



5 Carpenter Road  
East Tamaki  
PO Box 58-491, Botany  
Manukau 2163, New Zealand  
Telephone 064 09 274 5929  
Facsimile 064 09 273 9509  
Email info@sikatech.co.nz  
Website www.sikatech.co.nz

## The 'Sika Solution'

Aluminium Jointing Chamber and  
Security Access Cover Set Package

**2100 x 600 x 700H / 900H**

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## **Assembly Basic Tool Kit**

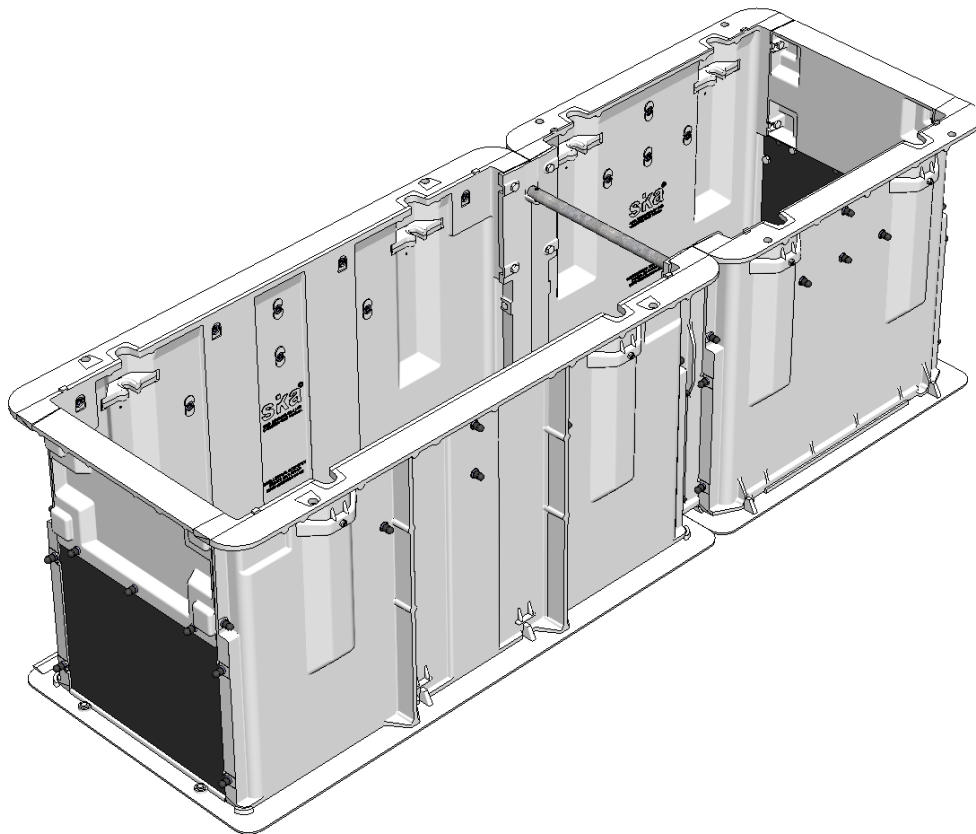
**24mm Open End Spanner  
17mm Ratchet Spanner  
17 mm Tube Socket  
10 mm Allen Key  
6 mm Allen Key**



## Aluminium Jointing Chamber 2100 x 600 x 700 / 900H

# ASSEMBLY INSTRUCTIONS

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

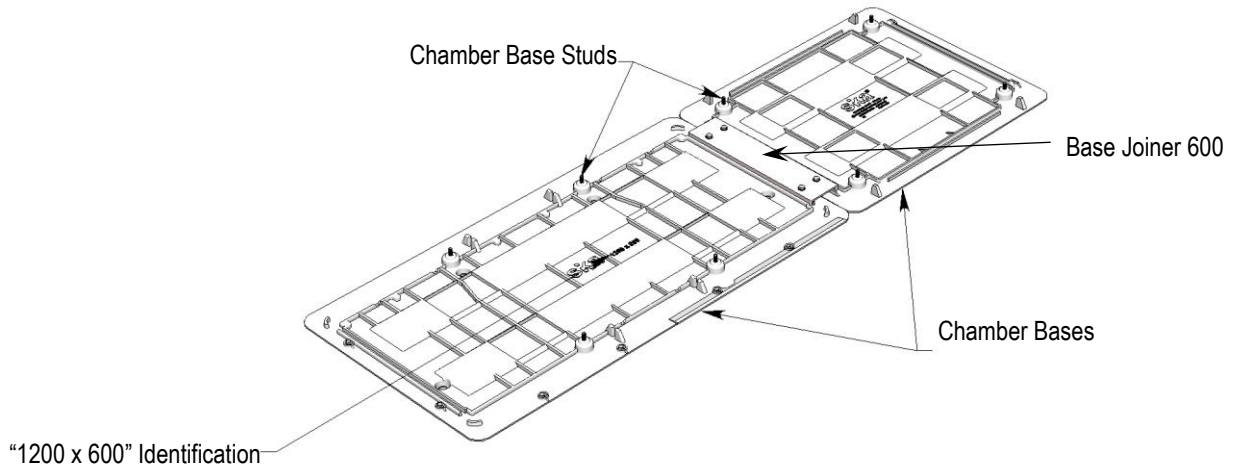


Chamber 2100 x 600 x 700H



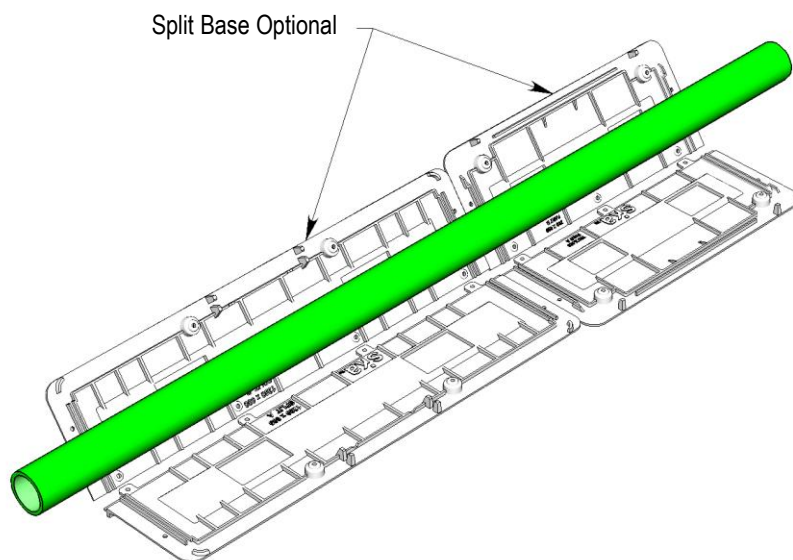
1. Place the 1200mm and 700mm **chamber bases** end to end on a flat area adjoining the pit or on a prepared bed of imported material in the excavated pit. Note the “1200 x 600” script and Sika logos will be face up.

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



**Fig 1**

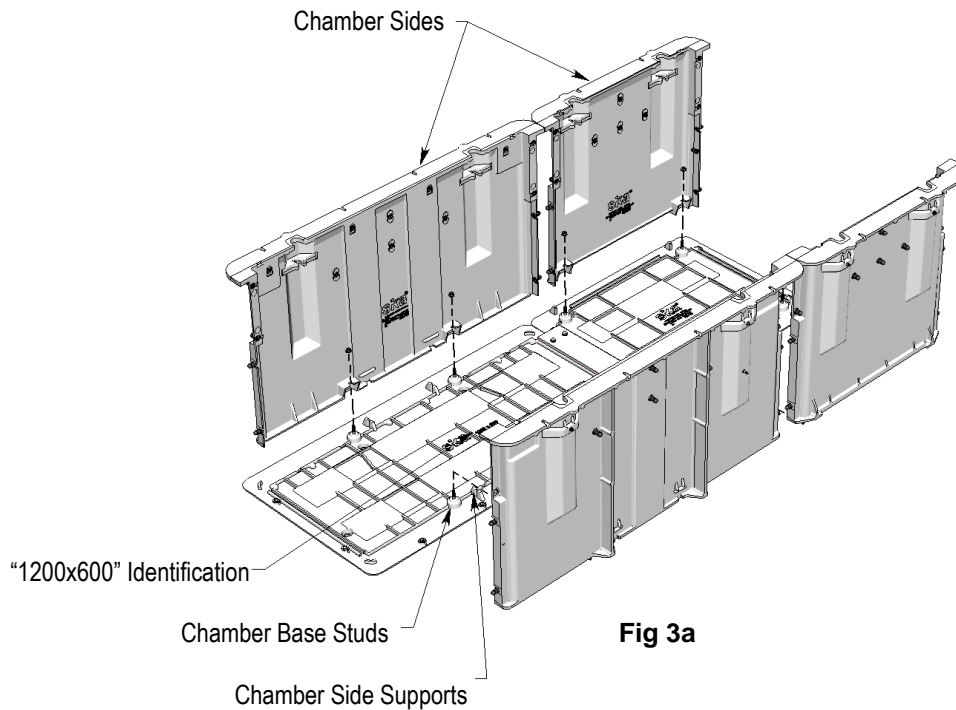
2. Where there is existing ducting and minimal side excavation is required use a **split base**. Ref Fig 2



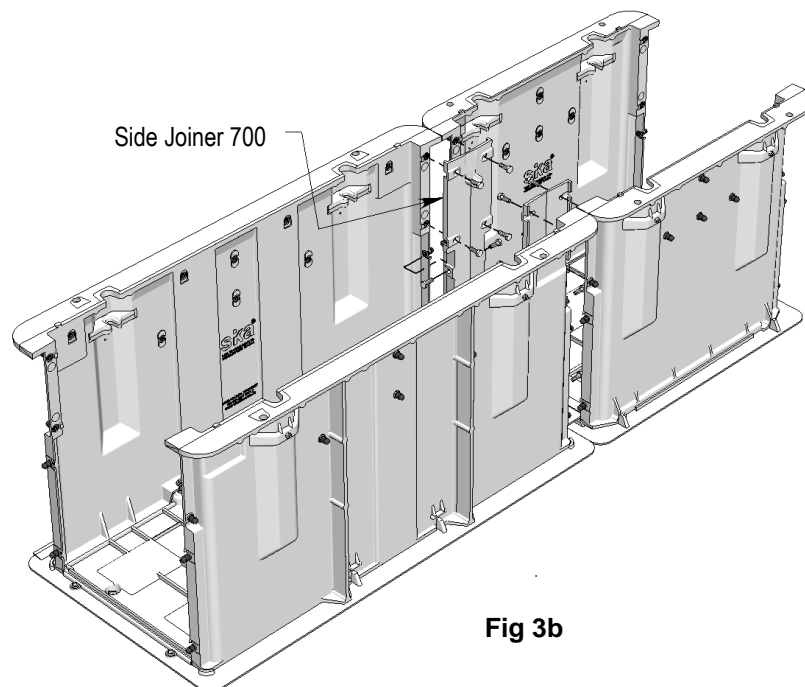
**Fig 2**

3. Remove the plastic tubes protecting the 8 – M10 studs protruding from the **chamber base** and place the 2 – 1200 and 2 – 700 **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.)*

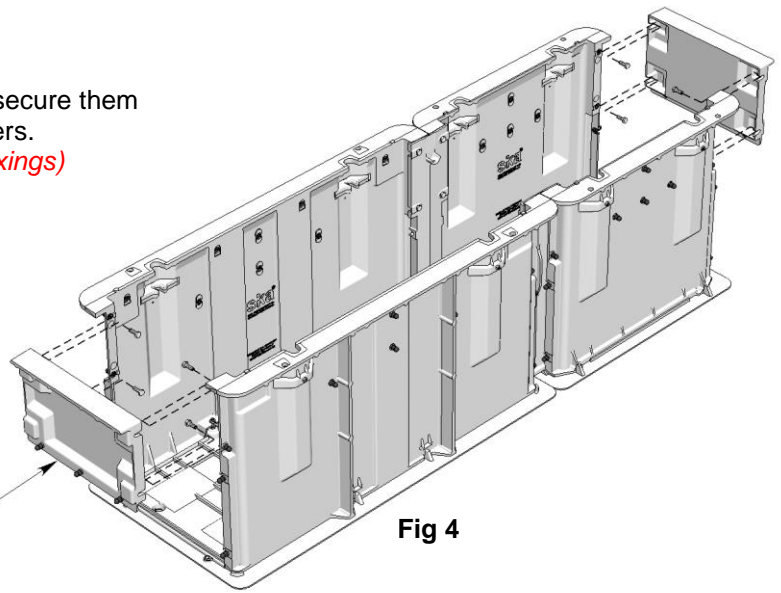


Add the two **side joiners 700** adjacent to the **base joiner 600** using 16 – M10 x 30 bolts and washers.



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)*

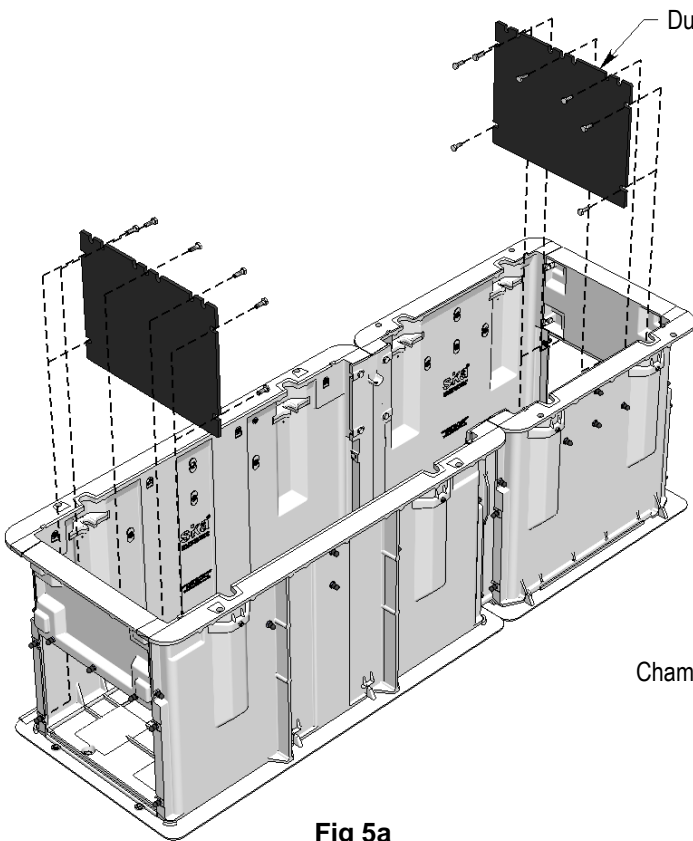
Chamber End 600



**Fig 4**

Duct Entry Panel

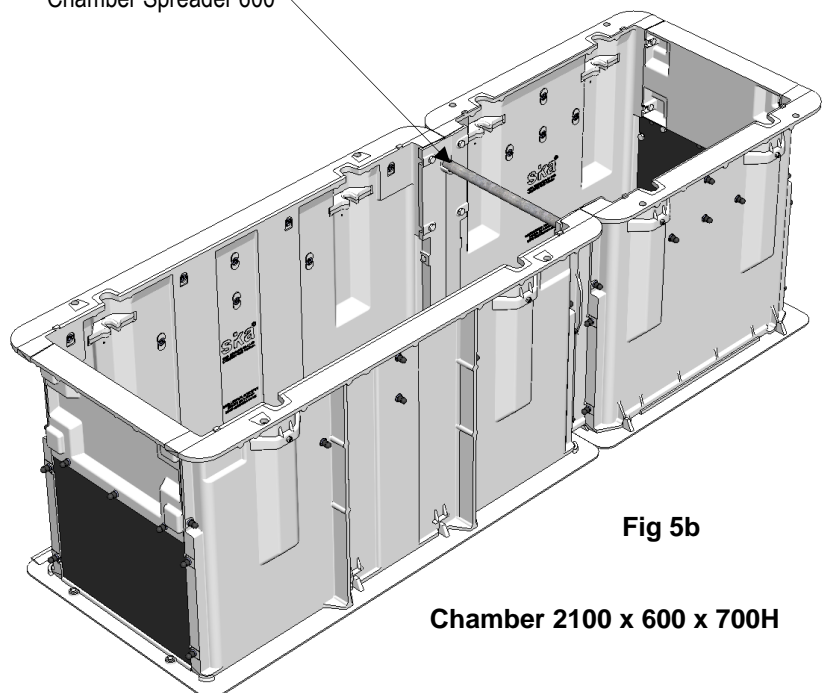
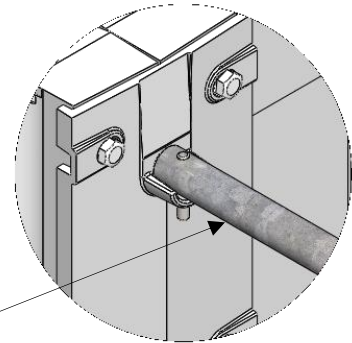
5. Apply the two polypropylene **duct entry panels** to each end recess and secure each one with 7 - M10 x 30 bolts and washers supplied.



**Fig 5a**

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

Chamber Spreader 600

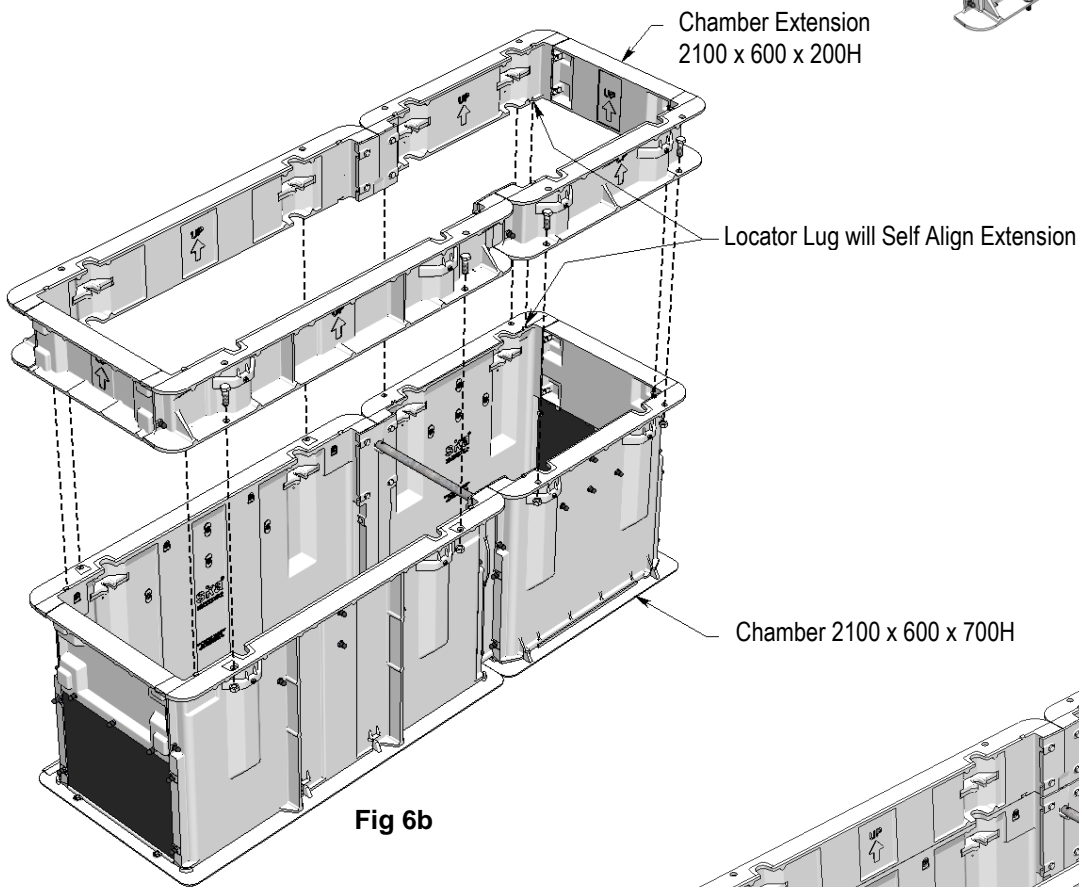
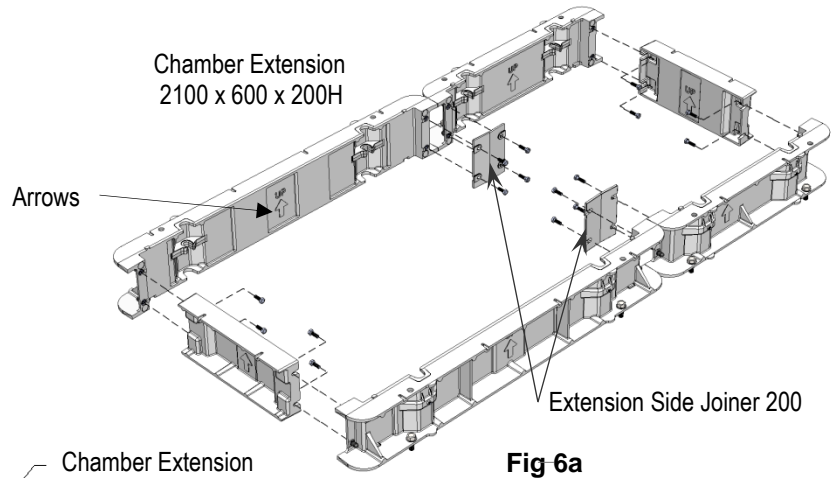


**Fig 5b**

**Chamber 2100 x 600 x 700H**

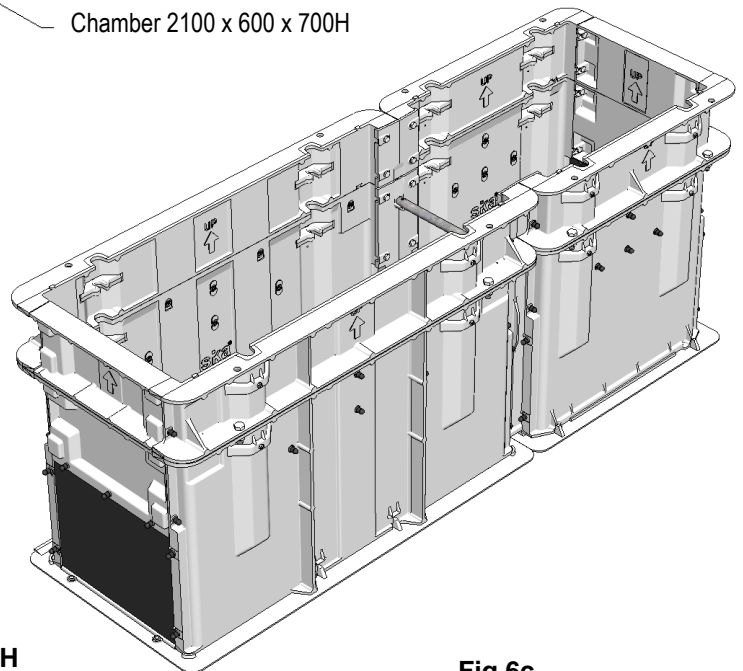
## Chamber Extension 200mm

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.



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

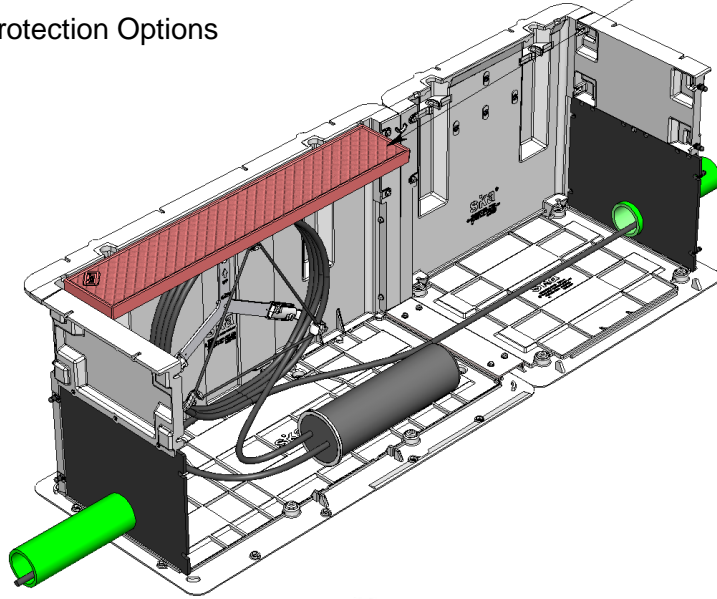
**Chamber 2100 x 600 x 700H  
& Extension 2100 x 600 x 200H**



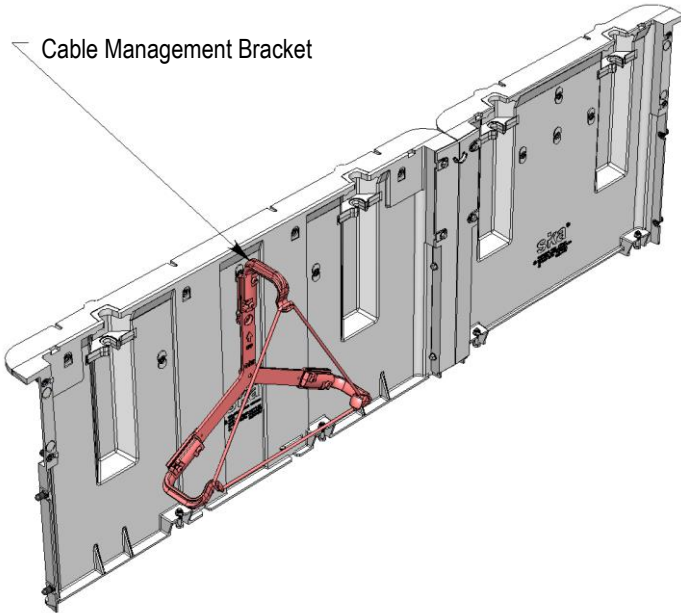
# Chamber Accessories

## Cable Support & Protection Options

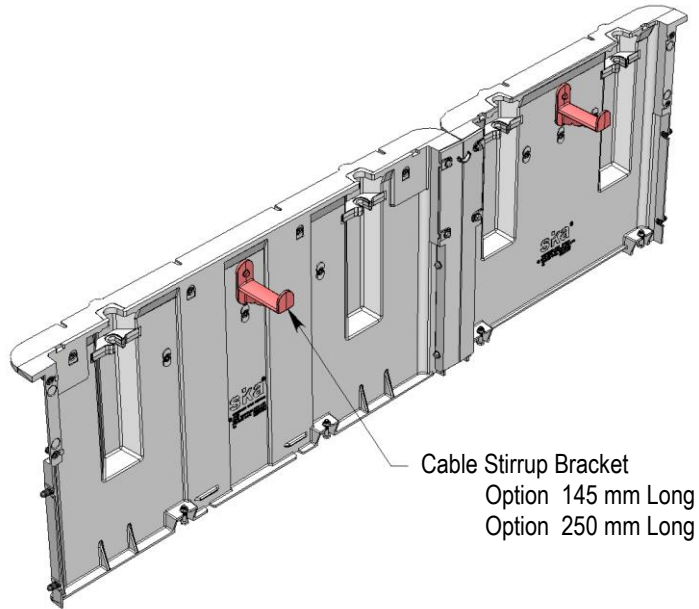
Cable Protection Plate



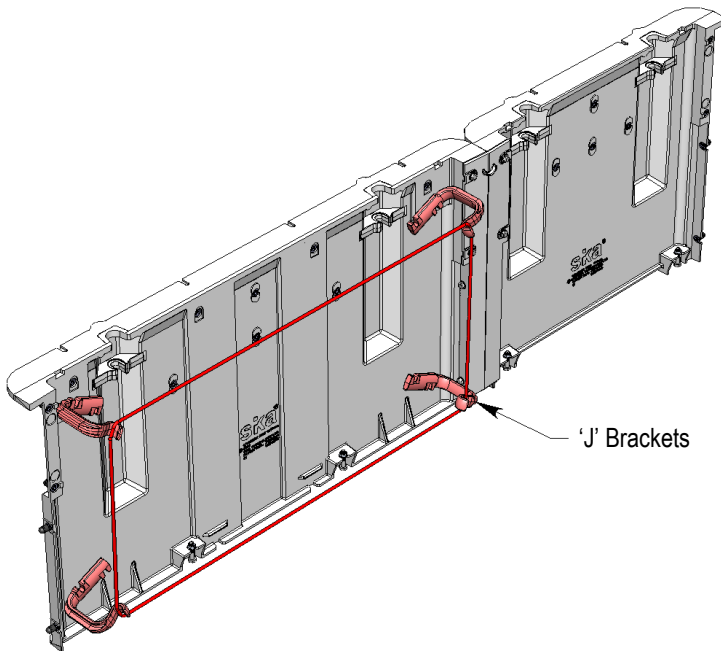
Cable Management Bracket



Cable Stirrup Bracket  
Option 145 mm Long  
Option 250 mm Long



'J' Brackets

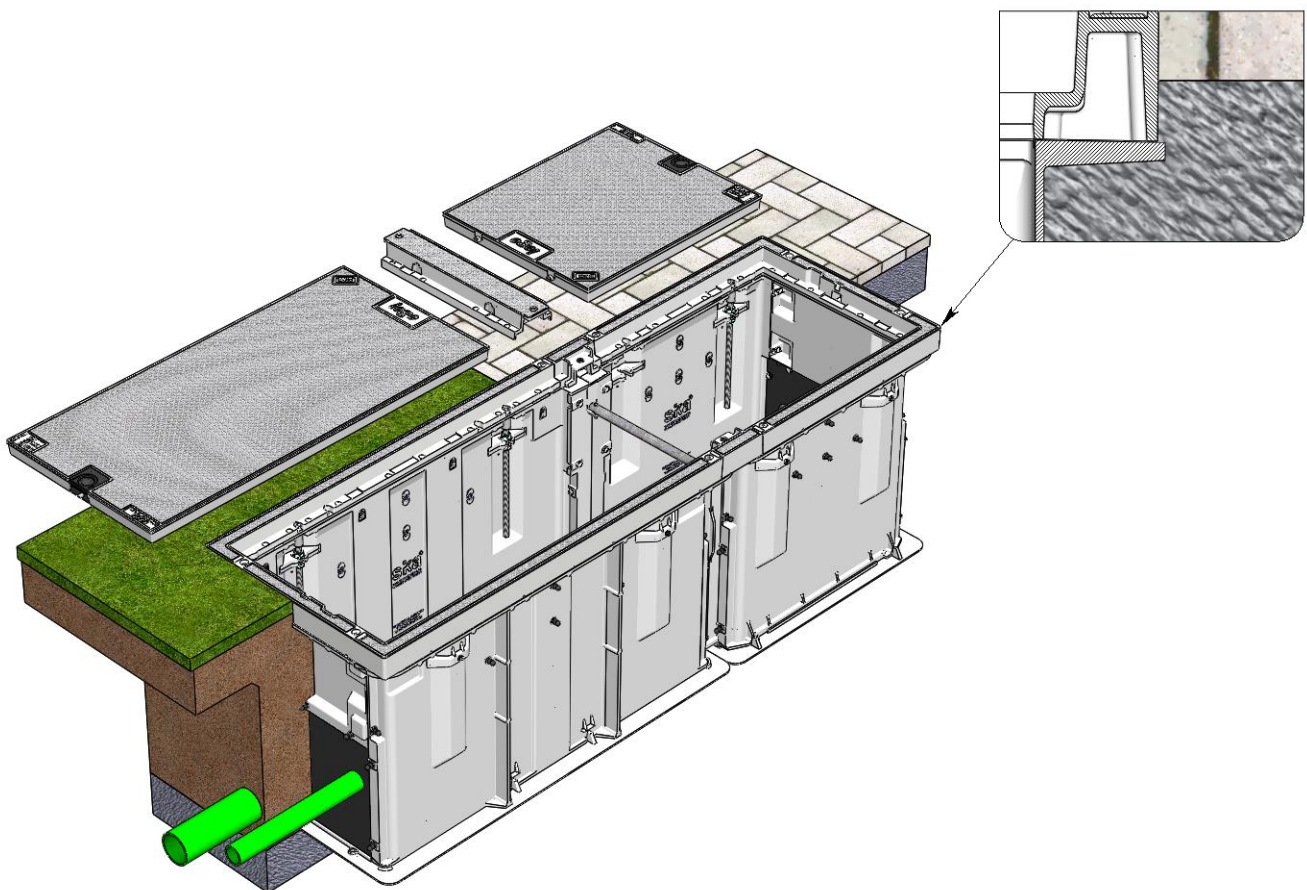






## Aluminium Jointing Chamber & Access Cover Set GUIDELINES FOR PATHWAY INSTALLATION

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



Chamber & Cover Set 2100 x 600 x 700H



# Pathway Class B 80kN Cover Set Channel Frame Attachment

1. Clamp the **cover set channel frame** down using 6 – M16 adjustable raiser rods supplied.

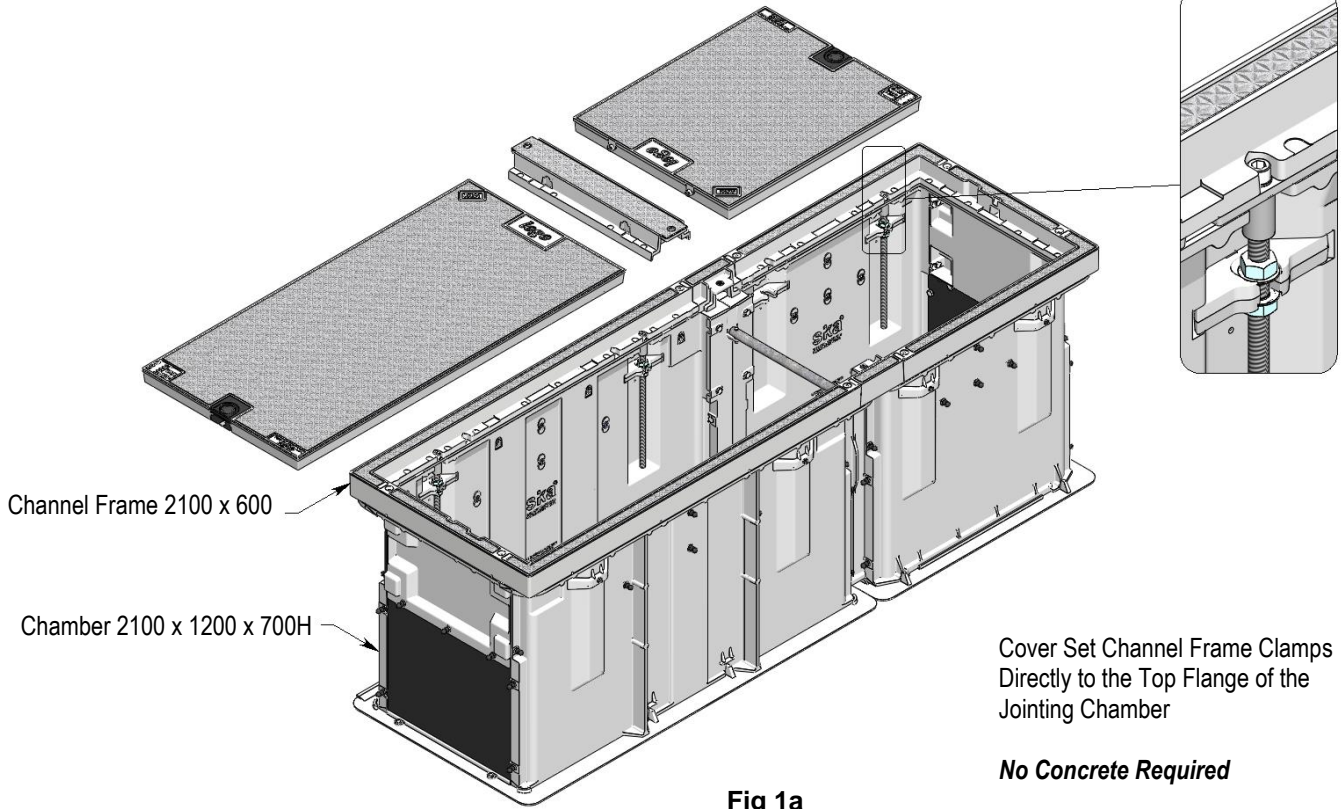


Fig 1a

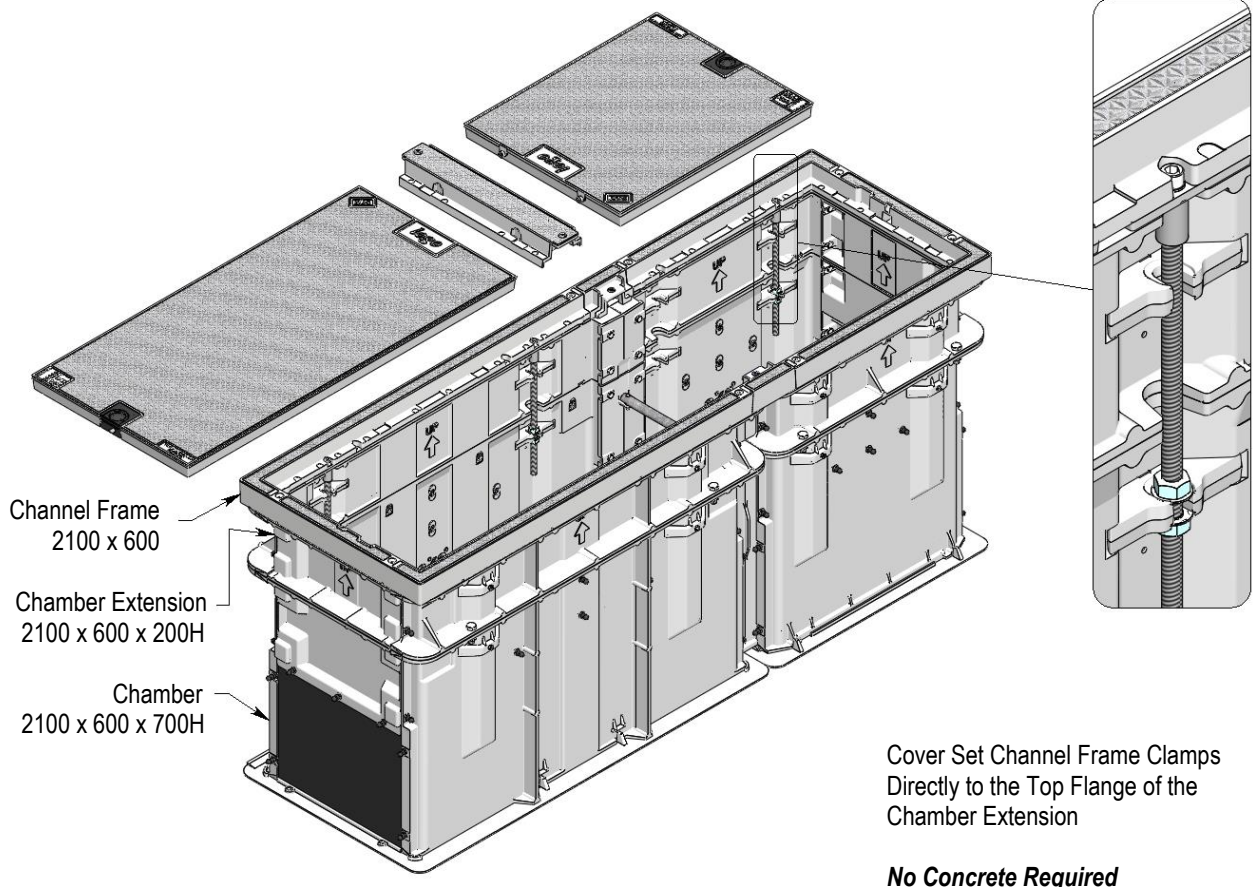


Fig 1b

## 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.*

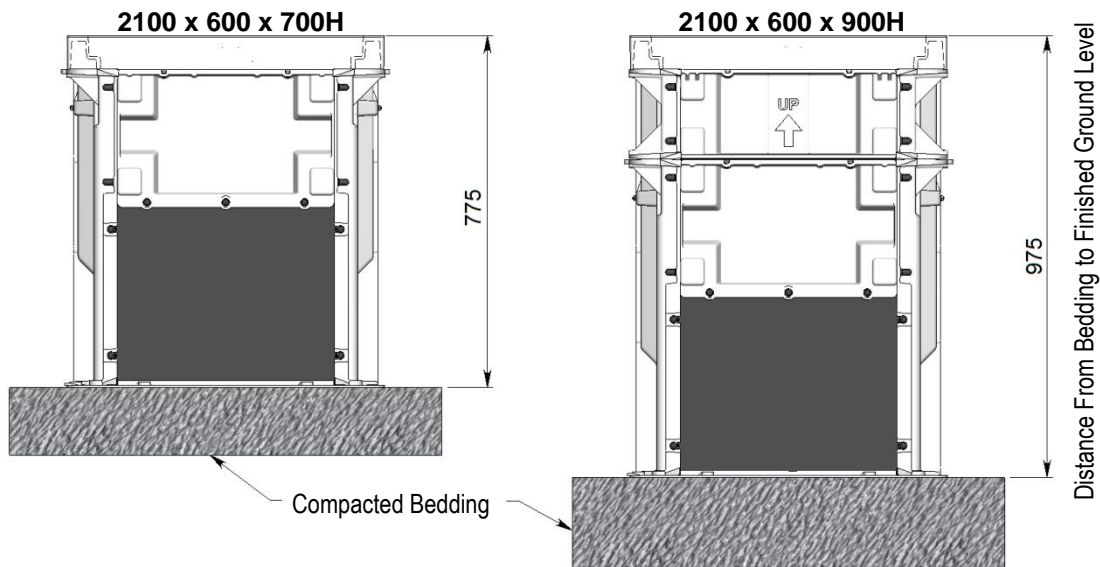


Fig 2a

Fig 2b

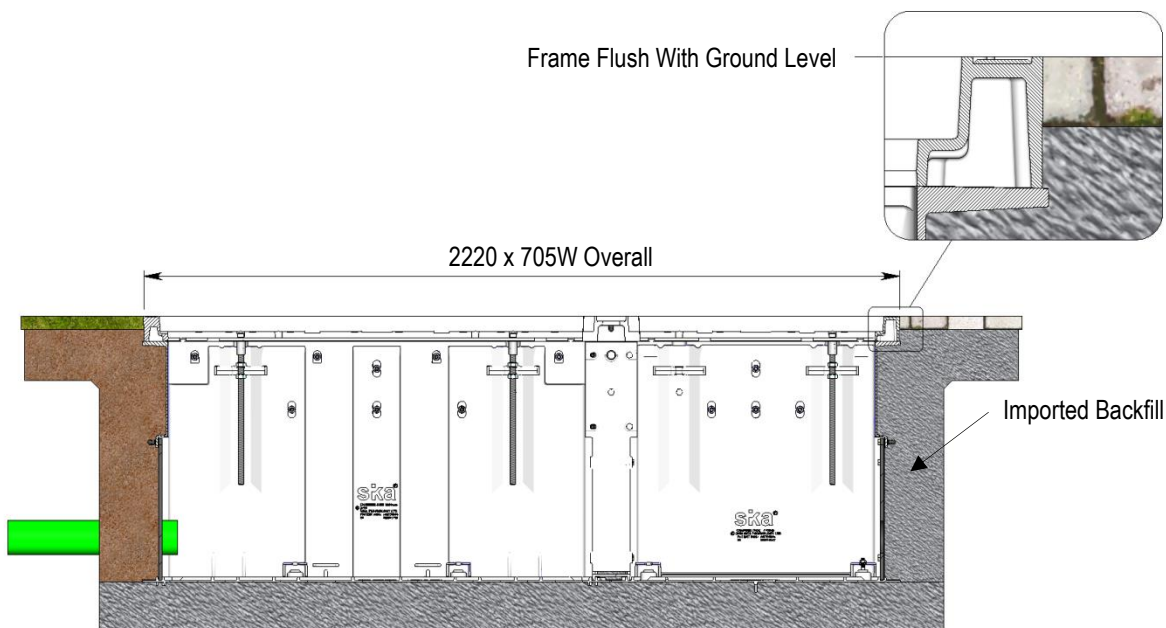


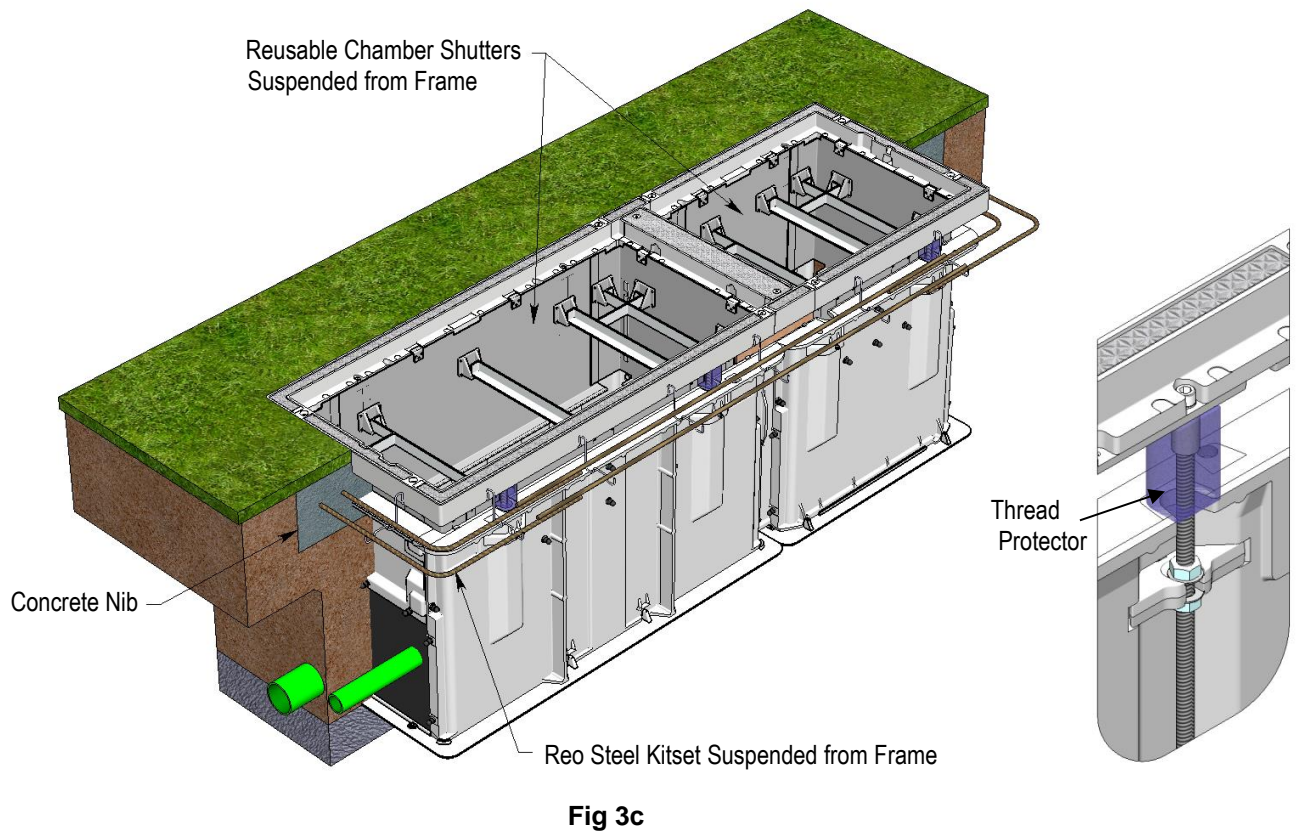
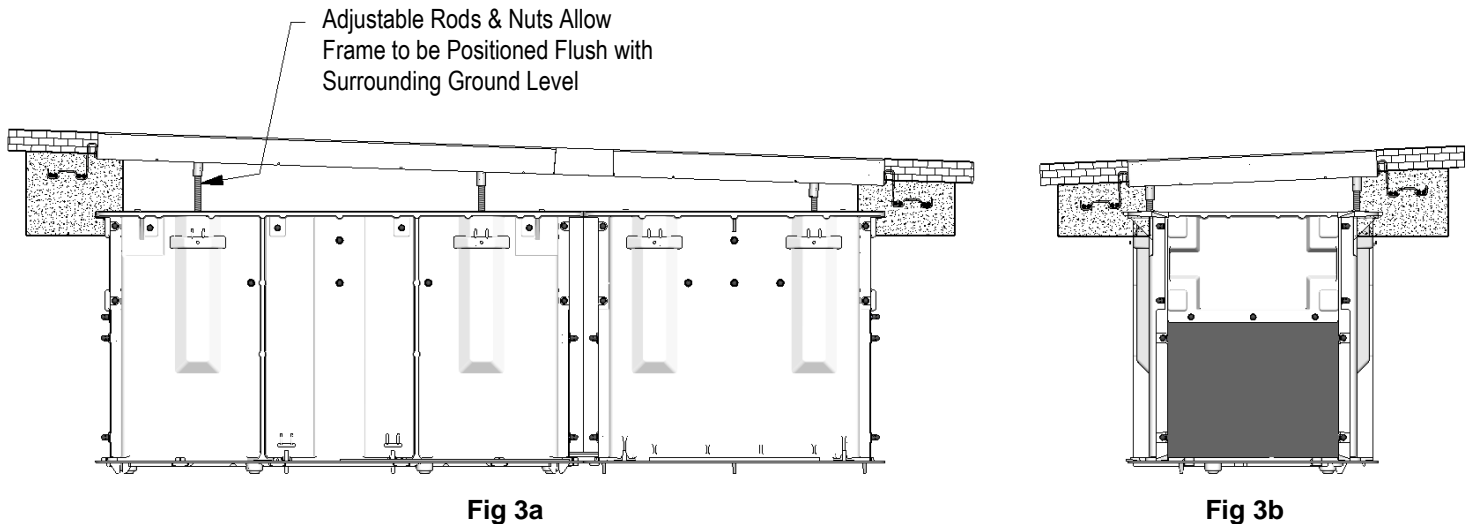
Fig 2c

## 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 6 - 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.



**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

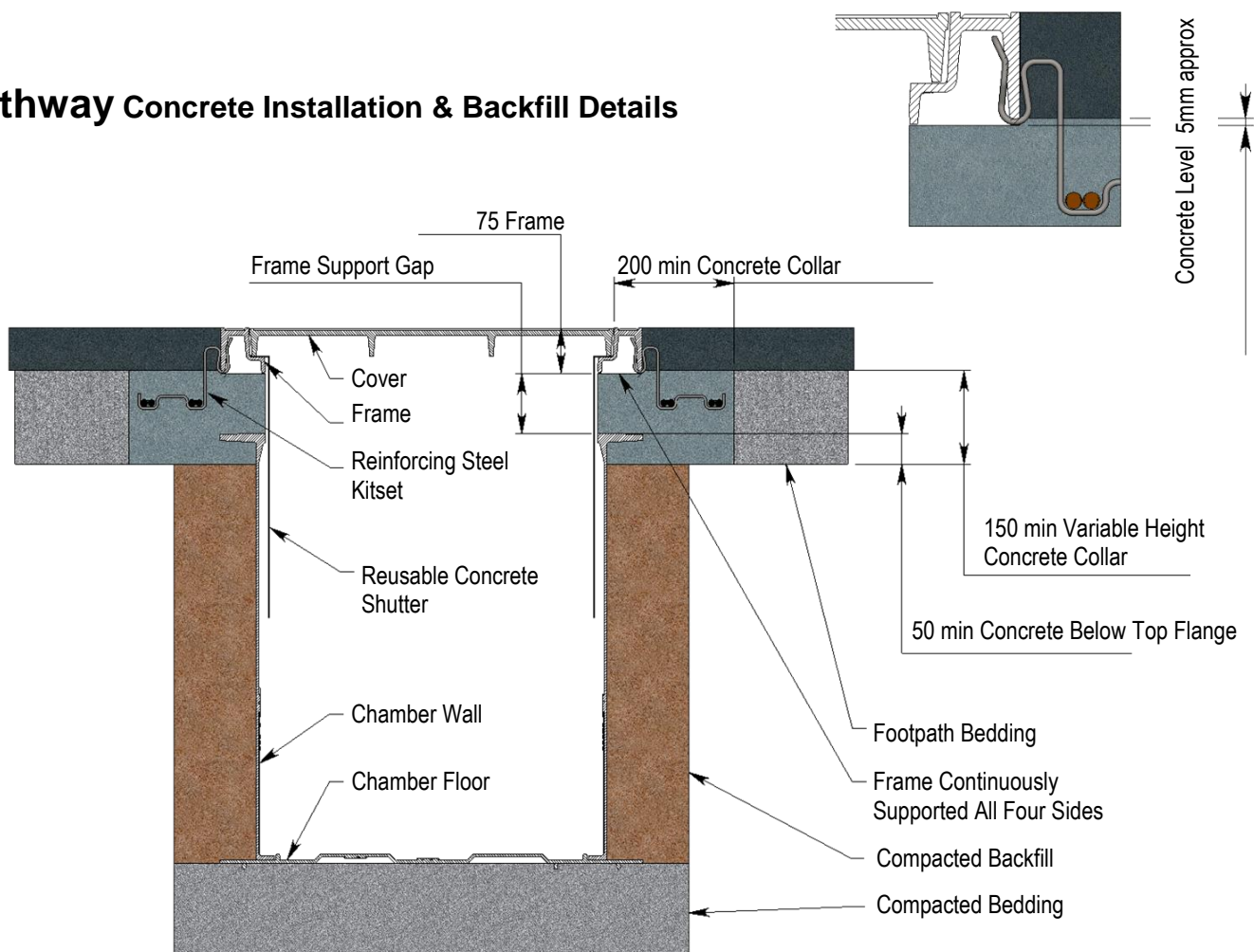


Fig 4

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.

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*).

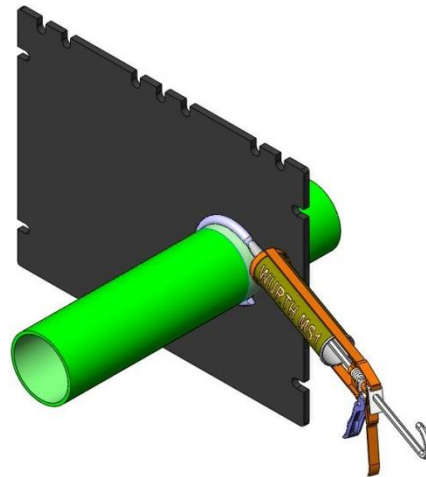


Fig 5a

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*)

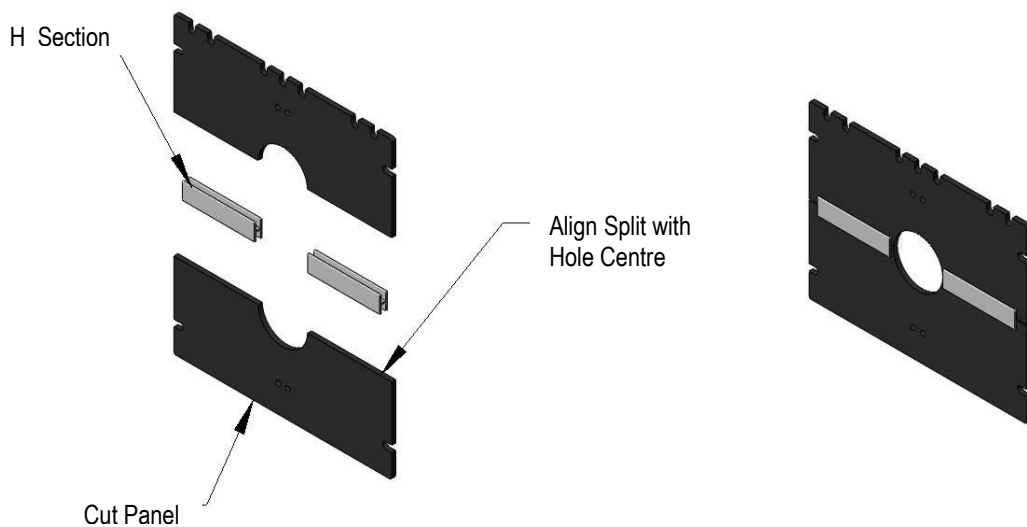


Fig 5b

# Pathway Concrete Installation Accessories

## Reinforcing Steel Kitset

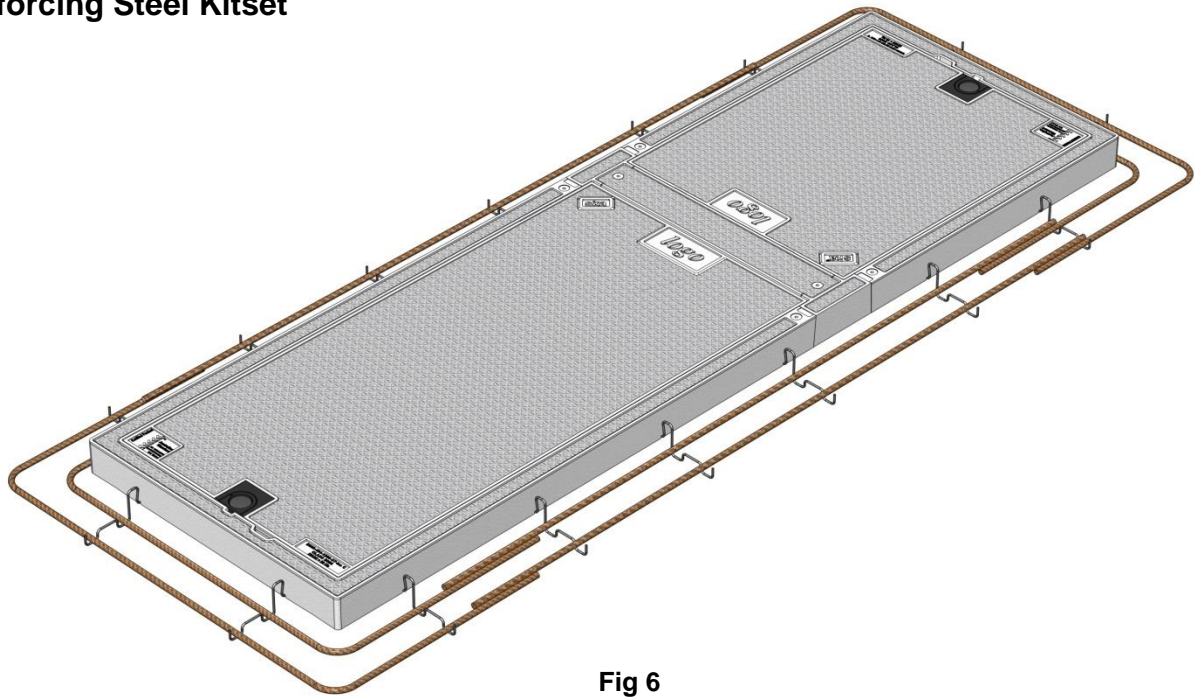


Fig 6

## Thread Protector

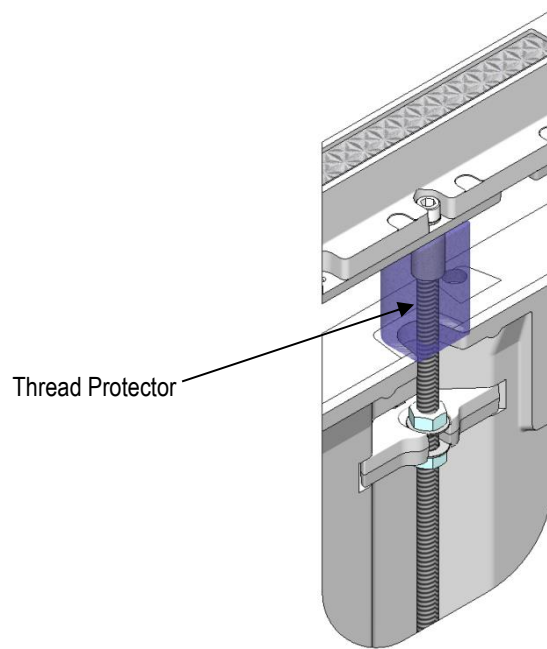


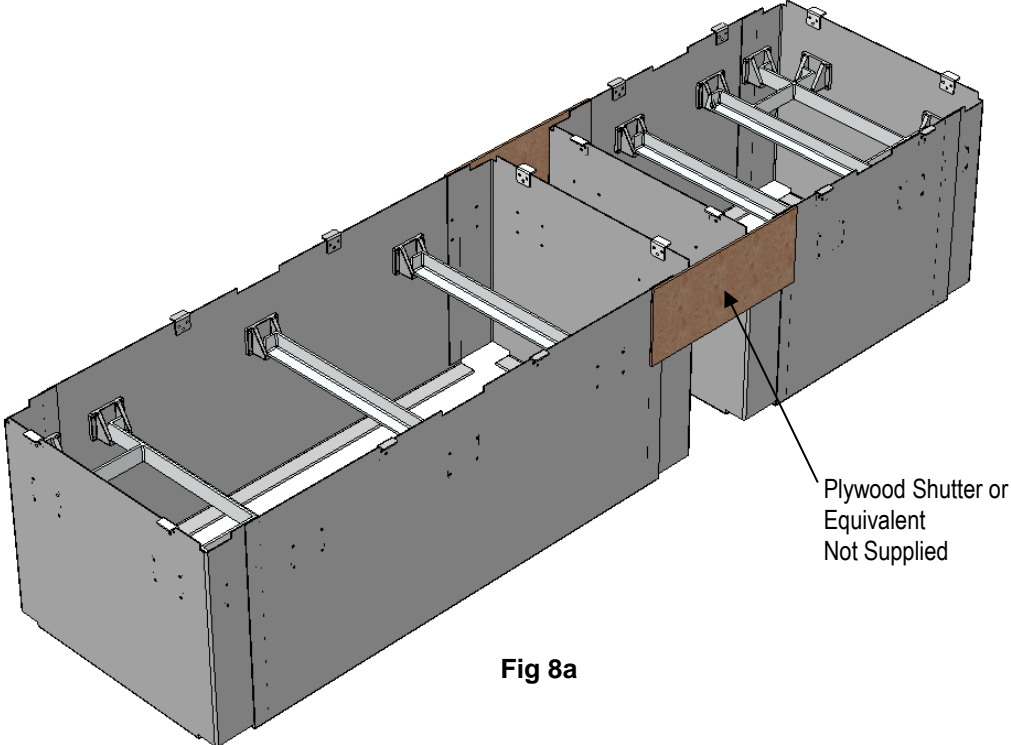
Fig 7

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.

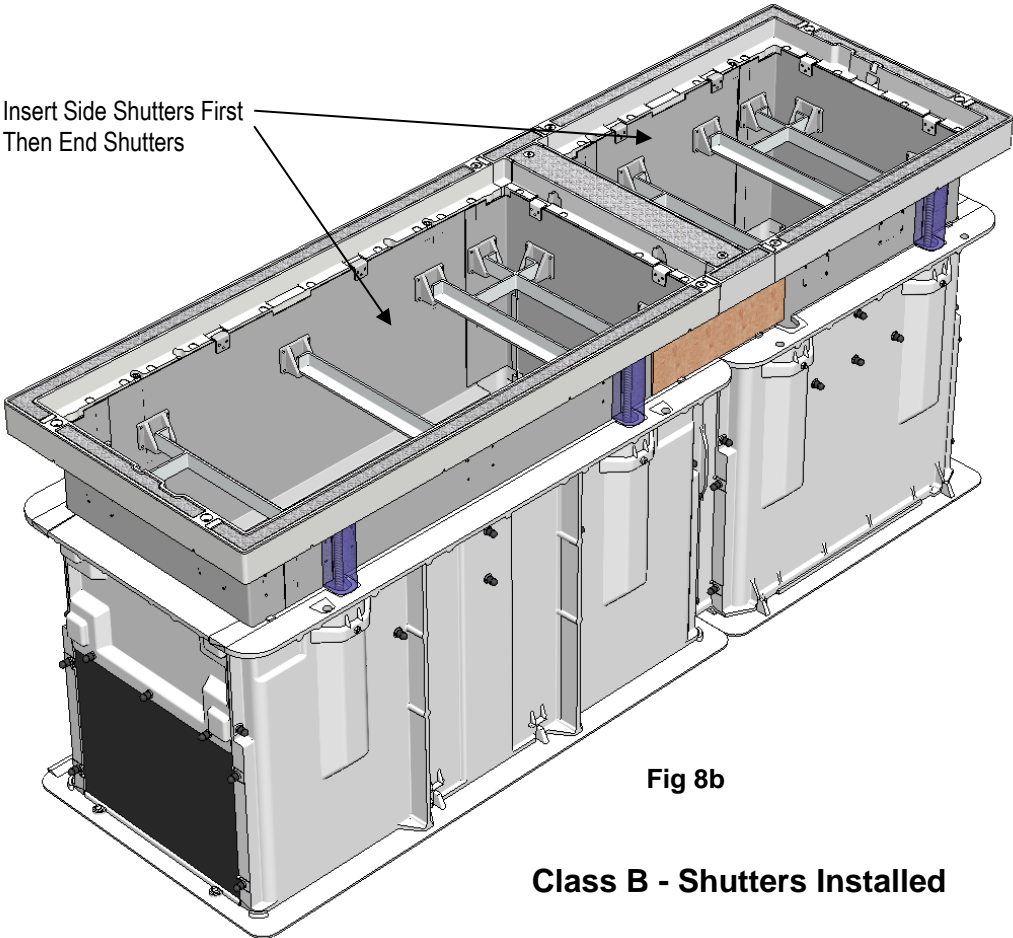
The **thread protector** polyethylene foam tubing can be cut to length with a sharp knife if required.

**Reusable Chamber Shutters**



Plywood Shutter or  
Equivalent  
Not Supplied

**Fig 8a**



Insert Side Shutters First  
Then End Shutters

**Fig 8b**

**Class B - Shutters Installed**