



Manual of installation of a two-wing gate and wicket

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Introduction

- This manual features a set of principles and rules that establish the method of installation of a two-wing gate. It includes detailed information on preparation of the substrate, the elements of the installation kit, and the order of performance of actions.
- Installing the gate requires knowledge and skills, which is why it is recommended for the installation to be carried out by people who are well-qualified or have the required knowledge. In case of gates with electric drive, it is required for the electrical device to be connected by a person in possession of electric qualifications, in line with the manual included with the automatics kit.
- In the event of the Product being installed incorrectly, and in particular if such installation was carried out by people who do not possess appropriate knowledge or in a manner inconsistent with the Manual, any rights under warranty are excluded.



Comply with OHS principles. Use protective clothing and keep your workstation clean. Use the tools in line with safety principles.

Preparations - things to be checked prior to performing the installation

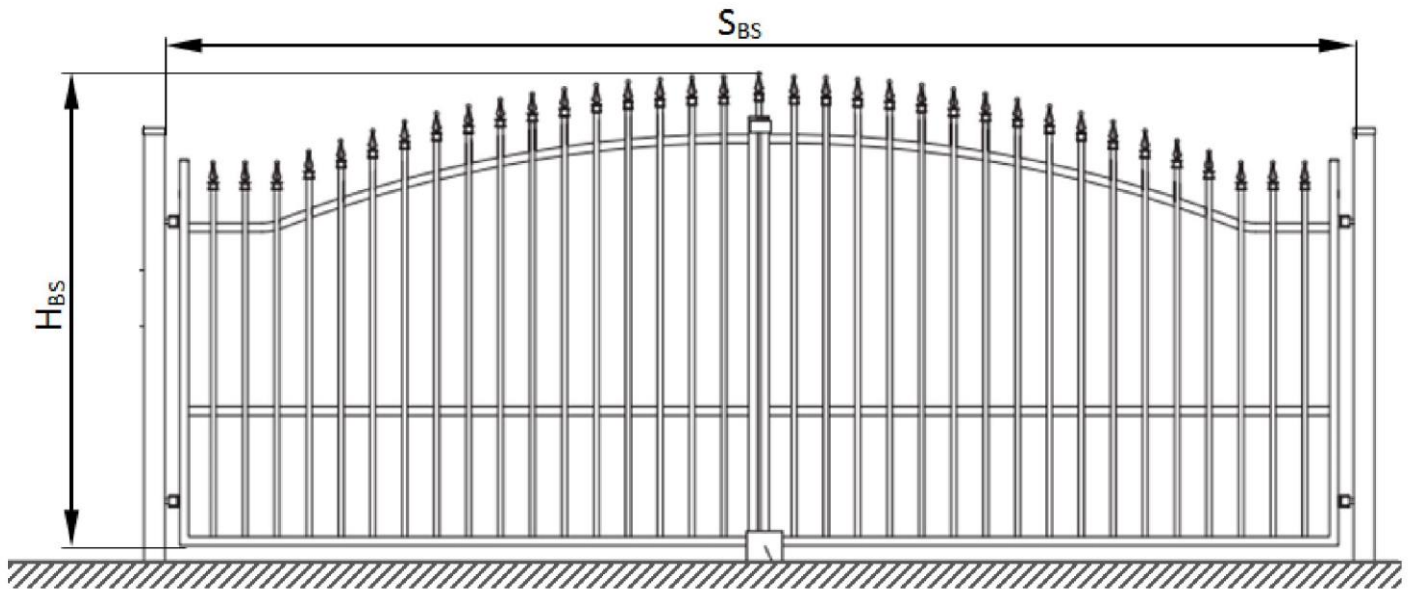
Inspection/technical evaluation

Check the external form of the Product or any presumptive inconsistencies. Check whether the gate is in good technical condition and free from defects and mechanical damage, and also whether the product is complete.



If the gate or any other element of the set is damaged, report this to the Manufacturer immediately, adhering to the complaint procedure established.

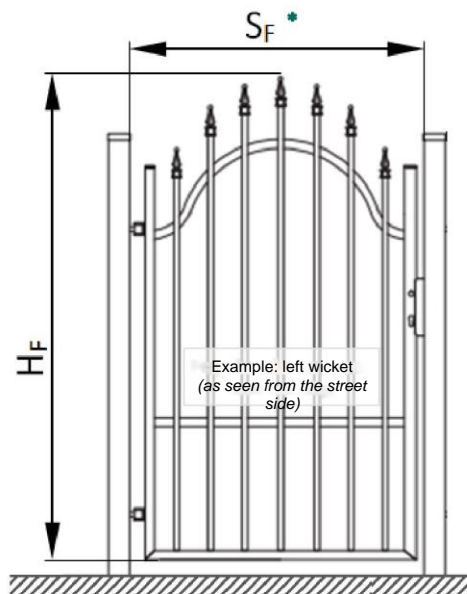
Gate dimensions



SBS dimensions:

- 3040mm - for the standard 3m gate
- 3540mm - for the standard 3.5m gate
- 4040mm - for the standard 4m gate

Wicket dimensions



SF

- 980mm - for the 0.9m wicket
- 1080mm - for the 1m wicket
- * 1000 mm - for the wicket with electric doorstrike

Where:

- SBS - two-wing gate width, measured between the posts,
- SF - wicket width, measured between the posts,
- HBS - wing gate height,
- FF - wicket height.

After determining the position of the two-wing gate and the wicket on the area, it is necessary to take into account the dimensions of individual constituents of the whole set and the distances between them:

- For the two-wing gate the spacing between the metal posts is equal to the gate width plus 4 cm,
- For the wicket, the spacing between the metal posts is equal to the wicket width plus 8 cm,
- For the wicket with electric doorstrike, the spacing between the metal posts is equal to the wicket width plus 10 cm (see the figure above).

When using fastenings screwed to the brick posts, add 10 cm to the wicket width, and 8 cm to the two-wing gate width.

Types of posts

For the wing gate and the wicket it is necessary to purchase hinge posts with blind rivet nuts. Depending on the system, it is necessary to use a steel post with section of:

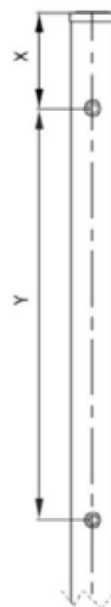
- 7x7 or 10x10 (used in lightweight systems, e.g. Tola, Portland, Palermo, Brema),
- 10x10 (used of heavyweight systems, e.g. Szafir, Rubin, Amida, Bursztyn).

The posts are powder-coated, they should not be coated with final paint. It is necessary to choose posts in a colour matching that of the system and having compatible arrangement of hinge holes.

You can take advantage of the vendor's help in order to choose appropriate posts.

Depending on the base system, the X/Y spacings are as follows:

1. 115/770 (low systems with maximum H=1000)
2. 220/945 or 250/845 or 315/945
3. 315/1145 (high systems with minimum H=1800)

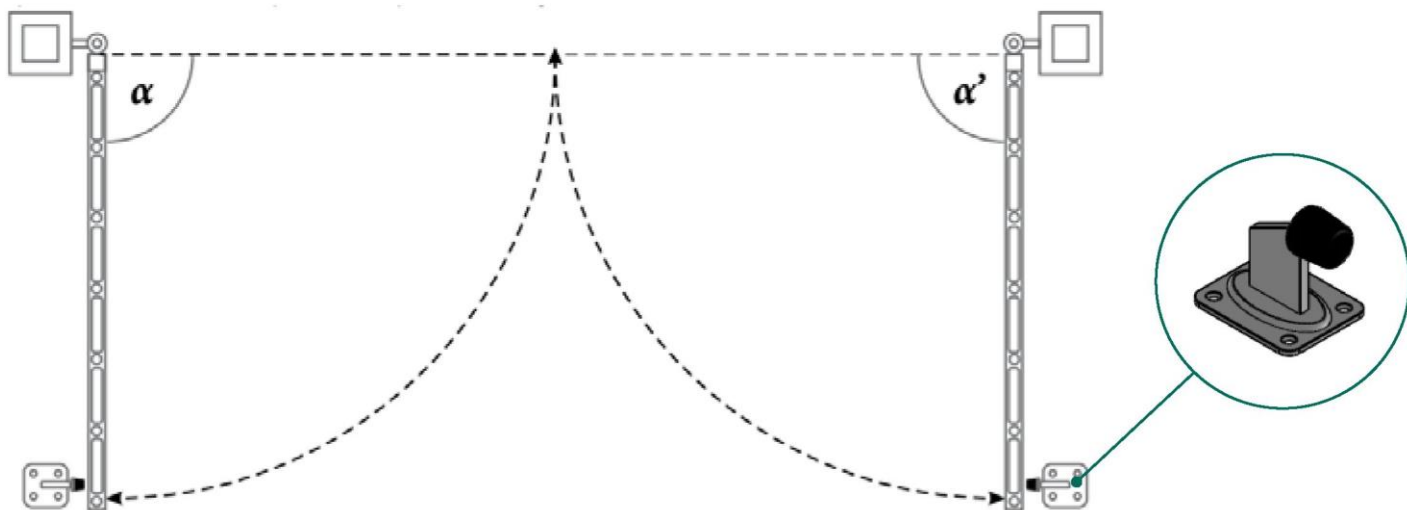


Gate opening angle

- The gate opening angle should be within the range from 85 to 95 degrees.
- The opening angle should be the same for both the gate wings.
- The opening angle should be set using limiters fixed to the substrate.

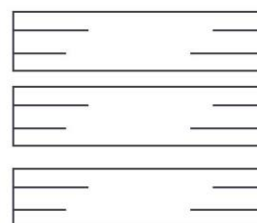
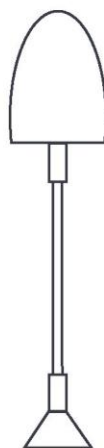
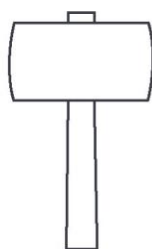
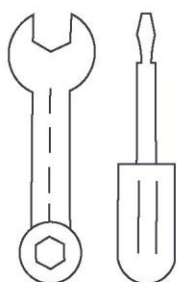
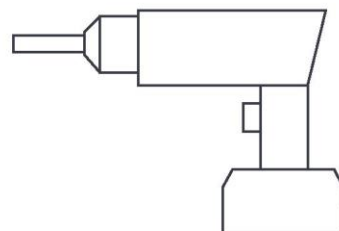
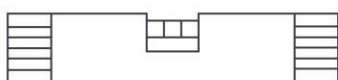
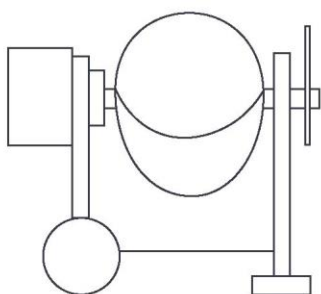


An opening limiter is not included in the set. It has to be purchased separately.

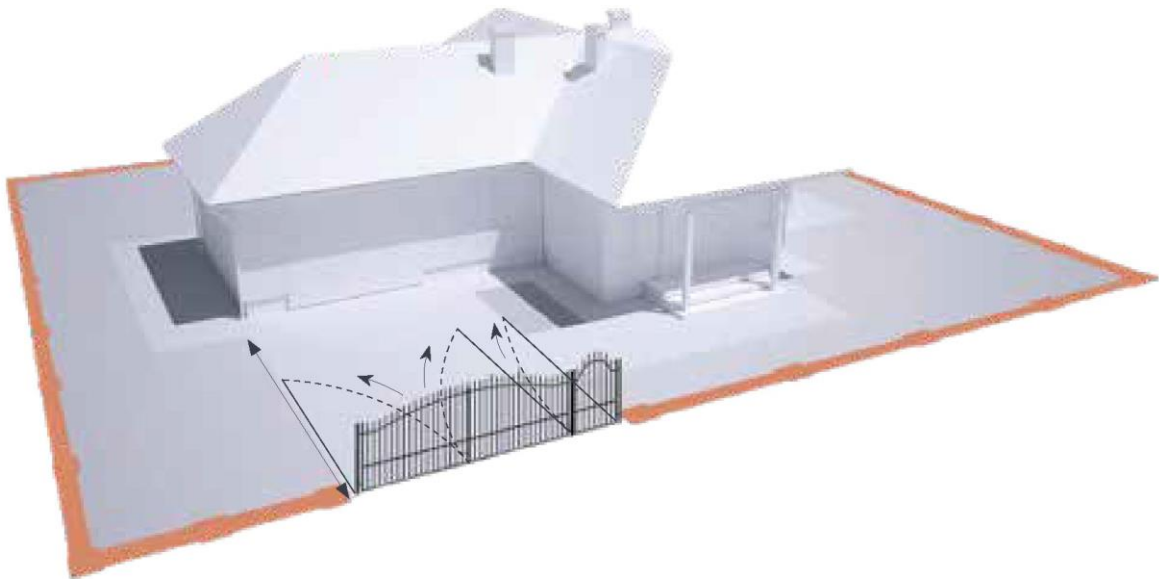


Not having a limiter installed or installing it in a way that allows opening angle greater than 95 degrees may lead to damage to gate elements.

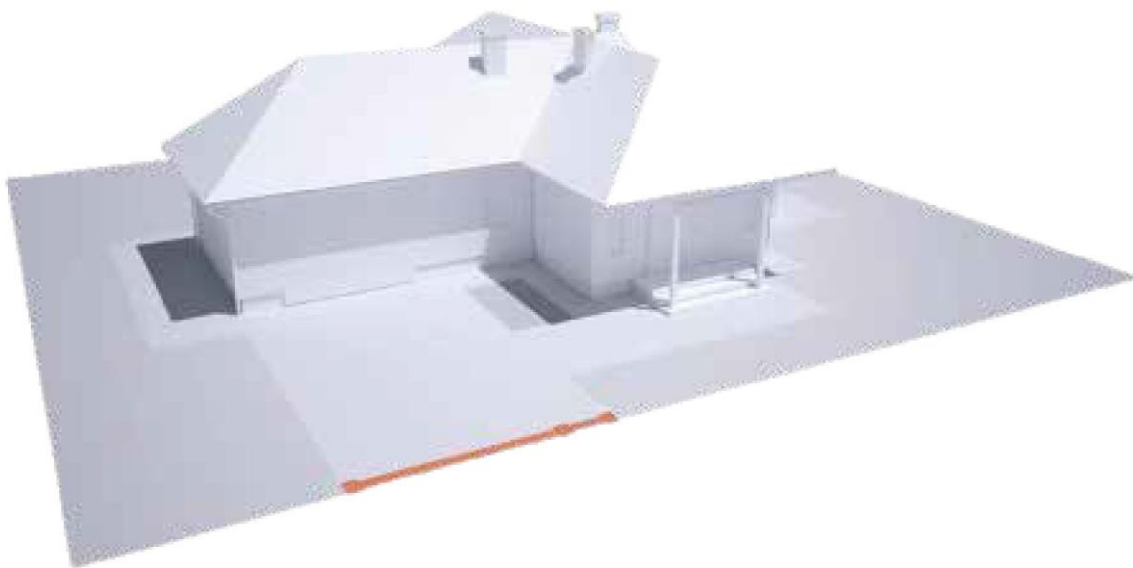
Tools required



Installation location

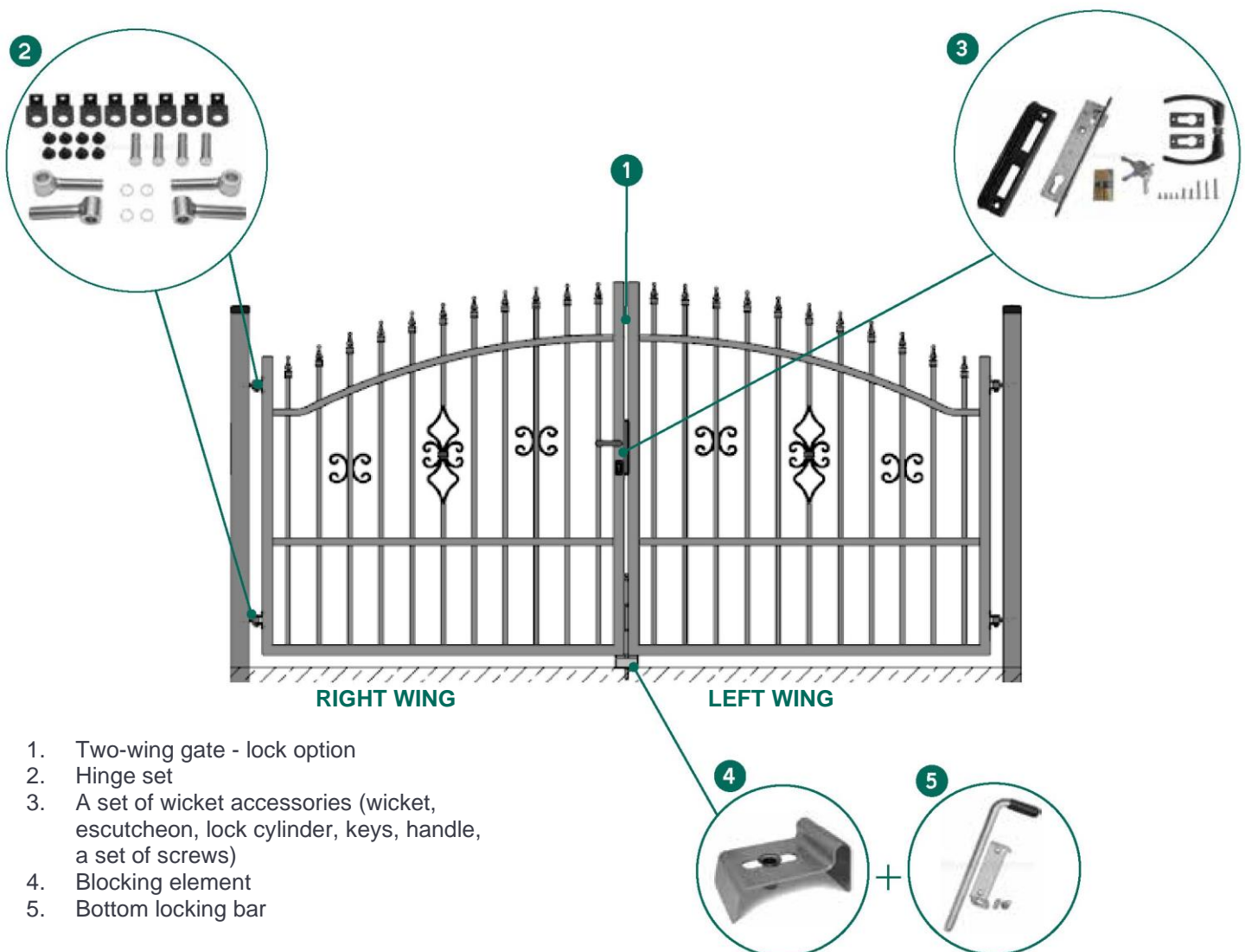
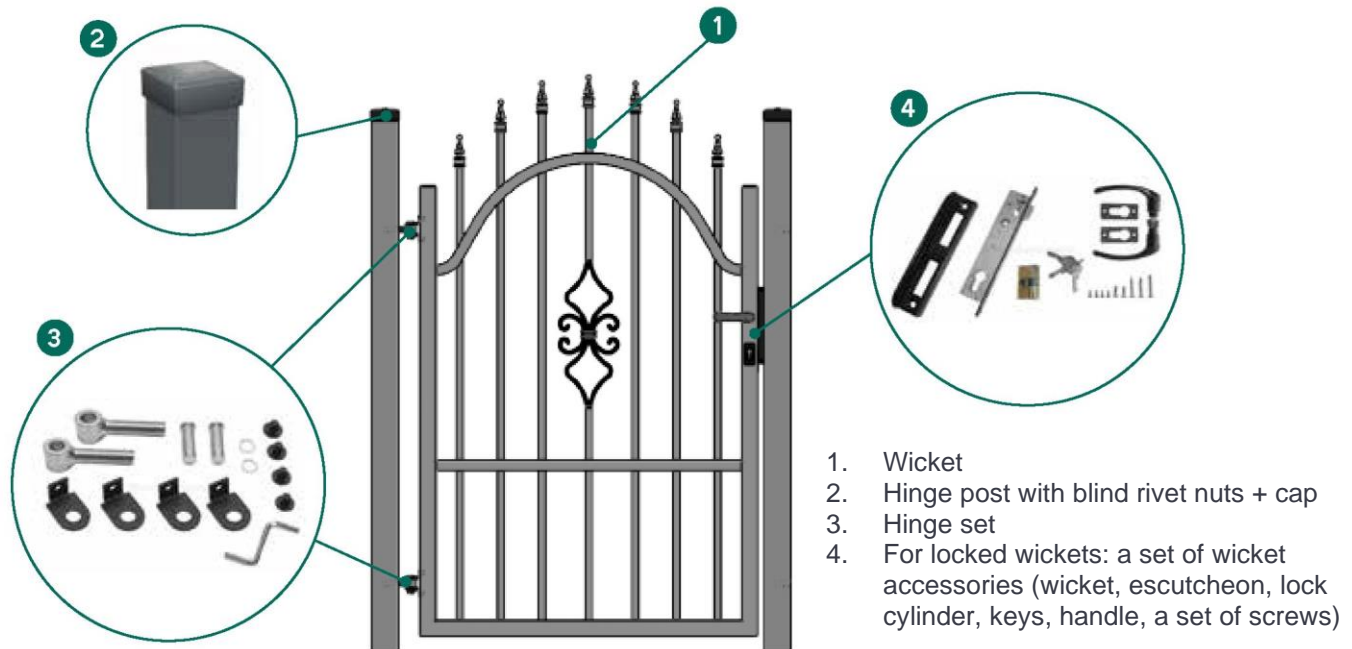


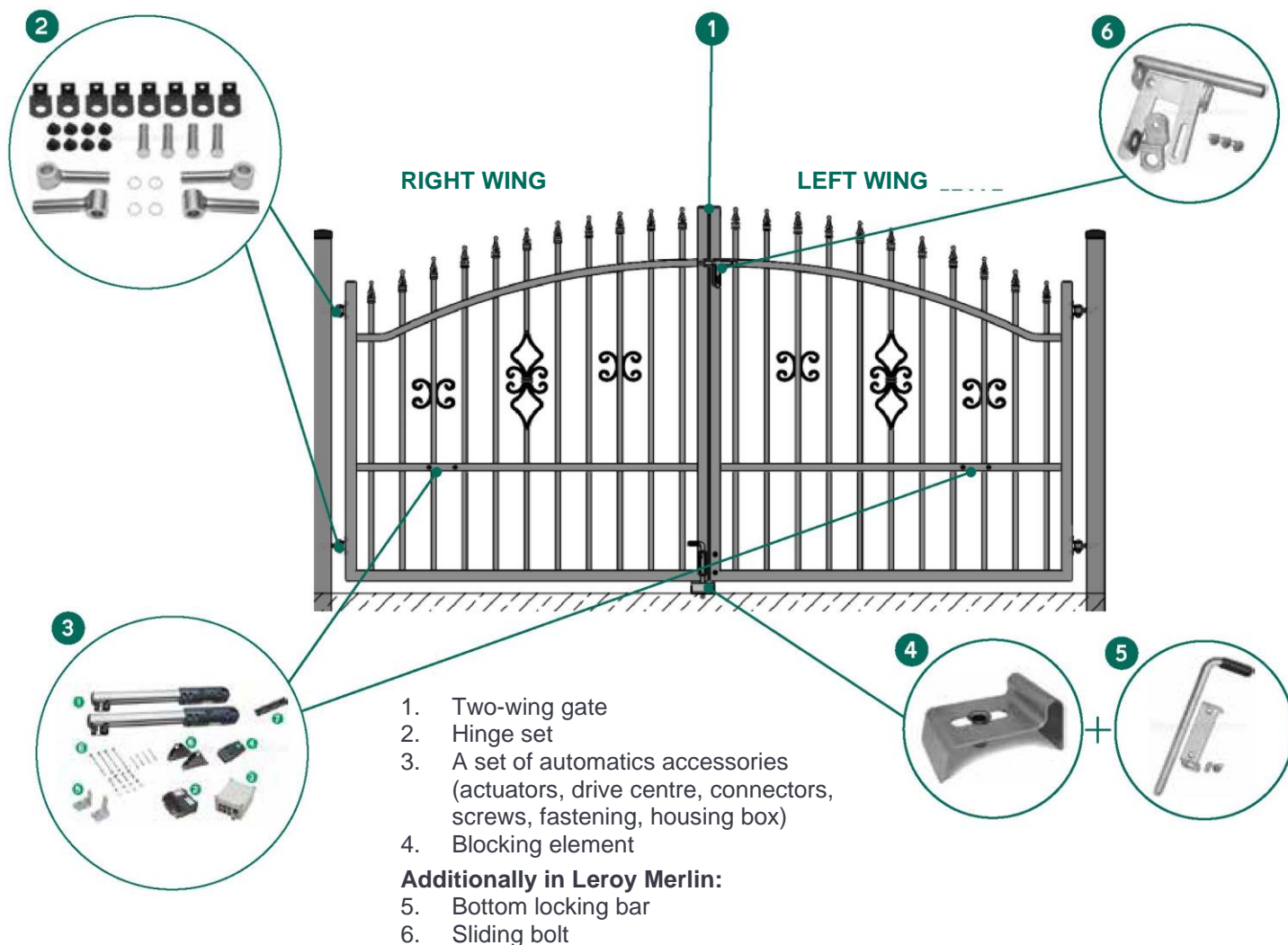
Before commencing installation it is necessary to determine the place of fencing installation. The area should be properly prepared and organised. Next, it is necessary to establish the direction of gate and wicket opening and take into account the dimensions of fencing constituents and distance from buildings.



After establishing the location and taking all the dimensions into account, it is possible to commence making excavations for the purposes of strip footing, and preparing the reinforcement. (see pages 10 and 11)

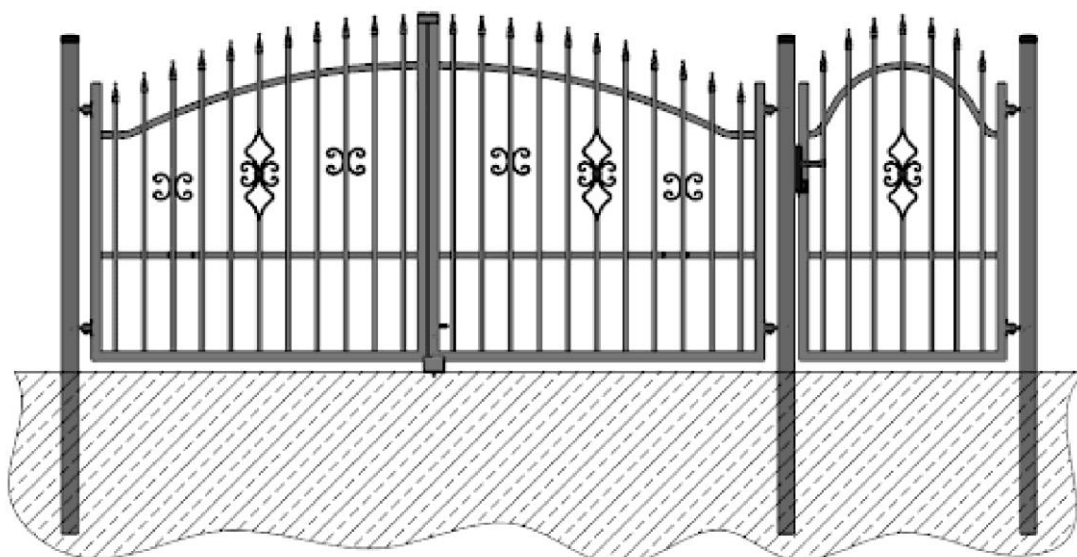
Elements of fencing





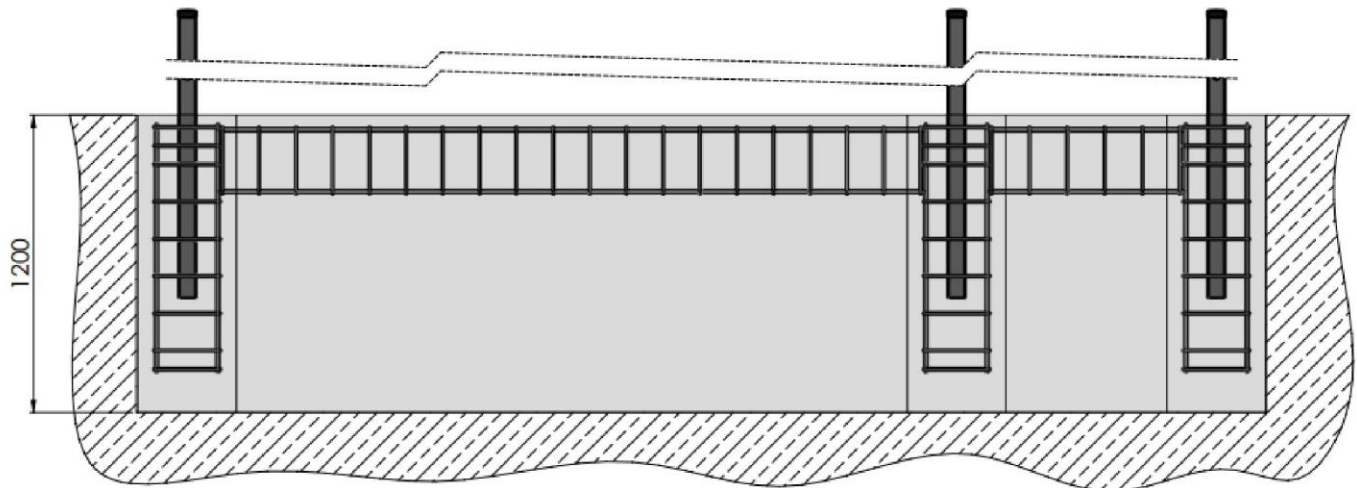
A blocking element is not included in the set. It has to be purchased separately.

GENERAL SET DIAGRAM



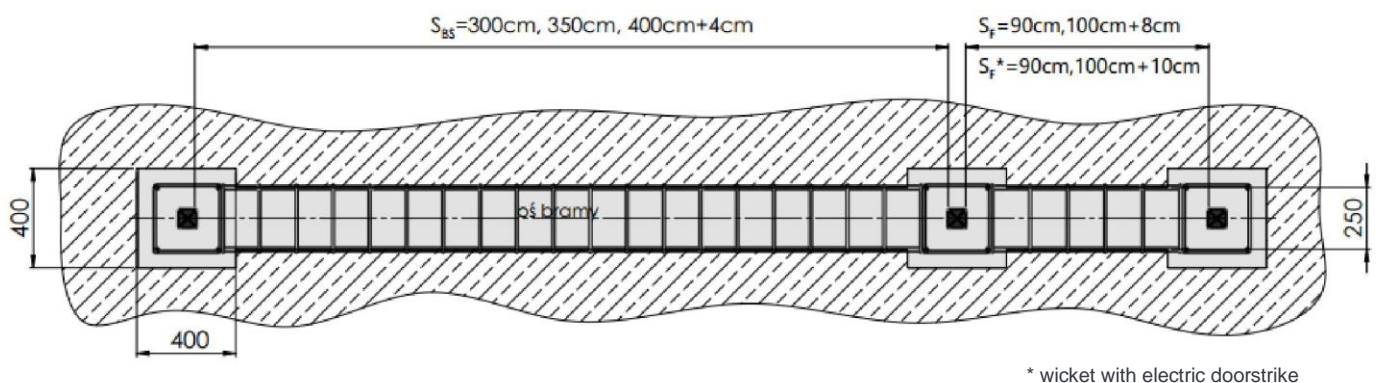
Foundations - substrate preparation

In order to ensure correct installation and correct further functioning of the gate, it is necessary to form strip footing. The strip footing should be made using concrete with class of at least B20. The strip footing should be poured up to the ground level. To this end, it is necessary to make excavations down to the depth specified. Make boarding for post bases and then prepare reinforcement according to the figure below:



Strip footing dimensions

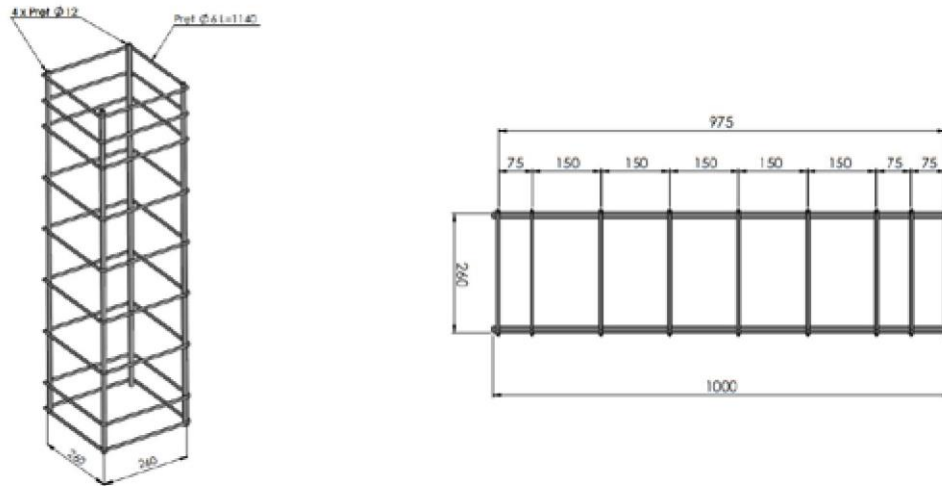
View from above, taking into account the widths of gate and wicket between posts:



Where:

SBS - two-wing gate width, measured between the posts,
SF - wicket width, measured between the posts

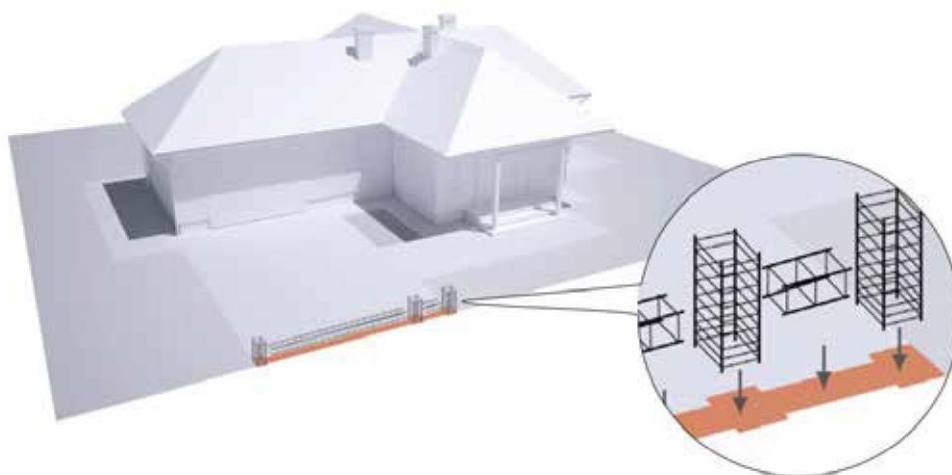
Reinforcement



In the post foundations, place reinforcement made of 4 Ø12mm reinforcement bars with length of 100 cm, bound with Ø6mm flat bar stirrups with dimensions of 26x26 cm, arranged in a manner shown on the figure. In the foundation connecting the posts, it is necessary to place reinforcement made of 4 Ø12mm ribbed bars (the length of bars is determined on the basis of gate width) bound with Ø6mm flat bar stirrups, arranged with 15 cm spacing, with dimensions of 26x26 cm.

Installation - order of action performance

1. **Designate of gate and wicket installation location**
2. **Make an excavation for the gate foundation and for fencing posts.**
3. **Make boarding for post bases**
4. **Form the strip footing:**
 - The foundation block should be 1200mm thick,
 - The strip footing is determined by the gate and wicket widths.
5. **Execution of reinforcement of basis according to the diagram and placing it within the boarding.**

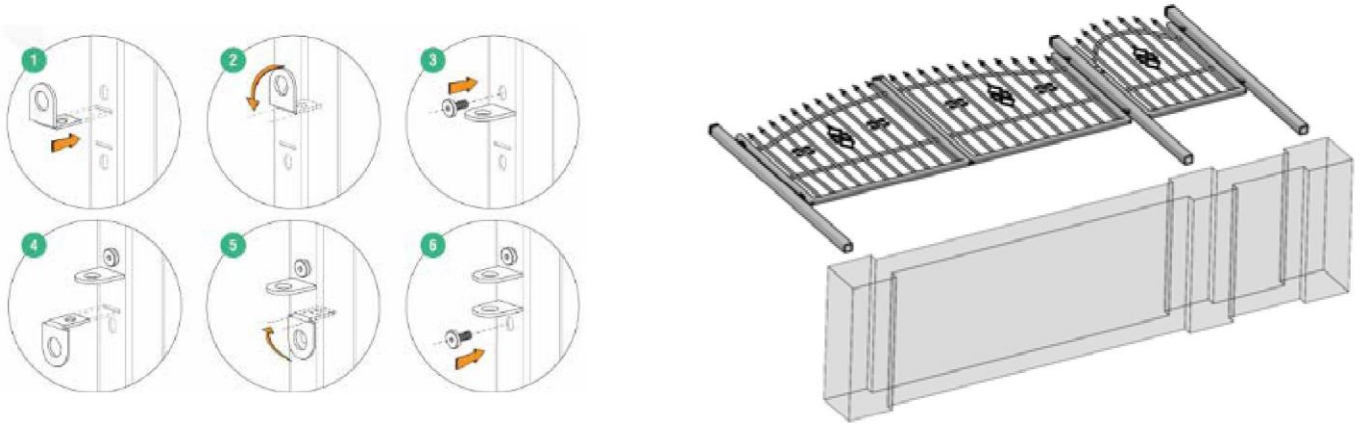




**If the foundations are seated too shallow, it may cause pressure from frost, which may, in turn, cause damage to the gate or incorrect functioning thereof.
The axes of the foundations have to be located in the same line!**

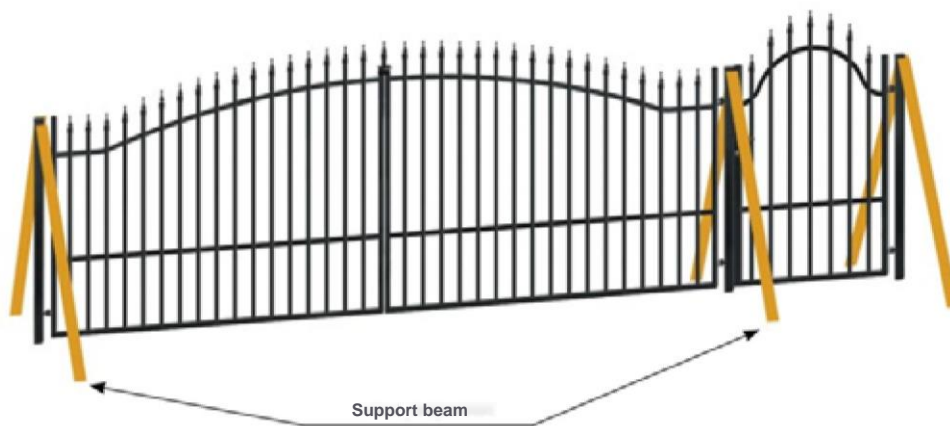
6. Test installation of the gate

The gate and wicket in horizontal position have to be assembled with posts included. The assembly of a wing is begun with fastening the hinges with screws using the threaded holes in the posts, according to the drawing below.



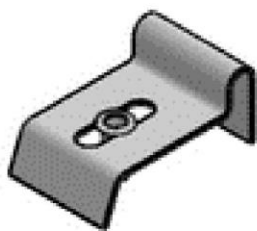
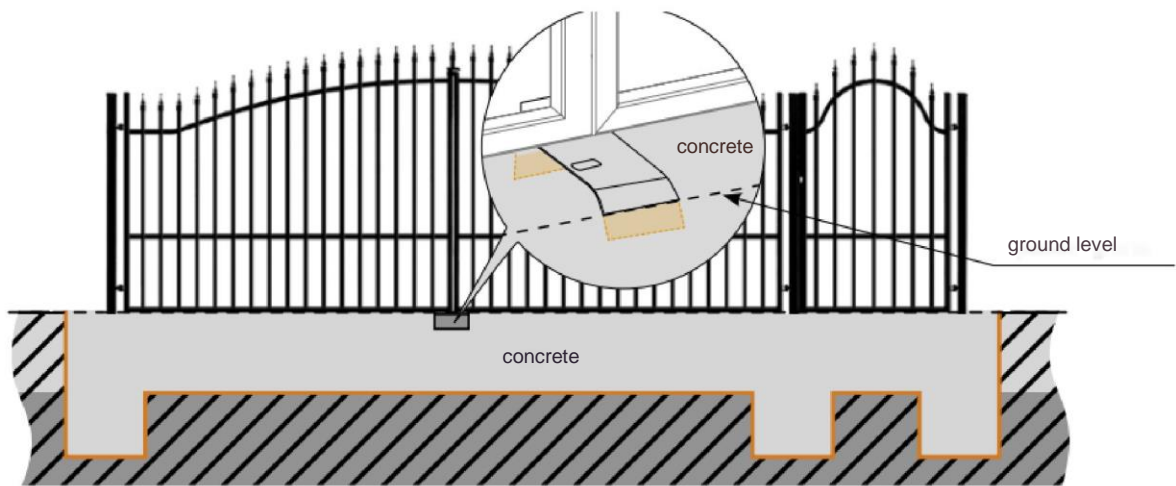
Test assembly is aimed at checking the compatibility of all the elements and excluding the possibility of installation of defective elements. After installing the gate it is assumed that it did not have any defects or that the presumptive defects were accepted by the Client.

- 7. The assembled gate should be placed at the installation location (in excavations with reinforcement) with verticality maintained, and it should be stabilised using wooden elements (e.g. boards) in order to secure it against tilting and collapsing.**



The distance between a post and a wing gate after adjustment should be 45 mm. The distance between two wings may not be greater than 20 mm (for a gate without the escutcheon it is 10 mm, with an escutcheon - 20 mm). The distance of the wing gates and the wicket from the substrate should be 50 mm. The vertical location should be stabilised by resting the post shaft against the supporting element.

8. If everything seems to be in order, it is necessary to thicken the concrete and filled the holes next to the posts. After concreting the elements it is necessary to remember to place the two-wing gate blocking elements.

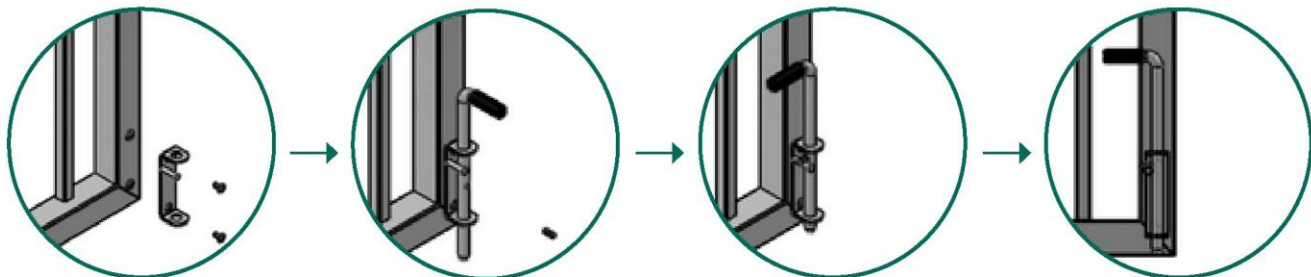


The **purpose of the blocking elements** is to prevent the wing gates from opening to the side opposite to the intended one. A blocking element features an opening for the bolt of the bottom locking mechanism. It is installed in the substrate using concrete, within the line of the gate, at the point of contact between the two wings (in the middle of the closed gate). 2-year warranty. Zinc-plated product.

9. Installation of accessories

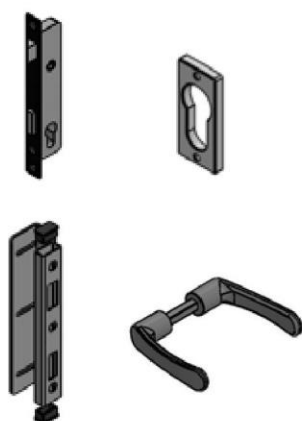
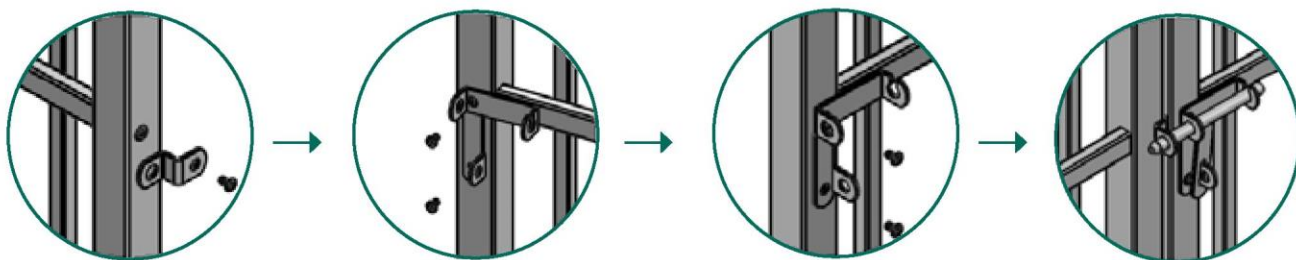


The **bottom locking mechanism** is fixed to the two-wing gate using screws. The bolt of that mechanism requires an opening to which it will be lowered (see the bottom locking mechanism of the gate). This locking mechanism is not used if the two-wing gate features a drive installed. 2-year warranty.



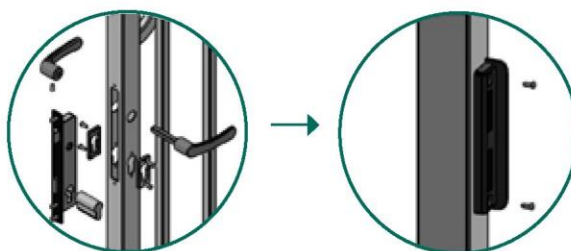


The **top locking mechanism** (sliding bolt) is fixed to the two-wing gate using screws. This accessory enables using a padlock, which has to be purchased separately. This locking mechanism is not used if the two-wing gate features a drive installed. 2-year warranty.

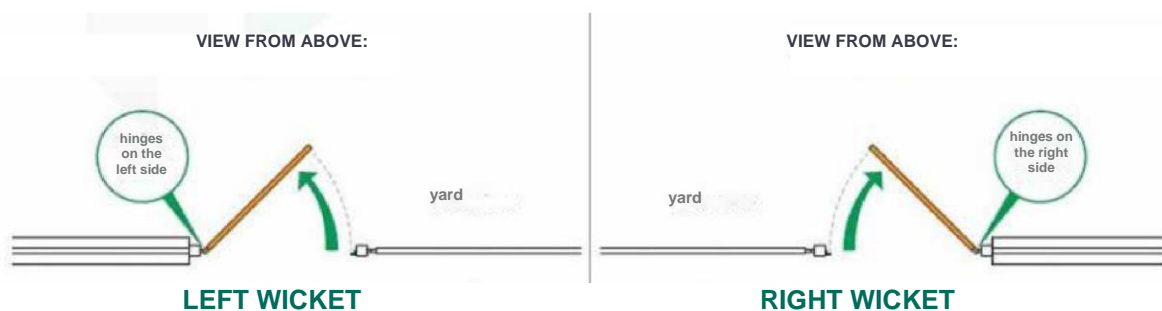


The **accessory set** includes:

- lock
- escutcheon
- handle
- locking cylinder with three keys
- a complete set of assembly screws



How to distinguish the right wicket and the left wicket?



Maintenance

Every fencing should be regularly inspected and maintained by its owner. It is necessary to check whether the fencing is free of any corrosion foci, scratches, and mechanical damage. Corrosion foci may appear at places damaged by interrupting the continuity of the galvanised coating (deep scratches) or by fracture-causing impacts. In such cases the corrosion spots have to be cleaned down to "raw metal". For cleaning it is necessary to use the following tools: a grinder with an appropriate extension, wire brush, spatula, or sandpaper with appropriate grain size. Such places have to be cleaned properly (fats, salts), rinsed and dried. After the surface is thoroughly cleaned, it should be coated with a two-component epoxy paint with high content of zinc liquid, e.g.: TEKNOZINC 90 SE.

On the fencing surface, white rust may appear at spots coming in contact with materials other than zinc. What takes place at such spots is appearance of white coating (oxidation). The spots with white rust should be cleaned using a preparation of the Derustit 1680 type.

At the spots where fencing elements are working (hinge, pivots of the automatics), the working surfaces are subject to abrasion. It is a natural process taking place during operation. The abrasion of the surface layer combined with atmospheric conditions may lead to corrosion appearing. In order to mitigate the above phenomenon, a substance like graphite lubricant can be used at locations where working elements come into contact with one another. This is also applicable to elements related to gate automation.

In extraordinary cases such as flooding, where the fencing coating is exposed to long-term impact of liquid, such fencing should be dismantled and dried, and the substances that accumulated inside the frames, crosspieces and vertical pieces should be removed. The whole fencing should be thoroughly cleaned and then installed again. If there are spots on the gate that require application of zinc, proceed according to the guidelines specified above.



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