

Installation Instructions

Joint Systems: AR Series

Note: Seals are delivered in either wooden reels or large steel reels depending on order size and contractor storage ability. Store reels under a tarpaulin (tarp) to keep the seals clean and free from damage. Keep epoxy and adhesive from freezing. Prior to installation, wipe seal down entirely with denatured alcohol to ensure proper adhesion to primer and epoxy.

A. Preparation of the Work Area

1. Please read through entire instructions before installation.
2. Make sure the width and depth of the joint face are 90° to the slab's surface.
3. If spalling forms marks or voids in concrete are present, it is critical to repair it prior to seal installation. Ask your InPro representative for spawl repair product options.
4. Measure along length of joint to ensure opening is correct size for joint material. Remediate deviations that exceed product tolerances.
5. To ensure successful installation, clean the blockout/joint edge of all contaminants and impurities, such as water repellents, laitance, surface dirt/rust and old sealants, by sandblasting from no greater than 6" off surface before installation. Remove all dust before installation by wiping joint faces with a denatured alcohol soaked cloth rag.

NOTE: Poor surface prep is the leading cause for seal bond failure. InPro's epoxy can be used on metal pour stops however wirebrush orbital grinding or wirebrush attachment must be used to create grooves in surface for mechanical adhesion.

B. Recommended Equipment

- Wire Brush
- Bullnose or margin trowel
- Protective gloves
- Denatured alcohol or Xylene
- Non-serrated blade
- Mortar mix paddle
- Duct tape
- Craft paper
- Clean rags
- Splicing iron
- 2" Roller / Chip brush
- 5 gal bucket
- Electric drill

IPC.889/REV.10

JOINTMASTER® **Expansion Joint Systems**

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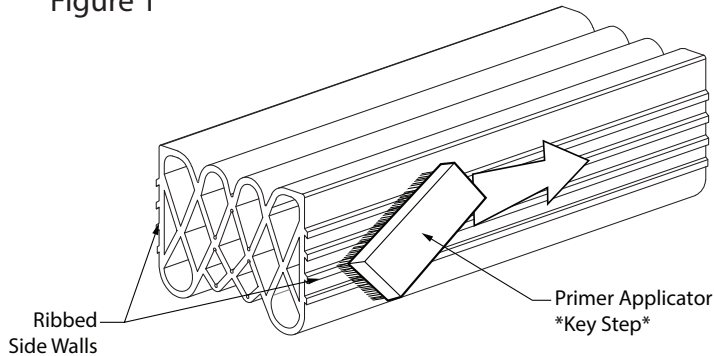
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Figure 1



C. Primer and Seal Prep.

Figure 1

1. Reference the primer and epoxy SDS sheet for safety precautions.
2. Using a wire brush scrub the sides of the seal.
3. Using a small brush, apply primer to the entire length of both ribbed side walls. Allow primer to dry for 15 minutes minimum to improve adhesion with joint opening. The primer chemically “prepares” the seal for epoxy adhesion

Figure 2

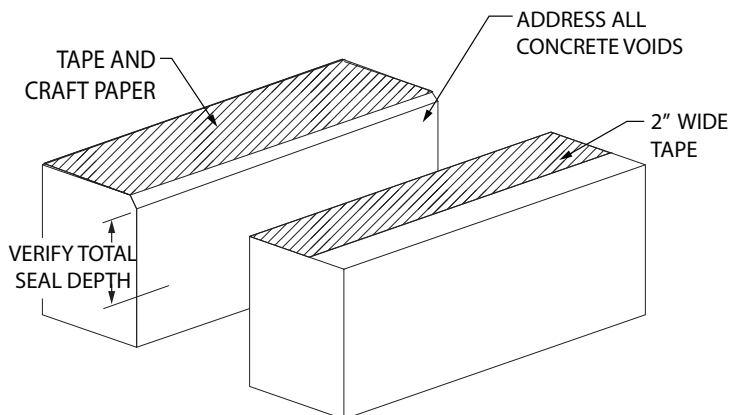


Figure 2

4. Line the edge of the structural joint with 2" wide tape, such as blue painters tape or duct tape.
5. The finished installed depth is critical to compression seal performance, make sure seal is installed to proper depth.
6. Prep edge of joint by placing duct tape along one side to keep the concrete clean. Along the adjacent edge of joint use tape and craft paper to allow an area for prepping the seal and keep the area clean. Tape the top of seal. (see Figure 3)

$$\text{Seal Height} + 1/4" [6\text{mm}] = \text{Total Seal Depth}$$

NOTE: If the seal is too deep, the joint may gather debris such as rocks, or nails which may cause damage to the seal or joint face. If the seal is too shallow, the seal may receive abrasive wear from tire contact or be pulled out by snowplows.

7. The ideal depth is 3/16" [5mm] below the joint edge. When seal is installed in a joint with a beveled edge, the top surface of the seal should be installed 1/16" [2mm] below the bottom of the bevel (see Figure 4).

D. Installation of Seal

Figure 3

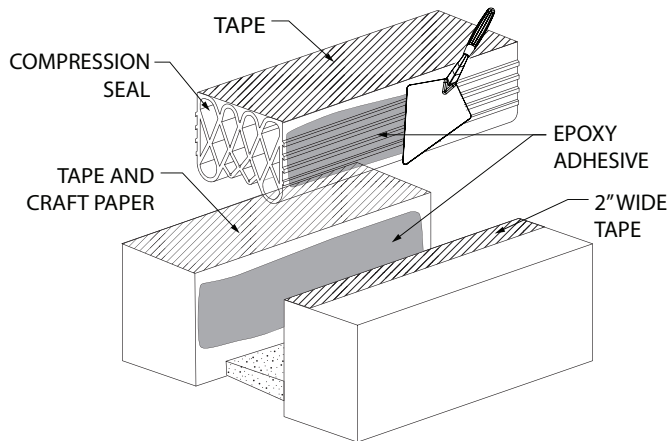
1. Storage temperature is 40°-95°F (4°-35°C). Before use material temperature is 65°-75°F (18°-24°C).

WARNING: For hot weather installs, keep epoxy coat in an ice chest (cooler) and mix epoxy in smaller batches to increase workable time. For cold weather, ensure components do not freeze and temperature is a minimum of 47°F (7°C).

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Figure 3



2. Apply primer directly to side of seal (as noted in figure 1) prior to mixing the epoxy.
3. Combine part A and B together in the proper ratio. Thoroughly mix using low speed drill (400 to 600 RPM) and paddle mixer for 3 minutes, until a uniform gray color is achieved.
TIP: The faster the epoxy is removed from the mixing can and applied, the longer it lasts.
4. Epoxy should be applied to both the inside joint walls and ribbed walls of the seal using a margin trowel or chip brush
5. Compress seal and insert into expansion joint opening, starting from one end and working toward the end condition before loading.
6. Allow the adhesive to cure 24 hours (at 70° F / 21° C). Maximum bond strength (at 70° F / 21° C) is usually achieved within 48 hours.

Figure 4

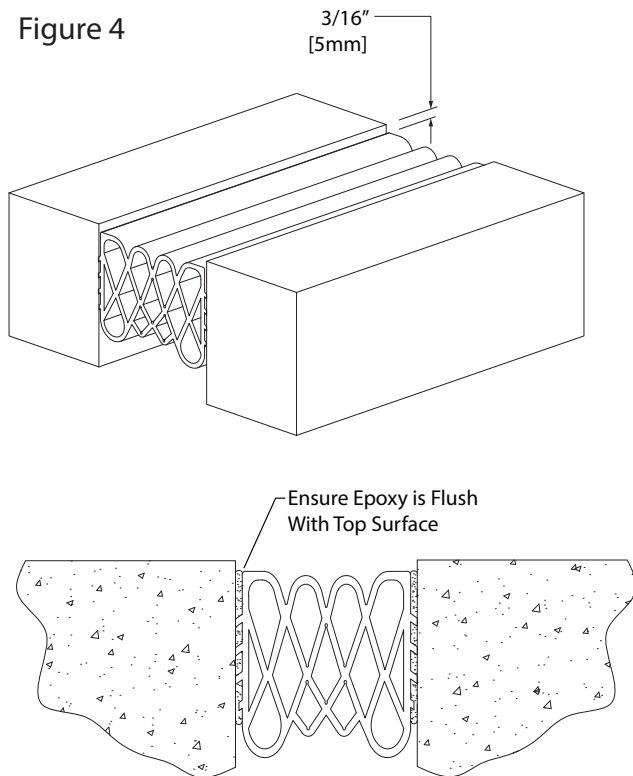


Figure 4

7. As seal is installed, clean the visible surface and ensure epoxy has been filled flush to top surface. A margin trowel may be used to remove any excess adhesive. **DO NOT ALLOW ADHESIVE TO CURE BEFORE CLEANING**
8. Once installation is complete, remove tape from joint edge and butt ends of the joint material (if used). Clean any adhesive off of joint surface.

IMPORTANT: If a installation can not be completed, leave approx. 2'-0" [60cm] of seal and substrate free of epoxy for later splicing and installation.
PROTECT PRODUCT FOR DURATION OF CONSTRUCTION UNTIL SIGN OFF BY OWNER.

Installation Instructions

Joint Systems: AR Series

Figure 5

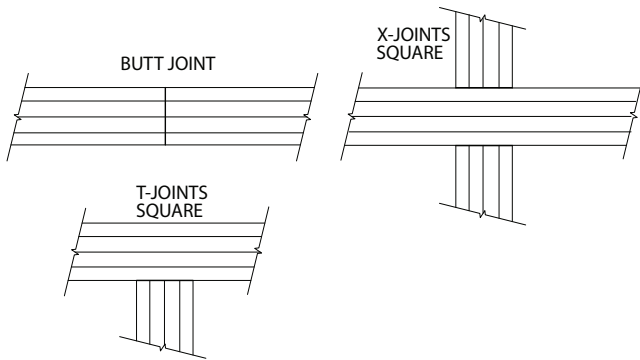


Figure 5: Butt End Intersections

1. Add approximately 1/2' - 1" extra material at seams to ensure that the seam is in compression after installation.
2. Verify that the new piece of material is cut square to existing material and not at an angle.
3. Using a Waterstop Splicing Flat Iron, heat both faces at medium high (425°F / 218°C) for 30-45 seconds maximum to be adhered. Once material of the heated area begins to curl, remove heat welder plate and use pressure to adjoin the faces together along the entire perimeter. Allow product to cool prior to install.
4. At "T" and "Cross" intersections install horizontal material first. Butt the vertical material up to the horizontal material.

Figure 6

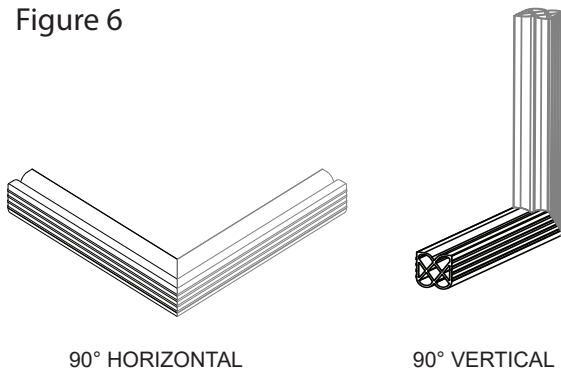


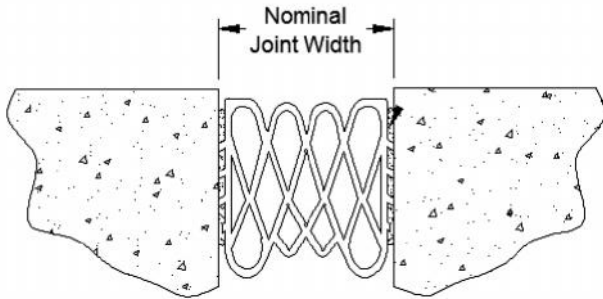
Figure 6: 45° & 90° Horizontal & 90° Vertical Intersections

1. Using a Miter Box, cut the seal with a smooth edge blade. Use denatured alcohol in a spray bottle liberally to assist in precision cutting. For a 90° angle, cut the two pieces to be mitered to 48° ±
2. Using a Waterstop Splicing Flat Iron, heat both faces to be adhered, as per instructions above.

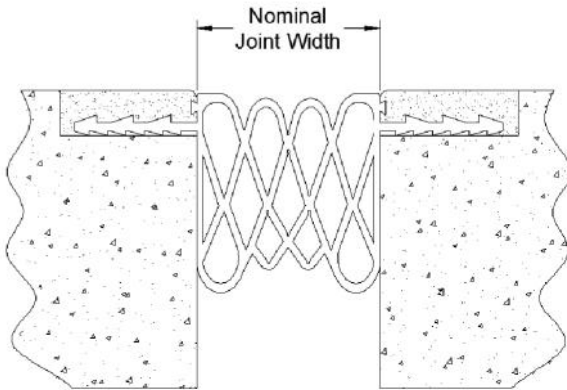
*IMPORTANT : If a splice is to be made because the installation cannot be completed, leave approx 2'-0" (600 mm) of seal substrate free of epoxy for later splicing.

DESCRIPTION: INSTALLATION GUIDELINES AS IMPACTED BY AMBIENT TEMPERATURE RANGES

JAR Series



JCR Series



TEMPERATURE RANGE		INSTALLATION GUIDELINES AS IMPACTED BY AMBIENT TEMPERATURE RANGES																	
		EXPANSION GAP DIMENSION																	
		JAR-100S				JAR or JCR-200S				JAR or JCR-300S				JAR or JCR-400S					
Deg.		F		C		Installation Range		Operating Range		Installation Range		Operating Range		Installation Range		Operating Range			
110	F	110	C	0.51	1.03	0.28	1.28	1.41	2.16	0.78	2.78	2.28	3.16	1.28	4.28	3.28	4.16	1.78	5.78
				13.0	26.0	7.0	32.0	35.0	54.0	19.0	70.0	57.0	80.0	32.0	108.0	83.0	105.0	45.0	146.0
100	F	100	C	0.57	1.09	0.34	1.34	1.47	2.22	0.84	2.84	2.34	3.22	1.34	4.34	3.34	4.22	1.84	5.84
				14.5	27.5	8.5	33.5	36.5	55.5	20.5	71.5	58.5	81.5	33.5	109.5	84.5	106.5	46.5	147.5
90	F	90	C	0.63	1.11	0.36	1.36	1.49	2.24	0.86	2.86	2.36	3.24	1.36	4.36	3.36	4.24	1.86	5.86
				16.0	29.0	10.0	35.0	38.0	57.0	22.0	73.0	60.0	83.0	35.0	111.0	86.0	108.0	48.0	149.0
80	F	80	C	0.69	1.17	0.42	1.42	1.55	2.30	0.92	2.92	2.42	3.30	1.42	4.42	3.42	4.30	1.92	5.92
				17.5	30.5	11.5	36.5	39.5	58.5	23.5	74.5	61.5	84.5	36.5	112.5	87.5	109.5	49.5	150.5
*70	F	*70	C	0.75	1.25	0.50	1.50	1.63	2.38	1.00	3.00	2.50	3.38	1.50	4.50	3.50	4.38	2.00	6.00
				19	32	13	38	41	60	25	76	63	86	38	114	89	111	51	152
60	F	60	C	0.81	1.33	0.58	1.58	1.71	2.46	1.08	3.08	2.58	3.46	1.58	4.58	3.58	4.46	2.08	6.08
				20.5	33.5	14.5	39.5	42.5	61.5	26.5	77.5	64.5	87.5	39.5	115.5	90.5	112.5	52.5	153.5
50	F	50	C	0.87	1.39	0.64	1.64	1.77	2.52	1.14	3.14	2.64	3.52	1.64	4.64	3.64	4.52	2.14	6.14
				22.0	35.0	16.0	41.0	44.0	63.0	28.0	79.0	66.0	89.0	41.0	117.0	92.0	114.0	54.0	155.0
40	F	40	C	0.93	1.45	0.70	1.70	1.83	2.58	1.20	3.20	2.70	3.58	1.70	4.70	3.70	4.58	2.20	6.20
				23.5	36.5	17.5	42.5	45.5	64.5	29.5	80.5	67.5	90.5	42.5	118.5	93.5	115.5	55.5	156.5
30	F	30	C	0.99	1.51	0.76	1.76	1.89	2.64	1.26	3.26	2.76	3.64	1.76	4.76	3.76	4.64	2.26	6.26
				25.0	38.0	19.0	44.0	47.0	66.0	31.0	82.0	69.0	92.0	44.0	120.0	95.0	117.0	57.0	158.0
20	F	20	C	1.05	1.57	0.82	1.82	1.95	2.70	1.32	3.32	2.82	3.70	1.82	4.82	3.82	4.70	2.32	6.32
				26.5	39.5	20.5	45.5	48.5	67.5	32.5	83.5	70.5	93.5	45.5	121.5	96.5	118.5	58.5	159.5
10	F	10	C	1.11	1.63	0.88	1.88	2.01	2.76	1.38	3.38	2.88	3.76	1.88	4.88	3.88	4.76	2.38	6.38
				28.0	41.0	22.0	47.0	50.0	69.0	34.0	85.0	72.0	95.0	47.0	123.0	98.0	120.0	60.0	161.0
0	F	0	C	1.17	1.69	0.94	1.94	2.07	2.82	1.44	3.44	2.94	3.82	1.94	4.94	3.94	4.82	2.44	6.44
				29.5	42.5	23.5	48.5	51.5	70.5	35.5	86.5	73.5	96.5	48.5	124.5	99.5	121.5	61.5	162.5

ENSURE A.C.I. STANDARDS AND TEMPERATURE TABLES ARE ALWAYS REFERENCED TO ACHIEVE SPECIFIED JOINT OPENING ON CONTRACT DOCUMENTS

PART#: JAR/ JCR SERIES	
SANTOPRENE 121-67W175	
DR. BY: GMF	CHK. BY: JP
SCALE: NTS	DATE: 3-15-15

***THIS DOCUMENT IS INTENDED FOR USE BY CONTRACTORS CHARGED WITH ORDERING ARCHITECTURAL JOINT COVERS**
***FINAL ORDER CONFIGURATION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALIGNMENT WITH FIELD SPECIFIC CONDITIONS**
***DUE TO THE WIDE RANGE OF CONDITIONS THAT CAN POTENTIALLY BE ENCOUNTERED IN THE FIELD, THE FOLLOWING ASSUMPTIONS WERE MADE:**
 - ASSUMED SLAB DEPTH OF 4.5" [114mm]
 - SINGLE POUR/ STANDARD REBAR/ CAST IN PLACE CONCRETE CONSTRUCTION
 - GEOMETRICAL CONFIGURATION AND VOLUME OF SLAB POUR/ CONTROL JOINT PATTERN NOT FACTORED
 - EFFECT OF CONCRETE ADMIXTURES AND STRENGTH RATIOS NOT FACTORED

