

# INSTALLATION MANUAL

## HoriZen® Aluminium

HoriZen Aluminium system: fence elements, posts and mounting accessories.





## **CONGRATULATIONS ON YOUR PURCHASE OF HORIZEN ALUMINIUM.**

HoriZen Alu is made from Aluminium which is durable and easy to maintain. You also made a good choice for the environment as it contains 100% recycled materials

HoriZen Aluminium is flexible and offers a wide range of options to create a fence to meets achieve the look you require. The tongue and groove profiles of HoriZen Aluminium System can be interchanged or replaced by decorative profiles in stainless steel.

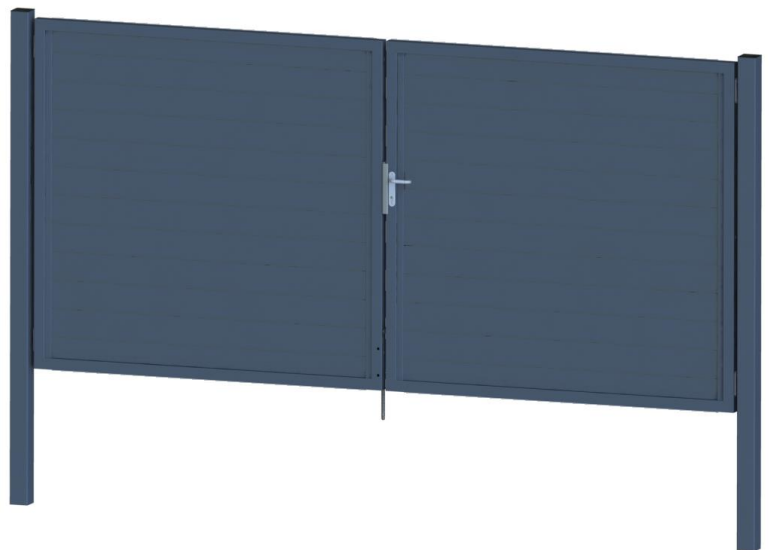
In the following pages we present:

- All HoriZen components
- Mounting your fence
- Safety instructions
- Assembly tips and tricks
- Planning your fence line and how to prepare the assembly.

Enjoy planning and assembling your HoriZen Aluminium System.

|                                                            |    |
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| HoriZen Aluminium                                          | 7  |
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We also offer a HoriZen Aluminium swing gate.  
(a separate installation manual is available for the swing gate)



## Safety instructions and tips

for transport, storage, and handling of HoriZen Aluminium components

### Please note for all HoriZen Aluminium construction elements:

- Unassembled panels may become warped if stored incorrectly, i.e. not upright. Avoid point loads, especially with profiles and strips.
- Protect materials from rain, snow, and direct sunlight when stored to avoid excessive temperature fluctuations of the material.
- Do not assemble in frost or high temperatures. The outside temperature and ground temperature should ideally be between +5°C and +25°C. The HoriZen elements must be able to adapt to this temperature prior to assembly.
- The assembly of all HoriZen construction elements must only be carried out with the appropriate and proven HoriZen components from Betafence and as described in the current assembly instructions at the time of assembly.

### Working with HoriZen Aluminium :

- Construction elements in aluminium or steel can be shortened with a fine-toothed saw blade for metal or with a hacksaw.
- **TIP:** Do not cut aluminium or steel materials with a grinder! The material may burn and the lacquer flakes off. To prevent corrosion, coat the cut areas with a commercial varnish, and allow to dry before installation.

### HoriZen Posts – Accessories and ground attachment.

We differentiate between posts that are directly sunk into concrete and posts that are installed on top of concrete with a floor plate.

| Posts Length | Ground attachment                                                   |
|--------------|---------------------------------------------------------------------|
| 1930 mm      | Ground anchor/footplate or into concrete if fence height max 1300mm |
| 2400 mm      | sunk into concrete                                                  |
| 2980 mm      | sunk into concrete                                                  |

### Explanation of the symbols



Drill with the indicated diameter.



Element can be shortened or must be shortened to the indicated size.



Glue construction elements.



Screw tight with the specified torque.



Remove protective film at room temperature before installation.



Article must not be installed upside down.

## Tools, preparation and basic construction principles

### Measuring, marking and assistance:

- Roller gauge, set square, spirit level, masonry cord, pickets, support slats, measuring slats, tensioning screws, logs, spacer slats.

### Concreting:

- Spade, shovel, mortar tub, bucket, wheelbarrow, possibly concrete mixer.

### Assembling:

- Drill, metal drill bits (2-10 mm), concrete drill bits (14 mm), screwdrivers (crosshead, hexagon and torx), spanners, torque spanners, rubber mallet, saws for wood and metal, circular saw.

### Other:

- Silicone gun

### Preparation and basic construction principles:

Planning is essential!

Using the assembly instructions, draw up a construction plan for your HoriZen Aluminium fence. Determine the correct spacing and positioning of the elements before starting. The axis size always determines the spacing of the posts, which you will find on the overview of the relevant panels.

These assembly instructions are the basis for all construction variants. When planning and executing the work, take into account all local regulations and building codes and adhere to the generally used rules of the trade. No guarantee can be invoked in the event of deviations and resulting defects.

Responsibility for proper installation on existing buildings and for the impact on statics, insulation and fire protection lies with the planners and the professionals involved.

**NOTE:** The Betafence panels and screening systems are **not** approved or authorized to be used as balustrades.

## All HoriZen Aluminium elements and components for the combination with HoriZen Aluminium posts

- HoriZen Aluminium Antracite, RAL 7016 S



- HoriZen Decorative profiles (15 cm high). The Decorative profiles in Stainless steel can replace certain Aluminium profiles.

Modern



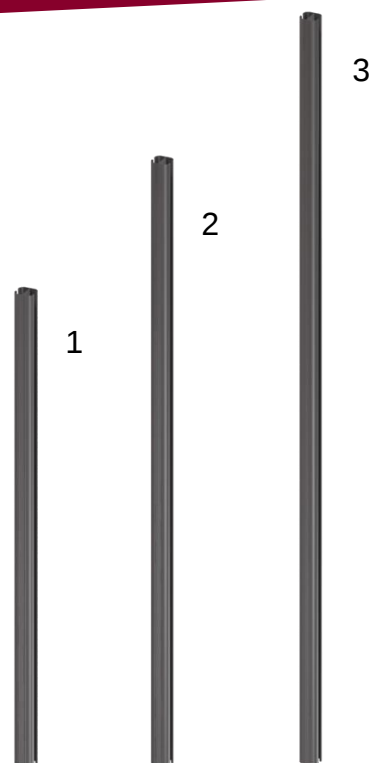
Classic



## HoriZen Aluminum posts and accessories

- HoriZen Aluminium posts in RAL 7016 S (anthracite) and post caps.
- An overview of the size indications of installation widths and possible combinations of panels and accessories is on page 10.

| Post section x length | Installation on separate footplate                                                | Installation in concrete                                                                                      | Installation on slopes                                                              |
|-----------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1. 70x70x1930 mm      |  | <br>(if fence is max 1300mm) |                                                                                     |
| 2. 70x70x2400 mm      |                                                                                   |                              |                                                                                     |
| 3. 70x70x2980 mm      |                                                                                   |                            |  |



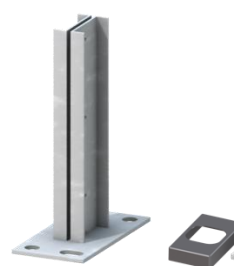
End profile R7016S (one supplied with the post)



Optional U-assembly profile RAL 7016S, Length: 1920mm, without mounting accessories



Post cap (70x70mm) (one supplied with the post)



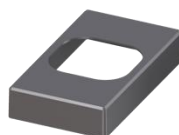
Optional: Zinc-coated Floor plate for installation on concrete or wall, including cover for Floor plate RAL 7016S.



Top and bottom profile (RAL 7016S) Have to be ordered separately



Adapter profile (R7016S) for decorative elements (classic or modern) one included with board

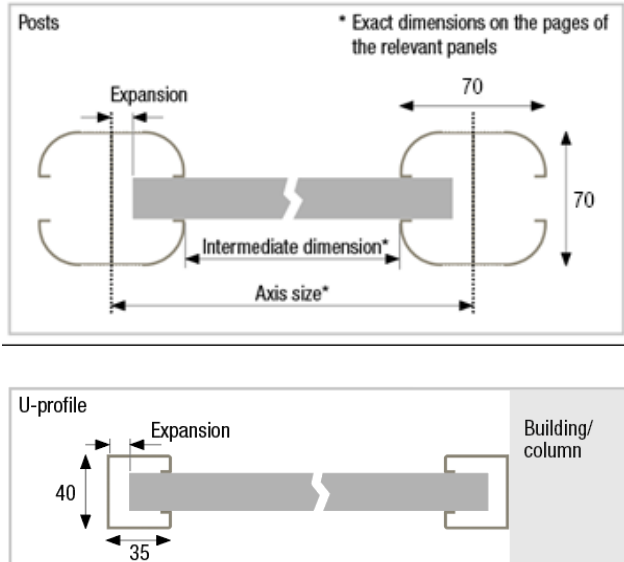


Optional: Cover for concrete RAL 7016S.



Optional: wind anchor post (RAL 7016S)

## Basic principles: dimensions and terminology (indicated in mm)



The necessary space for material expansion is created automatically when the panels are precisely aligned in the centre, when they are assembled with the specified axis sizes and intermediate dimensions.

### Assembly on sloping terrain

For significant slopes, installation with posts for concreting is recommended.

Please note: all boards in the HoriZen Aluminium range must be installed horizontally between the posts! There are two options:

**Option 1:** The elements and profiles run level at the top, with or without an open space between the bottom of the panel and the ground, depending on the slope.

**Option 2:** The profiles or elements are installed stepped at the top in increments of 15 cm, i.e. always with a height difference in relation to the previous panel.

### Corner

To make a 90° corner, screw a U-profile post to the HoriZen post.

For other corners 2 posts are required

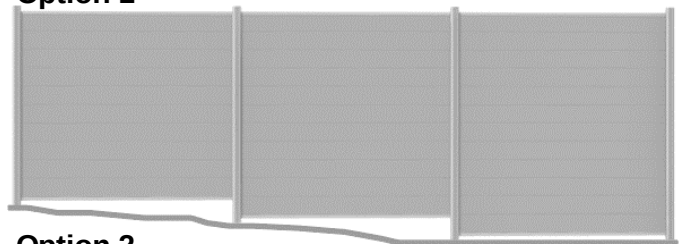
## Combinations of the panel-series - heights of the panel elements

All elements of the HoriZen Aluminium panels can be freely combined with each other. As the panel height is not always the same, it is best to align the top of the panels at the same height in order to obtain a visually uniform appearance. If you plan to install a fence with a single or double gate, install the gate first and then align the remaining panel elements with it.

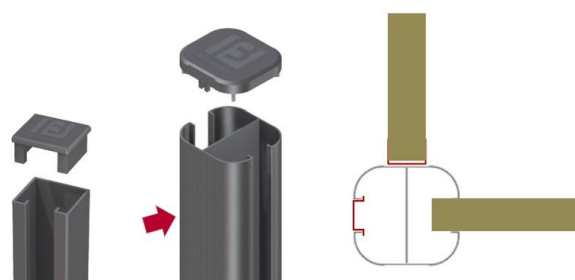
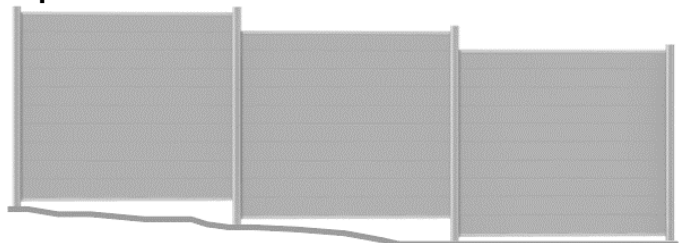
The height indications are guide values for your planning. They may vary slightly due to temperature or by tongue and groove assembly.

- HoriZen Aluminium : 1830 mm
- HoriZen gates: 1845mm

### Option 1



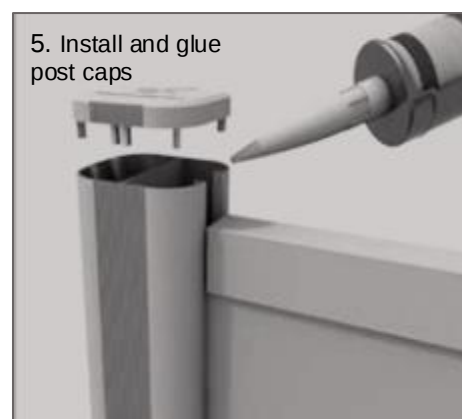
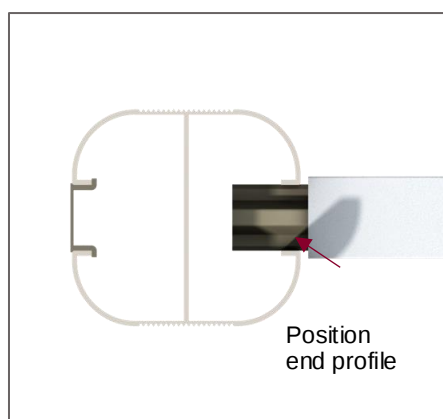
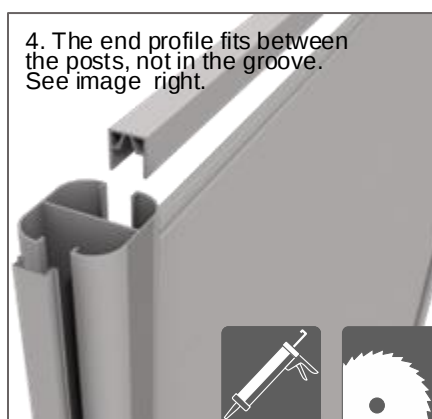
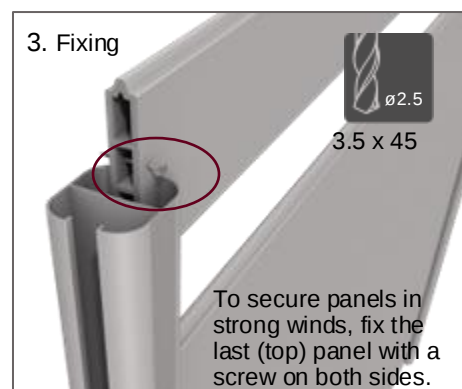
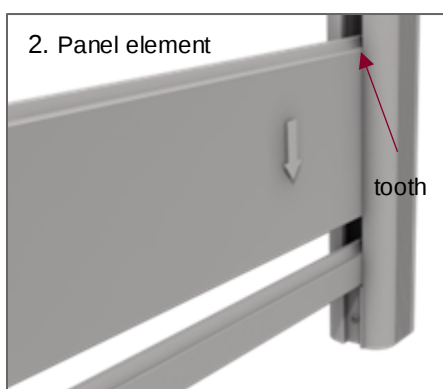
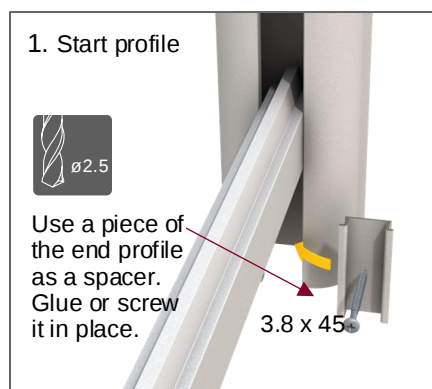
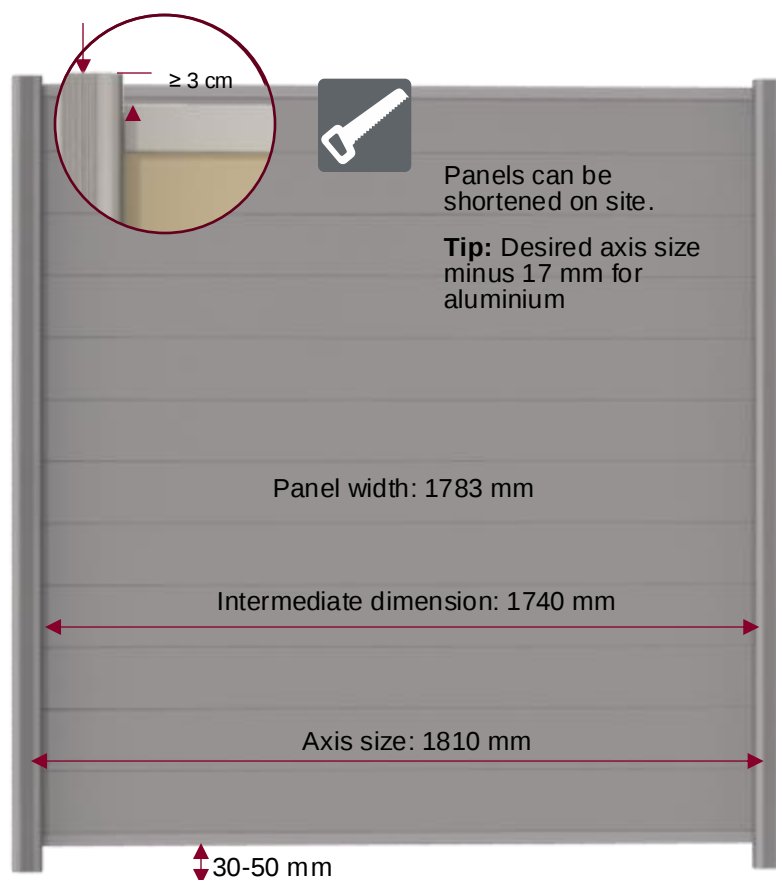
### Option 2



## Assembly sequence

First fit the spacer (use only at the bottom) into the post groove and then insert the start profile (1) and centre it. Install the first panel (2), the tooth facing up, centre it. Carry on with subsequent panels. Fix the last panel with a screw (3) Place the end profile (4) and glue. Install and glue post caps (5).

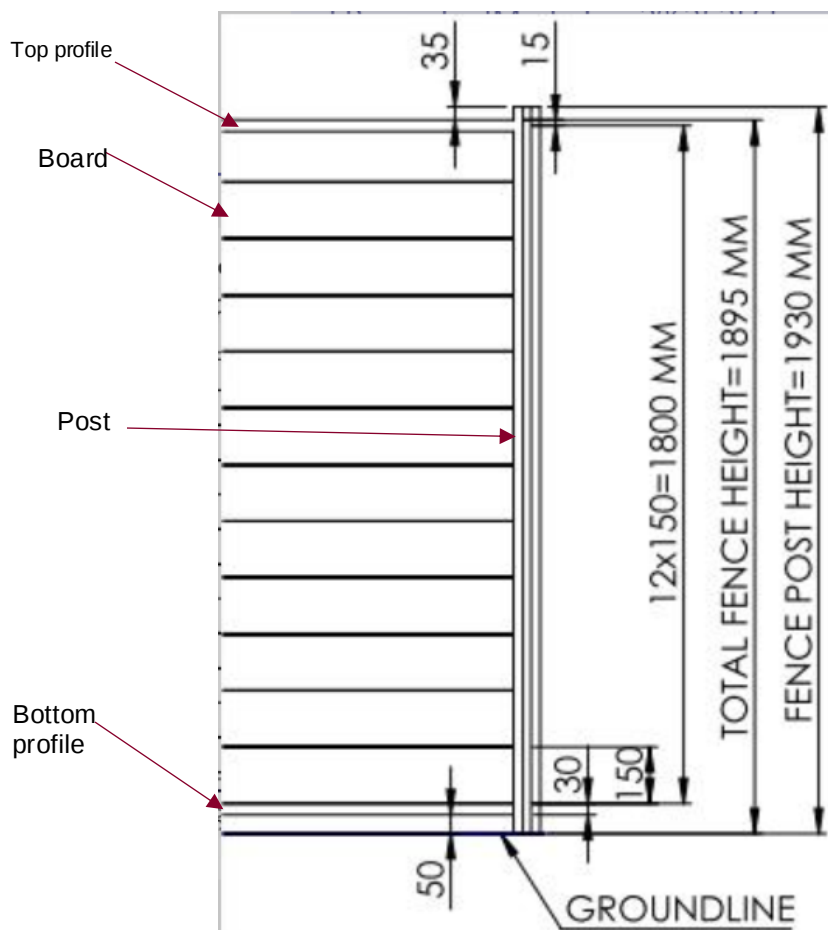
**TIP:** When slotting the panels in, lightly press the groove in the post with a wooden block. For ALU profiles, a lubricant can also be applied.



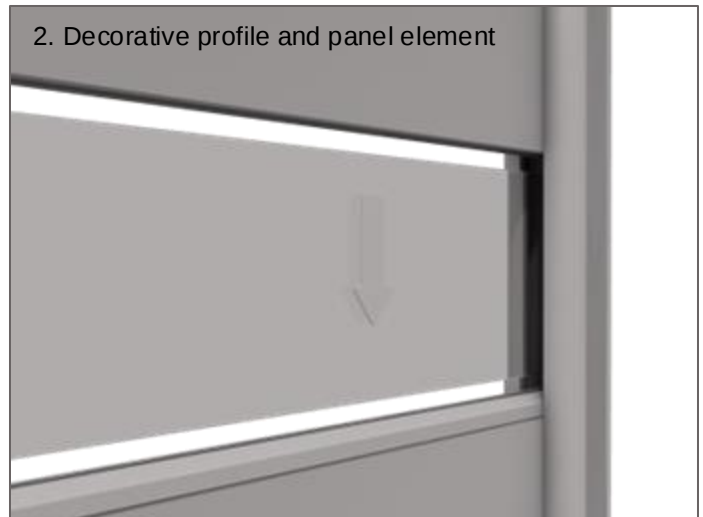
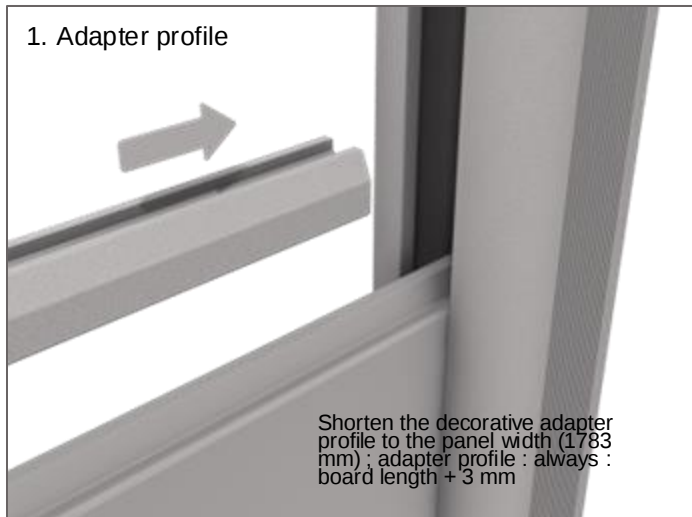
## Fence heights

| Amount of boards [mm]<br>(one board = 150mm height) | Fence height [mm] | Space between ground and bottom profile [mm] | Bottom profile [mm] | Top profile [mm] | Post Height (in concrete) [mm] | Post Height (with floorplate) [mm] |
|-----------------------------------------------------|-------------------|----------------------------------------------|---------------------|------------------|--------------------------------|------------------------------------|
| 4                                                   | 695               | 30-50                                        | 30                  | 15               | 1200                           | 730                                |
| 5                                                   | 845               |                                              |                     |                  | 1350                           | 880                                |
| 6                                                   | 995               |                                              |                     |                  | 1500                           | 1030                               |
| 7                                                   | 1145              |                                              |                     |                  | 1650                           | 1180                               |
| 8                                                   | 1295              |                                              |                     |                  | 1800                           | 1330                               |
| 9                                                   | 1445              |                                              |                     |                  | 1950                           | 1480                               |
| 10                                                  | 1595              |                                              |                     |                  | 2100                           | 1630                               |
| 11                                                  | 1745              |                                              |                     |                  | 2250                           | 1780                               |
| 12                                                  | 1895              |                                              |                     |                  | 2400                           | 1930                               |

### Example sketch for fence 1895mm height



## Decorative profiles Classic or Modern



Important for all HoriZen Aluminium fencing:

- Only install decorative profiles in the upper third section.
- When multiple decorative profiles are used in one panel, there must always be a HoriZen Aluminium panel in between.

Proud to be a PRÆSIDIAD brand, Betafence is part of a global network, working alongside Guardiar and Hesco as leaders in perimeter security systems and solutions.

For more information, please visit [praesidiad.com](https://praesidiad.com)

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