EVOLVER

The evolution of fencing

# INSTALLATION GUIDE

Version: C0 | 27/10/2023

Before installing, please ensure you have downloaded the latest version of this installation guide by scanning this code.

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# Contents

# 1. Introduction

Thank you for choosing the Evolver fence system. This guide aims to provide the essential information needed to successfully install the fence system. It is assumed, however, that the user of this document has a basic understanding of building practices and pertinent building codes. Compliance with the requirements captured herein must be met for full warranty coverage.

Read through the instructions completely before starting the installation.

# 2. Pre-installation

## 2.1 Standards

Legislation may differ between jurisdictions. Before installing any Eva-Last product, ensure that the application is rational and complies with the local regulations and building codes. Wherever necessary, consult a suitably qualified professional. Be sure to comply with material manufacturer specifications. Where manufacturer's specifications and building codes differ, revert to the building code requirements. Check that your choice of product is suitable for its intended application. For further product specification and information visit **www.eva-last.com.**

## 2.2 Safety

Always wear appropriate Personal Protective Equipment (PPE) for the various activities involved in installing a fence system. This includes, but is not limited to, equipment such as safety glasses, helmets (where necessary), gloves and boots, masks when cutting or similar, as dictated by the local occupational health and safety legislation.

Refer to the applicable Material Safety Data Sheet (MSDS) for additional information. Please do not hesitate to contact Eva-Last should you require any additional assistance.

When working with composite materials:

- Ensure to comply with the local occupational health and safety legislation.
- Wear appropriate PPE when working with pickets.
- Store and dispose of off-cuts, dust and/or contaminated materials appropriately.
- Work in well-ventilated areas.
- Cut pieces may have sharp edges (particularly mitered cuts).

## 2.3 Storage and handling

Note the following:

- Ensure to comply with the local occupational health and safety legislation when lifting and handling boards.
- Handle the boards carefully. Dropping the boards (and all high impact loads in general) can result in damage to the profiles.
- During transportation use corner protectors where strapping is required.
- All components should be stored completely under cover.
- When storing boards, a pallet or flat surface should be used to support the board's full length.
- All components should be securely stored.
- No component should sit in water or similar.
- Avoid over-stacking and/or eccentric stacking.
- Take care when lifting, placing onto, or removing from raised pallets. Boards may be bundled for convenience. More than person may be required for lifting depending on the length of the boards and the number of boards. Ensure mass handled does not exceed safe limits as defined by applicable local legislation.

# 3. Planning and site preparation

## 3.1 General notes

- Consult an appropriately qualified professional whenever necessary to ensure the product, this document, and the intended application complies with all applicable legislation for that region.
- Assess the environment of the site and ensure the product is suitable for the intended application.
- Ensure that the intended ground will provide suitable support for the posts of the fence system.
- Identify aspects such as the corrosion category, loading class, etc. of the site and project that may influence the selection of the products or the application thereof.
- Develop a maintenance plan to ensure the longevity of the system.

## 3.2 Planning

1. Identify the property line and determine the perimeter of your fence project.
2. Using a tape measure determine the length of each fence run.
3. The Oasis fence system is easiest to install when starting from a corner. If no gates are used, only one board should need to be cut in a fence run.
4. Posts should be set at a maximum of 8' [2438 mm] apart on centre.
5. Determine the location of gates and mark on drawings. Adjustments to panel length are required at gates.
6. At any gate locations, allow enough space for the gate to fit freely between posts. See section 9 for details.

Fig. 1

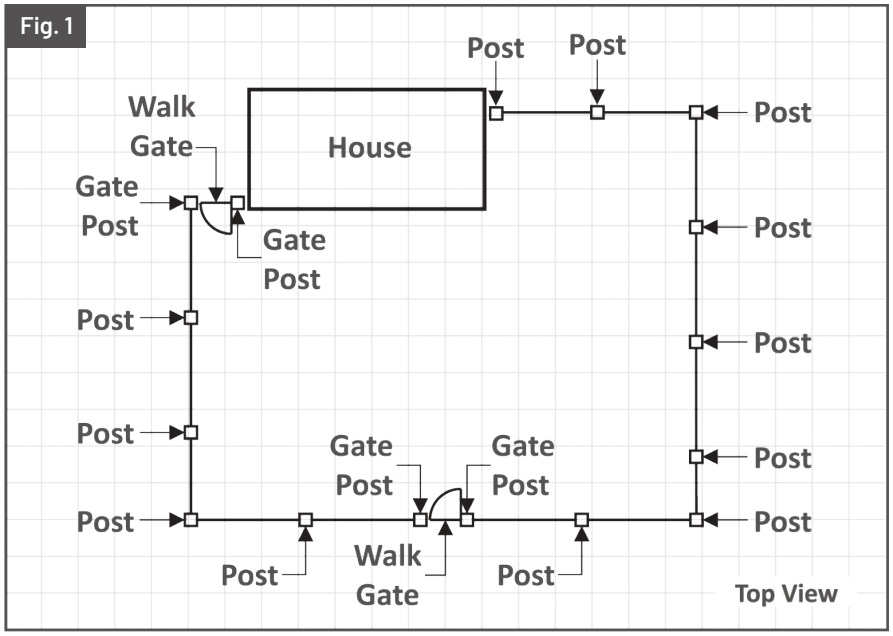
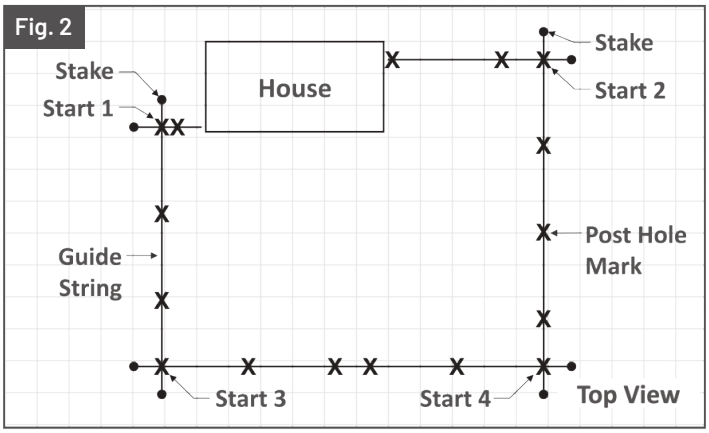



Fig. 2



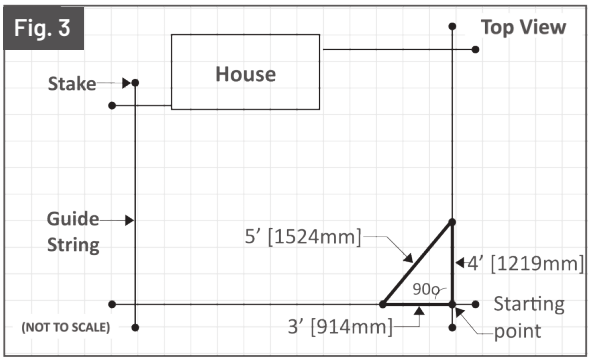
### 3.3 Site marking

1. Sketch the fence layout, then locate a corner or reference point along each fence run and mark it with a stake.
2. Use guide string stretched between stakes located at the end of each fence run, and layout the perimeter of the project.
3. Layout the fence so that minimal panel cuts are required; remember to allow for gates.
4. From starting point, use a tape measure and a marker to mark post hole locations. Remember the maximum on centre post spacing is 6' [1828 mm].
5. If layout has 90° corners, confirm that corners form 90° angles and are square.

**Tip:** How to square the perimeter:

Eva-Last recommends using the 3-4-5 rule. Measure and mark 3' & 4' from the starting point along guide string, then measure between two markings. Adjust until measurement between markings is exactly 5'. As shown in Fig. 3. Larger triangles, with sides of 6-8-10 and 9-12-15, allow for even more accurate results. These ratios work for any unit of measure, e.g. 3 m, 4 m, and 5 m may be used.

Fig. 3




# 4. Post installation

### 4.1 General guidelines

General notes before mounting the posts are:

- Inspect the load-bearing ability of soil beneath and around each post location.
- Ensure that the concrete is cured to a suitable strength before attaching any other components to the posts.
- For posts that have gates attached, see section 9.0 before install these posts.

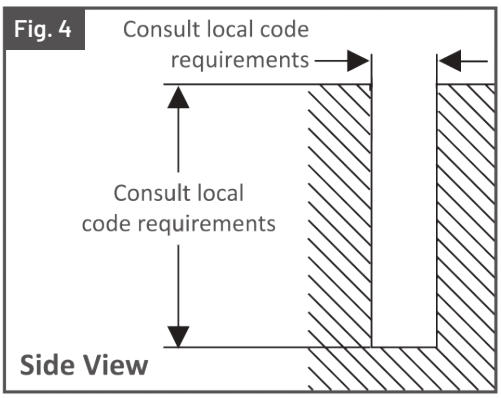
### 4.2 Digging post holes

1. Consult local code requirements for exact post hole width and depth requirements. As shown in Fig. 4.
2. Dig the post holes using a Post Hole Digger.
3. Be sure to keep the Post Hole Digger straight and plumb when digging.
4. Do not pour concrete now.

**Note:**

- In the USA, call 811 before you dig the post holes to locate and identify any buried utilities.

Fig. 4



## 4.3 Setting posts

1. Fill holes with 3" [72 mm] of crushed stone to allow for drainage. As shown in Fig. 5.
2. Compact the crushed stone before setting posts.
3. Use tape measure to check depth. Confirm post depths are constant and comply with local building code. As shown in Fig. 6. Adjust if needed.
4. Use the string as a guide when placing posts into each hole. As shown in Fig. 7.

Fig. 5

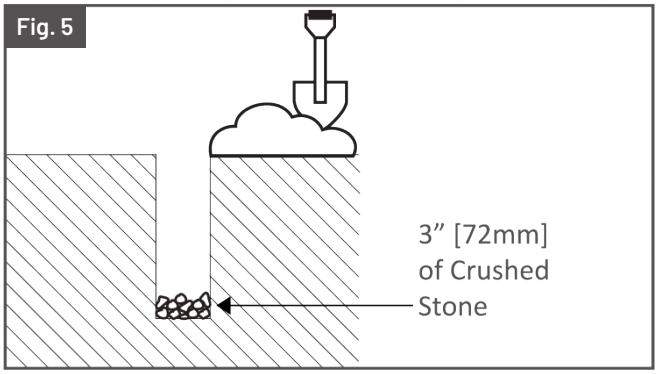



Fig. 6

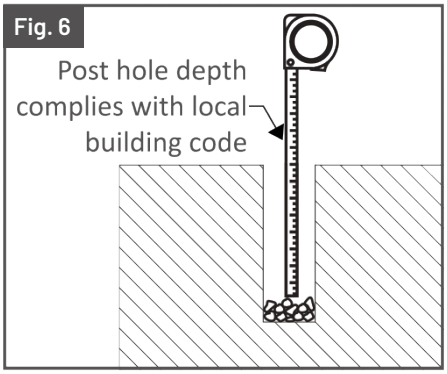
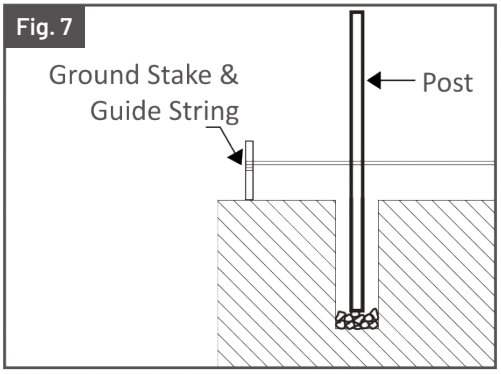



Fig. 7

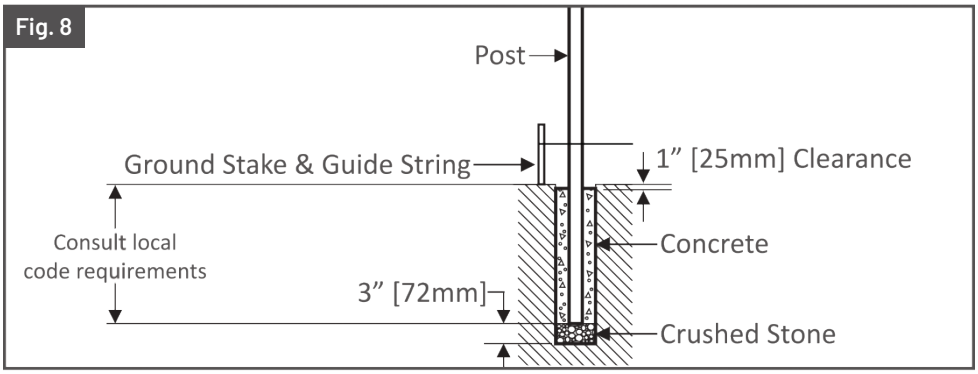



5. Before pouring concrete, confirm that the posts are spaced correctly and set at the correct depth.
6. Fill Posts holes with concrete to within 1" [25 mm] of the surface of soil. As shown in Fig. 8.
7. Use a level to confirm that corner post is plumb and that the post is aligned with the guide strings.

**Tip:**

- Allow concrete to cure for a minimum of 24 hours before installing post brackets.
- As the concrete cures, be sure to keep posts placed along guide strings & continuously check that they are plumb as well as in line with the next post.

Fig. 8



## 4.4 Post stand installation

1. Mark the locations on the concrete slab where the post stand should be placed.
2. Mark the drill holes through the post stand.
3. Choose a suitable fastener to secure the post stand for the loads they might experience. It is recommended that a chemical anchor be used, as shown in Fig. 9.
4. To improve wind resistance, ensure that the gussets are perpendicular to the fence board direction, as shown in Fig. 10.

Fig. 9

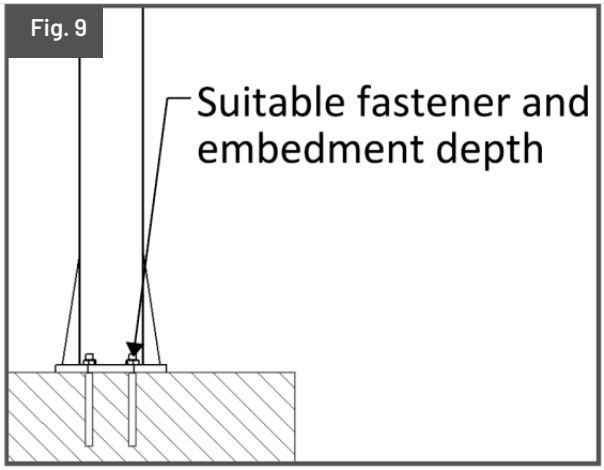
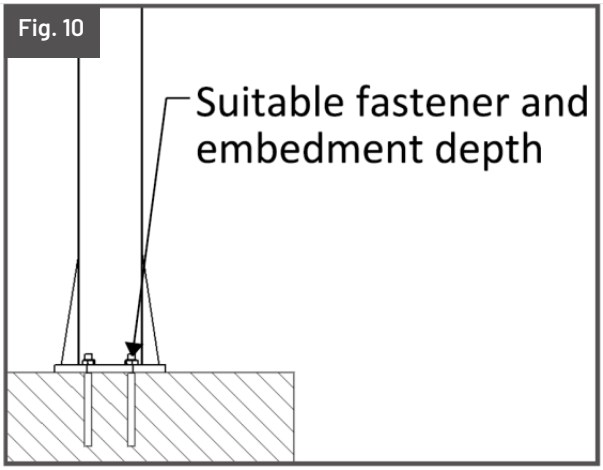



Fig. 10




5. Remove the post stand and drill holes. Size the holes as recommended for the size and type of fasteners used. The dimensions for the square and octagonal posts may be seen in Fig. 11 and 12 respectively.

Fig. 11

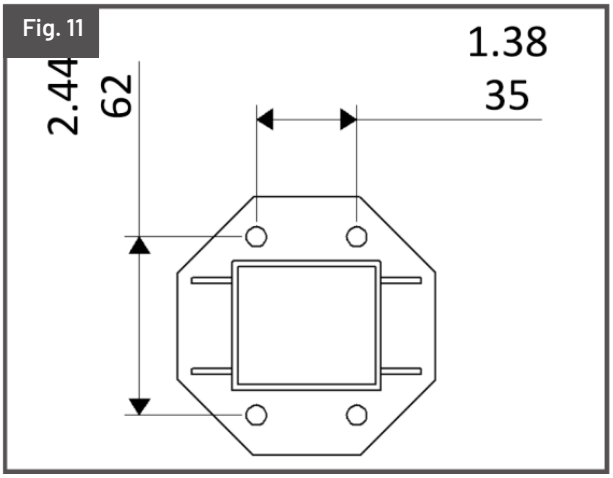
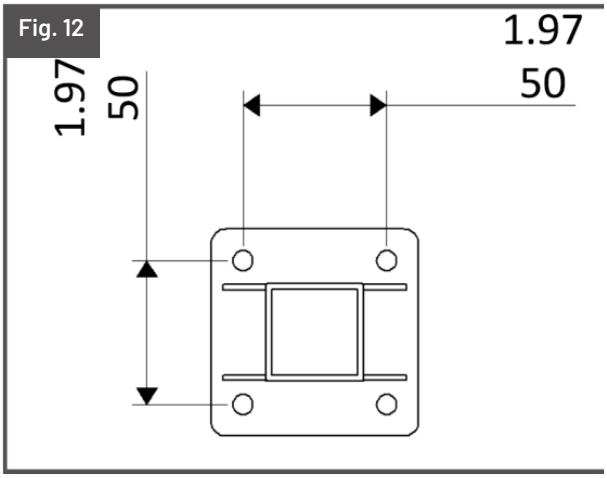



Fig. 12




6. Clean any dust and debris from the holes.
7. Attach the post stand with the chosen fastener – do not fully tighten the fasteners.
8. Level the post stand with spacers.
9. Tighten the post stand fasteners fully.
10. Slide the post over the post stand.
11. Fasten the post to the post stand with suitable fasteners. Ensure that the fastener's head is small enough to not interfere with sliding the fence boards into place, as shown in Fig. 13.

**Tip:**

- Consider moisture build-up near the post-stand as this will increase the speed of corrosion. Allow for drainage through the careful placement of drainage holes.
- Use a high quality fastener that matches the corrosion category of your environment. Consider the effect of corrosion to the lifespan of the fastener compared to the overall lifespan of the fence system. The entire fence assembly will need to be disassembled if the fasteners corrodes.

**Tip:**

- Consider moisture build-up near the post-stand as this will increase the speed of corrosion. Allow for drainage through the careful placement of drainage holes.
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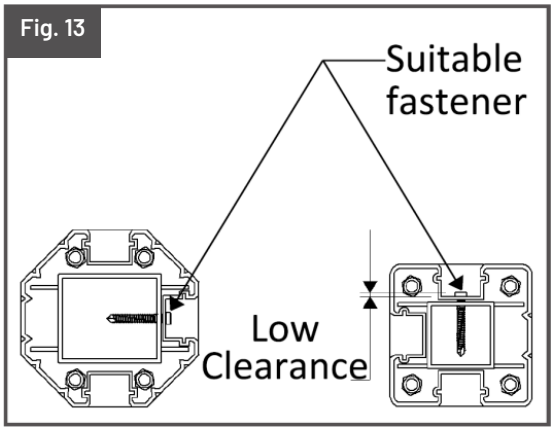
Fig. 13



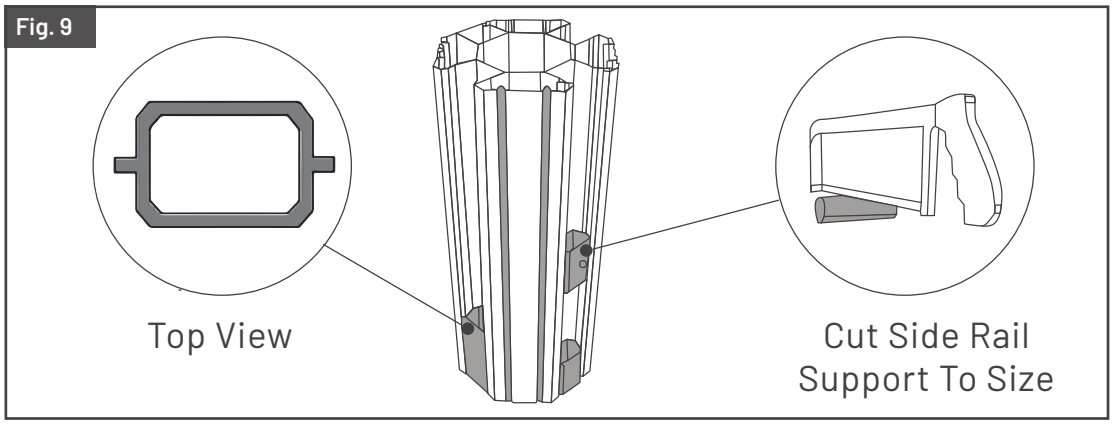

## 5. Post siding installation

1. Determine the minimum height of the board between two posts. Some ground levelling may be required, if the terrain is particularly uneven.
2. Cut the post siding to the required length for each post to support the boards on either end.
3. Slide post sidings into the post slots as shown in Fig. 9.

**Note:**

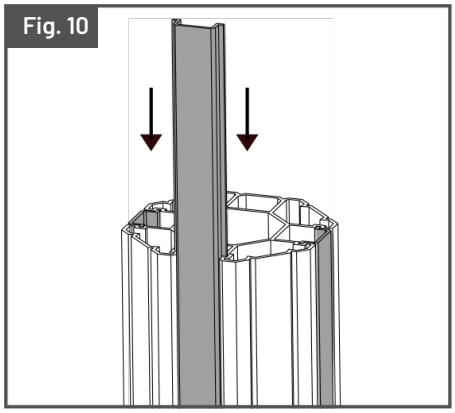
- No other fastening is needed.

Fig. 9




4. Install optional post sidings in unused slots as shown in Fig. 10.

Fig. 10



## 6. Rail and board installation

There are a number of possible arrangements of boards and rails. Below are the 5 typical possibilities.

- Privacy fence - Do not use intermediate rail or post siding. As shown in Fig. 11.
- Reinforced privacy fence - Use intermediate rails between each board. As shown in Fig. 12.
- Semi-privacy fence - Use post siding between each board. As shown in Fig. 13.
- Decorative fence - Use intermediate rail before final board. As shown in Fig. 14.
- Portal fence - Use post siding after final board & between two top rails. As shown in Fig. 15.

Fig. 11

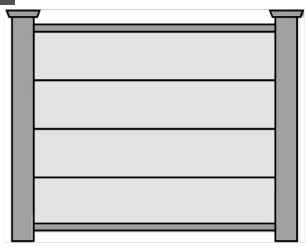



Fig. 12

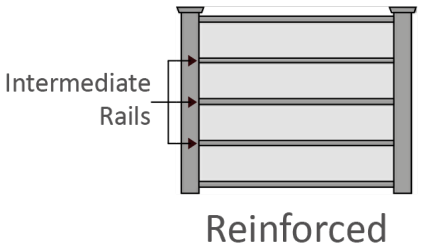



Fig. 13

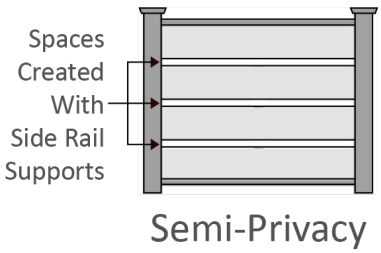



Fig. 14

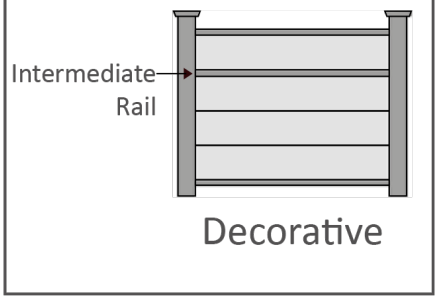
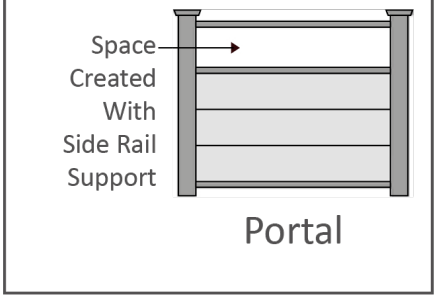



Fig. 15




1. Cut the bottom rail to size, ensuring that there is approximately 2 mm gap between the post and rail.
2. Slide the bottom rail into the slot between the two posts, as shown in Fig. 16.
3. Cut the fence boards to size, ensuring that there is approximately 4 mm gap between the post and board.
4. Slide the fence boards into the slot between the two posts, as shown in Fig. 17.
5. Place any post sidings to create gaps as needed.
6. Repeat steps 1 and 2 for any other rails needed, as shown in Fig. 18.

**Note:**

- Rubber mallet may be used to seat fence boards, rails and gently knock down into place down, if necessary.

Fig. 16

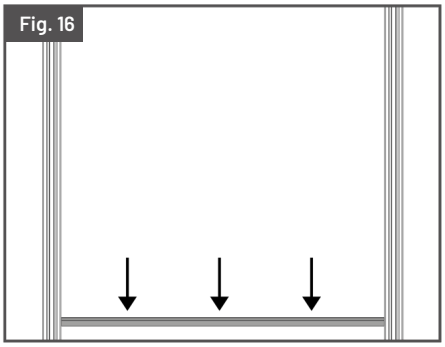


Fig. 17

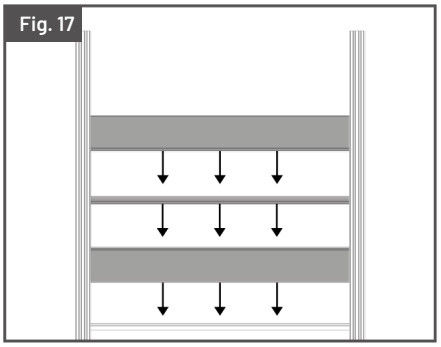
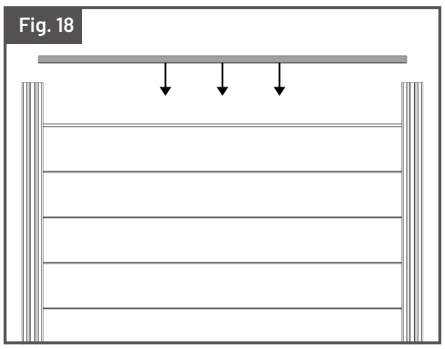


Fig. 18



## 7. 45° Converter installation

1. Position the 45° Converter on desired face of post, as shown in Fig. 19, (optional).
2. Fasten the 45° Converter into place using appropriate aluminium screws, as shown in Fig. 20. Fasten every 300 mm

Fig. 19

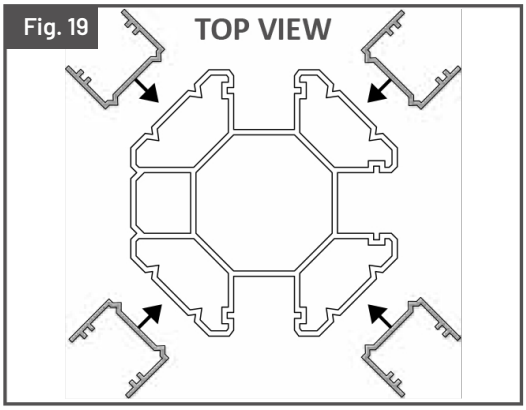
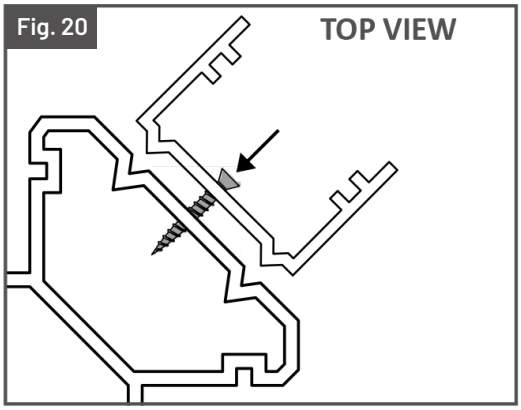


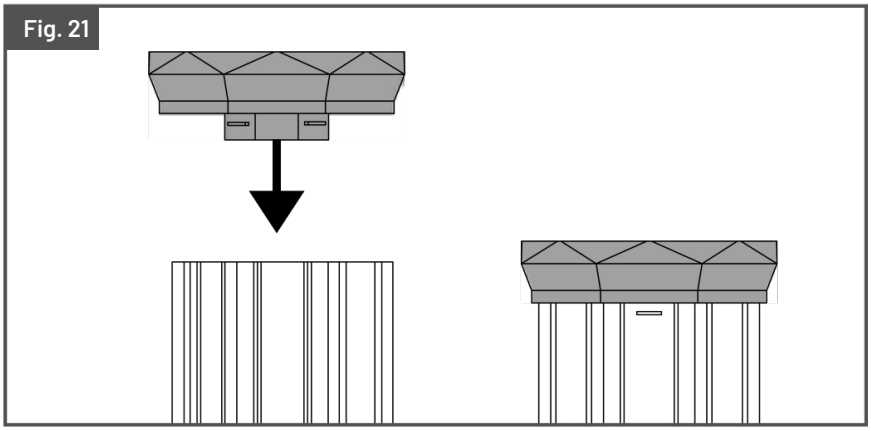

Fig. 20




## 8. Post cap installation

1. Install post cap (optional)
2. Post caps are press fit into place. As shown in Fig. 21.

Fig. 21



# 9. Door installation

1. Ensure the installation area is level and clear of obstructions. If adjustments are needed, level the ground before proceeding.
2. Ensure that the post that secures the hinges is orientated as shown in Fig. 27. Note the position of the slots.
3. Ensure that the post that secures the door stopper is orientated as shown in in Fig. 28. Note the position of the slots.
4. Check that the opening in the fence matches the size of the door plus 15/16" (23 mm). The opening should not vary by more than 7/32" (5 mm), as shown in Fig. 29.
5. Attach the top hinge to the post as shown in Fig. 30. The height to attach the hinge is equal to the gate height plus the bottom gap minus 25/32" (20 mm). Ensure that the pin is pointing upwards and that the threaded section is centred on the bracket.
6. Slide the door onto the top hinge and hold it in position.
7. Slide the lower hinge into the door and attach to the post, as shown in Fig. 31. Ensure that the pin is pointing downward and that the threaded section is centred on the bracket.
8. Ensure that the door swings freely and avoids any obstructions.
9. Attach the door stopper to the opposite post, as shown in Fig. 32.
10. Adjust the hinges so that the lock engages into the door stopper and the door hangs vertically, as shown in Fig. 33.

**Note:**

- Rubber mallet may be used to seat fence boards, rails and gently knock down into place down, if necessary.

Fig. 27

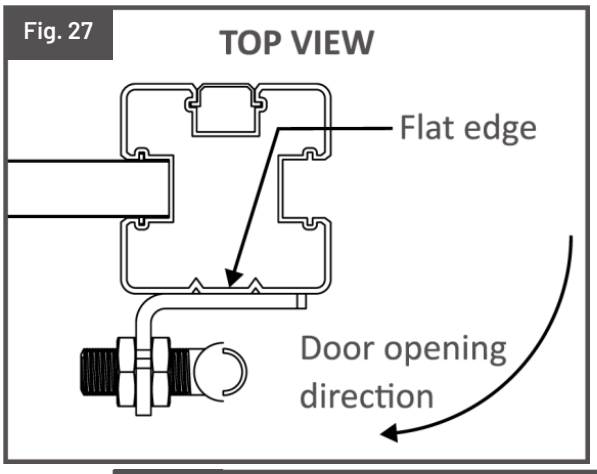



Fig. 28

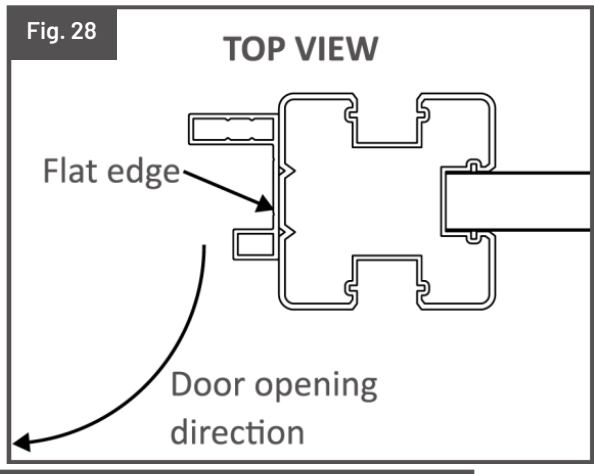



Fig. 29

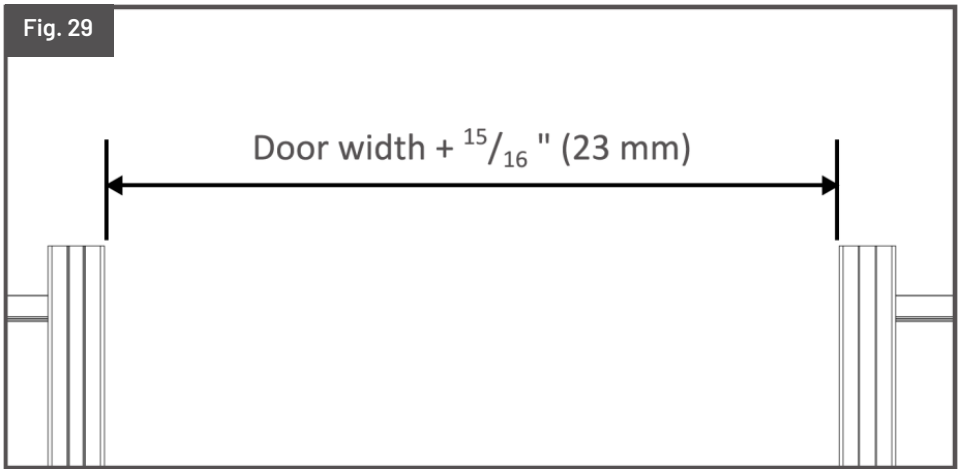


Fig. 30

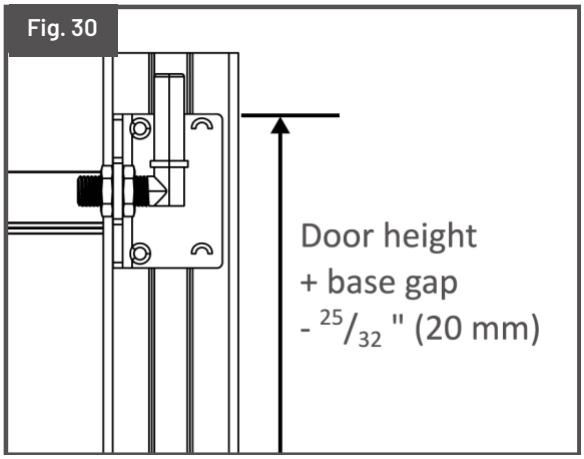



Fig. 31

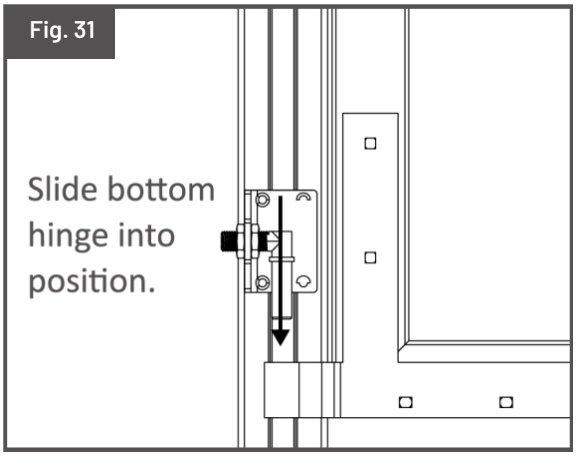



Fig. 32

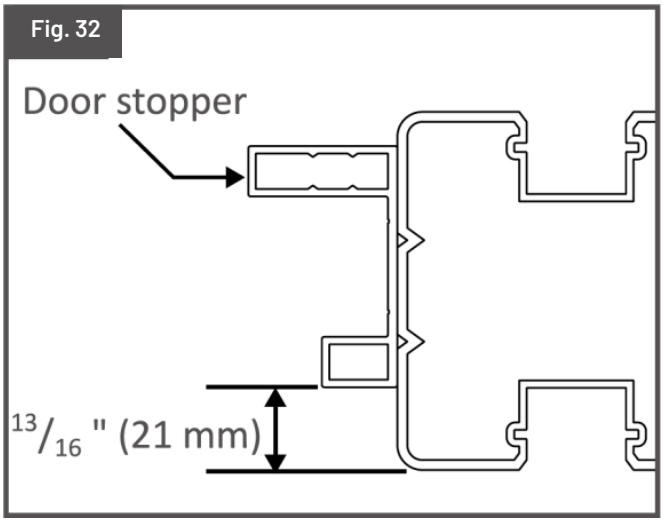
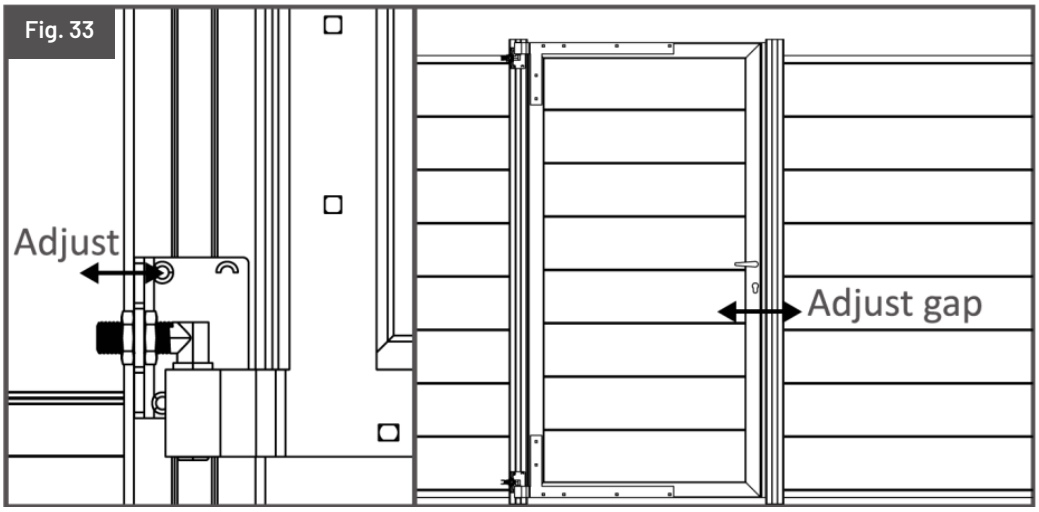



Fig. 33



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While most data have been compiled from research, case histories, experience and testing, small changes in the environment can produce marked differences in performance. The decision to use a material, and in what manner, is made at your own risk. The use of a material and method may therefore need to be modified to its intended end use and environment.

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## 9.3 Utilisation disclaimer

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