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The 'Sika Solution'

Aluminium Jointing Chamber and
Security Access Cover Set Package

1200 x 1200 x 700H / 900H

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Assembly Basic Tool Kit

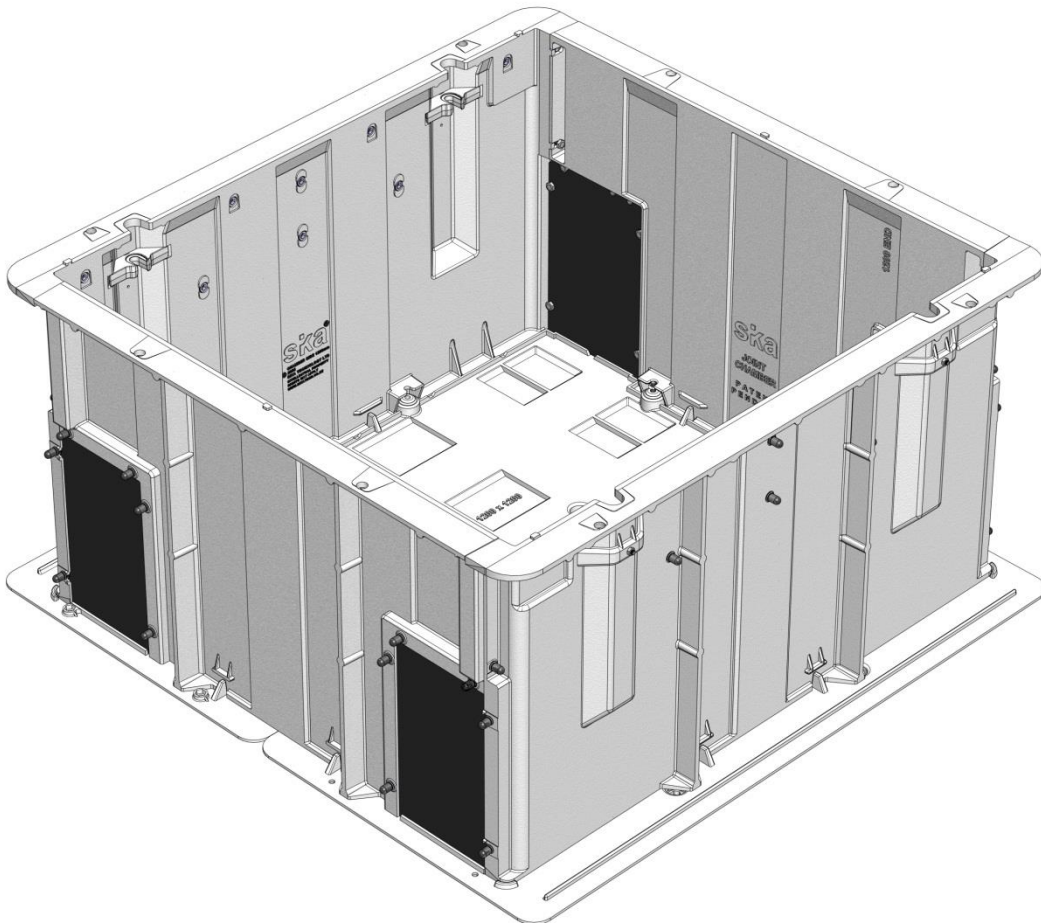
**24mm Open End Spanner
17mm Ratchet Spanner
17 mm Tube Socket
10 mm Allen Key
6 mm Allen Key**



Aluminium Jointing Chamber 1200 x 1200 x 700 / 900H

ASSEMBLY INSTRUCTIONS

Chamber Rating: CLASS D - 210kN - AS3996:2006
Sika 'Chambers' are used for both Pathway & Roadway Installations



Chamber 1200 x 1200 x 700H



1. Place the two 1200mm **chamber bases** side to side on a flat area adjoining the pit or on a prepared bed of imported material in the excavated pit. Note that the “1200 x 1200” scripts will be face up.
- Join the two **chamber bases** with the four **base joiner tabs** and apply 8 – M10 bolts and washers, and tighten.

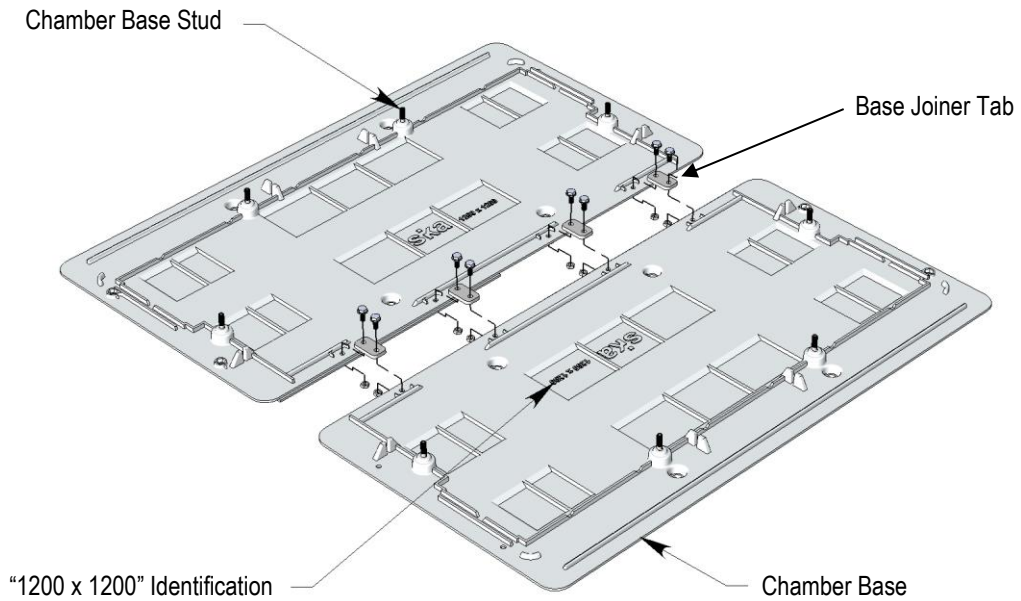


Fig 1

2. The **chamber base** may be assembled around existing duct work. Ref Fig 2

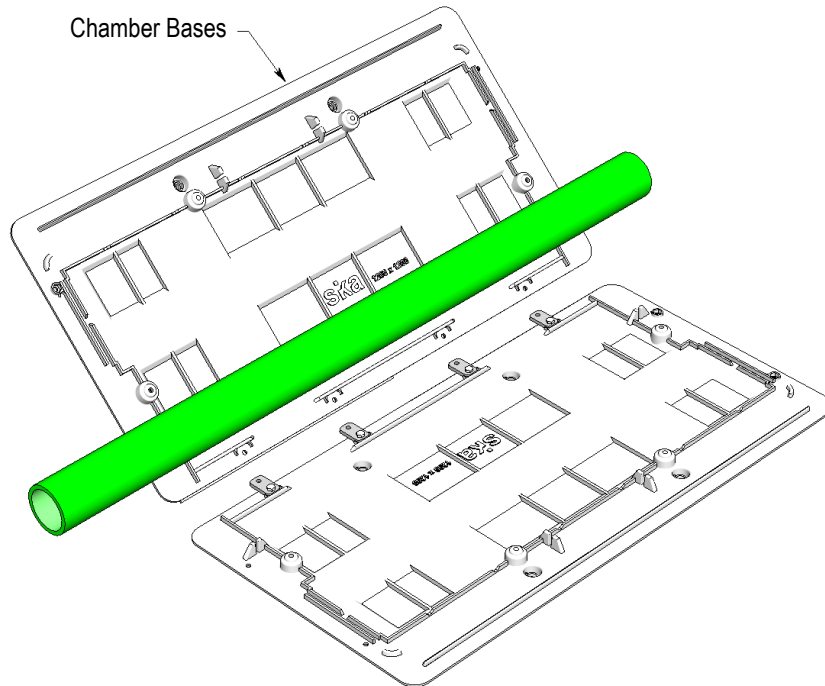


Fig 2

3. Remove the plastic tubes protecting the 4 – M10 studs protruding from the **chamber base** and place the two **chamber sides** into place.

Insert the two **chamber sides** into the appropriately marked positions on the **chamber base**. **Chamber side supports** cast into the **chamber base** will hold the **chamber sides** vertical until the 4 – M10 nuts and washers are applied to hold them down. *(Do not tighten these yet.)*

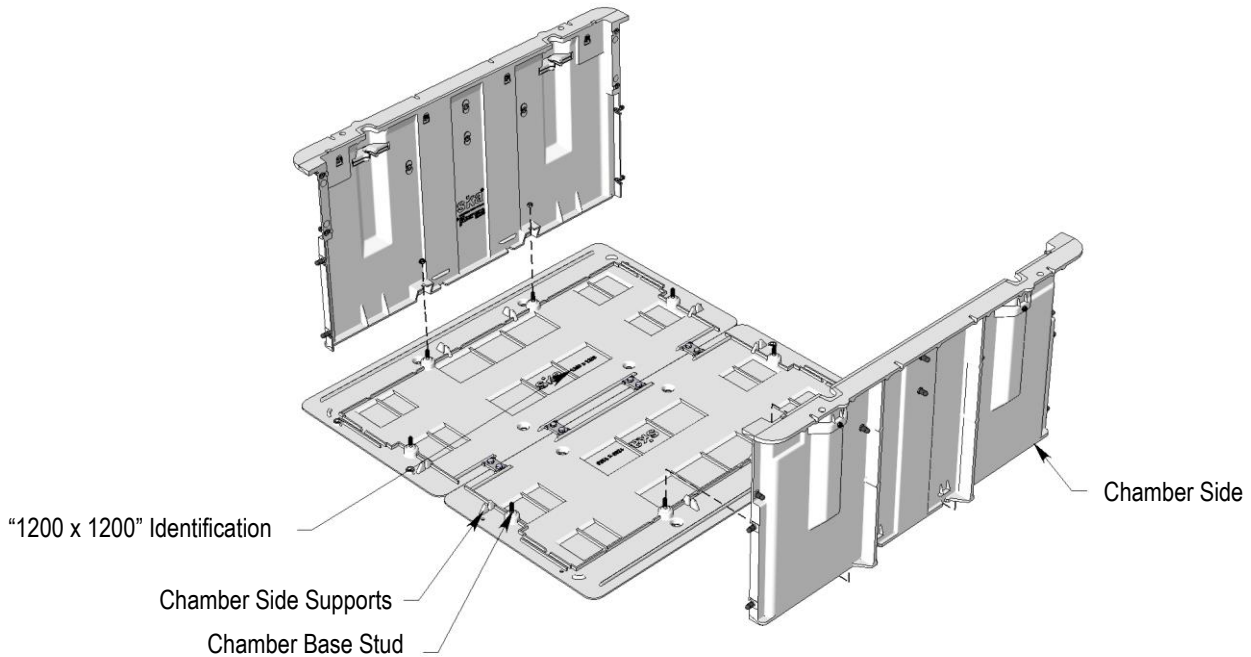


Fig 3

4. Remove the plastic tubes protecting the 4 – M10 studs protruding from the **chamber base** and place the two **chamber ends 1200** into place.

Insert the two **chamber ends** into the appropriately marked positions on the **chamber base** and secure them to the **chamber base** and **chamber sides** with the 12 – M10 x 30 bolts and washers. *(Now tighten all the aforementioned fixings.)*

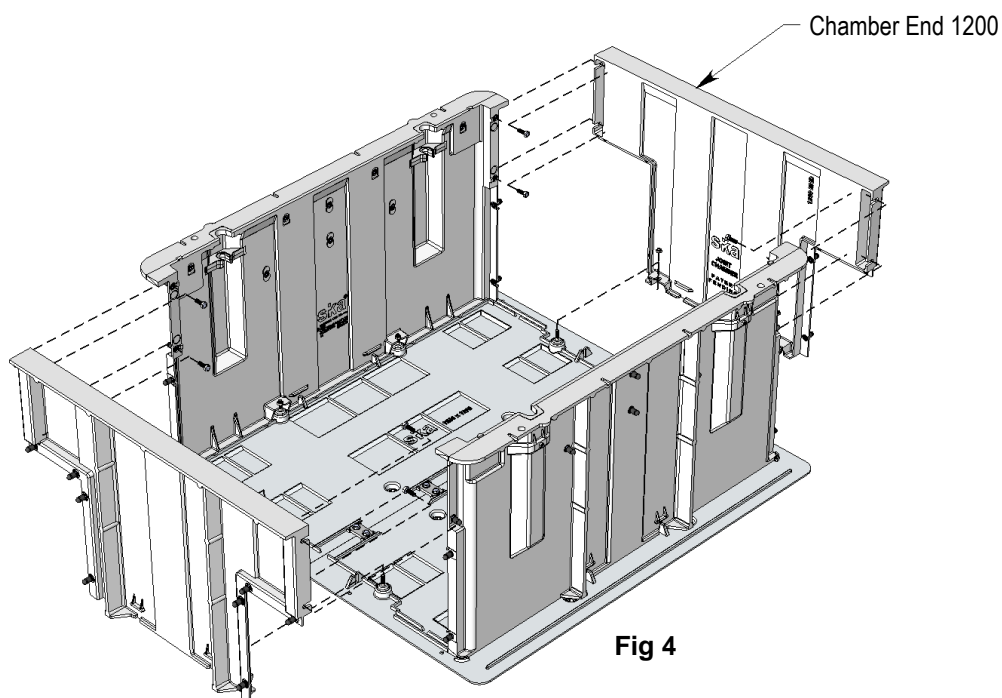


Fig 4

5. Apply the four polypropylene **duct entry panels** to each end recess and secure each one with 6 - M10 x 30 bolts and washers supplied.

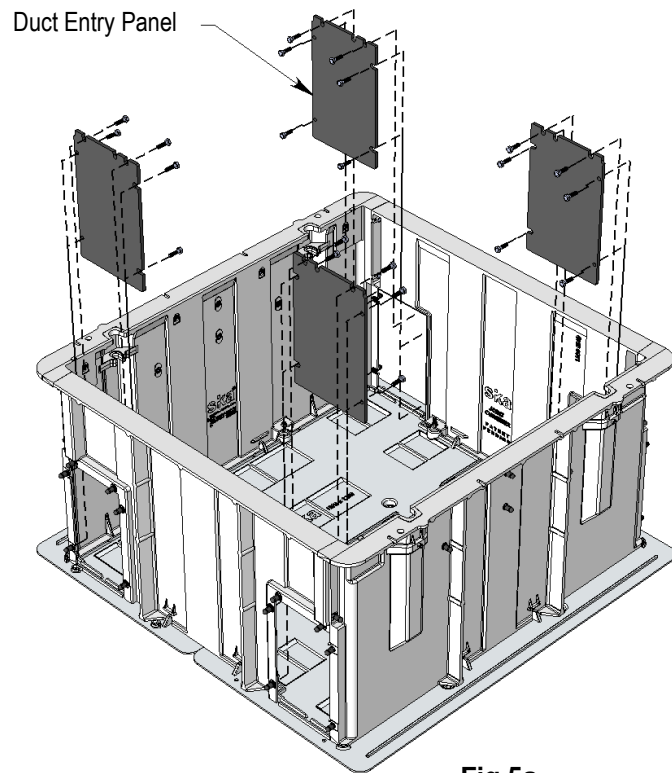


Fig 5a

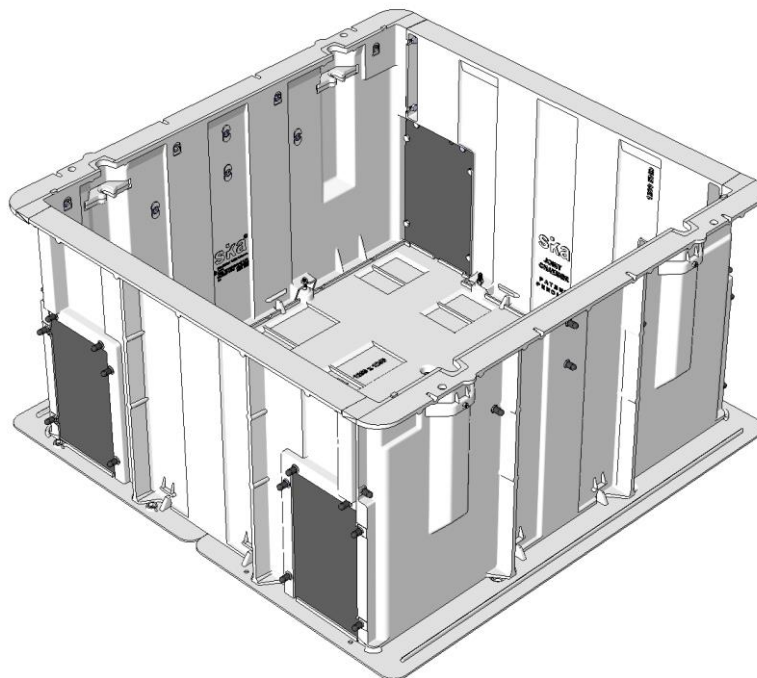
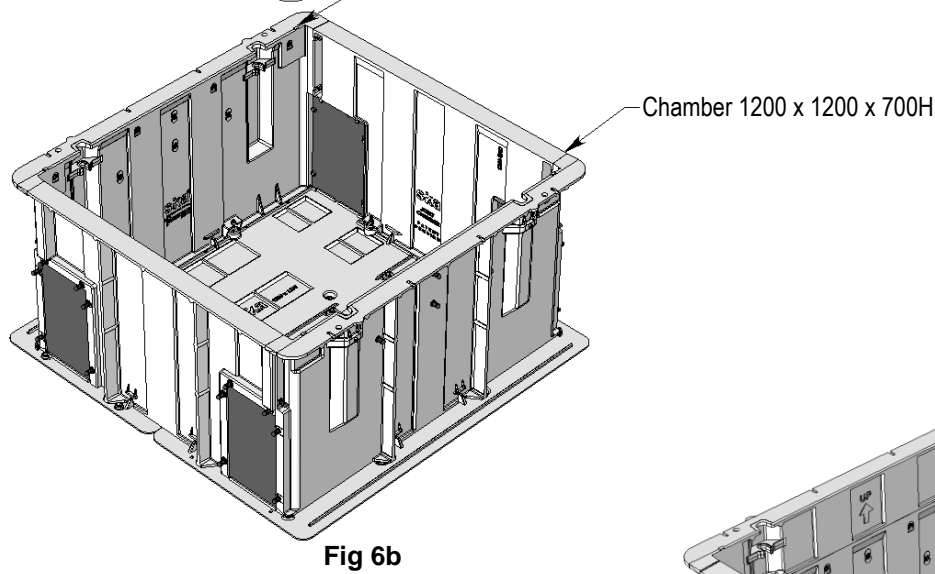
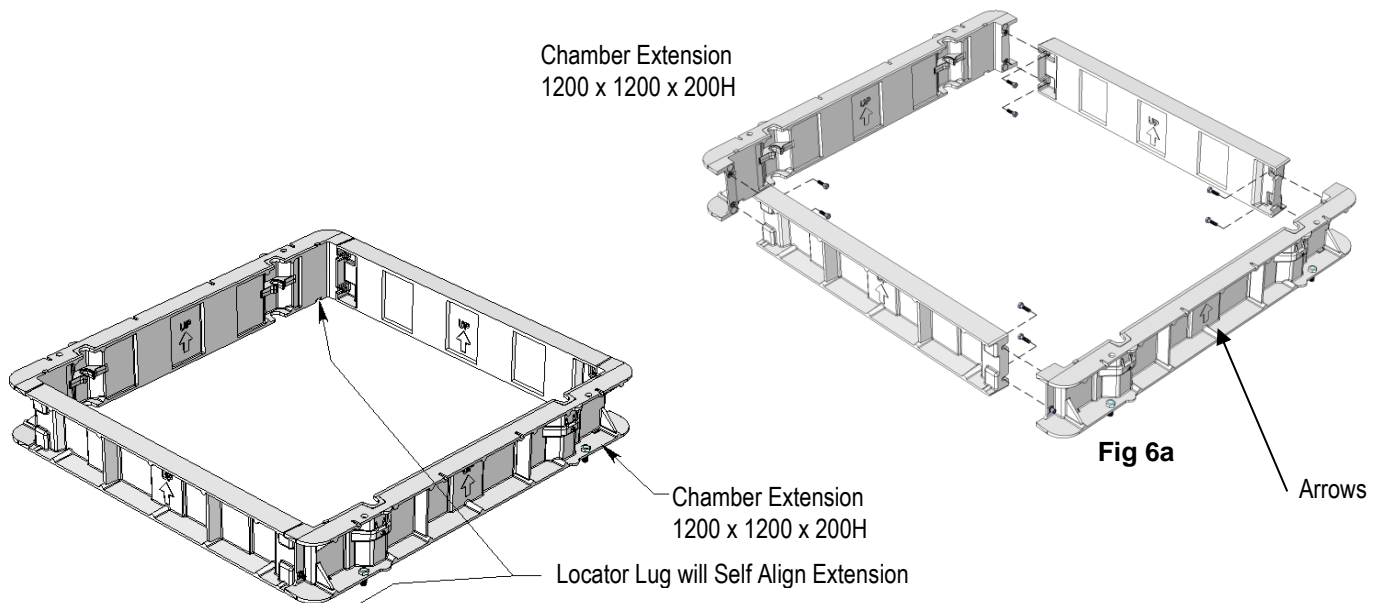


Fig 5b

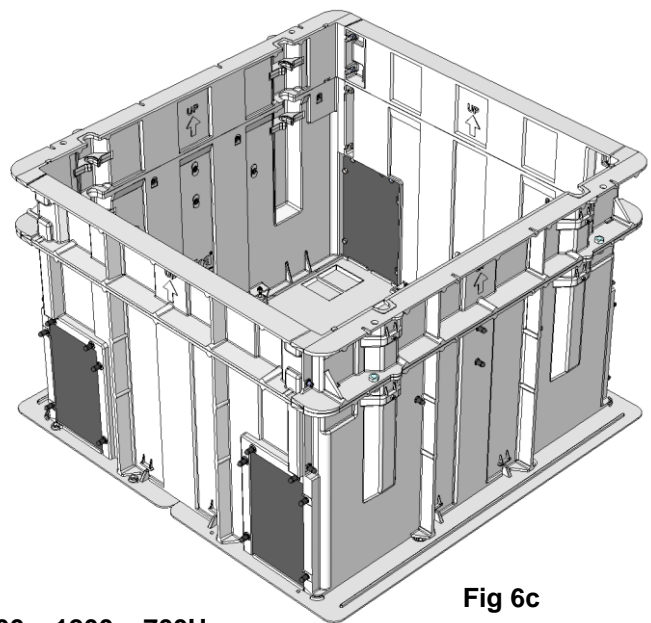
Chamber 1200 x 1200 x 700H

Chamber Extension 200mm

6. Assemble **chamber extension** as per Fig 6a using 8 – M10 x 30 bolts and washers supplied. Place on top of chamber flange. See arrows for right way up.



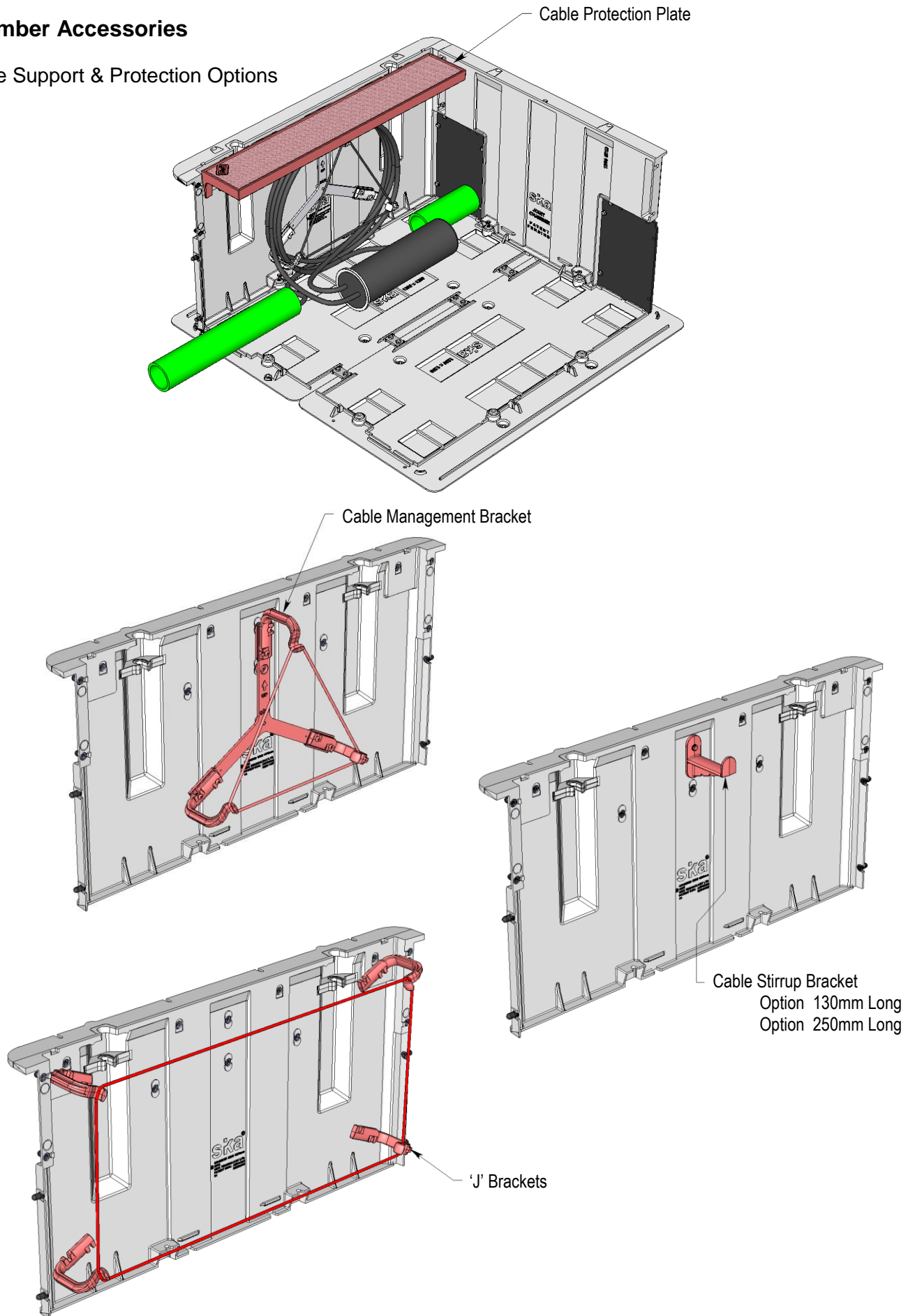
Bolt assembled **chamber extension** to the chamber with the 8 – M16x40 bolts, nuts and spring washers supplied.



**Chamber 1200 x 1200 x 700H
& Extension 1200 x 1200 x 200H**

Chamber Accessories

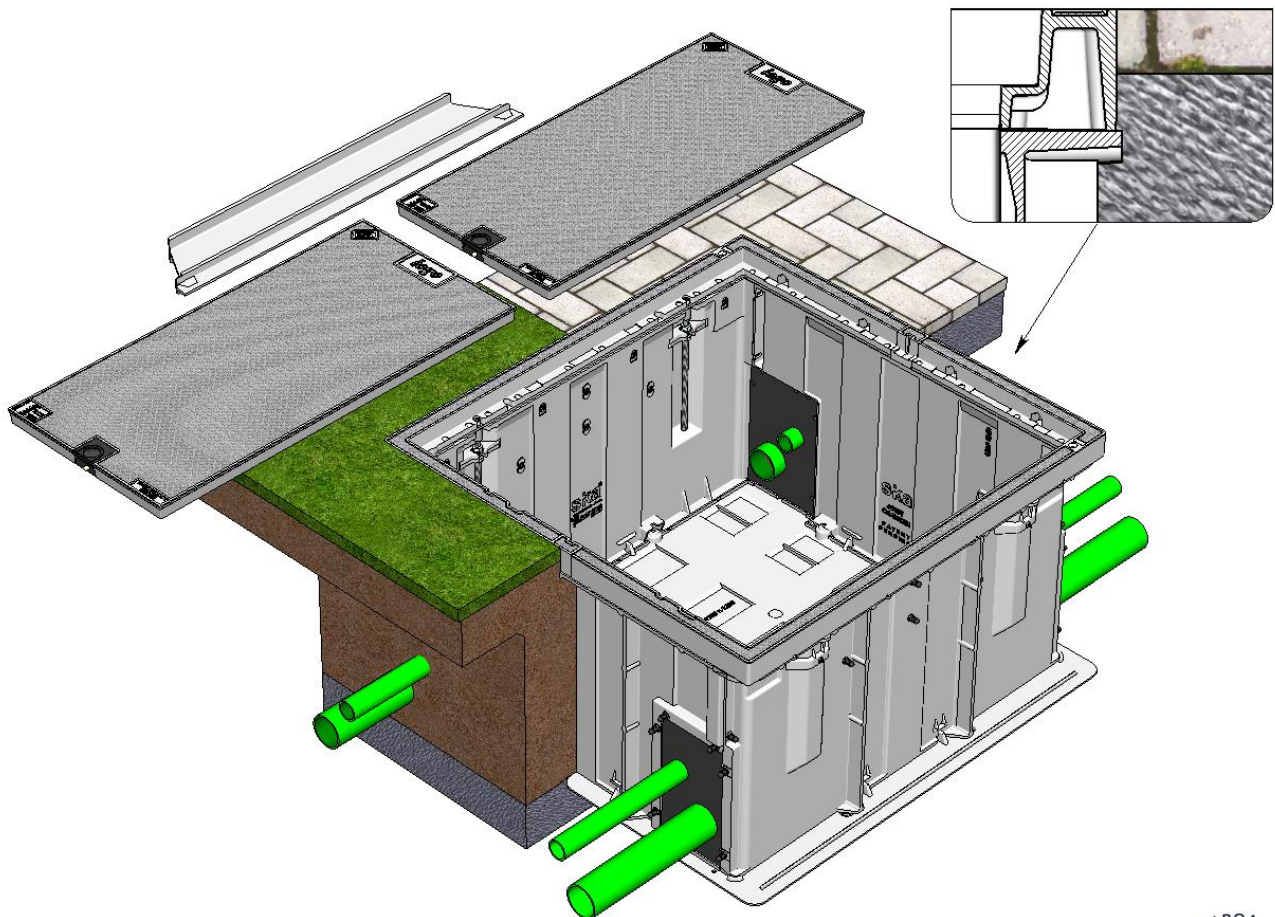
Cable Support & Protection Options



Aluminium Jointing Chamber & Access Cover Set

GUIDELINES FOR PATHWAY INSTALLATION

COVER SET RATING: CLASS B - 80 kN - AS3996:2006

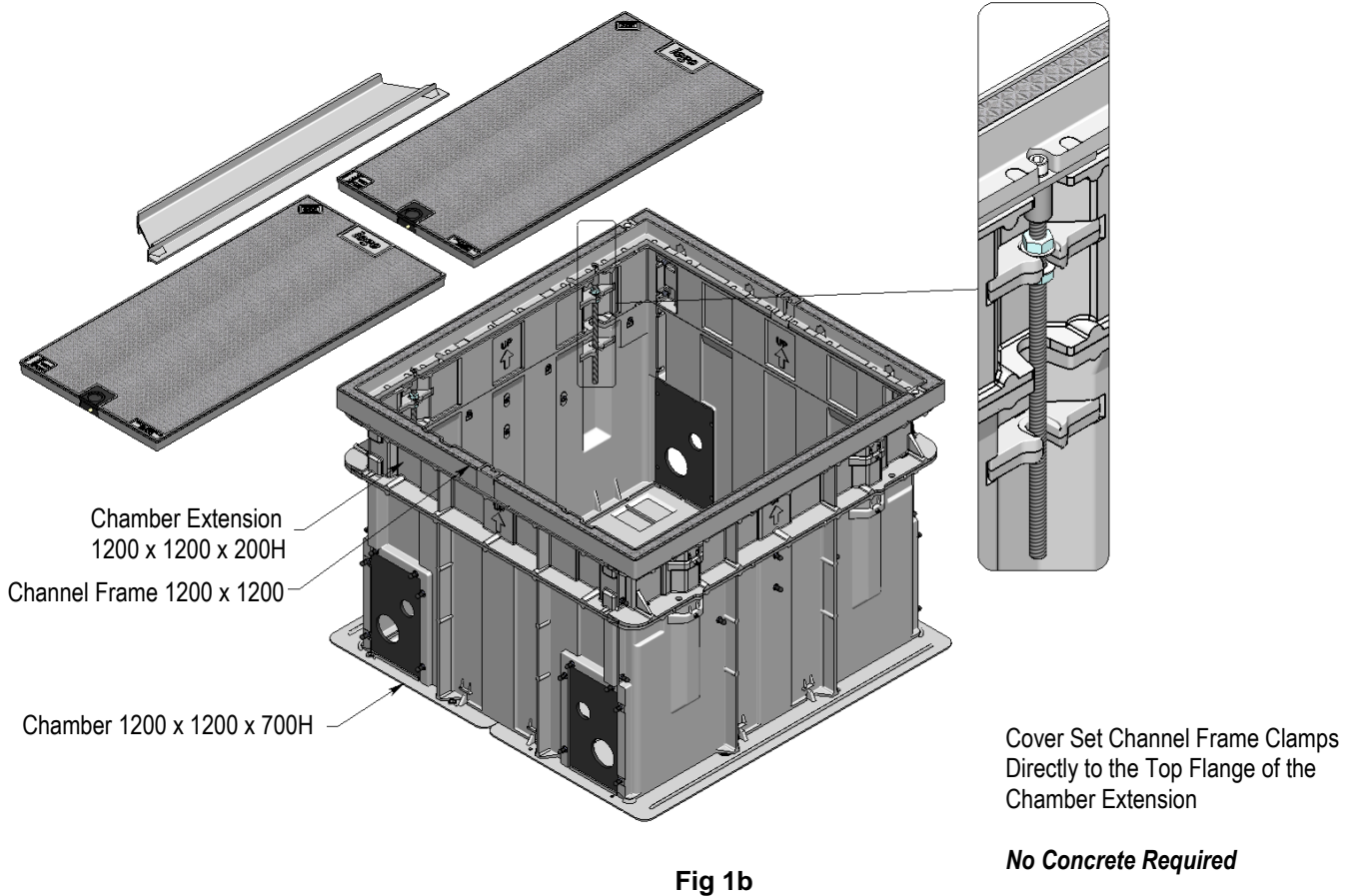
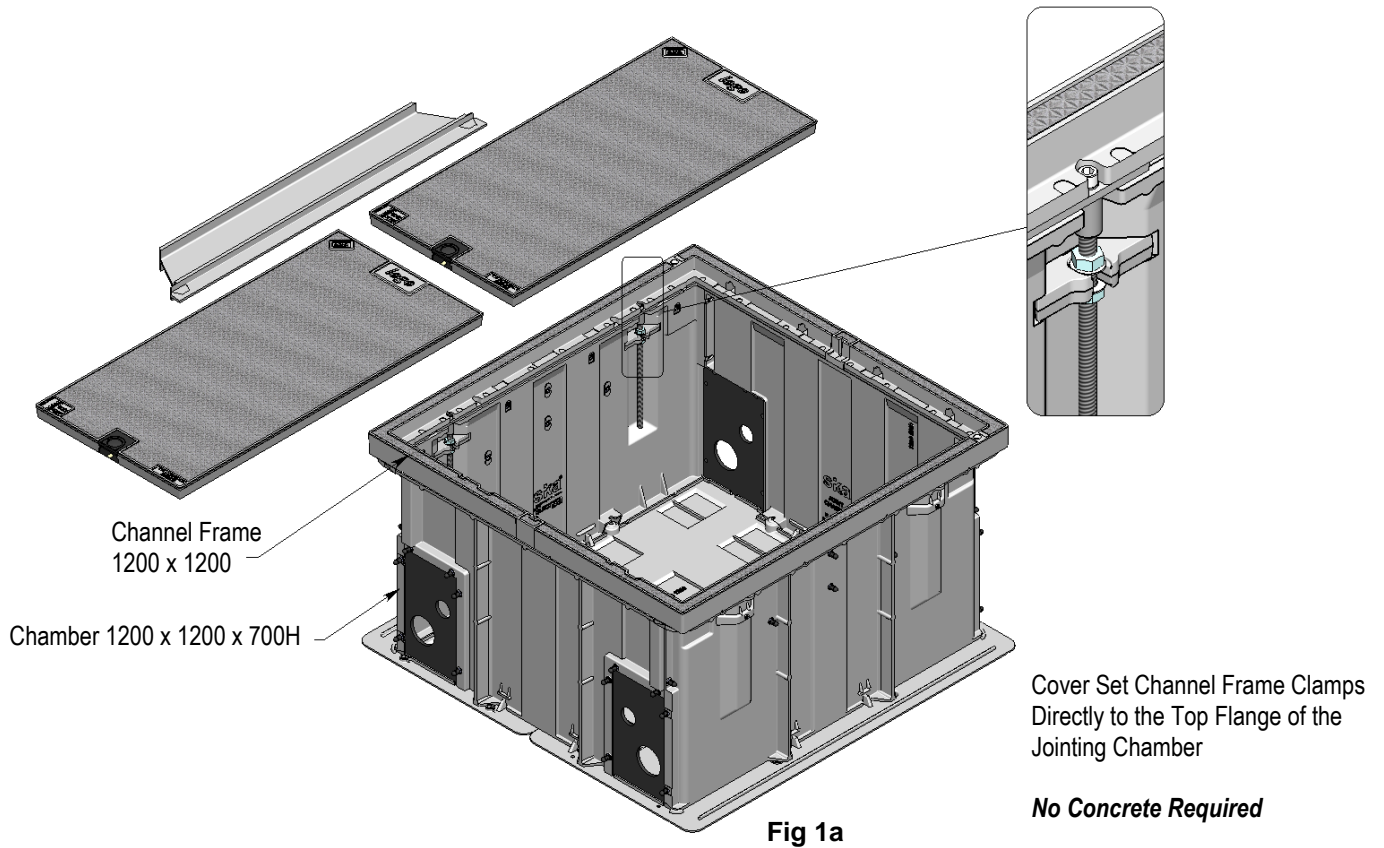


Chamber & Cover Set 1200 x 1200 x 700H



Pathway Class B 80kN Cover Set Frame Attachment

1. Clamp cover set channel frame down using 4 – M16 adjustable raiser rods supplied.



Pathway Typical Installation - *No concrete collar required*

2. Sika Pathway Cover Sets can be **clamped directly onto either the top flange of the chamber or extension.**

Compacted bedding of nominal depth **200mm** is to be Sand, Blue Chip, etc

Place the assembled **chamber and cover set channel frame**, including the **support beam**, into the prepared pit, or assemble all of the above in the pit, particularly if over existing duct work. Make level on compacted bedding to accommodate the chamber base at the required height so that the **cover set matches the finished ground level.** Ref Fig 2c

Backfill chambers with mechanically compacted layers of evacuated material if the material is of a suitable type. The compaction shall be of a standard equivalent or more than that of the surrounding ground. **If the evacuated earth is unsuitable imported hard fill shall be utilised.** Ref Fig 2c

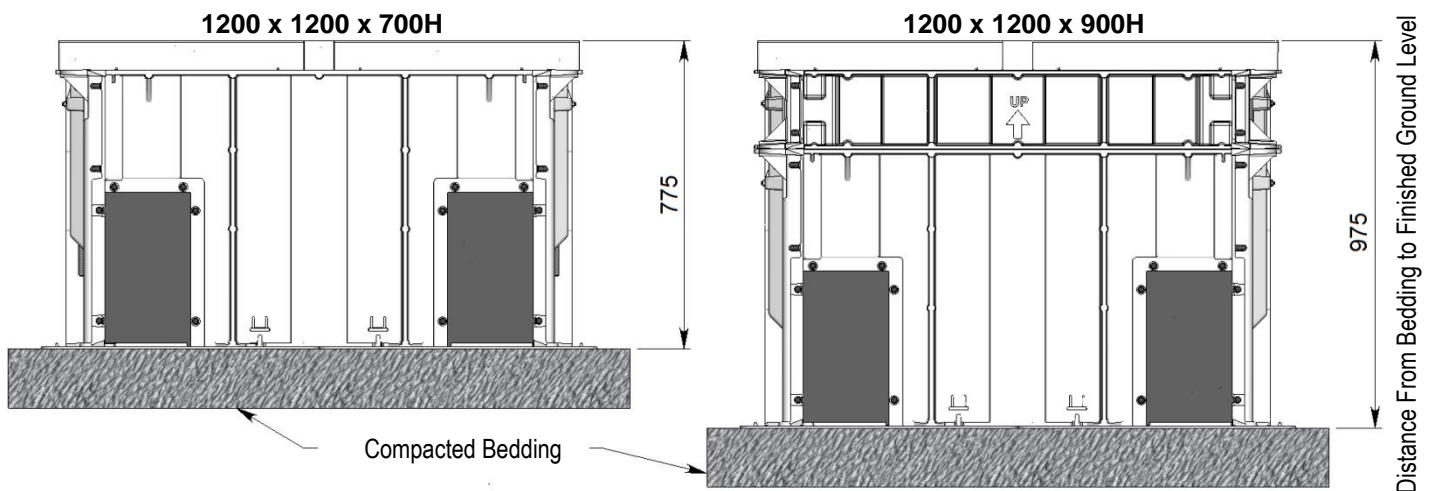


Fig 2a

Fig 2b

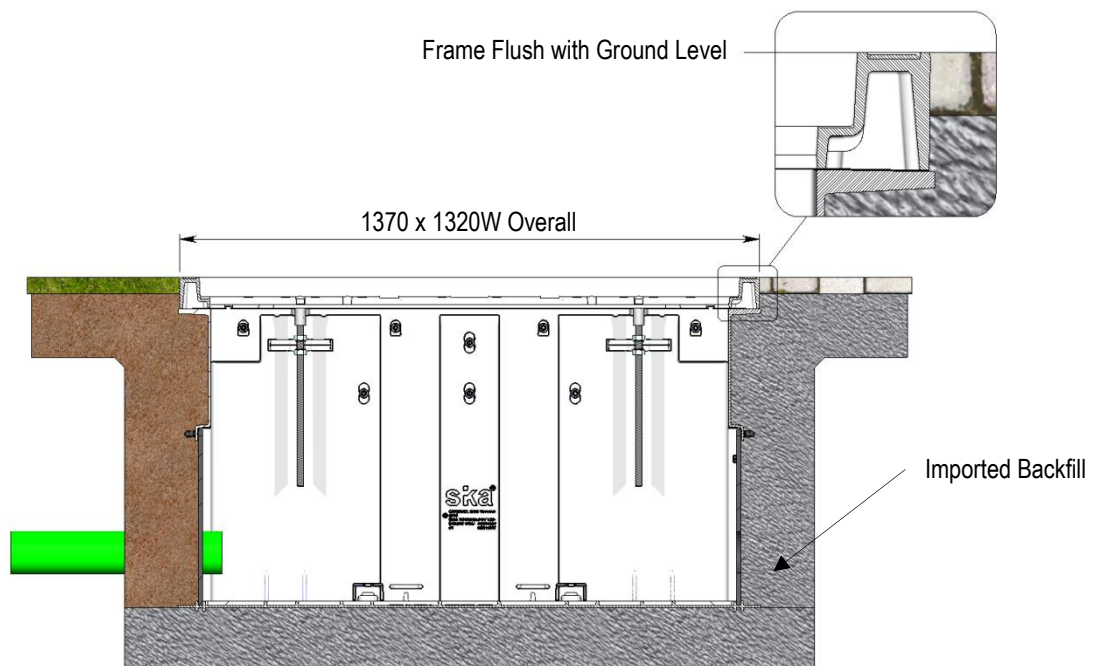


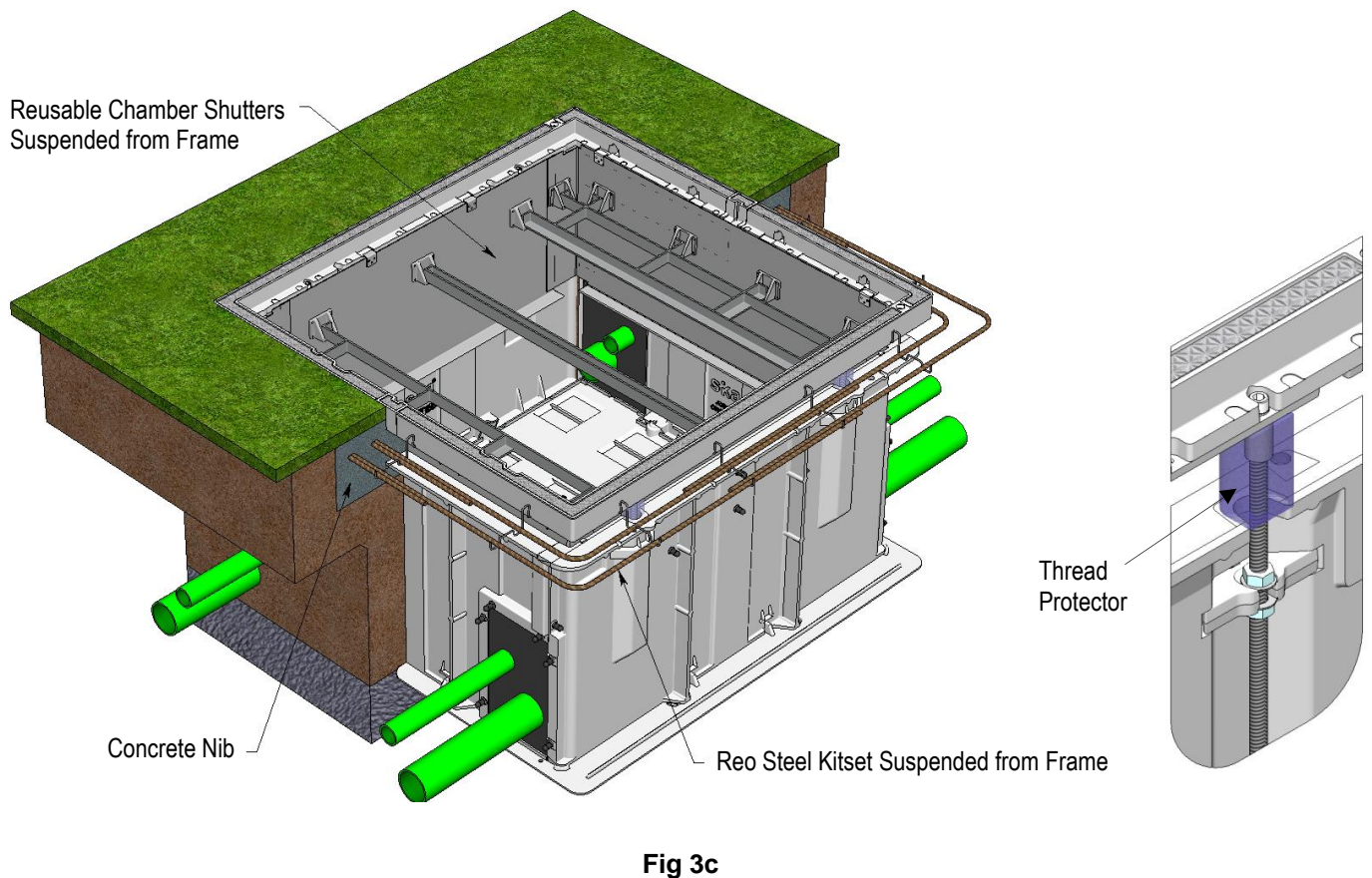
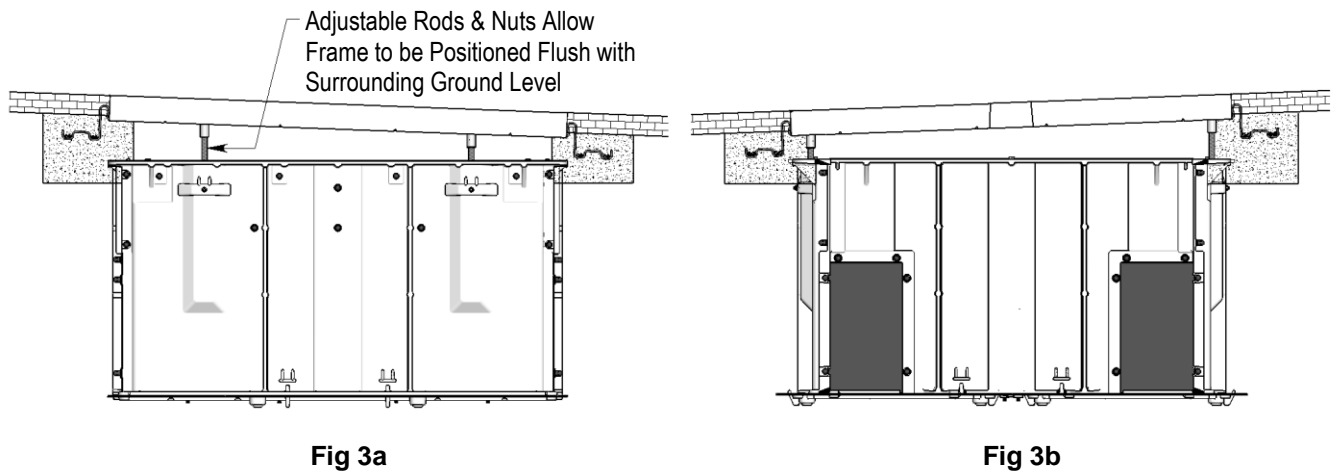
Fig 2c

Pathway Concrete Installation - *Concrete collar is required*

3. Sika Pathway Cover Sets can be **positioned at a required height and ground slope** where difficult ground slope conditions exist.

In this case adjust the 4- M16 S/S rods and nuts provided to locate frame in place, then use Sika **reusable chamber shutters** between the suspended access cover set frame and the chamber top flange to facilitate pouring the concrete support nib. Also available from Sika is a complete **reinforcing steel kitset** and **thread protector**. *Refer Individual Instructions*

The cover can be locked down on top of the concrete shutters to provide chamber security until the concreting detail has been completed.



NOTE: A concrete collar must be poured if the cover set frame is raised more than 30 mm away from the support offered by the chamber top flange (refer "Frame Support Gap" notes on page 13 for details). The threaded raiser rods alone NOT constitute a support structure.

Pathway Concrete Installation & Backfill Details

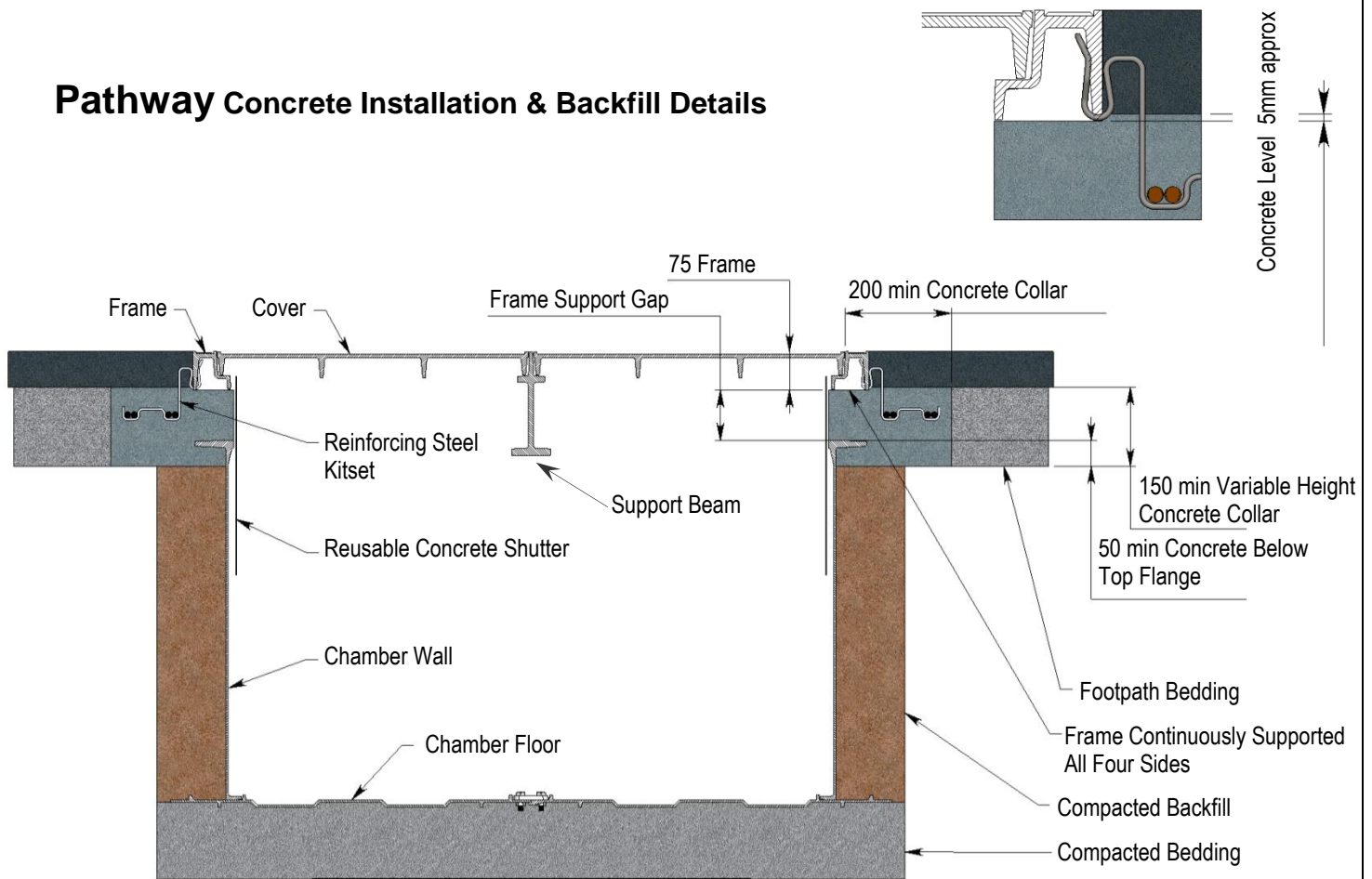


Fig 4

4. **Backfill** chambers with mechanically compacted layers of evacuated material if the material is of a suitable type. The compaction shall be of a standard equivalent or more than that of the surrounding ground. If the evacuated ground is unsuitable imported hard fill shall be utilised.

The maximum **backfill** level for jointing chambers will be **50mm below the chamber top flange**. This means the concrete support collar will always envelop the chamber flange. See Fig 4.

The cover set cannot comply with the 80kN loading required by AS:3996 Standards without the correct Continuous Frame Support as follows:

Frame Support Gap >30mm Use minimum concrete strength 25 MPa at 28 Days complete with Reinforcing Steel Kitset. The minimum support collar is 200 x 150mm.

Frame Support Gap <30mm Use High Strength Grout directly supported by the top flange of the chamber or the extension. No concrete collar required.

The distribution of concrete / grout under the load bearing face of the aluminium frame must be complete (**no voids**). Use a portable concrete vibrator.

Fit the covers into the frame and lock them into place **before pouring the concrete collar** to avoid any possible *frame distortion during the curing cycle*.

Remove all debris from the frame seating area before installing each cover and the support beam.

Replace dust covers.

Ducting

5. Mark and cut the polypropylene duct entry panel to suit duct work. Cut the duct entry holes through the polypropylene panels using a jig saw or hole saw approximately 5mm larger than the duct. Seal the duct to the polypropylene panels using Wurth MS1 epoxy mortar- Ref Fig 5a (*refer Price List for Epoxy Mortar*).

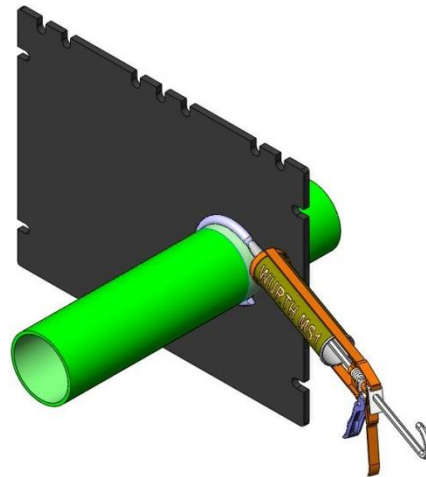


Fig 5a

If a chamber has been assembled over the existing ducts mark the position of the duct entry hole on the polypropylene panel and cut it out, using a jig saw and split the poly panel horizontally through the center of the hole. Refer Fig 5b.

Reassemble the polypropylene panel around the duct using H section extrusion to help stiffen the panel against back fill pressures. H section extrusion is available from Sika (*refer Price List*)

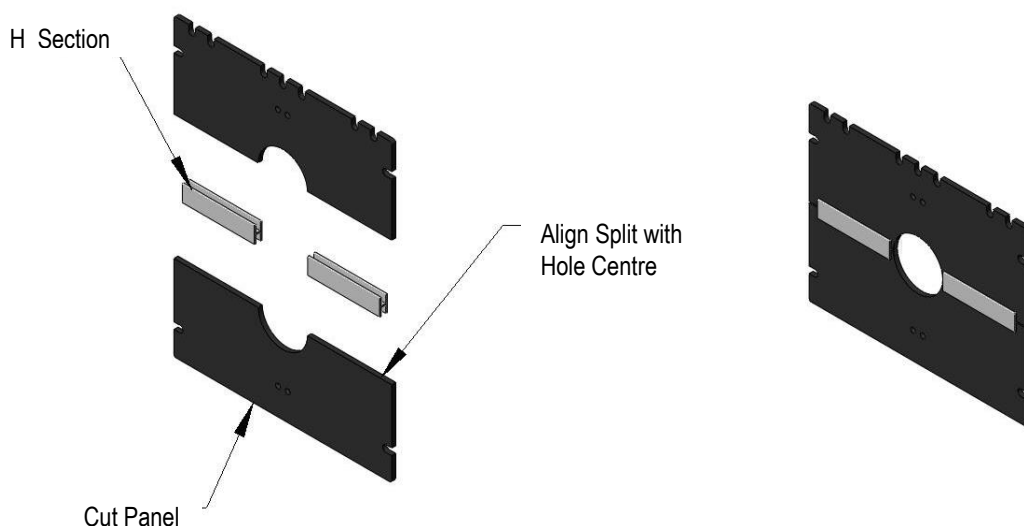


Fig 5b

Pathway Concrete Installation Accessories

Reinforcing Steel Kitset

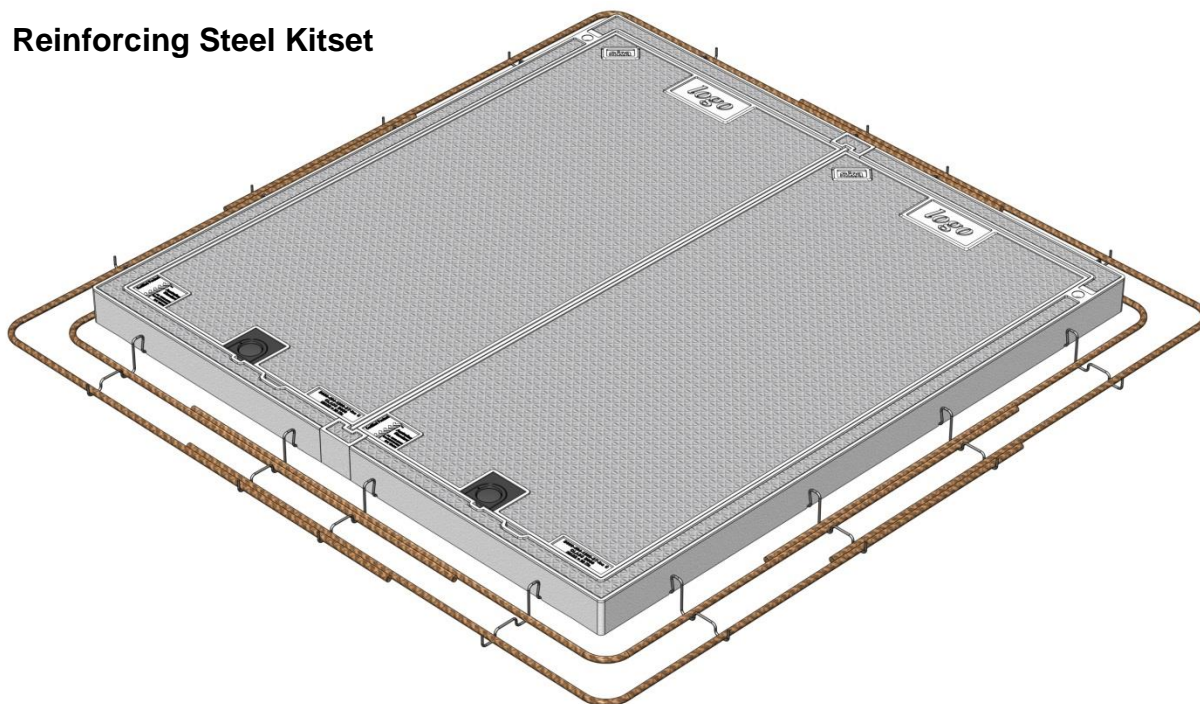


Fig 6

Thread Protector

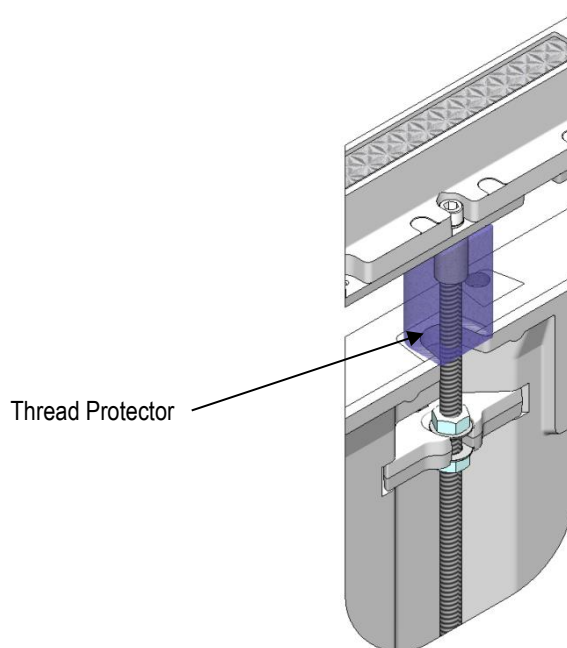


Fig 7

Fit the **thread protector** when the frame is raised and concrete is required.

The **thread protector** will both protect the thread and seal the chamber cavity to prevent any concrete entering the chamber.

The **thread protector** polyethylene foam tubing can be cut to length with a sharp knife if required.

Reusable Chamber Shutters

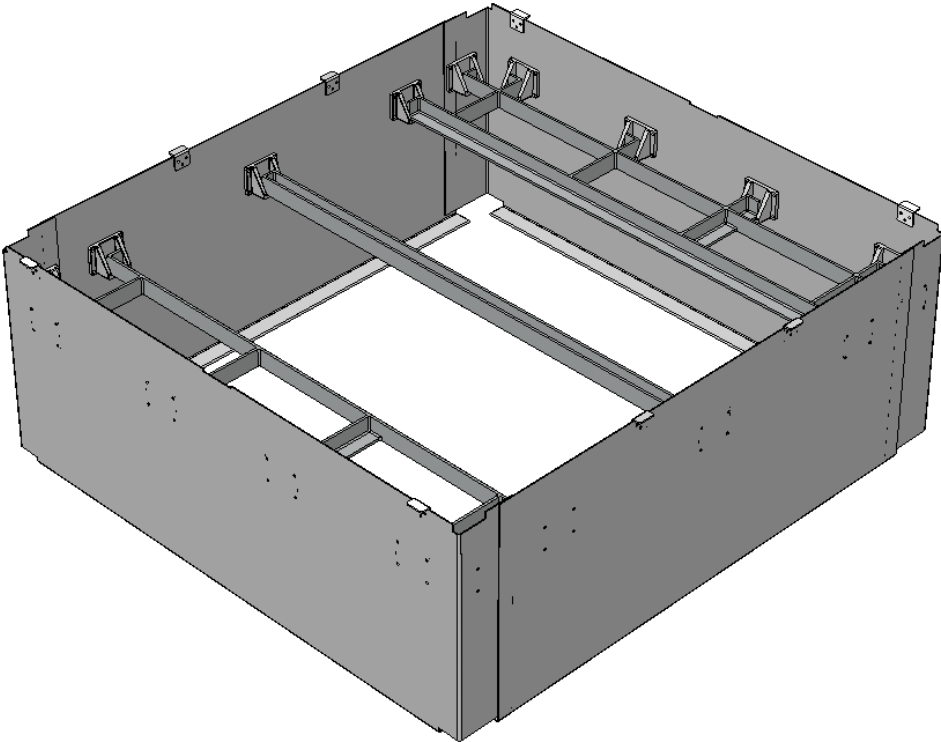


Fig 8a

Insert Side Shutters First
Then End Shutters

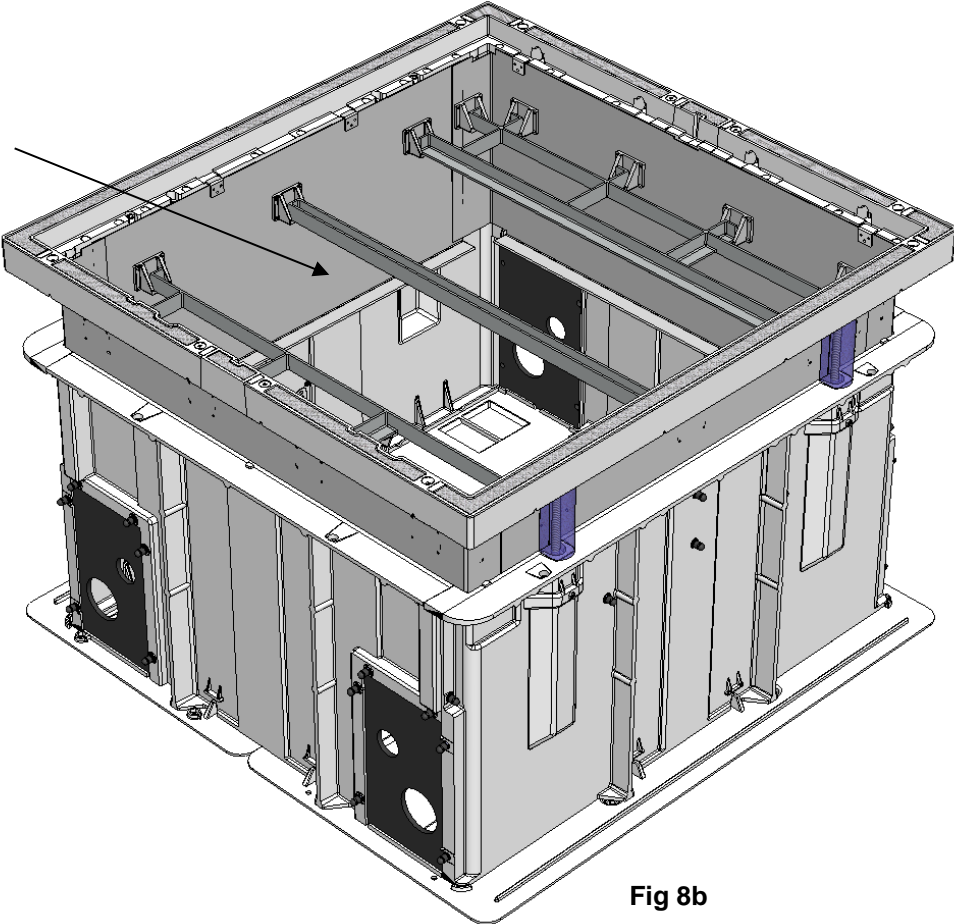


Fig 8b

Class B- Shutters Installed