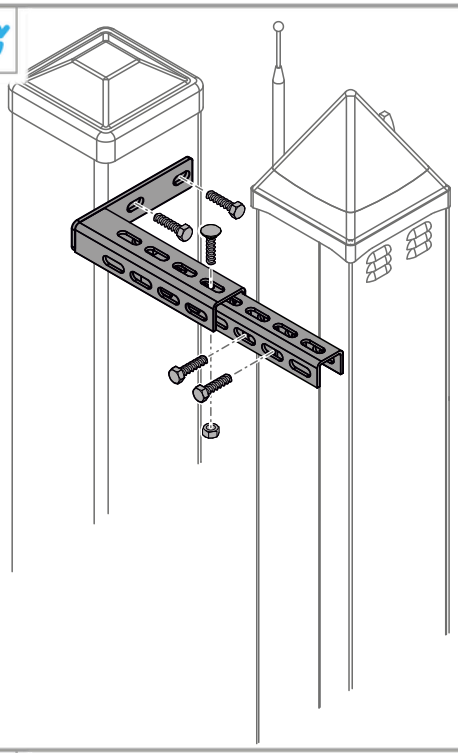
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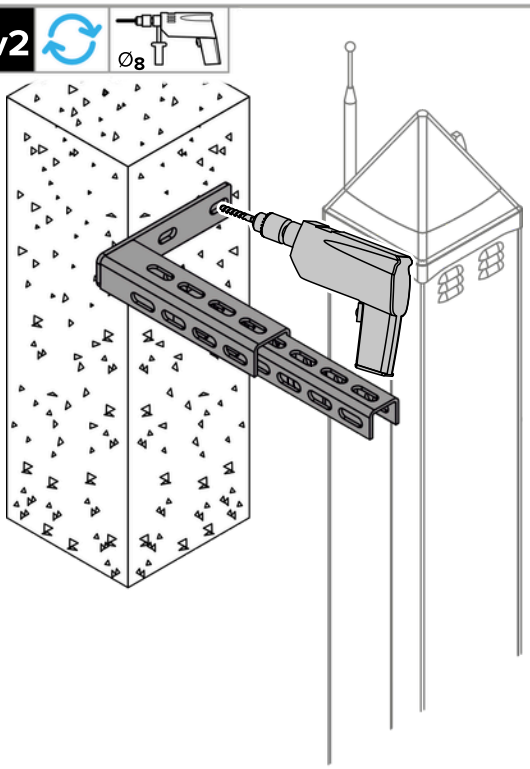
14 v1



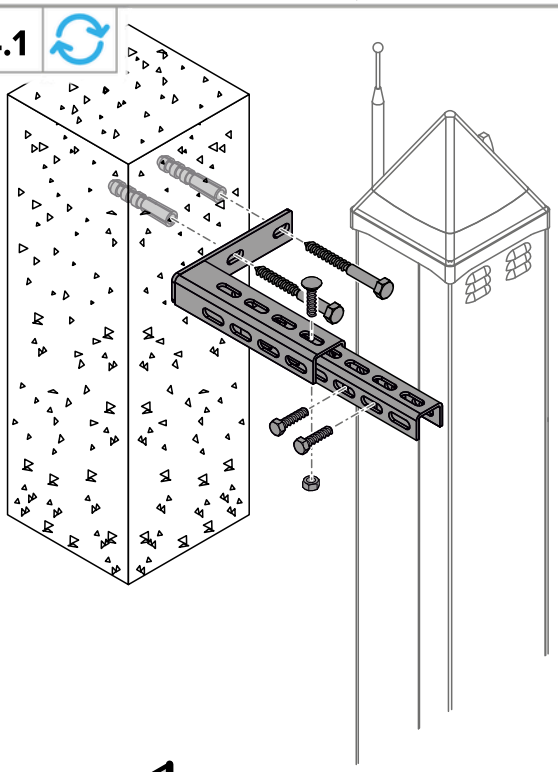
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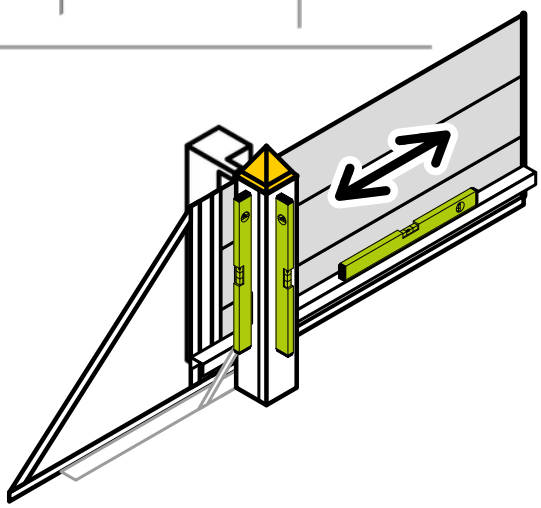
14 v2

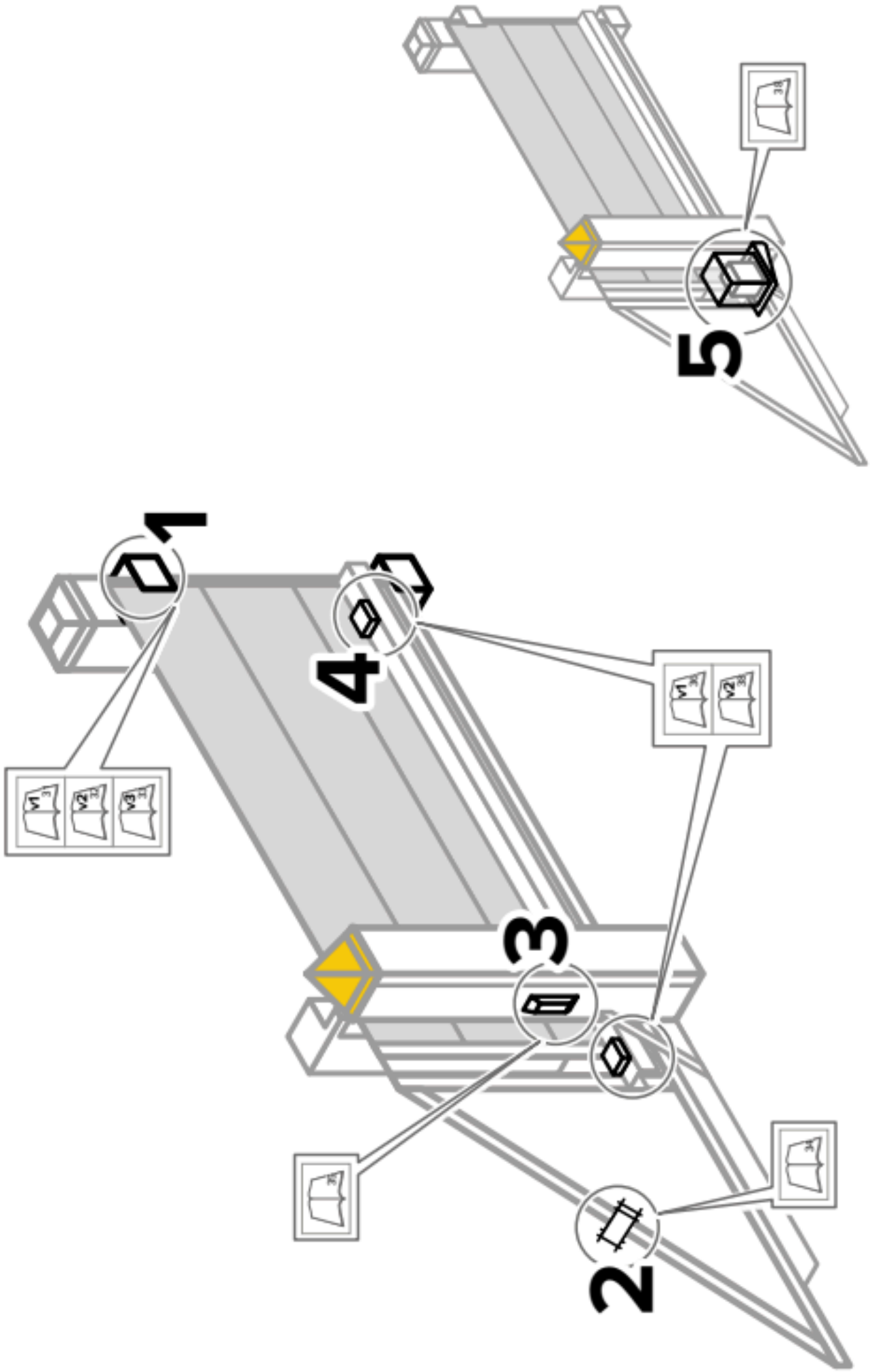


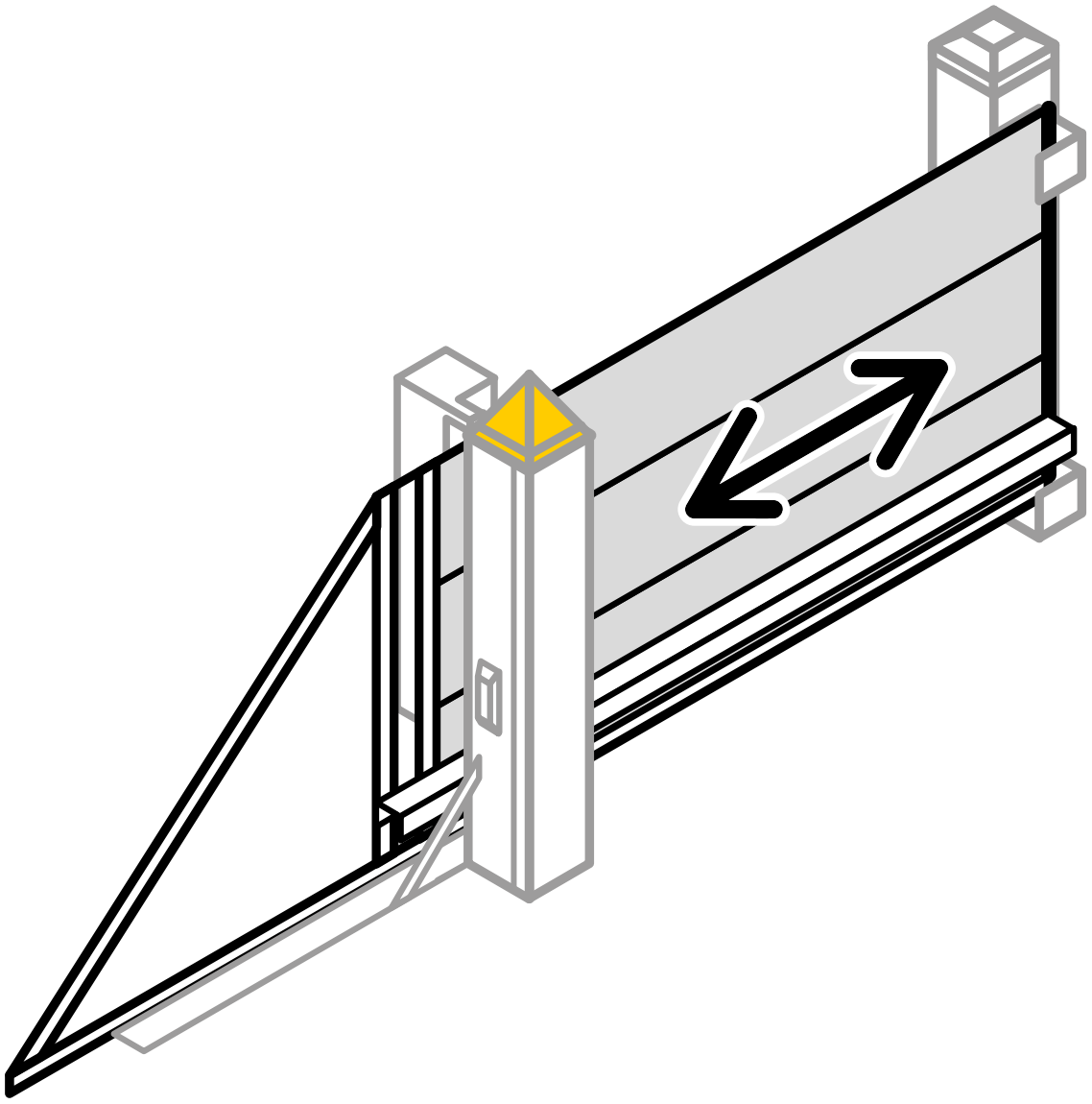
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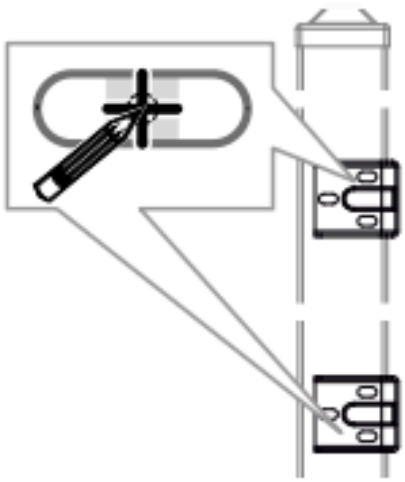
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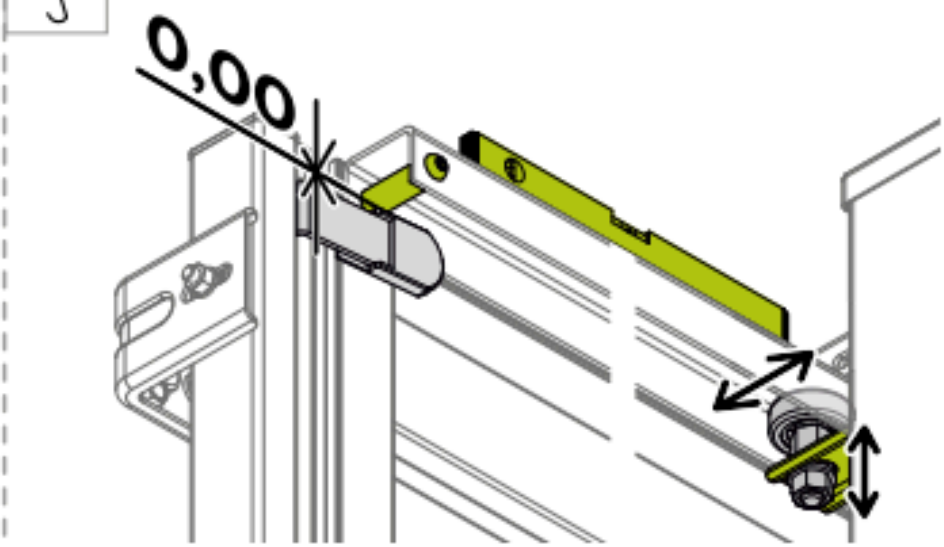



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4
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2

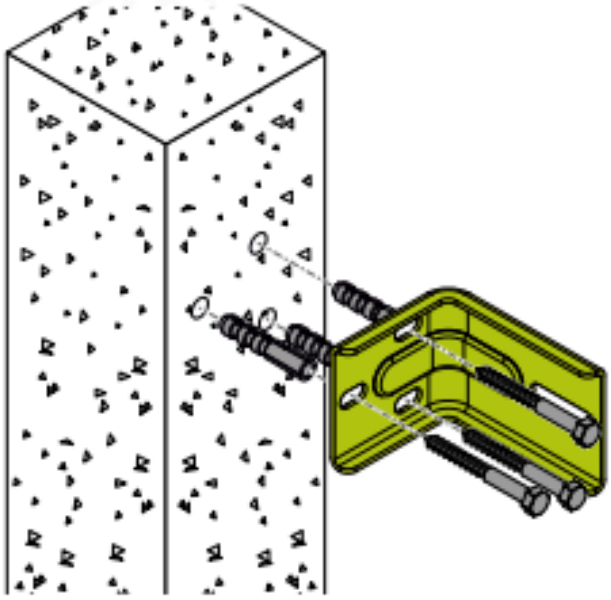


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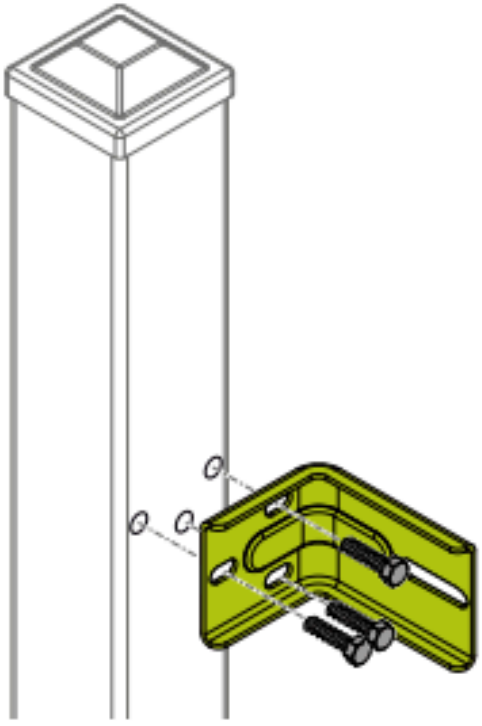




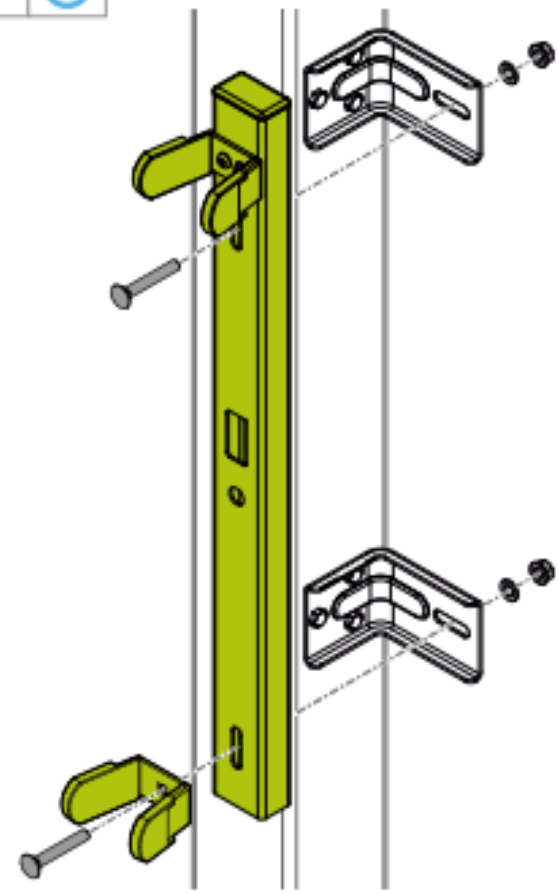
26.1 v1



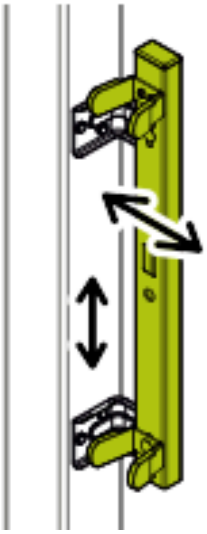
26.1 v2



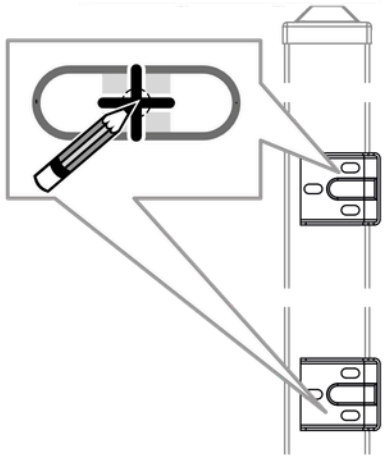
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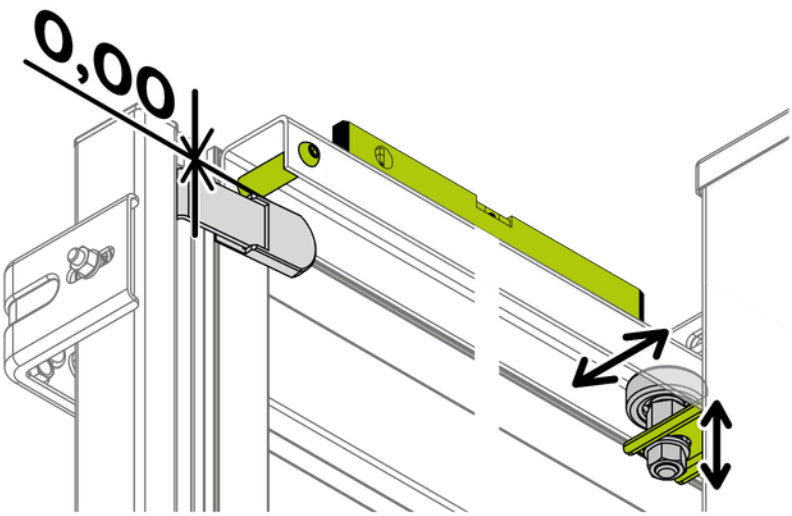


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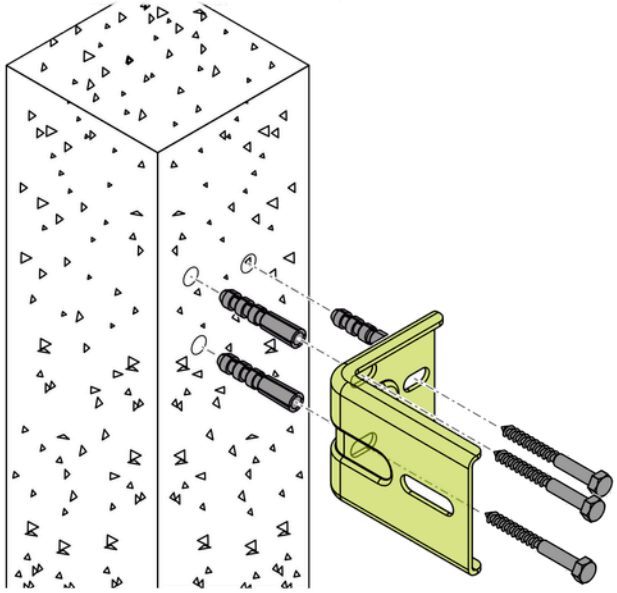


27 6.2 6.3 6.4

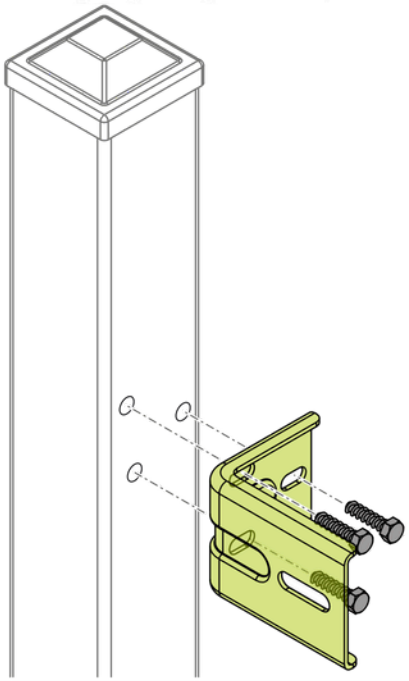




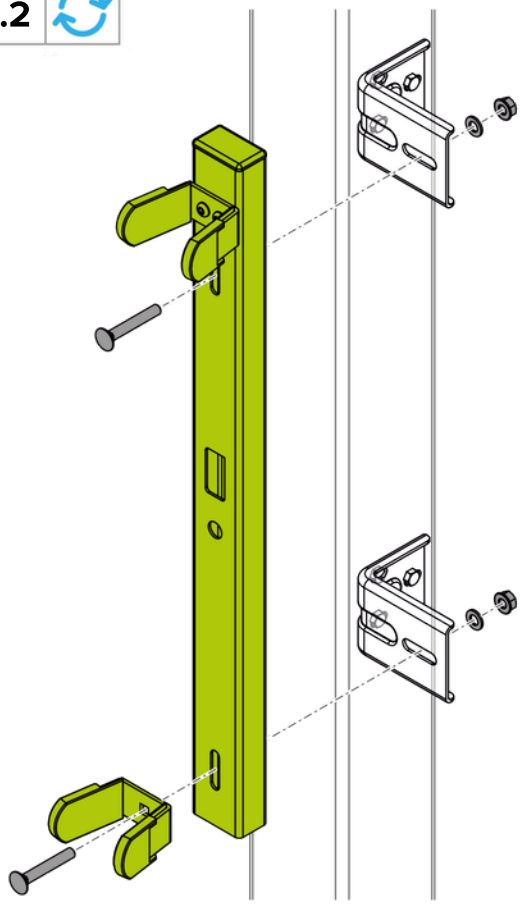
27.1 **v1** Ø8



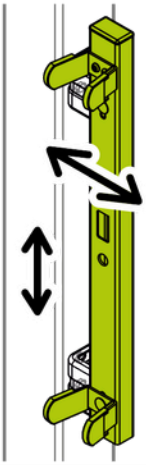
27.1 **v2** M8



27.2

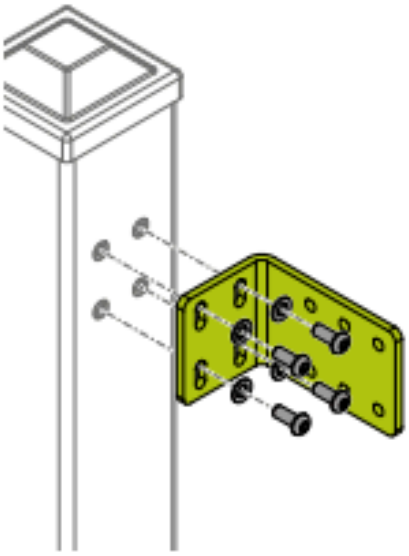


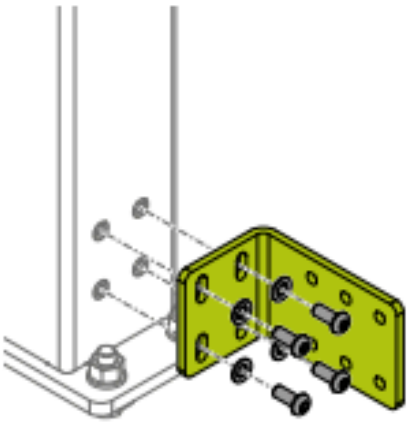
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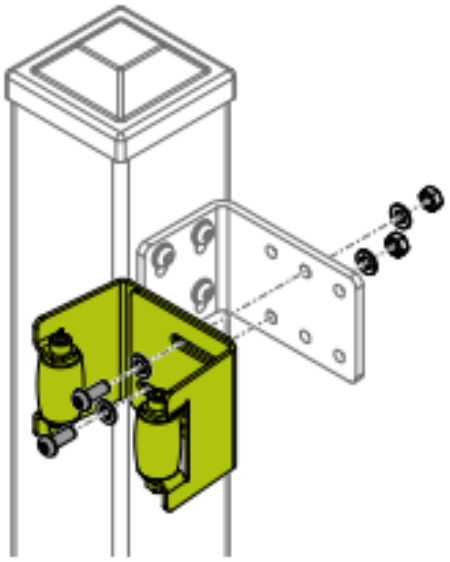
28 6.2 6.3 6.4

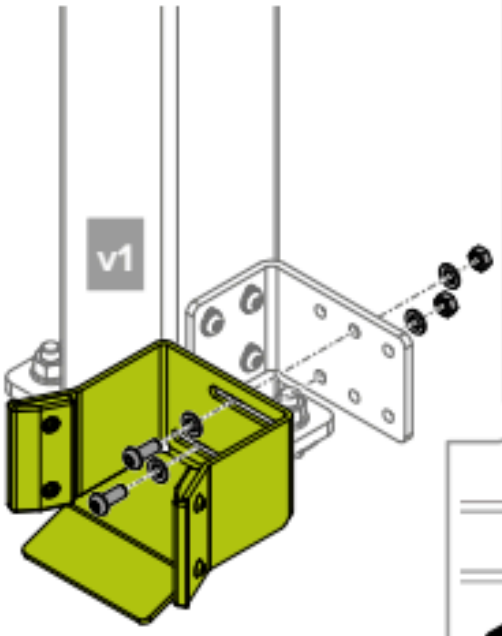
v1 M8



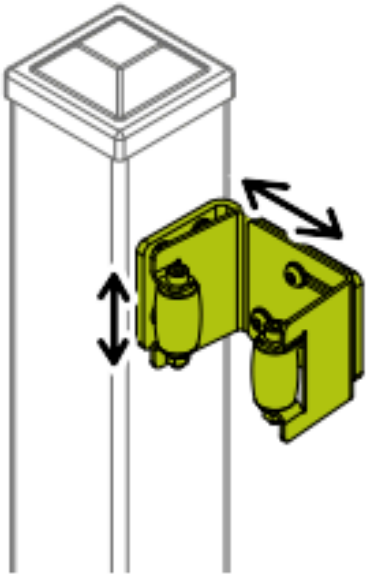


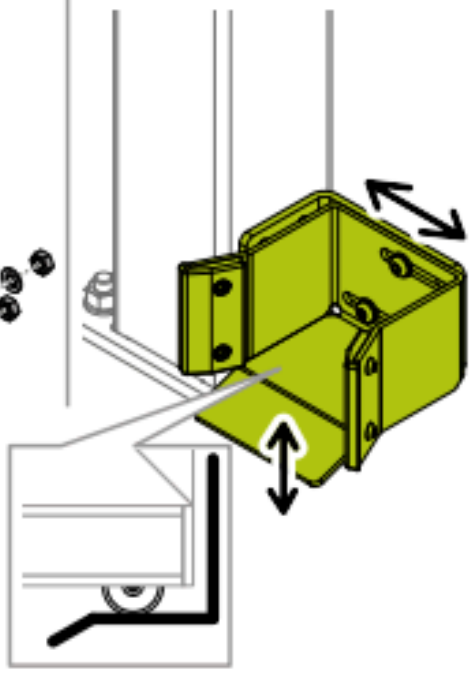
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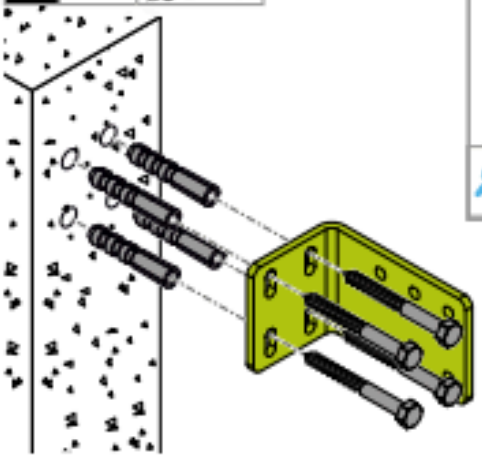


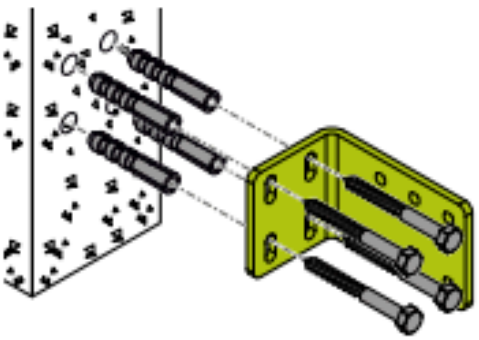
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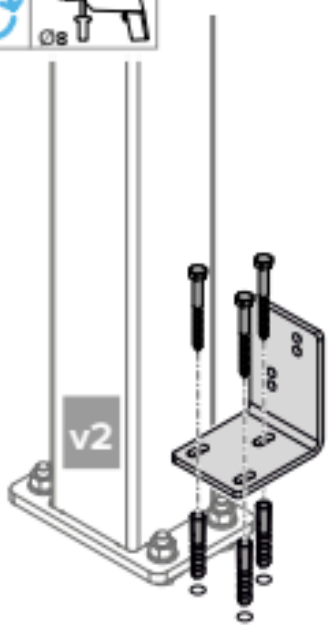


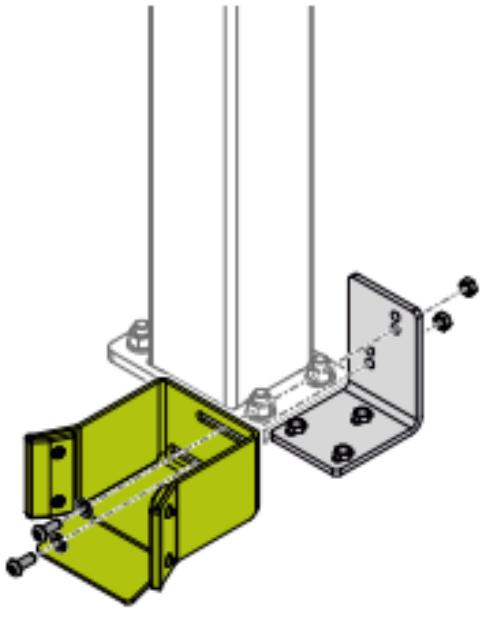
v2 Ø8



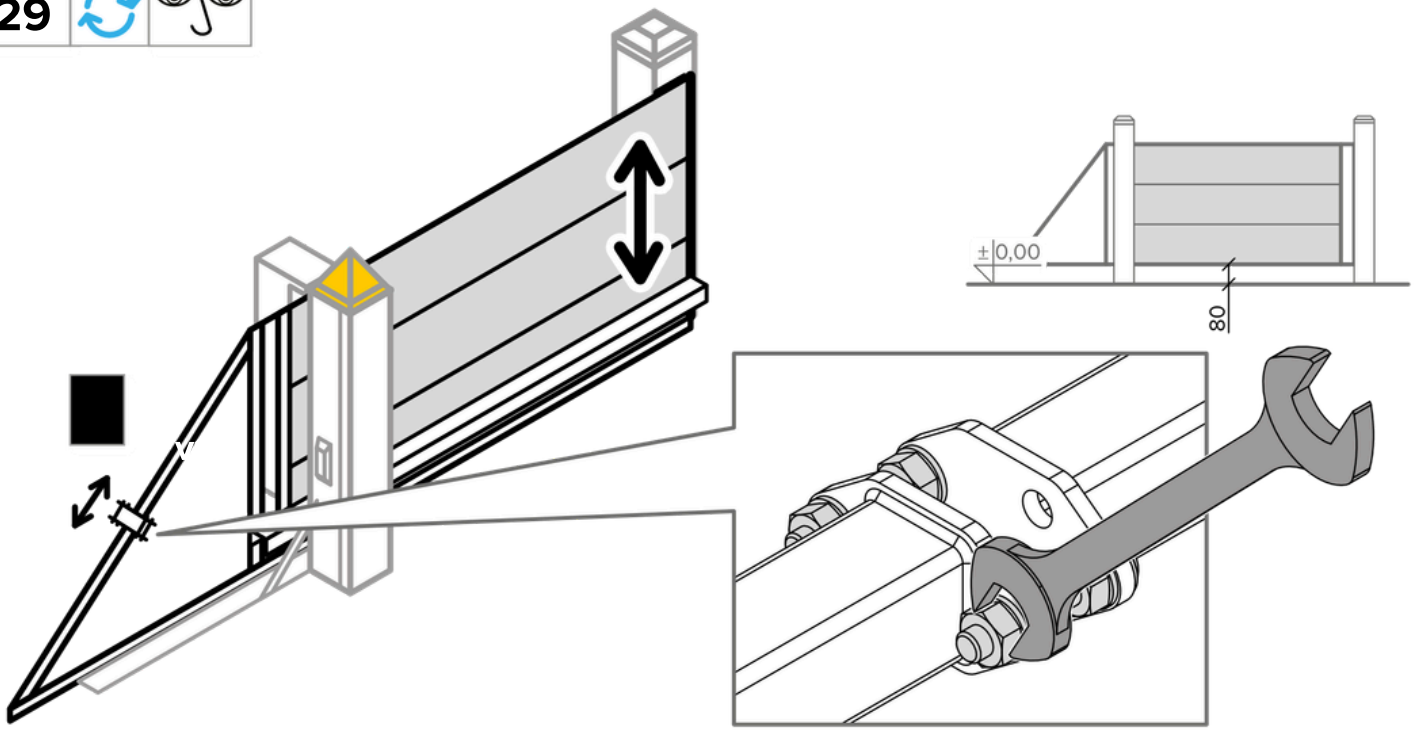


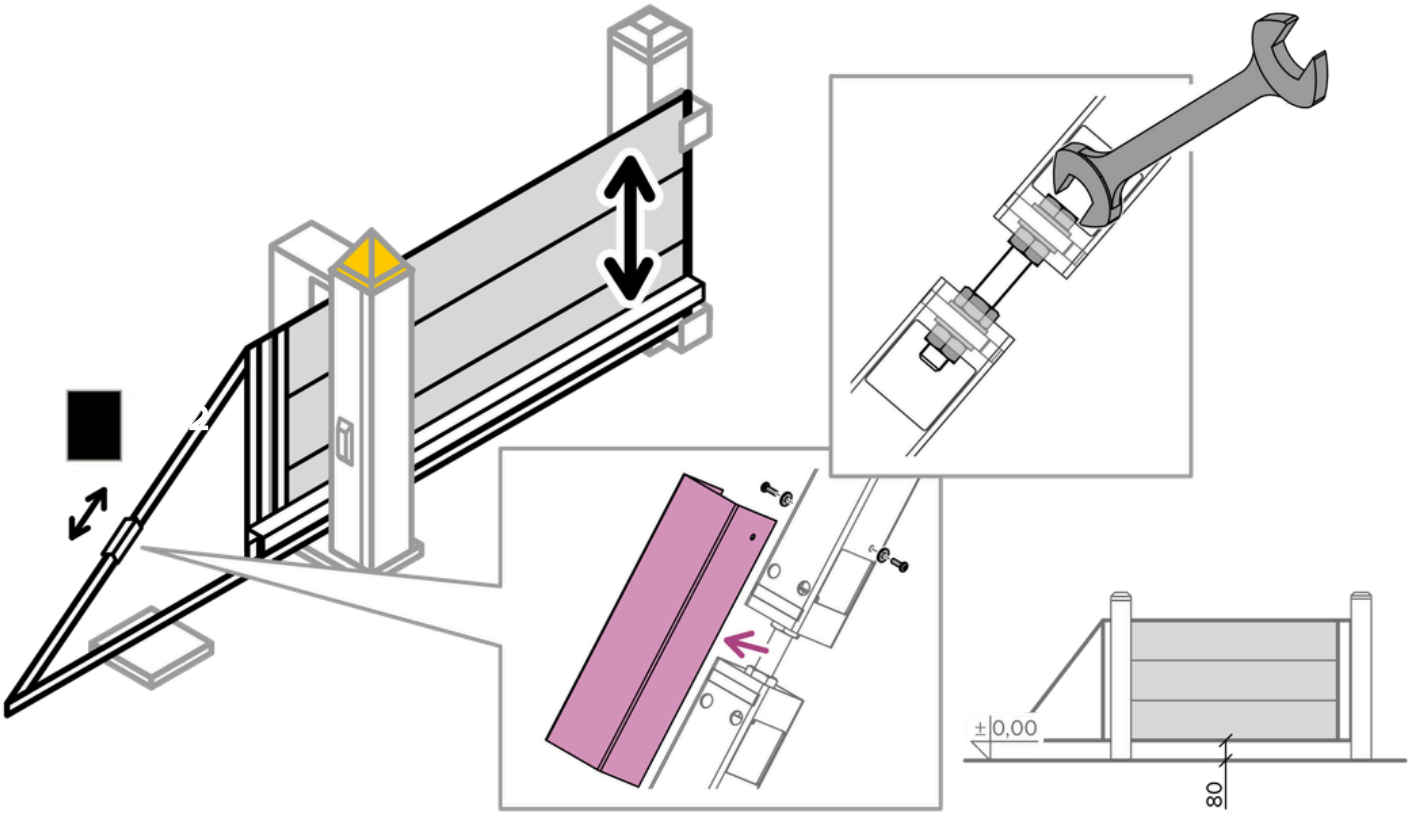
Ø8



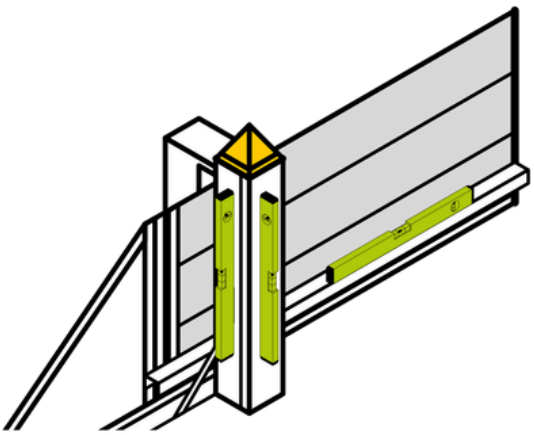


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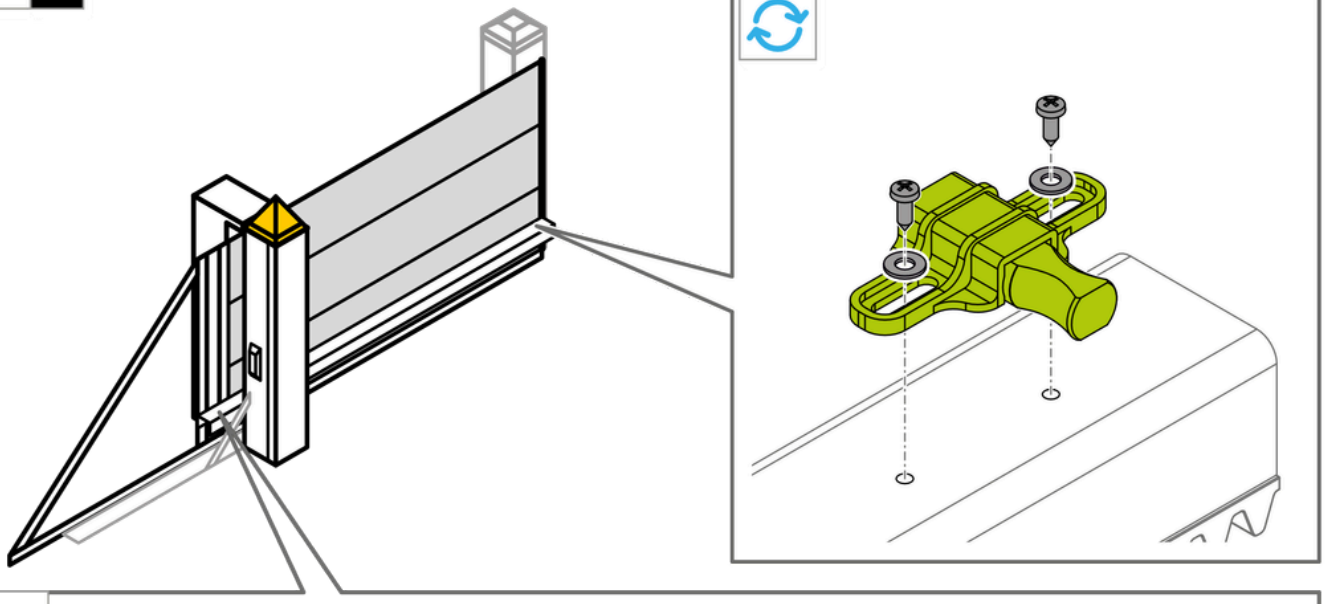




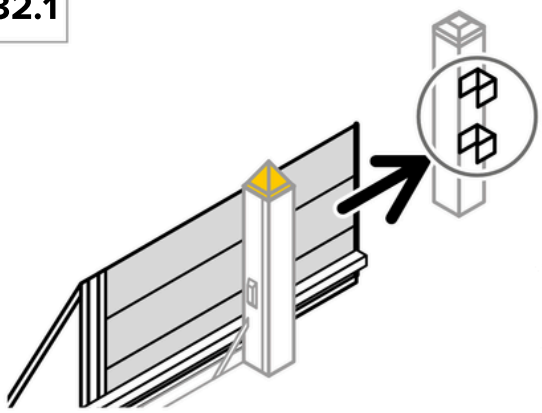
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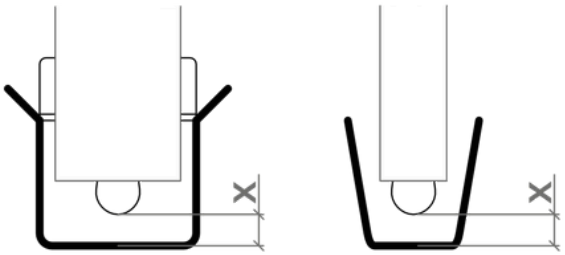


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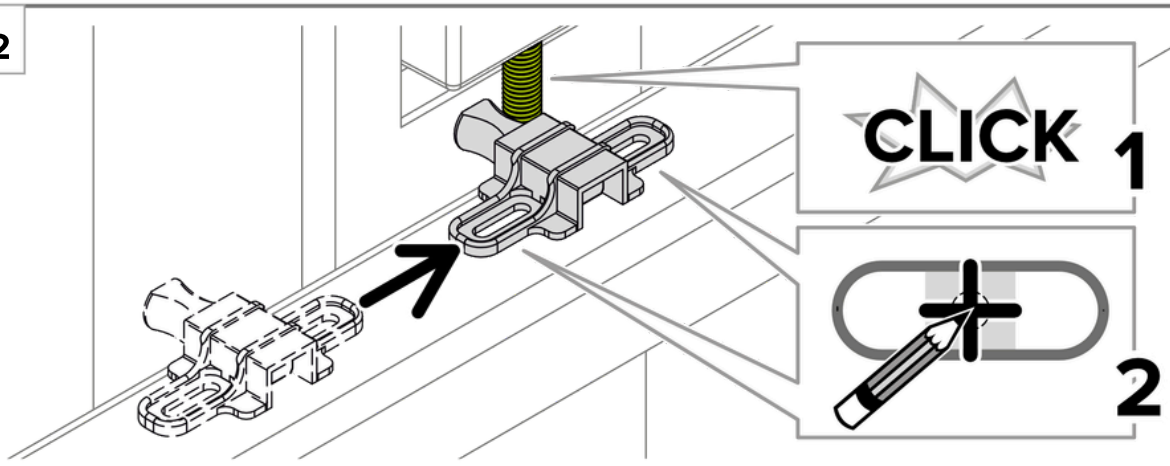
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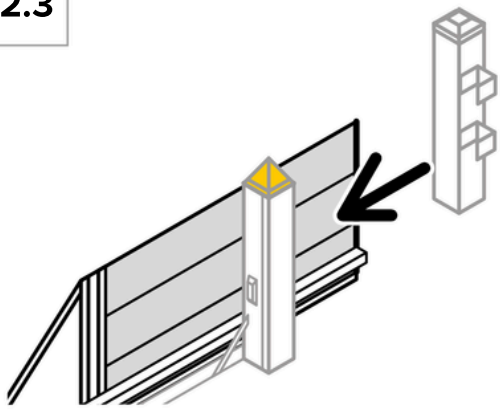


	AWSO	AWSO FAST
x	~20 mm	~30 mm

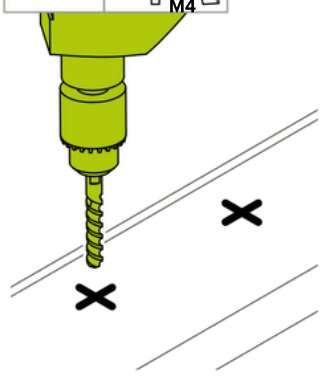
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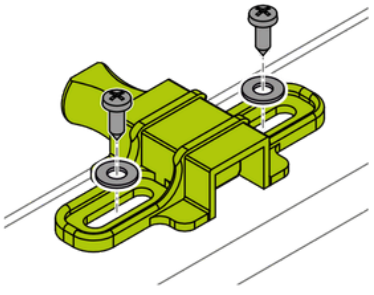
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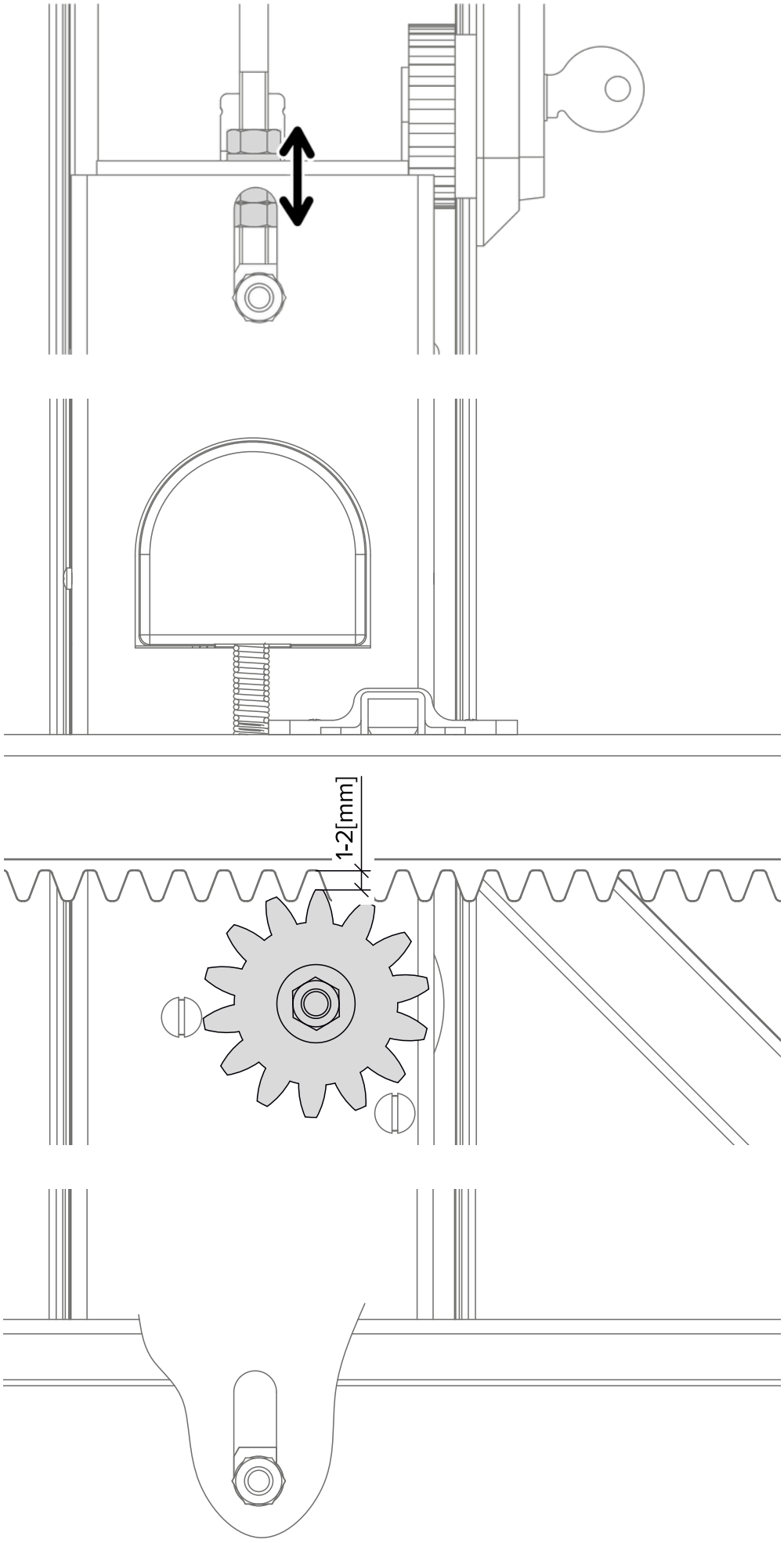
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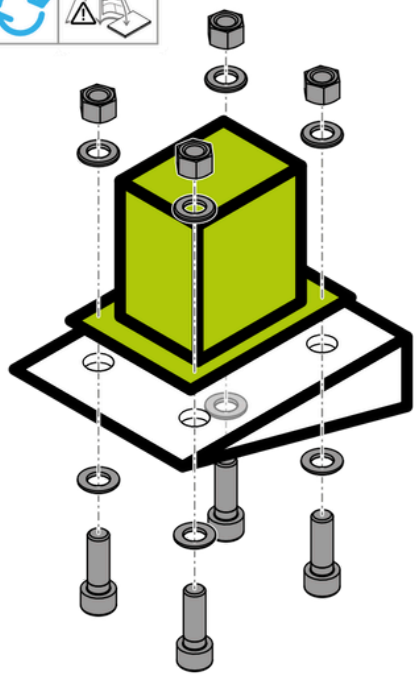
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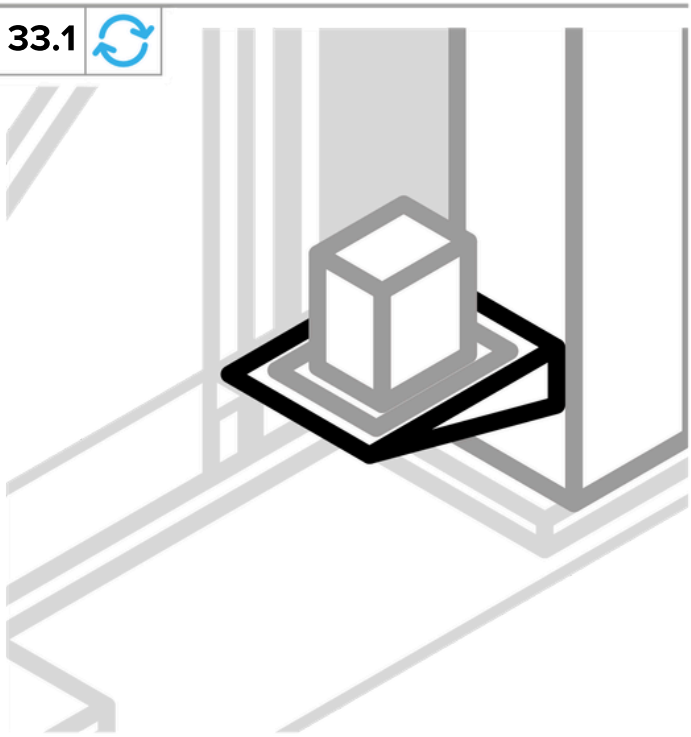
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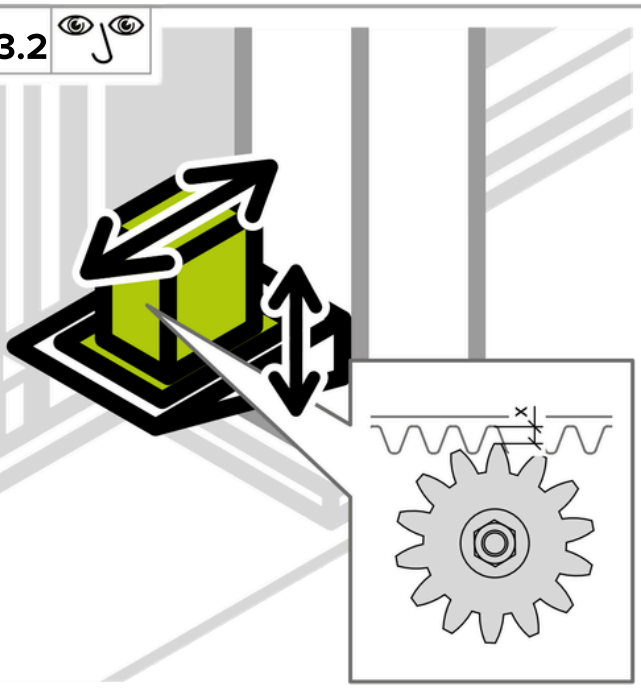
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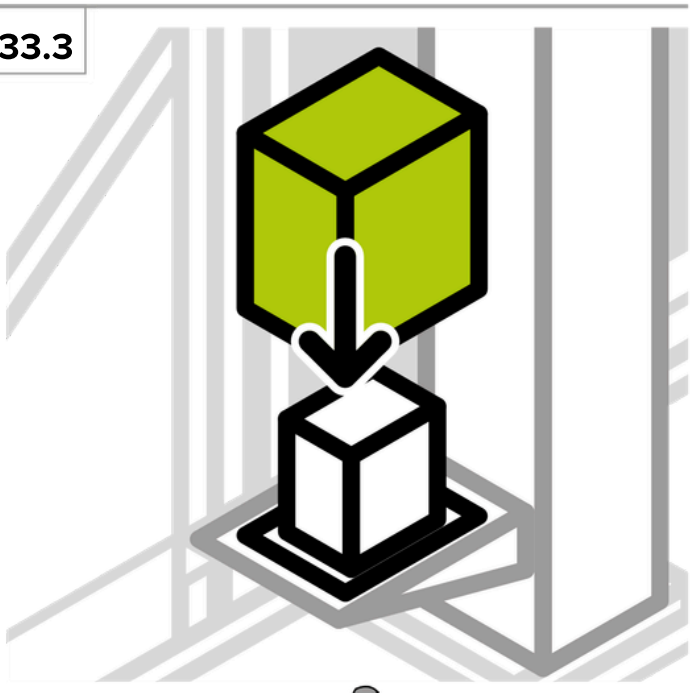
33.1



33.2



33.3



33.4 v2

