

MwayPro Composite Covers

Installation instructions for B125, C250 and D400 class covers



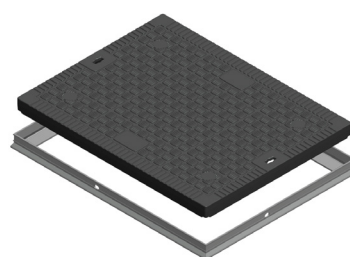
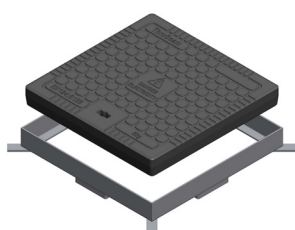
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Types of covers

B125

MwayPro model	EN124 Class	Shape clearance	Weight cover without frame	Lock possible (L) (factory installed or retrofit)	Dip cap possible (DC)	Water and air tight
SLB2318	B125	Rectangular 600 x 450 mm	10 kg	Only factory installed	No	No
SLB2323	B125	Square 600 x 600 mm	12 kg	Only factory installed	No	No
SLB2346DF	B125	Rectangular 600 x 1200 mm	12 kg	Only factory installed	No	No
SLB3131	B125	Rectangular 800 x 800 mm	23 kg	Only factory installed	No	No
SLB3163DF	B125	Rectangular 800 x 1600 mm	76 kg	Only factory installed	No	No



C250

MwayPro model	EN124 Class	Shape clearance	Weight cover without frame	Lock possible (factory installed or retrofit)	Dip cap possible (DC)	Water and air tight
SLC3600(L)(DC)	C250	Round Ø 900 mm	31 kg	Yes	Yes	Standard
SLC4200(L)(DC)	C250	Round Ø 1060 mm	40 kg	Yes	Yes	Standard

Precast in a concrete slab

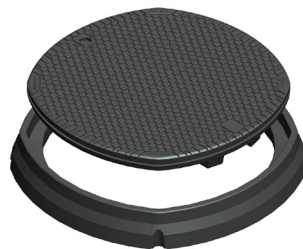
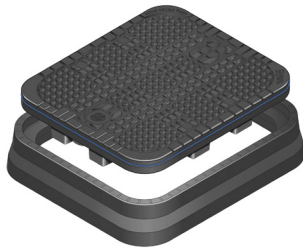
Product name	MwayPro model	Shape clearance	Weight	Lock possible (L) (factory installed or retrofit)	Dip cap possible (DC)	Water and air tight
CONSLAB	SLC3600(L)(DC)	1450 x 1450 x 200 mm	818 kg	Yes	Yes	Standard
CONSLAB42	SLC4200(L)(DC)	1600 x 1600 x 200 mm	840 kg	Yes	Yes	Standard



MwayPro model	EN124 Class	Shape clearance	Weight cover without frame	Lock possible (factory installed or retrofit)	Water and air tight
SLD2300L	D400	Round Ø 600 mm	28 kg	Standard	Optional
SLD2424L	D400	Square 610 x 610 mm	29 kg	Standard	No
SLD2723(L)	D400	Rectangular 700 x 600 mm	31 kg	Yes	Optional
SLD3000(L)	D400	Round Ø 760 mm	36 kg	Yes	Optional
SLD3600 (L)	D400	Round Ø 900 mm	46 kg	Yes	Optional
SLD4200L	D400	Round Ø 1060 mm	46 kg	Standard	Optional

In concrete slab

Product name	MwayPro model	Shape clearance	Weight	Lock possible (factory installed or retrofit)	Water and air tight
Conslab	SLD3600L	1450 x 1450 x 200 mm	818 kg	Standard	Standard
Conslab42	SLD4200L	1600 x 1600 x 200 mm	840 kg	Standard	Standard



Storage & Handling

Care must be observed when unloading, storing or moving the cover & frame on site.

Covers & frames should always be stored assembled.

Composite covers can be damaged if dropped or struck with solid or sharp objects.

Wear gloves when handling covers & frames.

The cover with associated frame is supplied with packaging and film wrap for protection from scratching during handling and transportation.

The SLC3600, SLD3600, SLC4200 and SLD4200 covers and frames shall not be stacked higher than 10 units per pallet and the SLB can be stacked 15 units per pallet.

Loading and unloading a pallet from a truck must be done using a pallet jack or forklift. If a cover and frame is to be unloaded manually, care must be taken not to damage the covers and frames.

Skirts for round covers are tapered and supplied nested into each other. Use protective gloves when handling and unstacking fiberglass skirts.

Covers & Frames are carefully examined before dispatch.

Damage resulting from incorrect handling will void the manufacturer's warranty.

HANDLE WITH CARE



DO NOT ROLL



DO NOT THROW



DO NOT DROP



STORE FLAT



NOT ON EDGES



Installation

Installing B125 covers

Bedding Mortar

Industry Standards: BBA/HAPAS Approved. Conforms to HA27/04 and suitable for all access covers conforming to BSEN124:1994. Recommend: Ultracrete M60 or equivalent.

Characteristics:

- Excellent workability
- Rapid strength gain
- Compressive strength 22 N/mm² in 1 hour (depending on temperature)
- Exceptional bond strength without the use of a primer
- 25 kg bags or tubs for easy handling

Remove any old bedding or compacted materials, and ensure the substrate is clean and solid. When using Ultracrete M60 the substrate should be wetted down with water prior to application of the mortar. Ultracrete M60 should be mechanically or hand mixed as follows: 25 kg of powder is mixed with approximately 3 litres of water until a smooth trowelable mix is achieved.

Ultracrete M60 should be immediately placed on the supporting structure, allowing a 5 mm excess thickness and used within 5 minutes of mixing. The frame is lowered into position and placed on the bedding mortar ensuring that it is fully supported. Care should be taken to prevent voids in the bedding material under the frame, particularly in the vicinity of the cover seating. The frame is tamped down into place, ensuring the correct level is obtained. This can be checked by placing a straight edge over the frame and surrounded surface. Exposed surfaces of the bedding mortar around the frame must be float finished, ensuring any voids or loose material is removed and the inside surface pointed to a smooth finish.

Surface Course (asphalt)

Industry Standards: BBA/HAPAS Approved. Meets with the specifications laid out in the SROH 2010, SROR 2003 DRDNI and NRA.

Recommended: HRA, Ultracrete Instant Road Repair®, QC6 or equivalent.

Characteristics of Asphalt:

- PSV65
- 6 mm graded hard stone
- Excellent workability in all weather conditions
- Instantly trafficable
- 25 kg bags or tubs for easy handling
- Black or Red

Once the M60 has reached sufficient strength, all vertical edges of the excavated area, substrate and the manhole frame should be sprayed with Ultracrete SCJ Seal & Tack Spray ensuring all the surfaces are covered. The use of Ultracrete Instant Road Repair® is recommended (60 mm compacted to 40 mm-1 layer required).

Hot lay materials can be used.

Surface Course (concrete)

Characteristics of Concrete:

- Rapid setting with high early strength gain
- 6 mm graded hard stone & specially blended cement powders
- Excellent workability in all weather conditions
- Trafficable within 15 minutes
- 25 kg bags or tubs for easy handling
- Shrinkage compensated

Once the M60 has reached sufficient strength, apply QC6 mixed material over a pre-soaked prepared area to a minimum of 10 mm and a maximum of 100 mm within 4 minutes. Firm well into position with a float, or trowel to close up the surface and seal the edges. Key to create an anti-slip surface.

Installing C250 / D400 covers with GRP skirt

Details & Site-work Guide

The information and details contained in these instructions are intended as a general guide to ensure correct installation of MwayPro covers and frames. Site practice may vary depending on the design of the slab and type of forecourt surface. Further advice is available from CGH Belgium.

MwayPro Covers and frames must be installed in accordance with Health & Safety at Work legislation prevailing in the country of installation.

MwayPro covers and frames are recommended for use with CGH polyethylene chambers; they can also be used with any type of composite, brick, concrete or steel chamber. Finished forecourt surfaces can be concrete, tar macadam, a pre-cast concrete block or paving stones.

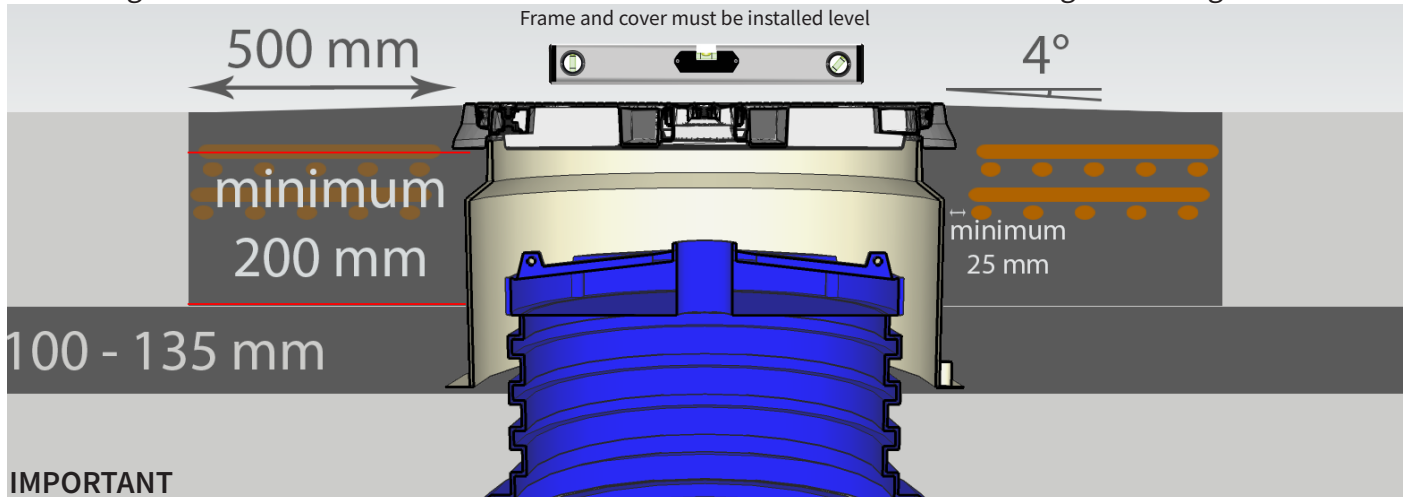
In all cases the frame must be set into a steel lattice reinforced concrete apron.

MwayPro covers and frames must be installed in such way that surface water drains away from the frame. The concrete apron surrounding the frame should slope 4% or 20 mm over 500 mm.

The flush fitting frames should be positioned in such way that the frame top edge sits 2 mm above the finished concrete surface. This ensures that no water will enter the chamber when the cover is opened.

Surrounding concrete must slope downwards and away from the frame edge to allow water run off.

Apply tape to the frame/cover gap to protect seal against concrete and cement ingress during installation.



IMPORTANT

Frame underside must be fully supported and level all the way around on a minimum of 200 mm concrete.

To ensure frames are not installed distorted or twisted, the cover must be placed in the frame when set on mortar and concreted in place.

Do not allow cement or concrete to cure on the surface of the cover and frame.

Skirt installation

In a typical forecourt installation, the covers are installed on GRP skirts with following product codes:

- SKI0036: skirt depth 300 mm for 36" covers,
- SKI0042: skirt depth 300 mm for 42" covers,
- SKI0042L: skirt depth 600 mm for 42" covers.

To fix the frame to the skirt:

1. Place the frame on the skirt. Make sure that the skirt slides and locks over the whole circumference into the frame.
2. Apply a bead of **Sikaflex** sealing kit or alternatively, an appropriate MS polymer glue in the external joint between frame and skirt.

Note: this step can be done one day beforehand to let the sealant or glue cure.

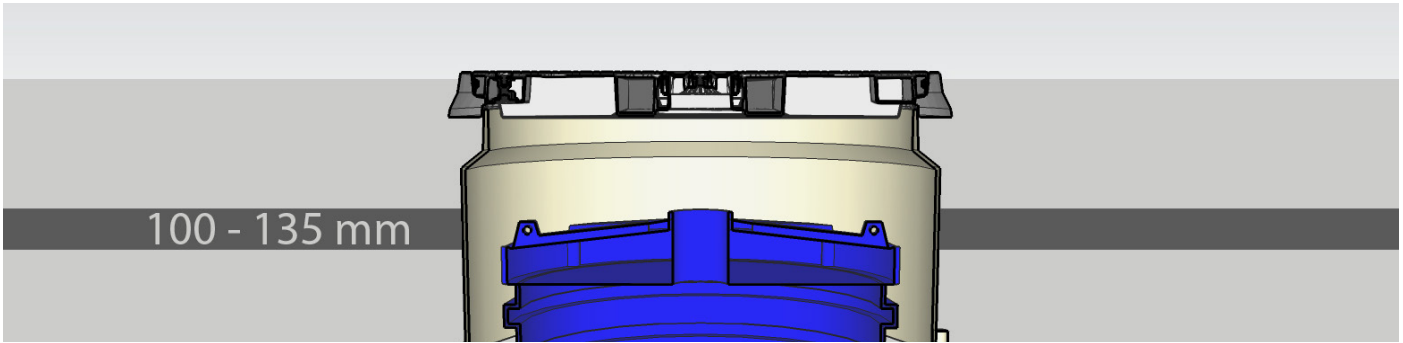


To install the skirt:

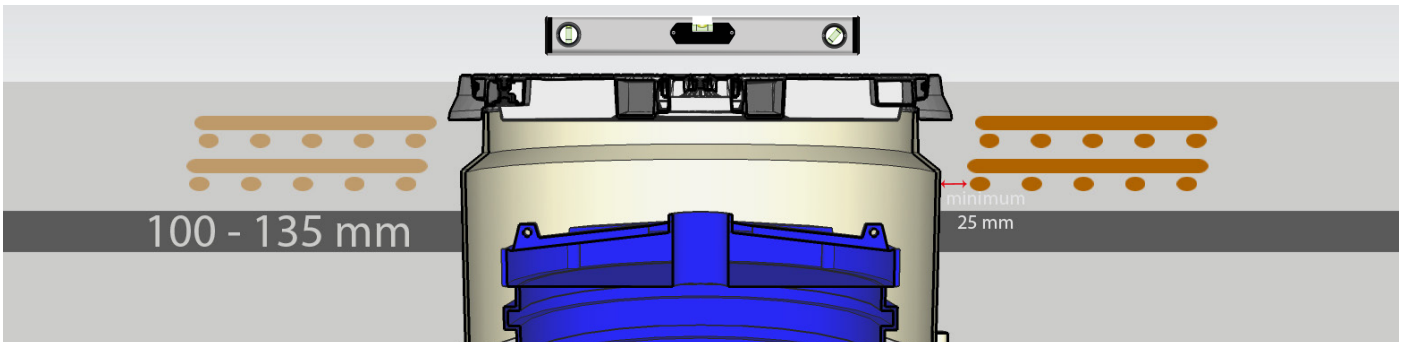
1. Make sure the backfill is stable and well compacted to the correct level, to allow for the 20 mm over 500 mm slope and to position the top of the frame 2 mm above the concrete level.
2. Position the frame with skirt over the riser of the access chamber. Make sure that it is perfectly centered around the riser and that the cover is level.
3. Place the cover in the frame if not already in place.
4. Depending on skirt height, fix the skirt in position with backfill material or with the concrete subbase layer (see further). Make sure the skirt does not move or deform during compacting of the backfill material or when pouring the subbase.



1. Secure the skirt with a concrete layer of min. 100 mm to 135 mm.



2. Position a double row rebar steel reinforcement around the upper part of the skirt and the frame. Leave minimum 25 mm between the skirt and the rebar.

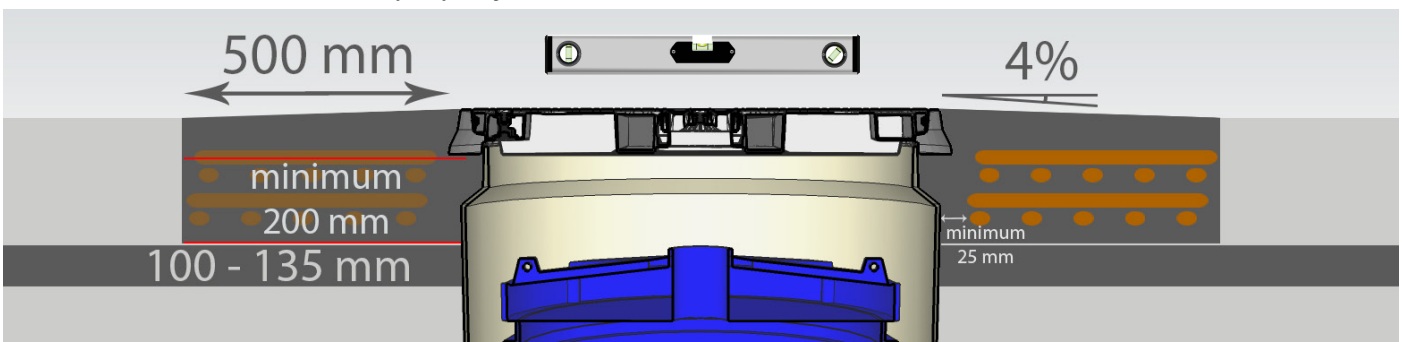


3. Pour the concrete evenly around the frame, to a width of minimum 500 mm.

It is important that a 10 mm wide by 20 mm deep groove is left between the frame edge and the concrete apron. This groove should be filled with a hydrocarbon resistant sealant to avoid water infiltration between the frame and the apron wall.

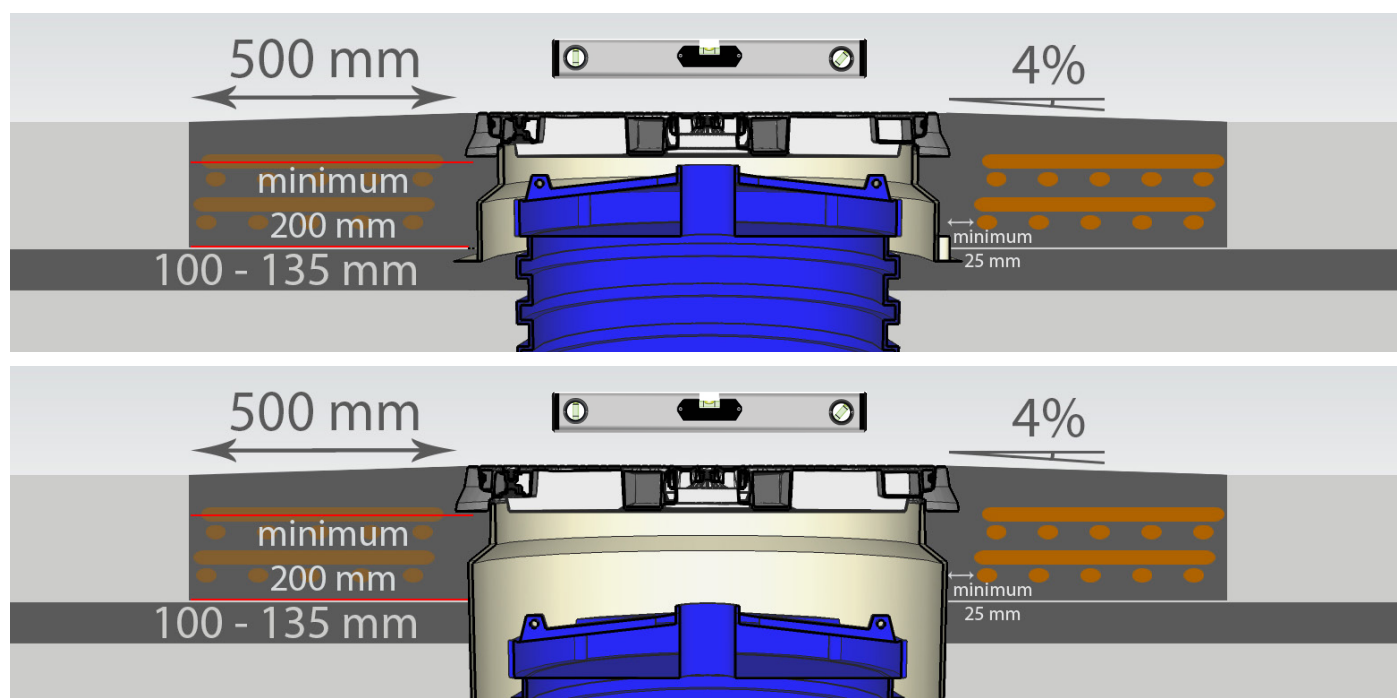
The concrete apron surface should slope away 4% (-20 mm) from the frame to reach forecourt level at a distance of approx. 500 mm from the frame.

Make sure the concrete flows properly underneath the frame.



To avoid frame deformation it is extremely important that the frame is supported by concrete over its complete width and circumference.

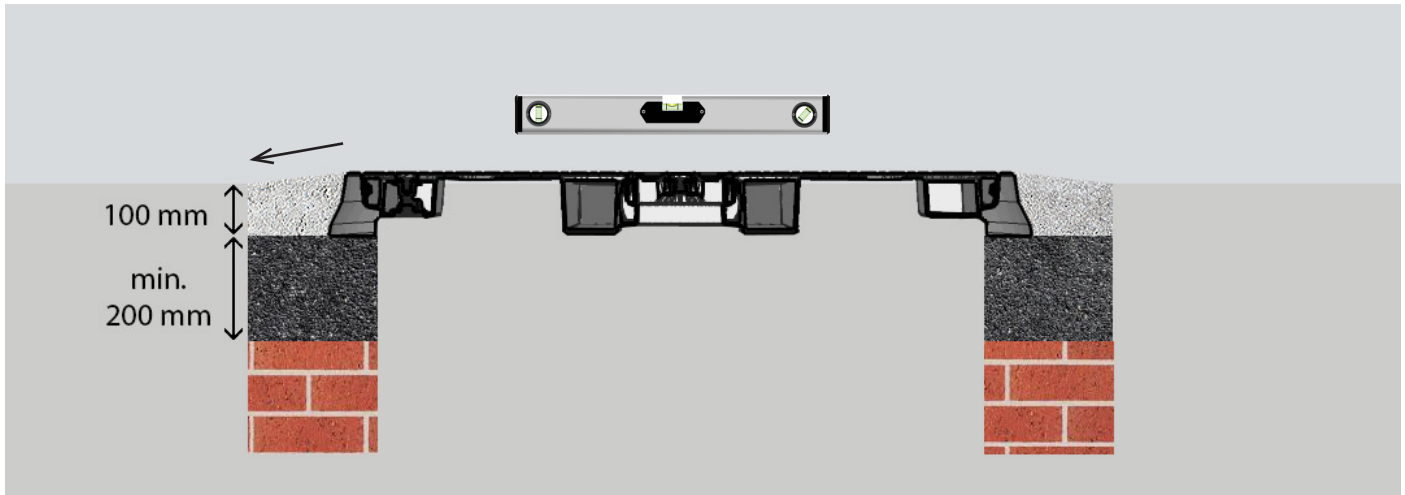
Let the concrete, always with the round cover installed, cure for a period as specified by the manufacturer. Accelerators may shorten the curing time, however as a general rule 7 days are required before removing the cover from the frame and 28 days before full loading capacity is reached.



Commissioning

After the required curing period the cover may be removed from the frame using the correct lifting tool. Wipe the frame clean ; make sure that no sand, cement or other debris remain on the frame, paying particular attention to the grooves. Wipe the cover sidewall and gasket clean.

Installing C250 / D400 covers without skirt



1. To ensure frames are not installed distorted or twisted the cover should be placed in the frame when set on mortar and concreted in place.
2. Do not allow cement or concrete to set hard on the surface of the cover and frame during installation.

IMPORTANT

- Frame underside must be fully supported and level all the way around on a minimum of 200mm concrete.
- Surrounding concrete must slope downwards and away from the frame edge to allow water run off.
- Apply tape to the frame/cover gap to protect seal against concrete and cement ingress during installation.

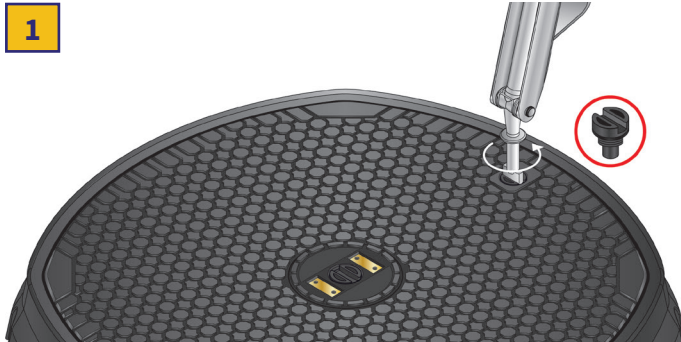
Handling the cover

Opening the cover

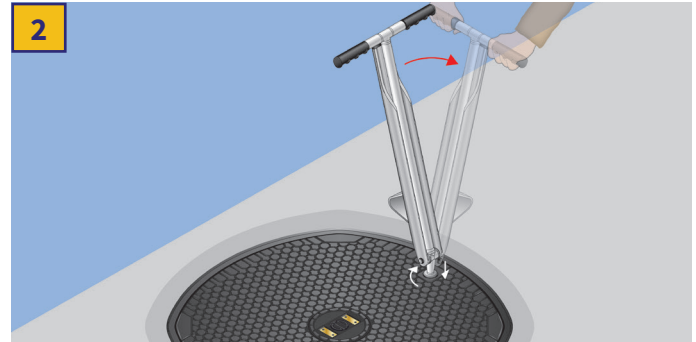
ONLY USE THE SLH0080 LIFTING TOOL

DO NOT attempt to lift covers and dip caps with any other tooling device, this will damage the cover, the seals and the locking mechanism.

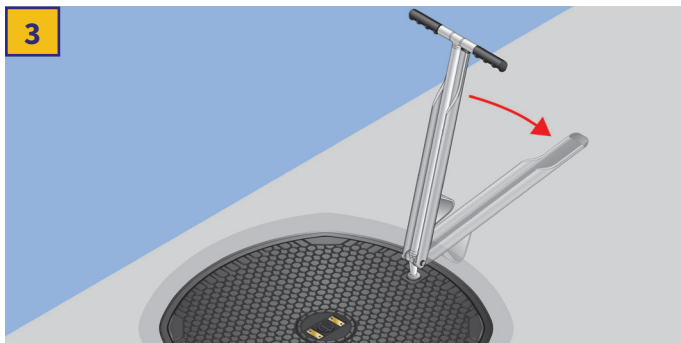
Evidence of failure to use the SLH0080 Seal Breaker Lifting Tool will invalidate the product warranty.



Insert lifting tool into cover lock security plug, turn through 90° anti-clockwise, unscrew and remove. **DO NOT** lose security plug.



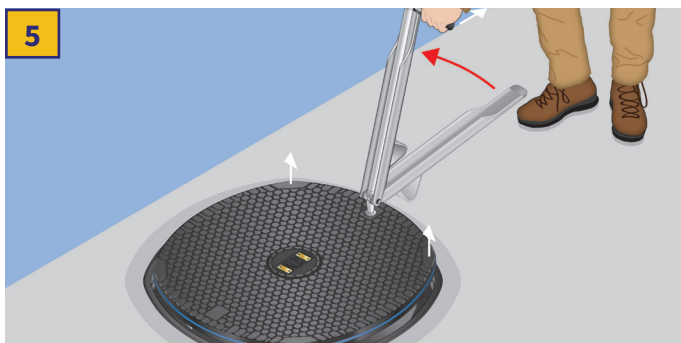
Insert lifting tool into the keyhole and turn the handle through 90° clockwise towards you to automatically disengage the cover lock.



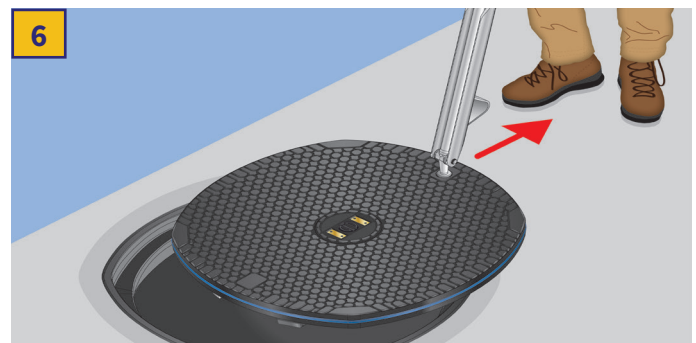
Release the foot plate from the seal breaker lifting tool.



Press down firmly on the foot plate to release the cover from frame.



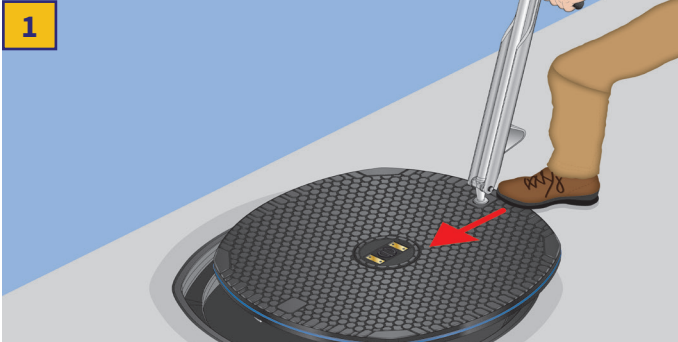
Fold back the foot plate into the lifting tool and lift cover from frame.



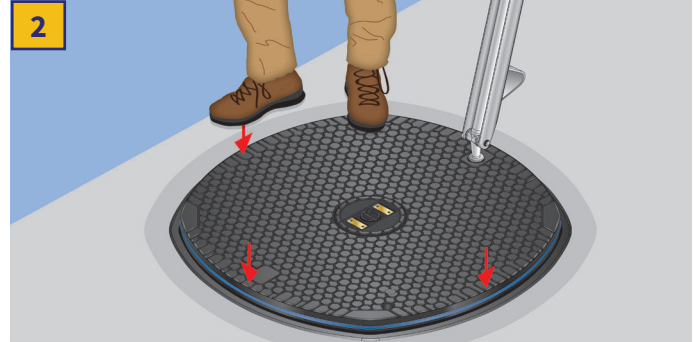
Cover can now be pulled safely back away from the frame.

Closing the cover

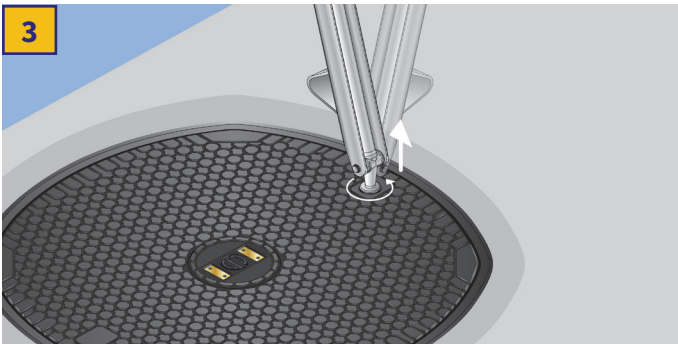
Wipe the frame clean ; make sure that no sand, cement or other debris remain on the frame, paying particular attention to the grooves.
Wipe the cover sidewall and gasket clean.
Apply WD40 Silicone lubricant on the gasket.



Ensure lifting tool is inserted and in the position above before pushing cover.
Push cover back into frame using your foot.
Keep fingers away from cover/frame edge.



Keep lifting tool inserted and in the above position whilst re-instating cover to frame.
Stamp cover down firmly to engage seal.
DO NOT use a hammer to aid replacement.

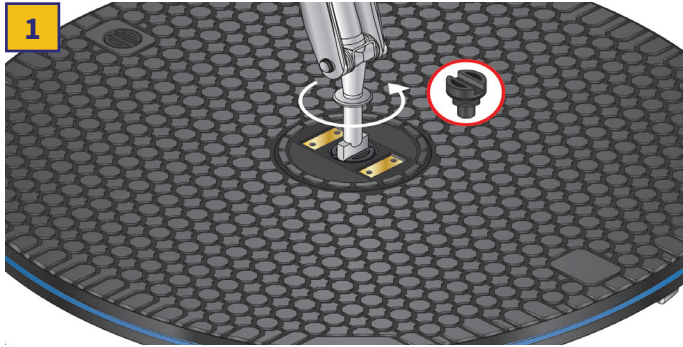


Turn tool 90° anti-clockwise to engage lock and lift tool free of the lock housing.

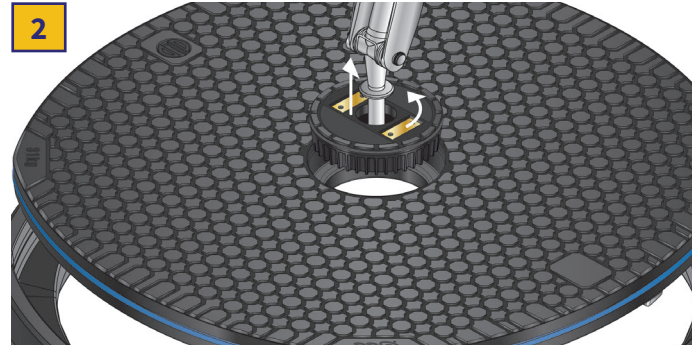


Clean the lock housing, check and clean the plug and seal before re-inserting.
Turn the security plug clockwise to tighten.
A firm finger tight seal will be sufficient.

Dip cap removal



Remove centre security plug.
Insert lifting tool into centre security plug, turn through 90° anti-clockwise, unscrew and remove.



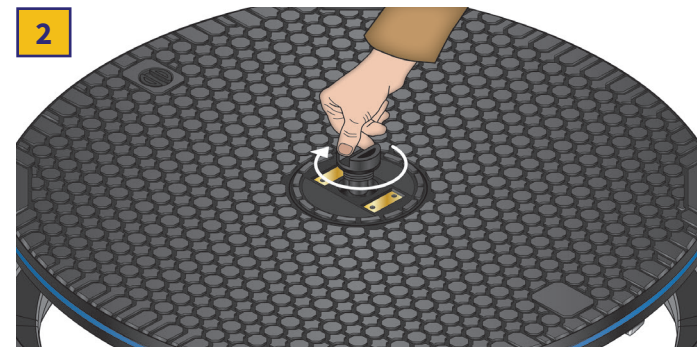
Lift out the dip cap.
Insert lifting tool into the centre hole, turn tool through 90° and lift out the dip cap.

Dip cap replacement



Check and clean the dip cap seal, edge and seating face

Place the dip cap back in the cover.
Apply pressure with foot to secure the dip cap back in position.
Tread down firmly. DO NOT use a hammer to aid replacement.



Check and clean the plug & seal before re-inserting

Re-insert the central security plug.
Turn the security plug clockwise to tighten.
A firm finger tight seal will be sufficient.

Cover Maintenance

Routine Periodic Maintenance

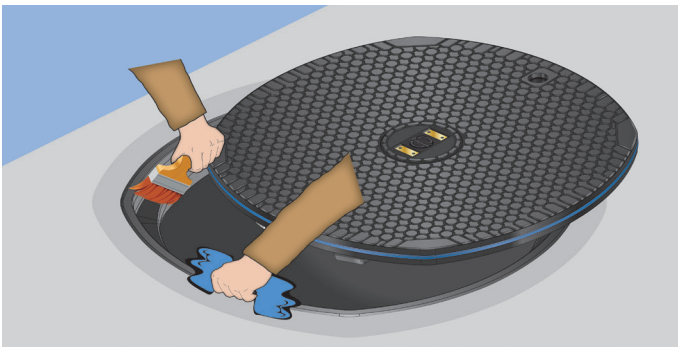
At regular intervals (at least three-monthly) or each time when the cover is removed for access, wipe the frame and cover seating clean of all accumulated sand, cement remaining and debris.

Apply a light spray of silicone lubricant on the gasket before closing the cover again.

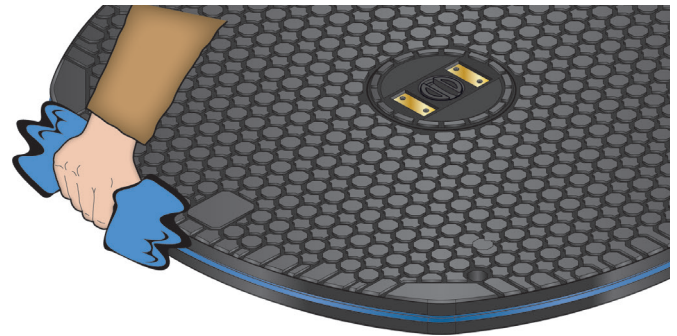


Under no circumstances should anything other than the specified lifting tool being used to remove the MwayPro cover from its frame.

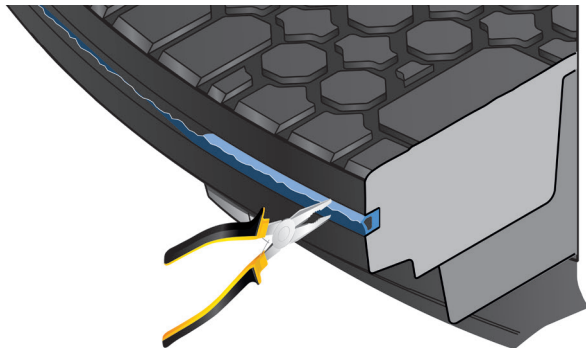
Failure to follow the installation, commissioning and maintenance instructions may damage the cover / frame assembly and void the product warranty.



The frame seating face should be brushed and cleaned every time the cover is lifted.



Cover seals and seating faces should be cleaned with a damp microfiber cloth.

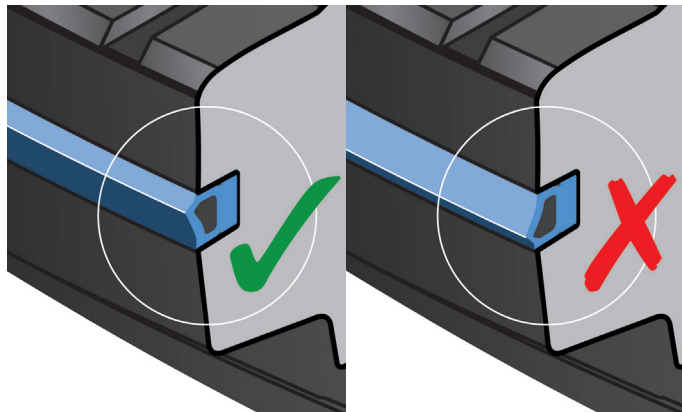


Inspect the seal for damage, remove and replace if needed (see further).

Seal replacement

Position the cover, beams down, on a flat surface and select the correct seal (36 or 42 inch).
Ensure the seal is correctly positioned, with the widest part of the lip above, as shown in the picture.

**The cut seal is for illustrative purposes only to show the orientation of the seal in relation to the top surface of the cover.
It is not necessary to cut the seal!**



Fit the seal loosely around the seal groove in the cover, but do not yet push it into the groove.
Push the seal into the seal groove at 4 positions around the cover, using the flat of the hand.

It is recommended that the 4 positions are near to the corners of the cover to ensure consistent seal spacing around the circumference of the cover.

The remainder of the seal can now be inserted into the seal groove fully, again using the flat of the hand or alternatively using a rubber mallet.

Replacement seals are available from CGH Belgium under product code SLG3600 for 36" covers and SLG4200 for 42" covers



Retrofitting the locking system

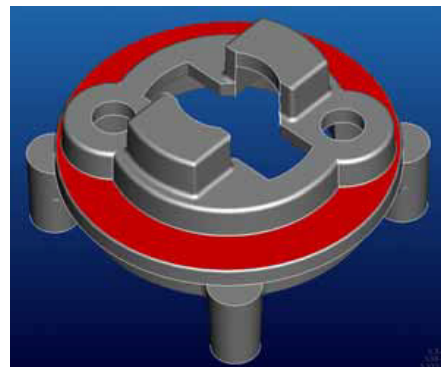
To retro fit a lock into an existing cover, proceed as follows:

1. Prior to assembling the locking device, make sure that the two M8 threads in the lock casing are clean and free of resin. If necessary use an M8 tap to clean out the threaded holes.
2. Wearing gloves and glasses and working in a well ventilated area, use a cloth to apply Isopropyl alcohol to the highlighted surface and the composite surface to which the casing will be adhered to.
3. Apply DetaFlex 4000 to seal the gap between the casing and composite surfaces.
4. Coat two M8 x 16 mm socket head cap screws with Loctite 243 thread locker and secure the casing to the underside of the key housing. Fully screw down using an M8 Allen key.
5. Place the locking disk upside down in the casing ensuring it is in the locked position and place the wave spring over the locking disk.
6. Coat three M6 x 12 mm socket head cap screws with Loctite 243 thread locker and secure the flat plate to the casing. Fully screw down using an M6 Allen key.

Step 1



Step 2



Step 3



Step 4



Step 5



Step 6



Notes



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