



# MM<sup>®</sup> SHD Expansion Joint

## Self-Healing Dual Seismic Seal System

### DESCRIPTION

The SHD Series is designed for wide expansion joint openings and can accommodate vehicular and pedestrian traffic. Water tightness is achieved through dual self-expanding acrylic impregnated foam seals with an integral self-healing synthetic anti-puncture surface barrier. The seals are epoxy bonded to the deck. The structural center spline is connected through a seismic rotation dowel that is attached to the underside of the slide plate. This allows for multi-directional seismic movement. Recessed styles allow the seismic slide plate to remain flush with finished deck surface.

### BASIC USE

SHD is a traffic bearing weather tight expansion joint for stadiums, parking structures and other open-air structures requiring seismic movement capability.

### FEATURES

- Watertight self-expanding impregnated foam combined with Integral Self-healing Synthetic Anti-Puncture Surface Barrier.
- For wide joints with multi-directional seismic movement.
- Dual seismic seals provide self-centering feature for center spline and slide plate.
- AASHTO HS-20 load carrying capability.
- Seismic Rotation Dowel facilitates near zero tensile stress at epoxy bond lines.
- Complies with ADA guidelines.
- Conforms to irregular openings virtually eliminating the risk of costly water damage.

### SPECIAL FEATURES

- Slide plate available in stainless steel, aluminum with impact/sound dampers or with dual hinged nosing pads.
- Fire Barriers - MM expansion joint systems available with 2 to 4 hr. fire protection ratings.

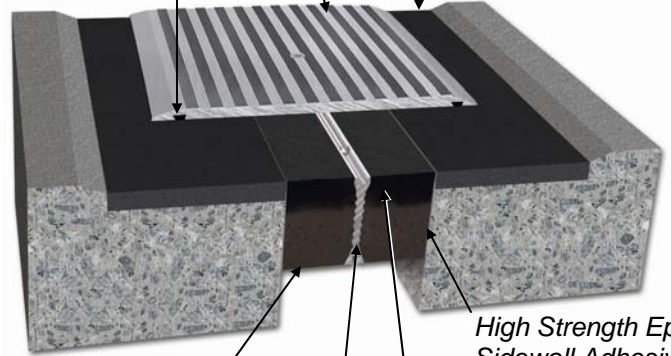
### STORAGE

All materials should be stored off the ground in a cool, dry location 70-80°F (20-27°C) for a minimum of 24 hours prior to installation regardless of the temperature at installation site.

*Load Bearing Aluminum Slide Plate  
(Raised Pattern Slip-Resistant Surface)*

*Optional LokCrete<sup>®</sup>  
Leveling Bed  
(Impact Absorbing  
Elastomeric Concrete)*

*Waterstop & Impact  
Sound Dampers*

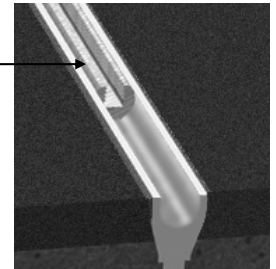


*High Strength Epoxy  
Sidewall Adhesive*

*Self-expanding  
Micro-cell Foam  
Impregnated with  
Acrylic Polymer*

*Integral Self-healing &  
Sealing Synthetic  
Anti-Puncture Barrier*

*Structural  
Center Spline  
& Seismic  
Rotation Dowel*



### PACKAGING

Aluminum extrusion in 10-foot lengths shipped on wooden pallets.

LokCrete is supplied in pre-measured Part A, B, C components.

Accessories packaged in cardboard cartons.

Epoxy Adhesive is supplied in Part A & Part B 1/2-gallon containers. "Easy-mix" pre-measured packaging insures consistent field performance.

### PRECAUTIONS

LokCrete - Use splash goggles and chemical resistant gloves to avoid prolonged or repeated skin contact. Use with adequate ventilation. In case of eye contact, immediately flush (low pressure) with lukewarm water. In case of skin contact, immediately wash skin with soap and water. Read and follow labels and Material Safety Data Sheet before use.

### LIMITATIONS

- Concrete blockouts must be properly formed, finished and have sound substrate.
- Joints located in turning lanes or exposed to forklift traffic must be engineered for greater impact loads – contact MM Systems.

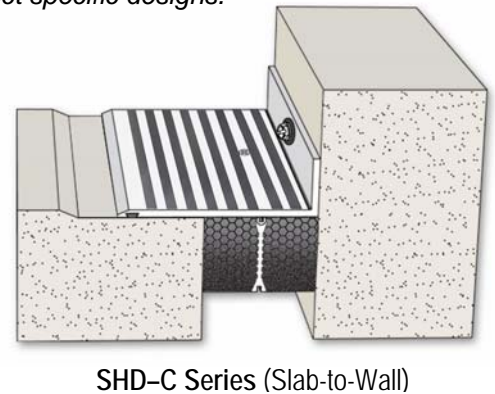
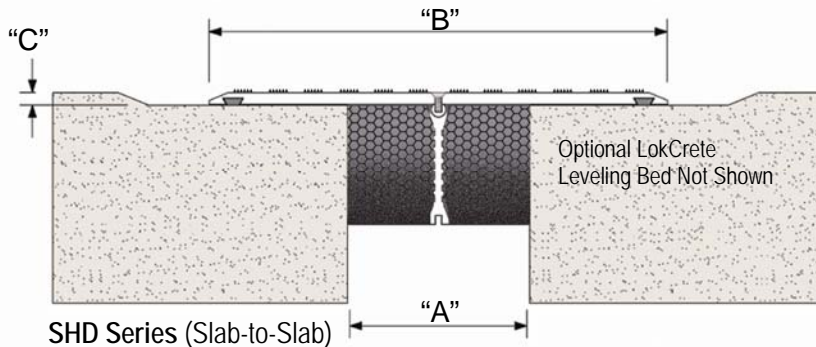
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## SELECTION GUIDE

Model Number	Total Movement		Joint Opening "A"						Slide Plate "B"		Slide Plate Thickness "C"					
			Seismic Min.		Thermal Min.		Nominal		Thermal Max.		Seismic Max.					
<b>SHD-400</b>	<b>4.00</b>	102	<b>2.00</b>	51	<b>2.00</b>	51	<b>4.00</b>	102	<b>6.00</b>	152	<b>6.00</b>	152	<b>8.0</b>	203	<b>0.375</b>	10
<b>SHD-500</b>	<b>5.00</b>	127	<b>2.50</b>	64	<b>2.50</b>	64	<b>5.00</b>	127	<b>7.50</b>	191	<b>7.50</b>	191	<b>11.0</b>	279	<b>0.375</b>	10
<b>SHD-600</b>	<b>6.00</b>	152	<b>3.00</b>	76	<b>3.00</b>	76	<b>6.00</b>	152	<b>9.00</b>	229	<b>9.00</b>	229	<b>11.0</b>	279	<b>0.375</b>	10
<b>SHD-700</b>	<b>7.00</b>	178	<b>3.50</b>	89	<b>3.50</b>	89	<b>7.00</b>	178	<b>10.5</b>	267	<b>10.5</b>	267	<b>14.0</b>	356	<b>0.375</b>	10
<b>SHD-800</b>	<b>8.00</b>	203	<b>4.00</b>	102	<b>4.00</b>	102	<b>8.00</b>	203	<b>12.0</b>	305	<b>12.0</b>	305	<b>14.0</b>	356	<b>0.375</b>	10
<b>SHD-900</b>	<b>9.00</b>	229	<b>4.50</b>	114	<b>5.00</b>	127	<b>9.00</b>	229	<b>13.0</b>	330	<b>13.5</b>	343	<b>17.0</b>	432	<b>0.375</b>	10
<b>SHD-1000</b>	<b>10.0</b>	254	<b>5.00</b>	127	<b>6.00</b>	152	<b>10.0</b>	254	<b>14.0</b>	356	<b>15.0</b>	381	<b>17.0</b>	432	<b>0.375</b>	10
<b>SHD-1100</b>	<b>11.0</b>	279	<b>5.50</b>	140	<b>7.00</b>	178	<b>11.0</b>	279	<b>15.0</b>	381	<b>16.5</b>	419	<b>20.0</b>	508	<b>0.500</b>	13
<b>SHD-1200</b>	<b>12.0</b>	305	<b>6.00</b>	152	<b>8.00</b>	203	<b>12.0</b>	305	<b>16.0</b>	406	<b>18.0</b>	457	<b>20.0</b>	508	<b>0.500</b>	13

Dimensions are shown in **inches** (bold) and millimeters. See web site for SHD-C Slab-to-Wall Movement Table. Contact MM Systems for additional sizes, stainless steel cover options and project specific designs.



## LIMITED WARRANTY

MM Systems warrants the Self-Healing Dual Seismic Seal System to be free of defects in material and conform to technical data listed. We make no warranty as to color or appearance. Since methods of application can affect performance and on site conditions are beyond our control, MM Systems makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. MM Systems sole obligation shall be, at its option, to replace, or to refund the purchase price of the quantity of system proved to be defective. In no event shall MM Systems be liable for any special, incidental, consequential, loss of profits or punitive damages. Other warranties may be available when installed by a MM Certified Contractor.

## INSTALLATION

- 1) Remove and repair all unsound concrete in and around the blockout. All spalls must be repaired with compatible patching material.
- 2) Prepare substrate by sandblasting. The blockout must be clean and dry prior to installation of optional LokCrete Elastomeric Concrete (leveling pad).
- 3) Clean and prepare sidewalls of the seal and joint opening interface per the installation instructions.
- 4) Apply a thin layer of the two-component epoxy adhesive to the sides of the seal, sidewall of the center spline (enough to fill the ribs) and to the sidewalls of the expansion joint opening.
- 5) Install structural center spline per installation guideline.
- 6) Insert Seismic Rotation Dowel and attach leveling devices.
- 7) Release factory precompressed seals to expand and fill opening.
- 8) Install Slide Plate and torque hardware per the SHD Installation Guideline.
- 9) Refer to the SHD Installation Guideline for detailed step-by-step instructions.

MM Systems reserves the right to amend or withdraw information contained herein, without notice, and will not be liable for any inaccuracy or ambiguity of said information.

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Spec Data