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The 'Sika Solution'

Aluminium Jointing Chamber and Security Access Cover Set Package

2600 x 600 x 700H / 900H

Contents:

Assembly Basic Tool Kit

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

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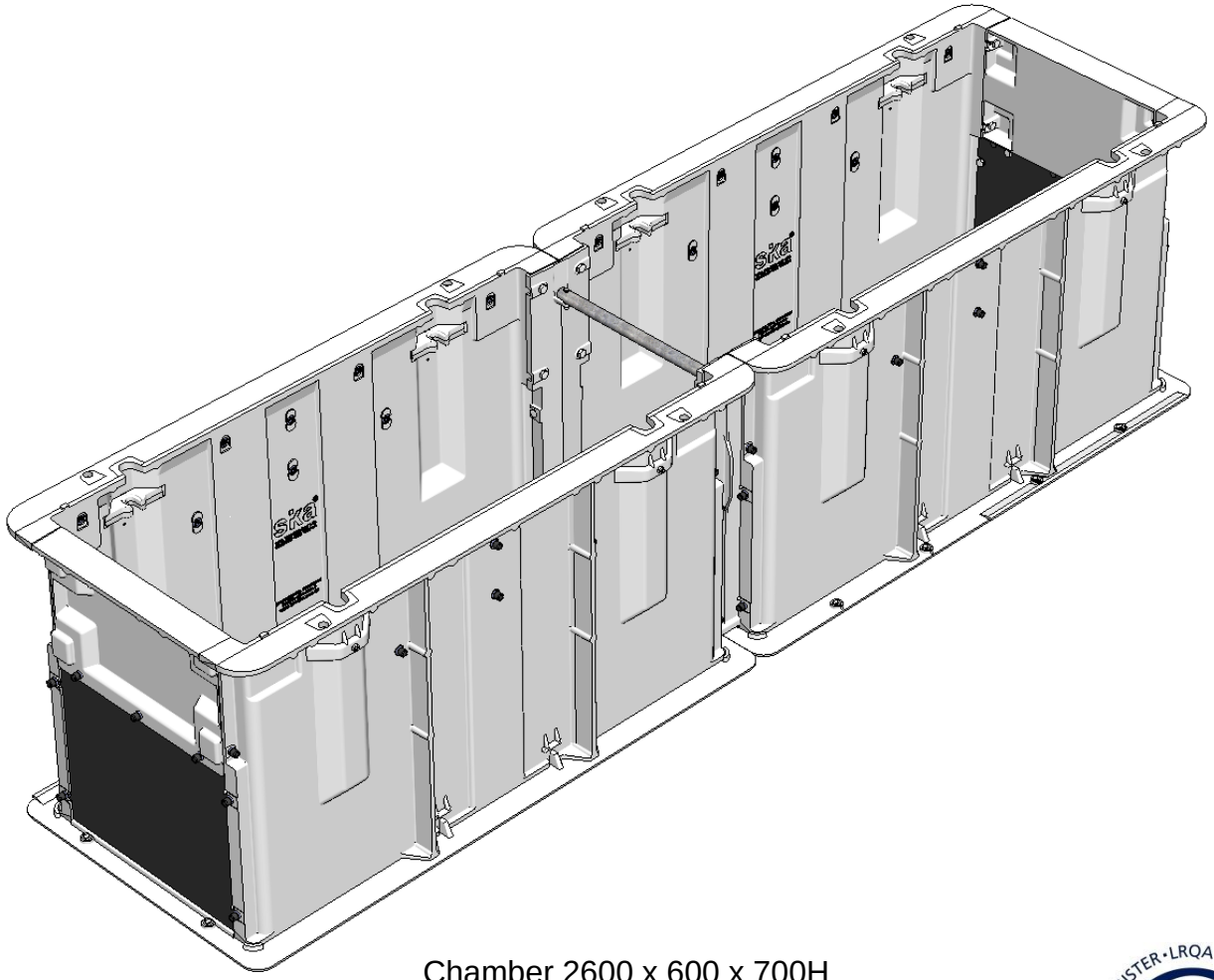
Aluminium Jointing Chamber 2600 x 600 x 700 / 900H

ASSEMBLY INSTRUCTIONS

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



Chamber 2600 x 600 x 700H

1. Place the two 1200mm **chamber bases** end to end on a flat area adjoining the pit or on a prepared bed of imported material in the excavated pit. Note the "1200 x 600" scripts and Sika logos will be face up.

   Place the **base joiner 600** where both **chamber bases** join and apply the 4 – M10 x 40 bolts and washers, and tighten.

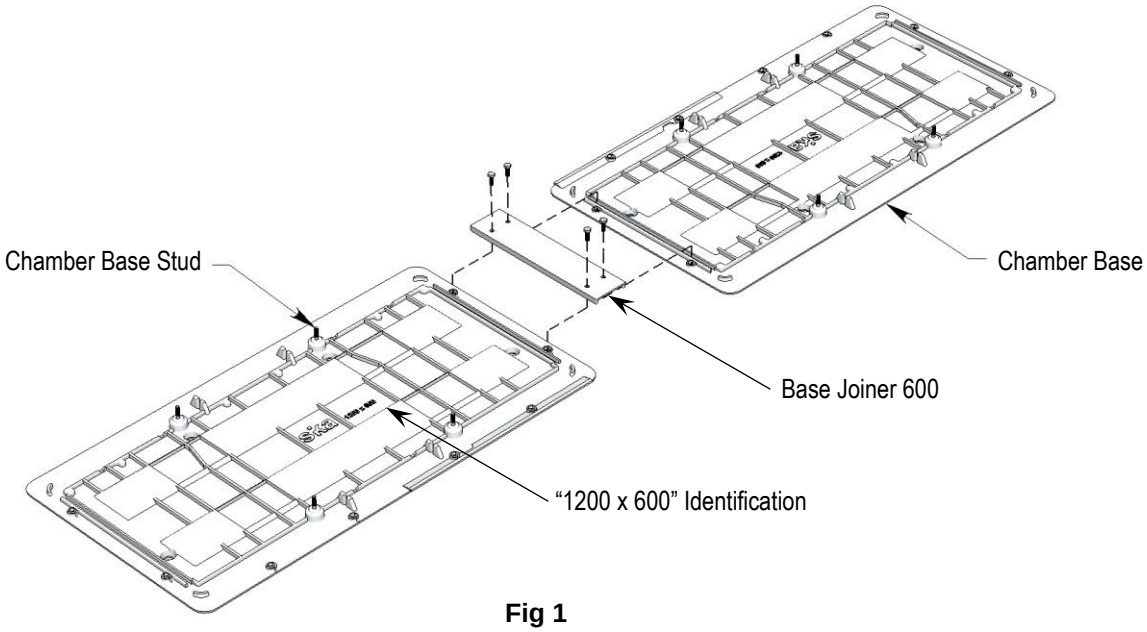


Fig 1

2. Where there is existing ducting and minimal side excavation is required use a **split base.** Ref Fig 2

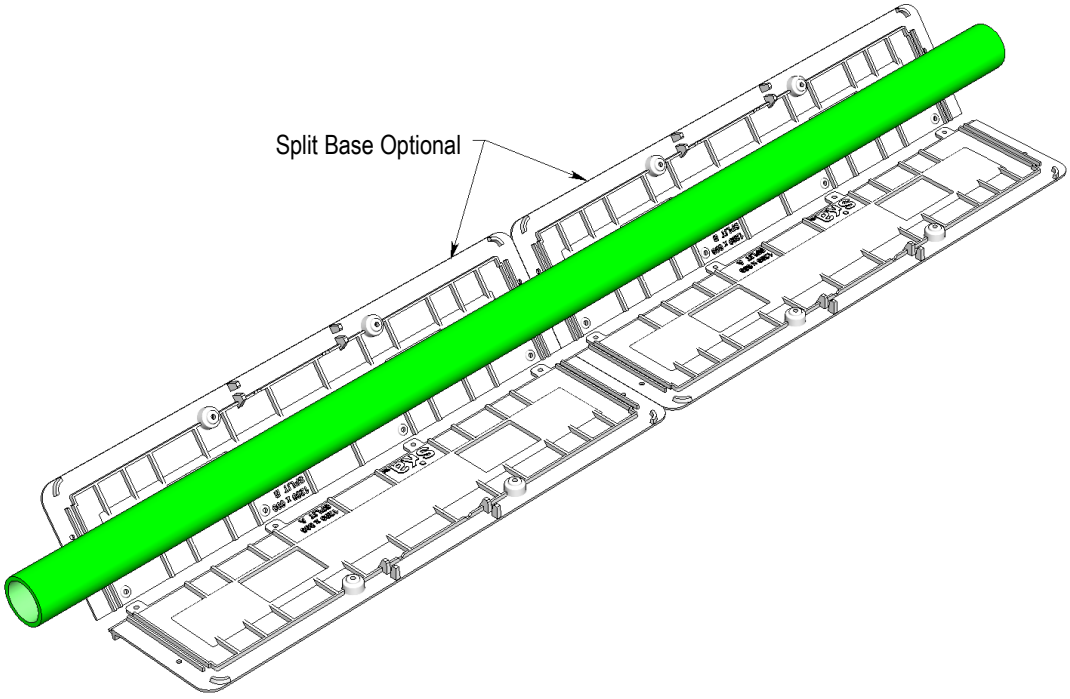


Fig 2

3. Remove the plastic tubes protecting the 8 – M10 studs protruding from the **chamber base** and place the 4 – 1200 **chamber sides** into place.

Insert the four **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 8 – M10 nuts and washers are applied to hold them down. *(Do not tighten these yet.)*

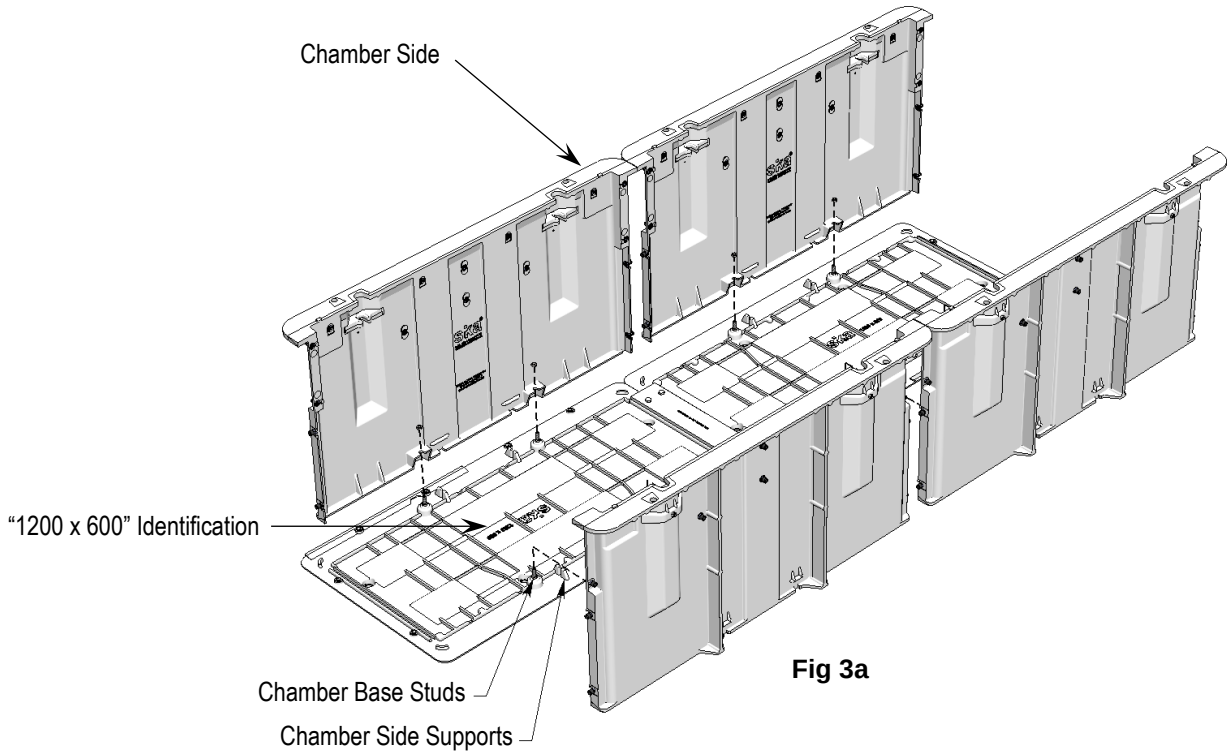


Fig 3a

Add the two **side joiners 700** adjacent to the **base joiner 600** using 16 – M10 x 30 bolts and washers.

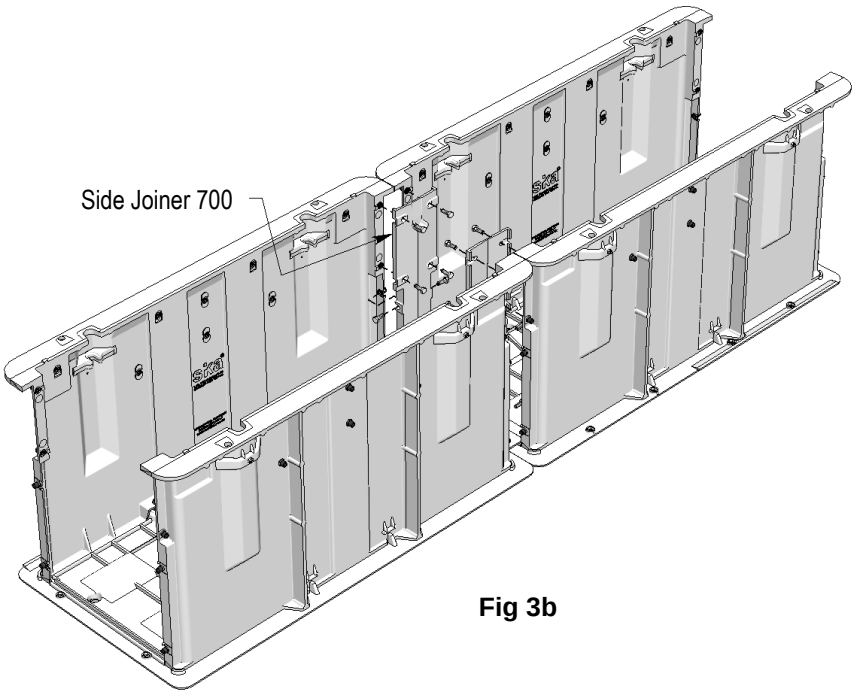


Fig 3b

4. Add the two **chamber ends 600** and secure them with the 8 – M10 x 30 bolts and washers.
(Now tighten all the aforementioned fixings)

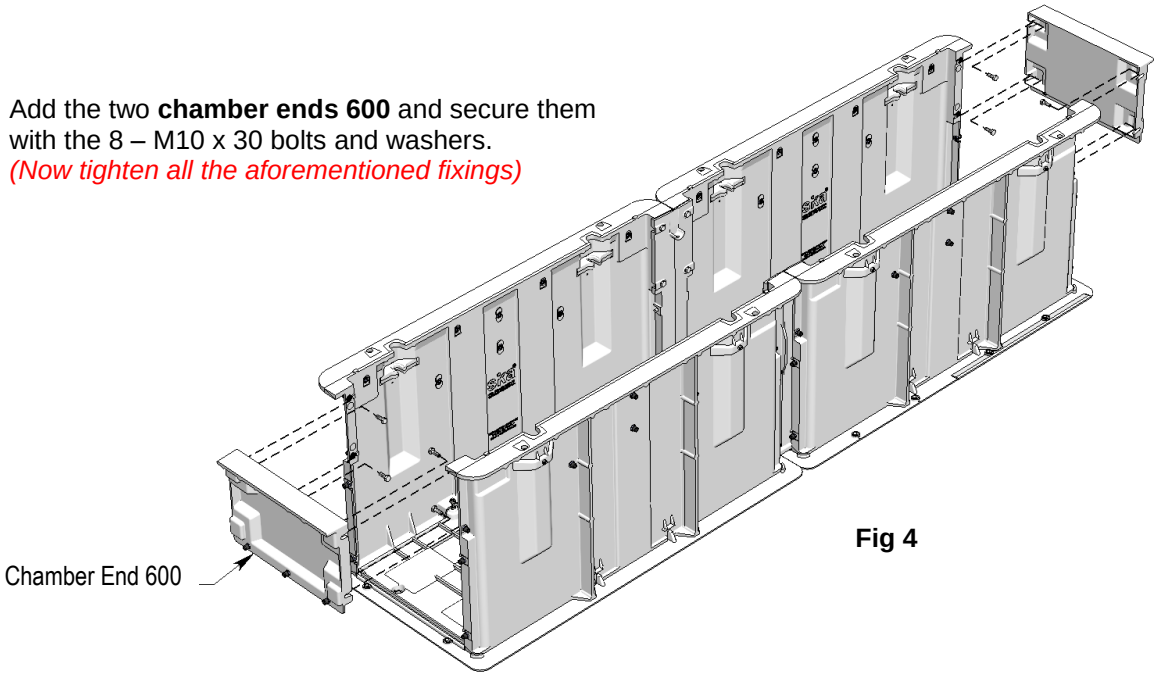


Fig 4

5. Apply the two polypropylene **duct entry panels** to each end recess and secure each one with 7 - M10 x 30 bolts and washers supplied.

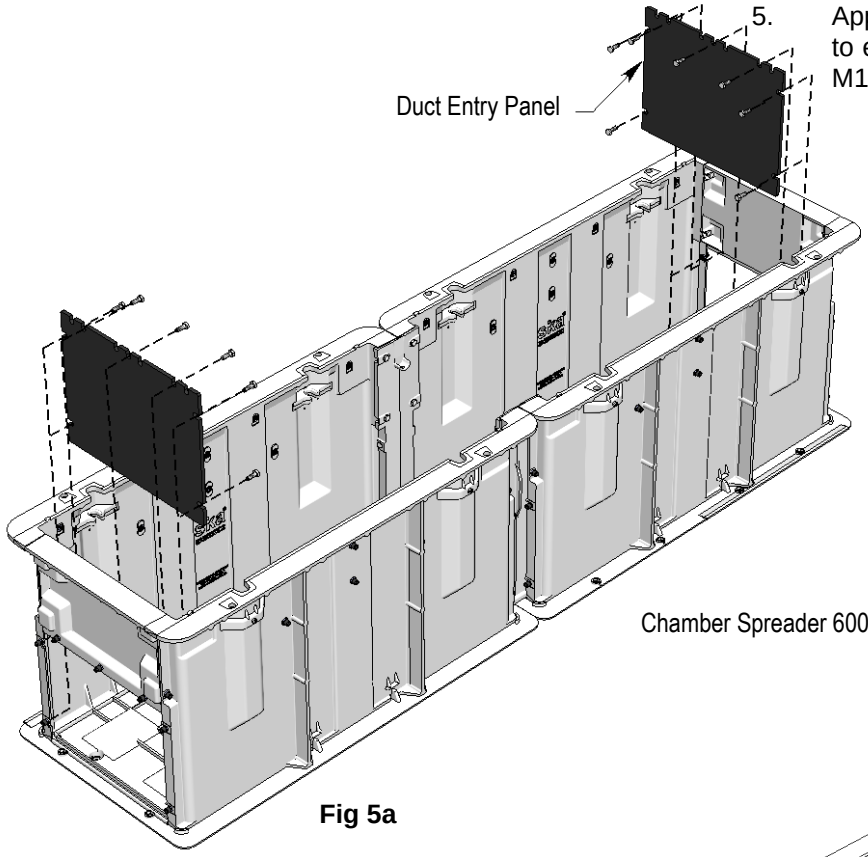


Fig 5a

Align and fit the **chamber spreader 600** in place between the two **side joiners 700**. Ref Fig 5b

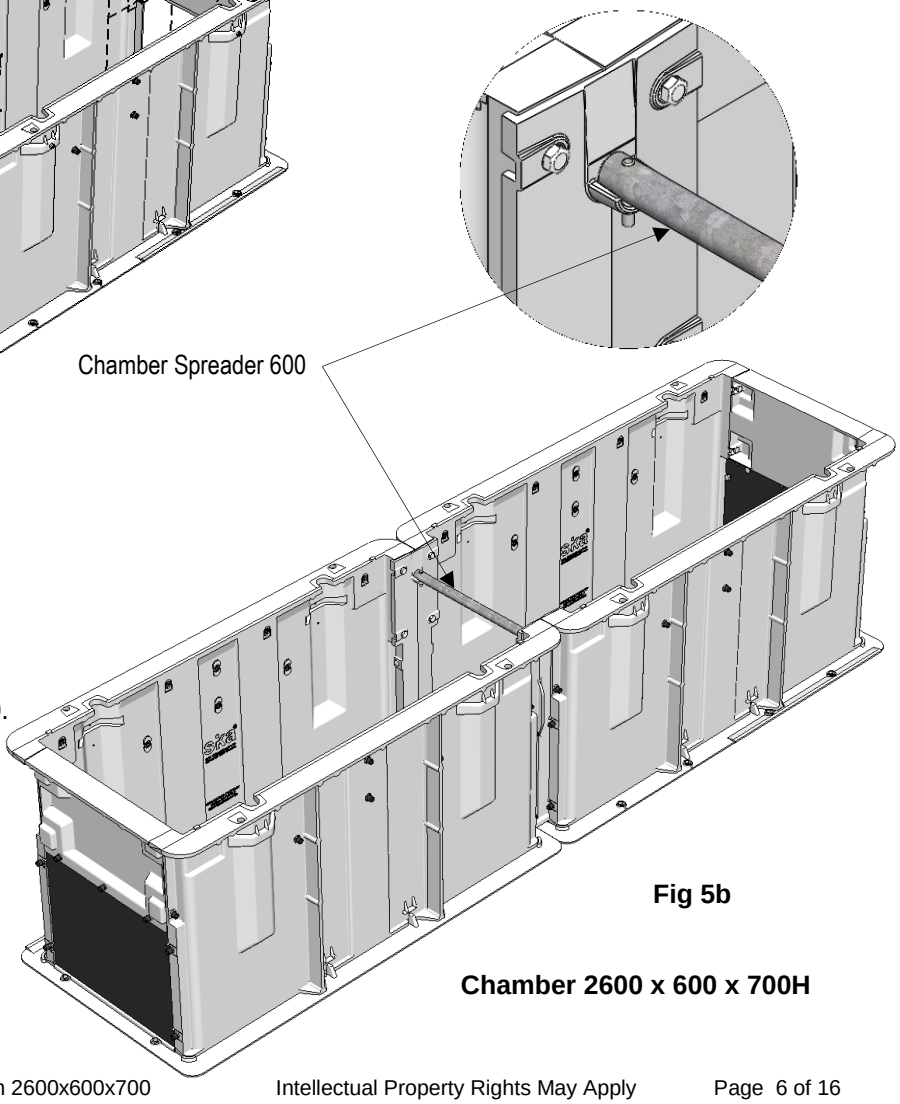


Fig 5b

Chamber 2600 x 600 x 700H

Chamber Extension 200mm

6. Assemble **chamber extension** as per Fig 6a using the **extension side joiners 200** and 16 – M10 x 30 bolts and washers supplied. Place on top of chamber flange. See arrows for right way up.

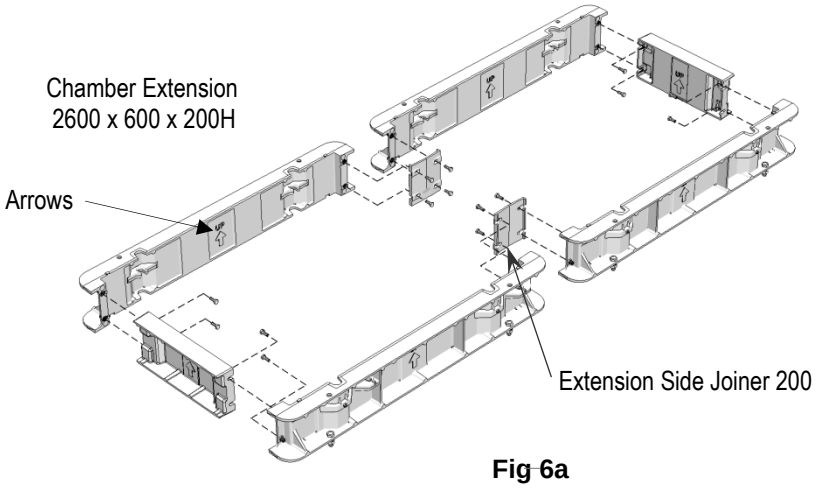


Fig 6a

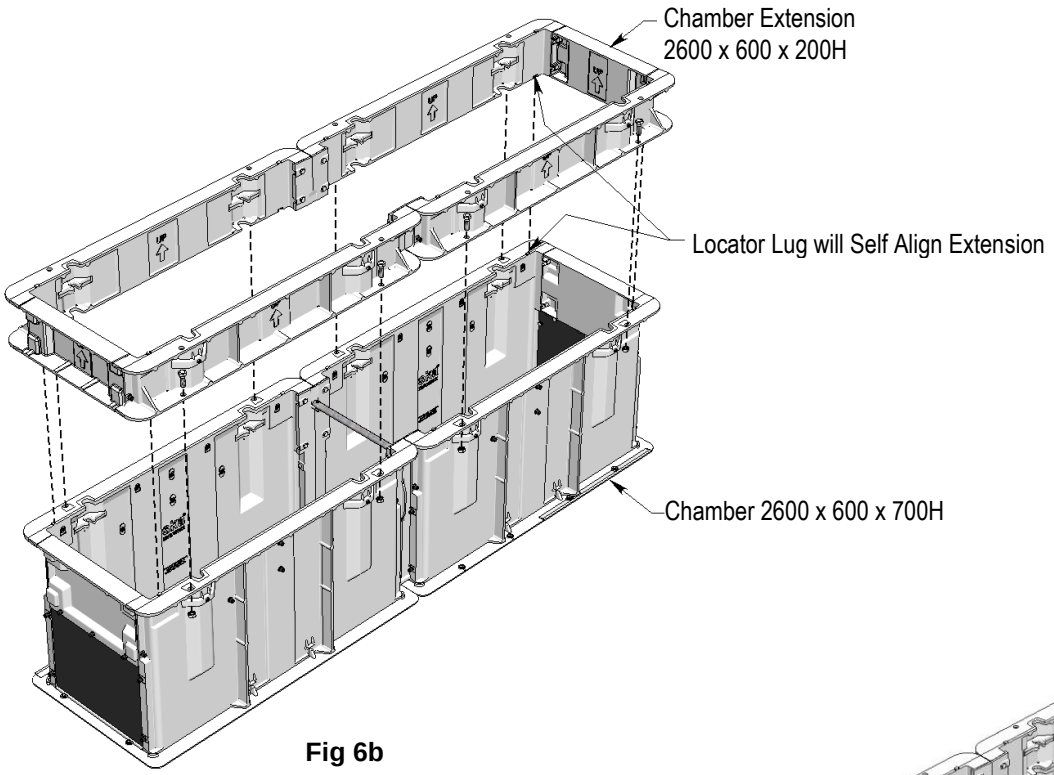
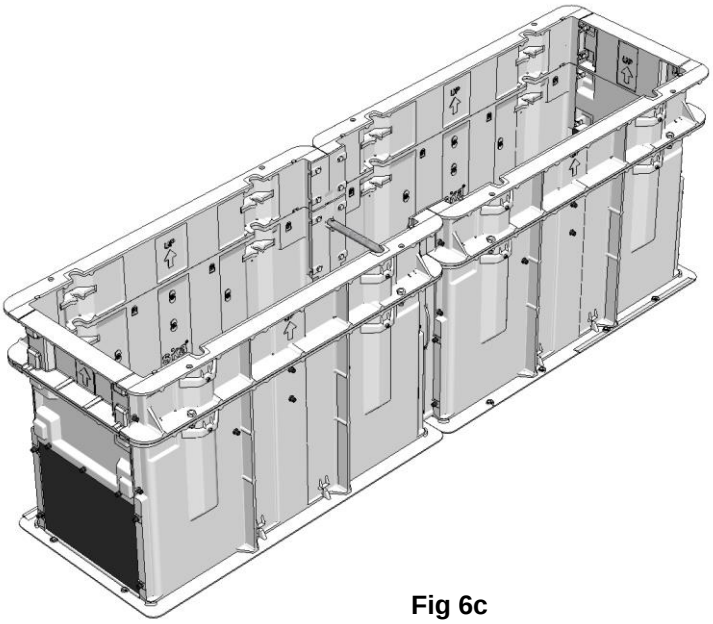


Fig 6b

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

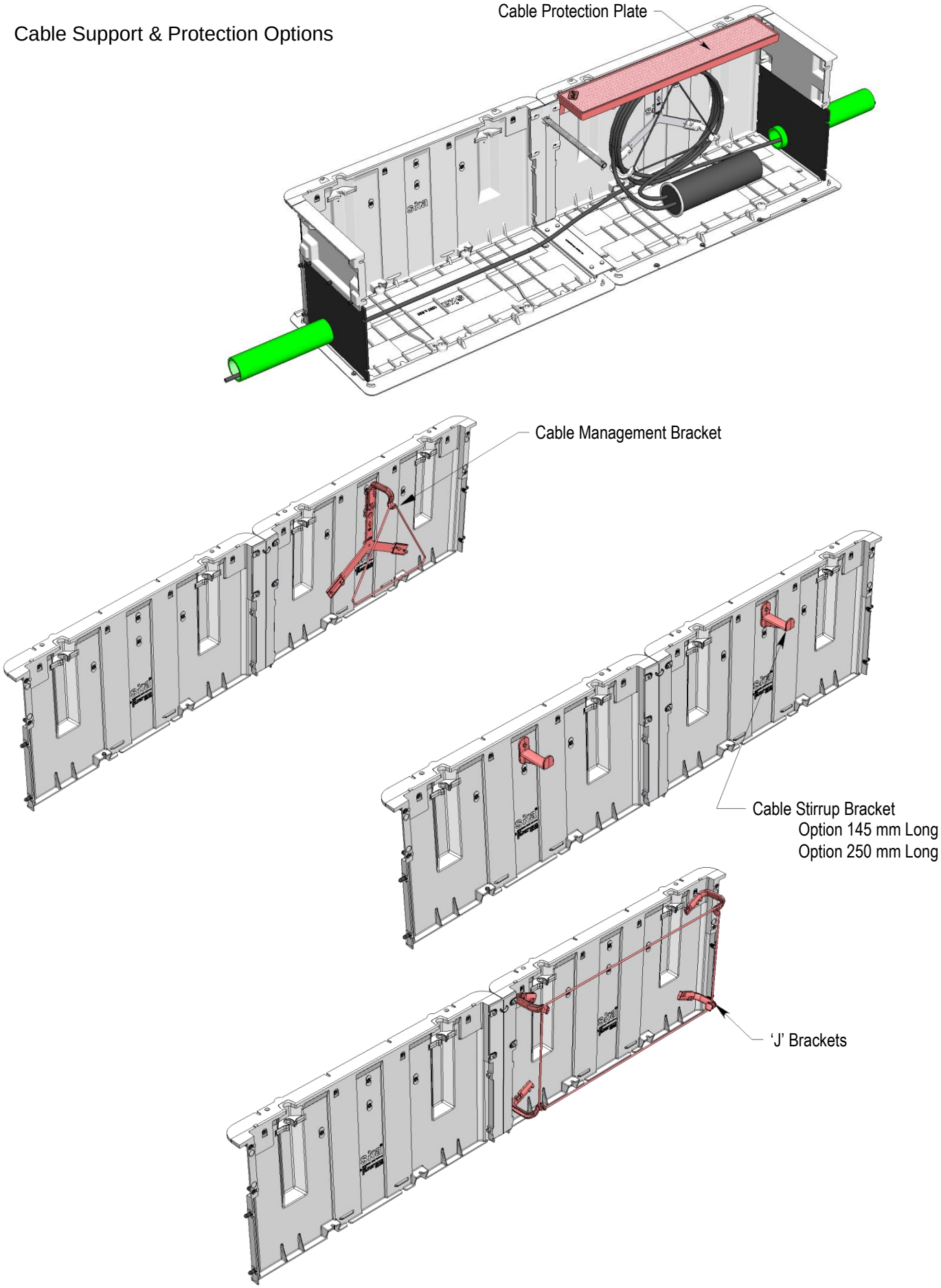


Chamber 2600 x 600 x 700H
& Extension 2600 x 600 x 200H

Fig 6c

Chamber Accessories

Cable Support & Protection Options



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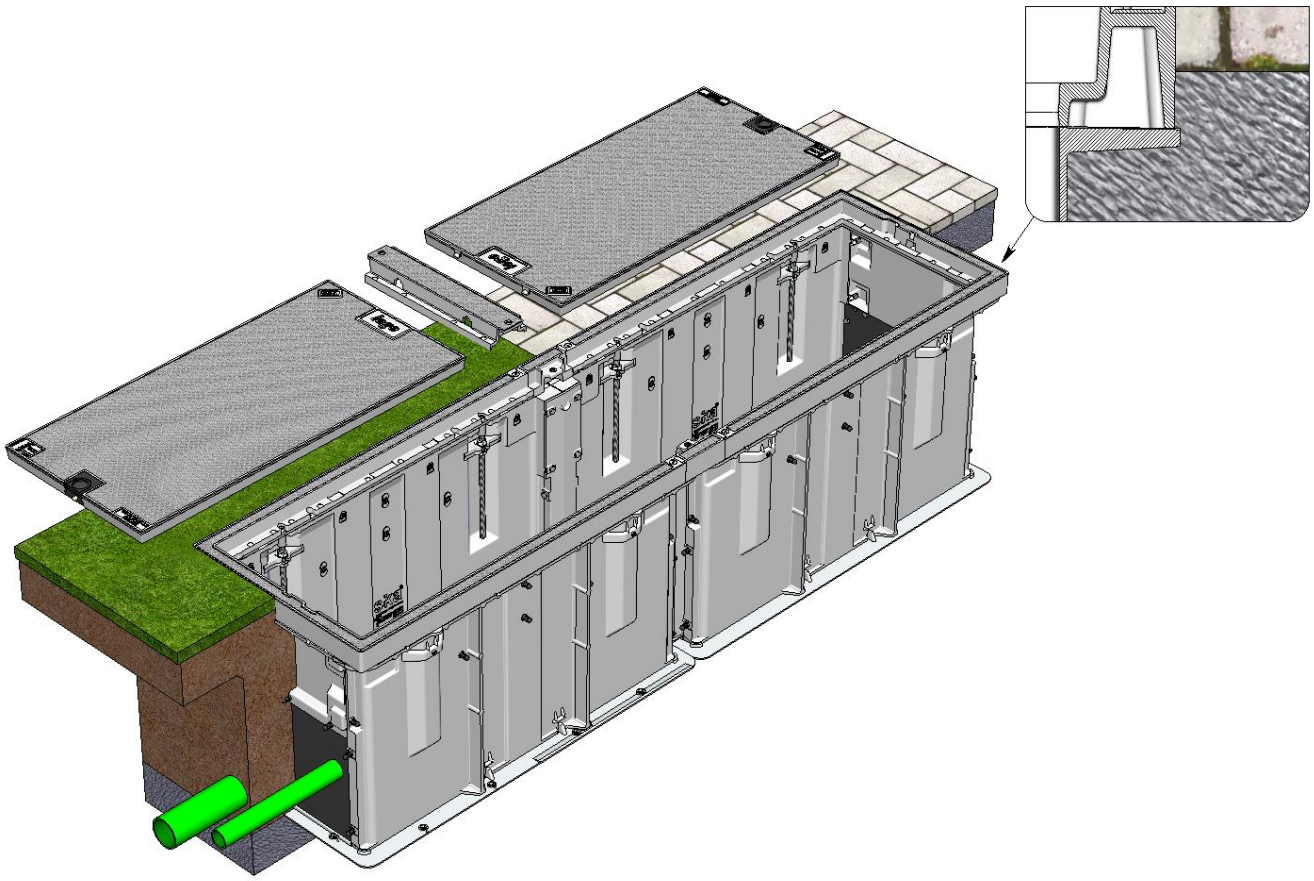
Aluminium Jointing Chamber & Access Cover Set

GUIDELINES FOR PATHWAY INSTALLATION

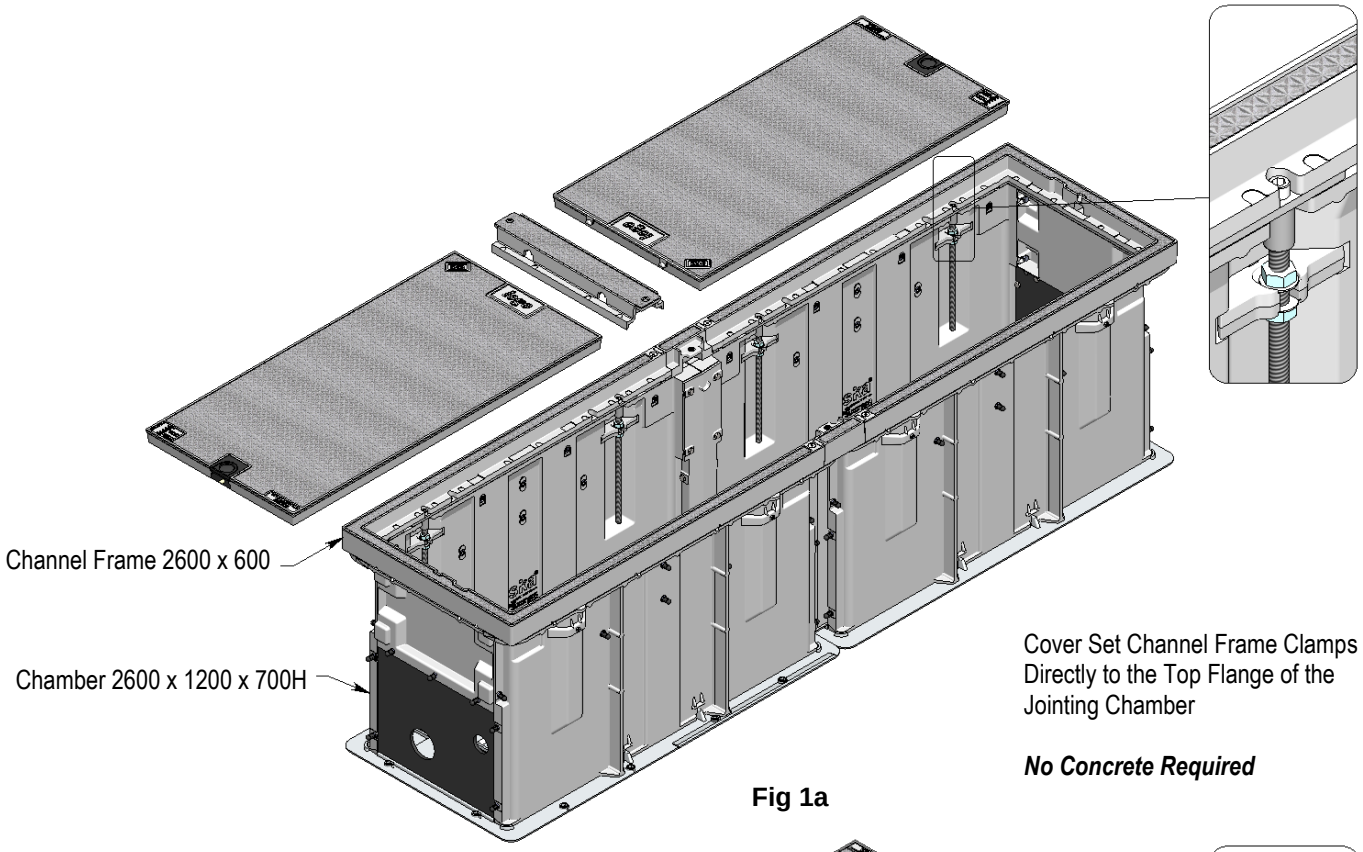
COVER SET RATING: CLASS B - 80 kN - AS3996:2006



Chamber & Cover Set 2600 x 600 x 700H

Pathway Class B 80kN Cover Set Channel Frame Attachment

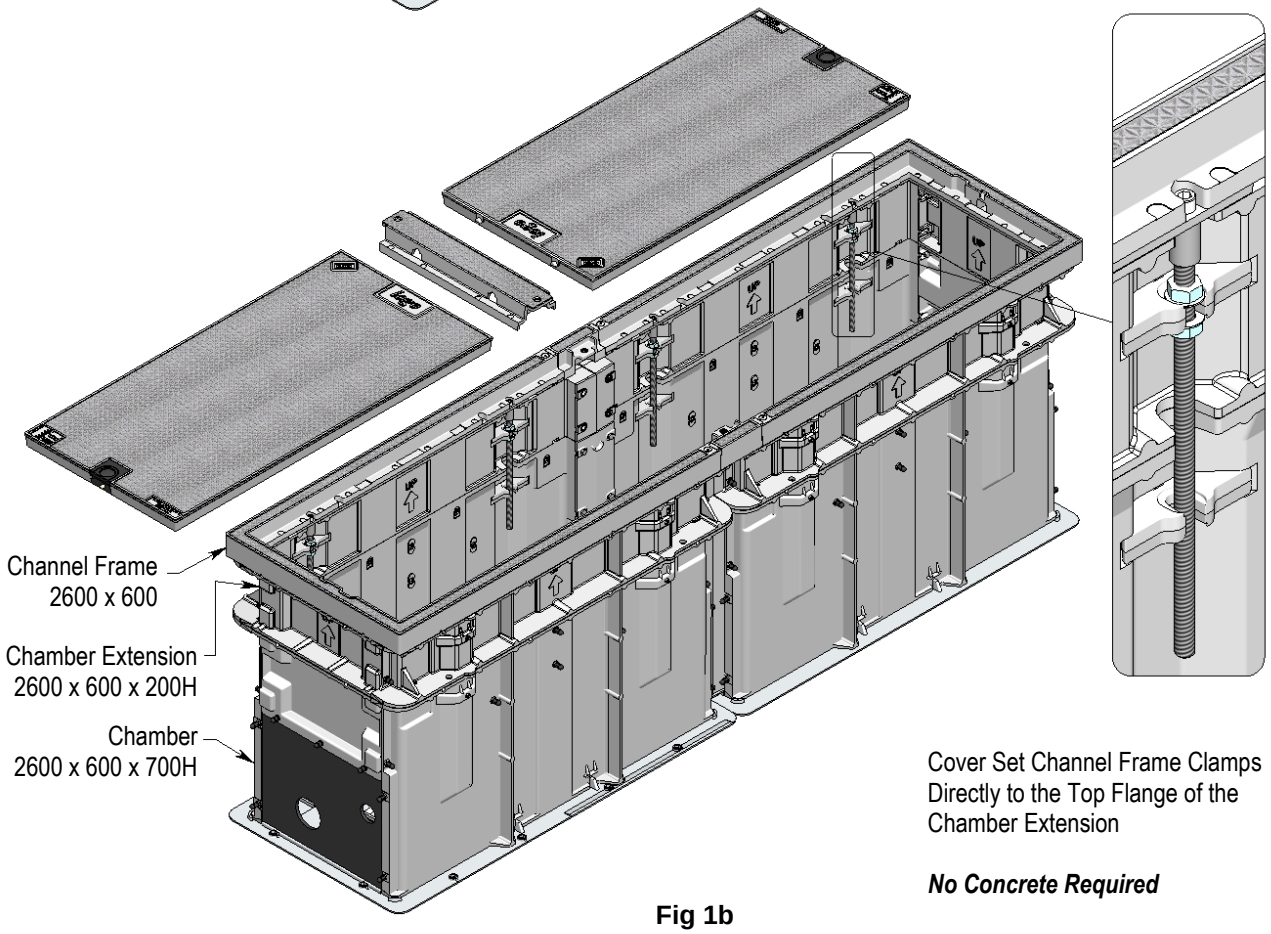
1. Clamp the **cover set channel frame** down using 8 – M16 adjustable raiser rods supplied.



Cover Set Channel Frame Clamps Directly to the Top Flange of the Jointing Chamber

No Concrete Required

Fig 1a



Cover Set Channel Frame Clamps Directly to the Top Flange of the Chamber Extension

No Concrete Required

Fig 1b

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

Ensure the **chamber spreader** is fitted to the chamber prior to backfilling and compacting to maintain accurate chamber opening distance. If the chamber spreader needs to be removed temporarily after backfilling, **use alternative spreader** to prevent the *chamber walls moving in under backfill pressure*.

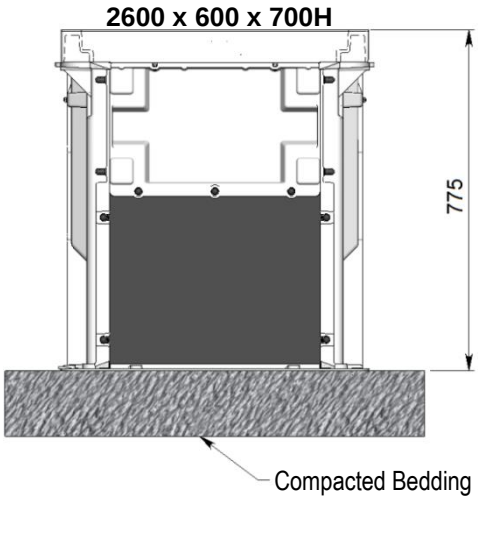


Fig 2a

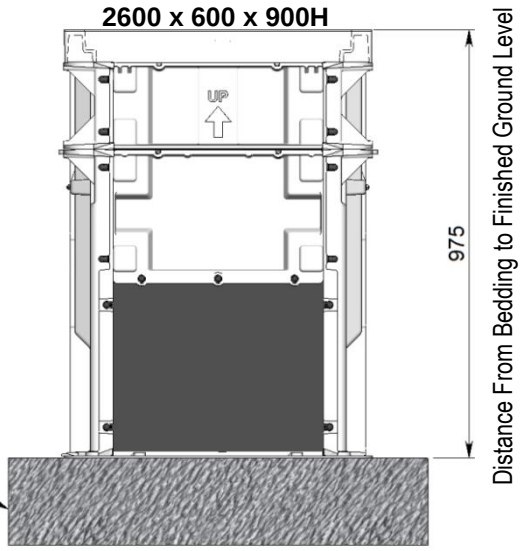


Fig 2b

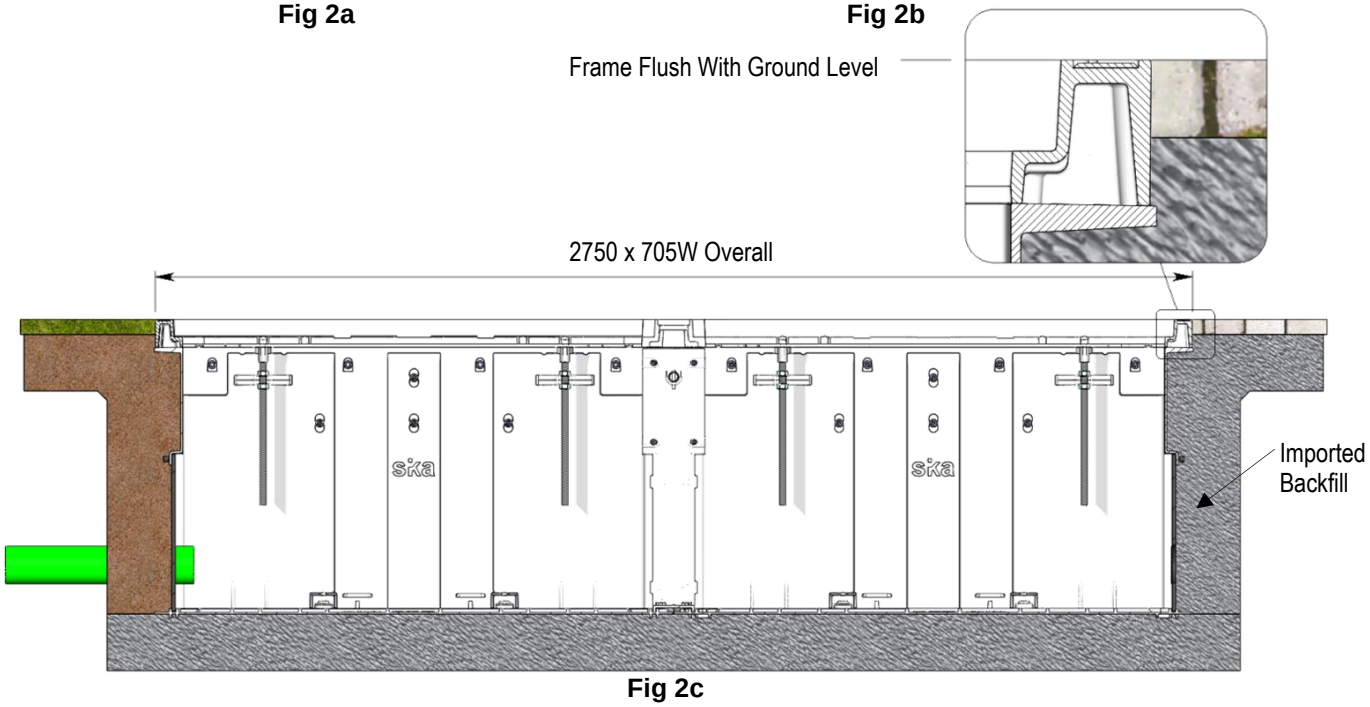


Fig 2c

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 8 - M16 S/S rods and nuts provided to locate the 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**.**

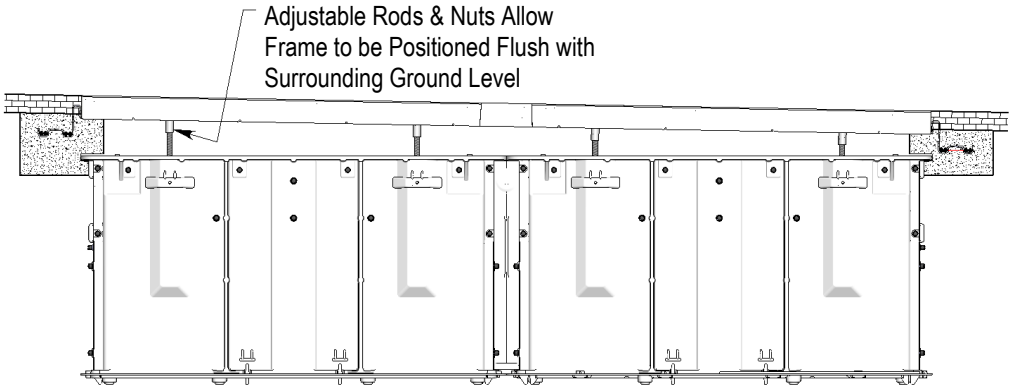


Fig 3a

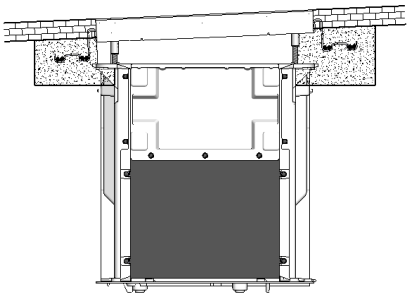


Fig 3b

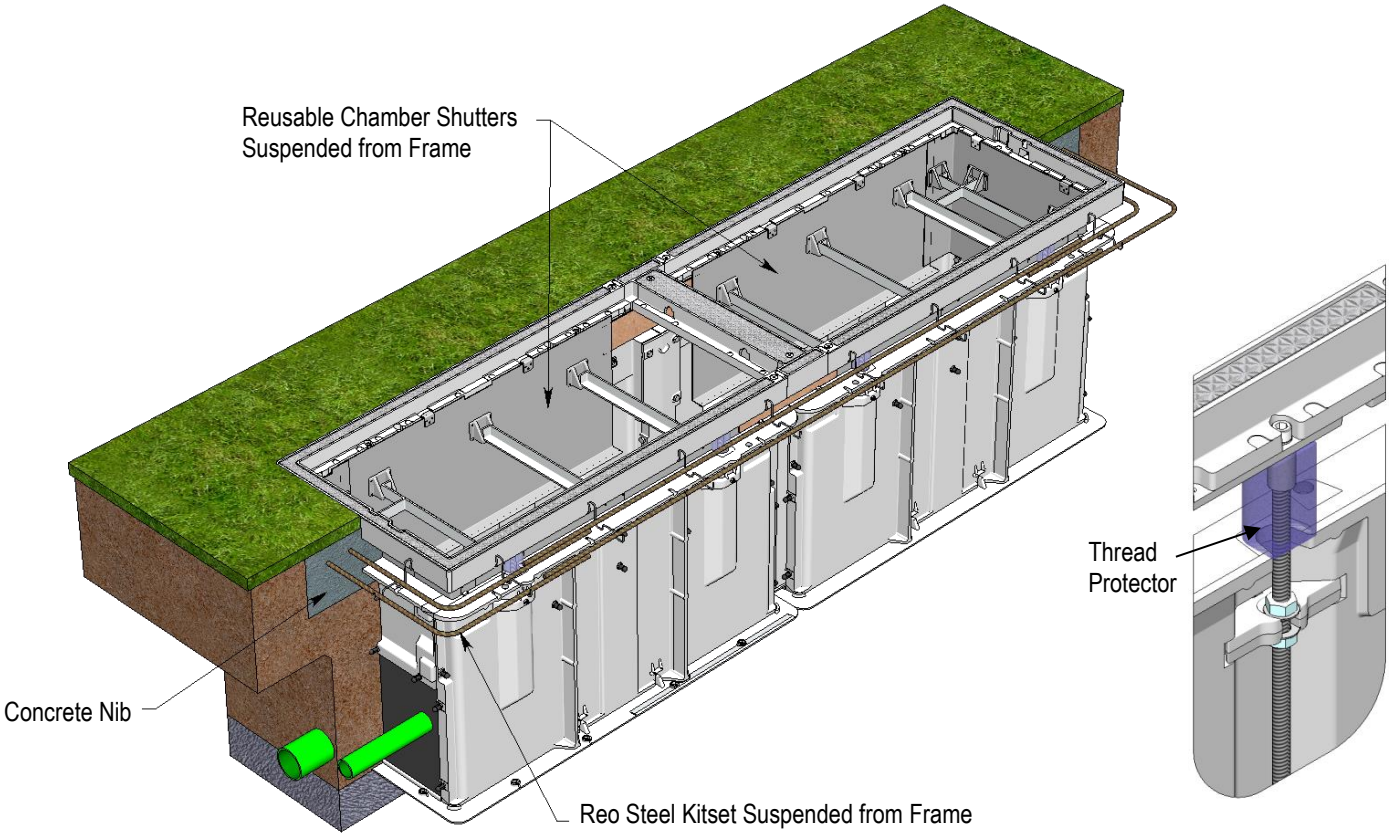


Fig 3c

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 do <u>NOT</u> constitute a support structure.

Pathway Concrete Installation & Backfill Details

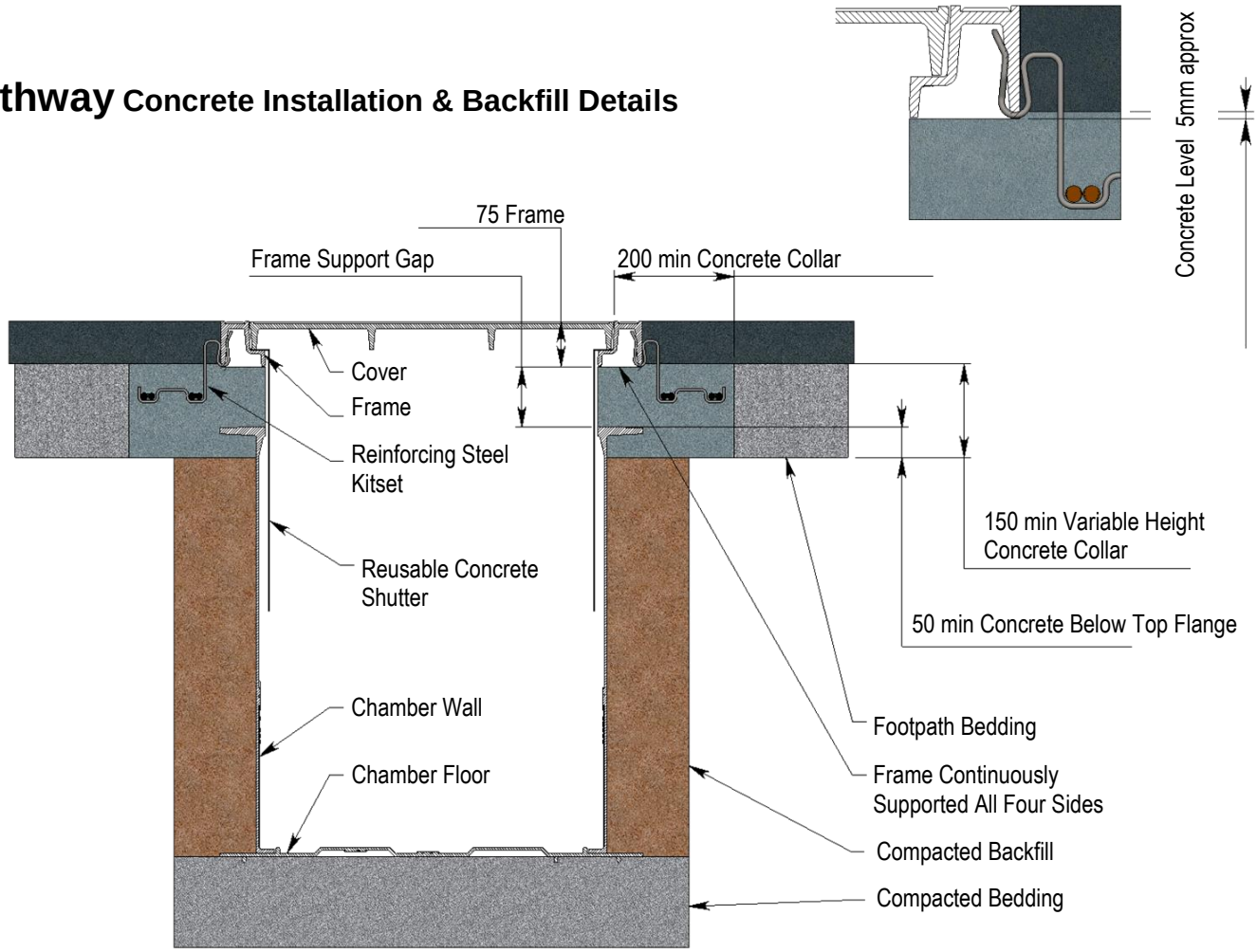


Fig 4

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.

   Ensure the **chamber spreader** is fitted to the chamber prior to backfilling and compacting to maintain accurate chamber opening distance. If the chamber spreader needs to be removed temporarily after backfilling, **use alternative spreader** to prevent the *chamber walls moving in under backfill pressure*.

   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).*

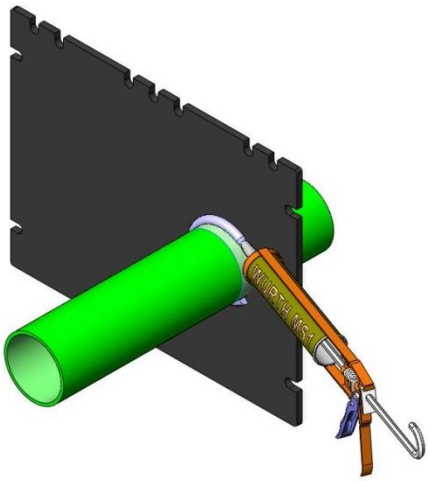


Fig 5a

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 centre 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)*

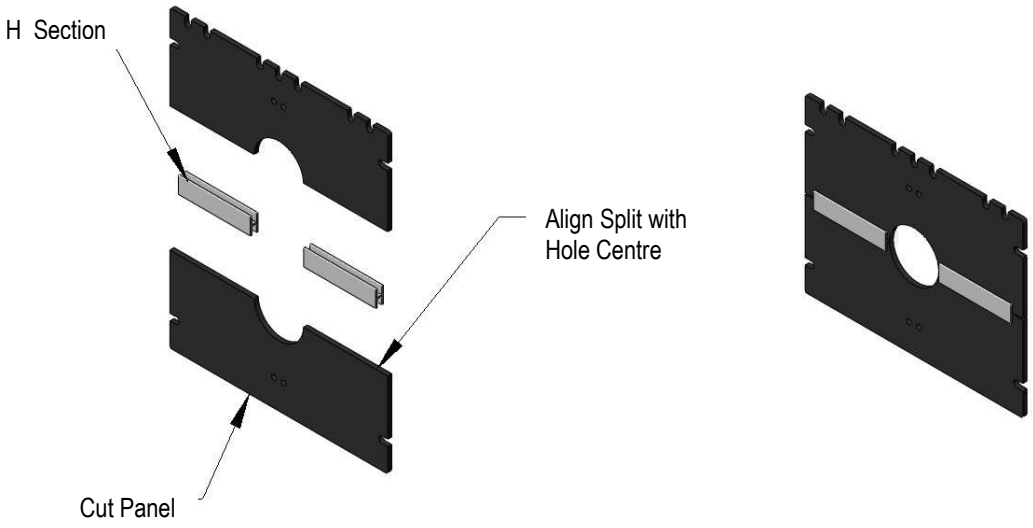


Fig 5b

Pathway Concrete Installation Accessories

Reinforcing Steel Kitset

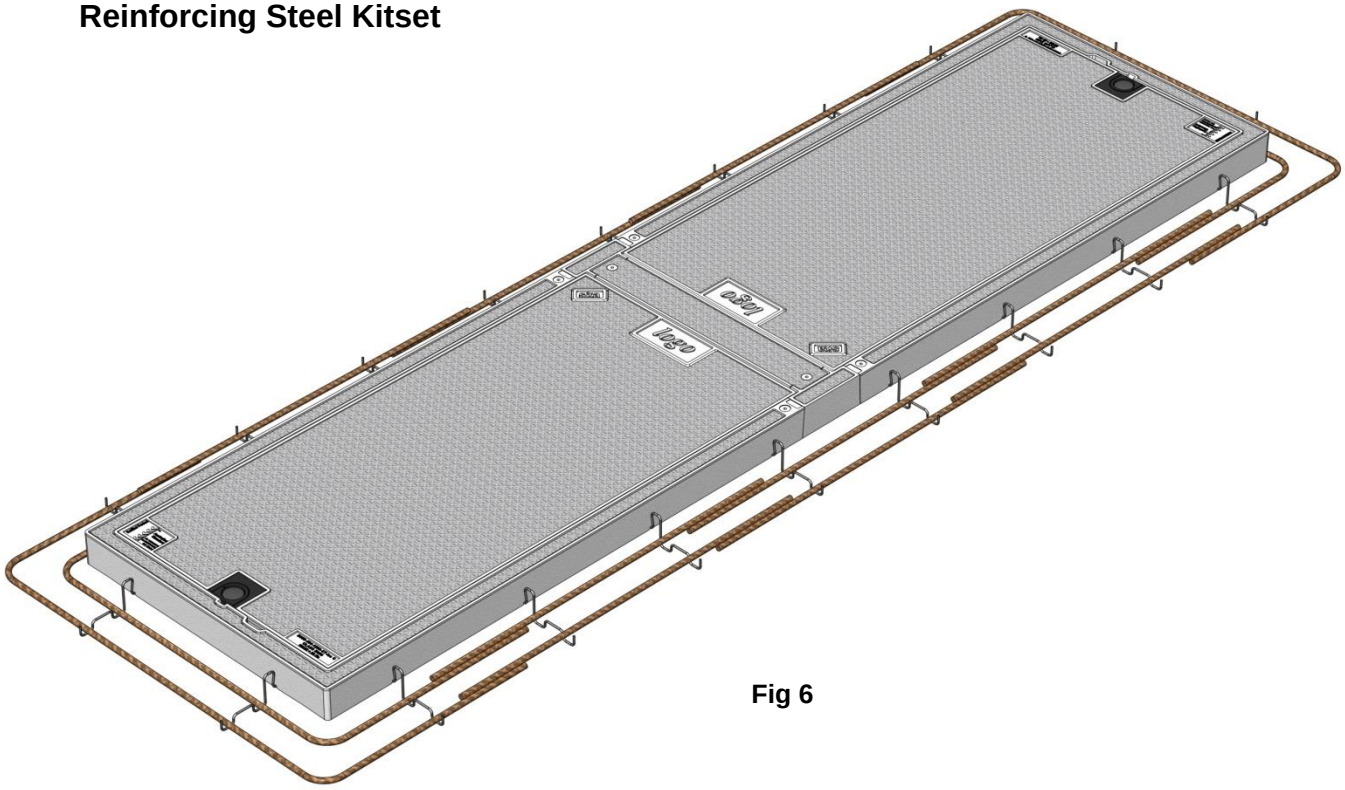


Fig 6

Thread Protector

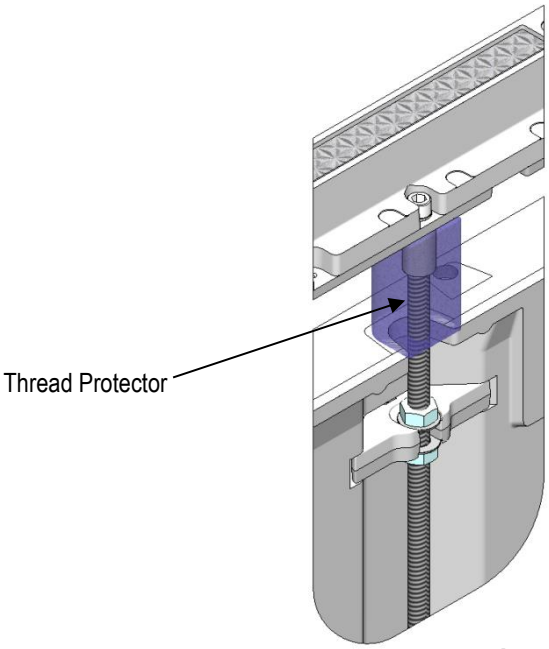


Fig 7

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

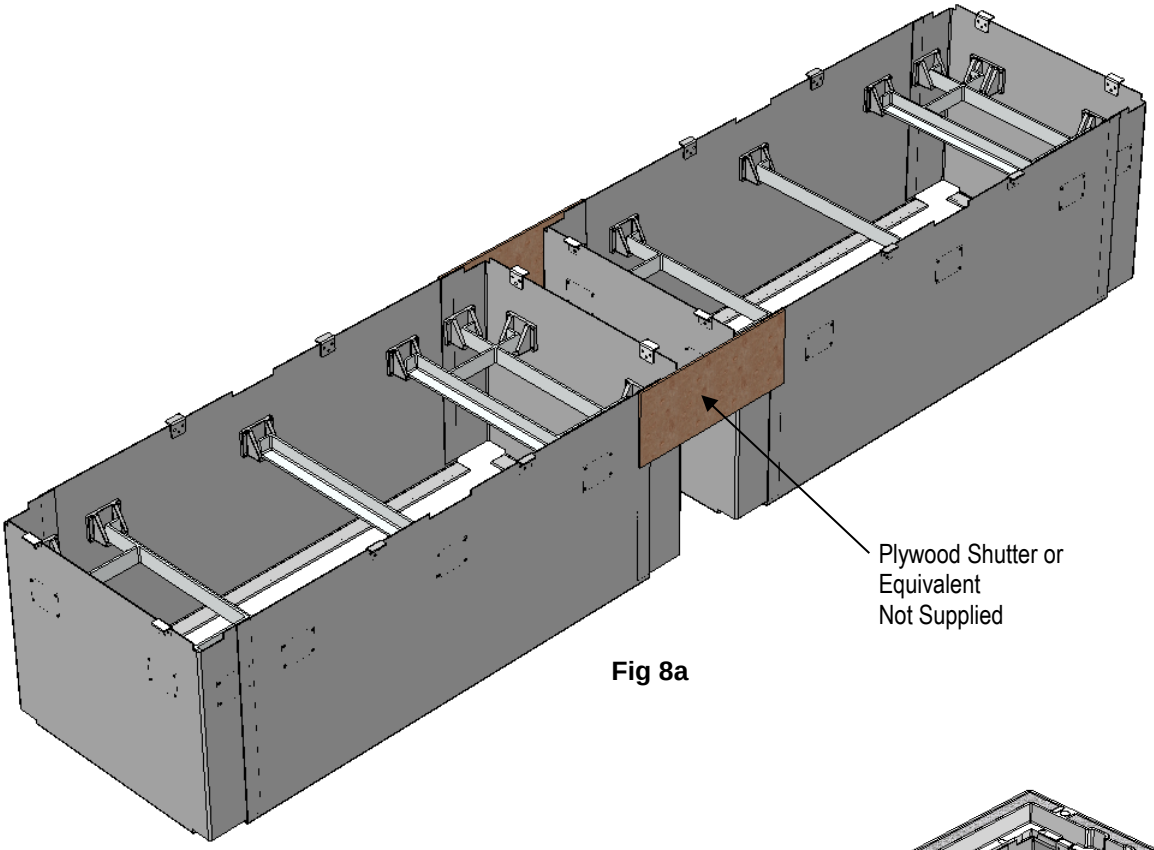


Fig 8a

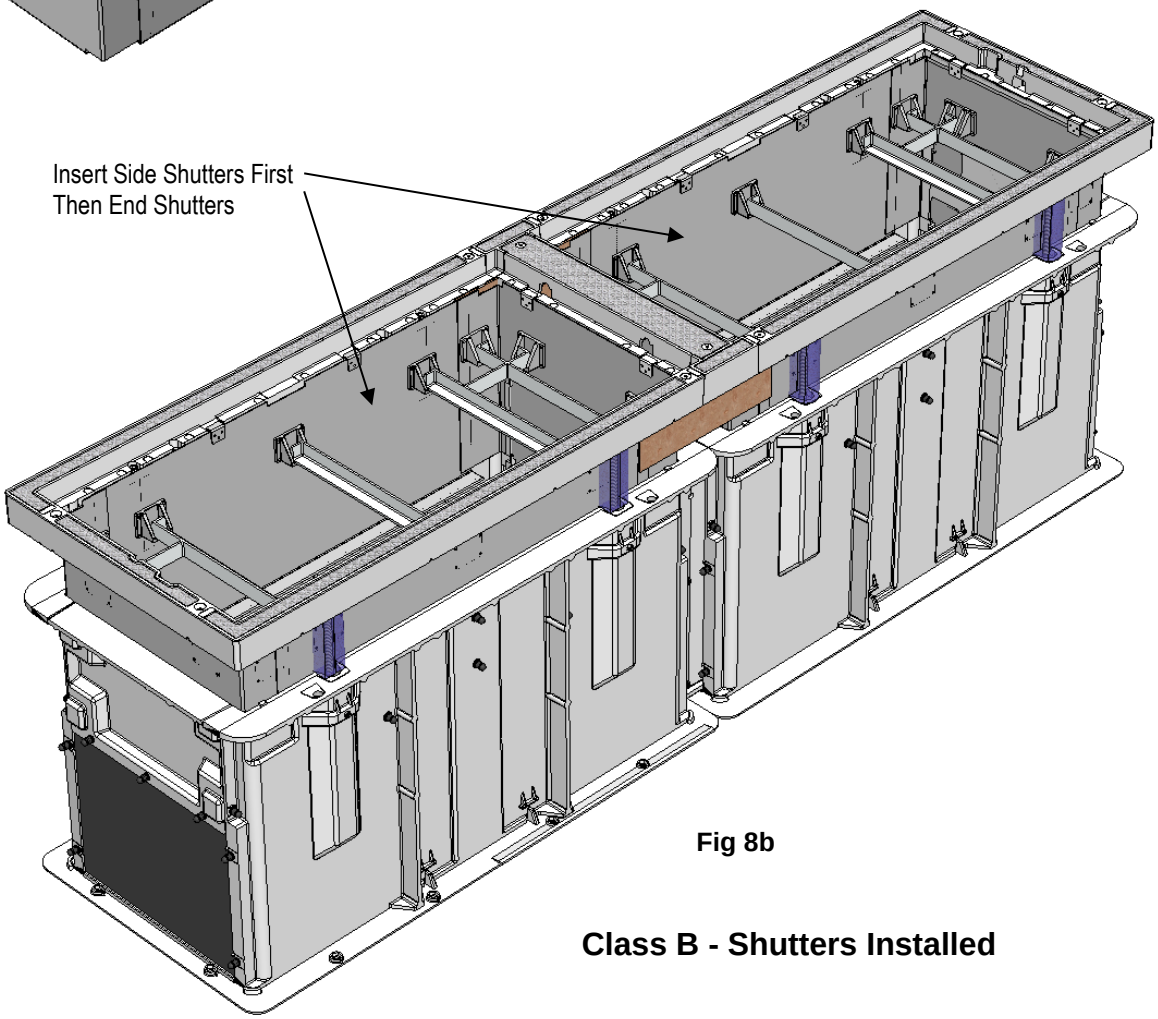


Fig 8b

Class B - Shutters Installed