Installation manual

INSTALLATION KIT FOR SWIMEO X

SIREM

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technical instructions

SWIMEO X

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1. SAFETY INSTRUCTIONS

1.1 Safety instructions for installation

CAUTION

The SWIMEO X installation kit must be **fitted by a professional.**

The installer is responsible for the compliance of the final installation, which must meet the following standards:
- NF EN 16582-1
- NF EN 16582-2
- NF EN 16713-2

SIREM cannot be held responsible for the direct or indirect consequences of incorrect installation of SWIMEO products.

IMPORTANT

When unpacking the product, do not use a Stanley knife or sharp tools that could damage the installation kit plates.

When installing the kit, wear gloves to avoid injuries from its large metal parts.

- ✔ The turbine must be handled with suitable equipment to avoid the risks associated to lifting heavy loads
- ✔ The kit must be installed using suitable PPE (gloves, ...) to avoid any risk of injury from the kit components.

1.2 Safety instructions for use

- ✔ The SWIMEO X installation kit is designed to be fitted with an A Model SWIMEO turbine.
- ✔ The SWIMEO X installation kit is not designed to be used as a diving platform, for sitting on, or for leaning on when getting out of the pool. The installer must finish off the pool correctly (coping, wooden deck, etc.) to ensure the safety and security of users.
- ✔ SIREM cannot be held liable for the consequences of replacing a part in the SWIMEO X kit with another part with less mechanical or corrosion resistance or another degraded characteristic.
- ✔ The installation kit is not designed to be used as a wall to be leant on for swimming. Using the grille for such a purpose could damage the installation kit.

2. PRODUCT DESCRIPTION

2.1 Product pictures

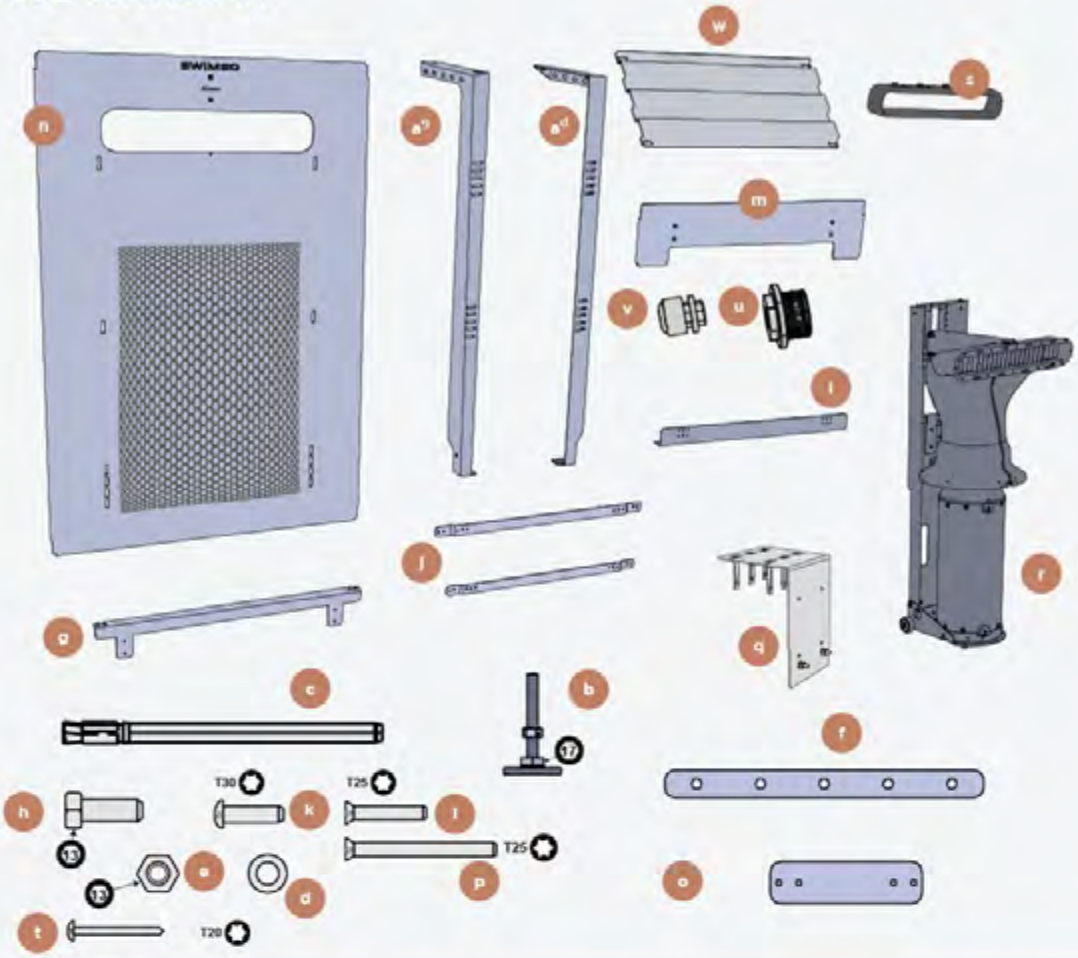
2.2 Technical characteristics

Weight
20 KG

Material
316 L stainless steel

Packaging
1 box, 120x80x20 cm

2.3 Parts of a SWIMEO X.



CAUTION

The nuts, bolts and screws supplied are made of A4 stainless steel. A number of precautions should be taken when using this type of bolt/screw:

- Pre-tighten screws and bolts by hand
- Do not over-tighten: 3 Nm maximum
- If possible use a lubricant for tightening/loosening
- If an electric screwdriver is used, use a low speed.

If you lose any fasteners, it is important to replace them with identical parts, made of A4 stainless steel, to avoid corrosion problems.

Component name	Ref	Qty			
Side bracket RH	a^d	1	Screw TFXC M5x25	l	8
Side bracket LH	a^g	1	Top cover plate	m	1
Threaded foot M8x63	b	4	Grille	n	1
Anchor bolt	c	6	Shim	o	≥8
M8 contact washer	d	14	Screw TFXC M5x50	p	4
Nut M8	e	10	Turbine attachment bracket	q	1
Bracket seal	f	2	Turbine model A	r	1
Upper transversal bar	G	1	Current guide extension	s	1
Screw TH M8x20	h	8	Screw TC M4x45	t	2
Lower transversal bar	i	1	Reducer M 1"1/2 - F 3/4	u	1
Intermediate bar	j	2	Cable gland 3/4	v	1
Screw TBXC M6x20	k	10	Top cover	w	1
			Control and power supply box		1

2.4 Additional equipment

Supplied: Reducer M"1/2 - F 3/4 u
Stuffing gland 3/4 v

Not supplied: Vacuum point with threaded hole 1"1/2

2.5 Installation time

- ✔ We recommend that the kit be installed by 2 persons
- ✔ The total installation time is around 3 hours with 2 persons.
- ✔ However one person can fit the kit by themselves

Key steps in the installation:

Step	Description
1	Installation through a wall (optional)
2	Drilling the walls
3	Preparing the brackets
4	Inserting the anchor bolts
5	Attaching the side brackets
6	Installing the turbine in the recess
7	Fitting the upper transversal bar
8	Fitting the upper transversal bar
9	Tightening the frame
10	Adjusting the side feet
11	Installing the shims

Step	Description
12	Marking and drilling of bracket attachment holes
13	Tightening the turbine attachment bracket
14	Tightening the turbine on the attachment bracket
15	Fitting and tightening the intermediate bars
16	Fitting the top cover plate
17	Positioning the grille
18	Installing current guide extension
19	Fitting the turbine cable
20	Final adjustment of positions
21	Attaching the top cover
22	Finishing the pool surround

3. WHAT SHOULD YOU CHECK BEFORE STARTING THE INSTALLATION?

IMPORTANT !

Fitting the SWIMEO X installation kit correctly depends on several factors. **It is important to comply with the prerequisites below before starting the installation of the SWIMEO X turbine.**

3.1 Prerequisites for installation

CAUTION ! As the attachment holes are 4cm from the top edge, it is the installer's responsibility to design a top edge strong enough to hold the brackets and support the weight of the installation kit (20kg)..

- ✔ A swimming pool with the minimum dimensions for completely safe swimming (Section 3.2)
- ✔ A swimming pool with a recess that has the required dimensions for installation of the SWIMEO X400 (Section 3.3.2)
- ✔ A top edge strong enough to hold the brackets and support the weight of the installation kit
- ✔ Pool walls that are sufficiently smooth around the supports for the installation kit and the turbine to avoid damaging the reinforced PVC when they are tightened.
- ✔ Prerequisites for the turbine (see Technical Instructions for the SWIMEO turbine, NT-5222-1)
- ✔ The height of the water line in relation to the ground level must be within the recommended range for the SWIMEO X kit
- ✔ A pool that is waterproofed (reinforced PVC)
- ✔ A pool that is empty or that has little water (≈ 20cm) makes installation easy
- ✔ A cable passage already provided (see §4.1)
- ✔ The turbine bracket attachment zone must be flat and horizontal (see §3.3.2)

3.2 Is the swimming pool big enough?

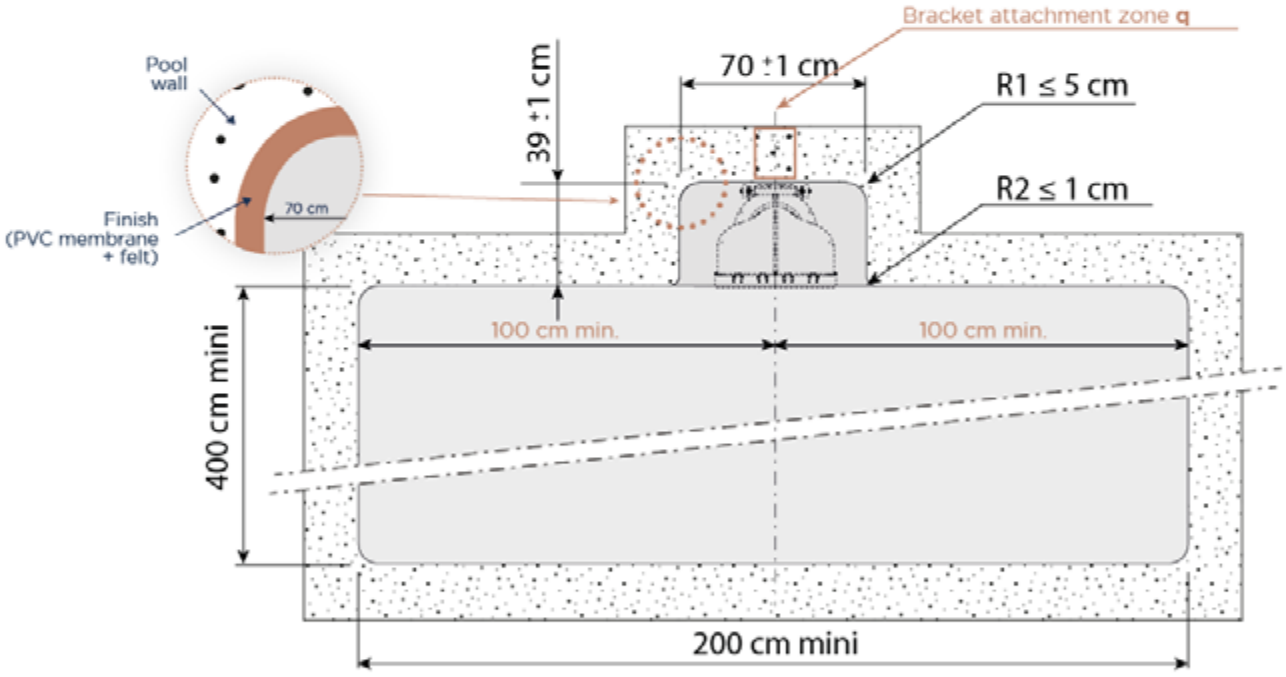
The pool must have at least the following dimensions:

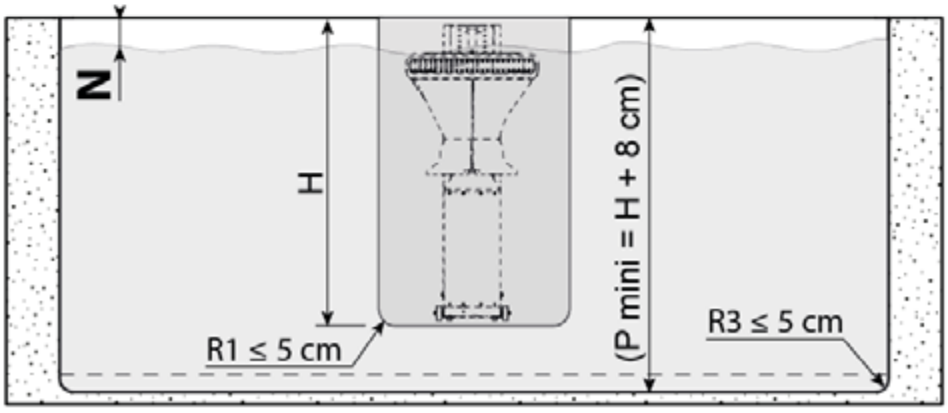
✔ **Width**	2m
✔ **Length**	4m
✔ **Depth P** (from the top edge to the bottom of the pool)	123 cm min.
✔ **Distance N** (from the top edge to the water line)	See next page

3.3 Recess dimensions

✔ **Length**	70 cm ± 1 cm
✔ **Width**	39 cm ± 1 cm
✔ **Height:**	**H** = 115 or 120cm (see table)
✔ **Internal radii R1**	less than 5 cm
✔ **External radii R2**	less than 1 cm
✔ **External radii R3**	less than 5 cm

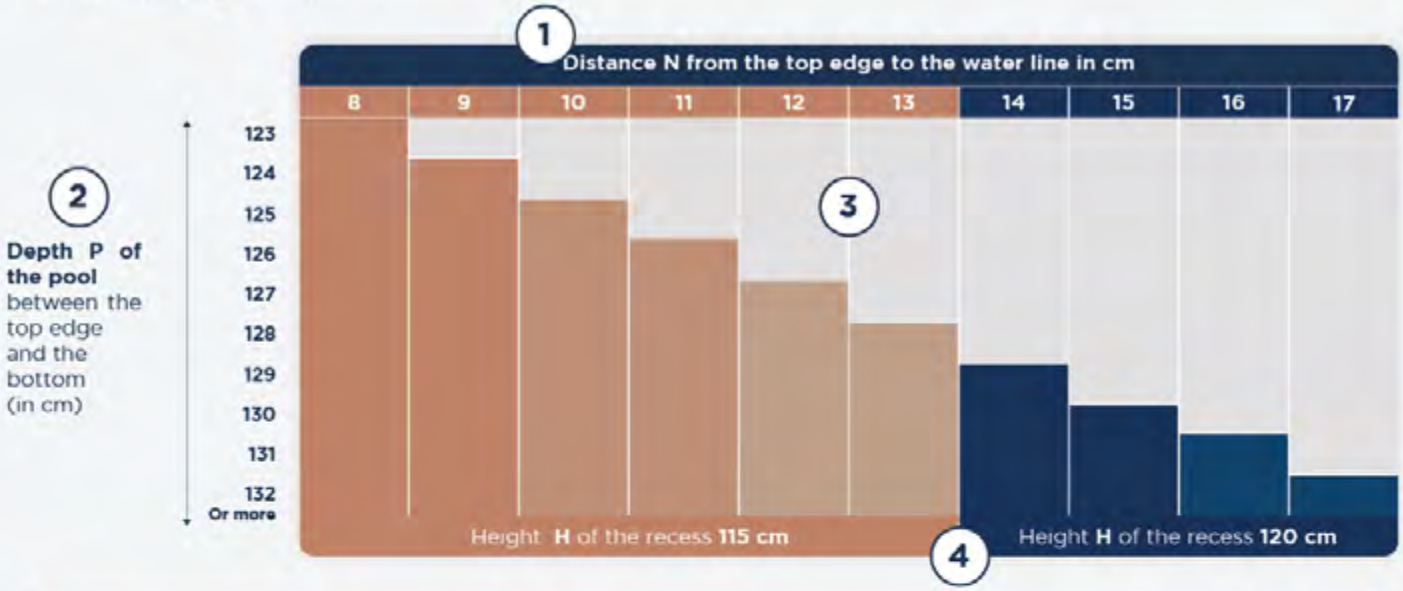
IMPORTANT ! All dimensions indicated take the pool's installed waterproofing into account (reinforced PVC).





The table below allows you to define the height H of the recess

1 Identify **the distance N between the top edge and the water line** of the pool
2 Identify the **depth P of the pool**
3 Identify the column where these two numbers intersect
4 **Deduct the height H of the recess**



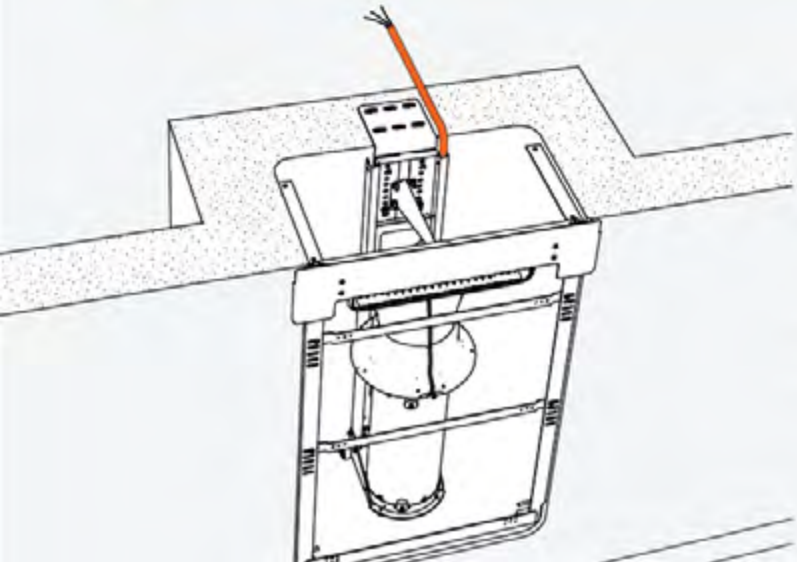
CAUTION ! Certain configurations are not compatible. They are shaded in grey in the table above. The minimum distance **between** the top edge and the water line is 8cm.

3.4 What sort of lining is needed?

CAUTION ! The installer is responsible for choosing the lining of the pool (reinforced membrane or other). The lining must withstand the pressure exerted by the brackets and support feet of the installation kit, as well as the vibrations from the turbine.

3.5 Define how the turbine power cable is to be passed

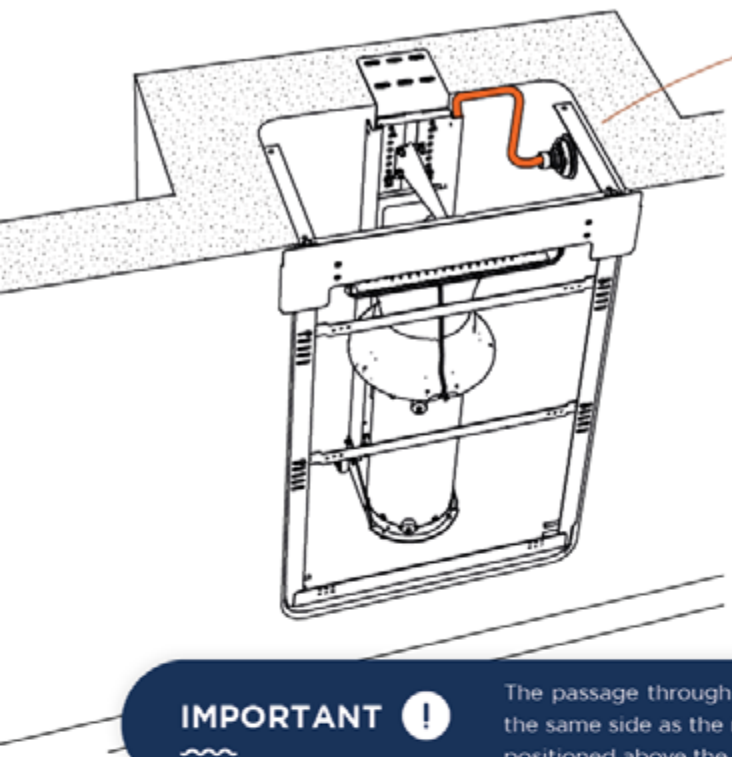
IMPORTANT ! **Refer to the Technical Instructions of the SWIMEO turbine for connection guidelines.** It is important that the turbine can be dismantled after installation in the event of a breakdown or maintenance operation. **Ensure that the cable can be removed.**



There are 2 possible solutions for passing the turbine cable out of the recess.

3.5.1 Above the top edge of the pool, without passing through a wall

The electrical cable passes above the top edge of the pool under the coping. This solution avoids passing through any walls.



3.5.2 through the recess wall

This solution requires a hole through the wall, which must be made before the reinforced PVC (see reference in §2.4).

The SWIMEO X kit includes adapters to pass the cable through the hole in the wall.

The cable gland can be fitted onto any side of the recess. **If it is fitted onto a side, its position must comply with the following dimensions:**

- Depth (from the top edge of the pool): **10-15 cm**
- Distance from the outside face of the recess: **25-27 cm**

IMPORTANT !

The passage through a wall should ideally be situated above the water line and on the same side as the recess. If it is below the water line, the connection box must be positioned above the water line to stop the pool from emptying.

4. FITTING

4.1 Installation through a wall (optional)

Parts to be used

- Reducer u
- Cable gland v

Fitting instructions

✔ A vacuum point (not supplied by SIREM) must be fitted through a wall.

The screw thread must be F1" 1/2

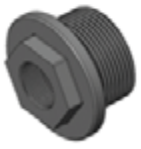
This will make the seal with the reinforced PVC.
It will allow a cable gland to be fitted for the SWIMEO cable.
Use Teflon when fitting the cable gland.

IMPORTANT !

The vacuum point is not included in the kit.

Stuffing gland 1/4 NPT

+

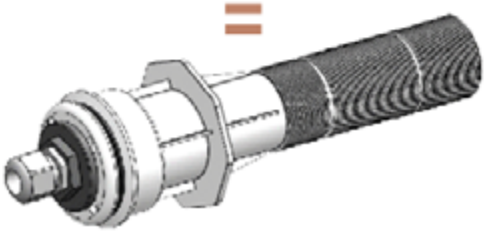


Adapter M 1" 1/2 F 1/4 (supplied)

+

Vacuum point (not supplied)

=



4.2 Drilling the walls

Parts to be used

- LH side bracket[a]
- RH side bracket[d]

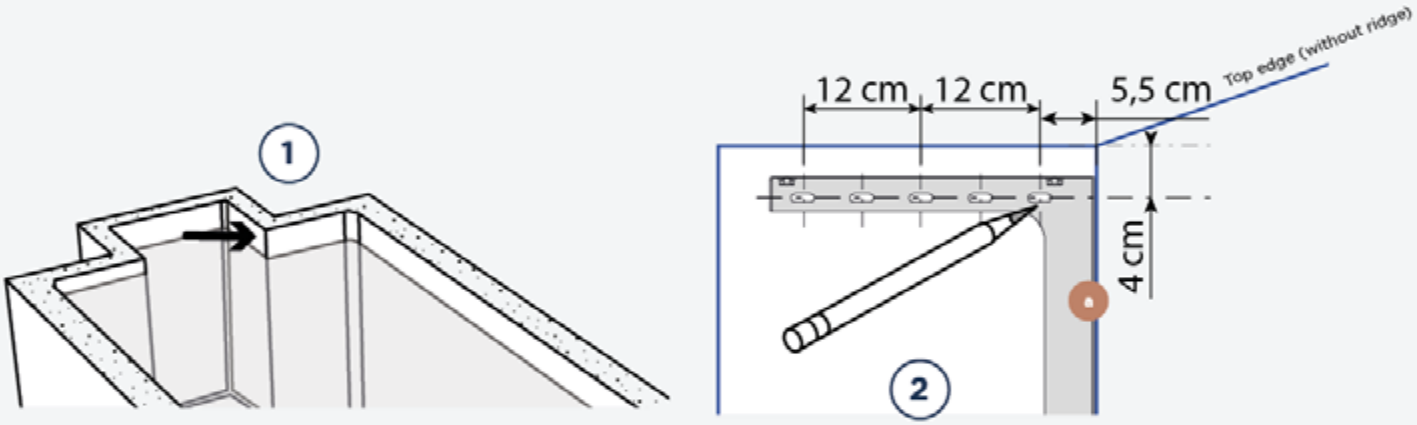
Fitting instructions

1 Position the bracket on the recess wall
2 Mark drilling holes
3 Drill
4 Repeat the operation for the opposite bracket

CAUTION

As the attachment holes are 4cm from the top edge, it is the installer's responsibility to design a top edge strong enough to hold the brackets and support the weight of the installation kit. Each bracket must be fixed at a minimum of 3 points.

Tip
Each side bracket has 5 holes. However, 3 bolts are sufficient.

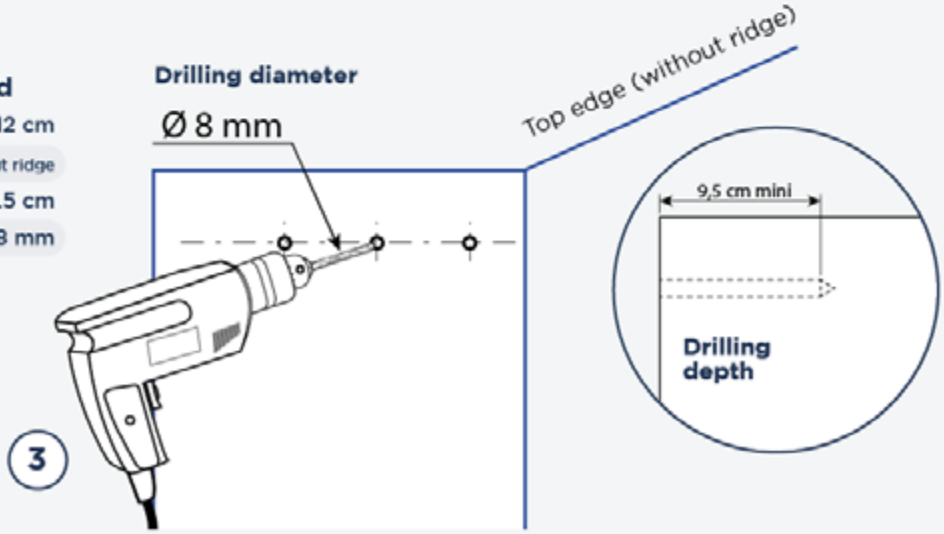


IMPORTANT

The front face of the bracket and the external wall of the recess must be aligned. The brackets must be positioned at the same height. Use a spirit level to ensure they are horizontal.

Description of holes to be drilled

✔ Centre-to-centre spacing	12 cm
✔ Height:	4 cm from the top edge without ridge
✔ Depth	9.5 cm
✔ Diameter	8 mm



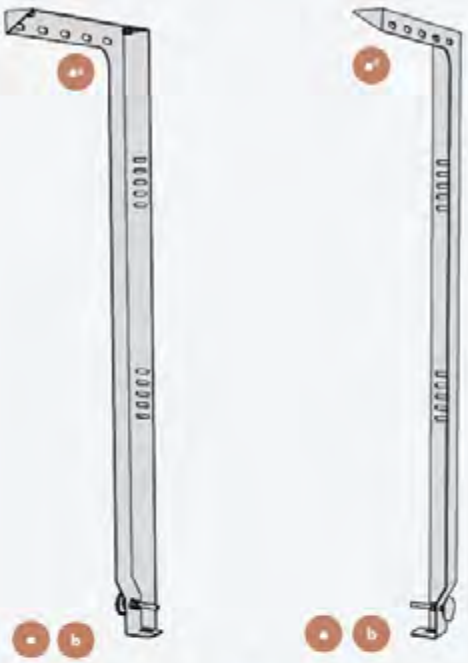
4.3 Preparing the brackets

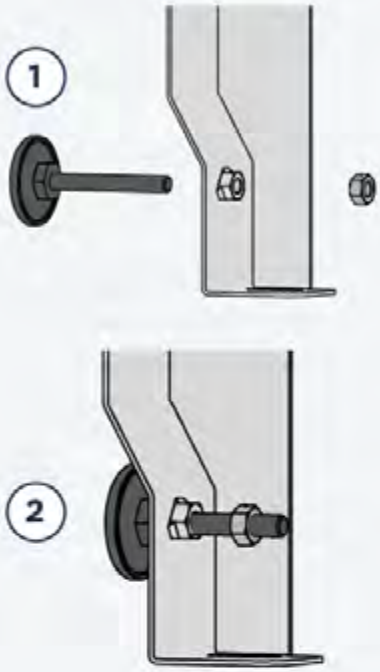
Parts to be used

- LH side bracket a[e]
- RH side bracket a[d]
- Nut M8 e x 2
- Feet M8 b x 2

Fitting instructions

1 Screw the feet onto the 2 side brackets as far as they will go
2 Screw a nut onto the end of each foot.





4.4 Inserting the anchor bolts

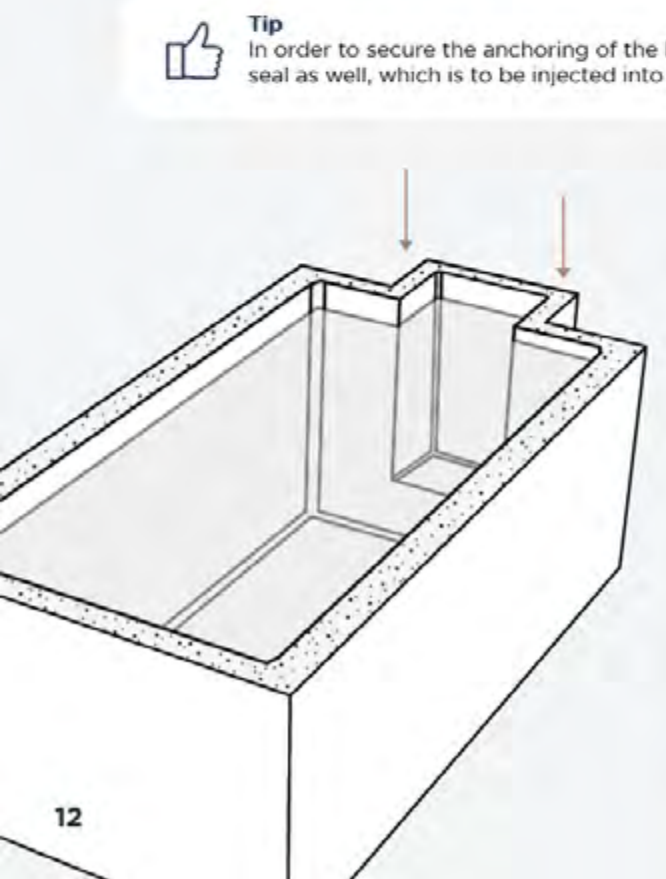
Parts to be used

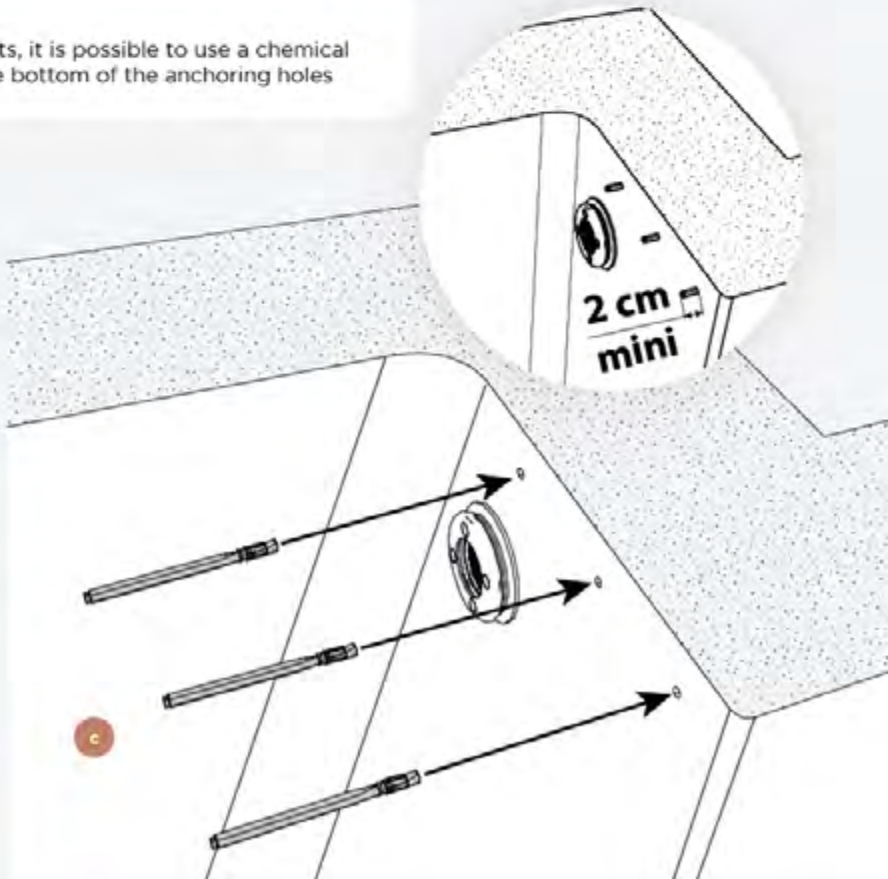
- Bolts c x 6

Fitting instructions

✔ Fit the anchor bolts M8 x 112 (c) into the holes on either side of the recess.
✔ The bolts must protrude by a **minimum of 2cm**.

Tip
In order to secure the anchoring of the bolts, it is possible to use a chemical seal as well, which is to be injected into the bottom of the anchoring holes





4.5 Attaching the side brackets

Parts to be used

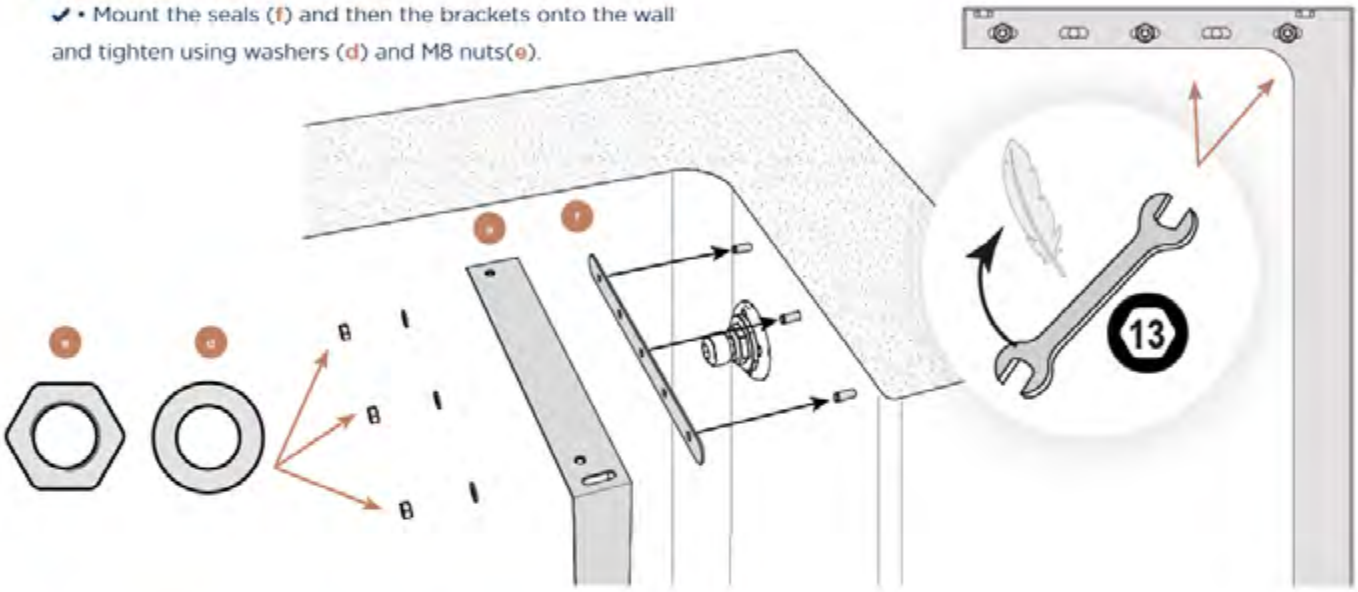
- LH side bracket a[g]
- RH side bracket a[d]
- Seals f x 2
- Nut M8 e x 6
- Contact washer M8 d x 6

IMPORTANT

Do not lock the nuts at this stage, so that the kit may be adjusted.

Fitting instructions

✔ • Mount the seals (f) and then the brackets onto the wall and tighten using washers (d) and M8 nuts(e).



4.6 Positioning the turbine in the recess

Parts to be used

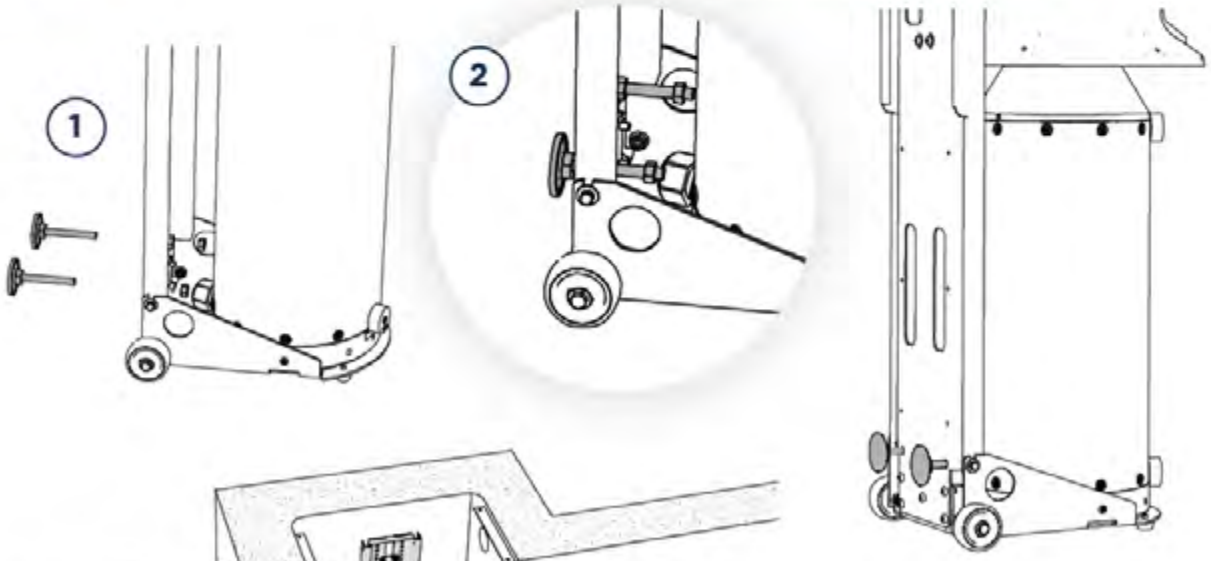
- Turbine r
- Threaded foot M8x63 b x 2
- M8 nuts e x 2

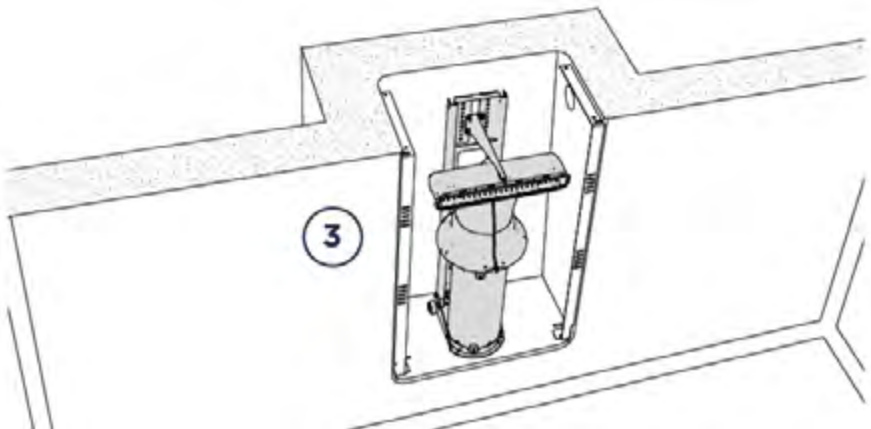
Fitting instructions

1 Screw the feet onto the turbine chassis as far as they will go

2 Screw a nut onto the end of each foot

3 Position the turbine on the bottom of the recess





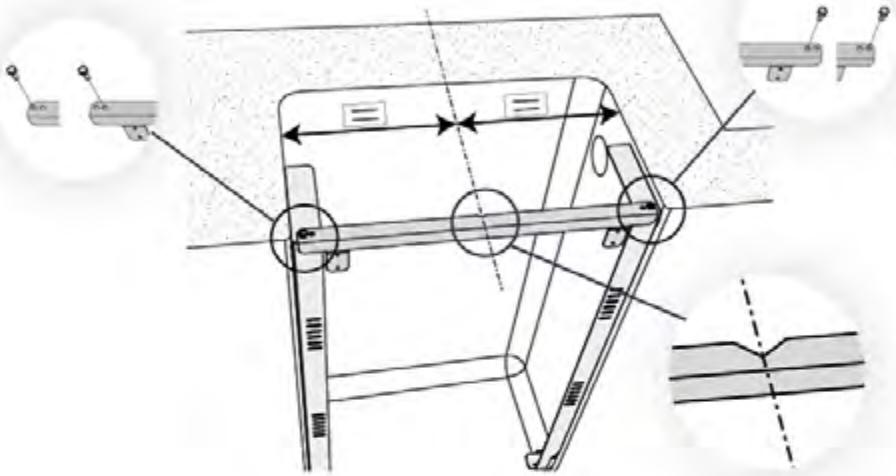
4.7 Fitting the upper transversal bar

Parts to be used

- Upper transversal bar g
- Screw TH M8x20 h x2
- M8 contact washer d x2
- M8 nut e x2

Fitting instructions

✔ Use the most suitable clamping holes on the bracket to centre it in the recess.



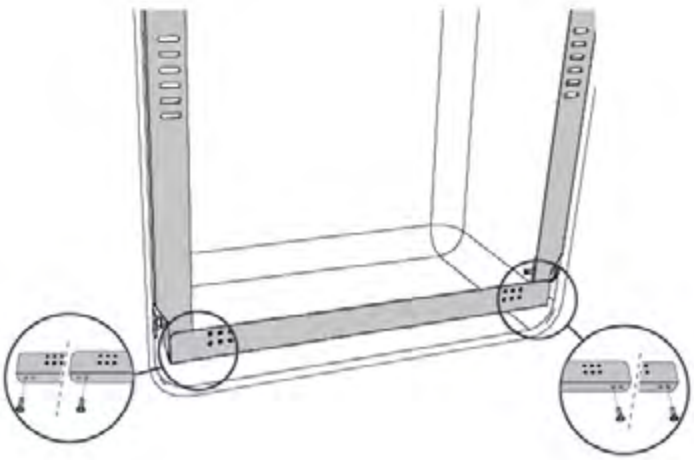
4.8 Fitting the lower transversal bar

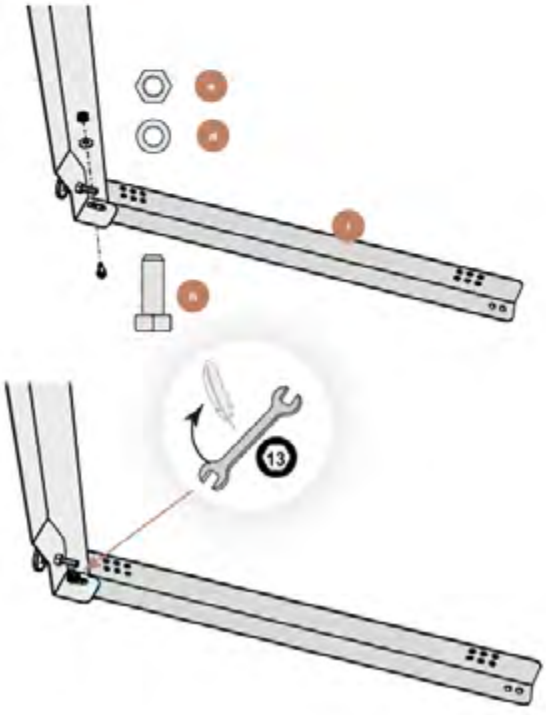
Parts to be used

- Lower transversal bar l
- Screw TH M8x20 h x2
- M8 contact washer d x2
- M8 nut e x2

Fitting instructions

✔ Use the most suitable clamping holes on the transversal bar to centre it in the recess



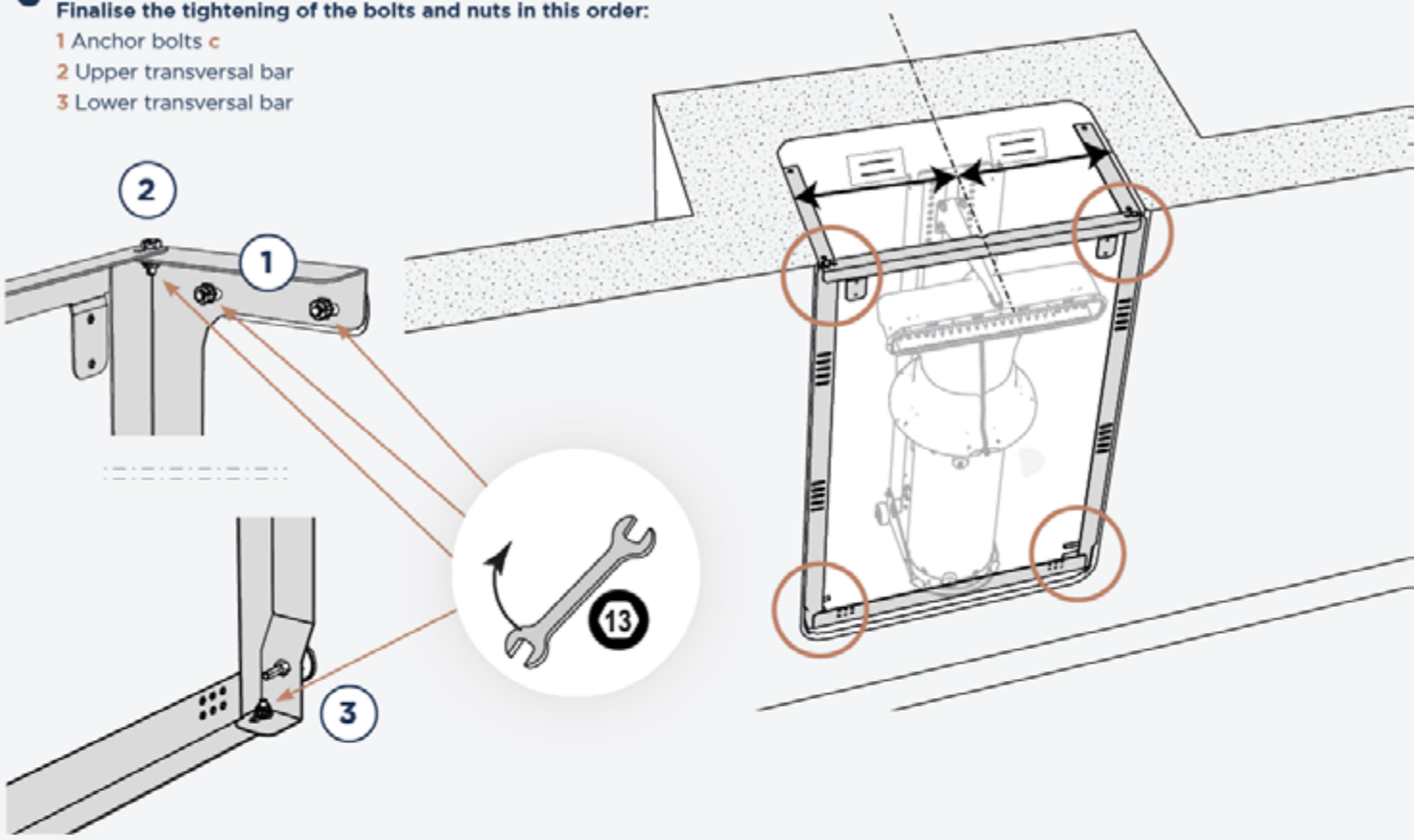


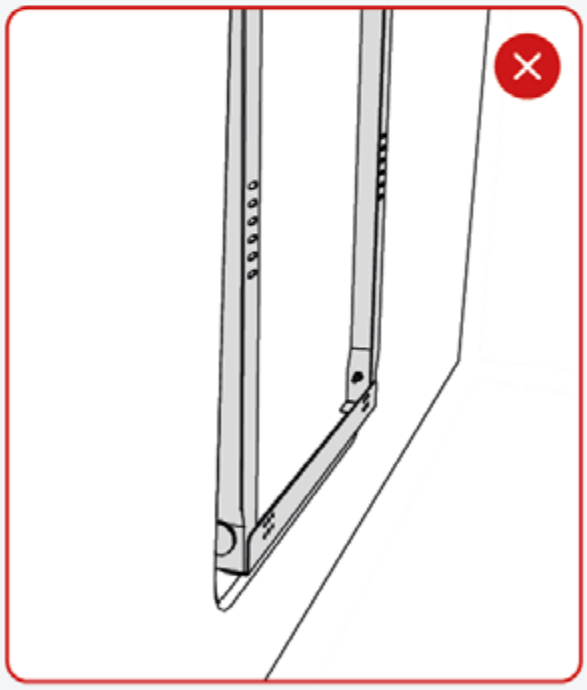
4.9 Tightening the frame

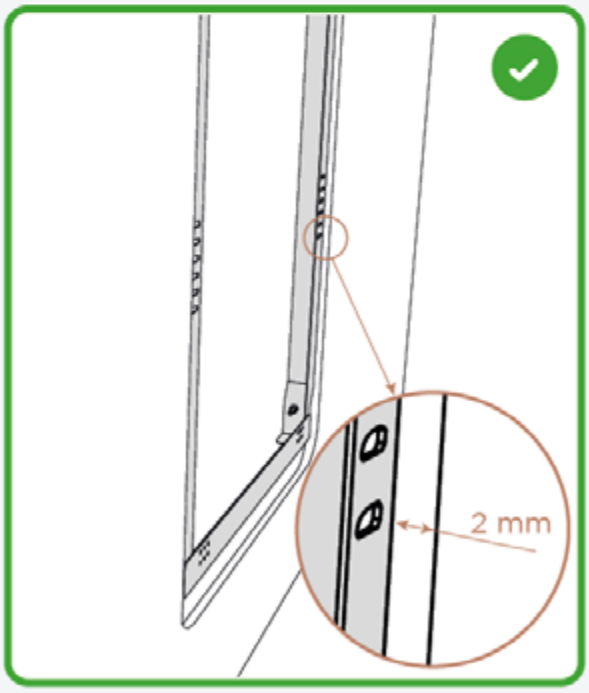
Fitting instructions

Finalise the tightening of the bolts and nuts in this order:

1 Anchor bolts c
2 Upper transversal bar
3 Lower transversal bar



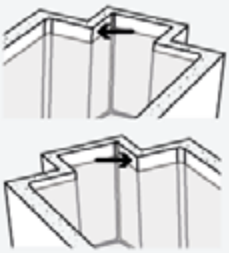




IMPORTANT !

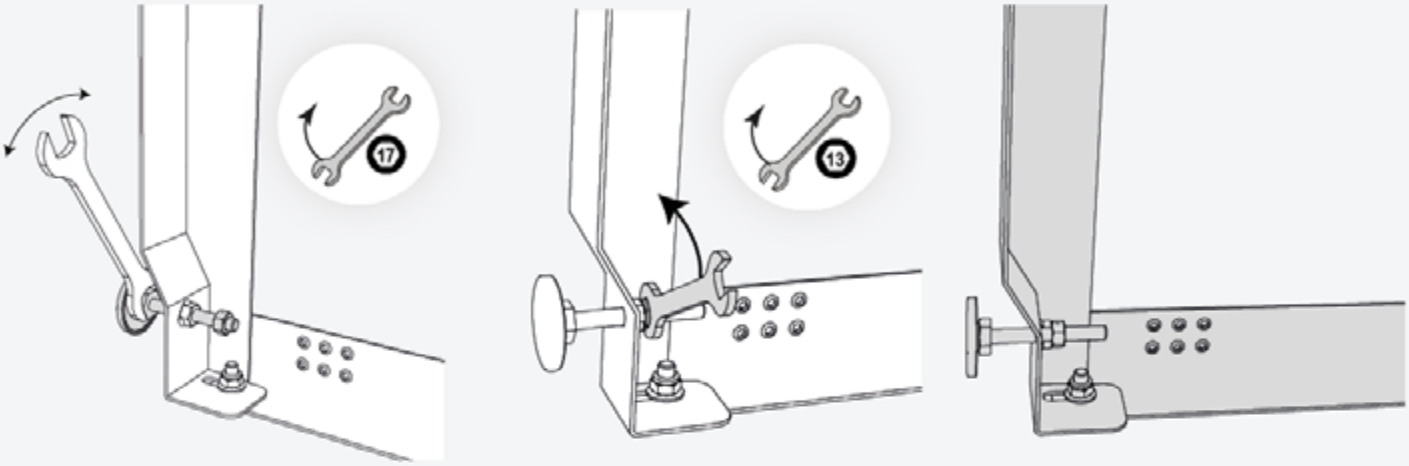
Ensure that the side brackets are set back 2 mm from the outside wall of the recess.
If they are set back too far or too little, adjust the side brackets.

4.10 Adjusting the side feet



Fitting instructions

- ✔ **Adjust the nuts** so that the feet fit closely to the side of the recess.
- ✔ To do this, **unscrew/screw in the feet** so that they are locked.
- ✔ Once the correct position has been obtained, **lock the "inner" nuts.**

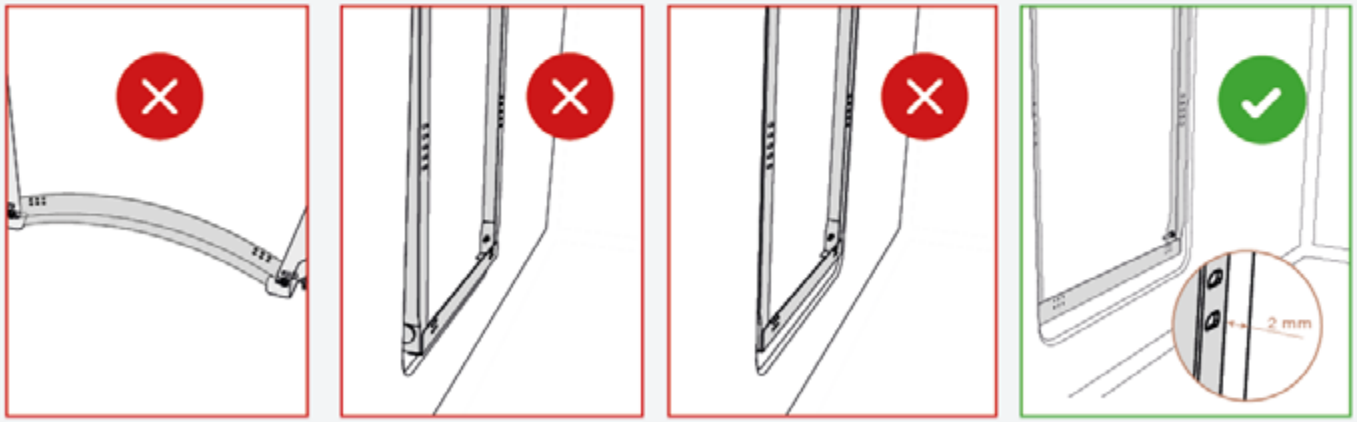


Tips

- ✔ Tighten alternately on the LH and RH sides to centre the kit.
- ✔ Ensure that the side brackets are vertical using a spirit level.
- ✔ Avoid over-tightening the feet so as not to deform the lower bar.

IMPORTANT !

The lower bar must not bend after the feet have been tightened.



IMPORTANT !

Ensure that the side brackets are set back 2 mm from the outside wall of the recess.

4.11 Installing the shims

The recess should be 39cm ± 1cm wide.
The shim system allows you to adjust the position of the turbine according to the table below.

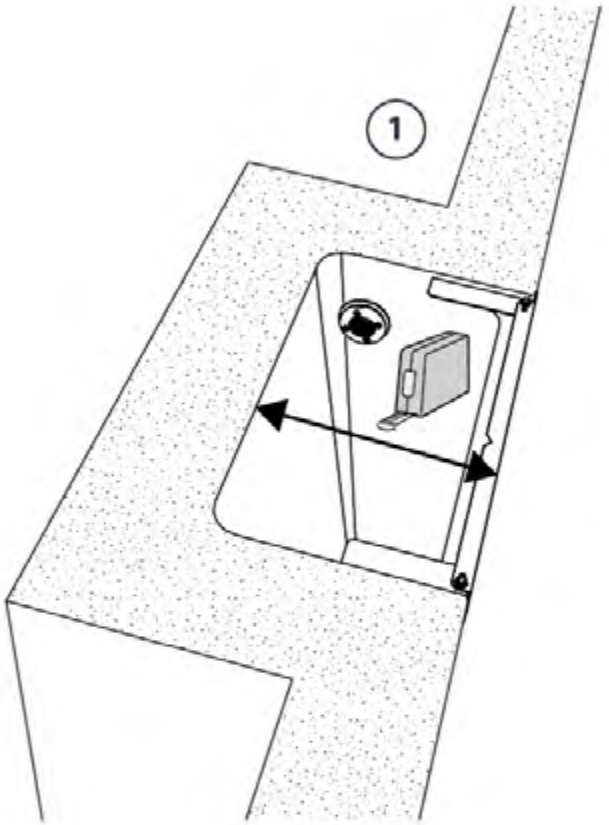
Parts to be used

- Shims o
- Attachment bracket q
- Screw TFXC M5x25 or 50 (l or p) x 4

on the turbine mounting bracket, depending on the number of shims to be installed.

Fitting instructions

1 Measure the depth in the middle of the recess.
2 Select the correct number of shims (see table).
3 Install the shims onto the bracket.



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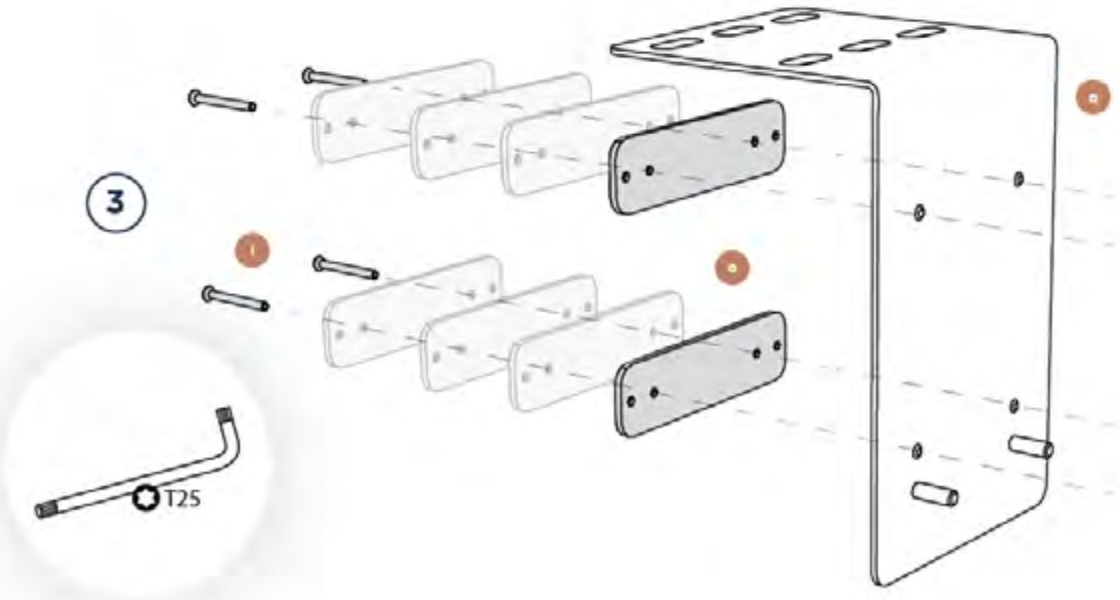
	Number of shims in rows
38 cm	x0
38.5 cm	x1
39 cm	x2
39.5 cm	x3
40 cm	x4



4.12 Marking and drilling of bracket attachment holes

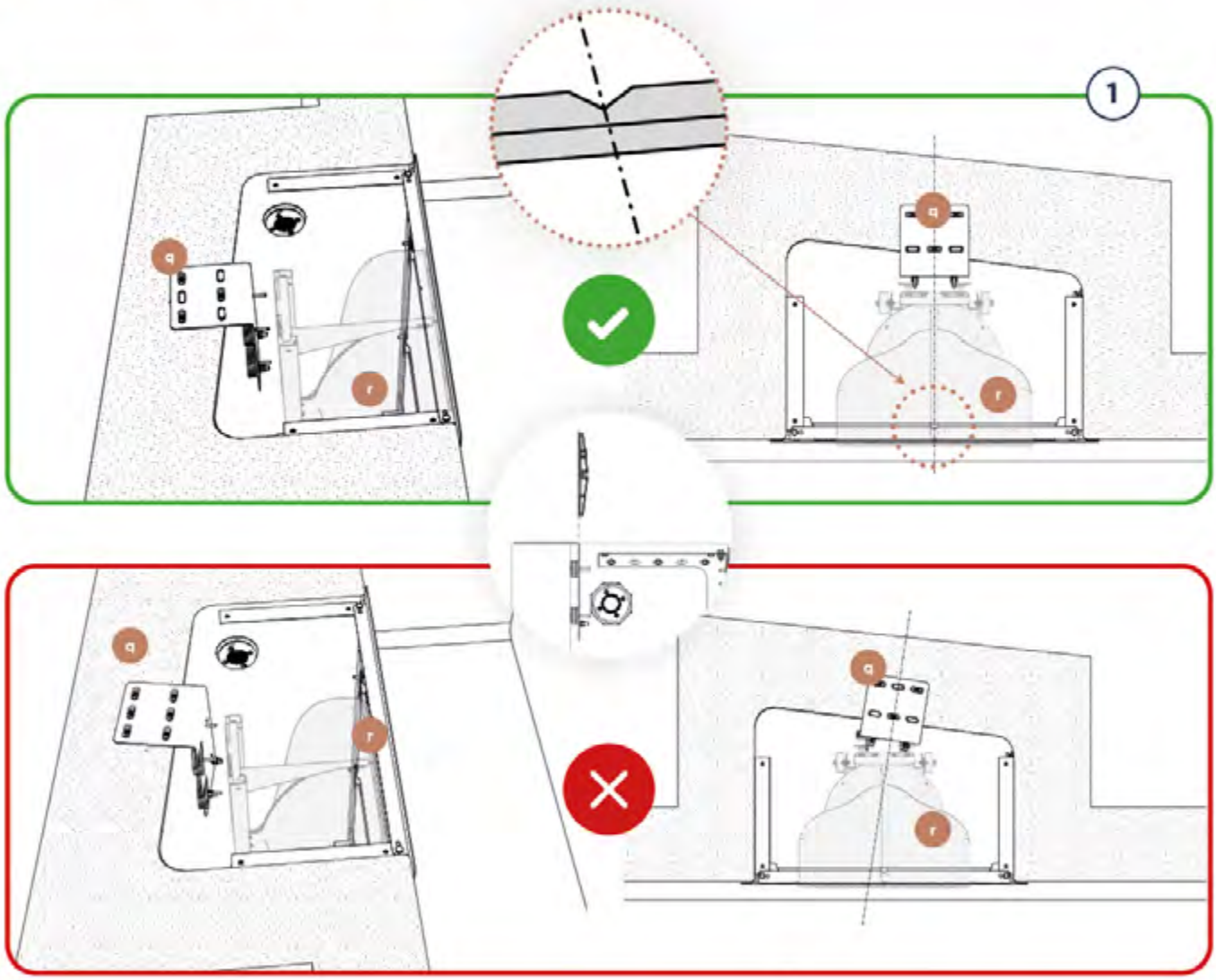
IMPORTANT

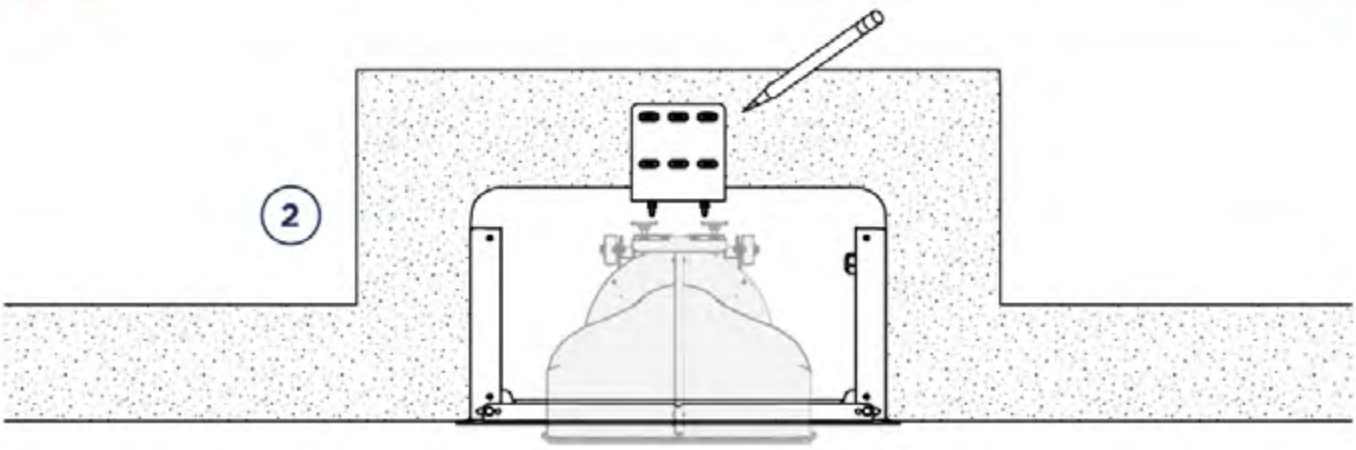
Refer to the technical instructions of the turbine for the attachment guidelines.

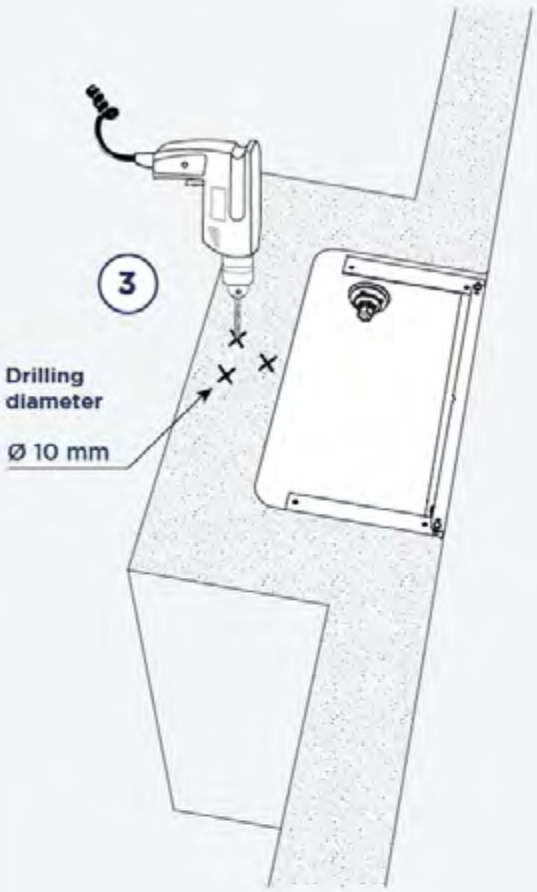
It is important that the bracket is parallel to the front face of the kit, otherwise there is a risk of the turbine being positioned incorrectly.

Fitting instructions

1 Position the bracket so that the turbine, once it has been attached to the bracket, is centred in relation to the grille.
2 Once the bracket has been correctly positioned, mark its attachment holes.
3 Drill into the top edge.
4 Drive in the dowels (supplied with the turbine)



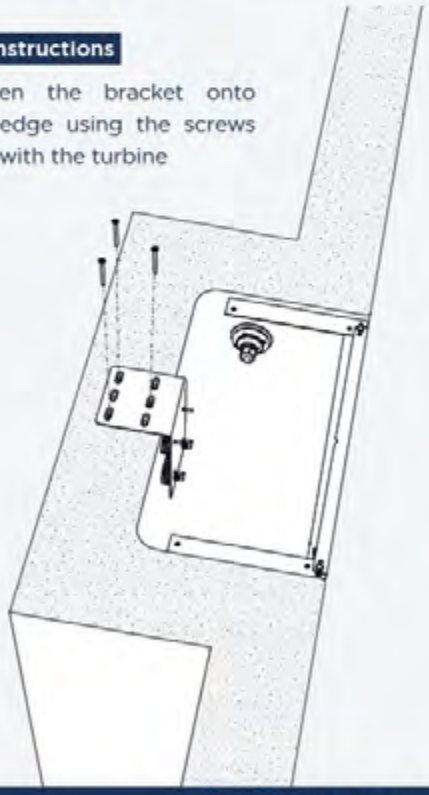


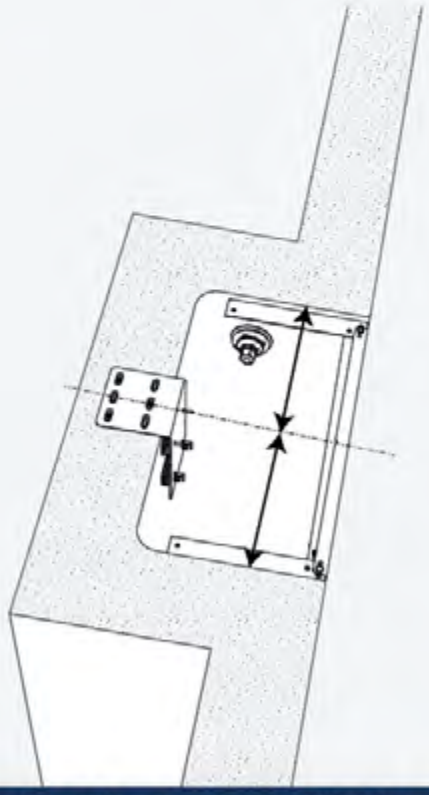


4.13 Tightening the turbine attachment bracket

Fitting instructions

✔ Tighten the bracket onto the top edge using the screws supplied with the turbine





IMPORTANT

In order to facilitate the installation of the bracket on the top edge, it is advisable to cut the ridge locally.

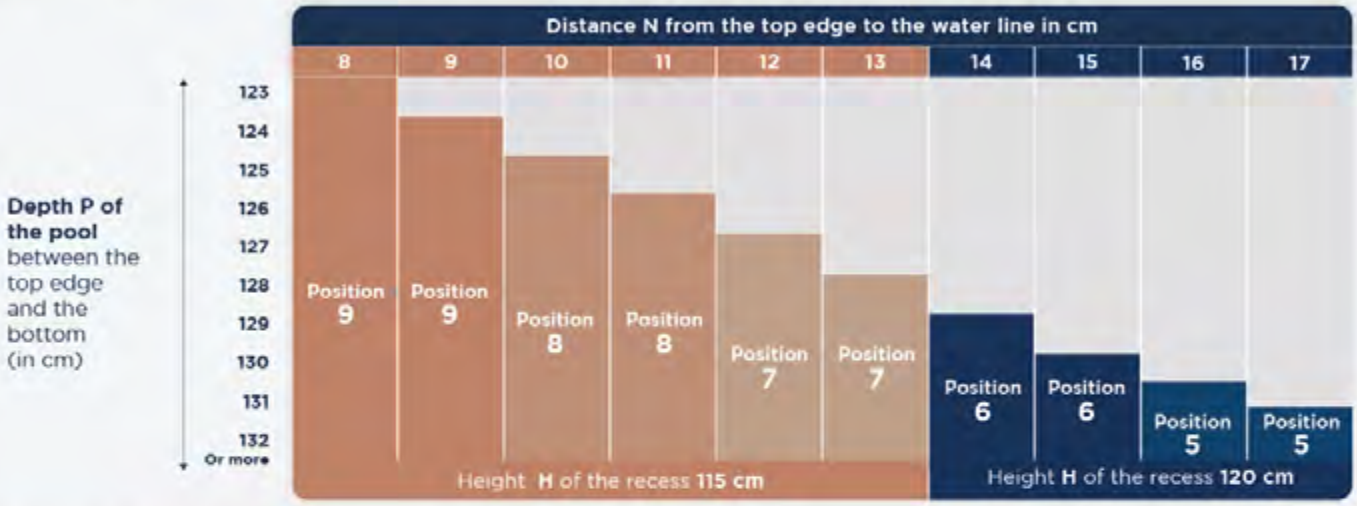
If the turbine bracket has been installed over the ridge, the thickness of the ridge may cause a slight vertical offset of the turbine.

Do not tighten the bracket at this stage, so that the turbine position may be adjusted if required.

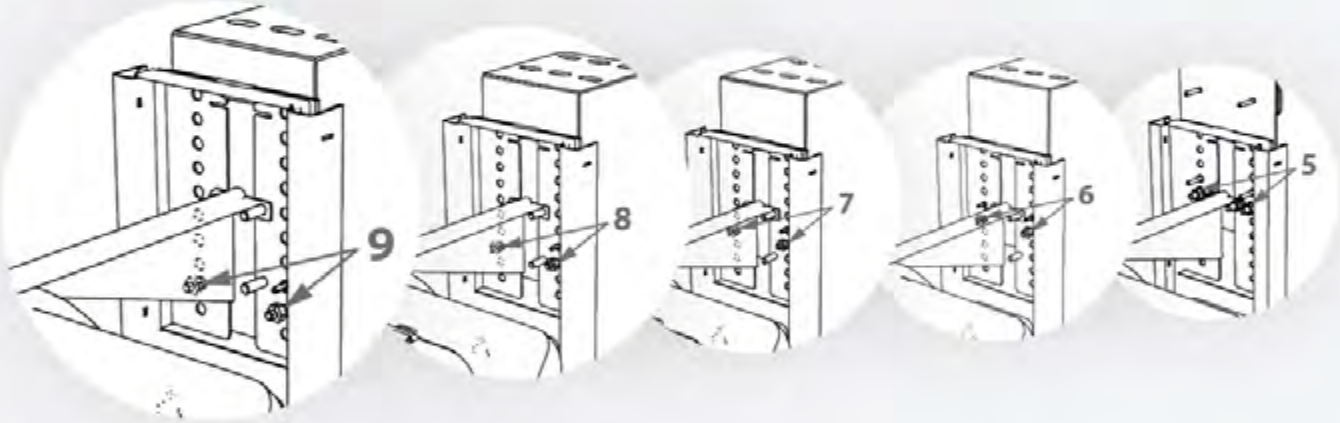
4.14 Tightening the turbine on the attachment bracket

Before attaching the turbine, check precisely where it should be positioned.

- ✔ Identify, in the table below, **the distance N between the top edge and the water line** of the pool
- ✔ Identify the **depth P of the pool**
- ✔ Identify the column where these two numbers cross
- ✔ **Deduce the position of the turbine on its bracket (position 5 to 9)**

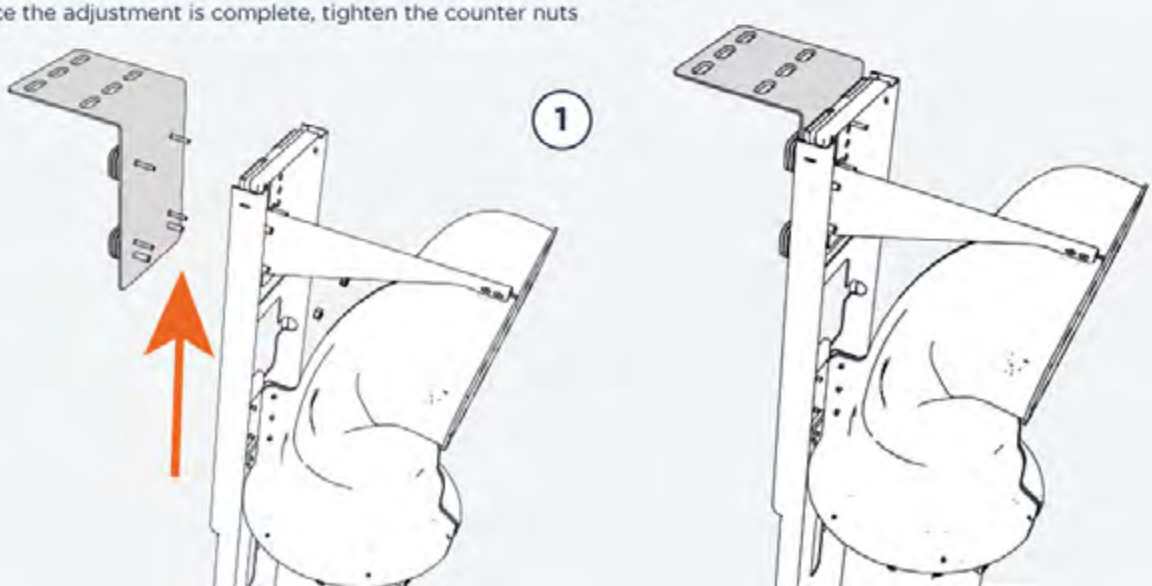


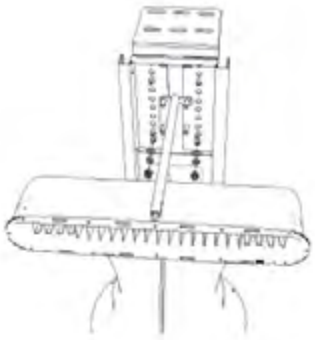
Position of the turbine



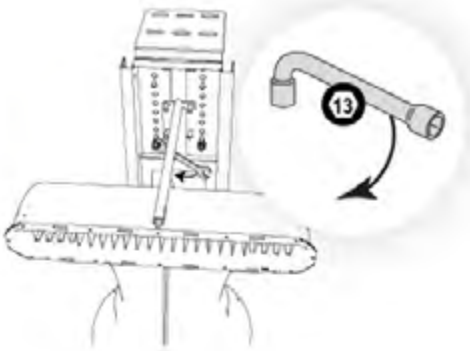
Fitting instructions

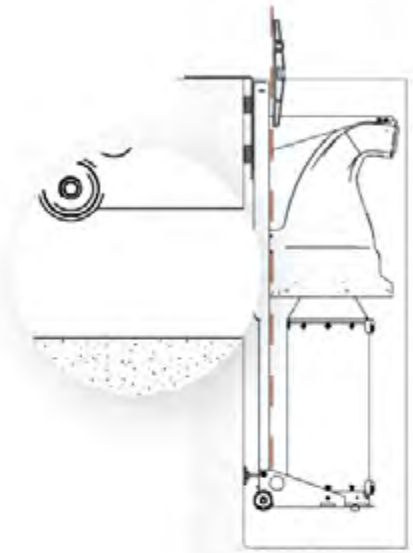
1 Mount the turbine on the bracket
2 Tighten the nuts with washers (supplied with the turbine)
3 Bring each of the 2 feet screwed onto the turbine into contact with the recess wall. Ensure that the turbine is vertical
4 Tilt the turbine slightly by adjusting the length of the feet **(+1.5cm)**
5 Once the adjustment is complete, tighten the counter nuts





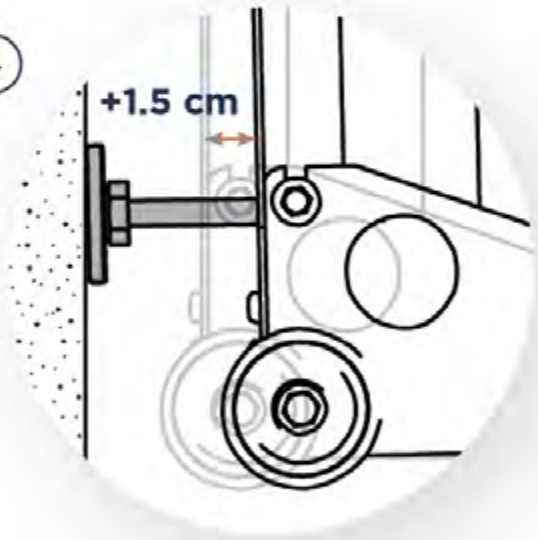
2



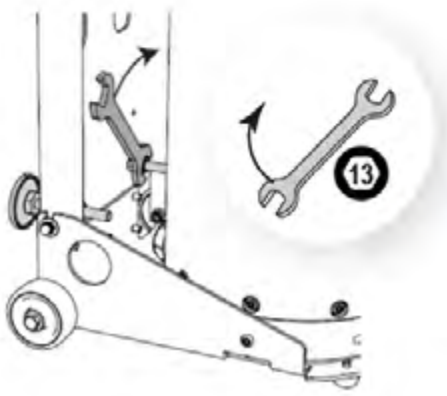


3

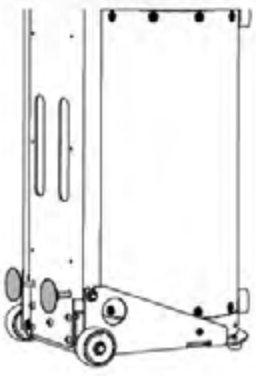
4



+1.5 cm



5

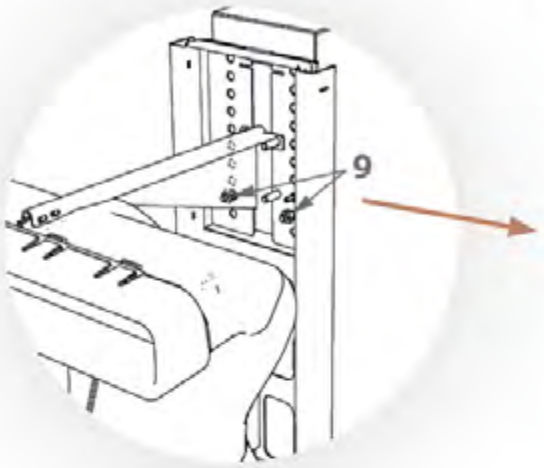


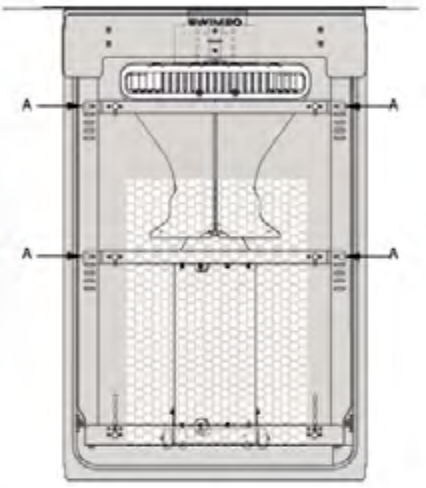
4.15 Fitting and tightening the intermediate bars

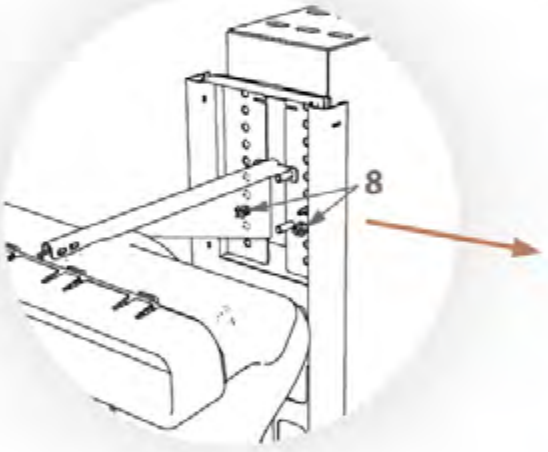
• Define the position of the intermediate bars according to the position of the turbine on its bracket

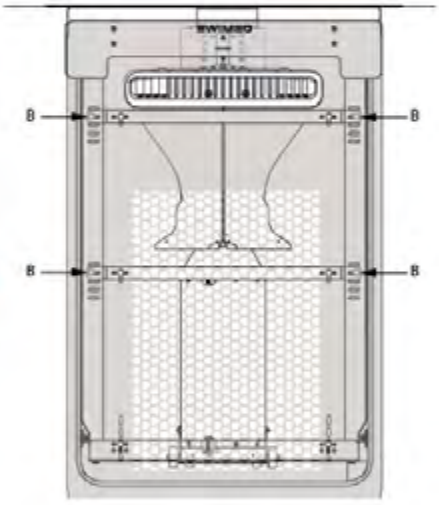
Position of the turbine on its bracket

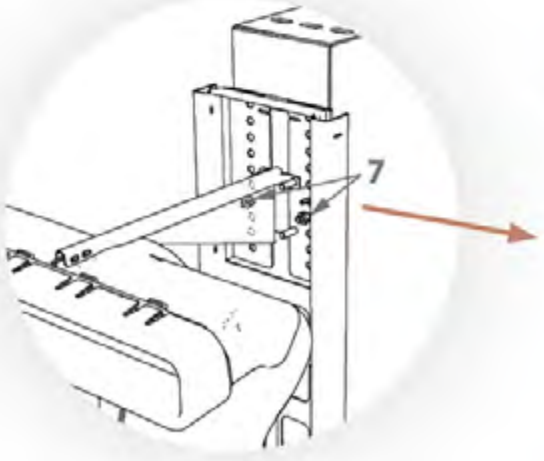
Position of the intermediate bars

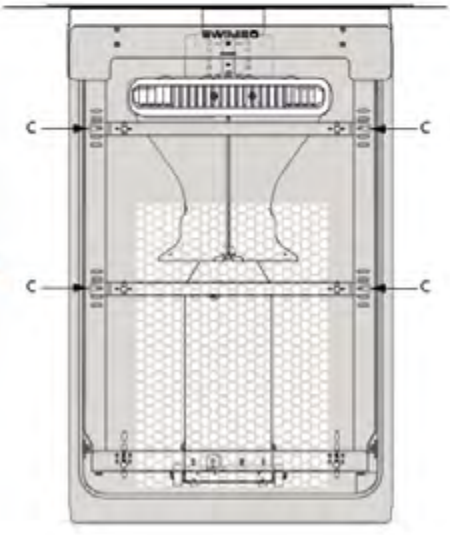


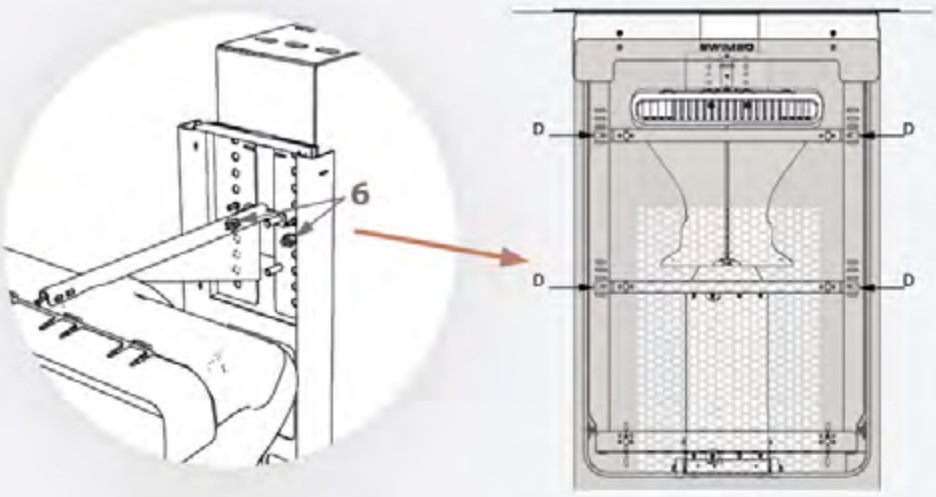


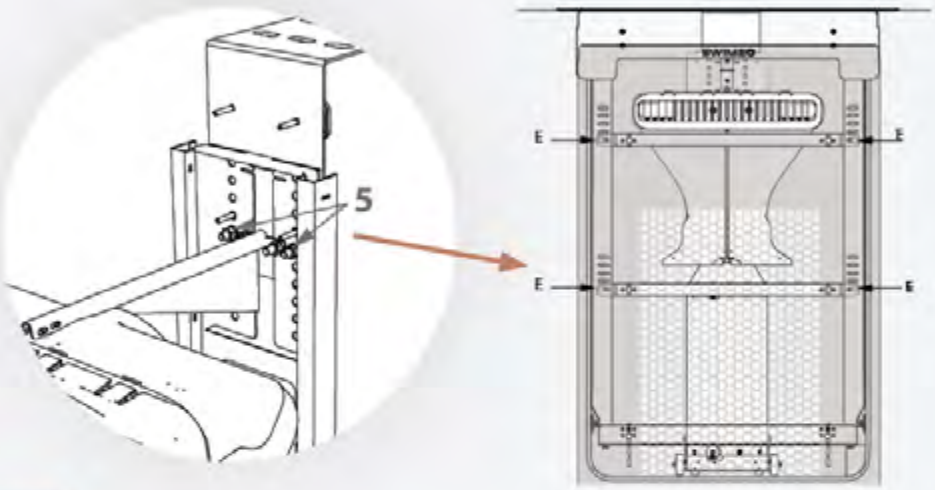












Parts to be used

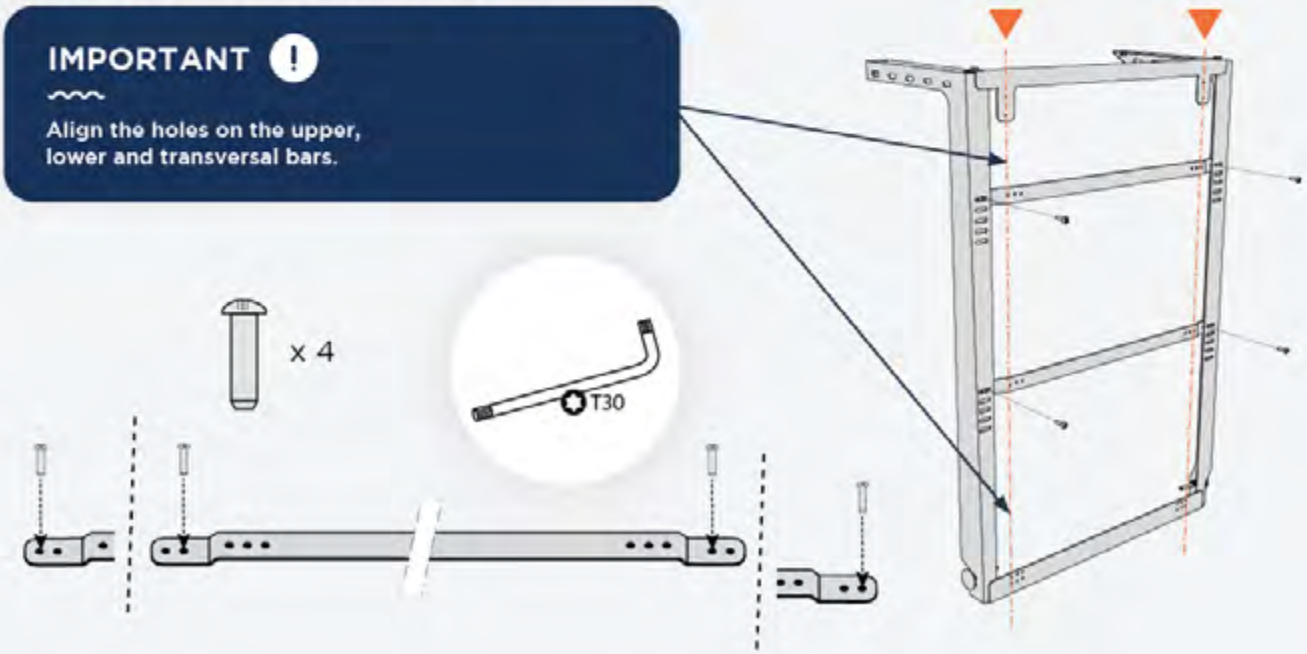
- Intermediate bars j x2
- Screw TBHC M6x20 k x4

Fitting instructions

- ✔ Position the upper intermediate bar (j) behind the side bars.
- ✔ Use the same row of oblong holes for the lower intermediate bar.
- ✔ Use the most suitable clamping holes on the bars to centre them in the recess.
- ✔ Clamp each bar using the screws
- ✔ **Use the same holes on left and right hand sides.**

IMPORTANT !

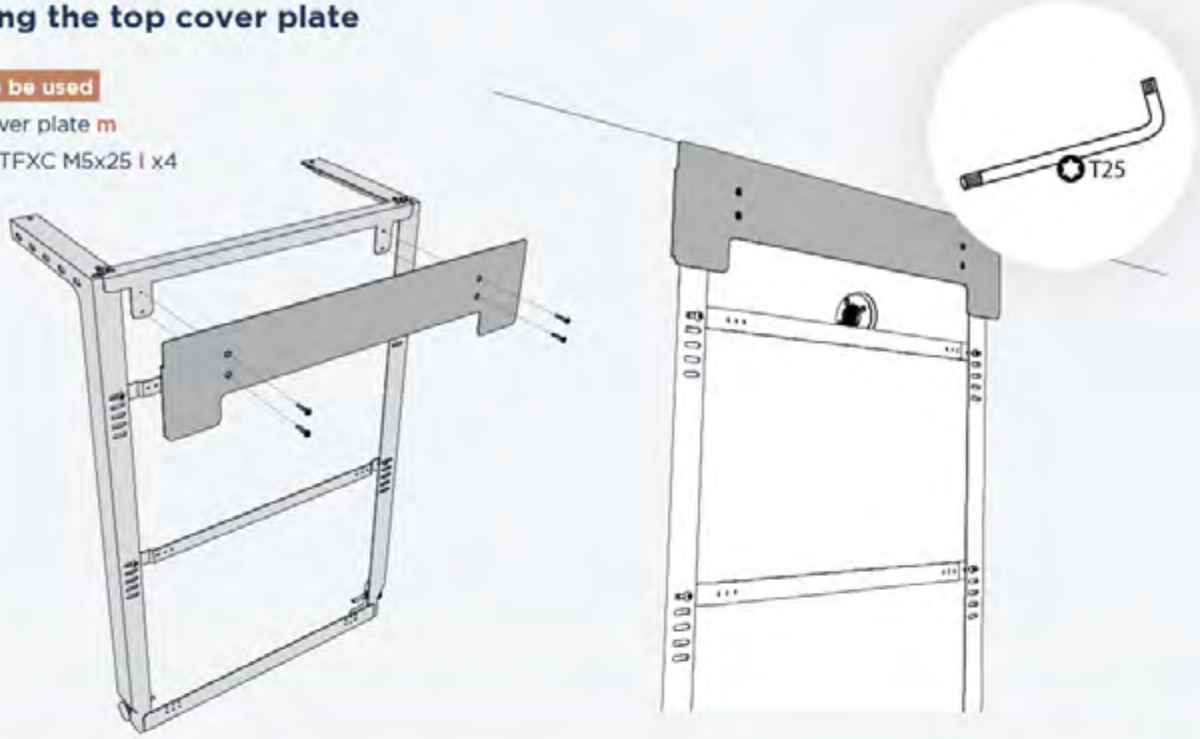
Align the holes on the upper, lower and transversal bars.



4.16 Fitting the top cover plate

Parts to be used

- Top cover plate m
- Screw TFXC M5x25 l x4



IMPORTANT Check that the height of the plate is level with the top edge of the pool.

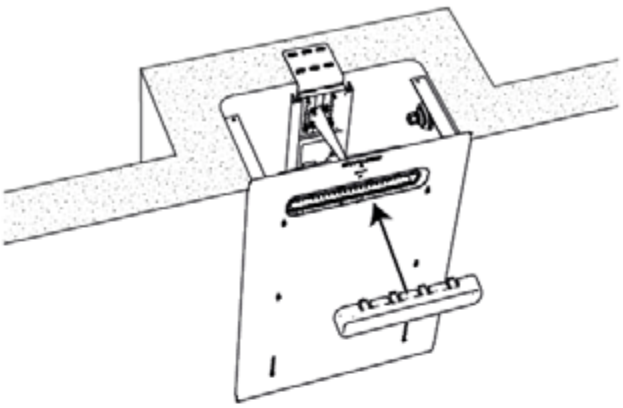
4.17 Positioning the grille

Parts to be used

- Grille n
- Screw TBHC M6x20 k x6

IMPORTANT The space between the grille and the pool wall must not exceed 5 mm.
If it is greater than 5 mm, adjust the position of the feet and the side brackets.

4.18 Installing the current guide extension



Parts to be used

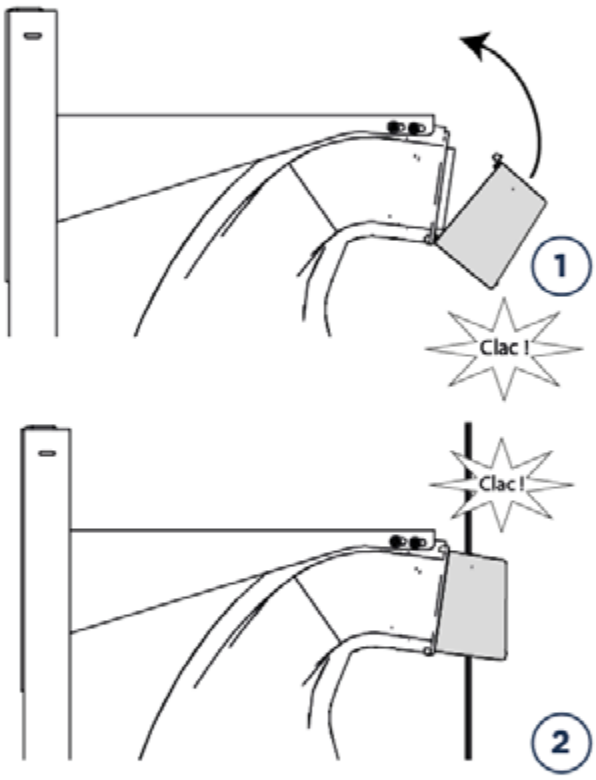
- Extension **s.**
- Screw TC M4x45 **t** x2

Fitting instructions

1 Clip the extension onto the turbine, starting with the lower clips

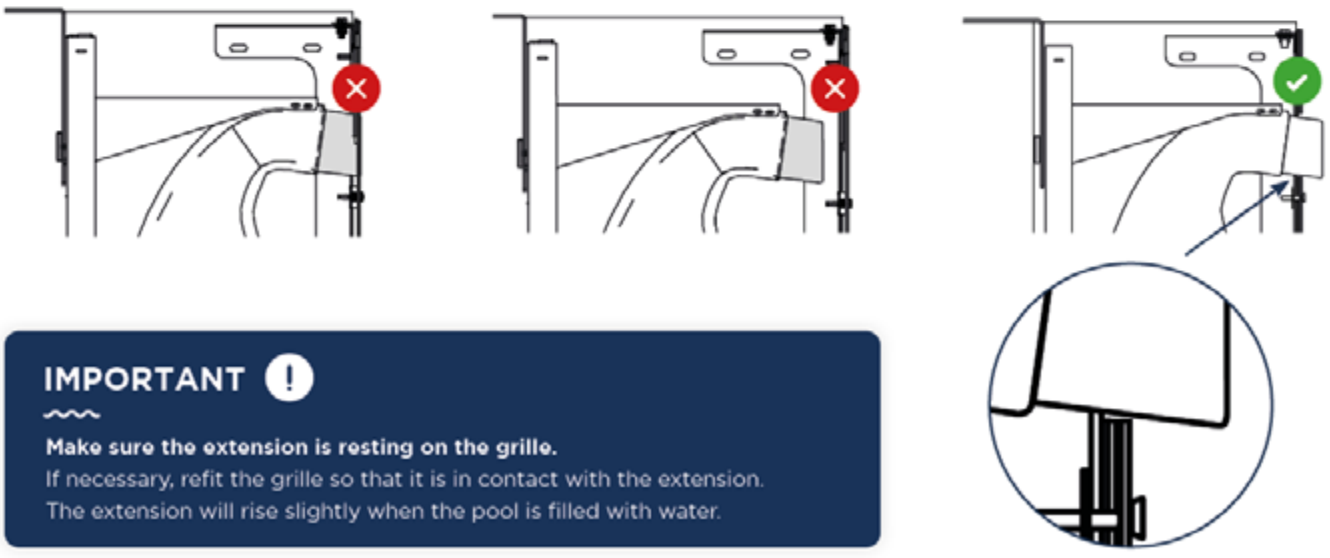
2 Make sure that all clips are properly engaged (press all around the extension)

3 Complete the attachment by inserting and locking the 2 screws at the top of the extension.



IMPORTANT

Maximum recommended torque is 3Nm (to avoid damage to the plastic parts)



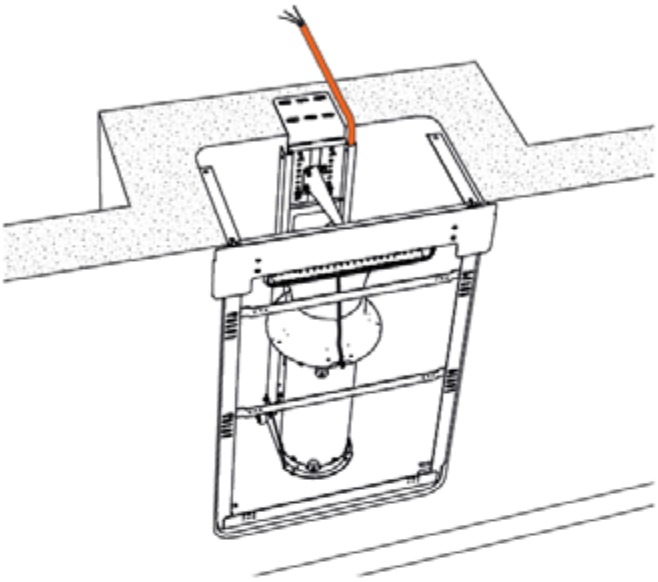
IMPORTANT

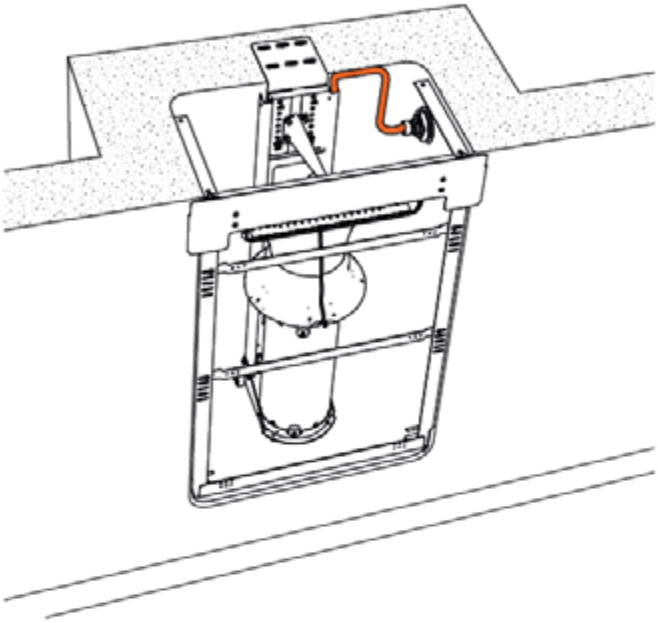
Make sure the extension is resting on the grille.
If necessary, refit the grille so that it is in contact with the extension.
The extension will rise slightly when the pool is filled with water.

4.19 Fitting the turbine cable

Fitting instructions

✔ Pass the cable through the stuffing gland and the cable gland before connecting it electrically.



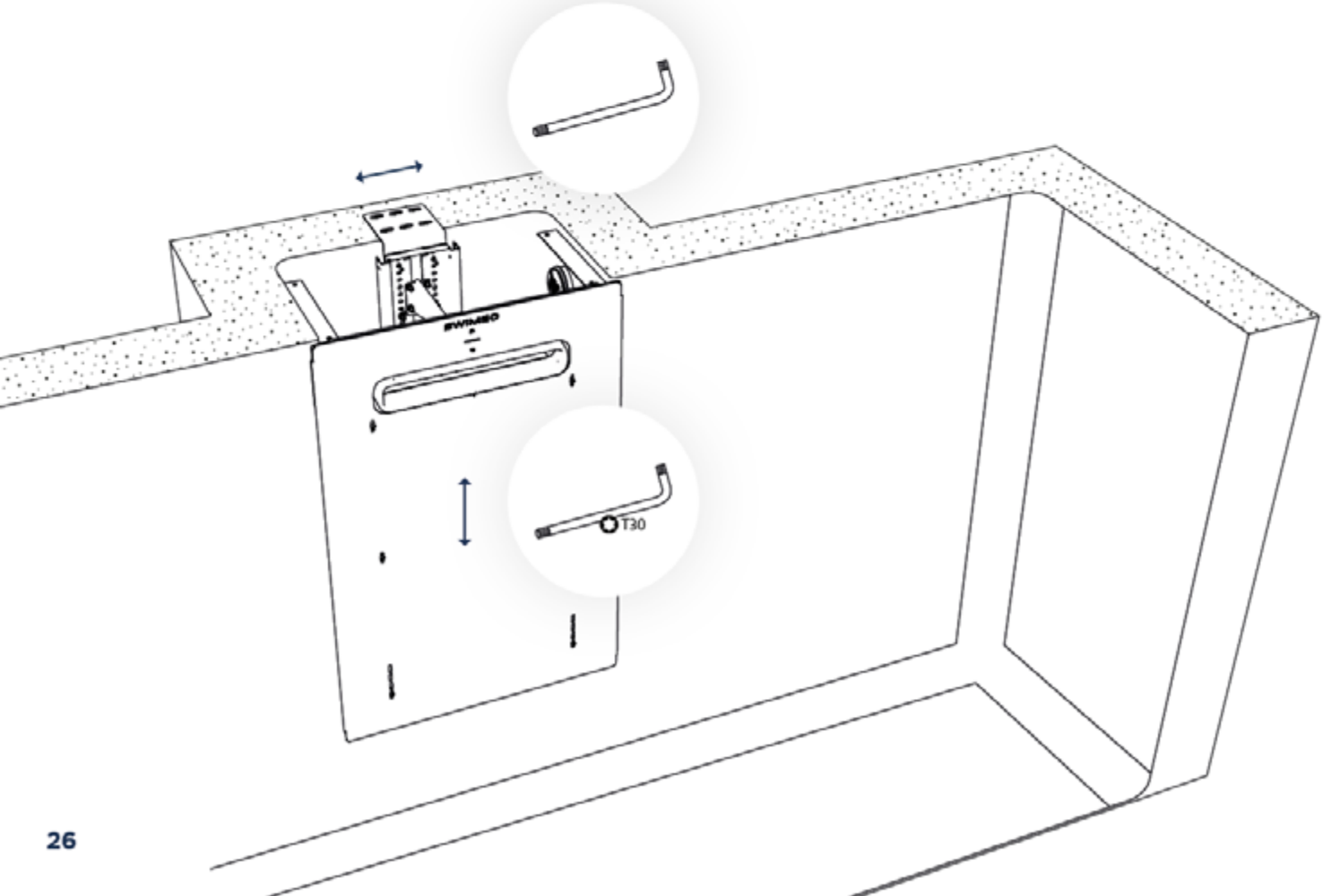


4.20 Final adjustment of positions

Fitting instructions

✔ If necessary, adjust the position of the grille vertically and tighten it

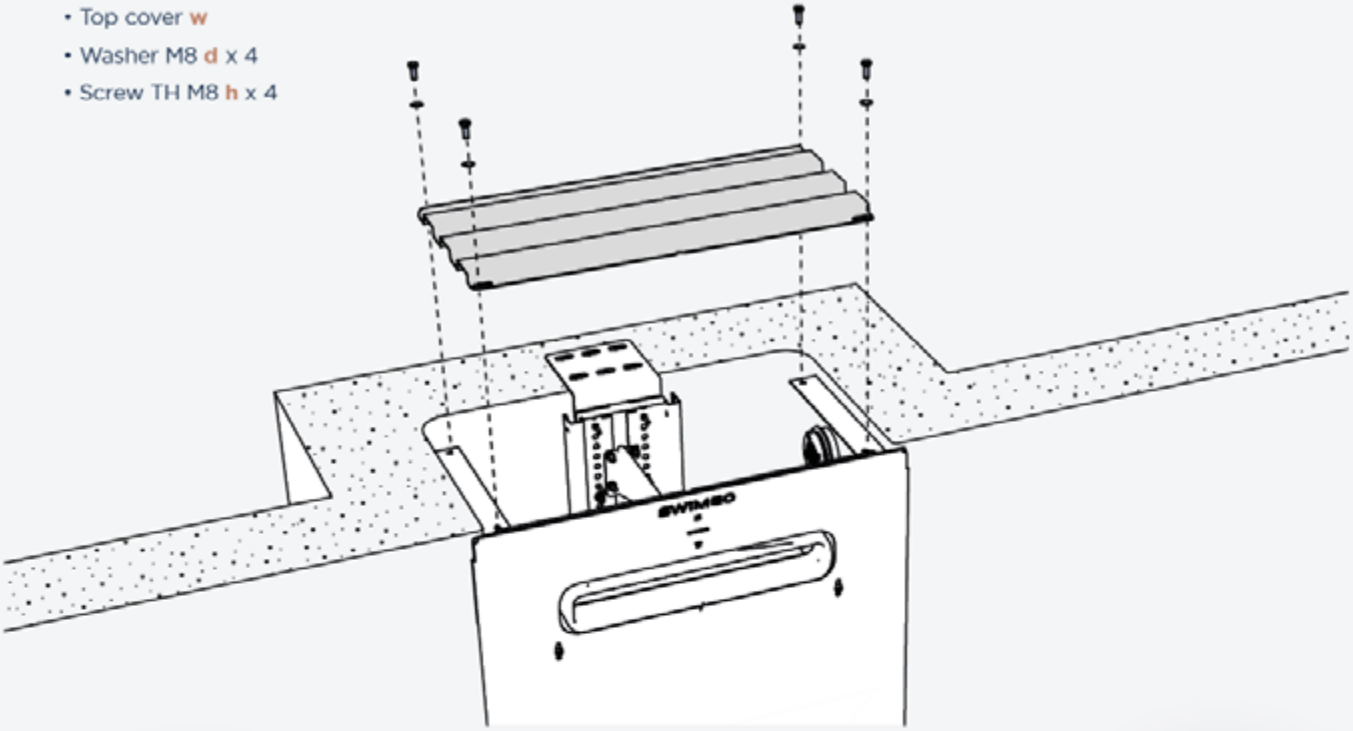
✔ If necessary, adjust the position of the turbine attachment bracket laterally and tighten it



4.21 Attaching the top cover

Parts to be used

- Top cover w
- Washer M8 d x 4
- Screw TH M8 h x 4



4.22 Finishing the pool surround

IMPORTANT

The SWIMEO X installation kit is not designed to be used as a diving platform, for sitting on, or for leaning on when getting out of the pool. The installer must finish off the pool correctly (coping, wooden deck, etc.) to ensure the safety and security of users.

The installer is responsible for sealing the top of the recess.

Once the kit has been installed, you can put the coving in place.

The installation is now complete.
You can now fill your pool.
We hope you enjoy your swimming.

5. WINTERING

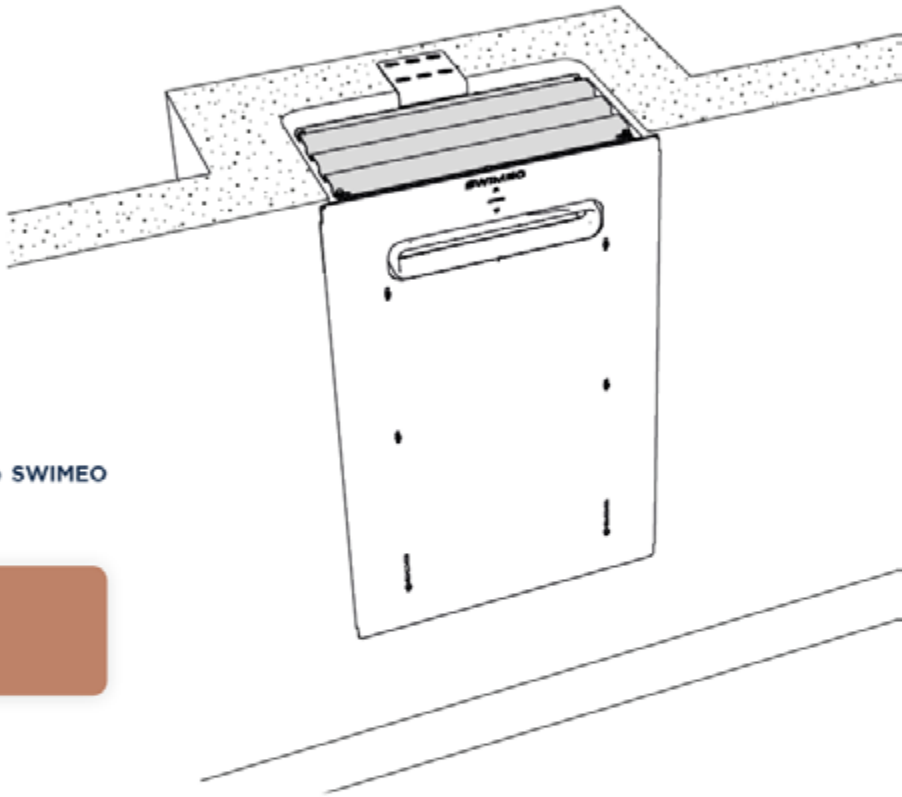
Refer to the technical instructions of the turbine.

5.1 Removing the turbine from the front

✔ The SWIMEO installation kit allows you to have a turbine outlet at the front (grille), for passive wintering of the pool.

IMPORTANT

Having the turbine outlet on the front face means that it must be inside the pool. The water level must be lowered to facilitate the operation.
This must be done by a professional to avoid damaging the pool's water circulation system.

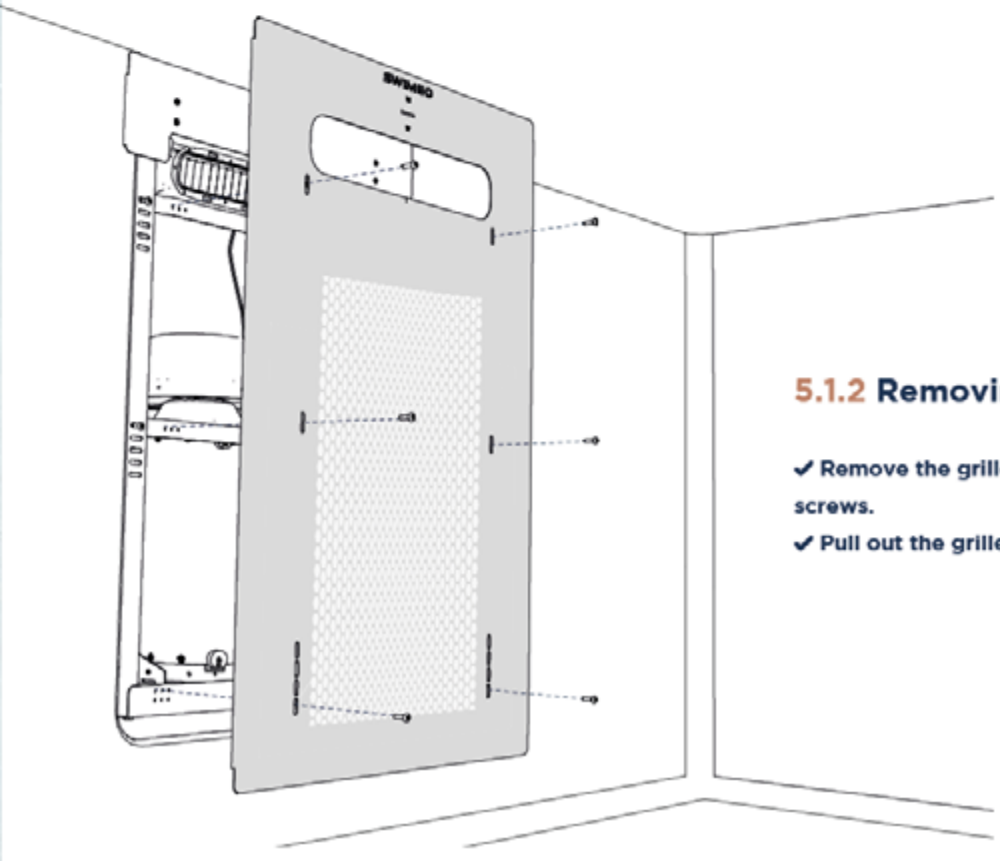


5.1.1 Preparing to disconnect the turbine

✔ Lower the level in the pool to below where the SWIMEO power cable passes through the wall.

CAUTION

Disconnect electrically out of the water.



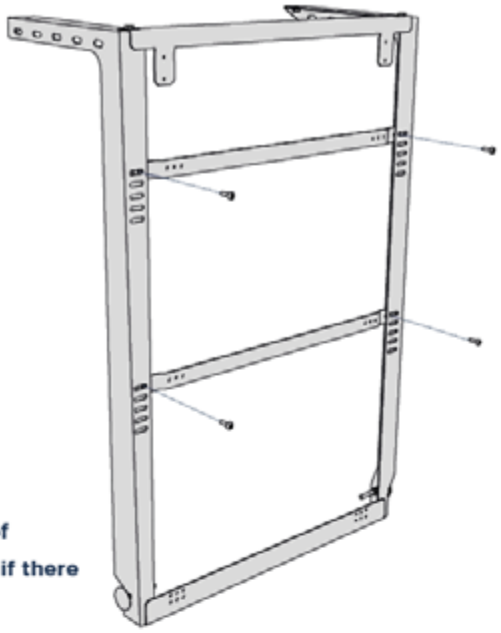
5.1.2 Removing the grille

✔ Remove the grille by removing the 6 plate retention screws.

✔ Pull out the grille and remove it from the pool..

5.1.3 Removing the intermediate bars

✔ Remove the two intermediate bars by removing the screws.

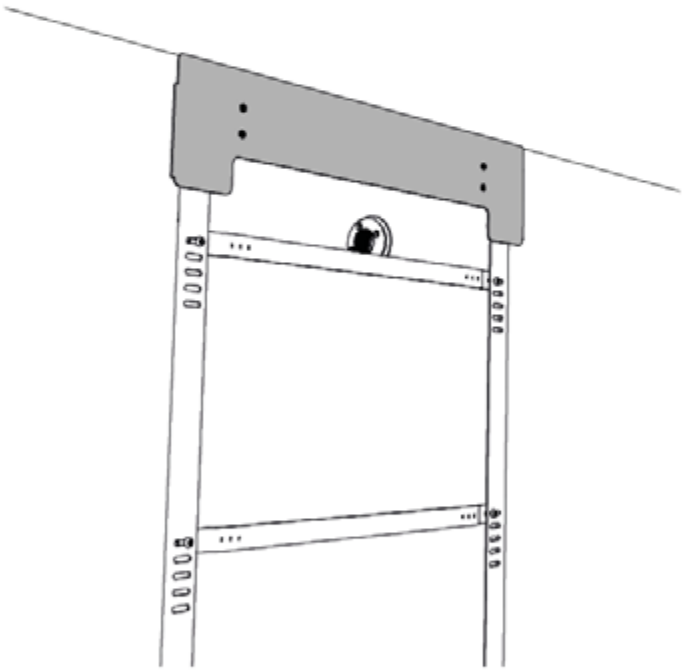


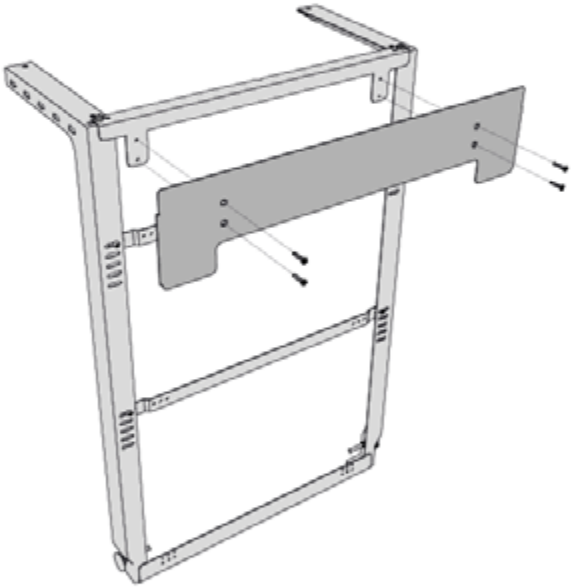
5.1.4 Disconnecting the turbine

✔ Loosen the cable gland.
✔ Pull the cable out through the wall and place it outside the pool.
✔ Insert a protective plug into the cable gland to avoid any intrusion of foreign bodies or water leaking from the pool into the connection box if there is a lot of rain.

5.1.5 Removing the top cover plate

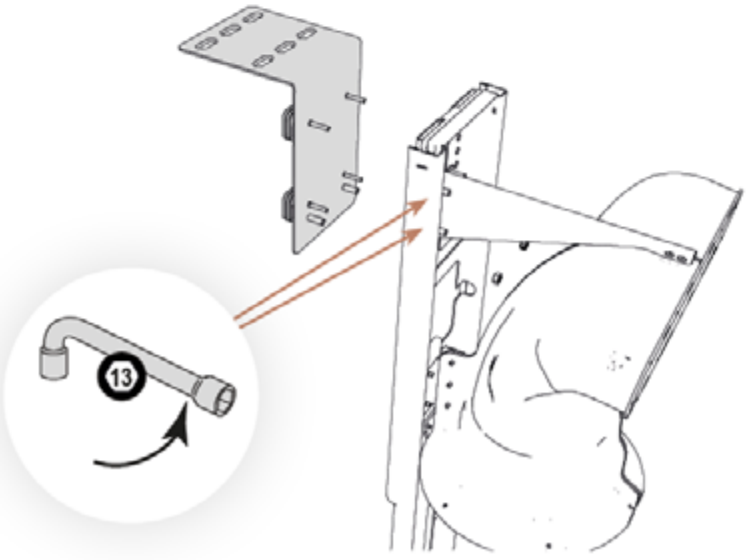
✔ If needed, remove the top cover plate.





5.1.6 Loosening the turbine

Unscrew the turbine attachment nuts.

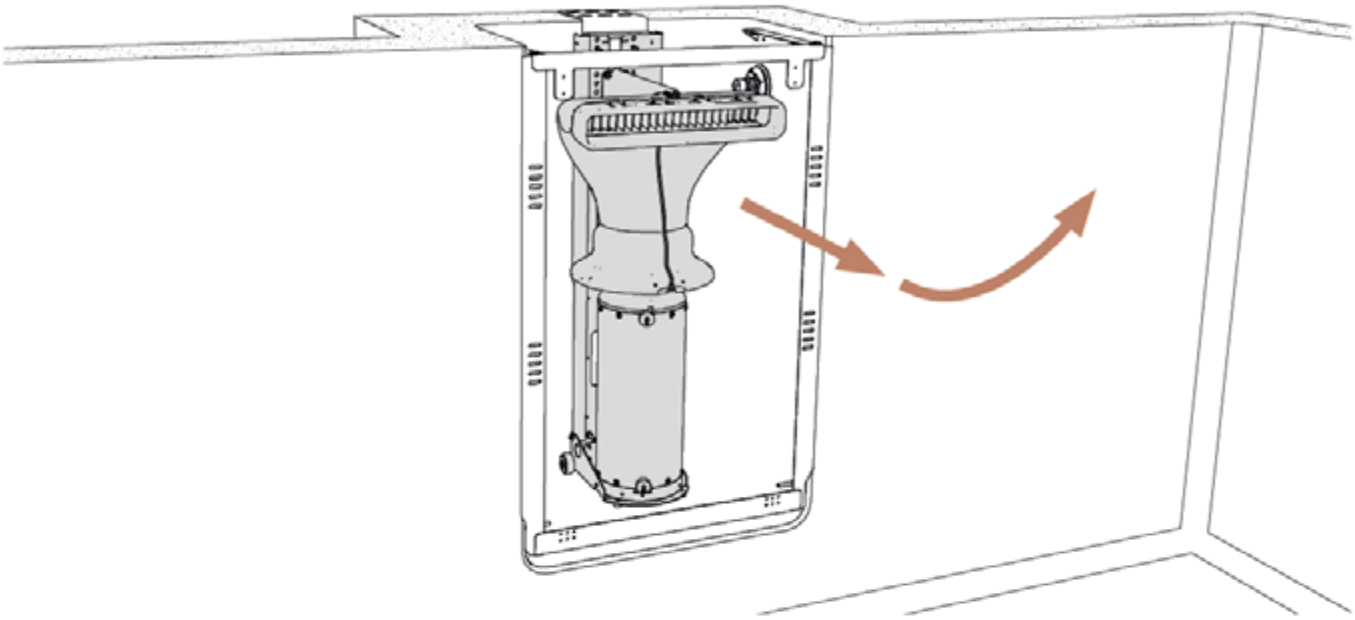


5.1.7 Moving the turbine clear

✔ Release the turbine from the bolts and pull it out of the recess, taking care not to damage the kit, the turbine or the pool walls.

Tip

We recommend that this operation should be carried out by 2 people.



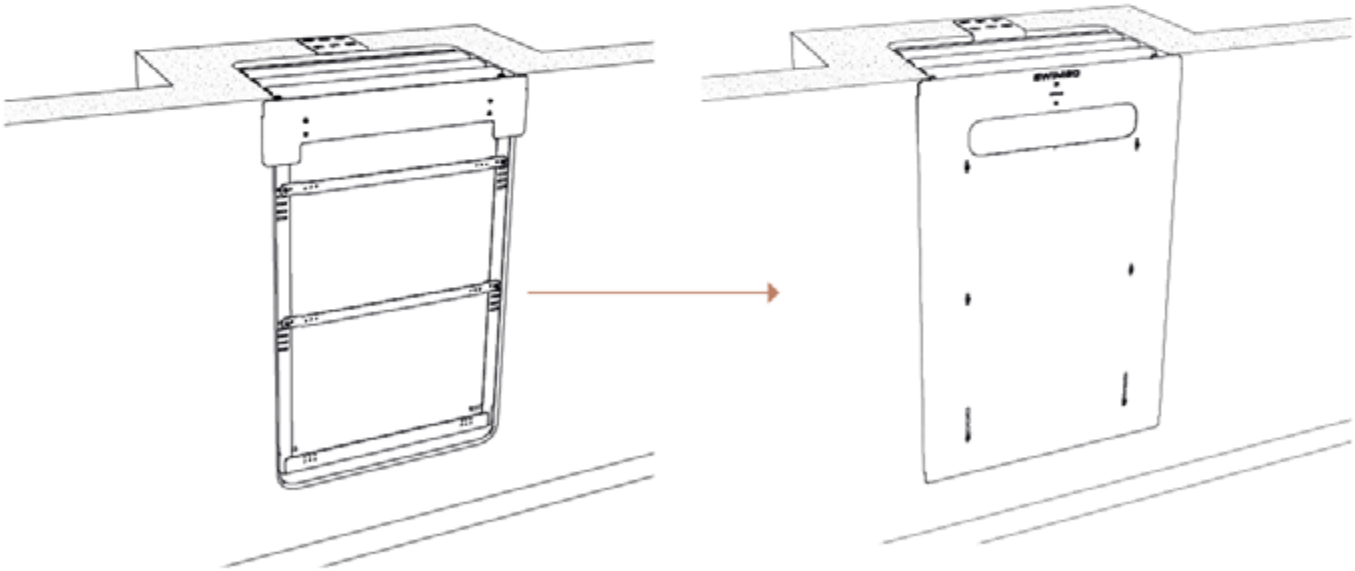
5.1.8 Sealing the recess

We recommend sealing the recess once the turbine has been removed from the pool.

✔ Fit the top cover plate (§4.16)

✔ Fit the intermediate bars (§4.15)

✔ Fit the cover plate (§4.17)



5.1.9 Precautions for returning to use

✔ Follow the procedure in reverse order to put the pool back into use.

DO YOU HAVE A QUESTION?

WE'RE HERE TO HELP.

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