



2022

PRODUCT

Installation Guide

SOLID TOP & CONCRETE INFILL



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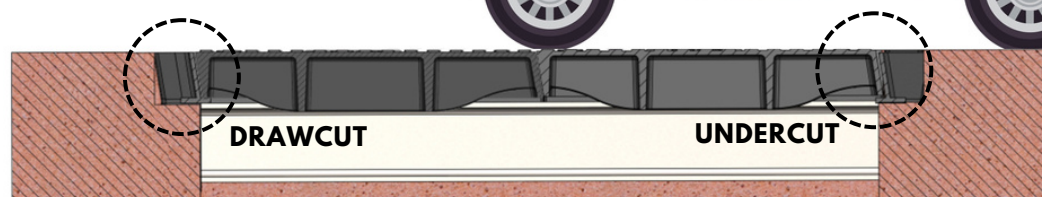
MULTIPART SLIDEOUT COVER ASSEMBLY

INTRODUCTION



Ducast Factory covers and frames are mated individually during the machining process, therefore they are not always interchangeable. A cover from one frame will not necessarily fit another. Covers in Multi-parts are marked and designated to a particular location in the frame and bespoke installation instructions are provided with your cover. The direction a cover can be removed from its frame is indicated by the cover edge with two keyholes. If there is an obstruction (wall, bollard, etc), ensure the cover is positioned in a direction away from the obstruction. Please handle all products with care. Frames may suffer twisting and damage to joints if mistreated.

At DUCAST, we assemble multipart access cover systems that combine standard-size covers in multiple rows and lengths to adapt to many applications. In these systems, provided each row in the system has covers of the same length and load class, the width of the individual covers can vary, allowing for a large number of sized openings. The benefit of multipart systems is that smaller individual covers can be easily lifted to provide access to larger openings. Some common applications include container ports, airport pavements, lift motor room floors, and where access to large industrial equipment, large electrical pits, pump wells, and transformers are required.



TO PREVENT COVERS LIFTING. POSITION COVERS SUCH THAT TRAFFIC FLOW DIRECTION IS FROM UNDERCUT TO DRAWCUT.

Some key points to remember:

- Load class - select the correct cover and rebate to suit the load class. The frame is designed to be fully supported by a bed of concrete.
- Install with cover positioned in the frame.
- Decorative edging may require a deeper rebate than specified, depending on the finish level.
- Tiles or pavers should be fully restrained and bonded to the concrete bed. An epoxy mortar is recommended.
- The cover and frame are a matching pair and should not be switched as fit and seal may be compromised.
- Ensure that there is no rock between cover and frame.

MULTIPART SLIDEOUT COVER ASSEMBLY



KEY INSTALLATION REQUIREMENTS

Clear Opening

The clear opening is the unobstructed opening inside the frame.

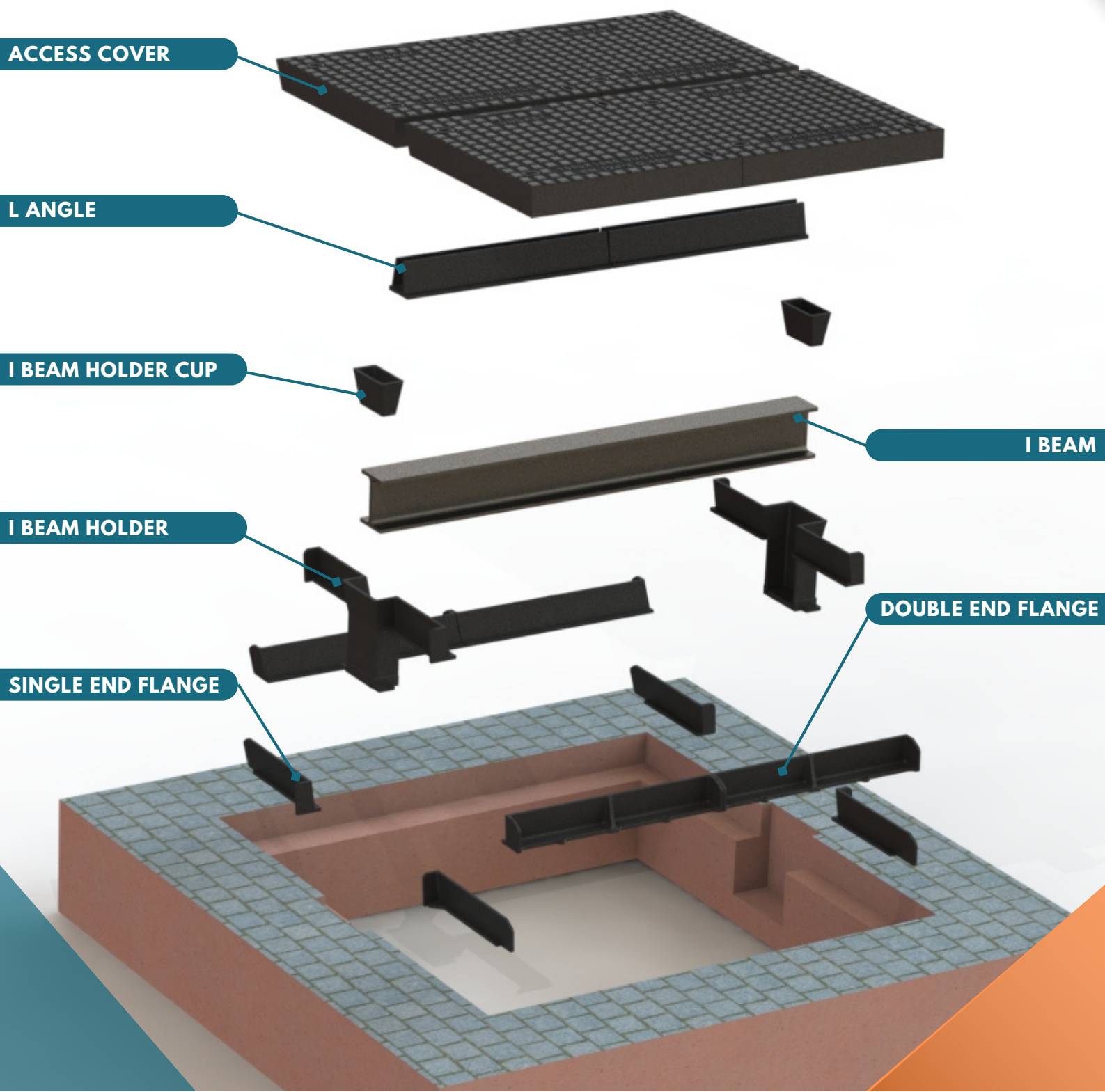
Dimensions

Dimensions are given as width (W) by length (L). Refer to the DUCAST brochure.

Loading Class

Select the correct ductile iron access cover to suit the required load class and application.

EXPLODED VIEW OF ASSEMBLY FOR COVER & FRAME



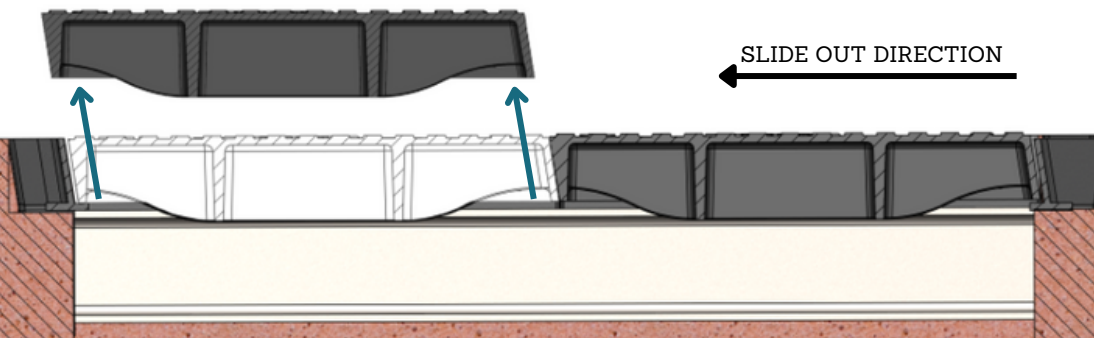
MULTIPART SLIDEOUT COVER ASSEMBLY

DISASSEMBLY OF COVER



This process should be followed whenever lifting the cover or at least once annually.

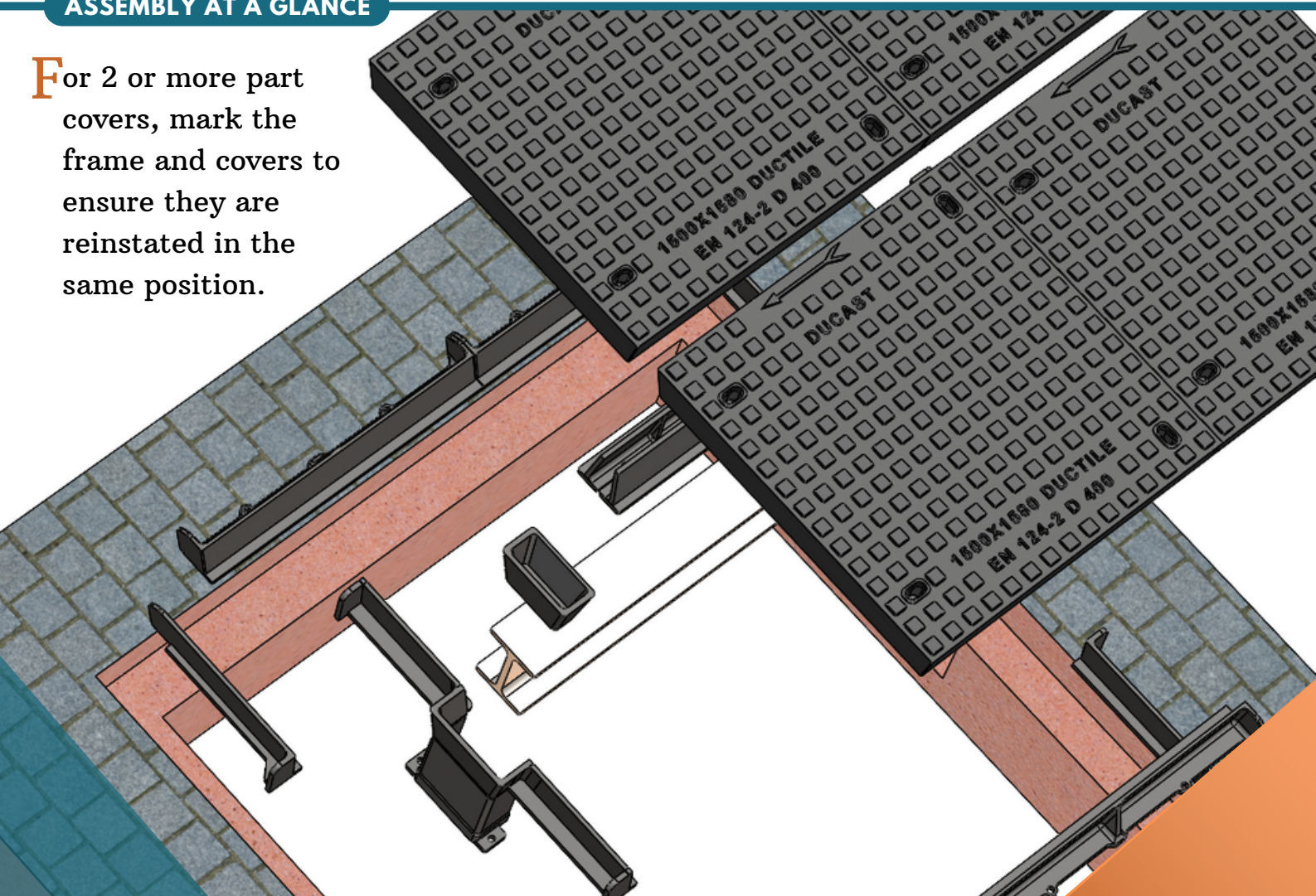
1. For removing the cover, lean forward on the lifting keys and lift the cover from the frame. Place a section of pipe under the edge to enable the cover to be rolled clear of the opening.
2. For multiple cover units, remove covers in order and store them to ensure they are replaced in the same order and position.
3. Prior to reinstating the cover, ensure the cover and frame seat is clean and free of all debris, and liberally apply grease.



REMEMBER TO APPLY GREASE ON EVERY SIDE FACE OF THE COVER BEFORE CLOSING IT AGAIN ON THE FRAME TO PREVENT WATER LEAKAGE.

ASSEMBLY AT A GLANCE

For 2 or more part covers, mark the frame and covers to ensure they are reinstated in the same position.



MULTIPART SLIDEOUT COVER ASSEMBLY

INSTALLATION STEP 1



These instructions are a guide only and should be read with the supplied product drawing.

1. Check the rebate dimensions and the pit Opening size against the product ordered.
2. When unpacking the sections of the frame, take care not to crush, twist or damage the joints.
3. The frame is delivered in sections. Ensure the end frame (containing the Beam Holder) components mate with the side frame components.
4. Set the end frames so that the beam holder is positioned with the corresponding beam pocket/s in the slab. Ensure all the undercut frames are installed at one end and the draw cut frames are installed at the opposite end. Pack under the corner of the frame joints to raise the level of the frame to the finished floor level.
5. Place the side frames into position and bolt (finger-tight) to the end frames.



DOUBLE END FLANGE



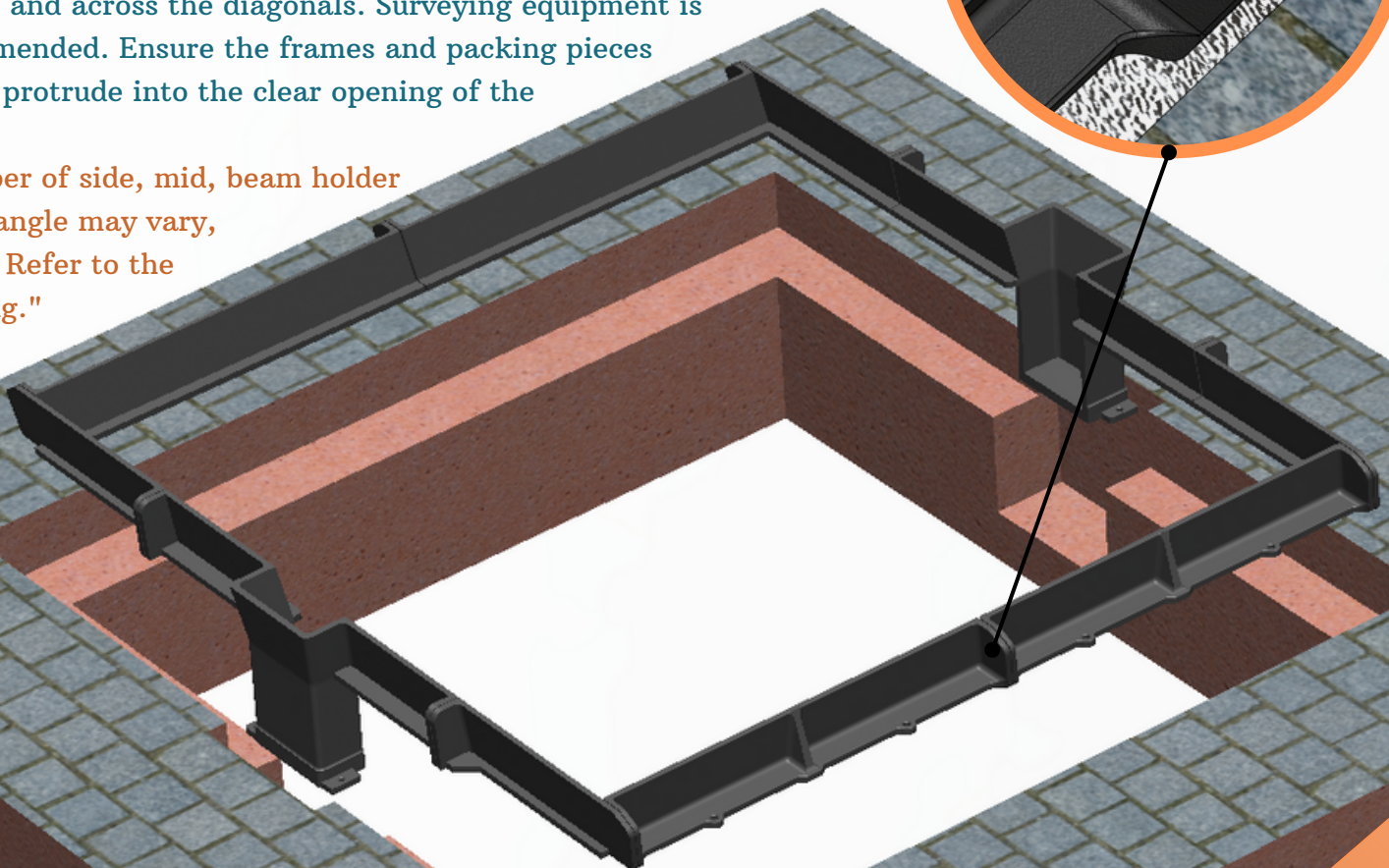
SINGLE END FLANGE



I BEAM HOLDER

Ensure that the frames are level and square. Check carefully along the frames and across the diagonals. Surveying equipment is recommended. Ensure the frames and packing pieces do not protrude into the clear opening of the pit.

"Number of side, mid, beam holder and L angle may vary, Kindly Refer to the drawing."



MULTIPART SLIDEOUT COVER ASSEMBLY

INSTALLATION STEP 2

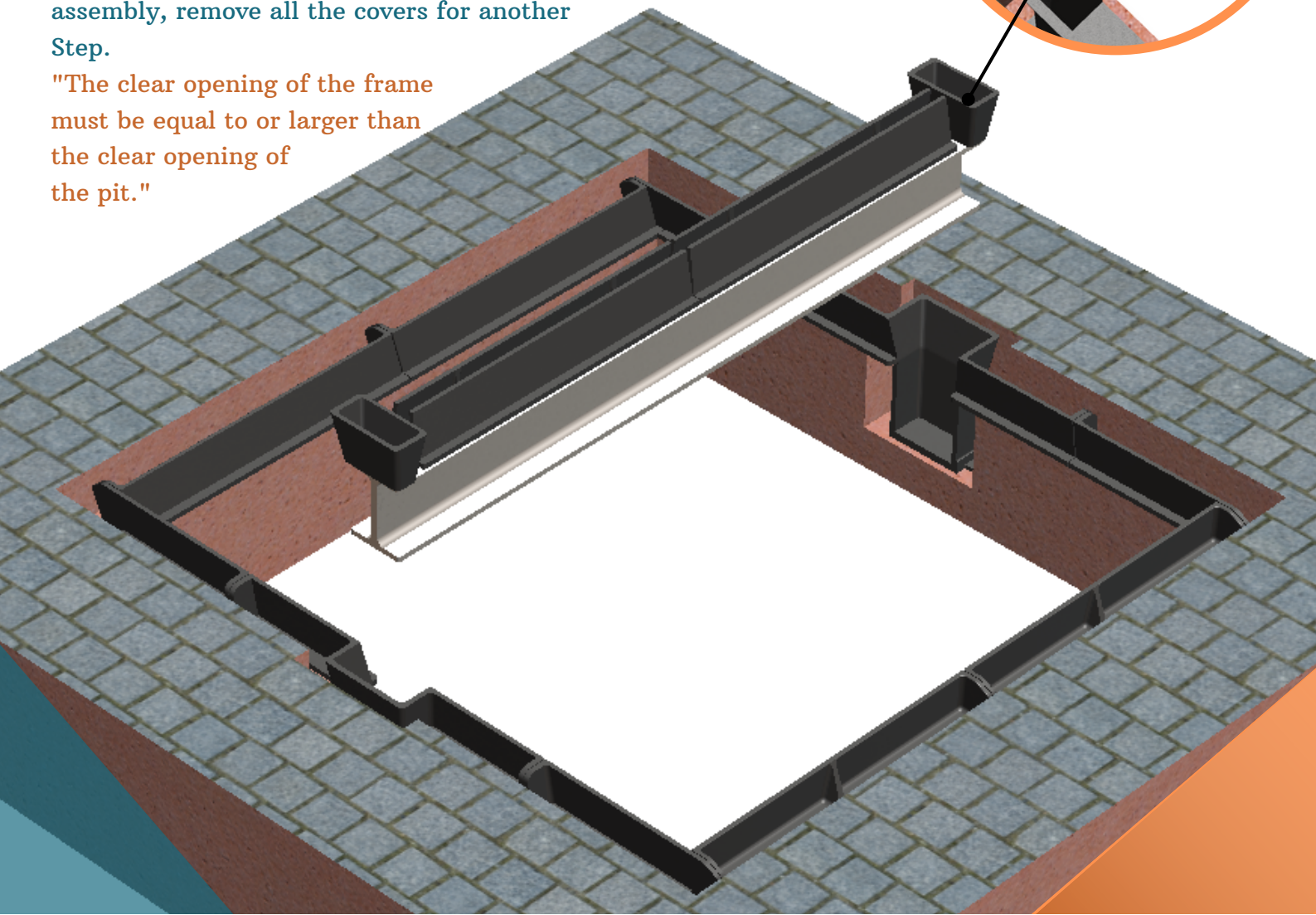


These instructions are a guide only and should be read with the supplied product drawing.

1. As per the previous step, Ensure all four corners are to the finished surface level – use a string line if necessary. Use appropriate packers as required (remember the required loading, timber is not suitable).
2. Lower the I beams (including L Angles & Cup) into the corresponding boxes, as shown in fig.
3. As for caution before concrete filling Place the covers into the frame according to the numbering system, ensuring that the top edges of the frame and covers are level with each other. Check the covers for any diagonal rocking movement and adjust the packing under the frame where required. It is critical that the covers are properly seated in the frame and are not obstructed by any internal formwork.

4. After Ensuring all the things like rocking, Bending, or tilting of complete assembly, remove all the covers for another Step.

"The clear opening of the frame must be equal to or larger than the clear opening of the pit."



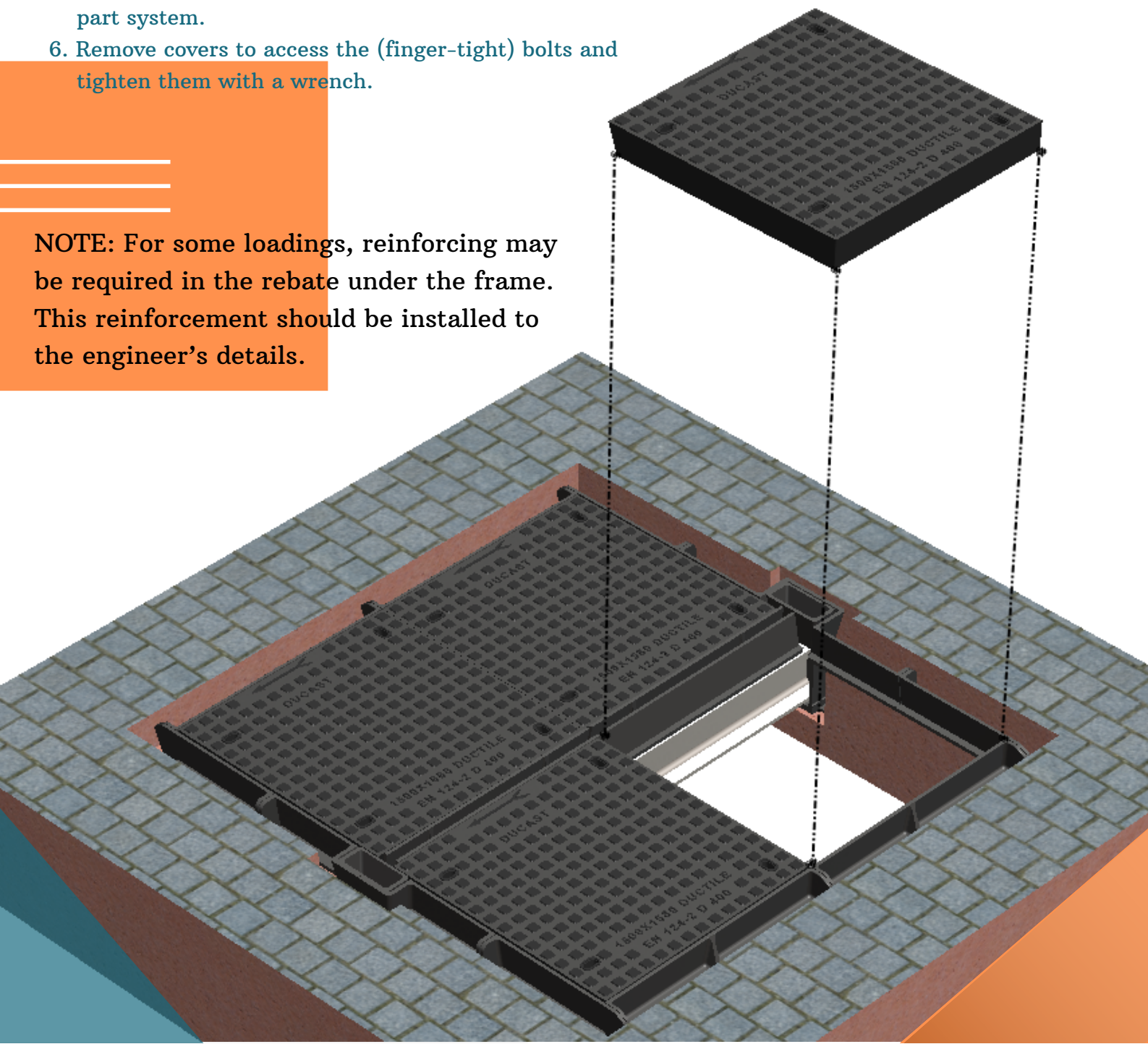
MULTIPART SLIDEOUT COVER ASSEMBLY



These instructions are a guide only and should be read with the supplied product drawing.

1. Select a row to start, place the covers into the frame – start at the draw cut end.
Note: the draw cut is identified on the cover with the two keyholes on the same side of the cover.
2. Begin placing covers into the row using the numbers on the covers and the corresponding drawing supplied. **Apply grease to the side faces of every cover.** Check covers for any rocking in the frame – if detected, check rebate cleanliness and use packers as required.
3. Continue installing each cover into the frame, checking each for rocking. As covers are put in place, the frame will begin to straighten. Check all contact points – this product is designed to be extremely tight with little tolerance to ensure it is watertight.
4. The frame may need a packer or wedge to hold tight – this may need to be kept in place during the concrete pour.
5. Check that the top edges of the covers and frame are level over the entire perimeter of the multi-part system.
6. Remove covers to access the (finger-tight) bolts and **tighten them with a wrench.**

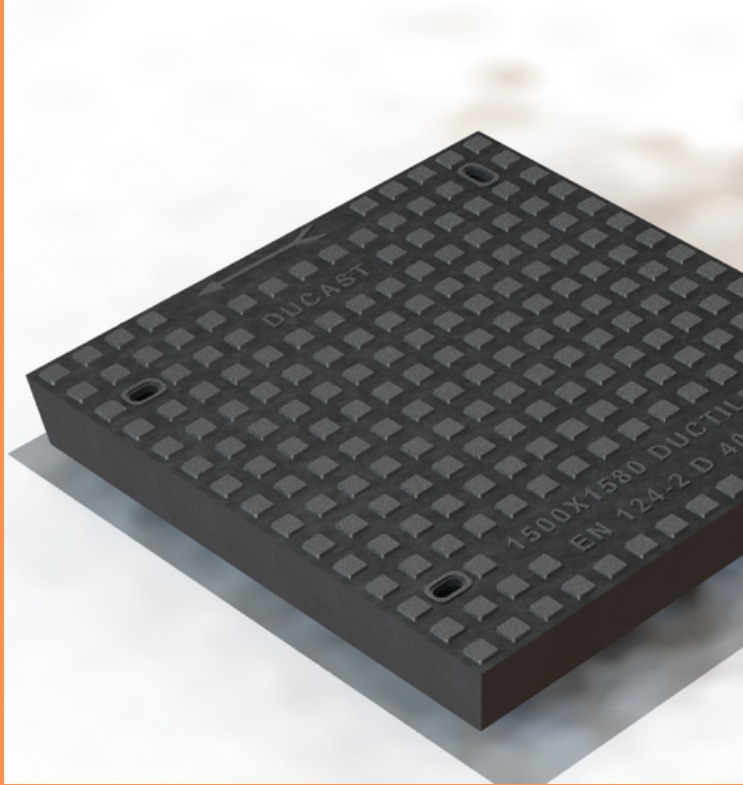
NOTE: For some loadings, reinforcing may be required in the rebate under the frame. This reinforcement should be installed to the engineer's details.



MULTIPART SLIDEOUT COVER ASSEMBLY

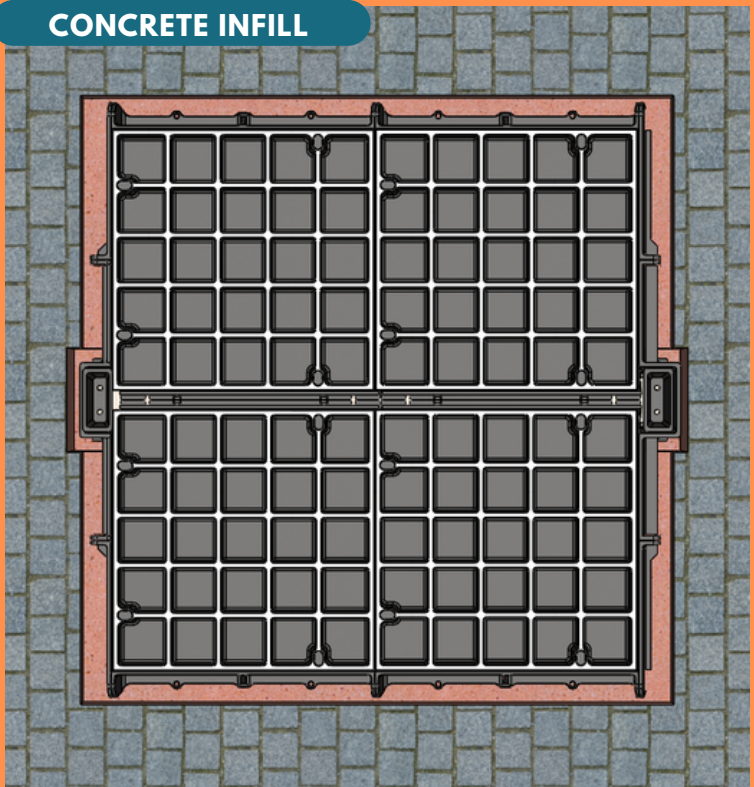
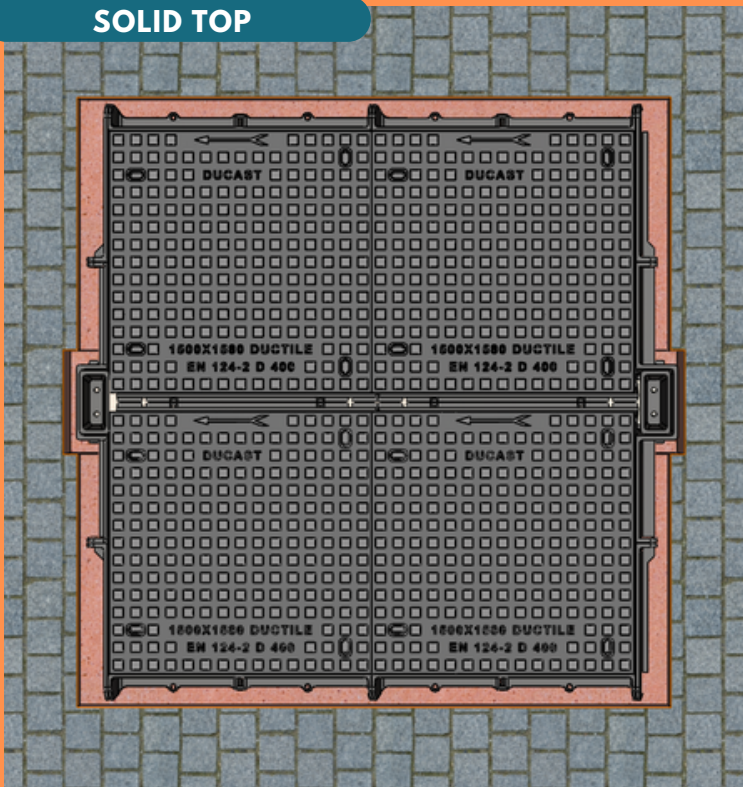


Multipart units combine standard-size covers in multiple rows, generally when the clear opening exceeds 1200mm in both directions. Frame will be common for Both **SOLID TOP & CONCRETE INFILL** slide out.



SOLID TOP

CONCRETE INFILL



Made for you

Using standard covers, all multi parts are assembled in our facility and checked for accuracy of fit and marked to assist re-assembly. They are pulled down and carefully prepared for transport to the site.

MULTIPART SLIDEOUT COVER ASSEMBLY

CONCRETE POUR



All infill covers and frames must be filled with structural grade concrete.

1. Simultaneously fill the rebate gap, frames and infill covers with concrete.
2. Ensure that the concrete is well compacted and the frame is fully supported.
3. Screed off excess concrete and finish the surface as required. The edges of the cover and frame should be visible.
4. Concrete must be allowed to cure before removing the covers from the frame. Removing covers prior to curing may result in damage.
5. Once cured, remove covers with a provided Lifting Key and strip the internal formwork.
6. Ensure the seat areas are clean and greased prior to reinstating the covers in the frame.
7. Cover and Frame seat areas should be liberally greased periodically to assist in the maintenance of the product.
8. Using a rubber mallet, tap down on the key hole surround until the cover is level with the frame.
9. Reinstall all covers/plugs to keyholes and bolt down access.



FINAL RESULT

