



Expansion Joints

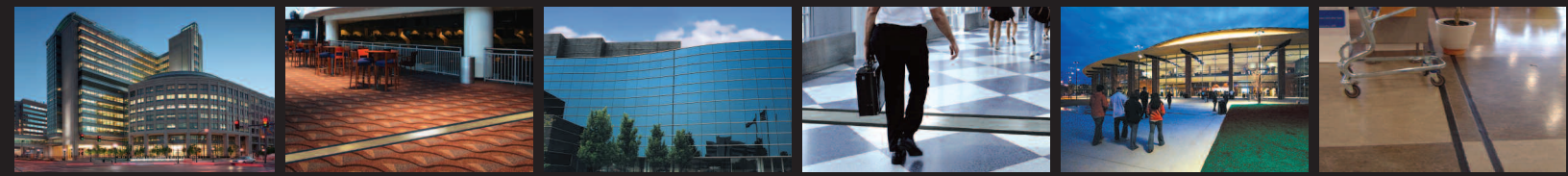
architectural | waterproof | seismic | fire rated



ej^a
www.mmsystemscorp.com



Ten things to consider when selecting an expansion joint system



1 Joint Size

Joint openings may range from 1" (25 mm) to 24" (600 mm) depending upon movement criteria and other structural engineering considerations. Extremely wide openings of 48" (1200 mm) are not uncommon. Not all joint cover styles can work with all joint opening sizes. Start with styles that accommodate your application.

2 Movement Type & Amount

Movement types include thermal, lateral shear, wind and seismic. Thermal movement styles are typically designed for smaller openings and movement ranges up to +/- 50% of the nominal opening. Seismic styles are generally designed for larger openings and multi-directional movement up to +/- 100% of nominal opening size.

3 Loading Requirements

All horizontal cover styles will accommodate light pedestrian traffic. Many styles are appropriate for heavy pedestrian or light commercial loads, such as mail carts or hand trucks. For heavy loadings such as convention centers, parking garages or airports, heavy-duty systems are recommended.

4 Fire-Rating/Life-Safety

National and international building codes require fire-rated joint systems where adjacent floors and walls are rated. Test standards have changed to address pre-conditioning (cycling), smoke penetration and field splices. Specify fire barriers and cover styles from a single source to insure code compliance.

5 ADA Compliance

The Americans with Disabilities Act requires that no vertical offset exist without a tapered transition. Look for and specify ADA compliant expansion joint systems. ADA compliance may require that expansion joint covers meet certain plate thickness and beveling criteria.

6 Waterproof vs. Water-Resistant

Parking structures, plaza decks, open-air stadiums and the like all require expansion joint systems to be waterproof. Other applications may only require that cover systems be water-resistant or shed casual water. Know and specify the difference.

7 Service Environment/No-Bump

Service environment defines the type of occupancy or functions occurring in the structure. Expansion Joints in healthcare facilities, for example, must accommodate patient beds, ambulatory assistance walkers and highly calibrated portable equipment. No-Bump models provide a safe, flush solution.



8 Corner Conditions

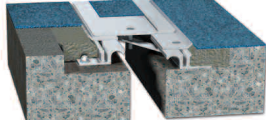
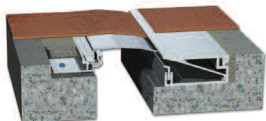
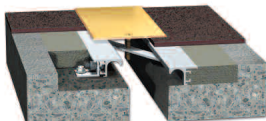
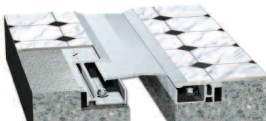
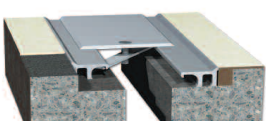
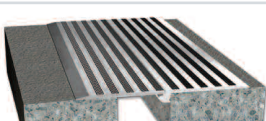
Many factors dictate where expansion joints occur. Architects and contractors cannot simply relocate a joint for convenience. MM Systems provides hundreds of models and size choices including corner conditions for most floor, wall, ceiling and roof cover styles. Look for the corner condition icon.

9 Narrow Sightlines

Let's face it. Expansion joints are a necessary intruder into the architectural landscape. That's why MM has designed many styles with a narrow sight line. Narrow sight lines mean minimum visibility of the joint system. Look for the narrow sight line icon.

10 Colors/Finishes

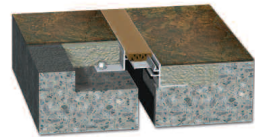
MM Systems believes that expansion joint systems should be, well, architectural joint systems. Metal substrates include aluminum, stainless and brass. Elastomerics are available in 8 designer colors. As a licensed Kynar/Hylar applicator, MM can provide finishes on aluminum in virtually any color imaginable.

	EXPANSION JOINT SYSTEM	SERIES	FEATURES	NOMINAL OPENING	MOVEMENT RANGE	MOVEMENT TYPE	CODES / LOADING TRAFFIC TYPE	APPLICATIONS
6	 PAN JOINT SYSTEMS	PDS	• ADA Compliant. • Recess depths available in 1.5" and 2.5". • Flush no bump floor design. • Recessed pan receives finished floor material. • Custom project specific designs available.	4" - 10" 102 - 254	2.5" - 14.5" 64 - 368	 Seismic Thermal Shear	ADA Pedestrian	• Seismic Base Isolation Designs • Convention Centers • Postal Facilities • Money Carts • Heavy Mobile Equipment • Heavy Pedestrian Areas
7	 NO BUMP FLOOR COVER SYSTEMS	LASB-NBR LASF-NB PDS	• Flush, no-bump designs. • Variable recesses. • Accommodates various floor finishes. • Thermal and seismic movement designs.	1" - 24" 25 - 600	0" - 24" 0 - 600	 Seismic Thermal Shear	ADA Pedestrian	• Hospital, Healthcare, Nursing Home • Calibrated Equipment Environments • Convention Centers • Transportation Hubs • Money Carts • Pedestrian Bridges
8	 HIDDEN SIGHT LINE SYSTEMS	HSL HSLN VSL	• Minimal sight line (exposed surface). • Accommodates vertical displacement. • Floor and wall models. • Accepts a variety of floor finishes. • Optional brass or stainless trim strips.	2" - 6" 51 - 152	1" - 9" 25 - 229	 Seismic Thermal Shear	ADA Heavy Pedestrian	• New-to-New and New-to-Existing • Floor-to-Floor and Corner Conditions • Heavy Pedestrian Areas • Carpeted Surfaces
9	 SEISMIC FLOOR COVER SYSTEMS	LASD LASF LAST LASB LSSB	• Accommodates full seismic movement. • Efficient centering bar cover system. • Wide range of size/style combinations. • Flush or surface cover styles.	1" - 24" 25 - 600	0" - 27" 0 - 686	 Seismic Thermal Shear	ADA Pedestrian Seismic	• Seismic Zones • New-to-New and New-to-Existing • Floor-to-Floor and Corner Conditions • Commercial and Institutional Structures
10	 CLASSIC COVER SYSTEMS	HFX HFXE EHFX HFXR HFXEM HFXREH	• Accommodates vertical displacement. • Durable aluminum frames and covers. • Exposed or recessed cover styles. • Accepts a variety of floor finishes. • New-to-existing and corner styles available.	1" - 4" 25 - 102	0" - 6" 0 - 152	 Seismic Thermal Shear	ADA Pedestrian	• New-to-New and New-to-Existing • Floor-to-Floor and Corner Conditions • Tile or Carpet Floor Finishes • High Traffic Areas • Airports • Shopping Malls • Educational Facilities
11	 HEAVY DUTY FLOOR COVER SYSTEMS	HDL SSP HPDS HDM EEHFX XPD	• Rugged, extra heavy duty design. • Surface mount and block-out installation. • Thermal and seismic movement designs. • Low, minimal bump designs.	2" - 24" 52 - 600	1" - 27" 25 - 686	 Seismic Thermal Shear	ADA Pedestrian Forklift Limited Vehicular	• Transportation Hubs • Convention Centers • Postal Facilities • Money Carts • Heavy Mobile Equipment • Pedestrian Bridges
12	 SURFACE MOUNT METAL FLOOR COVER SYSTEMS	HFP X-U SN ASJ HCP SP	• Load rated heavy-duty aluminum slide plates. • HFP hinge design accommodates vertical offsets in concrete decks. • Optional fabric reinforced rubber waterproofing gutters. • ADA compliant non-slip raised pattern designs.	1" - 24" 25 - 600	0" - 27" 0 - 686	 Thermal Vertical	ADA Pedestrian	• Surface Mount Applications • Gym Floors • Carpet/Tile • Concrete/Wood Floors
13	 ELASTOPRENE COMPRESSION SEALS	ECS VCS	• Colored rubber multi-web seal profile accommodates expansion and compression. • No mechanical anchors or metal components. • Seal profiles are ADA compliant and provide a smooth transition for pedestrian traffic areas. • Model ECS is for horizontal applications. Model VCS is for vertical applications.	1.3" - 3.8" 33 - 97	.9" - 5.5" 23 - 140	 Thermal	Horizontal Vertical	• Vertical Precast & Perimeter Walls • Color Matching of Wall Finishes • Sidewalk Areas • Parking Deck Drive Lanes • Concourse Areas • Pedestrian Bridges

Dimension shown in inches and millimeters.



14
15



FLUSHLINE FLOOR AND WALL SYSTEMS

FS FSX
FSE FSW
FSS FSWL
FSSR FSA
FSST FSWP
FSNE FDT
WD

- Flush sight line minimizes appearance.
- Seals available in four standard colors.
- Matching sight lines for floors and walls.
- Wide range of frame styles.

1" - 12"
25 - 305

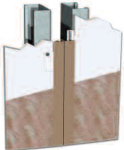
.65" - 18"
17 - 450



ADA
Pedestrian
Vertical

- No Bump
- New-to-New or New-to-Existing
- Floor-to-Floor and Floor-to-Wall
- Color Coordination to Adjacent Surfaces
- Carpet or Tile Insets for Floors
- Mud-In Frames for Walls

16



FLEXIBLE WALL AND CEILING SYSTEMS

KX
VSW
CX
VSG
DX
VSS

- Seals available in decorator colors.
- Wall and ceiling frame styles.
- Replaceable elastomeric seals.
- Mud-in frames for gypsum walls.

1" - 5"
25 - 127

.5" - 7.5"
13 - 191



Vertical

- Gypsum Walls
- Gypsum or Drop Ceiling Applications
- Interior Vertical Openings
- Color Coordination to Adjacent Surfaces
- Cost-Effective Designs
- Flat-to-Flat and Corner Conditions

17



VERTICAL SEALING SYSTEMS

VSS

- Seismic seal snap locked into aluminum frames.
- No visible aluminum or hardware.
- Visual seals available in colors.
- Resistant to UV, o-zone, acid rain, most chemicals and extreme temps.

2" - 24"
52 - 610

1" - 36"
25 - 914



Vertical
Soffit
Ceilings

- Vertical Seismic Joints
- Vertical Precast
- Available Secondary Water Seal
- Color Matching of Wall Finishes

18
19



COLORJOINT SILICONE SYSTEMS

ESS
SIF

- Preformed silicone strip bonded to a rectangular polyurethane backer creates a binary sealing system.
- System conforms to irregular openings and is soundproof, dust-proof, water and air tight.
- Engineered 1/2" thick preformed silicone strip virtually eliminates possibility of punctures.
- Resistant to UV, ozone, and extreme temperatures.

1" - 5"
25 - 127

.5" - 7.5"
13 - 191



Vertical
Horizontal
Requires
Cover

- Color Matching of Wall Finishes
- Vertical Brick & Block Walls
- Vertical Precast & Perimeter Walls
- Abutments
- Stair Tower & Slab-to-Wall Conditions
- Vertical Joints with No Blockouts
- Irregular Expansion Joint Openings

20



SEISMIC METAL WALL SYSTEMS

ASC
ASCL
ASH
ASHL
ASK
ASKL

- Seismic centering device.
- Solid aluminum construction.
- Surface and flush mount options.
- Durable and vandal resistant.
- Anodized finish standard.

1" - 24"
25 - 600

20" - 48"
508 - 1200



Vertical
Horizontal
Ceiling
Soffit

- Interior Walls and Ceilings
- Exterior Walls and Soffits
- Watertight Moisture Barrier
- Kynar, Color Options

21



METAL WALL AND CEILING SYSTEMS

FX-K
FX-L
EX-K
EX-L
X-M
X-N

- Sturdy and durable aluminum covers.
- Standard anodized or Kynar, 500®/Hylar, 5000® finishes.
- Accepts most wall finishes.
- Durable.

1" - 8"
25 - 203

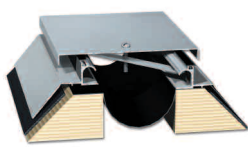
0" - 12"
0 - 305



Vertical

- Gypsum, Block or Other Substrates
- Wall or Ceiling Applications
- Flat-to-Flat and Corner Conditions
- Interior Vertical Applications
- Color Coordination to Adjacent Surfaces

22
23



ROOF JOINT SYSTEMS

RSS
ERF
ERJ
RXH
RXR
WJK

- Seismic centering devices.
- Resistant to UV, o-zone, acid rain, most chemicals and extreme temps.
- Resistant to snow loads.
- Flat or slopped roofs.

1" - 24"
25 - 600

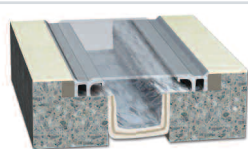
0" - 36"
0 - 914



Non-traffic
Horizontal
Vertical

- Kynar, Color Options
- Watertight
- Roof and Exterior Walls and Soffits
- Ice and Snow Load Rated

24
25



FIRE BARRIER SYSTEMS

Pyro-Flex
Systems

- ASTM Test Standards E-119, E-1399 and E-1966.
- Additional Standards: UL 263, UL 2079, UBC 43-1, UBC 7-1, ANSI A2.1 and NFPA 251.
- Available in 2, 3 and 4 hour ratings and cycle tested for class I, II and III movement including lateral shear.
- Listed with UL, Omega Point Laboratories, Intertek, California State Fire Marshall and ICBO Evaluation Service.

1" - 32"
25 - 813

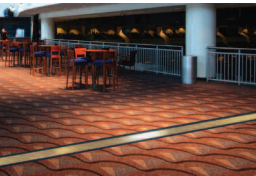
0" - 48"
0 - 1219



Fire Ratings:
1 hour
2 hour
3 hour
4 hour

- Horizontal Concrete Joint Openings
- Vertical Concrete & Masonry Joint Openings
- Vertical Gypboard Joint Openings

Dimension shown in inches and millimeters.



MM[®] Pan Joint Systems

Performance Data

Heavy duty pan system is a nearly invisible and capable of accommodating multi-directional seismic, vertical displacement and parallel lateral shear movement. Accommodates most flooring materials and stays flush during thermal movement while rising upward during a seismic event.

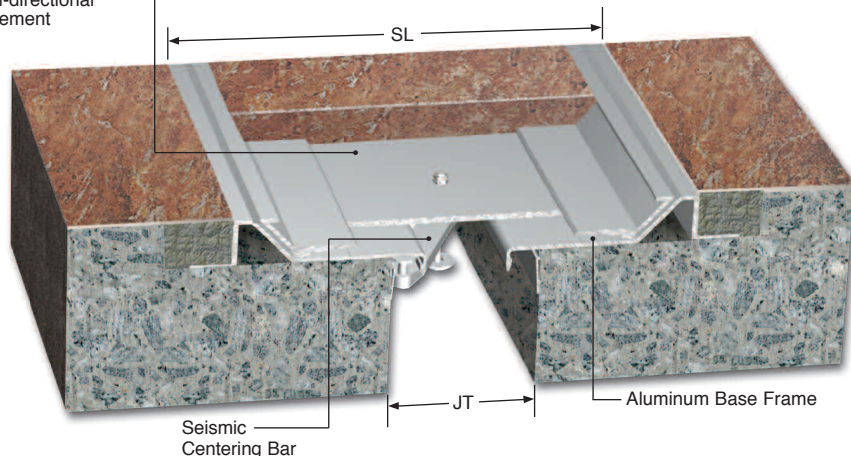
- Pan design accommodates a variety of floor finishes.
- Flush, minimal sightline design.
- Thermal and seismic movement range designs.
- Responds to severe movement with lifting action to minimize damage and maintain functionality.

Product Features



Recessed Pan Cover

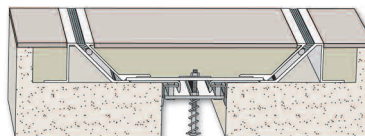
- Accepts most flooring
- Accommodates multi-directional movement



Movement Table

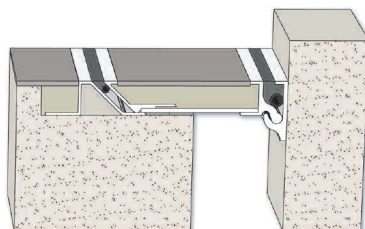
PDS	Nominal "JT"		Joint Opening "JT"			Total Movement	Sight Line "SL"
			Min.	Max.			
PDS-400	4.0"	102	2.5"	64	8.5"	216	15.8125" 402
PDS-600	6.0"	152	2.5"	64	10.5"	267	17.8125" 452
PDS-800	8.0"	203	2.5"	64	12.5"	318	19.8125" 503
PDS-1000	10.0"	254	2.5"	64	14.5"	368	23.8125" 605
PDSE	Nominal "JT"		Joint Opening "JT"			Total Movement	Sight Line "SL"
			Min.	Max.			
PDSE-300	3.0"	47	1.5"	38	4.0"	102	6.938" 176
PDSE-400	4.0"	102	2.0"	51	6.0"	152	9.750" 248
PDSE-600	6.0"	152	1.0"	25	8.5"	216	14.00" 356
PDSE-1200	12.0"	305	1.0"	25	16.0"	406	14.00" 356
PDSW	Nominal "JT"		Joint Opening "JT"			Total Movement	Sight Line "SL"
			Min.	Max.			
PDSW-300	3.0"	47	1.5"	38	4.0"	102	6.938" 176
PDSW-400	4.0"	102	2.0"	51	6.0"	152	9.750" 248
PDSW-600	6.0"	152	1.0"	25	8.5"	216	14.00" 356
PDSW-1200	12.0"	305	1.0"	25	16.0"	406	14.00" 356

Dimensions shown in **inches** (bold) and millimeters. Corner styles available for most models. Other sizes available. Call MM Systems for details.



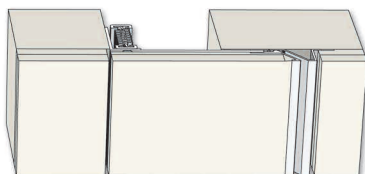
Series PDS

Floor-to-Floor / Inlay Flooring Options
Nominal Joint Openings 4" to 10"



Series PDSE

Floor-to-Wall / Inlay Flooring Options
Nominal Joint Openings 3" to 12"



Series PDSW

Wall-to-Wall / Inlay Wall Options
Nominal Joint Openings 3" to 12"

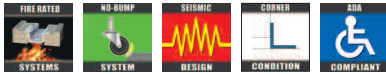
MM® No Bump Floor Cover Systems

Performance Data

ADA-compliant styles accommodate thermal and seismic movement while eliminating problematic bumps.

- Flush no bump floor designs ideal for bump sensitive applications.
- ADA – compliant styles accommodate thermal and seismic.
- Variable recesses accommodate a variety of floor finishes to include, but not limited to; carpet, tile and terrazzo.
- Thermal and seismic movement range designs.
- Available in aluminum, bronze, brass and stainless steel covers.

Product Features



Movement Table

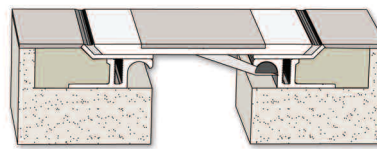
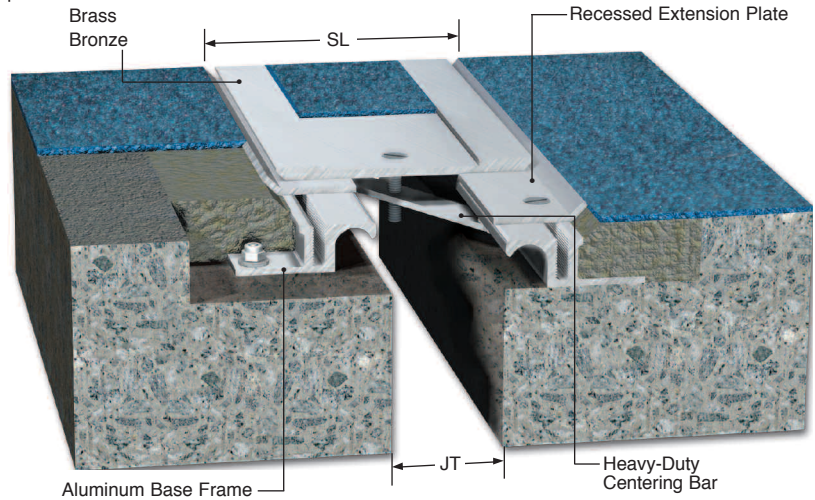
LASB-NBR	Nominal "JT"	Joint Opening "JT"				Total Movement	Sight Line "SL"
		* Min.		Max.			
LASB-NBR 1-1	1.0"	25	.25"	6	3.0"	76	2.75" 70
LASB-NBR 2-1	2.0"	51	.25"	6	4.0"	102	3.75" 95
LASB-NBR 3-1.5	3.0"	76	.25"	6	5.0"	127	4.75" 121
LASB-NBR 4-2	4.0"	102	.25"	6	6.0"	152	5.75" 146
LASB-NBR 6-3	6.0"	152	.25"	6	9.0"	229	8.75" 222
LASF-NB	Nominal "JT"	Joint Opening "JT"				Total Movement	Sight Line "SL"
		* Min.		Max.			
LASF-NB 1-1	1.0"	25	.25"	6	2.0"	51	1.75" 44
LASF-NB 2-1	2.0"	51	.25"	6	3.0"	76	2.75" 70
LASF-NB 3-1.5	3.0"	76	.25"	6	4.0"	102	3.75" 95
LASF-NB 4-2	4.0"	102	.25"	6	6.0"	152	5.75" 146
LASF-NB 6-3	6.0"	152	.25"	6	8.0"	203	7.75" 197
LASF-NB 8-4	8.0"	203	.25"	6	12.0"	305	11.75" 298
LASF-NB 12-6	12.0"	305	.25"	6	18.0"	457	17.75" 451
SNB	Nominal "JT"	Joint Opening "JT"				Total Movement	Sight Line "SL"
		* Min.		Max.			
SNB-400	4.0"	102	3.75"	95	4.25"	108	0.5" 13
SNB-600	6.0"	152	5.75"	146	6.25"	159	0.5" 13
SNB-800	8.0"	203	8.75"	222	8.25"	210	0.5" 13
SNB-1000	10.0"	254	9.75"	248	10.25"	260	0.5" 13
LASBE-NBR	Nominal "JT"	Joint Opening "JT"				Total Movement	Sight Line "SL"
		* Min.		Max.			
LASBE-NBR 1-5	1.0"	25	0.812"	21	1.50"	38	1.50" 38
LASBE-NBR 2-1	2.0"	51	1.812"	46	3.00"	76	2.00" 51
LASBE-NBR 3-75	3.0"	76	2.812"	71	3.75"	95	2.75" 70
LASBE-NBR 4-1	4.0"	102	3.812"	97	5.00"	127	4.00" 102
LASBE-NBR 5-1.25	5.0"	127	4.812"	122	6.25"	159	5.25" 133
LASBE-NBR 6-1.5	6.0"	152	5.812"	148	7.50"	191	6.50" 165
LASBE-NBR 10-5	10.0"	254	9.812"	249	15.00"	381	14.00" 356
LASFE-NB	Nominal "JT"	Joint Opening "JT"				Total Movement	Sight Line "SL"
		* Min.		Max.			
LASFE-NB 1-5	1.0"	25	0.812"	21	1.50"	38	1.50" 38
LASFE-NB 2-1	2.0"	51	1.812"	46	3.00"	76	2.00" 51
LASFE-NB 3-75	3.0"	76	2.812"	71	3.75"	95	2.75" 70
LASFE-NB 4-1	4.0"	102	3.812"	97	5.00"	127	4.00" 102
LASFE-NB 5-1.25	6.0"	152	5.812"	148	7.50"	191	5.25" 133
LASFE-NB 7-3.5	7.0"	178	6.812"	173	10.00"	244	6.50" 165
LASFE-NB 8-2	8.0"	203	7.812"	198	10.50"	254	14.00" 356

Dimensions shown in inches (bold) and millimeters. Corner styles available for most models. Other sizes available. Call MM Systems for details.

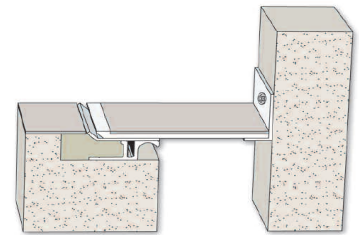
* Minimum is for seismic movement. Cover will rise up above floor cover.

Recessed Center Plate

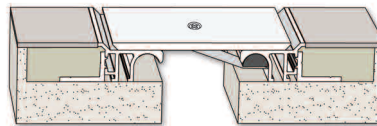
- Standard: Aluminum - Mill Finish
- Options: Stainless



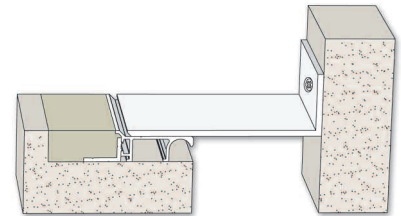
Series LASB-NBR
Floor-to-Floor / Inlay Flooring Options



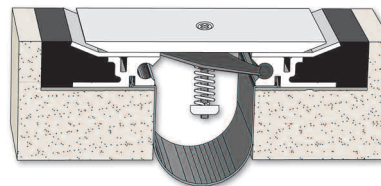
Series LASBE-NBR
Floor-to-Wall / Inlay Flooring Options



Series LASF-NB
Floor-to-Floor / Metal Cover Options



Series LASFE-NB
Floor-to-Wall / Metal Cover Options



Series SNB
No-Bump / Floor-to-Floor / Blockout Mount
Nominal Joint Openings 4" to 10"
NOTE: Also available as Floor-to-Wall system

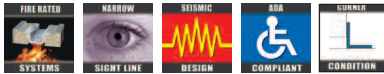
MM[®] Hidden Sight Line Systems

Performance Data

Hidden sight line design blends inconspicuously with adjacent construction while providing high load and high movement capabilities.

- Very small sightline.
- Slide plate is made of heavy steel.
- Accepts a variety of flexible floor and carpet finishes.
- Optional brass or stainless steel trim.
- New-to-New or New-to-Existing conditions.
- Complementary wall mount available.

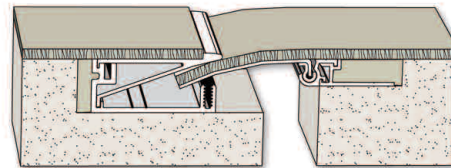
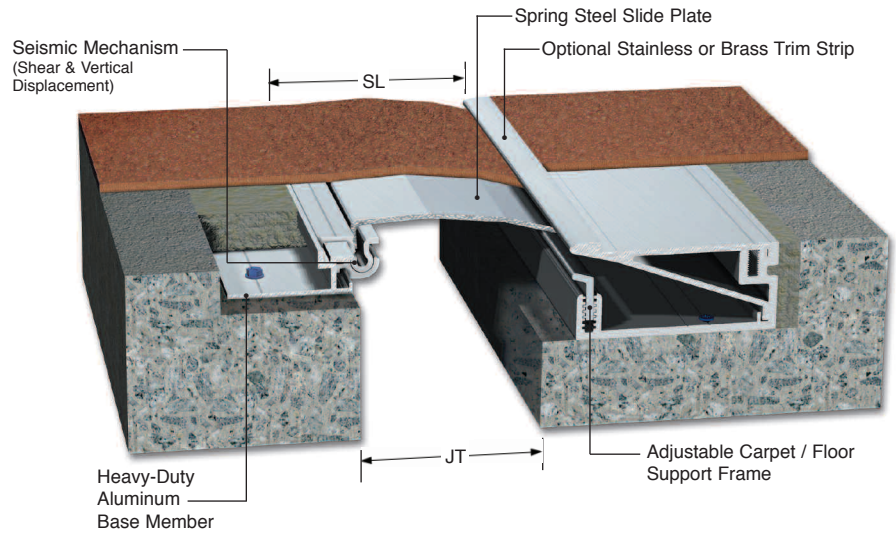
Product Features



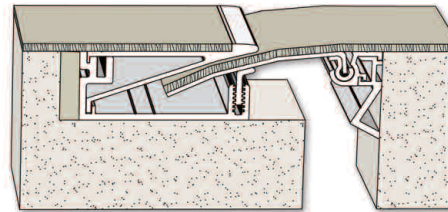
Movement Table

HSL	Nominal "JT"		Joint Opening "JT"		Total Movement		Sight Line "SL"	
			Min.	Max.				
HSL 2-1	2.0"	51	1.0"	25	3.0"	76	2.0"	51
HSL 3-1.5	3.0"	76	1.625"	41	4.375"	111	2.75"	70
HSL 4-2	4.0"	102	2.375"	60	5.625"	143	3.25"	83
HSL 6-3	6.0"	152	3.25"	83	8.5"	216	5.25"	133
HSLN	Nominal "JT"		Joint Opening "JT"		Total Movement		Sight Line "SL"	
			Min.	Max.				
HSLN 2-1	2.0"	51	1.0"	25	3.0"	76	2.0"	51
HSLN 4-2	4.0"	102	2.375"	60	5.625"	143	3.25"	83
HSLN 6-3	6.0"	152	3.25"	83	8.5"	216	5.25"	133
VSL	Nominal "JT"		Joint Opening "JT"		Total Movement		Sight Line "SL"	
			Min.	Max.				
VSL 1-5	1.0"	25	0.5"	13	1.5"	38	1.0"	25
VSL 2-1	2.0"	51	1.0"	25	3.0"	76	2.0"	51
VSL 3-1	3.0"	76	2.0"	51	4.0"	102	2.0"	51
VSL 4-1	4.0"	102	3.0"	76	5.0"	127	2.0"	51
VSL 6-1.5	6.0"	152	4.5"	114	7.5"	191	3.0"	76

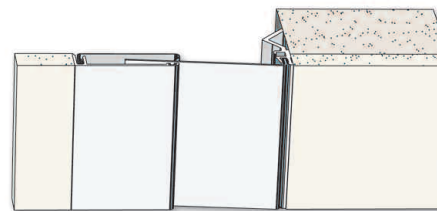
Dimensions shown in **inches** (bold) and millimeters. Corner styles available for most models. Other sizes available. Call MM Systems for details.



Series HSL
Floor-to-Floor / Blockout Mount



Series HSLN
Floor-to-Floor / New-to-Existing
Floor-to-Wall (Similar)



Series VSL
Wall-to-Wall

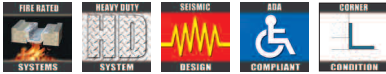
MM[®] Seismic Floor Cover Systems

Performance Data

Engineered floor cover systems provide seismic movement capability, durability and a wide range of size and style combinations.

- Centering bar cover system accommodates full seismic movement range.
- Wide range of size/style combinations accommodates various conditions.
- Recess or surface bearing cover styles.
- Available in aluminum (standard), bronze, brass and stainless steel covers.
- Accommodates any joint size.

Product Features

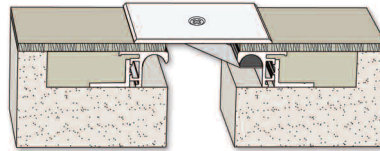
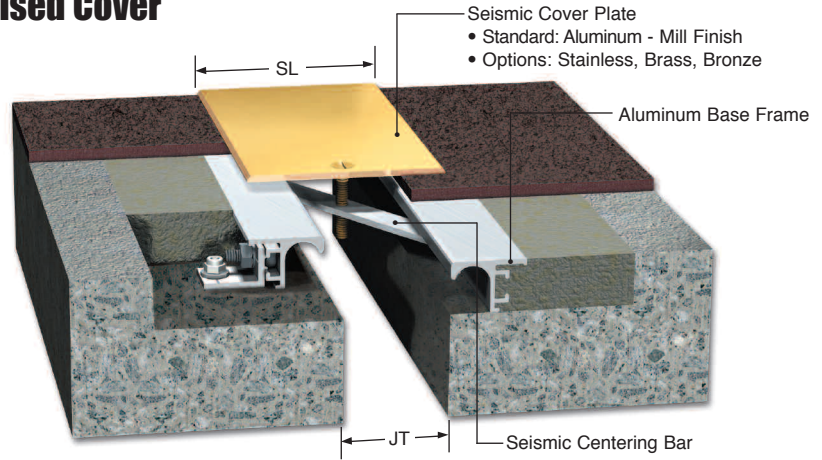


Movement Table

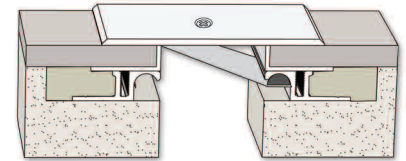
LASD	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
LASD 1-1	1.0" 25	.25" 6	2.0" 51	1.75" 44	3.0" 76
LASD 2-1	2.0" 51	.25" 6	3.0" 76	2.75" 70	4.0" 102
LASD 3-1.5	3.0" 76	.25" 6	4.5" 114	4.25" 108	5.875" 149
LASD 6-3	6.0" 152	.25" 6	9.0" 229	8.75" 222	9.375" 238
LASD 12-6	12.0" 305	.25" 6	18.0" 457	17.75" 451	18.375" 467
LASD 18-9	18.0" 457	.25" 6	27.0" 686	26.75" 679	27.375" 695
LAST	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
LAST 1-1	1.0" 25	.25" 6	2.0" 51	1.75" 44	3.0" 76
LAST 2-1	2.0" 51	.25" 6	3.0" 76	2.75" 70	4.0" 102
LAST 3-1.5	3.0" 76	.25" 6	4.5" 114	4.25" 108	5.875" 149
LAST 6-3	6.0" 152	.25" 6	9.0" 229	8.75" 222	9.375" 238
LAST 12-6	12.0" 305	.25" 6	18.0" 457	17.75" 451	18.375" 467
LAST 18-9	18.0" 457	.25" 6	27.0" 686	26.75" 679	27.375" 695
LASF	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
LASF 1-1	1.0" 25	.25" 6	2.0" 51	1.75" 44	4.5" 114
LASF 2-1	2.0" 51	.25" 6	3.0" 76	2.75" 70	5.5" 140
LASF 3-1.5	3.0" 76	.25" 6	4.0" 102	3.75" 95	8.0" 203
LASF 4-2	4.0" 102	.25" 6	6.0" 152	5.75" 146	9.0" 229
LASF 6-3	6.0" 152	.25" 6	8.0" 203	7.75" 197	13.0" 330
LASF 8-4	8.0" 203	.25" 6	12.0" 305	11.75" 298	17.0" 432
LASB	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
LASB 1-1	1.0" 25	.25" 6	2.0" 51	1.75" 44	4.5" 114
LASB 2-1	2.0" 51	.25" 6	3.0" 76	2.75" 70	5.5" 140
LASB 3-1.5	3.0" 76	.25" 6	4.5" 114	4.25" 108	8.0" 203
LASB 4-2	4.0" 102	.25" 6	6.0" 152	5.75" 146	9.0" 229
LASB 6-3	6.0" 152	.25" 6	9.0" 229	8.75" 222	13.0" 330
LASB / 8-24	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
LASB 8-4	8.0" 203	.25" 6	12.0" 305	11.75" 298	16.25" 413
LASB 12-6	12.0" 305	.25" 6	18.0" 457	17.75" 451	24.25" 616
LASB 18-9	18.0" 457	.25" 6	27.0" 686	26.75" 679	36.25" 921
LASB 24-12	24.0" 610	.25" 6	36.0" 914	35.75" 908	48.25" 1226

Dimensions shown in inches (bold) and millimeters. Corner styles available for most models. Other sizes available. Call MM Systems for details.

Raised Cover

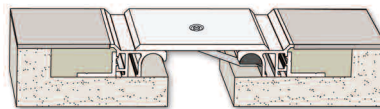
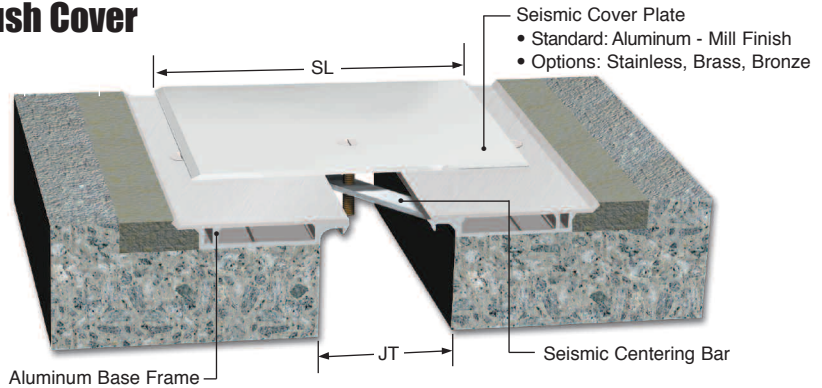


Series LASD
Floor-to-Floor / Blockout Mount
Nominal Joint Openings 1" to 18"
NOTE: Also available as Floor-to-Wall system

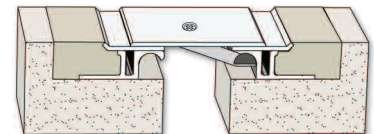


Series LAST
Floor-to-Floor / Blockout Mount
Nominal Joint Openings 1" to 18"
NOTE: Also available as Floor-to-Wall system

Flush Cover



Series LASF
Floor-to-Floor / Recess Mount
Nominal Joint Openings 1" to 8"
NOTE: Also available as Floor-to-Wall system



Series LASB / 1" - 6"
LASB-Aluminum / LSSB-Stainless / LBSB-Brass
Nominal Joint Openings 1" to 6"
NOTE: Also available as Floor-to-Wall system



Series LASB / 8" - 24"
LASB-Aluminum / LSSB-Stainless / LBSB-Bras / Floor-to-Floor / Seismic Recess Mount
Nominal Joint Openings 8" to 24"
NOTE: Also available as Floor-to-Wall system



MM® Classic Cover Systems

Performance Data

Cover systems feature variable pocket frames and receivers to accommodate center slides.

- Durable architectural aluminum frames and covers.
- Exposed or recessed receiver cover styles.
- Optional recessed frames accept a variety of floor finishes: carpet, tile, etc.

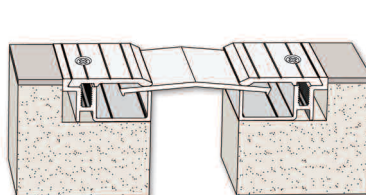
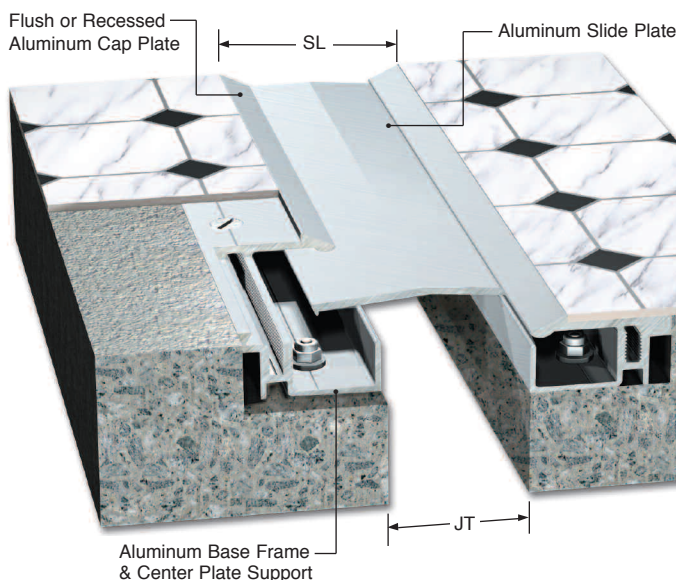
Product Features



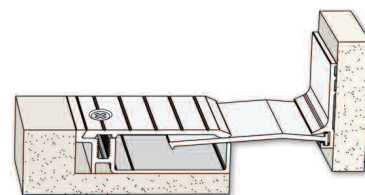
Movement Table

HFX	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL" 127
HFX 1-1	1.0" 25	0.0" 0	2.0" 51	2.0" 51	5.0" 152
HFX 1.5-.75	1.5" 38	0.75" 19	2.25" 57	1.5" 38	6.0" 152
HFX 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	6.0" 203
HFX 2-2	2.0" 51	0.0" 0	4.0" 102	4.0" 102	8.0" 229
HFX 3-1.5	3.0" 76	1.5" 38	4.5" 114	3.0" 76	9.0" 254
HFX 4-2	4.0" 102	2.0" 51	6.0" 152	4.0" 102	10.0"
HFXE	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL" 76
HFXE 1-5	1.0" 25	0.5" 13	1.5" 38	1.0" 25	3.0" 95
HFXE 1.5-.375	1.5" 38	1.13" 29	1.875" 48	0.75" 19	3.75" 102
HFXE 2-5	2.0" 51	1.5" 38	2.5" 64	1.0" 25	4.0" 127
HFXE 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	5.0" 152
HFXE 3-.75	3.0" 76	2.25" 57	3.75" 95	1.5" 38	6.0" 178
HFXE 4-1	4.0" 102	3.5" 89	4.5" 114	1.0" 25	7.0"
EHFX	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL" 127
EHFX 1-1	1.0" 25	0.0" 0	2.0" 51	2.0" 51	5.0" 152
EHFX 1.5-.75	1.5" 38	0.75" 19	2.25" 57	1.5" 38	6.0" 152
EHFX 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	6.0" 203
EHFX 2-2	2.0" 51	0.0" 0	4.0" 102	4.0" 102	8.0" 229
EHFX 3-1.5	3.0" 76	1.5" 38	4.5" 114	3.0" 76	9.0" 254
EHFX 4-2	4.0" 102	2.0" 51	6.0" 152	4.0" 102	10.0"
HFXEM	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL" 121
HFXEM 1-5	1.0" 25	0.5" 13	1.5" 38	1.0" 25	4.75" 140
HFXEM 1.5-.375	1.5" 38	1.125" 29	1.875" 48	0.75" 19	5.5" 146
HFXEM 2-5	2.0" 51	1.5" 38	2.5" 64	1.0" 25	5.75" 171
HFXEM 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	6.75" 197
HFXEM 3-.75	3.0" 76	2.25" 57	3.75" 95	1.5" 38	7.75" 222
HFXEM 4-1	4.0" 102	3.0" 76	5.0" 127	2.0" 51	8.75"
HFXR	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL" 51
HFXR 1-1	1.0" 25	0.0" 0	2.0" 51	2.0" 51	2.0" 64
HFXR 1.5-.75	1.5" 38	0.75" 19	2.25" 57	1.5" 38	2.5" 76
HFXR 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	3.0" 76
HFXR 2-2	2.0" 51	0.0" 0	4.0" 102	4.0" 102	3.0" 102
HFXR 3-1.5	3.0" 76	1.5" 38	4.5" 114	3.0" 76	4.0" 127
HFXR 4-2	4.0" 102	2.0" 51	6.0" 152	4.0" 102	5.0"
HFXREH	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL" 76
HFXREH 1-5	1.0" 25	0.5" 13	1.5" 38	1.0" 25	3.0" 95
HFXREH 1.5-.375	1.5" 38	1.125" 29	1.875" 48	0.75" 19	3.75" 102
HFXREH 2-5	2.0" 51	1.5" 38	2.5" 64	1.0" 25	4.0" 127
HFXREH 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	5.0" 152
HFXREH 3-.75	3.0" 76	2.25" 57	3.75" 95	1.5" 38	6.0" 178
HFXREH 4-1	4.0" 102	3.0" 76	5.0" 127	2.0" 51	7.0"

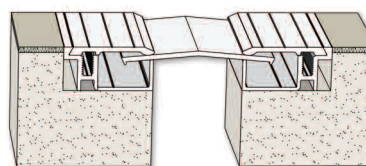
Dimensions shown in inches (bold) and millimeters. Corner styles available for most models. Other sizes available. Call MM Systems for details.



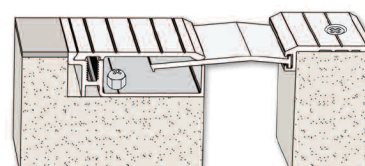
Series HFX
Floor-to-Floor / Blockout Mount
Nominal Joint Openings 1" to 4"



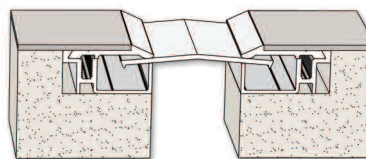
Series HFXE
Floor-to-Wall
Nominal Joint Openings 1" to 4"



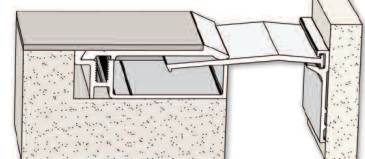
Series EHFX
Floor-to-Floor / Blockout Mount / Extra Heavy Duty
Nominal Joint Openings 1" to 4"



Series HFXEM
Floor-to-Floor / New-to-Existing
Nominal Joint Openings 1" to 4"



Series HFXR
Floor-to-Floor / Recessed Cover
Nominal Joint Openings 1" to 4"



Series HFXREH
Floor-to-Wall / New-to-Existing
Nominal Joint Openings 1" to 4"

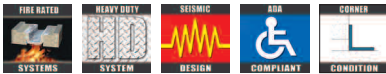
MM® Heavy Duty Floor Cover Systems

Performance Data

Durable, heavy duty designs are engineered for punishing load environments while providing a variety of frame styles and movement capabilities.

- Rugged, extra heavy-duty designs are engineered for heavy loads.
- Surface mount and block-out installation styles.
- Thermal and seismic movement range designs.
- Shallow bevel, minimal bump designs accommodate wheel traffic.

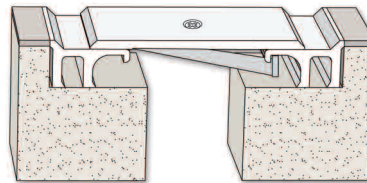
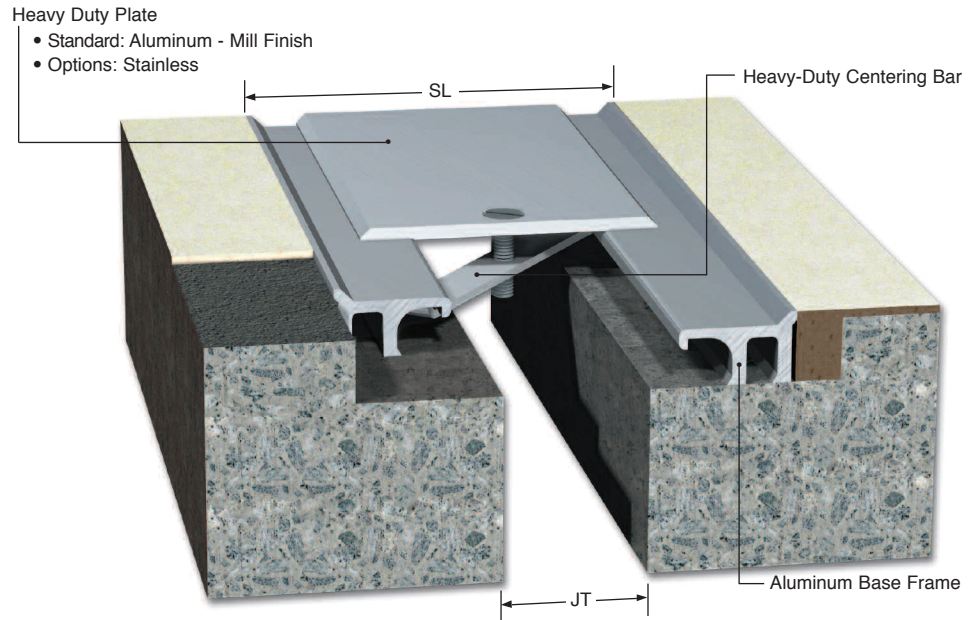
Product Features



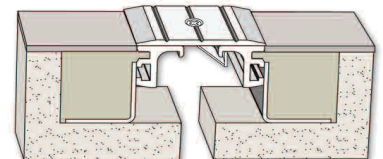
Movement Table

HDL	Nominal "JT"	Joint Opening "JT"		Total Movement		Sight Line "SL"
		Min.	Max.			
HDL 1-1	1.0" 25	.375" 10	2.0" 51	1.625" 41	4.5" 114	
HDL 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	6.0" 152	
HDL 2-2	2.0" 51	.375" 10	4.0" 102	3.625" 92	7.25" 184	
HDL 3-1.5	3.0" 76	1.5" 38	4.5" 114	3.0" 76	8.0" 203	
HDL 4-2	4.0" 102	2.0" 51	6.0" 152	4.0" 102	9.0" 229	
HDL 6-2	6.0" 152	3.0" 76	9.0" 229	6.0" 152	13.0" 330	
HDM	Nominal "JT"	Joint Opening "JT"		Total Movement		Sight Line "SL"
		Min.	Max.			
HDM-1-0.5	1.0" 25	0.25" 6	3.0" 76	2.75" 70	3.75" 95	
HDM-2-1	2.0" 51	0.25" 6	3.0" 76	2.75" 70	5.0" 127	
HDM-4-2	4.0" 102	0.25" 6	6.0" 152	5.75" 146	8.0" 203	
HDM-6-3	6.0" 152	0.25" 6	9.0" 229	8.75" 222	11.0" 279	
HDM-8-4	8.0" 203	0.25" 6	12.0" 305	11.75" 298	14.0" 356	
HDM-12-6	12.0" 305	0.25" 6	18.0" 457	17.75" 451	20.0" 508	
XPD	Nominal "JT"	Joint Opening "JT"		Total Movement		Sight Line "SL"
		Min.	Max.			
XPD 1-1	1.0" 25	0.0" 0	2.0" 51	2.0" 51	6.0" 152	
XPD 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	7.0" 178	
EEHFX	Nominal "JT"	Joint Opening "JT"		Total Movement		Sight Line "SL"
		Min.	Max.			
EEHFX-1-1	1.0" 25	0.00" 0	6.50" 165	6.50" 165	10.50" 267	
EEHFX-2-2	2.0" 51	0.00" 0	6.50" 165	6.50" 165	11.50" 392	
EEHFX-4-2	4.0" 102	0.00" 0	6.50" 165	6.50" 165	13.50" 343	

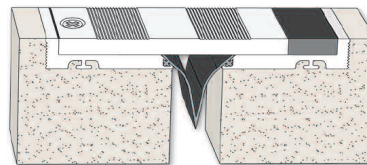
Dimensions shown in inches (bold) and millimeters. Corner styles available for most models. Other sizes available. Call MM Systems for details.



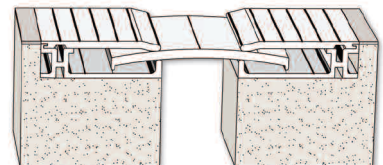
Series HDL
Floor-to-Floor / Blockout Mount
Nominal Joint Openings 1" to 6"



Series HDM
Floor-to-Floor / Blockout Mount
Nominal Joint Openings 1" to 12"



Series XPD
Floor-to-Floor
Nominal Joint Openings 1" to 2"



Series EEHFX
Floor-to-Floor / Blockout Mount
Nominal Joint Openings 1" to 4"

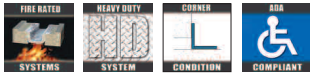
MM[®] Surface Mount Metal Cover Systems

Performance Data

Surface mount systems do not require costly block-outs and are available in a wide range of size and movement ranges.

- No block-out design reduces installation costs.
- Simple, durable designs accommodate a variety of floor finishes.
- Cost-effective solution for simple spans.
- No block-outs or recess required.
- Thermal and seismic movement range designs.

Product Features



Movement Table

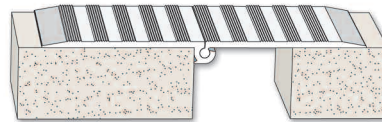
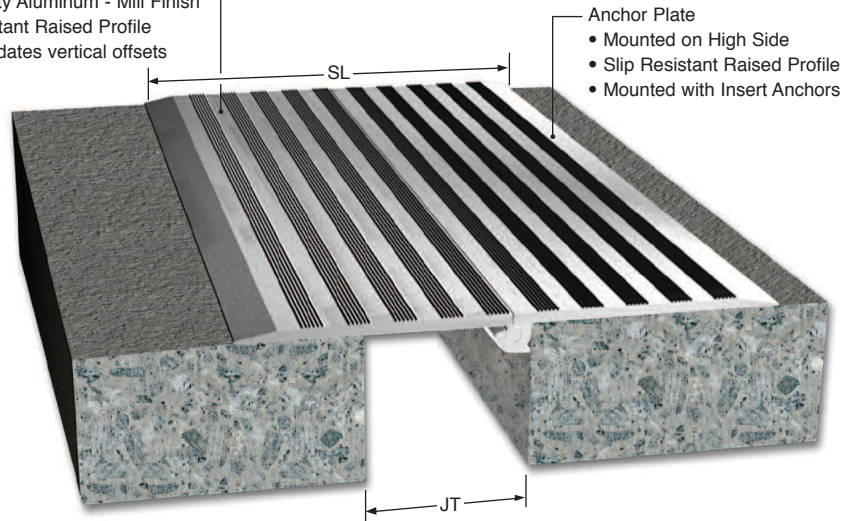
HFP	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
HFP-2-2	2.0" 51	1.00" 25	6.00" 152	5.00" 127	13.125" 333
HFP-3-3	3.0" 76	1.00" 25	6.00" 152	5.00" 127	13.125" 333
HFP-4-2	4.0" 102	1.00" 25	6.00" 152	5.00" 127	13.125" 333
X-U *	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
X-U-1.5 *	1.5" 38	0.00" 0	2.75" 70	2.75" 70	4.31" 110
X-U-2 *	2.0" 51	0.00" 0	3.00" 76	3.00" 76	5.31" 135
SN	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
SN 100	1.0" 25	0.50" 13	1.50" 38	1.00" 25	4.00" 102
SN 200	2.0" 51	1.00" 25	3.00" 76	2.00" 51	5.00" 127
ASJ	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
ASJ 3-1	3.0" 76	2.00" 51	4.00" 102	2.00" 51	5.50" 140
ASJ 4-2	4.0" 102	2.00" 51	6.00" 152	4.00" 102	6.50" 165
ASJ 6-3	6.0" 152	3.00" 76	9.00" 229	6.00" 152	10.50" 267
ASJ 8-4	8.0" 203	4.00" 102	12.00" 305	8.00" 203	14.00" 356
ASJ 12-6	12" 305	6.00" 152	18.00" 457	12.00" 305	18.00" 457
ASJ 18-9	18" 457	9.00" 229	27.00" 686	18.00" 457	25.375" 645
SP *	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
SP-1-1 *	1.0" 25	0.00" 0	1.875" 48	1.875" 48	3.00" 76
SP-1.5-1.5 *	1.5" 38	0.00" 0	2.875" 73	2.875" 73	4.00" 102
SP-2-2 *	2.0" 51	0.00" 0	4.000" 102	4.000" 102	5.875" 149
HCP	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
HCP 1-1	1.0" 25	0.00" 0	2.00" 51	2.00" 51	2.50" 64
HCP 2-1	2.0" 51	1.00" 25	3.00" 76	2.00" 51	2.50" 64

Dimensions shown in **inches** (bold) and millimeters. Corner styles available for most models. Other sizes available. Call MM Systems for details.

* For Fire-Ratings on XU & SP Series, contact MM Systems.

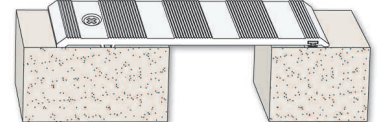
Hinged Safety Cover Plate

- Heavy Duty Aluminum - Mill Finish
- Slip Resistant Raised Profile
- Accommodates vertical offsets



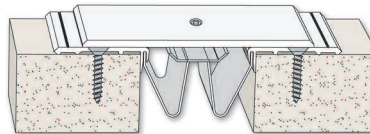
Series HFP

Floor-to-Floor with Vertical Offsets
Nominal Joint Openings 2.0" to 4.0"
NOTE: Also available as Floor-to-Wall system



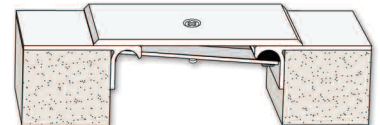
Series X-U

Floor-to-Floor with Serrated Cover
Nominal Joint Openings 1.5" to 2.0"
NOTE: Also available as Floor-to-Wall system



Series SN

Floor-to-Floor
Nominal Joint Openings 1" to 2"
NOTE: Also available as Floor-to-Wall system



Series ASJ

Floor-to-Floor (3" minimum opening)
Nominal Joint Openings 3.0" to 18.0"
NOTE: Also available as Floor-to-Wall system



Series HCP

Floor-to-Floor with Carpet Cover
Nominal Joint Openings 1" to 2"
NOTE: Also available as Floor-to-Wall system



Series SP

Floor-to-Floor
Nominal Joint Openings 1" to 18"
NOTE: Also available as Floor-to-Wall system



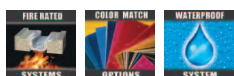
MM® Elastoprene Compression Seals

Performance Data

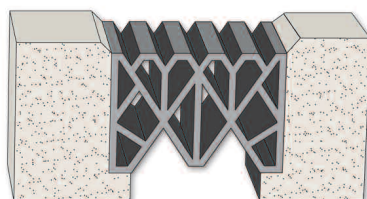
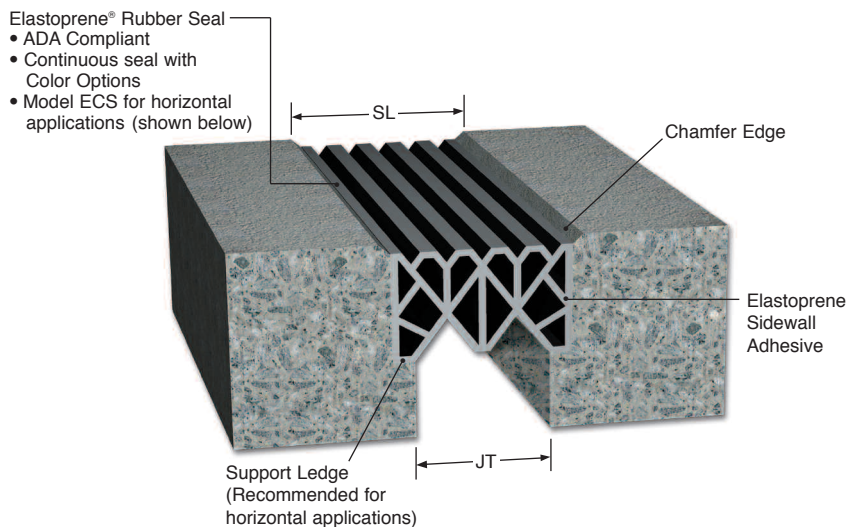
Colored rubber multi-web seal profile accommodates expansion and compression.

- No mechanical anchors or metal components.
- Splices can be heat welded or bonded with specialty adhesive.
- Seal profiles are ADA compliant and provide a smooth transition for pedestrian traffic areas.
- Model ECS available in continuous lengths for horizontal applications.
- Model VCS is a colored rubber low pressure seal for vertical applications.
- High abrasion and ultraviolet resistance.
- Cost effective and easy to install.

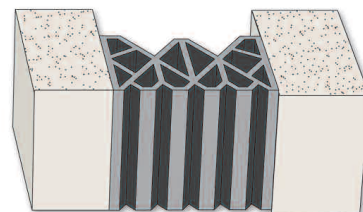
Product Features



Colors



Series ECS (Heavy Duty Horizontal)
Slab-to-Slab / Movement .88" to 5.75"

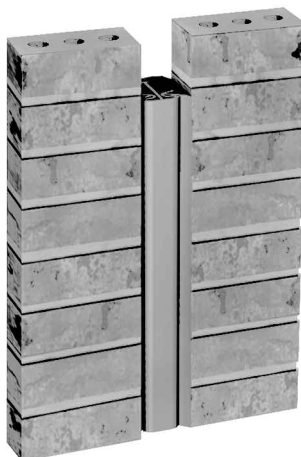


Series ECS (Standard Vertical)
Wall-to-Wall / Movement .88" to 5.75"

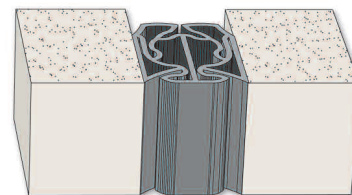
Movement Table

ECS	Total Movement	Joint Opening "A"		Installation Width		Depth "B" Clearance
		Min.	Max.	Min.	Max.	
ECS-200	0.88" 22	0.88" 22	1.75" 44	1.25" 32	1.75" 44	2.125" 54
ECS-300	1.75" 44	1.00" 25	2.75" 70	1.75" 44	2.75" 70	2.375" 60
ECS-400	2.63" 67	1.12" 28	3.75" 95	2.00" 51	3.75" 95	3.063" 78
ECS-500	3.50" 89	1.25" 32	4.75" 121	2.25" 57	4.75" 121	3.750" 95
ECS-600	4.25" 108	1.50" 38	5.75" 146	2.75" 70	5.75" 146	4.500" 114
VCS-175	1.125" 29	.50" 13	1.625" 41	.875" 22	1.625" 41	1.31" 33
VCS-225	1.375" 40	.625" 16	2.00" 51	1.25" 32	2.00" 51	1.69" 43
VCS-300	2.00" 51	.75" 19	2.75" 70	1.75" 51	2.75" 70	2.25" 57

Dimension shown in **inches** (bold) and millimeters.



Model VCS
for vertical applications



Series VCS (Standard)
Wall-to-Wall / Movement .50" to 2.75"

Performance Data

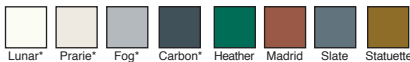
Single and dual flush-gasketed floor systems provide an aesthetically pleasing sight line featuring a no-bump design in a wide range of decorator colors.

- Flush sightline minimizes appearance.
- Gaskets available in 8 designer colors.
- Pedestrian loads only.
- Variable heights available*.

Product Features



Colors - For all rubber seals

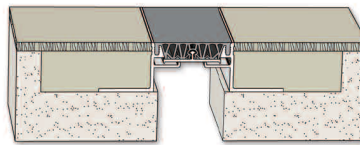
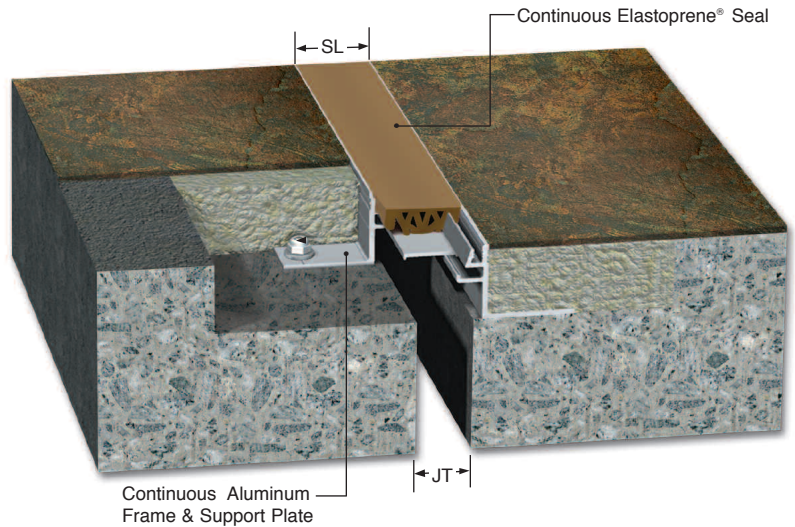


*Stock Colors - Other colors subject to quantity minimums.
Additional colors and matching available.

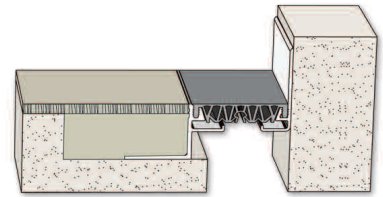
Movement Table

FS	Nominal "JT"		Joint Opening "JT"		Total Movement	Sight Line "SL"
			Min.	Max.		
FS-100	1.0"	25	0.56"	1.44"	0.875"	1.50"
FS-200	2.0"	51	1.44"	2.50"	1.06"	2.50"
FS-300	3.0"	76	2.50"	3.75"	1.25"	4.0"
FSE	Nominal "JT"		Joint Opening "JT"		Total Movement	Sight Line "SL"
			Min.	Max.		
FSE-100	1.0"	25	0.56"	1.44"	0.875"	1.5"
FSE-200	2.0"	51	1.44"	2.5"	1.06"	2.5"
FSE-300	3.0"	76	2.50"	3.75"	1.25"	4.0"
FSS	Nominal "JT"		Joint Opening "JT"		Total Movement	Sight Line "SL"
			Min.	Max.		
FSS-100	1.0"	25	0.81"	1.25"	0.44"	4.0"
FSS-150	1.5"	38	1.375"	1.56"	0.19"	4.375"
FSS-200	2.0"	51	1.56"	2.44"	0.875"	5.0"
FSS-300	3.0"	76	2.44"	3.5"	1.06"	6.0"
FSNE	Nominal "JT"		Joint Opening "JT"		Total Movement	Sight Line "SL"
			Min.	Max.		
FSNE-100	1.0"	25	0.56"	1.44"	0.875"	1.5"
FSNE-200	2.0"	51	1.44"	2.5"	1.06"	2.5"
FSST	Nominal "JT"		Joint Opening "JT"		Total Movement	Sight Line "SL"
			Min.	Max.		
FSST-100	1.0"	25	0.81"	1.25"	0.44"	4.0"
FSST-150	1.5"	38	1.375"	1.56"	0.19"	4.375"
FSST-200	2.0"	51	1.56"	2.44"	0.875"	5.0"
FSSR	Nominal "JT"		Joint Opening "JT"		Total Movement	Sight Line "SL"
			Min.	Max.		
FSSR-100	1.0"	25	0.81"	1.25"	0.44"	1.0"
FSSR-150	1.5"	38	1.375"	1.56"	0.19"	1.5"
FSSR-200	2.0"	51	1.56"	2.44"	0.875"	2.0"
FSSR-300	3.0"	76	2.44"	3.5"	1.06"	3.0"
FDT	Nominal "JT"		Joint Opening "JT"		Total Movement	Sight Line "SL"
			Min.	Max.		
FDT-100	1.0"	25	0.75"	1.125"	0.375"	4.0"
FDT-200	2.0"	51	1.81"	2.31"	0.5"	6.25"
FDT-300	3.0"	76	2.625"	3.19"	0.56"	9.0"
FDT-400	4.0"	102	2.1875"	6.3125"	4.125"	9.75"
FDT-600	6.0"	152	4.1875"	8.3125"	4.125"	11.75"
FDT-800	8.0"	203	6.1875"	10.3125"	4.125"	13.75"
FDT-1200	12.0"	305	10.1875"	14.3125"	4.125"	17.75"

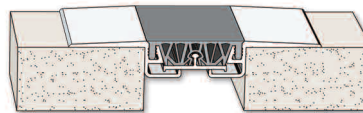
Dimensions shown in inches (bold) and millimeters.



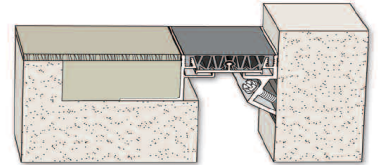
Series FS
Floor-to-Floor / Blockout Mount
Nominal Joint Openings 1" to 3"



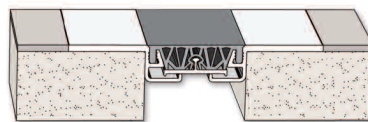
Series FSE
Floor-to-Wall / Blockout Mount
Nominal Joint Openings 1" to 3"



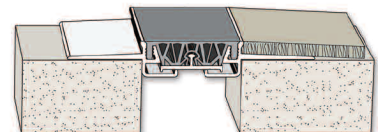
Series FSS
Floor-to-Floor / Surface Mount
Nominal Joint Openings 1" to 3"



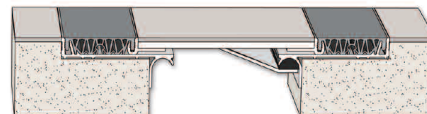
Series FSNE
Floor-to-Floor / New-to-Existing
Nominal Joint Openings 1" to 2"



Series FSST
Floor-to-Floor / Flush-to-Tile
Nominal Joint Openings 1" to 3"



Series FSSR
Floor-to-Floor / Flush-to-Carpet
Nominal Joint Openings 1" to 3"



Series FDT
Floor-to-Floor / Blockout Mount
Nominal Joint Openings 1" to 12"

Performance Data

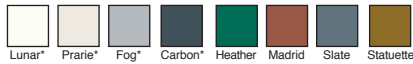
Single and dual flush-gasketed wall and ceiling systems provide a clean and narrow sight line in a wide range of decorator colors that coordinates with the Flushline Floor Systems.

- Flush sightline minimizes overall appearance.
- Gaskets available in 8 colors and narrow sight lines.
- Installation can be surface or recess.
- Thermal expansion & contraction up to 35%.
- Available as surface mounted or mud-in models for gypson board wall and ceiling applications.
- Replaceable seal for maintenance or décor modifications.
- Seals provided in continuous lengths.

Product Features



Colors - For all rubber seals

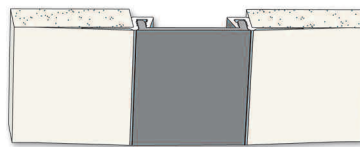
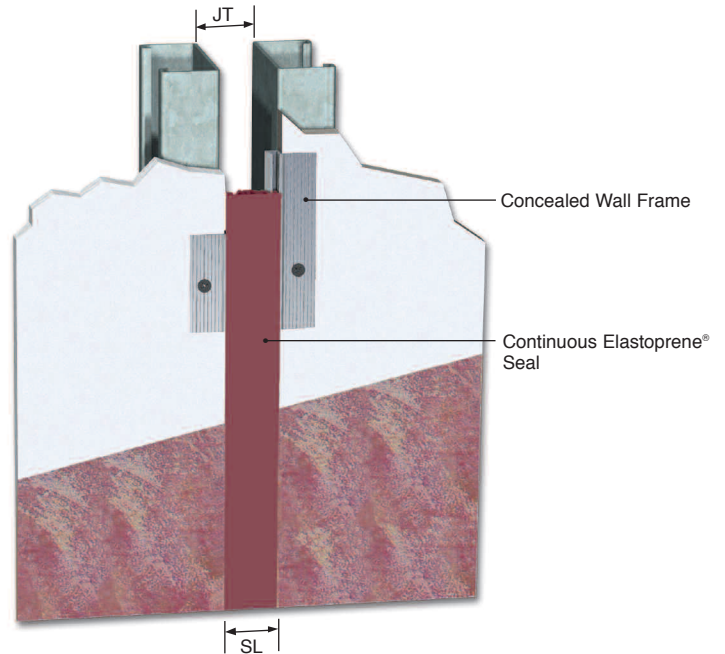


*Stock Colors - Other colors subject to quantity minimums.
Additional colors and matching available.

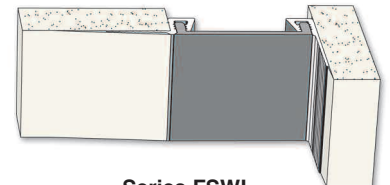
Movement Table

FSW	Nominal "JT"	Joint Opening "JT"		Total Movement	Sight Line "SL"
		Min.	Max.		
FSW-100	1.0" 25	0.875" 22	1.25" 32	0.375" 10	1.0" 25
FSW-150	1.5" 38	1.25" 32	1.69" 43	0.44" 11	1.5" 38
FSW-200	2.0" 51	1.25" 32	2.375" 60	1.13" 29	2.0" 51
FSW-300	3.0" 76	2.44" 62	3.50" 89	1.06" 27	3.0" 76
FSWL	Nominal "JT"	Joint Opening "JT"		Total Movement	Sight Line "SL"
		Min.	Max.		
FSWL-100	1.0" 25	0.875" 22	1.25" 32	0.375" 10	1.0" 25
FSWL-150	1.5" 38	1.25" 32	1.69" 43	0.44" 11	1.5" 38
FSWL-200	2.0" 51	1.25" 32	2.375" 60	1.13" 29	2.0" 51
FSA	Nominal "JT"	Joint Opening "JT"		Total Movement	Sight Line "SL"
		Min.	Max.		
FSA-100	1.0" 25	0.875" 22	1.25" 32	0.375" 10	4.0" 102
FSA-150	1.5" 38	1.25" 32	1.69" 43	0.44" 11	4.375" 111
FSA-200	2.0" 51	1.25" 32	2.375" 60	1.13" 29	5.0" 127
FSA-300	3.0" 76	2.44" 62	3.50" 89	1.06" 27	6.0" 152
FSWP	Nominal "JT"	Joint Opening "JT"		Total Movement	Sight Line "SL"
		Min.	Max.		
FSWP-100	1.0" 25	0.5625" 14	1.4375" 37	0.875" 22	1.5" 38
FSWP-150	2.0" 51	1.5625" 40	2.4375" 62	0.875" 22	2.0" 51
FSWP-200	2.0" 51	1.4375" 37	2.5" 64	1.062" 27	2.5" 64
WD	Nominal "JT"	Joint Opening "JT"		Total Movement	Sight Line "SL"
		Min.	Max.		
WD-100	1.0" 25	.75" 19	1.125" 29	0.375" 10	4.0" 102
WD-200	2.0" 51	1.81" 46	2.31" 59	0.50" 13	6.25" 159
WD-300	3.0" 76	2.625" 67	3.19" 81	0.56" 14	9.0" 229
WD-400	4.0" 102	2.1875" 56	6.3125" 160	4.125" 105	9.75" 248
WD-600	6.0" 152	4.1875" 106	8.3125" 211	4.125" 105	11.75" 298
WD-800	8.0" 203	6.1875" 157	10.3125" 262	4.125" 105	13.75" 349
WD-1200	12.0" 305	10.1875" 259	14.3125" 364	4.125" 105	15.75" 451

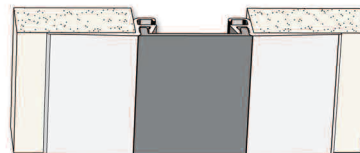
Dimensions shown in **inches (bold)** and millimeters.
Corner styles available for most models.
Other sizes available. Call MM Systems for details.



Series FSW
Wall-to-Wall / Concealed Mud Frame
Nominal Joint Openings 1" to 3"



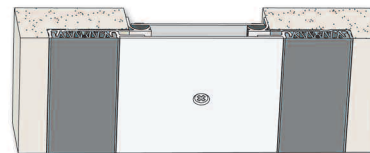
Series FSWL
Corner Wall / Concealed Mud Frame
Nominal Joint Openings 1" to 2"



Series FSA
Wall-to-Wall / Surface Mount
Nominal Joint Openings 1" to 3"



Series FSWP
Wall-to-Wall / Concealed Frame
Nominal Joint Openings 1" to 2"



Series WD
Wall-to-Wall / Recess Mount
Nominal Joint Openings 1" to 12"

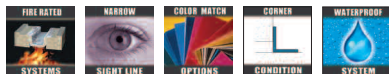
MM® Flexible Wall and Ceiling Systems

Performance Data

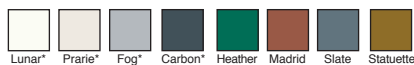
Architectural aluminum frames with Elastoprene® seals in designer colors provide generous movement ranges without sacrificing appearance.

- Seals available in coordinating decorator colors.
- Multiple styles to accommodate various conditions / applications.
- Install surface mount to drywall or ceiling application.
- Install in any exterior substrate.
- Mud-In Frame for gypsum walls reduces sightline.
- Resistant to UV, ozone, acid rain, most chemicals and extreme temperatures.
- Splices can be heat welded or bonded with specialty adhesive.
- Continuous lengths in most applications.

Product Features



Colors - For all rubber seals



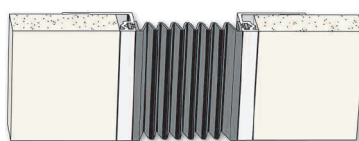
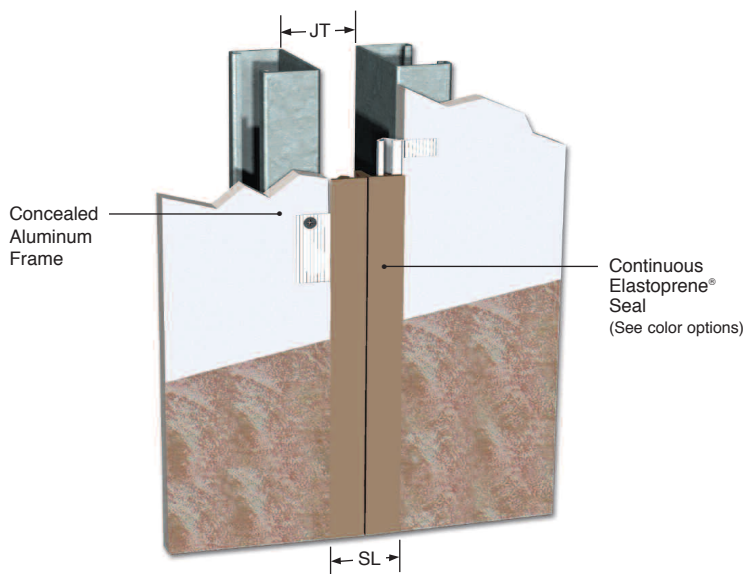
*Stock Colors - Other colors subject to quantity minimums.
Additional colors and matching available.

Movement Table

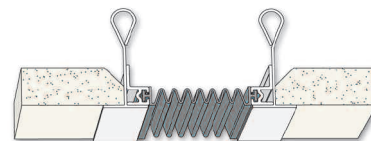
KX	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
KX-100	1.0" 25	0.375" 10	2.00" 51	1.625" 41	1.56" 40
KX-200	2.0" 51	0.75" 19	4.00" 102	3.25" 83	2.56" 65
CX	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
CX-100	1.0" 25	0.375" 10	2.00" 51	1.625" 41	1.0" 25
CX-200	2.0" 51	0.75" 19	4.00" 102	3.25" 83	2.0" 51
DX *	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
DX-100	1.0" 25	0.25" 6	2.375" 60	2.125" 54	1.0" 25
DX-200	2.0" 51	0.25" 6	2.375" 60	2.125" 54	2.0" 51
VSW	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
VSW-200	2.0" 51	1.61" 41	3.0" 76	1.39" 35	2.0" 51
VSW-300	3.0" 76	1.61" 41	4.5" 114	2.89" 73	3.0" 76
VSW-400	4.0" 102	1.86" 47	6.0" 152	4.14" 105	4.0" 102
VSW-500	5.0" 127	1.86" 47	7.5" 191	5.64" 143	5.0" 127
VSG	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
VSG-200	2.0" 51	1.09" 28	3.0" 76	1.91" 49	2.0" 51
VSG-300	3.0" 76	1.09" 28	4.5" 114	3.41" 87	3.0" 76
VSG-400	4.0" 102	1.34" 34	6.0" 152	4.66" 118	4.0" 102
VSG-500	5.0" 127	1.34" 34	7.5" 191	6.16" 156	5.0" 127

Dimensions shown in inches (bold) and millimeters. Corner styles available for most models. Other sizes available. Call MM Systems for details.

* DX is available in white only



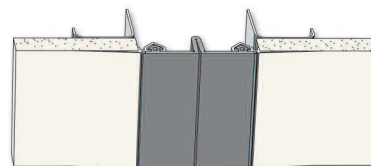
Series KX
Wall-to-Wall
Nominal Joint Openings 1" to 2"



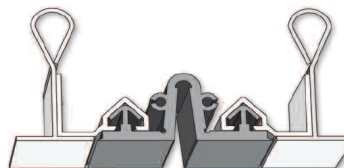
Series CX
Ceiling-to-Ceiling
Nominal Joint Openings 1" to 2"



Series DX
Ceiling-to-Ceiling
Nominal Joint Openings 1" to 2"



Series VSW
Wall-to-Wall / Concealed Mount
Nominal Joint Openings 2" to 5"



Series VSG
Ceiling-to-Ceiling
Nominal Joint Openings 2" to 5"



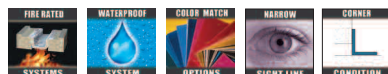
MM® Vertical Sealing Systems

Performance Data

Vertical watertight seismic seal snap-locked into two aluminum frames.

- No visible aluminum or hardware.
- Engineered for multi-directional seismic movement.
- Visual seals are available in standard and custom colors.
- Resistant to UV, ozone, acid rain, most chemicals and extreme temperatures.
- Splices can be heat welded or bonded with specialty adhesive.
- Continuous seal lengths in most applications.

Product Features



Colors - For all rubber seals

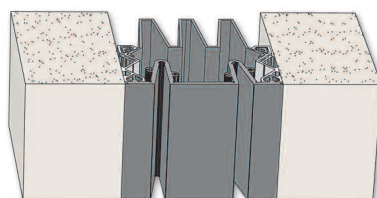
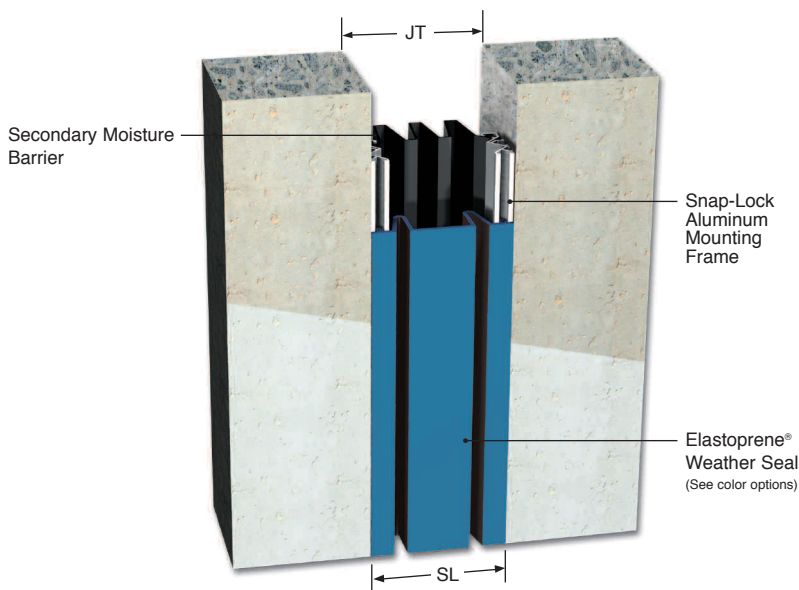


*Stock Colors - Other colors subject to quantity minimums.
Additional colors and matching available.

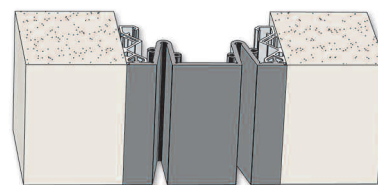
Movement Table

VSS-E	Nominal "JT"	Joint Opening "JT"				Total Thermal Movement
		Min.	Max.	Seismic Max.		
VSS-200-E	2.0" 51	1.25" 32	3.0" 76	10.0" 250	1.75" 44	44
VSS-300-E	3.0" 76	1.25" 32	4.5" 114	10.0" 250	3.25" 83	83
VSS-400-E	4.0" 102	1.75" 44	6.0" 152	10.0" 250	4.25" 108	108
VSS-500-E	5.0" 127	1.75" 44	7.5" 191	17.0" 432	5.75" 146	146
VSS-600-E	6.0" 152	1.75" 44	9.0" 229	17.0" 432	7.25" 184	184
VSS-700-E	7.0" 178	4.0" 102	12.0" 305	18.0" 457	8.0" 203	203
VSS-800-E	8.0" 203	4.0" 102	12.0" 305	18.0" 457	8.0" 203	203
VSS-900-E	9.0" 229	4.0" 102	15.0" 381	24.0" 610	11.0" 279	279
VSS-1000-E	10.0" 254	4.0" 102	15.0" 381	24.0" 610	11.0" 279	279
VSS-I	Nominal "JT"	Joint Opening "JT"				Total Movement Sight Line "SL"
		Min.	Max.			
VSS-200-I	2.0" 51	1.25" 32	3.0" 76	10.0" 250	1.75" 44	44
VSS-300-I	3.0" 76	1.25" 32	4.5" 114	10.0" 250	3.25" 83	83
VSS-400-I	4.0" 102	1.75" 44	6.0" 152	10.0" 250	4.25" 108	108
VSS-500-I	5.0" 127	1.75" 44	7.5" 191	17.0" 432	5.75" 146	146
VSS-600-I	6.0" 152	1.75" 44	9.0" 229	17.0" 432	7.25" 184	184
VSS-700-I	7.0" 178	4.0" 102	12.0" 305	18.0" 457	8.0" 203	203
VSS-800-I	8.0" 203	4.0" 102	12.0" 305	18.0" 457	8.0" 203	203
VSS-900-I	9.0" 229	4.0" 102	15.0" 381	24.0" 610	11.0" 279	279
VSS-1000-I	10.0" 254	4.0" 102	15.0" 381	24.0" 610	11.0" 279	279

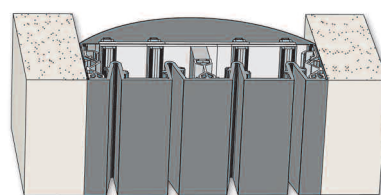
Dimensions shown in **inches (bold)** and millimeters. Other sizes available. Call MM Systems for details.



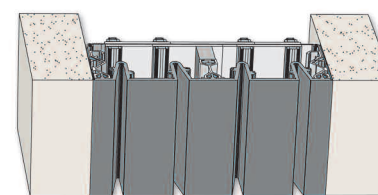
Series VSS-E 200-600
Wall-to-Wall / Exterior
Nominal Joint Openings 2" to 6"



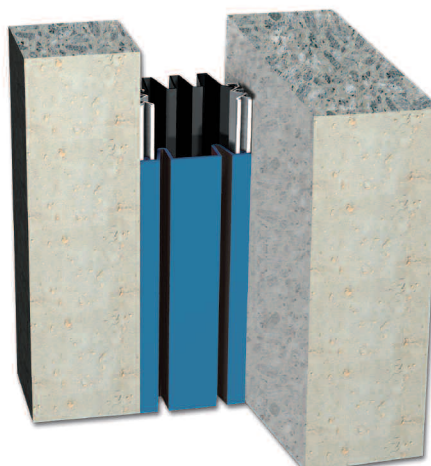
Series VSS-I 200-600
Wall-to-Wall / Interior
Nominal Joint Openings 2" to 6"



Series VSS-E 700 & Larger
Wall-to-Wall / Exterior (shown) / Interior (similar)
Nominal Joint Openings 7" to 24"+



Series VSS-I 700 & Larger
Wall-to-Wall / Exterior (shown) / Interior (similar)
Nominal Joint Openings 7" to 24"+



Performance Data

Engineered seismic silicone sealant factory bonded to a rectangular polyurethane backer support system.

- Silicone sealing system conforms to irregular openings and is watertight, dust-proof, airtight and soundproof.
- Preformed silicone strip bonded to a rectangular polyurethane backer support system.
- 3-sided bonding of seal with a primerless one-part silicone sealant.
- 1/2" thick silicone strip virtually eliminates possibility of punctures.
- Non flammable and resistant to UV, ozone, wind driven rain and extreme temperatures.
- Easy to install, no fasteners or anchors.
- Provided in 6'-0" sections.

Product Features

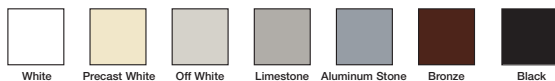


Movement Table

ESS	Total Movement		Joint Opening "JT" & "SL"		Installation Range "JT"	
	Min.	Max.	Min.	Max.	Min.	Max.
ESS-100	1.0"	25	.50"	13	1.5"	38
ESS-150	1.5"	38	.75"	19	2.25"	57
ESS-200	2.0"	51	1.0"	25	3.0"	76
ESS-250	2.5"	64	1.25"	32	3.75"	95
ESS-300	3.0"	76	1.5"	38	4.5"	114
ESS-350	3.5"	89	1.75"	44	5.25"	133
ESS-400	4.0"	102	2.0"	51	6.0"	152
ESS-450	4.5"	114	2.25"	57	6.75"	171
ESS-500	5.0"	127	2.5"	64	7.5"	191
ESS-600	6.0"	152	3.0"	76	9.0"	229
ESS-700	7.0"	178	3.50"	89	10.5"	267

Dimension shown in **inches** (bold) and millimeters.
Larger sizes available. Call MM Systems for details.

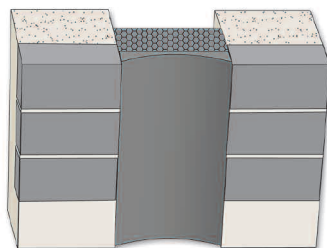
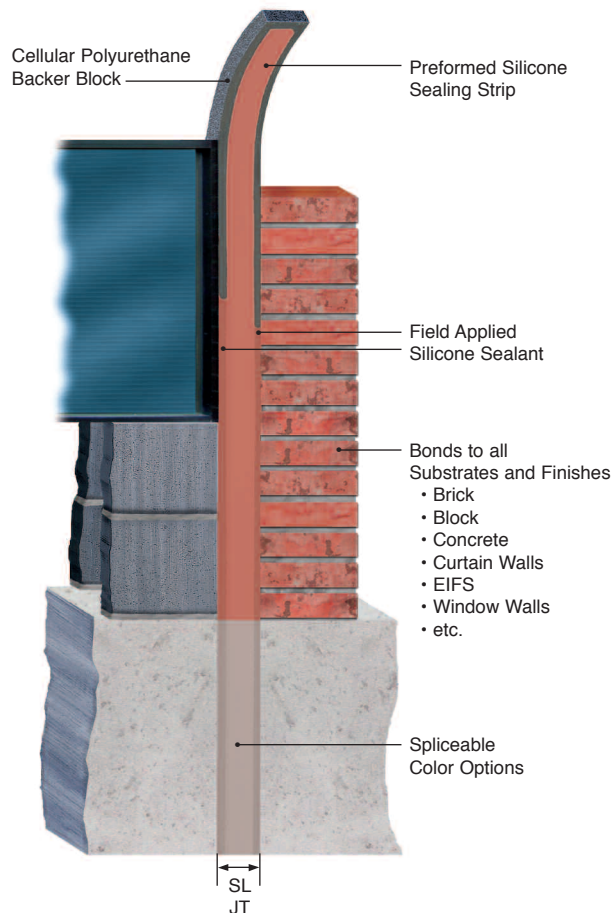
Standard Colors



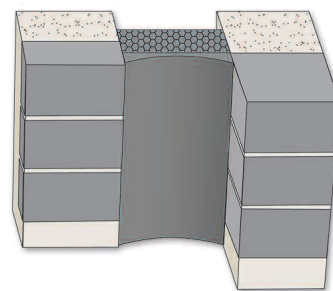
Custom Colors



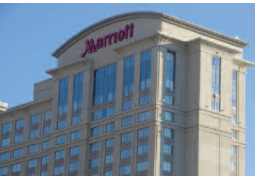
ESS - Engineered Seismic Silicone Sealing System



Series ESS
Wall-to-Wall / Movement .50" to 10.5"



Series ESS
Corner Wall / Movement .50" to 10.5"



MM® ColorJoint / SIF Series

Performance Data

Seismic silicone face seal factory applied to polyurethane micro-cell foam impregnated with a waterproof polymer sealing compound.

- $\pm$ 50% seismic movement capability with near zero tensile stress at bond line.
- Conforms to irregular openings.
- Binary silicone seal and impregnated foam nearly eliminates possibility of punctures.
- Permanently elastic.
- Watertight, dust-proof, airtight, soundproof seal resilient and flexible to -39°F.
- Provides interior vapor, dust, acoustical, air and sound-dampening control.
- Provided in 5'-0" sections.

Product Features

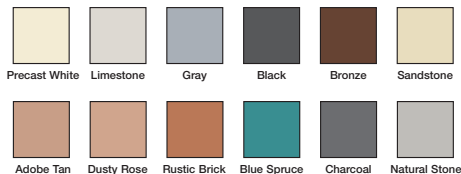


Movement Table

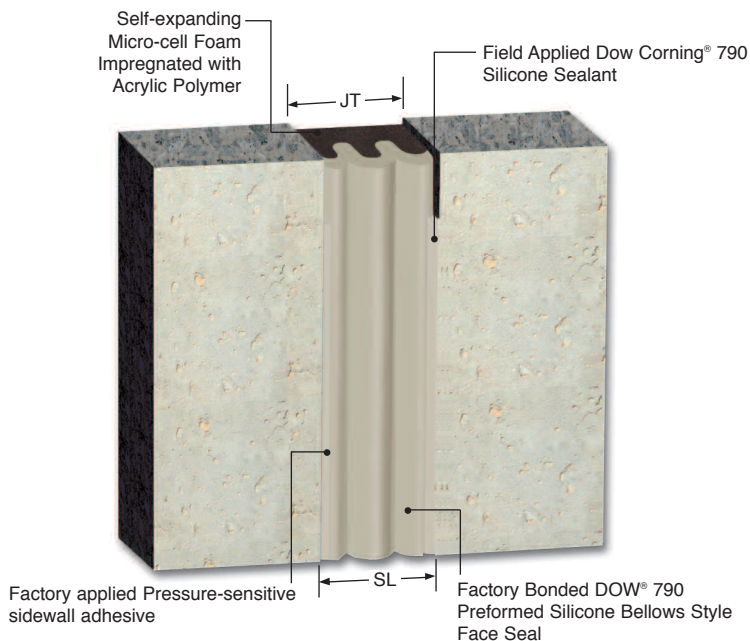
SIF	Total Movement		Movement Range "A"			Expansion Joint Size	
			Min.	Max.		Nominal	Seal Depth
SIF-050	0.50"	13	0.250"	6	0.75"	19	0.50" 13
SIF-063	0.625"	16	0.312"	8	0.9375"	24	0.625" 16
SIF-075	0.75"	19	0.375"	10	1.125"	29	0.75" 19
SIF-100	1.00"	25	0.500"	13	1.500"	38	1.00" 25
SIF-125	1.25"	32	0.625"	16	1.875"	48	1.25" 32
SIF-150	1.50"	38	0.750"	19	2.250"	57	1.50" 38
SIF-175	1.75"	44	0.875"	22	2.625"	67	1.75" 44
SIF-200	2.00"	51	1.00"	25	3.00"	76	2.00" 51
SIF-225	2.25"	57	1.125"	28	3.375"	86	2.25" 57
SIF-250	2.50"	64	1.250"	32	3.750"	95	2.50" 64
SIF-275	2.75"	70	1.375"	35	4.150"	105	2.75" 70
SIF-300	3.00"	76	1.500"	38	4.500"	114	3.00" 76
SIF-325	3.25"	83	1.562"	41	4.812"	122	3.25" 83
SIF-350	3.50"	89	1.750"	44	5.250"	133	3.50" 89
SIF-375	3.75"	96	1.875"	48	5.625"	143	3.75" 96
SIF-400	4.00"	102	2.00"	51	6.00"	152	4.00" 102
SIF-500	5.00"	127	2.50"	64	7.50"	191	5.00" 127
SIF-600	6.00"	152	3.00"	76	9.00"	229	6.00" 152
SIF-700	7.00"	178	3.50"	89	10.50"	267	7.00" 178
SIF-800	8.00"	203	4.00"	102	12.00"	305	8.00" 203

Dimensions shown in **inches (bold)** and millimeters.
Other sizes available. Call MM Systems for details.

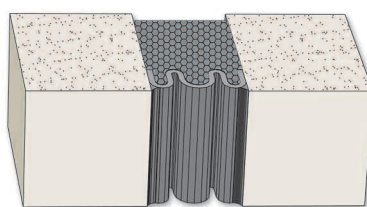
Colors



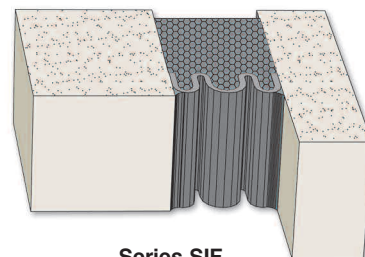
SIF - Seismic Silicone & Impregnated Foam System



DOW® 790 is a registered trademark of Dow Corning



Series SIF
Wall-to-Wall / Movement .25" to 12.0"



Series SIF
Wall Corner / Movement .25" to 12.0"

MM[®] Seismic Metal Wall Systems

Performance Data

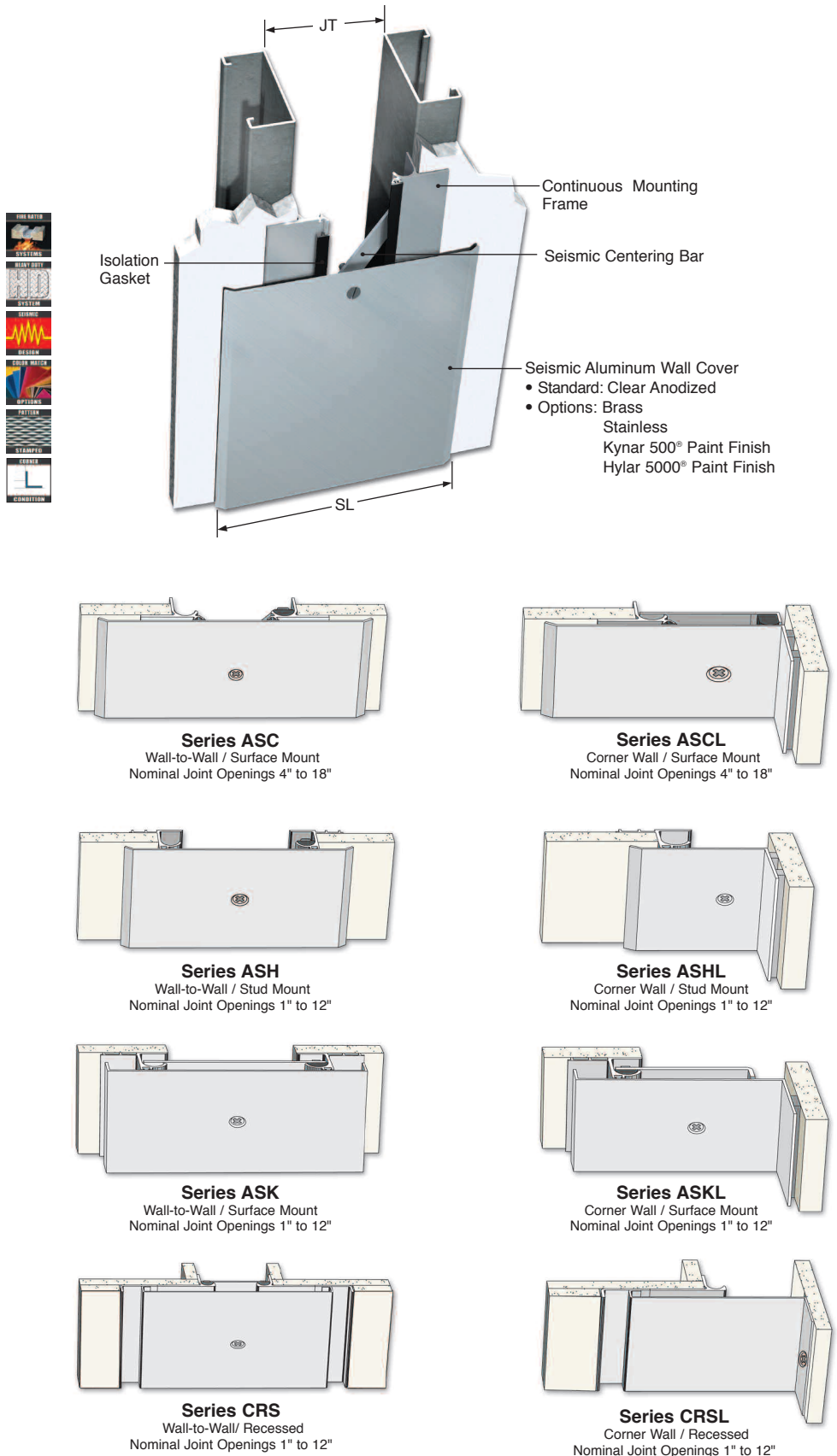
Engineered wall covers provide seismic movement in a wide range of sizes, styles and finishes.

- Centering bar accommodates seismic movement.
- For ceiling applications contact factory.
- Standard clear anodized, optional bronze anodized or available Kynar[®] 500/Hylar[®] 5000 finishes.

Movement Table

ASC & ASCL	Nominal "JT"		Joint Opening "JT" Min. Max.				Total Movement		Sight Line "SL"	
ASC 4-2	4.0"	102	2.25"	57	10.0"	254	7.75"	197	8.75"	222
ASC 6-3	6.0"	152	2.25"	57	13.0"	330	10.75"	273	11.75"	298
ASC 8-4	8.0"	203	2.25"	57	16.0"	406	13.75"	349	14.75"	375
ASC 12-6	12.0"	305	2.25"	57	22.0"	559	19.75"	502	20.75"	527
ASC 18-9	18.0"	457	2.25"	57	28.0"	711	25.75"	654	26.75"	679
ASCL 4-1	4.0"	102	2.5"	64	7.0"	178	4.5"	114	6.375"	162
ASCL 6-1.5	6.0"	152	2.5"	64	9.5"	241	7.0"	178	8.875"	225
ASCL 8-2	8.0"	203	2.5"	64	12.0"	305	9.5"	241	11.375"	289
ASCL 12-3	12.0"	305	2.5"	64	19.0"	483	16.5"	419	18.375"	467
ASCL 18-4.5	18.0"	457	2.5"	64	24.0"	610	21.5"	546	23.875"	606
ASH & ASHL	Nominal "JT"		Joint Opening "JT" Min. Max.				Total Movement		Sight Line "SL"	
ASH 1-1	1.0"	25	.25"	6	2.0"	51	1.75"	44	4.5"	114
ASH 2-2	2.0"	51	.25"	6	3.0"	76	2.75"	70	5.5"	140
ASH 3-1.5	3.0"	76	.25"	6	4.5"	114	4.25"	108	7.0"	178
ASH 4-2	4.0"	102	.25"	6	6.0"	152	5.75"	146	8.5"	216
ASH 6-3	6.0"	152	.25"	6	9.0"	229	8.75"	222	11.5"	292
ASH 8-4	8.0"	203	.25"	6	12.0"	305	11.75"	298	14.5"	368
ASH 12-6	12.0"	305	.25"	6	18.0"	457	17.75"	451	20.5"	521
ASHL 1-5	1.0"	25	0.0"	0	1.5"	38	1.5"	38	2.75"	70
ASHL 2-5	2.0"	51	0.0"	0	2.5"	64	2.5"	64	3.75"	95
ASHL 3-7.5	3.0"	76	0.0"	0	3.75"	95	3.75"	95	5.0"	127
ASHL 4-1	4.0"	102	0.0"	0	5.0"	127	5.0"	127	6.25"	159
ASHL 6-1.5	6.0"	152	0.0"	0	7.5"	191	7.5"	191	8.75"	222
ASHL 8-2	8.0"	203	0.0"	0	10.0"	254	10.0"	254	11.25"	286
ASHL 12-3	12.0"	305	0.0"	0	15.0"	381	15.0"	381	16.25"	413
ASK & ASKL	Nominal "JT"		Joint Opening "JT" Min. Max.				Total Movement		Sight Line "SL"	
ASK 1-1	1.0"	25	.25"	6	2.0"	51	1.75"	44	4.0"	102
ASK 2-2	2.0"	51	.25"	6	3.0"	76	2.75"	70	5.0"	127
ASK 3-1.5	3.0"	76	.25"	6	4.5"	114	4.25"	108	6.5"	165
ASK 4-2	4.0"	102	.25"	6	6.0"	152	5.75"	146	8.0"	203
ASK 6-3	6.0"	152	.25"	6	9.0"	229	8.75"	222	11.0"	279
ASK 8-4	8.0"	203	.25"	6	12.0"	305	11.75"	298	14.0"	356
ASK 12-6	12.0"	305	.25"	6	18.0"	457	17.75"	451	20.0"	508
ASKL 1-5	1.0"	25	0.5"	13	1.5"	38	1.0"	25	2.5"	64
ASKL 2-5	2.0"	51	1.5"	38	2.5"	64	1.0"	25	3.5"	89
ASKL 3-7.5	3.0"	76	2.125"	54	3.75"	95	1.625"	41	4.75"	121
ASKL 4-1	4.0"	102	2.125"	54	5.0"	127	2.875"	73	6.0"	152
ASKL 6-1.5	6.0"	152	2.125"	54	7.5"	191	5.375"	137	8.5"	216
ASKL 8-2	8.0"	203	2.125"	54	10.0"	254	7.875"	200	11.0"	279
ASKL 12-3	12.0"	305	2.125"	54	15.0"	381	12.875"	327	16.0"	406
CRS & CRSL	Nominal "JT"		Joint Opening "JT" Min. Max.				Total Movement		Sight Line "SL"	
CRS-2-1	2.0"	51	1.50"	38	2.50"	64	1.00"	25	10.25"	260
CRS-4-2	4.0"	102	2.00"	51	8.00"	203	6.00"	152	10.00"	254
CRS-6-3	6.0"	152	3.00"	76	12.25"	311	9.25"	235	15.25"	387
CRS-10-5	10.0"	254	5.00"	127	15.00"	381	10.00"	254	19.25"	489
CRSL-2-5	2.0"	51	1.00"	25	3.0"	76	2.00"	51	6.125"	156
CRSL-4-1	4.0"	102	3.00"	76	6.0"	152	3.00"	76	7.00"	178
CRSL-6-1.5	6.0"	152	4.50"	114	9.125"	232	4.625"	117	10.625"	270

Dimensions shown in **Inches** (bold) and millimeters.
For bronze / stainless options or sizes not shown call MM.



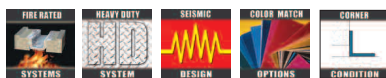
MM® Metal Wall and Ceiling Systems

Performance Data

Architectural aluminum wall and ceiling systems are available in a wide variety of materials, finish options and movement ranges.

- Available in aluminum (standard), or brass and stainless laminate covers.
- Standard clear anodized, optional bronze anodized or available Kynar® 500/Hylar® 5000 finishes in 72 standard and custom colors.
- Isolation seal protects finishes during movement.
- Designs accommodate wall and ceiling applications.

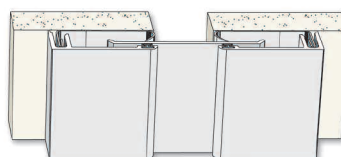
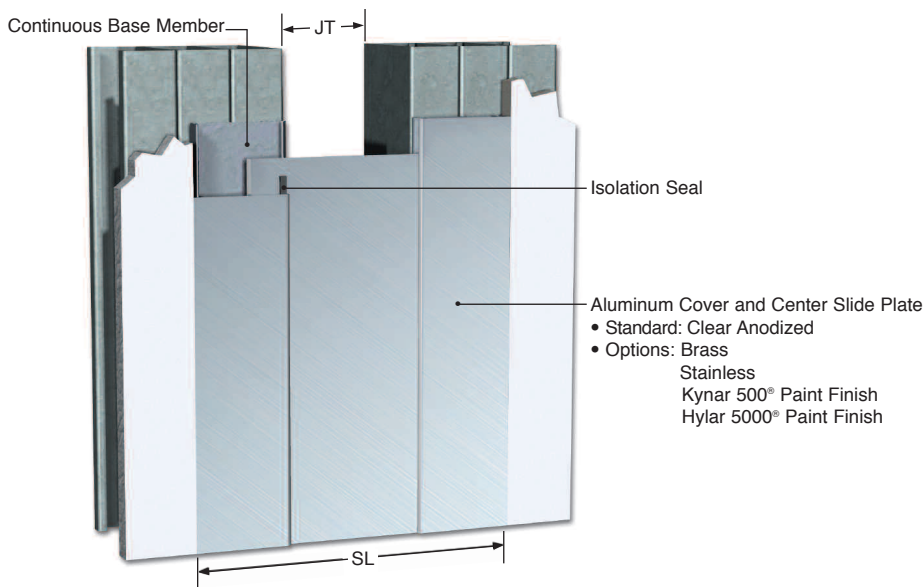
Product Features



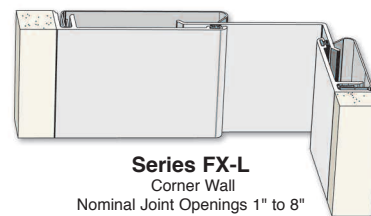
Movement Table

FX-K	Nominal "JT"	Joint Opening "JT" Min. Max.		Total Movement	Sight Line "SL"
FX-K 1-1	1.0" 25	0.0" 0	1.50" 38	1.50" 38	4.5" 114
FX-K 1.5-1.5	1.5" 38	0.0" 0	3.0" 76	3.0" 76	7.0" 178
FX-K 2-1	2.0" 51	1.0" 25	2.50" 64	1.50" 38	5.5" 140
FX-K 2-2	2.0" 51	0.0" 0	4.0" 102	4.0" 102	7.5" 191
FX-K 3-1.5	3.0" 76	1.0" 25	5.0" 127	4.0" 102	8.5" 216
FX-K 3-3	3.0" 76	0.0" 0	6.0" 152	6.0" 152	10.5" 267
FX-K 4-2	4.0" 102	2.0" 51	6.0" 152	4.0" 102	9.5" 241
FX-K 4-4	4.0" 102	0.0" 0	8.0" 203	8.0" 203	13.5" 343
FX-K 6-3	6.0" 152	3.0" 76	9.0" 229	6.0" 152	10.5" 267
FX-K 8-4	8.0" 203	4.0" 102	12.0" 305	8.0" 203	17.5" 445
FX-L	Nominal "JT"	Joint Opening "JT" Min. Max.		Total Movement	Sight Line "SL"
FX-L 1-5	1.0" 25	0.5" 13	1.44" 37	0.94" 24	2.75" 70
FX-L 1.5-1	1.5" 38	0.5" 13	2.5" 64	2.0" 51	4.25" 108
FX-L 2-5	2.0" 51	1.375" 35	2.44" 62	1.06" 27	3.75" 95
FX-L 2-1	2.0" 51	0.5" 13	2.5" 64	2.0" 51	4.75" 121
FX-L 3-1	3.0" 76	2.375" 60	4.5" 114	2.125" 54	5.75" 146
FX-L 3-1.5	3.0" 76	1.875" 48	5.0" 127	3.125" 79	6.75" 171
FX-L 4-2	4.0" 102	2.31" 59	6.0" 152	3.69" 94	6.75" 171
FX-L 6-2.5	6.0" 152	3.81" 97	8.5" 216	4.69" 119	8.25" 210
FX-L 8-4	8.0" 203	4.38" 111	12.0" 305	7.625" 194	12.75" 324
EX-L	Nominal "JT"	Joint Opening "JT" Min. Max.		Total Movement	Sight Line "SL"
EX-L1	1.0" 25	0.0" 0	2.0" 51	2.0" 51	2.0" 51
EX-L2	2.0" 51	1.0" 25	3.0" 76	2.0" 51	3.0" 76
EX-L4	2.0" 51	0.0" 0	4.0" 102	4.0" 102	4.0" 102
EX-L6	3.0" 76	1.0" 25	5.0" 127	4.0" 102	5.0" 127
EX-L8	4.0" 102	2.0" 51	6.0" 152	4.0" 102	6.0" 152
EX-K	Nominal "JT"	Joint Opening "JT" Min. Max.		Total Movement	Sight Line "SL"
EX-K1	1.0" 25	0.0" 0	1.31" 33	1.31" 33	3.125" 79
EX-K2	2.0" 51	0.0" 0	2.56" 65	2.56" 65	4.125" 105
EX-K4	2.0" 51	0.0" 0	3.56" 90	3.56" 90	5.125" 130
EX-K6	3.0" 76	0.0" 0	4.56" 116	4.56" 116	6.125" 156
EX-K8	4.0" 102	0.0" 0	5.56" 141	5.56" 141	7.125" 181
X-M	Nominal "JT"	Joint Opening "JT" Min. Max.		Total Movement	Sight Line "SL"
X-M-1	1.0" 25	0.0" 0	2.88" 73	2.88" 73	4.31" 110
X-M-2	2.0" 51	0.0" 0	3.50" 89	3.50" 89	5.31" 135
X-M-3	3.0" 76	0.0" 0	4.25" 108	4.25" 108	6.19" 157
X-N	Nominal "JT"	Joint Opening "JT" Min. Max.		Total Movement	Sight Line "SL"
X-N-1	1.0" 25	0.0" 0	2.50" 64	2.50" 64	3.13" 80
X-N-2	2.0" 51	0.0" 0	3.50" 89	3.50" 89	4.19" 106

Dimensions shown in inches (bold) and millimeters.
For bronze / stainless options or sizes not shown call MM.



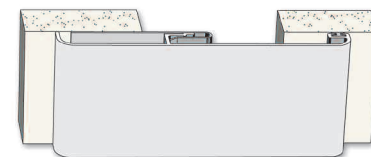
Series FX-K
Wall-to-Wall
Nominal Joint Openings 1" to 8"



Series FX-L
Corner Wall
Nominal Joint Openings 1" to 8"



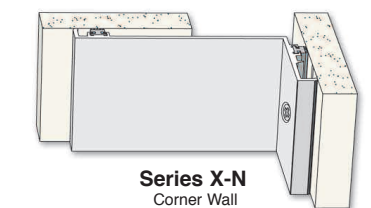
Series EX-L
Corner Wall
Nominal Joint Openings 1" to 4"



Series EX-K
Wall-to-Wall
Nominal Joint Openings 1" to 4"



Series X-M
Wall-to-Wall
Nominal Joint Openings 1" to 3"



Series X-N
Corner Wall
Nominal Joint Openings 1" to 2"



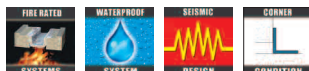
MM® Roof Joint Systems...Metal

Performance Data

Aluminum cover systems engineered for thermal and seismic movement on flat and sloped roofs. Accommodates ice, snow loads, and maintenance foot traffic. Weather gaskets seal the structural opening and interior areas.

- Aluminum systems utilize seismic centering bars.
- Aluminum covers are engineered to resist snow and wind loads.
- Standard mill finish, optional clear, bronze anodized or available Kynar® 500/Hylar® 5000 finishes in 72 standard and custom colors.
- Integral weather-stop gasket and fabric reinforced rubber gutter keep outside elements from penetrating the structural opening and interior areas.

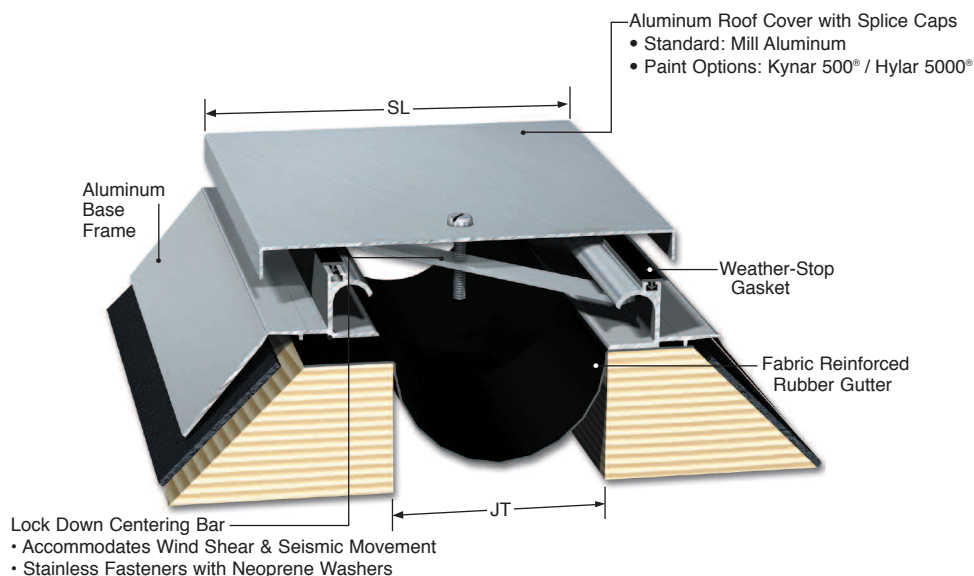
Product Features



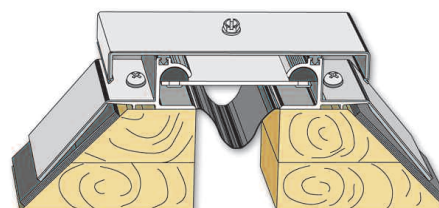
Movement Table

RXH	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
RXH 1-1	1.0" 25	0.0" 0	2.0" 51	2.0" 51	4.0" 102
RXH 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	5.0" 127
RXH 4-2	4.0" 102	2.0" 51	6.0" 152	4.0" 102	8.0" 203
RXH 6-3	6.0" 152	3.0" 76	9.0" 229	6.0" 152	11.0" 279
RXH 8-4	8.0" 203	4.0" 102	12.0" 305	8.0" 203	14.0" 356
RXH 12-6	12.0" 305	6.0" 152	18.0" 457	12.0" 305	20.0" 508
RXH 18-9*	18.0" 457	9.0" 229	27.0" 686	18.0" 457	29.0" 737
RXR	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
RXR 1-1	1.0" 25	0.0" 0	2.0" 51	2.0" 51	4.0" 102
RXR 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	5.0" 127
RXR 3-1.5	3.0" 76	1.5" 38	4.5" 114	3.0" 76	6.5" 165
RXR 4-2	4.0" 102	2.0" 51	6.0" 152	4.0" 102	8.0" 203
RXR 6-3	6.0" 152	3.0" 76	9.0" 229	6.0" 152	11.0" 279
RXR 8-4	8.0" 203	4.0" 102	12.0" 305	8.0" 203	14.0" 356
RXR 12-6	12.0" 305	6.0" 152	18.0" 457	12.0" 305	20.0" 508
RXR 18-9*	18.0" 457	9.0" 229	27.0" 686	18.0" 457	29.0" 737
WJK	Nominal "JT"	Joint Opening "JT" Min.	Joint Opening "JT" Max.	Total Movement	Sight Line "SL"
WJK 1-1	1.0" 25	0.0" 0	2.0" 51	2.0" 51	4.0" 102
WJK 2-1	2.0" 51	1.0" 25	3.0" 76	2.0" 51	5.0" 127
WJK 4-2	4.0" 102	2.0" 51	6.0" 152	4.0" 102	8.0" 203
WJK 6-3	6.0" 152	3.0" 76	9.0" 229	6.0" 152	11.0" 279
WJK 8-4	8.0" 203	4.0" 102	12.0" 305	8.0" 203	14.0" 356
WJK 12-6	12.0" 305	6.0" 152	18.0" 457	12.0" 305	20.0" 508
WJK 18-9*	18.0" 457	9.0" 229	27.0" 686	18.0" 457	29.0" 737

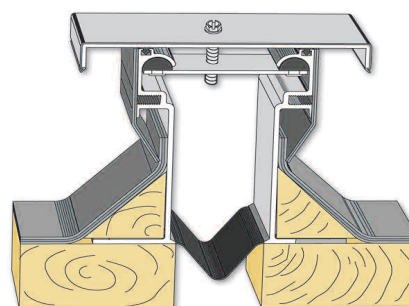
Dimensions shown in inches (bold) and millimeters. Corner styles available for most models. Other sizes available. Call MM Systems for details.
* Wider covers may require stiffer angles. Consult factory.



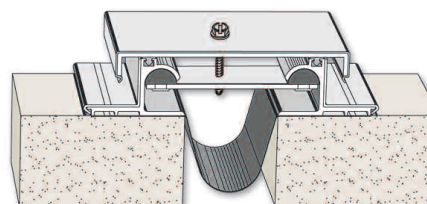
- Accommodates Wind Shear & Seismic Movement
- Stainless Fasteners with Neoprene Washers



Series RXH
Roof-to-Roof / Low Profile
Nominal Joint Openings 1" to 18"



Series RXR
Roof-to-Roof / Raised Profile / Aluminum Cover
Nominal Joint Openings 1" to 18"



Series WJK
Wall-to-Wall / Roof-to-Roof
Nominal Joint Openings 1" to 18"



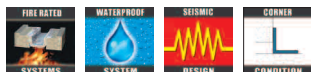
MM® Roof Joint Systems...Rubber Bellows

Performance Data

Flexible rubber bellow systems accommodate thermal and multi-directional seismic movement, provides a weather tight seal and follows complex directional transitions in a wide variety of roofing applications.

- Flexible rubber bellows are resistant to UV, ozone, acid rain and extreme temperatures.
- Accommodates complex directional transitions.
- Compatible with most roofing systems.
- Capable of thermal and multi-directional seismic movement.
- Contoured bellows have no seams or channels to trap water.
- Protected nailing strips are self-sealer when installed resulting in less problems from rust and decay.
- Factory transitions available.

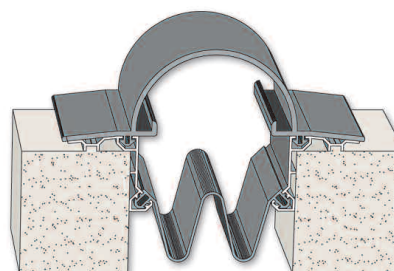
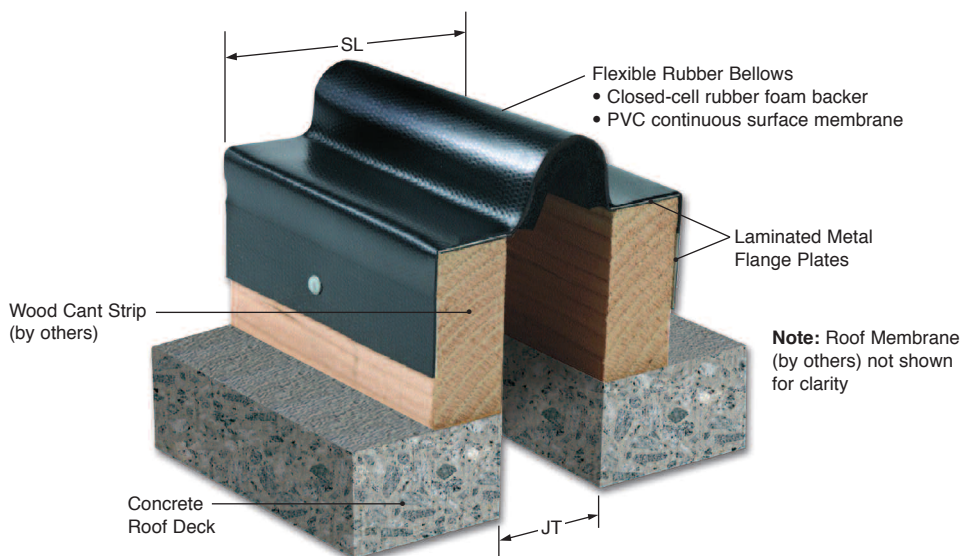
Product Features



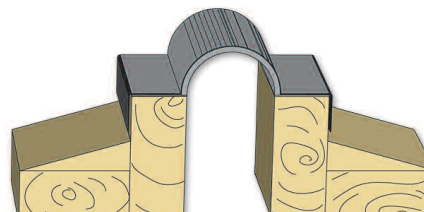
Movement Table

RSS	Nominal "JT"		Joint Opening "JT" Min. Max.			Total Movement	Sight Line "SL"			
RSS-200	2.0"	51	1.5"	38	4.0"	102	2.5"	64	5.0"	127
RSS-400	4.0"	102	1.5"	38	8.0"	203	6.5"	165	7.0"	178
RSS-600	6.0"	152	1.5"	38	12.0"	305	10.5"	267	9.0"	229
RSS-800	8.0"	203	1.5"	38	16.0"	406	14.5"	368	11.0"	279
ERF	Nominal "JT"		Joint Opening "JT" Min. Max.			Total Movement	Sight Line "SL"			
ERF-200	2.0"	51	0.63"	16	3.50"	89	2.88"	73	5.0"	127
ERF-400	4.0"	102	0.63"	16	5.00"	127	4.38"	111	7.0"	178
ERF-600	6.0"	152	1.25"	32	9.00"	229	7.75"	197	9.0"	229
ERJ	Nominal "JT"		Joint Opening "JT" Min. Max.			Total Movement	Sight Line "SL"			
ERJ-200	2.0"	51	0.63"	16	3.50"	89	2.88"	73	5.0"	127
ERJ-400	4.0"	102	0.63"	16	5.00"	127	4.38"	111	7.0"	178
ERJ-600	6.0"	152	1.25"	32	9.00"	229	7.75"	197	9.0"	229

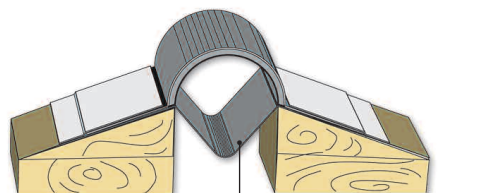
Dimensions shown in **inches** (bold) and millimeters. Corner styles available for most models. Other sizes available. Call MM Systems for details.



Series RSS
Roof-to-Roof / Silicone Bellows
Nominal Joint Openings 2" to 10"



Series ERF
Roof-to-Roof / Raised Rubber Bellows
Nominal Joint Openings 2" to 6"



Series ERJ
Roof-to-Roof / Low Profile Rubber Bellows
Nominal Joint Openings 2" to 6"

Performance Data

Fire barrier systems with thermal, seismic and lateral shear capability. Used in conjunction with expansion joint systems.

Endurance:

- 1, 2, 3 and 4 Hour Ratings Available

Maximum Openings:

- Up to 48"

Performance Standards:

- UL 2079-Class I, II and III
- ASTM E-119
- ASTM E-1966
- ASTM E-1399

Code Compliance:

- UBC, SBC, BOCA, IBC, CAN-S101, ICC-ES

Testing / Listing Agencies:

- Intertek Laboratories (Includes Omega Point Lab)
- Underwriters Laboratories

Tested Performance Criteria:

- Preconditioned cycle testing up to 5000 cycles for seismic movement
- Superimposed loading including hose stream
- Positive pressure
- Factory and field splices/transitions
- Air leakage/smoke migration
- Seismic lateral shear
- Coverless applications

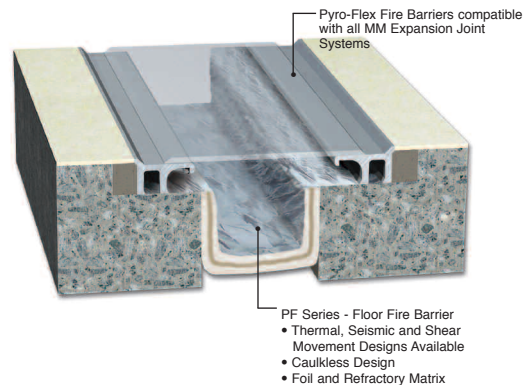
Availability:

- For hourly ratings and movement ranges, contact MM Systems.



Pyro-Flex / Blockout Floor Series

High performance continuous floor fire barrier system that maintains a seal to prevent smoke and fire spread when used with any floor expansion joint system.



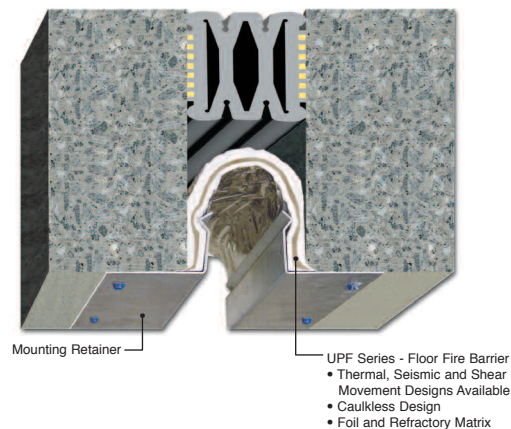
Pyro-Flex / Single Side Wall

Coverless wall fire barrier system that maintains a seal to prevent smoke and fire spread when used for chase conditions, elevator shafts or other areas with access from only one side.



Pyro-Flex / Underslab Floor Series

The industries' first fully rated fire barrier that can be installed from the underside of the concrete floor that allows and does not interfere with waterproofing expansion joint systems installed on the topside.



NOTE: Underslab Fire Barrier System can be used with any expansion joint system. Minimum slab thicknesses required. Contact MM Systems for details.

Pyro-Flex / Dual Side Wall

High performance continuous wall fire barrier system that maintains a seal to prevent smoke and fire spread on either side of the wall when used with any wall expansion joint system.





Important Considerations When Specifying & Selecting Fire-Rated Joints...

1 Movement Criteria

Fire Barriers must accommodate the same types and amount of movement that the associated Expansion Joint Systems are designed for. Movement types include thermal, wind, multi-directional shear and seismic. Movement Ranges are typically plus or minus 50% of nominal for thermal movement and up to plus or minus 100% for seismic applications.

2 Ratings Requirements

Fire Barrier endurance ratings are specified in hourly increments of one to four hours. Fire-Rated assemblies are a combination of Fire Barrier, Expansion Joint Covers and adjacent construction.

3 Code Compliance

National and local building codes have changed substantially in recent years. Rated designs must include the surrounding substrate materials. Once an isolated code requirement, Fire-Rated Barriers for Movement Joints are now commonplace in project specifications. MM has been a participant in the code development process for more than 25 years. We can help clarify the requirements for your specific project.

4 Testing / Listing Credentials

Code compliant Fire Barriers must meet or exceed national or international standards established by laboratories such as Intertek ETL SEMKO, or Underwriter's Laboratories. Fire Barriers should carry a listing label, indicating adherence to the stringent standards set forth by an accredited agency.

5 Liability Risk

Fire Barriers are a life-safety component of the structure. Accepting anything less than a single source supplier may increase your liability risk. You should select products that meet code and are independently tested to the highest standards. Call (800) 241-3460 for a no-nonsense perspective on how to avoid the liability risk.





Our Build Green Commitment

1960 was the year that Julian Atkinson established MM Systems with a sales presence and, of course, with this vision and a conviction to build green.

Times have changed since 1960, and the challenges of the future are yet to come. So in the spirit of Julian's legacy, we have established a new standard - the Green Rule - treating the environment as a partner.

To accomplish this MM Systems has committed to a new standard for sustainable construction practices.

As a start, we built a new manufacturing facility that is 100% green.

To remain on the cutting edge, we continue to invest in research and development, and we encourage our professionals and companies who use our products and green building practices to do the same.

See our "Build Green" section on our website for more information.



Commitment

Attaway, the founder of MM Systems, dreamed of owning a manufacturing facility with a national and international quality products and services that met the needs of an increasingly sophisticated construction market. Armed with the belief that a business that treated its customers by the Golden Rule would surely prosper.

and now more than ever, companies need to join together to help protect our environment for future generations. With the adoption of the Golden Rule, current President Mike Attaway has committed to expanding it to a complementary commitment to the environment the way we would like to leave it for the next generation and generations to come.

MM Systems has committed to fostering environmentally friendly green manufacturing practices to help meet present needs while protecting the ability of future generations to meet their needs.

MM Systems opened its manufacturing facility in 2001 and set aside a portion of our campus for a conservation area.

MM Systems joined the US Green Building Council and other Eco-Friendly Organizations to partner with organizations who are committed to the protection of the environment through the development and promotion of sustainable manufacturing practices.

Visit [our website](#) to learn more about Real World Practices and additional details.



MM[®] Systems Product Line



Expansion Joints / Architectural

Aesthetics, innovation and durability are the hallmark of MM's line of floor, wall, ceiling and roof joint cover systems. Engineered systems include features that are ADA compliant, fire-rated, no-bump and heavy-load designs capable of thermal, shear, seismic and wind-sway movement.



Expansion Joints / Parking and Stadiums

High performance joint sealing systems designed to meet the rigorous demands of parking structures, stadiums and other open-air structures. Engineered options include systems that are waterproof, fire-rated, ADA compliant, and capable of thermal, shear and seismic movement.



Expansion Joints / Seismic

Engineered especially for new and retrofit base-isolated structures, seismically designed, code-compliant systems provide fire-rated passage between structures before, during and after seismic events. Engineered features include multi-directional movement capability including rotation in Z axis (vertical shear). Services include design/build and design assist.



Expansion Joints / Fire Rated / Safety

Fire barrier systems engineered and tested to current standards and code requirements. Ratings include 2, 3 and 4-hour endurance. Seismic fire barriers accommodate multi-directional movement including longitudinal shear. Vertical and horizontal systems include chase and plenum designs. Factory approved transitions insure continuity of rating throughout the structure.



Architectural Metalwork

Engineered and fabricated to exacting tolerances, architectural metalwork by MM is available in a variety of materials and finishes. Column covers, beam wraps, light coves, sun screens or your unique designs become signature elements of your project. Choose from unlimited Kynar 500[®] / Hylar 5000[®] color coatings.



Trench Grating and Access Covers

ADA compliant grating and trench cover systems. Decorative gratings offer an architectural alternative to traditional cast-iron gratings and are ideal for pool and plaza decks, green spaces and fountain surrounds. Removable access covers allow access to in-floor electrical and refrigeration services. Optional trench liners available.

Certified Representative



SEE US IN



50 MM Way • P.O. Box 98 • Pendergrass, GA 30567
Toll Free: 800.241.3460
Tel: 706.824.7500 Fax: 706.824.7501

Direct Link to EJa www.mm-eja.com
Web Site www.mmsystemscorp.com
Call Toll Free 800.241.3460

MM Systems reserves the right to amend or withdraw any product, design or information without notice and shall not be responsible or liable for any inaccuracy or ambiguity of any information contained herein

One or more of the following patents may cover products in this catalog: 3,624,973; Re27,761; 3,738,068; 3,862,531; Re28,870; 3,974,609; 4,063,396; 4,156,993; 4,241,549; 4,271,651; 4,403,458; 4,404,777; 4,512,127; 4,543,162; 4,616,460; 4,625,465; 4,651,498; 4,674,252; 4,708,517; 4,743,036; 4,815,247; 4,916,878; 4,943,605; 4,965,976; 5,575,126; 5,706,611; 5,862,631; 5,867,944; 5,875,598; 5,950,378; D300,465; (Other Patents Pending)

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