

CXJ EXPANSION JOINT SEAL INSTALLATION GUIDE

The CXJ-200/CXJ-400 expansion joint seal is designed for use at structural concrete expansion joints in below-grade foundations including backfilled walls, under slabs, and blind-side shoring wall applications, such as soldier pile and lagging. The CXJ-200/CXJ-400 expansion joint seal can be used for both hydrostatic and non-hydrostatic conditions.

BACKFILLED INSTALLTION: VOLTEX & ULTRASEAL

Step 1:

Ensure that the substrate is clean and free from all debris and protrusions.

When installing the CXJ-200/CXJ-400 expansion joint seal in a backfilled foundation wall (positive-side), first insert the center gland of the CXJ-200/CXJ-400 expansion joint into the existing structural expansion joint to the depth where the narrow flanges are flush with the outside wall surface.

Step 2:

Next pull back one wide flange to expose the narrow flange and install a termination bar at the outside edge of the narrow flange.

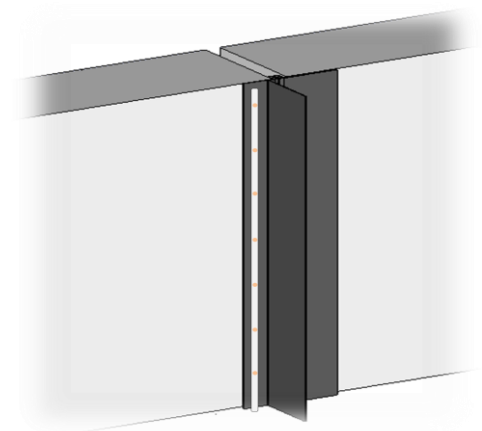
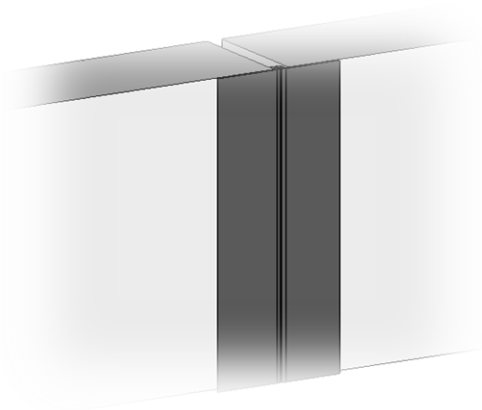
Fasten term bar into the concrete with a threaded concrete anchor, 100 mm (4") on center, for the entire length of the expansion joint.

Repeat this termination bar installation procedure over the narrow flange on the other side of the expansion joint.

Step 3:

Pull back the wide flange, and trowel a continuous layer of Bentoseal (minimum 8mm (1/4") thick) covering the entire narrow flange and termination bar.

Extend the Bentoseal application onto the concrete surface a minimum of 50mm (2") past the width of the narrow flange.



Step 4:

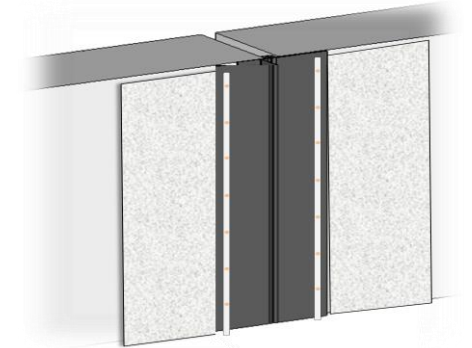
Install the waterproofing membrane between the narrow flange and wide flange embedded into the layer of Bentoseal. Ensure that the waterproofing membrane is pressed firmly into the Bentoseal layer. Press the wide flange against the waterproofing membrane.

Repeat this process on the other side of the CXJ-200/CXJ-400 expansion joint.

**Step 5:**

Starting at the base of the CXJ-200/CXJ-400, install a second termination bar, fastened 200 mm (8") on center, along the edge of the wide flange, up to 300 mm (12") below finished grade.

Once the installation has reached the height 300mm (12") below finished grade, fasten the termination bar every 100mm (4") on center.

**Step 6:**

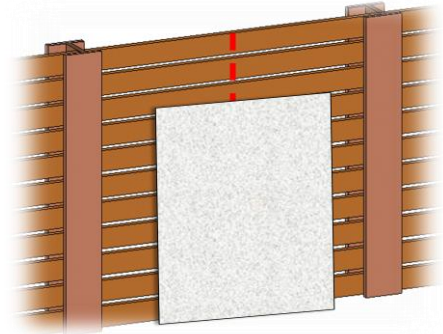
To complete the installation, install an entire sheet of waterproofing membrane (1 full width), stripped in along the entire length of the CXJ-200/CXJ-400 expansion joint seal

Tie into the adjacent waterproofing membrane according to the membrane installation guidelines.

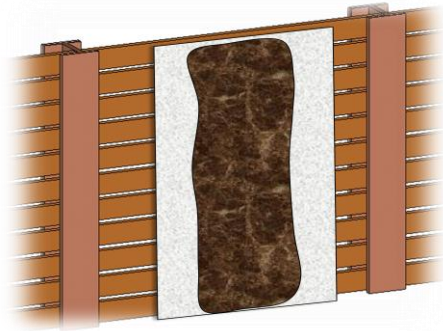


PROPERTY LINE INSTALLTION: VOLTEX & ULTRASEAL**Step 1:**

When applying the CXJ-200/CXJ-400 expansion joint seal in a property line wall condition (application onto the shoring system to which concrete will be placed), mark the location of the structural expansion joint need. Install a full roll width of waterproofing membrane centered over the expansion joint centerline, along the entire length of the expansion joint.

**Step 2:**

Then apply a continuous layer of Bentoseal, onto the waterproofing membrane, extending laterally a minimum of 400 mm (16"). Then apply a 400 mm (16") wide by 8 mm (1/4") thick continuous layer of Bentoseal on the waterproofing membrane, centered at the expansion joint.



The joint can be temporarily held in place by fastening the CXJ-200/CXJ-400 expansion joint seal at the edge of the wide flange.

**Step 3:**

Fully embed the CXJ-200/CXJ-400 expansion joint seal, centered, into the continuous 8 mm (1/4") thick Bentoseal layer.

**Step 4:**

Pull back the narrow flange and apply an additional continuous 8 mm (1/4") thick layer of Bentoseal across the entire surface of the wide flange and extending into the previously applied Bentoseal layer.



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Step 5:

Next, install a vertical strip of waterproofing membrane along both sides of the CXJ-200/CJX-400 expansion joint seal between the narrow flange and the wide flange. Then install a termination bar running parallel along the exterior edge of the narrow flange, and fasten, 100 mm (4") on center with manufacturer provided 6" shoring anchors through the entire CXJ-200/CXJ-400 expansion joint seal and waterproofing assembly securing the assembly to the shoring system.



BACKFILLED INSTALLTION: COREFLEX 60

Step 1:

Ensure that the substrate is clean and free from all debris and protrusions.

When installing the CXJ-200/CXJ-400 expansion joint seal in a backfilled foundation wall (positive-side), first insert the center gland of the CXJ-200/CXJ-400 expansion joint into the existing structural expansion joint to the depth where the narrow flanges are flush with the outside wall surface.

Step 2:

Next pull back one wide flange to expose the narrow flange and install a termination bar at the outside edge of the narrow flange.

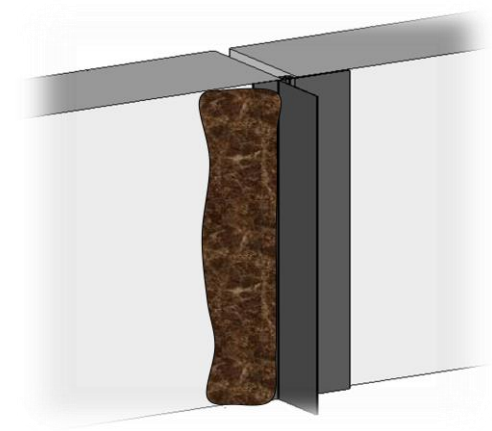
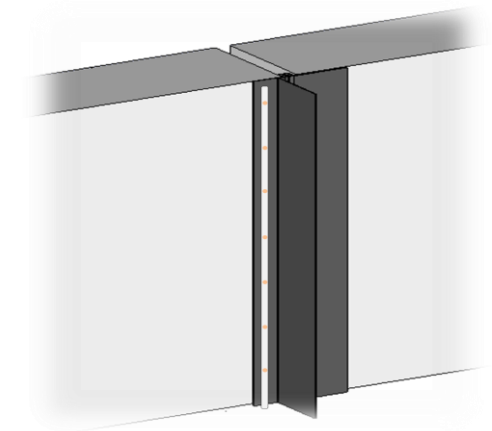
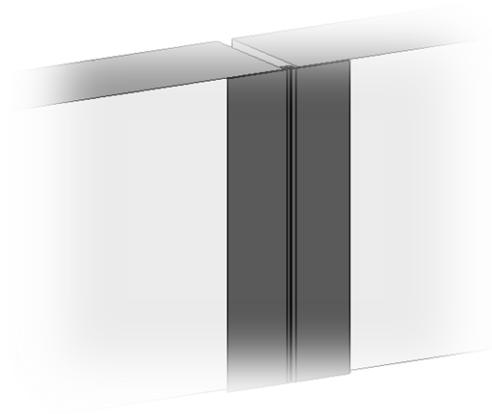
Fasten term bar into the concrete with a threaded concrete anchor, 100 mm (4") on center, for the entire length of the expansion joint.

Repeat this termination bar installation procedure over the narrow flange on the other side of the expansion joint.

Step 3:

Pull back the wide flange, and trowel a continuous layer of Bentoseal (minimum 8mm (1/4") thick) covering the entire narrow flange and termination bar.

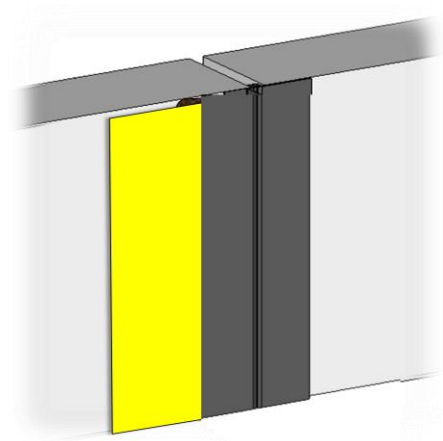
Extend the Bentoseal application onto the concrete surface a minimum of 50mm (2") past the width of the narrow flange.



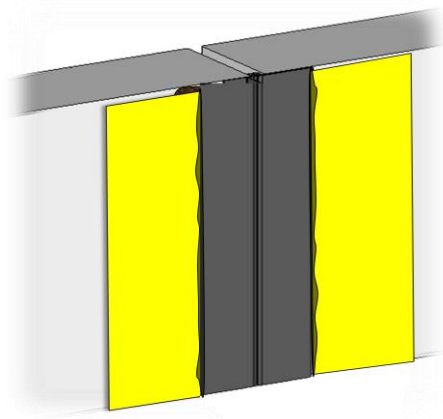
Step 4:

Install the waterproofing membrane between the narrow flange and wide flange embedded into the layer of Bentoseal. Ensure that the waterproofing membrane is pressed firmly into the Bentoseal layer. Press the wide flange against the waterproofing membrane.

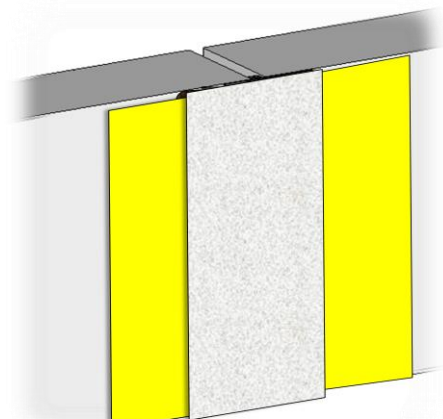
Repeat this process on the other side of the CXJ-200/CXJ-400 expansion joint.

**Step 5:**

Starting at the base of the CXJ-200/CXJ-400, weld the wide flange of the CXJ-200/CXJ-400 expansion joint to the yellow side of the CoreFlex 60 membrane to the top of finished grade.

**Step 6:**

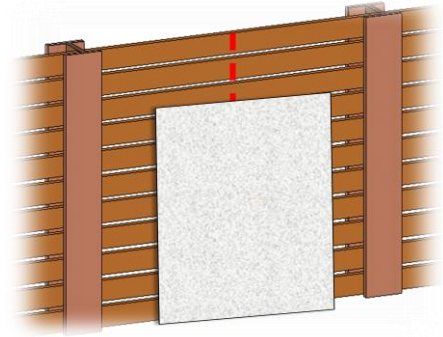
To complete the installation, install an entire sheet of waterproofing membrane (1 full width), stripped in along the entire length of the CXJ-200/CXJ-400 expansion joint seal. Tack weld the full width sheet to keep in place.



PROPERTY LINE INSTALLTION: COREFLEX 60

Step 1:

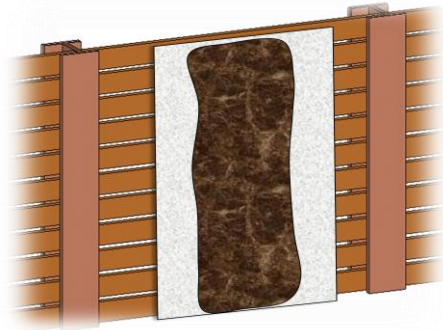
When applying the CXJ-200/CXJ-400 expansion joint seal in a property line wall condition (application onto the shoring system to which concrete will be placed), mark the location of the structural expansion joint need. Install a full roll width of Voltex centered over the expansion joint centerline, along the entire length of the expansion joint.



Step 2:

Then apply a continuous layer of Bentoseal, onto the waterproofing membrane, extending laterally a minimum of 400 mm (16"). Then apply a 400 mm (16") wide by 8 mm (1/4") thick continuous layer of Bentoseal on the waterproofing membrane, centered at the expansion joint.

The joint can be temporarily held in place by fastening the CXJ-200/CXJ-400 expansion joint seal at the edge of the wide flange.



Step 3:

Fully embed the CXJ-200/CXJ-400 expansion joint seal, centered, into the continuous 8 mm (1/4") thick Bentoseal layer. Fasten or terminate the long flanges into the shoring.



Step 4:

Pull back the narrow flange and apply CoreFlex 60 with the selvedge PVC Edge extending between the wide flange and narrow flange. Take care not to contaminate the outward facing surface of the selvedge PVC edge with Bentoseal.

**Step 5:**

With a hot air welder, weld the narrow flange of the CXJ-200/CXJ-400 expansion joint system to the PVC selvedge edge of the CoreFlex 60 waterproofing membrane strip.

**Step 6:**

Repeat steps 4-6 on the other side of the CXJ-200/CXJ-400 expansion joint system.

