

COVERSTAR



Coverstar automatic safety pool cover

Pre-installation Guide

Read this manual before using the equipment

Retain this manual for future use

Certikin
FLUIDRA

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Intended purpose

The purpose of this guide is to provide instructions and information for the preparation of the installation of automatic pool covers.

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1 Safety

This section provides an overview of all safety aspects for the protection of people as well as safe installation. Other task-related safety instructions are included in the specific sections.

In addition to these safety instructions, you must also comply with all local and site-specific health and safety regulations, and environmental protection requirements.



WARNING

Risk of injury!

The hydraulic system of the power operates at a high pressure.

Do not operate the system if any leaks are detected, or any of the hydraulic lines are damaged.



WARNING

Risk of electrical shock!

The power pack is powered using high voltages.

Do not operate the equipment if there are any exposed or damaged electrical wires.



WARNING

Risk of injury from lifting heavy objects!

The cover, and related parts, are heavy.

Use at least two people when lifting heavy parts.



Caution

Risk of injury!

Use personal protective equipment (PPE), such as safety shoes and safety glasses, as required.

Do not wear loose clothing when installing equipment or operating power tools.

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2 Hardware description

Before installing the Coverstar automatic safety pool cover, you should be familiar with the location and names of all parts of the product.

2.1 Overview

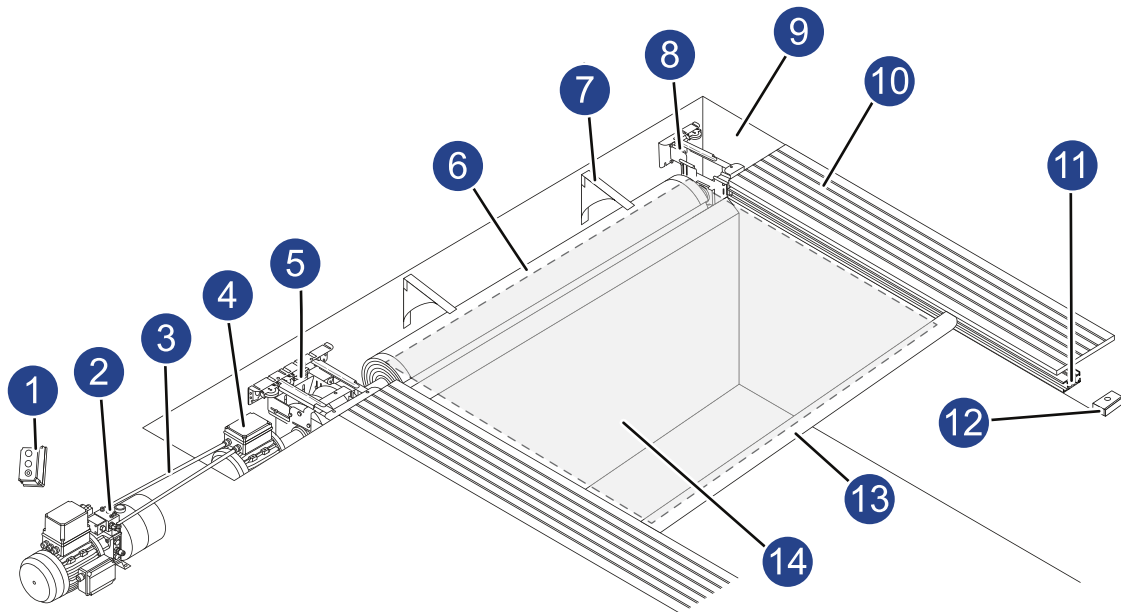
This section provides an overview of the hardware components of the Coverstar automatic safety pool cover for all product variants and installation types.



Notice

As part of the pre-installation, a recess channel for the flush track must be in place.

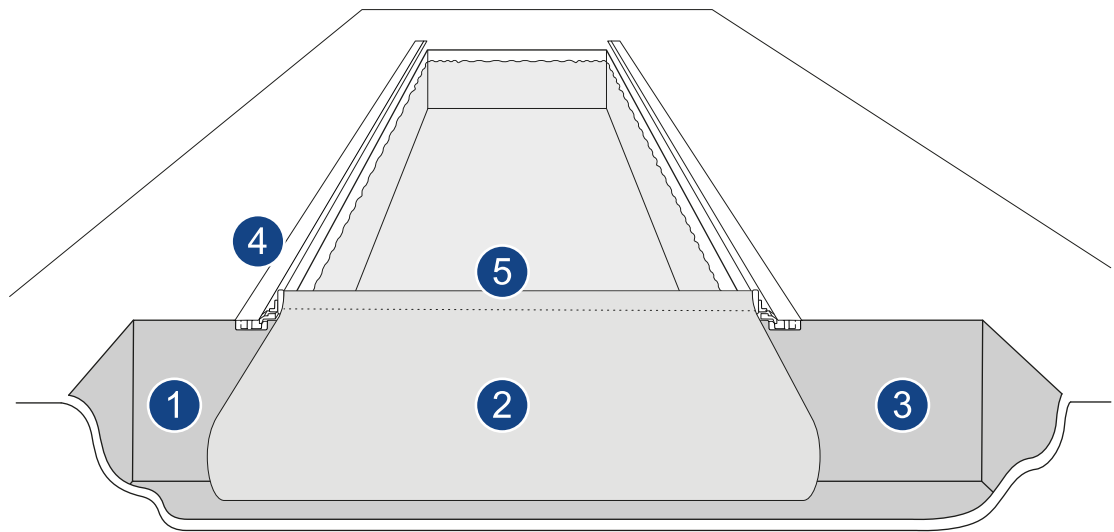
2.1.1 Overview of encapsulated track installation



1	Key switch	Used to control opening and closing the cover. This switch can be locked. The key switch must be located where the operator has full view of the pool area while operating the cover.
2	Hydraulic power pack	The power pack must be positioned in a location where it is protected from extreme temperatures, dust, water, condensation, and moisture.
3	Hydraulic hoses	Carries hydraulic fluid from power pack to the hydraulic motor.
4	Hydraulic motor	Part of the mechanism drive-end assembly.
5	Mechanism	Pulley system, gears, and rope wind and unwind reels. Drive-end assembly.
6	Roller	Roller for the cover. Note the direction of cover winding indicated on the roller.
7	Lid support brackets	Brackets used to support the lid covering the roller pit. The amount and installation pitch of the brackets depends on the lid type to be fitted.
8	Mechanism	Pulley system for rope wind and unwind. Non drive-end assembly.
9	Roller pit	Pit that houses the roller and mechanism assemblies. Refer to the pre-installation manual for details
10	Coping	Pool edging. This can be stone or decking type.
11	Encapsulated track	Encapsulated track, inner guide, and spacer are installed as part of the pool construction. Refer to the pre-installation guide for details.
12	Track pulley	Used to return the rope inside the inner guide. Fitted to the end of each inner track.
13	Lead edge bar	Attached to the front of the cover fabric.
14	Cover	Vinyl composite that covers the pool area.

Figure 1 - Overview of pit installation

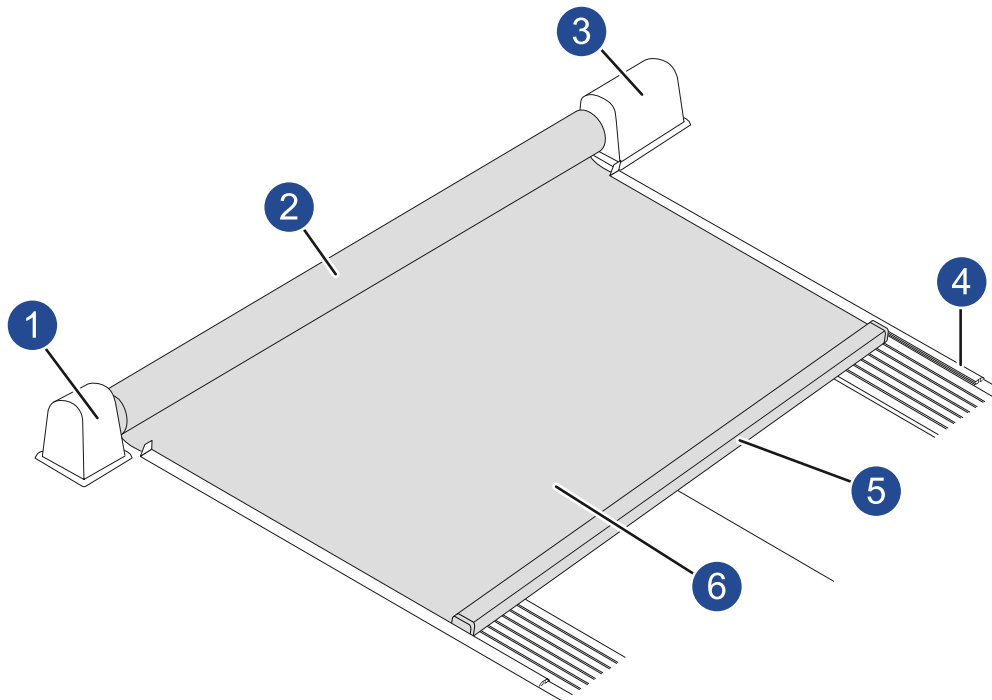
2.1.2 Overview of flush track installation



1	Mechanism (non drive-end assembly)	Pulley system for rope wind and unwind.
2	Roller and cover	Roller for the cover.
3	Mechanism (drive-end assembly) and hydraulic motor	Pulley system, gears, and rope wind and unwind reels.
4	Flush track	Flush track C channel is installed as part of the pool construction. Refer to the pre-installation guide for details.
5	Lead edge bar	Attached to the front of the cover fabric. This can be fitted as wrapped or unwrapped.

Figure 2 - Overview of flush track and pit mechanism installation

2.1.3 Overview of deck-mounted mechanism installation



1	Mechanism (non drive-end assembly)	Pulley system for rope wind and unwind. Shown with mech housing fitted.
2	Roller	Roller for the cover. Note the direction of cover winding indicated on the roller.
3	Mechanism (drive-end assembly) and hydraulic motor	Pulley system, gears, and rope wind and unwind reels. Shown with mech housing fitted.
4	Top or flush track	Flush track C channel is installed as part of the pool construction. Refer to the pre-installation guide for details.
5	Lead edge bar	Attached to the front of the cover fabric. This can be fitted as wrapped or unwrapped.
6	Cover	Vinyl composite that covers the pool area. Cover unwinds and winds from the base of the roller.

Figure 3 - Overview of deck-mounted installation

2.2 Track overview

Depending on the design and shape of the swimming pool, the Coverstar automatic safety pool cover can be used with the following types of tracks:

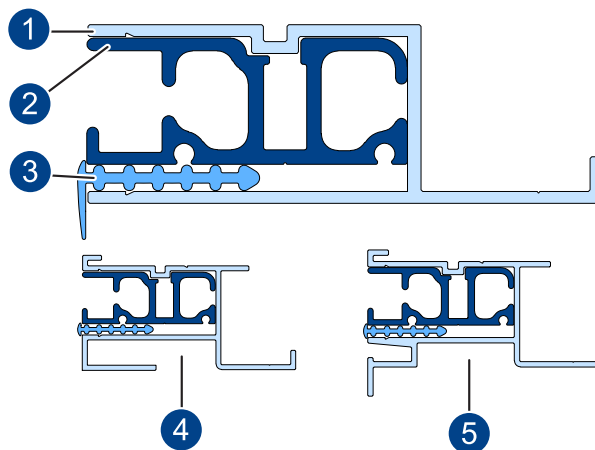
- Encapsulated track — embedded in the pool wall
- Top track — mounted on the surface of the deck
- Flush track — recessed in the deck

Generally, the top and flush type tracks can be fitted after the pool has been constructed.

2.2.1 Encapsulated track

The encapsulated track is built directly into the pool wall. There are three variants of the encapsulated track:

- Encapsulated track for concrete tile pools
- Encapsulated track for liner pools
- Encapsulated track for fibre-glass pools



1	Encapsulated track	Built into the pool walls and held in place on three sides.
2	Inner guide	Inserts into the encapsulated track and provides the channel for the ropes and cover sliders.
3	Spacer	Inserts between the encapsulated track and inner guide to hold the inner guide in place.
4	Fibre-glass track	Track profile of encapsulated track for fibre-glass pool types.
5	Liner-lock track	Track profile of encapsulated track for liner pool types.

Figure 4 - Encapsulated track parts cross-section

2.2.2 Top track

The top track can be used on both new and existing pools. Top tracks are mounted on the pool surround. This type of track is ideal for irregular shaped pools.

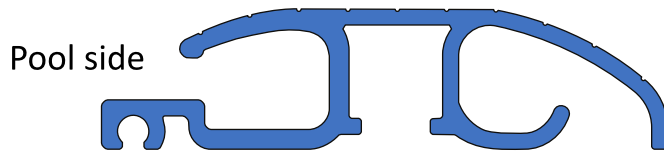


Figure 5 - Top track profile

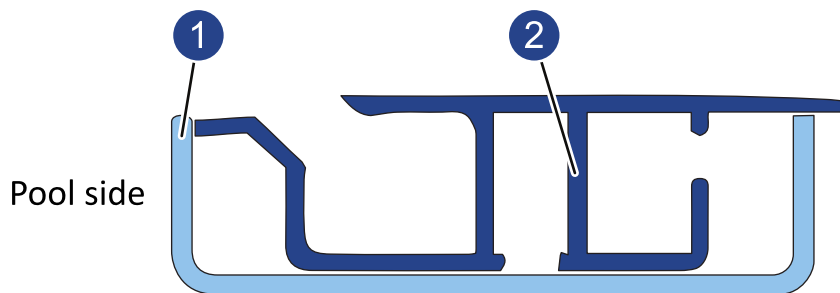
2.2.3 Flush track

The flush track can be used on both new or existing pools. Flush tracks are recessed into the pool surround. This type of track is ideal for irregular shaped pools.



Notice

As part of the pre-installation, a recess channel for the flush track must be in place.



1 White plastic C channel

2 Recessed track

Figure 6 - Flush track profile

2.3 Mechanism overview

The mechanism is a heavy-duty pulley system with gears that wind and unwind the ropes to move the cover on and off the pool. The cover is attached to the leading edge bar and roller.

The key elements of the mechanism are:

- Mechanism (drive-end assembly) — pulley system, gear and motor for rope wind and unwind.
- Roller — roller for the cover fabric.
- Mechanism (non drive-end assembly) — pulley system for rope wind and unwind.
- Hydraulic motor and hydraulic lines — carries hydraulic fluid from power pack to motor.

The mechanism can be mounted either in the pit (typical) or on the deck.

2.4 Cover overview

The cover (fabric) is a vinyl composite that covers the whole pool area.

All covers are manufactured with a quantity of slack relevant to the pool size and style of cover system.



WARNING

Risk of serious injury or death!

The cover must lie on the water in order to be safe.

The supporting strength of the cover comes from the support of the water directly under it.

2.5 Lid overview

If required, a pit lid can be supplied, which covers the pit neatly and allows easy access to the cover roller and mechanism. The lid is supported by brackets.

There are different types of lids, depending on the track system:

- Top and flush tracks:
 - Aluminium non walk-on lid
- Encapsulated tracks:
 - Decking
 - Heavy-duty trays (to accept coping stones)
 - Aluminium non walk-on lid

2.6 Power pack and key switch

The power pack is used to provide high-pressure hydraulic power for the mechanism motor. The power pack is powered using an electrical motor and is controlled using the pool cover key switch.

- ▶ *For more information about installation and configuration of the power pack, refer to the separate Hydraulic Power Pack installation manual.*



Notice

The key switch must be positioned so that both ends of the pool are visible when operating the Coverstar automatic safety pool cover.



3 Pool area preparation

The following section explains how the pool area should be prepared before installing the Coverstar automatic safety pool cover.

3.1 Encapsulated track installation



Tip

The installation of this track type is easier to do if it is done before the pool is plastered.

Before starting the installation process, confirm the following items:

- Check the pool dimensions, track lengths, widths, and pool diagonal measurements.



Caution

Do not proceed with the installation if the encapsulation space varies by more than 1" (25.4 mm).

Contact Certikin if there are pre-installation measurement issues.

- Check the underside of the pool coping to ensure there is no grout or cement that will prevent the track from being mounted flush with the coping.
- Check that the encapsulation has been installed correctly and is clear of any debris.

To install the track, follow these steps:

1. Lay the encapsulated track along both sides of the pool, next to where they are to be installed.

Make sure the encapsulated track is facing the pool correctly.

2. Measure and cut the encapsulated track.



Tip

Cut the track longer than required.

At the pulley end of the track, you can use a mitred joint if fitting tracking across the end of the pool.

The track should extend 2" (50 mm) into the cover pit and 2" (50 mm) at the pulley end of the track.

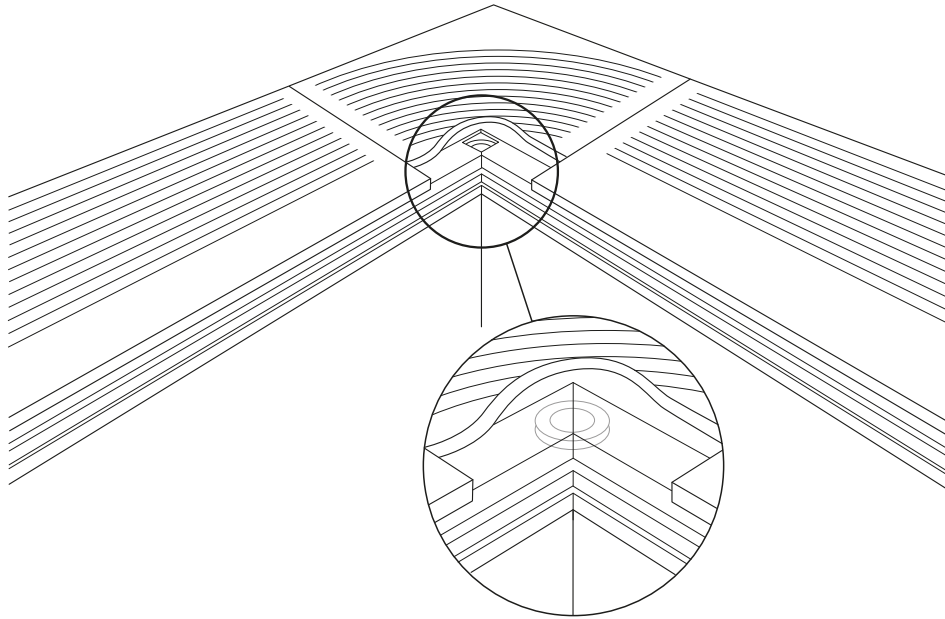


Figure 7 - Track assembled and lengths

3. Lay the inner guide along both sides of the pool.
4. Measure and cut the inner guide to the correct lengths.
5. To prevent the cover slider from catching, file any sharp edges on the track.
6. Where required, join the inner guide using the pins and splices that fit into the centre slot of the inner guide.
Make sure that the inserts extend equally into each section.
7. Lay the encapsulated track onto the pool edge.
The encapsulated track should be flush with the pool wall.
Confirm the track extends into the pit (3") and pulley end (2").
8. Secure the encapsulated track to the pool wall using the provided fixings.

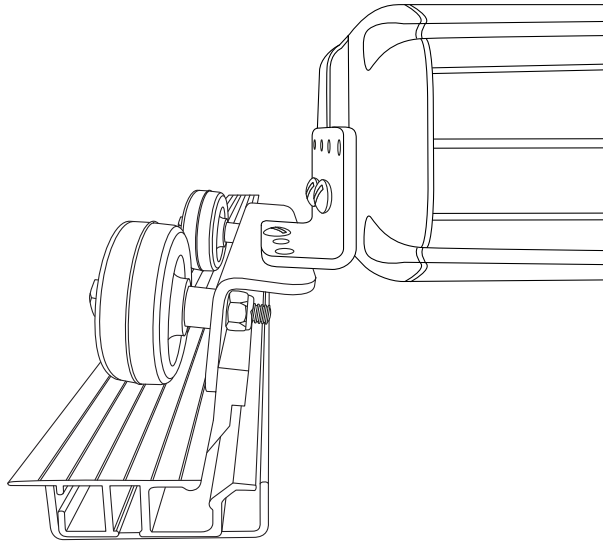


Figure 8 - Encapsulated track in place

9. If your installation has radius corners, with liner encapsulation, fit the corner pieces at this stage.
10. Carefully add the mortar and cement onto the encapsulated track, smooth off, and allow to set.

If using pit trays, the paving around the pool should be laid on a bed 10-15 mm higher than the encapsulated track.

11. Starting at the cover pit end of the track, using a rubber mallet, tap in the spacer shim between the encapsulation track and inner guide.

Ensure the spacer shim is flush with the track edge.

12. Repeat this process for the track on the other side of the pool.
13. Check your measurements.

If fitting the Coverstar wall cap refer to the Quick Snap VL Encapsulation & Corner Installation Guide supplied with these parts.

3.2 Pit construction

When preparing the pit for the Coverstar system, make sure the construction matches the following requirements:

- The pit size must be correct:
 - For pool length up to 40' (12.19 m)
Pit size of 14" by 14" (35.56 cm by 35.56 cm)
 - For pool length 40' to 50' (12.19 to 15.24 m)
Pit size of 15" by 15" (38.1 cm by 38.1 cm)
 - For pool length over 50' (15.24 m)
Pit size of 16" by 16" (40.64 cm by 40.64 cm)



Notice

The correct pit size is one of the most important requirements for a successful installation of the Coverstar automatic safety pool cover.

- The pit wall must be finished square and level with the pool walls.
- For the drive end, the pit must protrude 30" (76.2 cm) past the inside of the track.
For the non-drive end, the pit must protrude 10" (25.4 cm) past the inside of the track.
- To create solid walls, construct the pit in standard concrete blocks of 18" by 9" by 4" (45.72 cm by 22.86 cm by 10.16 cm).
The base must be at least 3" (7.62 cm) thick.
- Render the walls and base to create a flat and smooth finish.
- The dividing wall between the pit and the pool must have at least 1" (2.54 cm) radius edges at the top.
To prevent cover catching, make sure there are no sharp corners.
- Make sure there is a drain to a soak-away, ideally in the centre of the pit floor. Render the drain to guarantee a gradual fall to a low point in the centre of the floor.
To prevent leaves and debris clogging the drain, a fitting such as a petal inlet is preferred.

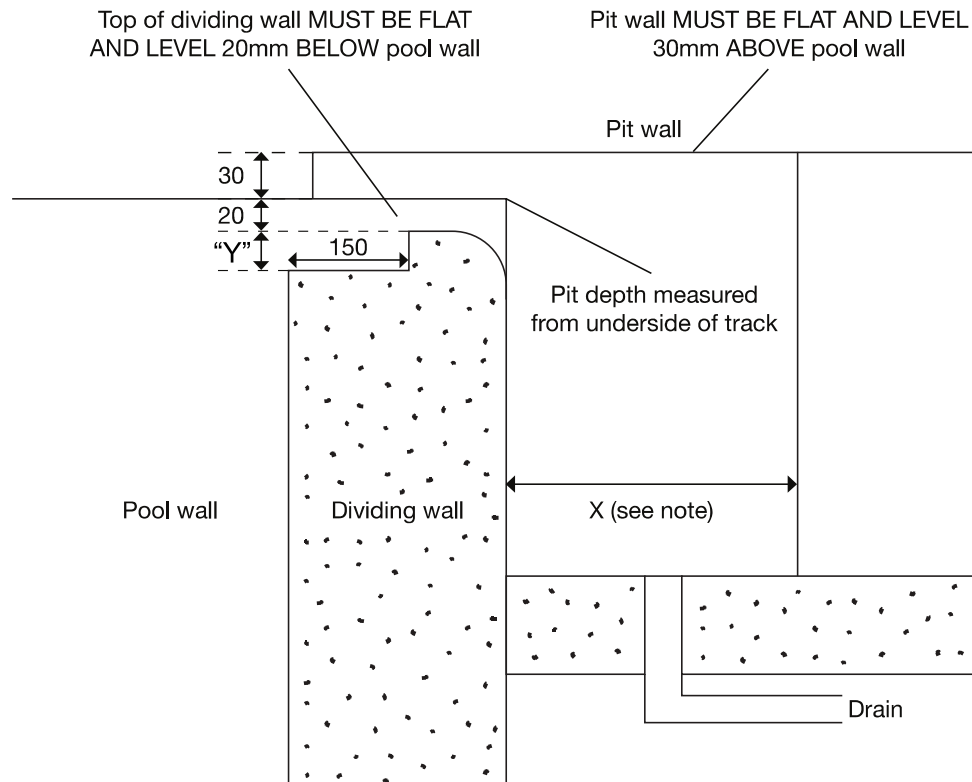


Figure 9 - Cross-section of pool and pit area

- Install a non-rigid conduit of at least 3" (7.62 cm) running from the mechanism-end of the roller to the power pack in the plant room.

The conduit must exit the pit in one of the following configurations:

- From the bottom of the end wall at the mechanism end
- From the side wall as close as possible to the end wall and at the bottom of the pit



Notice

Avoid bends when running the conduit. If that is not possible, make sure they are swept bends instead of 90 degree bends.

- To make sure the installation team can pull the hydraulic hose through, install the draw-cord at the same time as the conduit.
- To avoid damage from mechanism fixings, make sure there is no pipe-work or electrical cables within 19" (0.5 m) of the side or underneath the Coverstar pit.
- To guarantee enough access during the cover installation, make sure there is at least 3' (91.44 cm) of walk away around the perimeter of the pool.

If this is not possible, contact Certikin.

- To install a hidden lead edge cover, refer to the drawings in the Appendix for dimensions.

3.3 Deckmount

Before installing a deck-mounted Coverstar system, prepare the pool area for this type of installation:

- Check the pool surroundings for obstacles, for example, skimmer lids or underwater light deck boxes. With this, you can determine the correct position for the roller and the track.
- Decide on the roller position at the end of the pool and the stop-point for the trolleys.
- For the mechanism end, leave sufficient room to allow for 30" (76.2 cm) past the inside of the track.

For the non-mechanism end, leave sufficient room to allow for 10" (25.4 cm) past the inside of the track.

- Install a non-rigid conduit of at least 3" (7.62 cm) running from the mechanism-end of the roller to the power pack in the plant room.

The conduit must exit the pit in one of the following configurations:

- From the bottom of the end wall at the mechanism end
- From the side wall as close as possible to the end wall and at the bottom of the pit



Notice

Avoid bends when running the conduit. If that is not possible, make sure they are swept bends instead of 90 degree bends.

- To make sure the installation team can pull the hydraulic hose through, install the drawcord at the same time as the conduit.
- If the hoses were supplied, check whether the hose ends are sealed before pulling through the conduit.
- Make sure the pool surroundings are firm, level, and strong enough for the Coverstar system. Any loose slabs must be re-laid.

3.4 Hydraulics pre-checks

Make sure the following is ready before starting the cover installation process:

- Check the plant room is ready for the installation of the hydraulic power pack.
 - ▶ *For information on the installation of the hydraulic power pack, refer to the Hydraulic Power Pack Manual.*
- The plant room for the power pack has a flat, level, and clean mounting surface.

The power pack must be positioned in a location where it is protected from extreme temperatures, dust, water, condensation, and moisture.

- The plant room has enough space to guarantee access to the electrical terminals and other parts that require future maintenance.
- Make sure all wiring and power supplies are ready for installation.
- Make sure there is suitable location for locating the key switch. The operator must be able to see both ends of the cover when opening and closing.
- Check that there are channels ready for the hydraulic lines from the plant room to the mechanism

**Tip**

Certikin recommends to complete the wiring before the installation team starts working on the cover. Make sure the isolator is no further than 39" (1 m) from the power pack.

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4 Check list

Before installing the Coverstar automatic safety pool cover, confirm that your pre-installation meets all necessary requirements:

Check	Yes	No	N/A	Comments
Pool construction is finished.				
The water is to its final fill level.				
The surrounding decking or paving is level and solid, and offers a secure fixing base. The base is at least 3" (7.62 cm) thick.				
For the encapsulated track, the encapsulated track is built into the pool wall.				
For the flush guide, the channels are set at the correct depth and parallel spacing relative to the pool.				
The bed under the channel and the base of the pit is solid.				
For the pit, the pit size is correct. <ul style="list-style-type: none"> For pool length up to 40' (12.19 m) Pit size of 14" by 14" (35.56 cm by 35.56 cm) For pool length 40' to 50' (12.19 to 15.24 m) Pit size of 15" by 15" (38.1 cm by 38.1 cm) For pool length over 50' (15.24 m) Pit size of 16" by 16" (40.64 cm by 40.64 cm) 				
The pit is clean, and the walls and base are smooth.				
The drainage point is fitted into the pit.				
The conduit and draw cord for the hydraulic hoses are installed.				
The length of the ordered hydraulic hose is correct. Check the original order form.				
There is suitable space and positioning for the hydraulic motor in the pit.				
There is a suitable power supply for the hydraulic motor. Is a separate power supply available for use?				
With the key switch positioned, the full operation of the cover is visible.				

Check	Yes	No	N/A	Comments
A customer representative will be available on the installation date.				
In conjunction with the current wiring regulations, the plant room has a 20 amp C-rated breaker for the hydraulic motor.				
There is a socket for the cover pump within eight meters of the pool.				
There is a mains outlet (with RCD) to plug in power tools.				
The dividing wall panel has at least 3" (7.62 cm) thick brickwork behind it, to act as an anchor for the mechanism mounting.				

Additional comments:



A Appendix - Drawings and information

The following provide additional information for the installation of the Coverstar automatic safety pool cover.

A.1 Flush track preparations	25
A.2 Encapsulated track pit dimensions	26

A.1 Flush track preparations

The white plastic C channel part of the flush track must be embedded into the side of the pool wall. The top edges of the channel must be flush with the deck or pool wall.

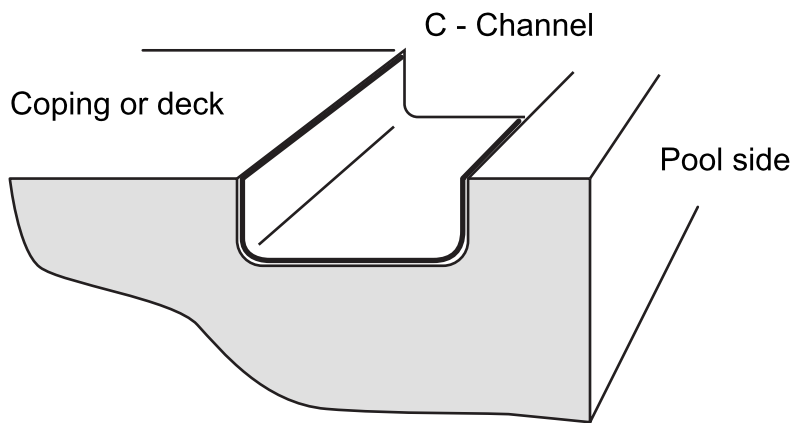
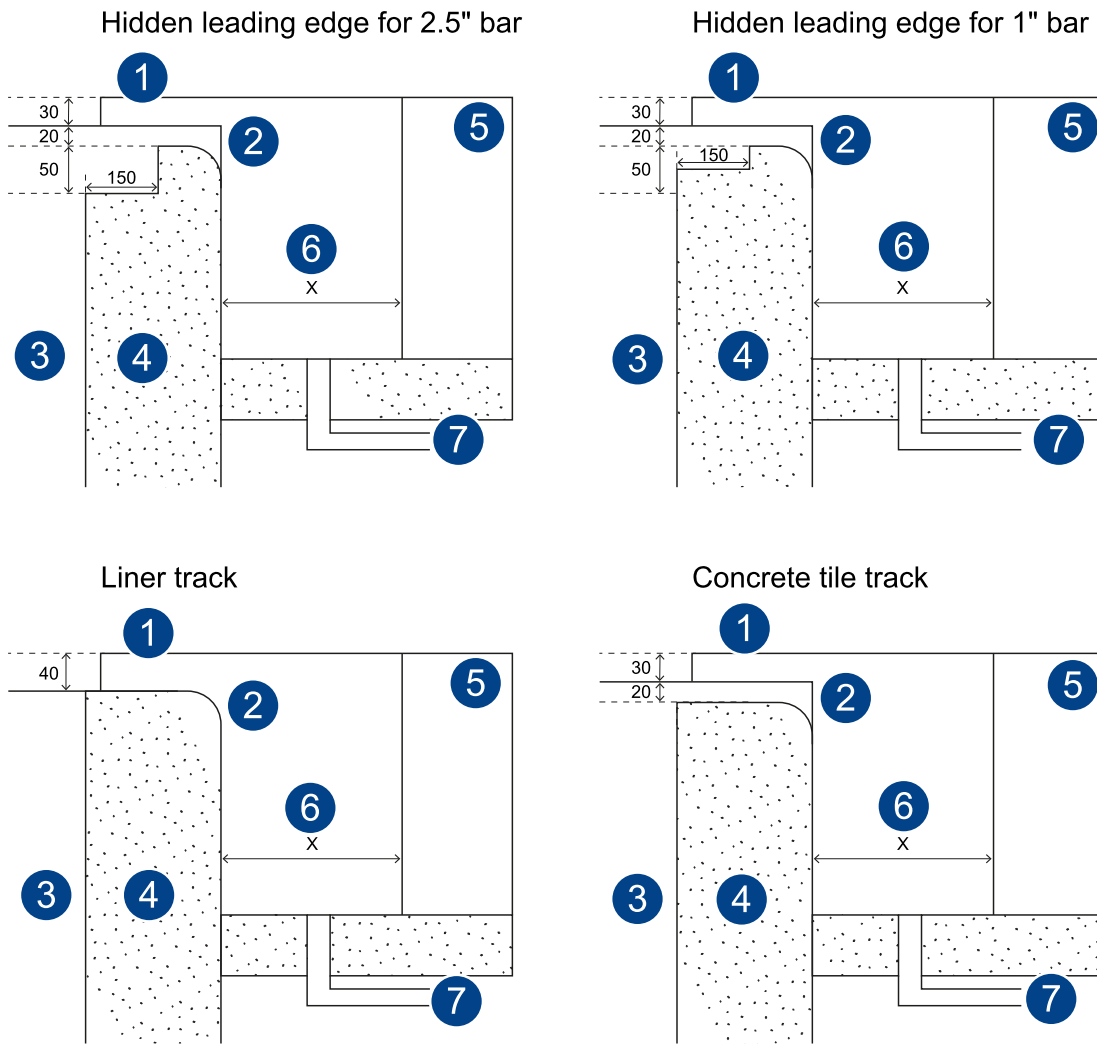


Figure 10 - C Channel embedded into pool side.

A.2 Encapsulated track pit dimensions



- 1 The pit wall must be flat and level, 30 mm or 40 mm above the pool wall.
- 2 The top of the dividing wall must be flat and level, 20 mm below the pool wall. For hidden lead edge this dimension should be 30 mm.
- 3 Pool side.
- 4 Dividing wall.
- 5 Pit wall.
- 6 The pit dimensions are relative to the pool length:
 - Covers for pools up to 40 feet require an internal pit size of 14" x 14" (355 mm x 355 mm)
 - Covers for pools up to 50 feet require an internal pit size of 15" x 15" (380 mm x 380 mm)
 - Covers for pools up to 60 feet require an internal pit size of 16" x 16" (400 mm x 400 mm)
- 7 Drain.

Figure 11 - Encapsulated track pit dimensions