



**Car Park Expansion  
Joint Cover System**

# CP Series

**Installation Guide**



The CP Series Expansion Joint System is low profile, waterproof, with a high point load capacity suitable for vehicle and pedestrian traffic without moving parts that generate noise.

[www.miska.com.au](http://www.miska.com.au)

Refer to the back of this booklet for contact information.

# Installation Guidelines

CP Series

## Step 1

### Product Selection

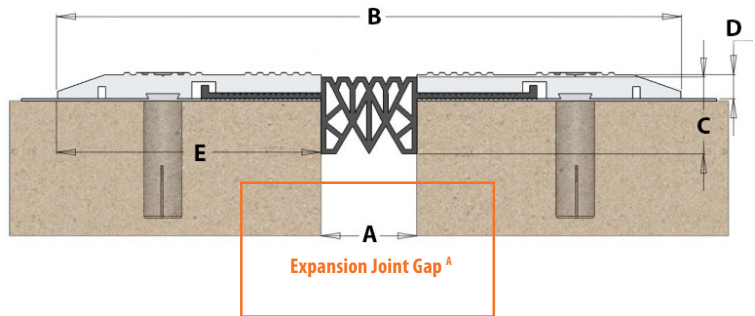
It's recommended that prior to starting any site work that the Expansion Joint Gap and stated Movement range is checked to ensure that the correct size CP Compression Seal has been specified for the installation.

#### Checks that can be completed include:

(A) Check the physical gap on site, and the movement range stated for the installation against the data in the table below to ensure the correct size seal has been specified.

**Note:** If the movement range is not clear then the relevant principal contractor or engineer should be consulted.

(B) Measure the depth of the gap on site to ensure there is enough depth to cater for the depth of the seal. See Min Gap Depth as stated in the table below.



### CP Series Product Specifications

No Block-out required.

Part #	A = Gap				B = Exposed Width			C	D	E
	Min	Mid	Max	Mvmt	Min	Mid	Max	Height	Height	Width
EJCPS40	12mm	25mm	38mm	26mm	232mm	246mm	260mm	32mm	10mm	110mm
EJCPS65	30mm	47mm	63mm	33mm	250mm	267mm	284mm	52mm	10mm	110mm
EJCPS95	45mm	69mm	93mm	48mm	265mm	290mm	315mm	72mm	10mm	110mm



## Step 2

### Levelling and Preparation of the Concrete Surface

(A) Ensure concrete decks are level & flat each side of the construction joint gap where the locking plates are to be installed. Horizontal surfaces each side of the joint gap must be treated by grinding with abrasives to key the surface prior to application of Miska FC120™.

(B) High areas in the deck slab should be levelled by surface grinding & low areas can be raised by grinding and then filling using Miska™ FC122™ epoxy mortar or Miska™ FC120™ construction adhesive as appropriate for the amount of build up required.

Miska™ FC122™

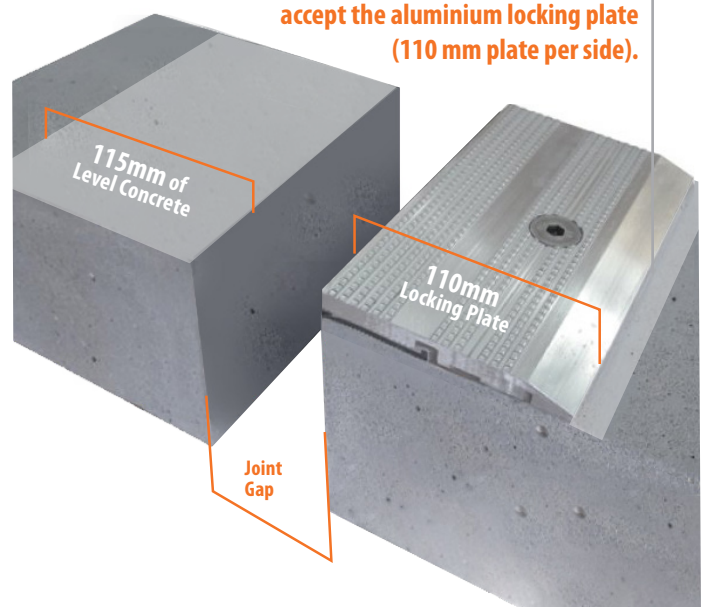
Build up, 10-100mm



Miska™ FC120™

Build up, 1-10mm

Level the concrete surface each side of the construction joint gap to accept the aluminium locking plate (110 mm plate per side).



**What you'll need:** Safety Knife, Cleaning Cloths/Rags, Isopropyl Alcohol, Notched Spreader.

# Installation Guidelines

CP Series

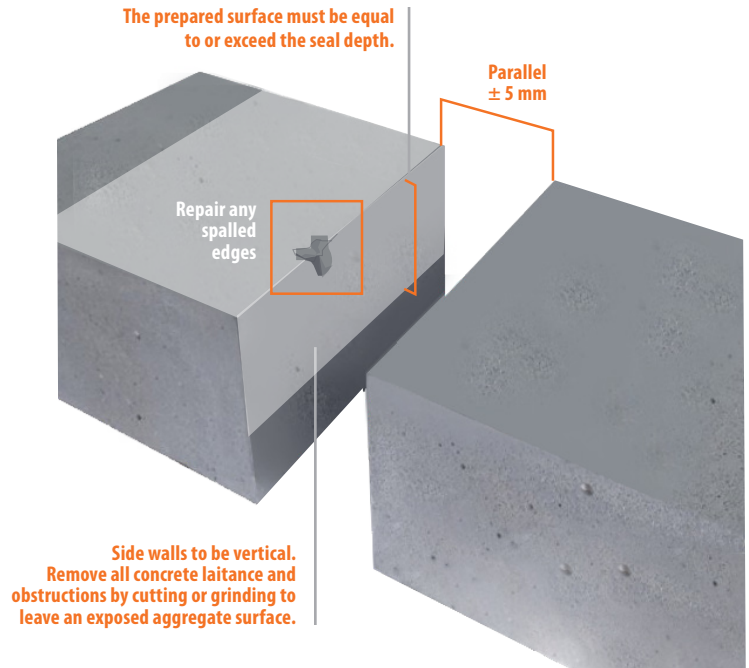
## Step 3

### Preparation of the Joint Gap and Substrate Surface

(A) Ensure that the vertical surfaces of the Joint Gap are parallel and any spalled edges or damaged Vertical surfaces are repaired using Miska™ FC120™ prior to fitting the seal to the joint.

(B) Remove all obstructions in the joint gap to allow a parallel flat surface for the seal to bond to. The prepared surface must be equal to or exceed the depth of the seal.

**Note:** Ensure the prepared horizontal and vertical surfaces are free from moisture, concrete laitance and dust etc.



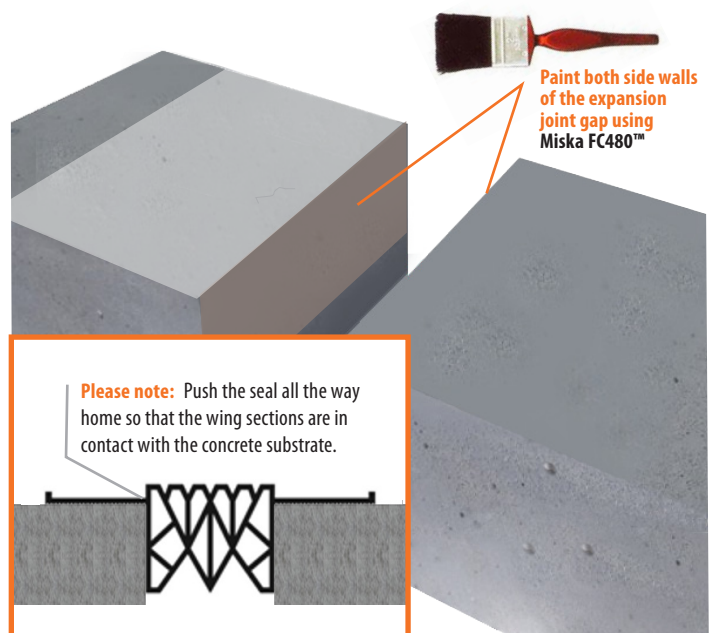
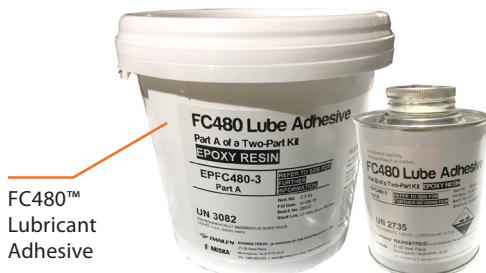
**Please note:** Miska™ recommends the remaining steps are performed per locking plate length (3.6 metres) to cater for Epoxy curing.

## Step 4

### Installation of the Compression Seal

(A) Paint both side walls of the expansion joint gap using Miska FC480™ Lubricant Adhesive and push the seal down in the Expansion Joint gap.

**Note:** FC480™ working time has an average of 1 Hour depending on the ambient temperature.



**What you'll need:** Safety Knife, Cleaning Cloths/Rags, Isopropyl Alcohol, Notched Spreader.

# Installation Guidelines

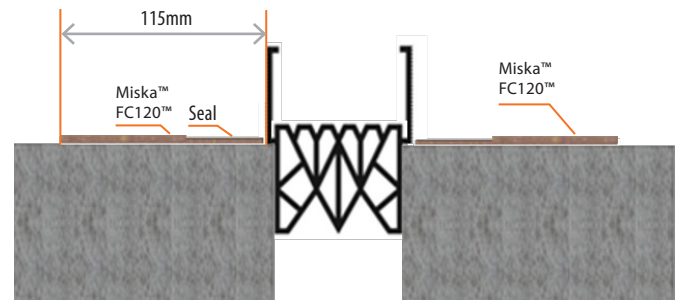
## CP Series

### Step 5

**Applying the Adhesive Bed** (USE A NOTCHED SPREADER - Not Supplied)  
(A) Lift the wing section of the compression seal and using a NOTCHED spreader, trowel FC120™ to the area of the concrete that will be covered by the Locking Plates.  
(i.e. 115mm each side of the joint gap).



**Note: FC120™ Adhesive Bed**  
Approx 1.0 mm Thick for the seal.  
Approx 3.0 mm Thick under the locking plate area.



**Note:** Adhesive continues on past the seal to form the bond with the locking plate.

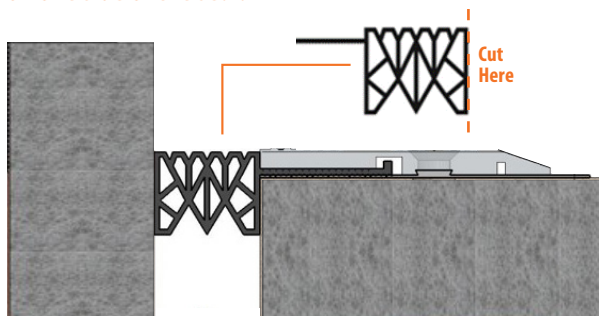
### Step 6

#### Locating the Aluminum Locking Plates

(A) Apply FC120™ to the top of the compression seal wings approx 0.5 mm Thick x the width of the wing internal (approx 46mm).

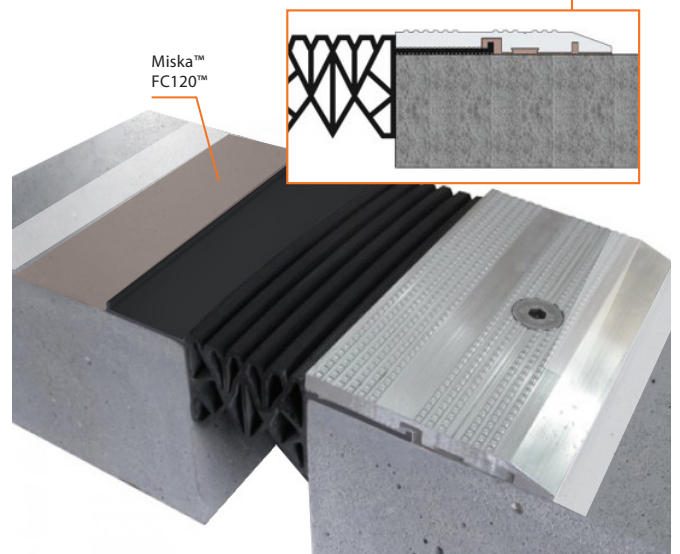
**Note:** Overfilling will hold the locking plate up off the substrate surface.

**Note: For Floor to Wall Installations:**  
Use a safety knife to remove the wing on one side of the seal.



#### Important Note:

Locate the Locking plates so that the back edge of the plates is hard against the compression seal body, this will locate the wing key into the Locking Plate cavity.



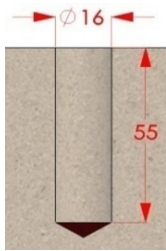
**What you'll need:** Safety Knife, Cleaning Cloths/Rags, Isopropyl Alcohol, Notched Spreader.

# Installation Guidelines

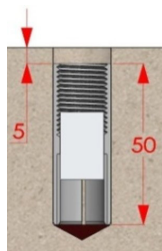
CP Series

## Step 7

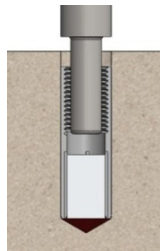
### CP Series Anchoring Process



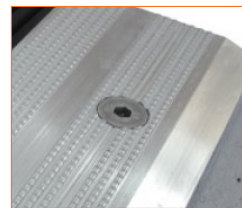
**FIG 1:**  
Drill the correct diameter (16 mm) hole to the required depth for the DSM12 (55 mm). Clean hole thoroughly with a brush or air pump.



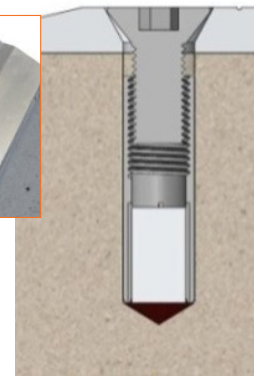
**FIG 2:**  
Push the anchor into the hole.



**FIG 3:**  
Insert a SETDS4 t setting tool (not included) of the same diameter as the anchor until it makes contact with the cone. Use a hammer to drive the setting tool into the anchor – stop hammering when the expander rests against the anchor or when it is blocked (in hard concrete).



**FIG 4:**  
Screw in & tighten the M12 Stainless Steel fixing screws.



## Step 8

### Clean up

(A) Trowel away any excess FC120™ Construction Adhesive that has squeezed out from under the plates due to pressure applied while tightening the screws.

Epoxy can be cleaned up using Isopropyl Alcohol\*.

Use white cotton rags\* to avoid staining.

\* (not supplied)



## Materials and Components Supplied

### As part of the standard CP Series, you will receive:

- Aluminum Extruded Locking Plates 3.6m lengths
- Seals: 40, 65 or 95mm as ordered (25m lengths)
- FC480™ Lubricant Adhesive, 1 x Unit per 30 metre
- FC120™ Epoxy Adhesive, 1 x Unit per 4 metre
- 12mm CSK S/Steel Screws, 3.6 per metre
- Ramset DSM12 Anchor, 3.6 per metre
- May Require:** Ramset SETDS4 Setting Tool (sold separately)

### Other Material Considerations:

- Extra FC120™ for areas of concrete that require extra build up. i.e. Build up greater than 2mm up to 10mm
- FC122™ for areas of concrete that require high build up i.e. Build up greater than 10mm
- Miska™ LF110™ for joining of the Seal lengths

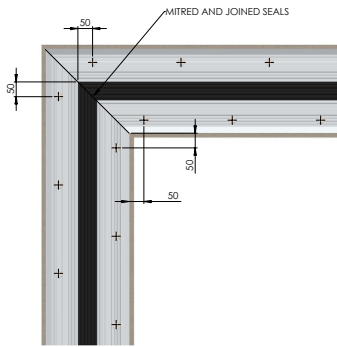


**What you'll need:** Safety Knife, Cleaning Cloths/Rags, Isopropyl Alcohol, Notched Spreader.

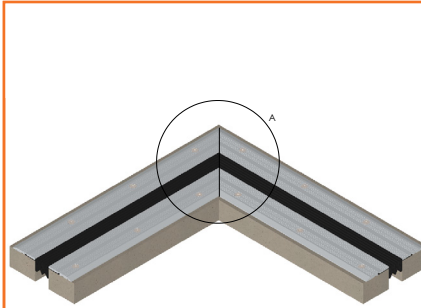
# Installation Guidelines

## CP Series Aluminum Locking Plate Intersection Detail

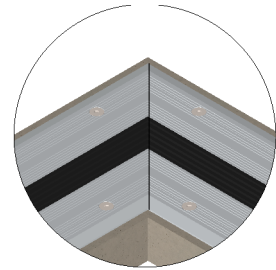
### 2 Way Intersection Detail:



Plan View

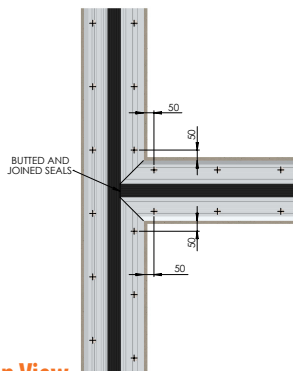


Isometric View

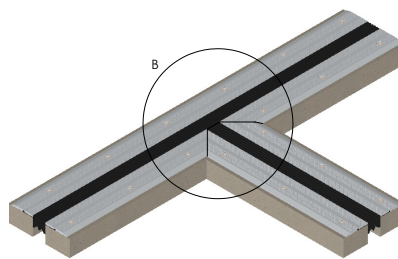


Detail view

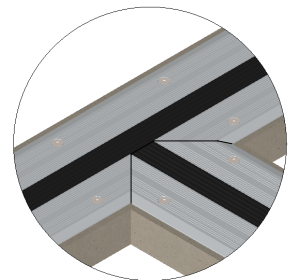
### 3 Way Intersection Detail:



Plan View

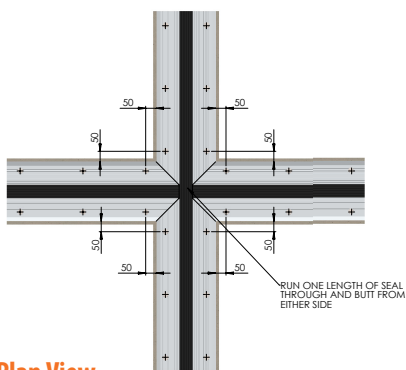


Isometric View

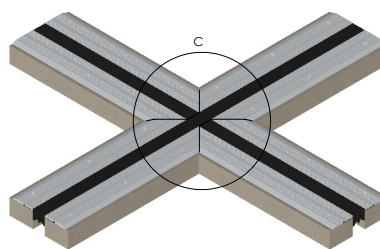


Detail view

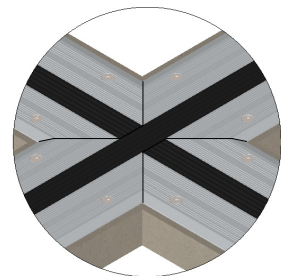
### 4 Way Intersection Detail:



Plan View



Isometric View

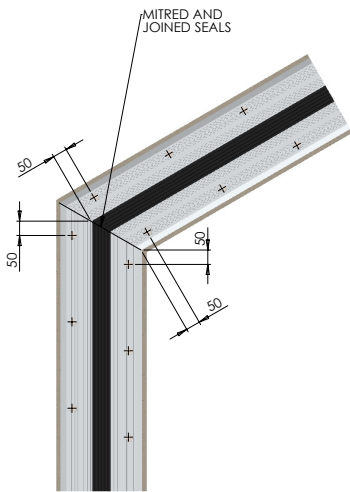


Detail view

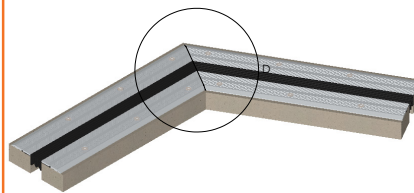
# Installation Guidelines

## CP Series Aluminum Locking Plate Intersection Detail

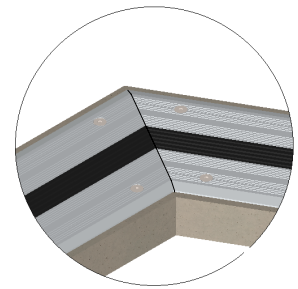
### Angled Intersection Detail:



Plan View

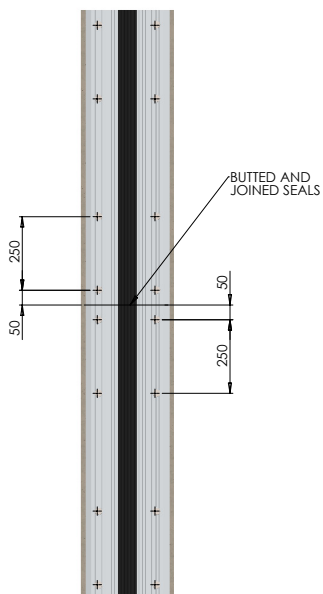


Isometric View

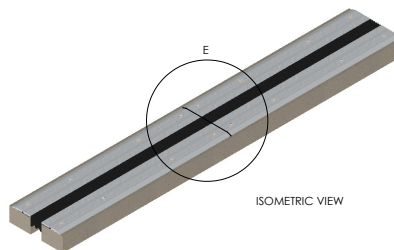


Detail view

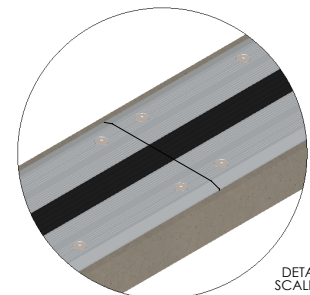
### Butt Join Intersection Detail:



Plan View



Isometric View

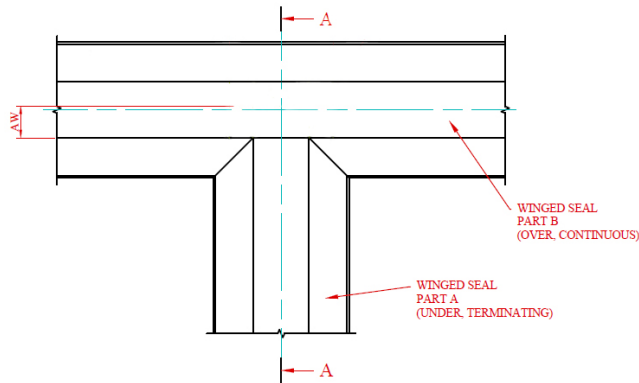


Detail view

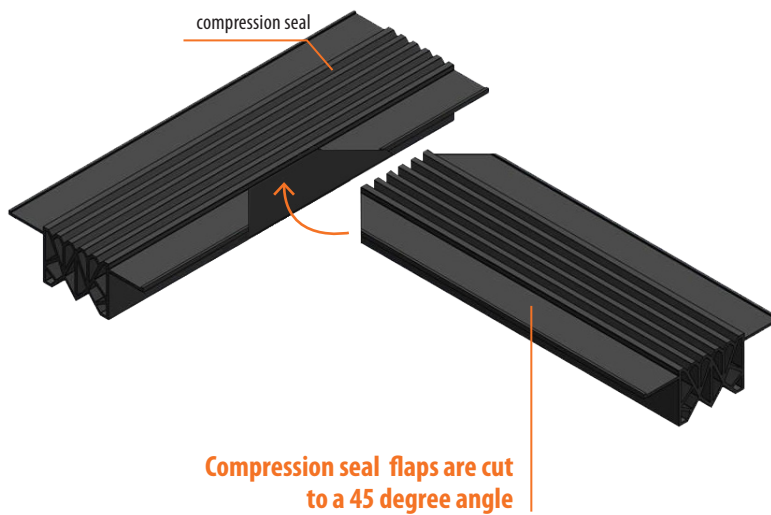
# Cutting Guidelines

## T & 4 Way Intersection Detailing with Winged Seal Modification

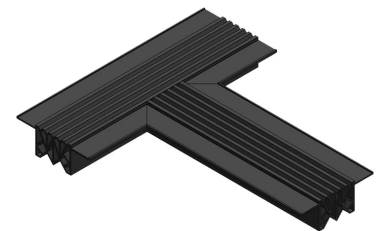
### T-Intersection (3-Way)



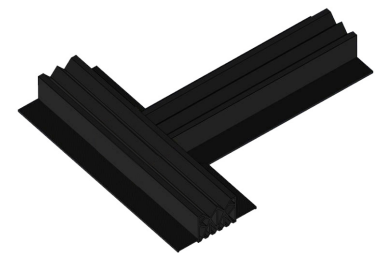
Plan View



T - Intersection Top Exploded



T - Intersection Top

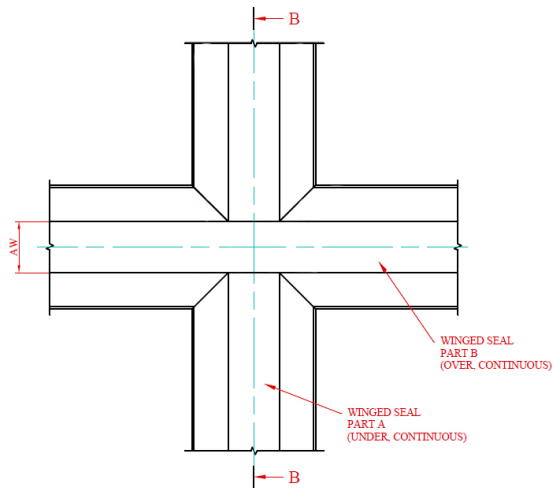


T - Intersection Bottom

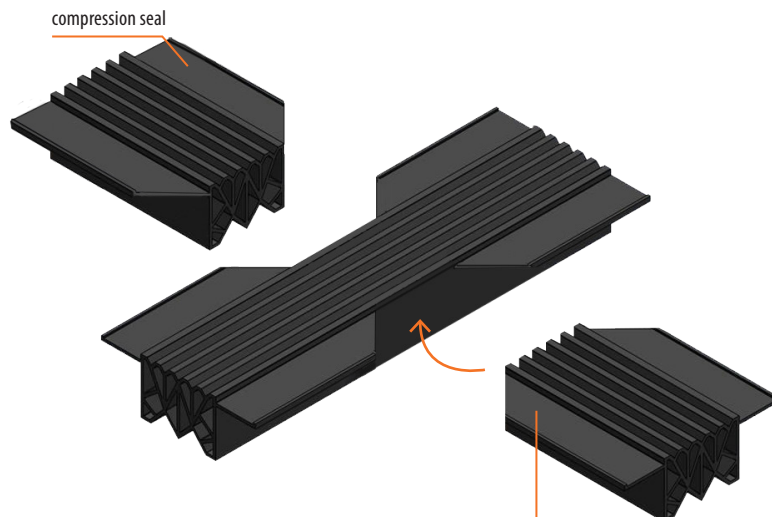
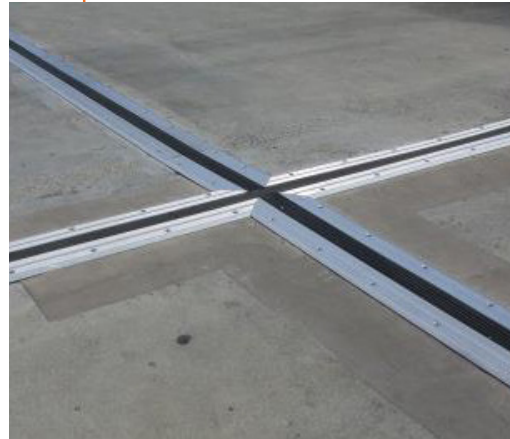
# Cutting Guidelines

## T & 4 Way Intersection Detailing with Winged Seal Modification

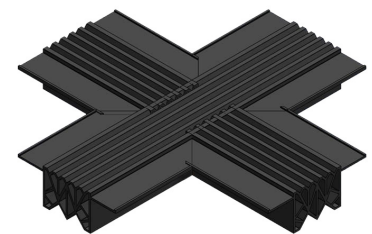
### 4 Way-Intersection (4-Way)



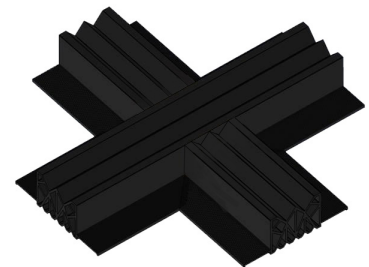
Plan View



Compression seal flaps are cut to a 45 degree angle



4 Way-Intersection Top



4 Way-Intersection Bottom

4 Way-Intersection Top Exploded

# CP Seal Joining Process

## Required tool:

Miska™ LF110™ Heat Welding Pad



### Step 1

Cut the Seal ends square.



### Step 2

**IMPORTANT:** Set Heatpad to a maximum temperature of 220°.



### Step 3

Heat the Seal ends on the Heatpad for 30 seconds at 220°.



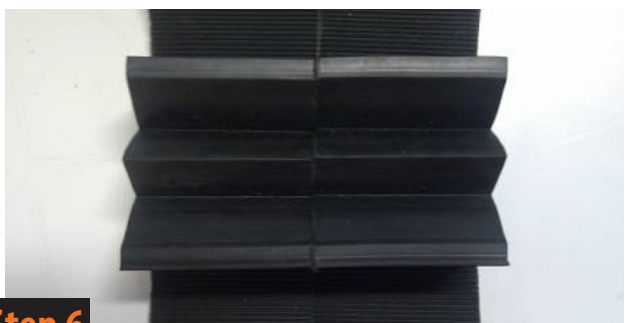
### Step 4

Remove the Seals from the Heatpad and hold ends together for 20 seconds to create a bond.



### Step 5

After the weld has cooled down (approx 2-3 minutes) test the weld by applying some force to seals at the weld.



### Step 6

Welded Santoprene™ TPV Seals are ready for installation.

# Installation

## Critical Key Points

At installation, ramsetreid recommends the nomination of an appropriate person as the designated QA Manager - a person who takes responsibility for the installation process on-site and ensures that the following key points are adhered to.

Ensure the installation steps in the instructions above are followed and the installation checklist as well as witness points are signed off by the appropriate person.

- Ensure the correct product has been selected. ☐
- Ensure that the correct seal size has been selected for the expansion joint gap.  
i.e. Maximum gap opening of 63mm = the 65mm seal, Code: CPS65. ☐
- Ensure the depth of the gap is greater than the depth of the seal.  
e.g. the 65mm seal requires a clean and parallel gap with a minimum depth of 52mm. ☐
- Ensure that any levelling of the substrate required has been completed and that the surface of the substrate is prepared correctly, Steps 2 and 3 of these instructions. ☐
- Ensure correct pre mixing of the separate epoxy A and B Units takes place and that the epoxies are used in the appropriate places FC480™ in the gap, FC120™ on the surface. ☐
- Ensure the correct thickness of the adhesives is applied. ☐
- Ensure the Locking plates are located correctly ☐
- Ensure the correct diameter and depth hole is drilled for the anchors  
and that the anchors are seated correctly. ☐

### During the Installation Process

Witness and sign off at the witness points of the installation checklist (see below) ☐

### After the installation is complete

Return a copy of the installation checklist to ramsetreid® to register the installation for warranty. ☐

## Installation Checklist

Installer:

Date:

Project / Site:

Max temp:

Assigned QA Manager:

Title:

Average Gap Width at Installation:

	Installation Step	Sign off Witness:	Date
1	PRODUCT SELECTION: Correct Seal size has been selected for the gap at the time of installation, Max seal size suits the Max expected gap range. As per Step 1.		
2	LEVELLING AND PREPARATION OF THE CONCRETE SURFACE: The concrete surfaces / rebates have been levelled each side of the expansion joint gap, low areas have been built up and high areas have been ground down to create a level and flat surface. The joint gap vertical surfaces are parallel and any spalled edges have been repaired. As per Steps 2 and 3.		
3	PREPARATION OF THE JOINT GAP: Both vertical faces of the concrete in the gap have been prepared correctly to exposed aggregate. As per step 3.		
4	INSTALL AND LOCATE THE COMPRESSION SEAL: The vertical faces of the substrate in the gap have been fully coated with FC480™ Lubricant adhesive to below the depth of the compression seal and the compression seal has been installed all the way into the gap with the wings of the seal pressed firmly down on the horizontal surface of the concrete. As per Step 4.		
5	APPLICATION OF THE ADHESIVE BEDDING: The adhesive bedding has been applied as per the guide, approx 1.0mm thick under the seal and approx 3.0mm thick under the locking plate area using a notched spreader to allow room for the adhesive to spread out as the plates are being tightened down with the fixings. As per Step 5.		
6	LOCATING THE ALUMINIUM LOCKING PLATE: The Locking Plates are installed so that the back edge of the plate is firm against the compression seal and the wing key of the compression seal is located in the Locking Plate cavity. As per the Diagram in Step 6 marked: "Important Note"		
7	ANCHORING: Correct size holes (16mm Diameter x 55mm Depth) have been drilled and the anchors have been set by driving the cone down to expand the shoulders to the concrete. The M12 Countersunk screws have been tightened to pull the Locking Plates down flat. As per Step 7.		
8	CLEAN UP: All excess Epoxy has been trowelled away from the edges of the Locking Plates and any Epoxy squeezing out of the fixing holes has been cleaned up. As per Step 8.		

Return the completed checklist to ramsetreid for Warranty record purposes.

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