

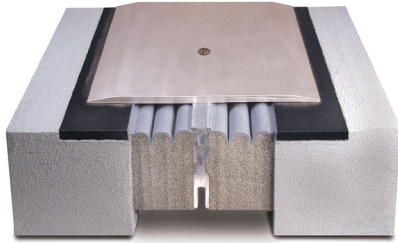


SJS-SEISMIC JOINT SYSTEM

Watertight, Seismic and Large-Gap Deck Expansion Joint System for Decks — Parking, Stadium Concourses, Treads & Risers, etc.



US Patent: 8,739,495



Pictured with optional elastomeric nosing

Product Description

SJS-SEISMIC JOINT SYSTEM is designed to provide a watertight, trafficable joint system in 4-inch (100mm) and larger joint openings, in decks including parking decks, stadium concourses, stadium treads and risers, and other horizontal plane applications.

The SJS SYSTEM builds on a track record of over 30 years of sealing horizontal plane joints with impregnated foam sealants. The SJS SYSTEM is two horizontal joints pre-assembled in parallel adjacent to a heavy-duty extruded aluminum spline. The spline is designed as the receptor for the attachment of traffic plates that bear vehicle and other loads.

The silicone-and-impregnated-foam hybrid components act to anchor the system, ensure watertightness, absorb sound, and dampen vibration.

The factory-assembled spline, bellows, and foam, are shipped with factory-attached installation hanger-bars.

Epoxy gel adhesive is field-applied to the faces of the joint opening.

The sealing assembly is lowered into the joint gap where it self-expands into epoxy adhesive.

Consecutive lengths are joined through the field-application of manufacturer-supplied, low-modulus, high-movement silicone to the spline and intersecting bellows surfaces. Friction fit alignment pins prevent the joints from moving during silicone cure.

A field-applied silicone sealant band is injected at the bellows to joint substrate interface to complete the waterproofing.

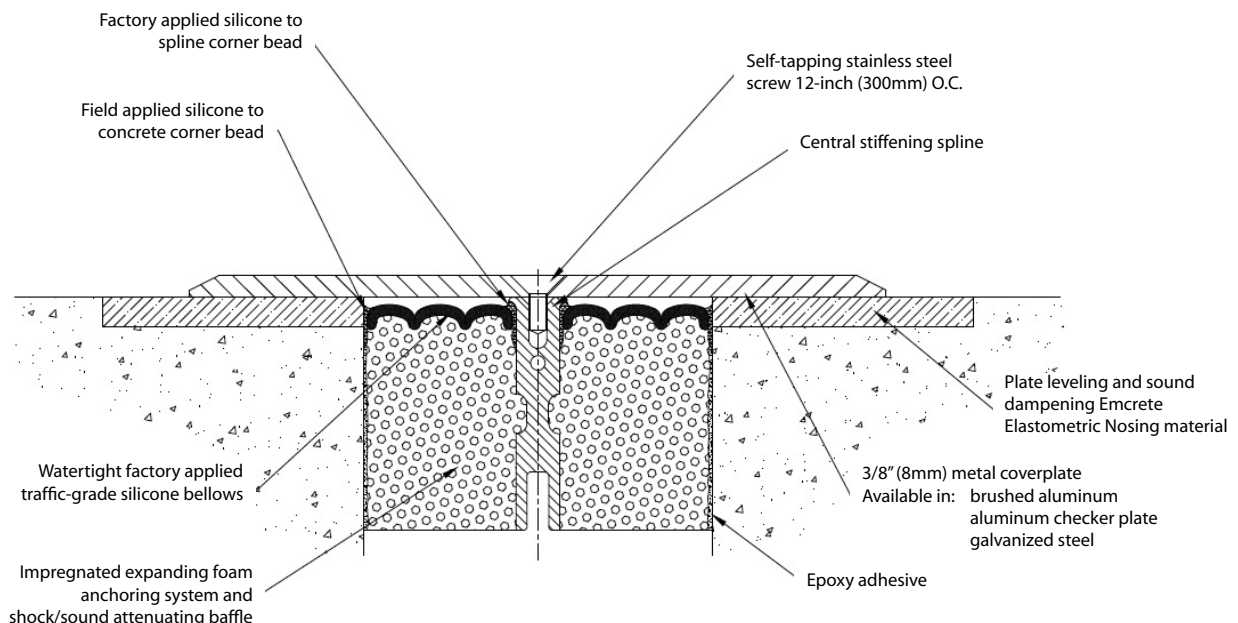
The SJS joint-sealing assembly installation hanger bars are removed sequentially as coverplates are lowered over the joint and screwed to the center spline, completing the installation.

Uses

- For new construction and retrofit of old or failed joint systems.
- For restoring watertightness to chronic leaking over occupied spaces.
- Uniquely suited to joint openings designed for seismic separation of structural building elements.
 - parking decks
 - airport roadways
 - mall bridge connectors
 - stadium concourses
 - stadium treads and risers

Note: for split-slab, plaza and podium decks see SJS-FP.

Figure 1: System Components (shown in substrate with optional elastomeric nosing)



Features

Watertight – The tensionless silicone bellows are installed flush to or just below the deck surface and just below the coverplate. This ensures that watertightness is achieved at the deck surface. The need for moisture barriers and secondary gutter systems is eliminated.

Non-Invasive Anchoring – There are no hard metal-to-concrete connections in the coverplate system at all. This includes embedded pins, anchors, screws, bolts or tracks, trays or rails. The coverplate assembly is locked to the joint faces by means of the backpressure of the foam and the epoxy adhesive, and by the weight of the assembly.

Sound Attenuation – The flanking impregnated foam and silicone hybrid acts not only as the anchoring system, but also as a highly effective sound and shock dampener. Optional sound attenuating polyurethane nosing material further dampens sound and provides a plate levelling mechanism. The result is a sound-attenuated, watertight coverplate system.

Self-Locating Coverplate Screws – The center spline is a continuous receptor for the coverplate screws that are self-tapped into the anchor channel. This feature dramatically reduces installation-related problems of locating self-centering, sliding ball devices and pantographs. The probability of screws being left out is eliminated by the ease of anchoring which also ensures proper plate alignment between sections.

Self-Locking, Vibration-Dampened Screws – Vibration in alternative systems that rely on metal-to-metal connections and contact points is the primary cause of screw loosening. Vibration that might otherwise work to loosen screws in these technologies is, in the SJS, first dampened by the massive and continuous springs of impregnated foam along the entire length of the joint. In addition, 30 pounds of force is required to loosen the screws which translates into excellent resistance to loosening without the need for thread-lock compounds.

Field-Adjustable Plate Support – Installation over a levelling-bed of EMSEAL-supplied elastomeric nosing material provides the opportunity to fine-tune the support of the coverplate sections to reduce rocking and noise caused by unlevel deck surfaces. Concrete in new and retrofit applications is inevitably uneven across and along the joint. Systems that attach or embed extruded rails to receive self-centering bars and sliding ball and socket devices cannot be adjusted to eliminate unevenness across and down the length of the joint.

Continuity of Seal – As in all EMSEAL expansion joint systems, continuity of seal through changes in plane and direction is an essential performance differentiator. Factory-fabricated transitions at curbs, sidewalks, parapets, tees, crosses, and tread/risers are available with the SJS SYSTEM. Details for watertight, warranted, field-fabricated transitions between the different EMSEAL product systems are additionally available.

Performance & Selection:

Joint Sizes – For mean-temperature, structural-slab, joint sizes from 4-inches (100mm) up to 18-inches (450mm). For special conditions or other sizes consult EMSEAL.

Movement Capability – 100% (+50% and -50%) of nominal material size.

Coverplates – Standard coverplate is 3/8-inch (10mm) shot-blasted aluminum or stainless steel. Other custom metals are available — consult EMSEAL.

Coverplate thicknesses can be customized to suit load and traffic expectations — Consult EMSEAL.

Coverplate edge-chamfer available in standard or optional low-slope configurations — consult CAD details at www.emseal.com.

Fire Rating – 2-hour fire rating for joints or supporting structure openings from 2-inches (50mm) to 32 1/2-inches (815mm) are available with specification of the EMSEAL/Fireline520 Series fireblanket beneath the SJS-FP SYSTEM

Models – Model selection is designated by product codes. The code segments relate to the product configuration. For example, SJS-100-400-75 means:

Product	Movement	JointWidth	LegHeight
SJS	-100 (100%)	-400 (4" joint)	-75 (75mm, 3")

Consult CAD details at www.emseal.com or contact EMSEAL for model number suitable to your specific application.

CAD & Guide Specs

Guide specifications and CAD details are available online at emseal.com or by email.

Warranty

Standard or project-specific warranties are available from EMSEAL on request.

Availability & Price

SJS is available for shipment internationally. Prices are available from local representatives or direct from the manufacturer. The product range is continually being updated, and accordingly EMSEAL reserves the right to modify or withdraw any product without prior notice.

