

# EXPANSION JOINTS architectural waterproof seismic fire rated







# 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.

# 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.

# 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.

# 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.



# 3 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.

# 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.

# O 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.

# eja

# Product Index / System Selection & Design Guide

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

Dimension shown in inches and millimeters.



	EXPANSION JOINT SYSTEM	SERIES	FEATURES	NOMINAL Opening	Movement Range	MOVEMENT Type	CODES / LOADING TRAFFIC TYPE	APPLICATIONS
14 15	FLUSHLINE FLOOR AND WALL SYSTEMS	FS FSX FSE FSW FSS FSWL FSSR FSA FSST FSWP FSNE FDT WD	<ul> <li>Flush sight line minimizes appearance.</li> <li>Seals available in four standard colors.</li> <li>Matching sight lines for floors and walls.</li> <li>Wide range of frame styles.</li> </ul>	1"- 1 <b>2</b> " 25 - 305	<b>.65"-18"</b> 17 - 450	Seismic Thermal Shear	ADA Pedestrian Vertical	<ul> <li>No Bump</li> <li>New-to-New or New-to-Existing</li> <li>Floor-to-Floor and Floor-to-Wall</li> <li>Color Coordination to Adjacent Surfaces</li> <li>Carpet or Tile Insets for Floors</li> <li>Mud-In Frames for Walls</li> </ul>
16	FLEXIBLE WALL AND CEILING SYSTEMS	KX VSW CX VSG DX VSS	<ul> <li>Seals available in decorator colors.</li> <li>Wall and ceiling frame styles.</li> <li>Replaceable elastomeric seals.</li> <li>Mud-in frames for gypsum walls.</li> </ul>	<b>1"- 5</b> " 25 - 127	.5"-7.5" 13 - 191	Seismic Thermal Shear	Vertical	<ul> <li>Gypsum Walls</li> <li>Gypsum or Drop Ceiling Applications</li> <li>Interior Vertical Openings</li> <li>Color Coordination to Adjacent Surfaces</li> <li>Cost-Effective Designs</li> <li>Flat-to-Flat and Corner Conditions</li> </ul>
17	VERTICAL SEALING SYSTEMS	VSS	<ul> <li>Seismic seal snap locked into aluminum frames.</li> <li>No visible aluminum or hardware.</li> <li>Visual seals available in colors.</li> <li>Resistant to UV, o-zone, acid rain, most chemicals and extreme temps.</li> </ul>	<b>2"- 24"</b> 52 - 610	<b>1"- 36"</b> 25 - 914	Seismic Thermal Shear	Vertical Soffit Ceilings	<ul> <li>Vertical Seismic Joints</li> <li>Vertical Precast</li> <li>Available Secondary Water Seal</li> <li>Color Matching of Wall Finishes</li> </ul>
18 19	COLORJOINT SILICONE SYSTEMS	ESS SIF	<ul> <li>Preformed silicone strip bonded to a rectangular polyurethane backer creates a binary sealing system.</li> <li>System conforms to irregular openings and is soundproof, dust-proof, water and air tight.</li> <li>Engineered 1/2" thick preformed silicone strip virtually eliminates possibility of punctures.</li> <li>Resistant to UV, ozone, and extreme temperatures.</li> </ul>	1"- 5" 25 - 127	.5"-7.5" 13 - 191	Seismic Thermal	Vertical Horizontal Requires Cover	<ul> <li>Color Matching of Wall Finishes</li> <li>Vertical Brick &amp; Block Walls</li> <li>Vertical Precast &amp; Perimeter Walls</li> <li>Abutments</li> <li>Stair Tower &amp; Slab-to-Wall Conditions</li> <li>Vertical Joints with No Blockouts</li> <li>Irregular Expansion Joint Openings</li> </ul>
20	SEISMIC METAL WALL SYSTEMS	ASC ASCL ASH ASHL ASK ASKL	<ul> <li>Seismic centering device.</li> <li>Solid aluminum construction.</li> <li>Surface and flush mount options.</li> <li>Durable and vandal resistant.</li> <li>Anodized finish standard.</li> </ul>	1"- <b>24</b> " 25 - 600	<b>20</b> "- <b>48</b> " 508 - 1200	Seismic Thermal Shear	Vertical Horizontal Ceiling Soffit	<ul> <li>Interior Walls and Ceilings</li> <li>Exterior Walls and Soffits</li> <li>Watertight Moisture Barrier</li> <li>Kynar, Color Options</li> </ul>
21	METAL WALL AND CEILING SYSTEMS	FX-K FX-L EX-K EX-L X-M X-N	<ul> <li>Sturdy and durable aluminum covers.</li> <li>Standard anodized or Kynar, 500<sup>®</sup>/ Hylar, 5000<sup>®</sup> finishes.</li> <li>Accepts most wall finishes.</li> <li>Durable.</li> </ul>	<b>1"- 8"</b> 25 - 203	<b>0"- 12"</b> 0 - 305	Seismic Thermal Shear	Vertical	<ul> <li>Gypsum, Block or Other Substrates</li> <li>Wall or Ceiling Applications</li> <li>Flat-to-Flat and Corner Conditions</li> <li>Interior Vertical Applications</li> <li>Color Coordination to Adjacent Surfaces</li> </ul>
22 23	ROOF JOINT SYSTEMS	RSS ERF ERJ RXH RXR WJK	<ul> <li>Seismic centering devices.</li> <li>Resistant to UV, o-zone, acid rain, most chemicals and extreme temps.</li> <li>Resistant to snow loads.</li> <li>Flat or slopped roofs.</li> </ul>	1"- <b>24</b> " 25 - 600	<b>0"- 36"</b> 0 - 914	Seismic Thermal Shear	Non-traffic Horizontal Vertical	<ul> <li>Kynar, Color Options</li> <li>Watertight</li> <li>Roof and Exterior Walls and Soffits</li> <li>Ice and Snow Load Rated</li> </ul>
24 25	FIRE BARRIER SYSTEMS	Pyro-Flex Systems	<ul> <li>ASTM Test Standards E-119, E-1399 and E-1966.</li> <li>Additional Standards: UL 263, UL 2079, UBC 43-1, UBC 7-1, ANSI A2.1 and NFPA 251.</li> <li>Available in 2, 3 and 4 hour ratings and cycle tested for class I, II and III movement including lateral shear.</li> <li>Listed with UL Omega Point Laboratories, Interfek, California State Fire Marshall and ICBO Evaluation Service.</li> </ul>	1"- <b>32</b> " 25 - 813	0"- 48" 0 - 1219	Seismic Thermal Shear	Fire Ratings: 1 hour 2 hour 3 hour 4 hour	<ul> <li>Horizontal Concrete Joint Openings</li> <li>Vertical Concrete &amp; Masonry Joint Openings</li> <li>Vertical Gypboard Joint Openings</li> </ul>

Dimension shown in inches and millimeters.



# MM<sup>®</sup> 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.

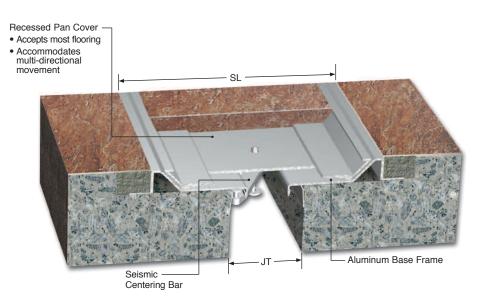
#### Product Features

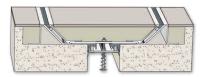


## **Movement Table**

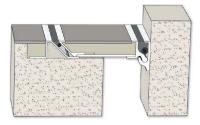
	Nomi		Joi	nt Ope	ning "JT		Tota	al	Sight Line	
PDS	"JT		Mi	n.	Ma	х.	Moven	nent	"SL	
PDS-400	4.0"	102	2.5"	64	8.5"	216	6.0"	152	15.8125"	402
PDS-600	6.0"	152	2.5"	64	10.5"	267	8.0"	203	17.8125	452
PDS-800	8.0"	203	2.5"	64	12.5"	318	10.0"	254	19.8125"	503
PDS-1000	10.0"	254	2.5"	64	14.5"	368	12.0"	305	23.8125"	605
PDSE	Nomi "JT		Joi Mii		ning "JT" Ma		Tota Moven		Sight I "SL	
PDSE-300	3.0"	47	1.5"	38	4.0"	102	2.5"	64	6.938"	176
PDSE-400	4.0"	102	2.0"	51	6.0"	152	4.0"	102	9.750"	248
PDSE-600	6.0"	152	1.0"	25	8.5"	216	7.5"	191	14.00"	356
PDSE-1200	12.0"	305	1.0"	25	16.0"	406	15.0"	381	14.00"	356
PDSW	Nomi "JT		Joi Mir		ning "JT" Ma		Tota Moven		Sight I "SL	
PDSW-300	3.0"	47	1.5"	38	4.0"	102	2.5"	64	6.938"	176
PDSW-400	4.0"	102	2.0"	51	6.0"	152	4.0"	102	9.750"	248
PDSW-600	6.0"	152	1.0"	25	8.5"	216	7.5"	191	14.00"	356
PDSW-1200	12.0"	305	1.0"	25	16.0"	406	15.0"	381	14.00"	356

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

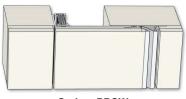




Series PDS Floor-to-Floor / Inlay Flooring Options Nominal Joint Openings 4" to 10"



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.

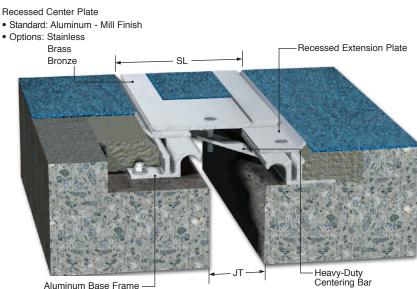
#### Product Features



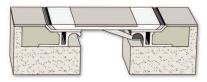
### **Movement Table**

	Nomi				ning "JT"		Tota		Sight Line "SL"	
LASB-NBR LASB-NBR 1-1	"JT 1.0"	25	* Mi	n. 6	Ma: 3.0"	<. 76	Movem 2.75"	nent 70	4.5"	114
LASB-NBR 1-1	2.0"	25 51	.25"	6	3.0" 4.0"	102	3.75"	70 95	4.5 5.5"	114
LASB-NBR 3-1.5	3.0"	76	.25	6	4.0 5.0"	102	4.75"	121	5.5 6.5"	165
LASD-NDR 3-1.5 LASB-NBR 4-2	3.0" 4.0"	102	.25"	6	5.0" 6.0"	127	4.75" 5.75"	121	0.5 7.5	100
LASB-NBR 6-3	4.0" 6.0"	152	.25"	6	9.0"	229	5.75" 8.75"	222	10.25"	260
LASD-INDR 0-5	Nomi			-	9.0 ning "JT"	229	o.ro Tota		Sight L	
LASF-NB	"JT		* M		Ma	κ.	Moverr		"SL"	
LASF-NB 1-1	1.0"	25	.25"	6	2.0"	51	1.75"	44	4.375"	111
LASF-NB 2-1	2.0"	51	.25"	6	3.0"	76	2.75"	70	5.375"	137
LASF-NB 3-1.5	3.0"	76	.25"	6	4.0"	102	3.75"	95	6.375"	162
LASF-NB 4-2	4.0"	102	.25"	6	6.0"	152	5.75"	146	8.875"	225
LASF-NB 6-3	6.0"	152	.25"	6	8.0"	203	7.75"	197	10.875"	276
LASF-NB 8-4	8.0"	203	.25"	6	12.0"	305	11.75"	298	14.875"	378
LASF-NB 12-6	12.0"	305	.25"	6	18.0"	457	17.75"	451	18.875"	479
SNB	Nomi "JT		Joi * Mi		ning "JT" Max	ς.	Tota Moverr		Sight I "SL	
SNB-400	4.0"	102	3.75"	95	4.25"	108	0.5"	13	12.0	305
SNB-600	6.0"	152	5.75"	146	6.25"	159	0.5"	13	16.0	406
SNB-800	8.0"	203	8.75"	222	8.25"	210	0.5"	13	20.0	508
SNB-1000	10.0"	254	9.75"	248	10.25"	260	0.5"	13	24.0	610
LASBE-NBR	Nomi "JT		Joi * Mi		ning "JT" Max	κ.	Total Movement		Sight Line "SL"	
LASBE-NBR 15	1.0"	25	0.812"	21	1.50"	38	1.50"	38	2.75"	70
LASBE-NBR 2-1	2.0"	51	1.812"	46	3.00"	76	2.00"	51	3.75"	95
LASBE-NBR 375	3.0"	76	2.812"	71	3.75"	95	2.75"	70	4.75"	121
LASBE-NBR 4-1	4.0"	102	3.812"	97	5.00"	127	4.00"	102	6.25"	159
LASBE-NBR 5-1.25	5.0"	127	4.812"	122	6.25"	159	5.25"	133	7.75"	197
LASBE-NBR 6-1.5	6.0"	152	5.812"	148	7.50"	191	6.50"	165	7.75"	197
LASBE-NBR 10-5	10.0"	254	9.812"		15.00"	381	14.00"	356	16.75"	
LASFE-NB	Nomi "JT		Joi * Mi		ning "JT" Max		Tota Moverr		Sight I "SL	
LASFE-NB 15	1.0"	25	0.812"	21	1.50"	38	1.50"	38	2.75"	70
LASFE-NB 2-1	2.0"	51	1.812"	46	3.00"	76	2.00"	51	3.75"	95
LASFE-NB 375	3.0"	76	2.812"	71	3.75"	95	2.75"	70	4.75"	121
LASFE-NB 4-1	4.0"	102	3.812"	97	5.00"	127	4.00"	102	6.25"	159
LASFE-NB 5-1.25	6.0"	152	5.812"	148	7.50"	191	5.25"	133	7.75"	197
LASFE-NB 7-3.5	7.0"	178	6.812"	173	10.00"	244	6.50"	165	7.75"	197
LASFE-NB 8-2	8.0"	203	7.812"	198	10.50"	254	14.00"	356	16.75"	425

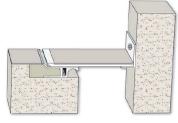
Dimensions shown in inches (bold) and millimeters.Corner styles available for most models. Other sizes available. Call MM Systems for details. \* Minimum is for seismic movement. Cover will rise uo above floor cover.



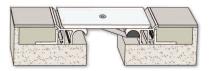
Aluminum Base Frame



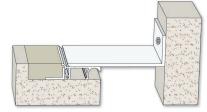
Series LASB-NBR Floor-to-Floor / Inlay Flooring Options



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<sup>®</sup> 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.

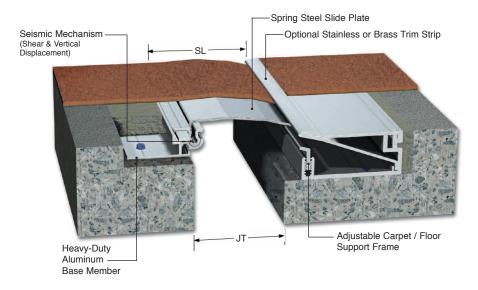
#### Product Features

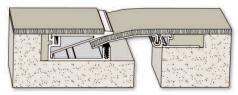


## **Movement Table**

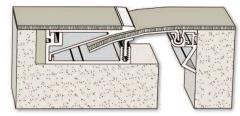
	Nom				ening "JT"		Tota		Sight Line "SL"	
HSL	"JT		Mir		Max		Moven	nent		
HSL 2-1	2.0"	51	1.0"	25	3.0"	76	2.0"	51	0.75"	19
HSL 3-1.5	3.0"	76	1.625"	41	4.375"	111	2.75"	70	0.75"	19
HSL 4-2	4.0"	102	2.375"	60	5.625"	143	3.25"	83	0.75"	19
HSL 6-3	6.0"	152	3.25"	83	8.5"	216	5.25"	133	0.75"	19
HSLN	Nomi "JT		Joi Mir	ening "JT" Max		Tota Moven		Sight I "SL		
HSLN 2-1	2.0"	51	1.0"	25	3.0"	76	2.0"	51	0.75"	19
HSLN 4-2	4.0"	102	2.375"	60	5.625"	143	3.25"	83	0.75"	19
HSLN 6-3	6.0"	152	3.25"	83	8.5"	216	5.25"	133	0.75"	19
VSL	Nomi "JT		Joi Mir		ening "JT" Max.		Tota Moven		Sight I "SL	
VSL 15	1.0"	25	0.5"	13	1.5"	38	1.0"	25	0.0"	0
VSL 2-1	2.0"	51	1.0"	25	3.0"	76	2.0"	51	0.0"	0
VSL 3-1	3.0"	76	2.0"	51	4.0"	102	2.0"	51	0.0"	0
VSL 4-1	4.0"	102	3.0"	76	5.0"	127	2.0"	51	0.0"	0
VSL 6-1.5	6.0"	152	4.5"	114	7.5"	191	3.0"	76	0.0"	0

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



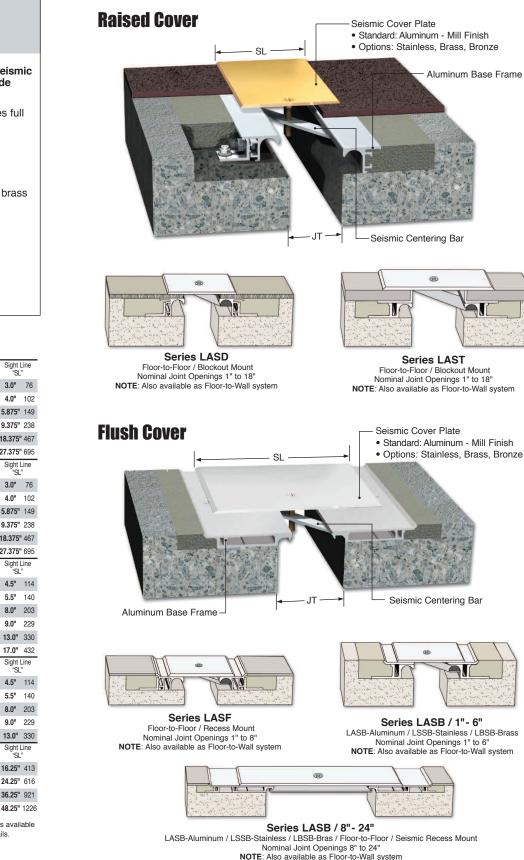
Series HSLN Floor-to-Floor / New-to-Existing Floor-to-Wall (Similar)



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

FIRE RATED	HEAVY DUTY	SEISMIC	ADA	CORNER
		ANNA	Æ	<u> </u>
SYSTEMS	SYSTEM	DESIGN	COMPLIANT	CONDITION

## **Movement Table**

LASD	Nomi "JT		Joi Mir		ning "JT' Ma		Tota Moven		Sight I "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	Nomi "JT		Joi Mir		ning "JT' Ma		Tota Moven		Sight I "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"	
LASF	Nomi "JT		Joi Mir		ning "JT' Ma		Tota Moven		Sight I "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	Nomi "JT		Joi Mir		ening "JT' Ma		Tota Moven		Sight I "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	Nomi "JT		Joi Mir		ening "JT' Ma		Tota Moven		Sight I "SL	
LASB 8-4	8.0"	203	.25"	6	12.0"	305	11.75"	298	16.25"	
LASB 12-6	12.0"	305	.25"	6	18.0"	457	17.75"	451	24.25"	
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.



# **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.

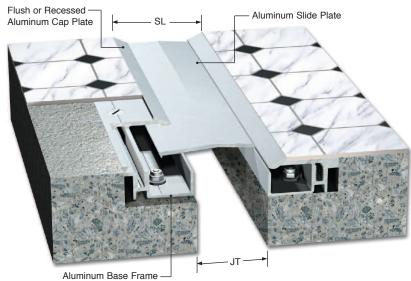
Product Features



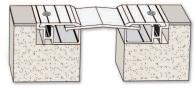
### **Movement Table**

	Nomi	inal	Joir	nt One	pening "JT"		Total		Sight Line	
HFX	"JT		Min		Ma		Mover			"127
HFX 1-1	1.0"	25	0.0"	0	2.0"	51	2.0"	51	5.0"	152
HFX 1.575	1.5"	38	0.750"	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	Nomi "JT		Joir Min	nt Ope I.	ning "JT" Max		Tota Moven		Sight "SL	Line ." 76
HFXE 15	1.0"	25	0.5"	13	1.5"	38	1.0"	25	3.0"	95
HFXE 1.5375	1.5"	38	1.13"	29	1.875"	48	0.75"	19	3.75"	102
HFXE 25	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 375	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	Nomi "JT		Joir Min		ning "JT" Max	к.	Tota Moven		Sight "SL	Line ."127
EHFX 1-1	1.0"	25	0.0"	0	2.0"	51	2.0"	51	5.0"	152
EHFX 1.575	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	Nomi "JT		Joir Min		ning "JT" Ma	к.	Tota Moven		Sight "SL	Line ."121
HFXEM HFXEM 15						x. 38			Sight "SL 4.75"	Line ."121 140
	"JT	יד	Min	ı. İ	Max	_	Mover	nent	ŰSL	." 121
HFXEM 15	"JT <b>1.0</b> "	25	Min 0.5"	13	Max 1.5"	38	Moven 1.0"	nent 25	"SL 4.75"	"121 140
HFXEM 15 HFXEM 1.5375	"JT 1.0" 1.5"	" 25 38	Mir 0.5" 1.125"	13 29	Max 1.5" 1.875"	38 48	Moven 1.0" 0.75" 1.0" 2.0"	nent 25 19	"SL 4.75" 5.5"	"121 140 146
HFXEM 15 HFXEM 1.5375 HFXEM 25	"JT 1.0" 1.5" 2.0"	25 38 51	Min 0.5" 1.125" 1.5"	13 29 38	Max 1.5" 1.875" 2.5"	38 48 64	Moven 1.0" 0.75" 1.0"	nent 25 19 25	"SL 4.75" 5.5" 5.75"	"121 140 146 171
HFXEM 15 HFXEM 1.5375 HFXEM 25 HFXEM 2-1	"JT 1.0" 1.5" 2.0" 2.0"	25 38 51 51	Min 0.5" 1.125" 1.5" 1.0" 2.25" 3.0"	13 29 38 25 57 76	Max 1.5" 1.875" 2.5" 3.0" 3.75" 5.0"	38 48 64 76 95 127	Moven 1.0" 0.75" 1.0" 2.0"	nent 25 19 25 51	"SL 4.75" 5.5" 5.75" 6.75"	"121 140 146 171 197
HFXEM 1-5 HFXEM 1.5-375 HFXEM 2-5 HFXEM 2-1 HFXEM 3-75	"JT 1.0" 1.5" 2.0" 2.0" 3.0"	" 25 38 51 51 76 102	Min 0.5" 1.125" 1.5" 1.0" 2.25" 3.0"	13 29 38 25 57 76 nt Ope	Max 1.5" 1.875" 2.5" 3.0" 3.75"	38 48 64 76 95 127	Moven 1.0" 0.75" 1.0" 2.0" 1.5"	nent 25 19 25 51 38 51 al	"SL 4.75" 5.5" 5.75" 6.75" 7.75" 8.75" Sight	"121 140 146 171 197 222
HFXEM 15 HFXEM 1.5375 HFXEM 25 HFXEM 2-1 HFXEM 375 HFXEM 4-1	"JT 1.0" 1.5" 2.0" 2.0" 3.0" 4.0"	" 25 38 51 51 76 102	Min 0.5" 1.125" 1.5" 1.0" 2.25" 3.0" Join	13 29 38 25 57 76 nt Ope	Maz 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" phing "JT"	38 48 64 76 95 127	Moven 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" Tota	nent 25 19 25 51 38 51 al	"SL 4.75" 5.5" 5.75" 6.75" 7.75" 8.75" Sight	"121 140 146 171 197 222 Line
HFXEM 1-5 HFXEM 1.5375 HFXEM 2-5 HFXEM 2-1 HFXEM 375 HFXEM 4-1 HFXR	"Л 1.0" 1.5" 2.0" 2.0" 3.0" 4.0" Nomi "Л	25 38 51 51 76 102	Min 0.5" 1.125" 1.5" 1.0" 2.25" 3.0" Join Min	13 29 38 25 57 76 nt Ope	Max 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" ming "JT" Max	38 48 64 76 95 127 x.	Moven 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" Tota Moven	nent 25 19 25 51 38 51 al nent	"SL 4.75" 5.75" 6.75" 7.75" 8.75" 8.75" Sight "SL 2.0" 2.5"	"121 140 146 171 197 222 Line "51
HFXEM 15 HFXEM 1.5375 HFXEM 25 HFXEM 2-1 HFXEM 375 HFXEM 4-1 HFXR HFXR 1-1	"Л 1.0" 1.5" 2.0" 2.0" 3.0" 4.0" Nomi "Л 1.0" 1.5" 2.0"	25 38 51 51 76 102 inal 25	Min 0.5" 1.125" 1.0" 2.25" 3.0" Join Min 0.0" 0.75" 1.0"	13 29 38 25 57 76 nt Ope	Max 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" Max 2.0" 2.25" 3.0"	38 48 64 76 95 127 x. 51	Mover 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" Tota Mover 2.0"	nent 25 19 25 51 38 51 al nent 51	"SL 4.75" 5.5" 5.75" 6.75" 7.75" 8.75" Sight "SL 2.0"	"121 140 146 171 197 222 Line "51 64
HFXEM 1-5 HFXEM 1-5.375 HFXEM 2-5 HFXEM 2-5 HFXEM 2-1 HFXEM 2-1 HFXEM 4-1 HFXEM 4-1 HFXR 1-1 HFXR 1-5-75	"Л 1.0" 1.5" 2.0" 2.0" 3.0" 4.0" Nomi "Л 1.0" 1.5"	" 25 38 51 51 76 102 inal 25 38	Min 0.5" 1.125" 1.5" 2.25" 3.0" Join Min 0.0" 0.75"	13 29 38 25 57 76 10 0 19	Maz 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" ming "JT" Maz 2.0" 2.25"	38 48 64 76 95 127 x. 51 57	Mover 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" Tota Mover 2.0" 1.5"	nent 25 19 25 51 38 51 al nent 51 38	"SL 4.75" 5.75" 6.75" 7.75" 8.75" 8.75" Sight "SL 2.0" 2.5"	"121 140 146 171 197 222 Line "51 64 76
HFXEM 1-5 HFXEM 1-5.375 HFXEM 2-5 HFXEM 2-5 HFXEM 2-1 HFXEM 2-1 HFXEM 4-1 HFXEM 4-1 HFXR 1-1 HFXR 1-5-75 HFXR 2-1	"JT 1.0" 1.5" 2.0" 3.0" 4.0" Nomi "JT 1.0" 1.5" 2.0" 2.0" 3.0"	" 25 38 51 51 76 102 inal 25 38 51	Min 0.5" 1.125" 1.0" 2.25" 3.0" Join Min 0.0" 0.75" 1.0"	13 29 38 25 57 76 nt Ope 0 19 25	Maximic Maximi	38 48 64 76 95 127 x. 51 57 76	Moven 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" Tota Moven 2.0" 1.5" 2.0" 4.0" 3.0"	nent 25 19 25 51 38 51 38 51 38 51 38 51 102 76	"SL 4.75" 5.5" 5.75" 6.75" 7.75" 8.75" 8.75" Sight "SL 2.0" 2.5" 3.0" 3.0" 4.0"	"121 140 146 171 197 222 Line "51 64 76 76
HFXEM 1-5 HFXEM 1-5.375 HFXEM 2-5 HFXEM 2-5 HFXEM 2-1 HFXEM 2-1 HFXEM 4-1 HFXEM 4-1 HFXR 1-1 HFXR 1-5-75 HFXR 2-1 HFXR 2-2	"JT 1.0" 1.5" 2.0" 3.0" 4.0" Nomi "JT 1.0" 1.5" 2.0" 2.0" 3.0" 4.0"	** 25 38 51 76 102 inal 25 38 51 51 76 102	Min 0.5" 1.125" 1.0" 2.25" 3.0" Join Min 0.0" 0.75" 1.0" 0.0" 1.5" 2.0"	13 29 38 25 57 76 10 19 25 0 38 51	Maximic Maximi	38 48 64 76 95 127 51 51 57 76 102	Mover 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" Tota Mover 1.5" 2.0" 4.0" 3.0"	nent 25 19 25 51 38 51 38 51 38 51 38 51 102 76 102	"SL 4.75" 5.75" 6.75" 6.75" 8.75" 8.75" Sight "SL 2.0" 2.5" 3.0" 3.0" 4.0" 5.0"	"121 140 146 171 197 222 222 
HFXEM 1-5 HFXEM 1-5.375 HFXEM 2-5 HFXEM 2-1 HFXEM 2-1 HFXEM 2-1 HFXEM 4-1 HFXEM 4-1 HFXR 1-1 HFXR 1-5 HFXR 1-5 HFXR 2-1 HFXR 2-2 HFXR 3-1.5	"JT.0" 1.0" 2.0" 2.0" 3.0" 4.0" Noming JT.1.0" 1.0" 2.0" 3.0" 4.0" Noming JT.5" 2.0" 3.0" 4.0" Noming JT.5" 3.0" 4.0" Noming JT.5" 3.0" 3.	** 25 38 51 51 76 102 inal 25 38 51 51 76 102 inal	Min 0.5" 1.125" 1.5" 1.0" 2.25" 3.0" Join Min 0.0" 0.75" 1.0" 0.0" 1.5" 2.0" Join Min 0.0" 1.5"	13 29 38 25 57 76 nt Ope 19 25 0 38 51 51	Max 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" ming "JT" Max 2.25" 3.0" 4.0" 4.5" 6.0" Max	38 48 64 76 95 127 51 51 57 76 102 114 152	Moven 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" Tota Moven 2.0" 1.5" 2.0" 4.0" 3.0" 4.0" Tota Moven 5.0" 5.	nent 25 19 25 51 38 51 38 51 38 51 38 51 102 76 102 al	"SL 4.75" 5.75" 5.75" 6.75" 7.75" 8.75" 8.75" 8.75" 3.0" 3.0" 4.0" 5.0" Sight SL 5.0"	"121 140 146 171 197 222 222 
HFXEM 15 HFXEM 25 HFXEM 25 HFXEM 25 HFXEM 375 HFXEM 4-1 HFXR 1-1 HFXR 15 HFXR 2-1 HFXR 2-1 HFXR 2-1 HFXR 3-1.5 HFXR 4-2	"JT 1.0" 1.5" 2.0" 2.0" 3.0" 4.0" 1.0" 1.5" 2.0" 2.0" 2.0" 4.0" Nomi	** 25 38 51 51 76 102 inal 25 38 51 51 76 102 inal	Min 0.5" 1.125" 1.0" 2.25" 3.0" Join Min 0.0" 0.75" 1.0" 0.0" 1.5" 2.0" Join	13 29 38 25 57 76 nt Ope 19 25 0 38 51 51	Max 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" Max 2.0" 2.25" 3.0" 4.0" 4.5" 6.0" ming "JT"	38 48 64 76 95 127 51 51 57 76 102 114 152	Mover 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" Tota Mover 2.0" 1.5" 2.0" 4.0" 3.0" 4.0" Tota	nent 25 19 25 51 38 51 38 51 38 51 38 51 102 76 102 al	"SL 4.75" 5.5" 5.75" 6.75" 7.75" 8.75" 8.75" Sight "SL 2.0" 2.5" 3.0" 4.0" 5.0" Sight	"121 140 146 171 197 222 Line "51 64 76 64 76 102 127
HFXEM 15 HFXEM 1.5.375 HFXEM 2.5 HFXEM 2.1 HFXEM 3.75 HFXEM 4.1 HFXR 1.1 HFXR 1.5.75 HFXR 2.1 HFXR 2.2 HFXR 3.1.5 HFXR 4.2 HFXREH	"JT.0" 1.0" 2.0" 2.0" 3.0" 4.0" Noming JT.1.0" 1.5" 2.0" 2.0" 3.0" 4.0" Noming JT.5" 2.0" 3.0" 4.0" Noming JT.5" 3.0" 4.0" 1.5" 3.0" 1.5" 3.0" 1.5" 3.0" 1.5" 3.0" 1.5" 3.0" 1.5" 3.0" 1.5" 3.0" 1.5"	**************************************	Min 0.5" 1.125" 1.5" 1.0" 2.25" 3.0" Join Min 0.0" 0.75" 1.0" 0.0" 1.5" 2.0" Join Min 0.0" 1.5"	13 29 38 25 57 76 0 19 25 0 38 51 51 tt Ope	Max 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" ming "JT" Max 2.25" 3.0" 4.0" 4.5" 6.0" Max	38 48 64 76 95 127 51 57 76 102 114 152 x.	Moven 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" Tota Moven 2.0" 1.5" 2.0" 4.0" 3.0" 4.0" Tota Moven 5.0" 5.	nent 25 19 25 51 38 51 al nent 51 38 51 102 76 102 76 102	"SL 4.75" 5.75" 5.75" 6.75" 7.75" 8.75" 8.75" 8.75" 3.0" 3.0" 4.0" 5.0" Sight SL 5.0"	"121 140 146 171 197 222 Line "51 64 76 102 127 Line
HFXEM 15 HFXEM 1.5.375 HFXEM 2.5 HFXEM 2.1 HFXEM 3.75 HFXEM 4.1 HFXR 1.1 HFXR 1.5.75 HFXR 2.1 HFXR 2.2 HFXR 3.1.5 HFXR 4.2 HFXR 4.2 HFXREH	"JT.0" 1.0" 2.0" 2.0" 3.0" 4.0" Nomin "JT 1.0" 2.0" 3.0" 4.0" Nomin "JT 1.0" 1.0" 1.0" 1.0"	**************************************	Min 0.5" 1.125" 1.5" 1.0" 2.25" 3.0" Join Min 0.0" 0.75" 1.0" 0.0" 1.5" 2.0" Join Min 0.5"	13 29 38 25 57 76 10 19 25 0 19 25 0 38 51 11 0 9 38 51 13 29 38	Maa 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" Maa 2.0" 4.0" 4.0" 4.5" 6.0" 1.5"	38 48 64 76 95 127 51 57 76 102 114 152 x. 38	Mover 1.0" 0.75" 1.0" 2.0" Tota Mover 1.5" 2.0" 4.0" 3.0" 4.0" Tota Mover 1.0" 1.5" 1.5" 1.0" 1.5" 1.0"	nent 25 19 25 51 38 51 38 51 38 51 102 76 102 76 102 25	"SL 4.75" 5.75" 6.75" 6.75" 7.75" 8.75" 8.75" 2.0" 2.5" 3.0" 3.0" 5.0" Sight "SL 3.0"	"121 140 146 171 197 222 Line " 51 64 76 102 127 Line 127
HFXEM 15 HFXEM 25 HFXEM 25 HFXEM 25 HFXEM 25 HFXEM 375 HFXEM 4-1 HFXR 1-1 HFXR 1-1 HFXR 15 HFXR 22 HFXR 22 HFXR 3-1.5 HFXR 42 HFXR H5 HFXREH 15 HFXREH 1.5.375	"JT 1.0" 1.5" 2.0" 2.0" 3.0" 4.0" Nomin "JT 2.0" 2.0" 3.0" 4.0" Nomin "JT 1.0" 1.5"	**************************************	Minina Control	13 29 38 25 57 76 10 25 0 38 51 11 Ope 38 51 11 Ope	Maa 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" 2.2" 4.0" 4.2" 4.0" 4.5" 6.0" 1.5" 1.875"	38 48 64 76 95 127 51 57 76 102 114 152 x. 38 48	Mover 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" 1.5" 2.0" 4.0" 3.0" 4.0" Tota Mover 1.0" 0.75"	nent 25 19 25 51 38 51 38 51 38 51 38 51 102 76 102 76 102 25 19	"SL 4.75" 5.5" 6.75" 8.75" 8.75" 2.0" 2.5" 3.0" 4.0" 5.0" Sight "SL 3.0" 3.0" 3.0" 3.0" 3.0" 3.0"	"121 140 146 171 197 222 Line "51 64 76 102 127 Line "76 95 102
HFXEM 15 HFXEM 1.5.375 HFXEM 2.5 HFXEM 2.5 HFXEM 3.75 HFXEM 4.1 HFXR 1.1 HFXR 1.5.75 HFXR 2.1 HFXR 2.2 HFXR 4.2 HFXR 4.2 HFXR 4.2 HFXREH 1.5.375 HFXREH 1.5.375 HFXREH 2.5	"JT 1.0" 1.5" 2.0" 2.0" 3.0" 4.0" 1.5" 2.0" 2.0" 3.0" 4.0" Nomin "JT 1.0" 1.5" 2.0"	**************************************	Minina Mi	13 29 38 25 57 76 10 19 25 0 19 25 0 38 51 11 0 9 38 51 13 29 38	Maa 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" 2.0" 2.2" 3.0" 4.0" 4.5" 6.0" 1.875" 1.875" 2.5"	38 48 64 76 95 127 51 57 76 102 114 152 x. 38 48 64	Mover 1.0" 0.75" 1.0" 2.0" 1.5" 2.0" Tote Mover 4.0" 3.0" 4.0" Tote Mover 1.0"	nent 25 19 25 51 38 51 38 51 38 51 38 51 102 76 102 76 102 25	"SLA" 4.75" 5.5" 6.75" 7.75" 8.75" Sight 3.0" 3.0" 3.0" Sight "SL 3.0" 3.0" 3.75" 4.0"	"121 140 146 171 197 222 Line "51 64 76 76 102 127
HFXEM 15 HFXEM 1.5.375 HFXEM 2.5 HFXEM 2.5 HFXEM 3.75 HFXEM 4.1 HFXR 1.1 HFXR 1.5.75 HFXR 2.1 HFXR 2.2 HFXR 3.1.5 HFXR 4.2 HFXR 4.2 HFXR 4.2 HFXR 4.2 HFXR 4.2 HFXR 4.2 HFXR 4.2 HFXR 4.2 HFXR 4.2 HFXR 4.5 HFXR	"JT 1.0" 1.5" 2.0" 2.0" 3.0" 4.0" Nomin "JT 2.0" 2.0" 4.0" 1.5" 2.0" 1.0" 1.5" 2.0" 2.0" 2.0" 2.0"	**************************************	Minina Mi	13 29 38 25 57 76 0 19 25 0 19 25 0 38 51 0 38 51 13 29 38 25	Maal 1.5" 1.875" 2.5" 3.0" 3.75" 5.0" Maal 4.0" 4.5" 4.0" 4.5" 4.0" 4.5" 1.875" 2.5" 3.0" 3.0" 3.0" 4.0" 4.5" 4	38 48 64 76 95 127 51 57 76 102 114 152 38 48 64 76	Mover 1.0" 0.75" 1.0" 2.0" Toto 1.5" 2.0" Toto 4.0" 4.0" Toto 4.0" Toto 4.0" 1.5" 1.0" 4.0" 1.5" 1.0" 4.0" 1.5" 1.0" 1.5" 1.0"	nent 25 19 25 51 38 51 al nent 51 38 51 102 76 102 76 102 25 19 25 51	"SLL 4.75" 5.5" 5.75" 6.75" 7.75" 8.75" 8.75" 2.0" 3.0" 3.0" 3.0" 3.0" 3.0" 3.0" 3.0" 3	"121 140 146 171 197 222 Line "51 64 76 102 127 102 127 102 127 152

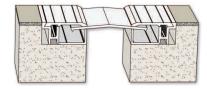
Dimensions shown in **inches (bold)** and millimeters.Corner styles available for most models.Other sizes available. Call MM Systems for details.



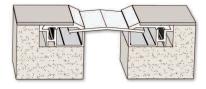
& Center Plate Support



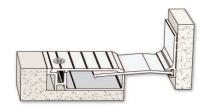
Series HFX Floor-to-Floor / Blockout Mount Nominal Joint Openings 1" to 4"



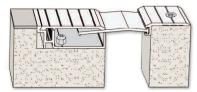
Series EHFX Floor-to-Floor / Blockout Mount / Extra Heavy Duty Nominal Joint Openings 1" to 4"



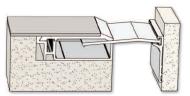
Series HFXR Floor-to-Floor / Recessed Cover Nominal Joint Openings 1" to 4"



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



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



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



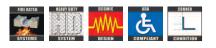
# **MM® Heavy Duty Floor Cover Systems**

## **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.

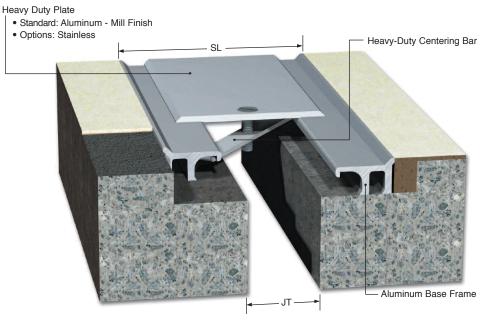
#### Product Features

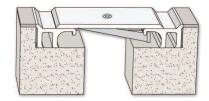


### **Movement Table**

	Nomi	nal	Joi	nt One	ning "JT		Tota	d	Sight Line	
HDL	"JT		Mir		Ma		Moven		"SL	
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	Nomi "JT		Joi Mir		ning "JT' Ma		Tota Moven		Sight "SL	
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	Nomi "JT		Joi Mir		ning "JT' Ma		Tota Moven		Sight "SL	
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	Nomi "JT		Joi Mir		ning "JT' Ma		Total Movement		Sight "SL	
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.

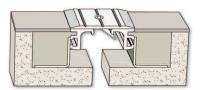




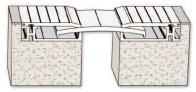
Series HDL Floor-to-Floor / Blockout Mount Nominal Joint Openings 1" to 6"



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



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



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**

									Oinht Linn	
HFP	Nom "JT		Joi Mi		ning "JT" Ma		Tota Moven		Sight I "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 *	Nom "JT		Joi Mi		ning "JT" Ma		Tota Moven		Sight I "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	Nom "JT		Joint Ope Min.		ning "JT" Max.		Total Movement		Sight I "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	Nom "JT		Joi Mi		ning "JT" Ma		Tota Moven		Sight I "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 *	Nom "JT		Joi Mi		ning "JT" Ma		Tota Moven		Sight I "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
НСР	Nom "JT		Joi Mi		pening "JT" Max.		Total Movement		Sight I "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.

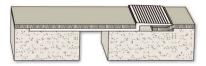
- Hinged Safety Cover Plate
  Heavy Duty Aluminum Mill Finish
- Slip Resistant Raised Profile
- Accommodates vertical offsets
- Anchor Plate • Mounted on High Side • Slip Resistant Raised Profile • Mounted with Insert Anchors



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 SN Floor-to-Floor Nominal Joint Openings 1" to 2" 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 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 ASJ Floor-to-Floor (3" minimum opening) Nominal Joint Openings 3.0" to 18.0" 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<sup>®</sup> Elastoprene Compression Seals**

## **Performance Data**

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

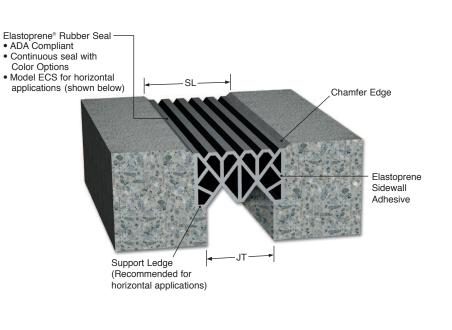
- No mechanical anchors or metal components.
- Splices can be heat welded or bonded with specialty adhesive.
- Seal profiles are ADA compliant and provide a smooth transition for pedestrian traffic areas.
- Model ECS available in continuous lengths for horizontal applications.
- Model VCS is a colored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

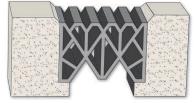


## **Movement Table**

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

Dimension shown in inches (bold) and millimeters.

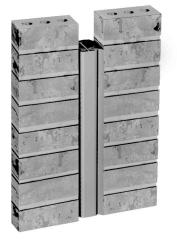


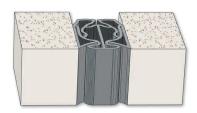


Series ECS (Heavy Duty Horizontal) Slab-to-Slab / Movement .88" to 5.75"



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





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

Model VCS for vertical applications



# **MM<sup>®</sup>Flushline Floor Systems**

## **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

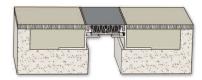


### **Movement Table**

FS	Nom				ning "JT"		Tota		Sight I	ine
FS-100	"JT <b>1.0</b> "	25	Min 0.56"	14	Max 1.44"	37	Movem .875"	22	"SL	38
FS-100	2.0"	20 51	1.44"	37	2.50"	57 64	.075 1.06"	22	2.50"	30 64
FS-200	3.0"	76	2.50"	37 64	3.75"	95	1.06	32	2.50	102
FS-300	3.0 Nomi				o.75" ening "JT"	95	Tota		4.0 Sight L	
FSE	"JT		Min		Max		Moverr		"SL	
FSE-100	1.0"	25	0.56"	14	1.44"	37	.875"	22	1.5"	38
FSE-200	2.0"	51	1.44"	37	2.5"	64	1.06"	27	2.5"	64
FSE-300	3.0"	76	2.50"	64	3.75"	95	1.25"	32	4.0"	102
FSS	Nom "JT		Joir Min		ning "JT" Max		Tota Moverr		Sight I "SL	
FSS-100	1.0"	25	0.81"	21	1.25"	32	0.44"	11	4.0"	102
FSS-150	1.5"	38	1.375"	35	1.56"	40	0.19"	5	4.375"	111
FSS-200	2.0"	51	1.56"	40	2.44"	62	0.875"	22	5.0"	127
FSS-300	3.0"	76	2.44"	62	3.5"	89	1.06"	27	6.0"	152
FSNE	Nomi "JT		Joir Min		ning "JT" Max		Tota Moverr		Sight L "SL	
FSNE-100	1.0"	25	0.56"	14	1.44"	37	0.875"	22	1.5"	38
FSNE-200	2.0"	51	1.44"	37	2.5"	64	1.06"	27	2.5"	64
FSST	Nomi "JT		Joir Min		ning "JT" Max		Tota Moverr		Sight I "SL	
FSST-100	1.0"	25	0.81"	21	1.25"	32	0.44"	11	4.0"	102
FSST-150	1.5"	38	1.375"	35	1.56"	40	0.19"	5	4.375"	111
FSST-200	2.0"	51	1.56"	40	2.44"	62	0.875"	22	5.0"	127
FSSR	Nomi "JT		Joir Min		ning "JT" Max		Tota Moverr		Sight I "SL	
FSSR-100	1.0"	25	0.81"	21	1.25"	32	0.44"	11	1.0"	25
FSSR-150	1.5"	38	1.375"	35	1.56"	40	0.19"	5	1.5"	38
FSSR-200	2.0"	51	1.56"	40	2.44"	62	0.875"	22	2.0"	51
FSSR-300	3.0"	76	2.44"	62	3.5"	89	1.06"	27	3.0"	76
FDT	Nomi "JT		Joir Min		ning "JT" Max		Tota Movem		Sight I "SL	
FDT-100	1.0"	25	0.75"	19	1.125"	29	0.375"	10	4.0"	102
FDT-200	2.0"	51	1.81"	46	2.31"	59	0.5"	13	6.25"	159
FDT-300	3.0"	76	2.625"	67	3.19"	81	0.56"	14	9.0"	229
FDT-400	4.0"	102	2.1875"	56	6.3125"	160	4.125"	105	9.75"	248
FDT-600	6.0"	152	4.1875"	106	8.3125"	211	4.125"	105	11.75"	298
FDT-800	8.0"	203	6.1875"	157	10.3125	262	4.125"	105	13.75"	349
FDT-1200	12.0"	305	10.1875	259	14.3125	'364	4.125"	105	17.75"	451
Dimonoiono			ahaa (l							

Continuous Elastoprene® Seal -SL-

> Continuous Aluminum Frame & Support Plate



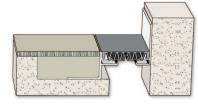
Series FS Floor-to-Floor / Blockout Mount Nominal Joint Openings 1" to 3"



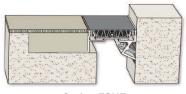
Series FSS Floor-to-Floor / Surface Mount Nominal Joint Openings 1" to 3"



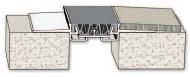
Series FSST Floor-to-Floor / Flush-to-Tile Nominal Joint Openings 1" to 3"



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



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



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"

Dimensions shown in inches (bold) and millimeters.



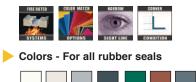
# **MM<sup>®</sup>Flushline Wall Systems**

## **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

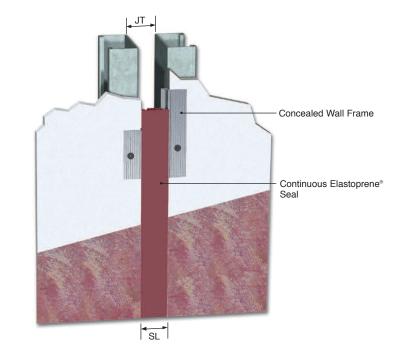


Luna Prarie Fog\* Carbon\* Heather Madrid Slate Statuette \*Stock Colors - Other colors subject to quantity minimums. Additional colors and matching available

### **Movement Table**

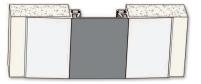
	Nomi	nel	loir		ening "JT"		Tota	J	Cight I	ine
FSW	"JT		Min		Max.		Movement		Sight Line "SL"	
FSW-100	1.0"	25	0.875"	22	1.25"	32	0.375"	10	1.0"	25
FSW-150	1.5"	38	1.25"	32	1.69"	43	0.44"	11	1.5"	38
FSW-200	2.0"	51	1.25"	32	2.375"	60	1.13"	29	2.0"	51
FSW-300	3.0"	76	2.44"	62	3.50"	89	1.06"	27	3.0"	76
FSWL	Nomi "JT		Joir Min		ening "JT" Max	ι.	Tota Moverr		Sight L "SL"	
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	Nomi "JT		Joir Min		ening "JT" Max	ι.	Tota Moverr		Sight L "SL	
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	Nomi "JT		Joir Min		ning "JT" Max	ι.	Tota Moverr		Sight L "SL	
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	Nomi "JT		Joir Min		ening "JT" Max	i.	Tota Moverr		Sight I "SL	
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.

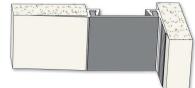




Series FSW Wall-to-Wall / Concealed Mud Frame Nominal Joint Openings 1" to 3"



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



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



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



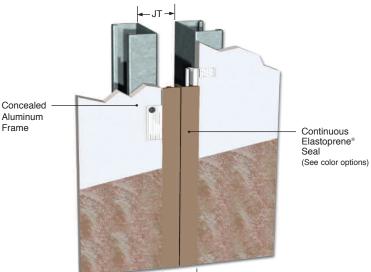


Additional colors and matching available

### **Movement Table**

кх	Nomi "JT		Joi Mir		ening "JT" Ma:		Tota Moverr		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
сх	Nomi "JT		Joi Mir		ening "JT" Ma:		Tota Moverr		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 *	Nomi "JT		Joi Mir		ening "JT" Ma:		Tota Moverr		Sight "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
					1					
VSW	Nomi "JT		Joi Mir		ening "JT" Ma:		Tota Moverr		Sight "SL	
VSW VSW-200										
	"JT	19	Mir	1.	Ma	х.	Moverr	nent	"SL	
VSW-200	"JT <b>2.0</b> "	51	Mir 1.61"	41	Ma: 3.0"	x. 76	Moverr 1.39"	nent 35	"SL 2.0"	." 51
VSW-200 VSW-300	"JT 2.0" 3.0"	51 76	Mir 1.61" 1.61"	n. 41 41	Ma: 3.0" 4.5"	x. 76 114	Movem 1.39" 2.89"	nent 35 73	"SL 2.0" 3.0"	51 76
VSW-200 VSW-300 VSW-400	"Л 2.0" 3.0" 4.0"	51 76 102 127 nal	Mir 1.61" 1.61" 1.86" 1.86"	41 41 47 47 47 nt Ope	Ma: 3.0" 4.5" 6.0"	x. 76 114 152 191	Movem 1.39" 2.89" 4.14"	nent 35 73 105 143	"SL 2.0" 3.0" 4.0"	." 51 76 102 127 Line
VSW-200 VSW-300 VSW-400 VSW-500	"JT 2.0" 3.0" 4.0" 5.0"	51 76 102 127 nal	Mir 1.61" 1.61" 1.86" 1.86" Join	41 41 47 47 47 nt Ope	Ma: 3.0" 4.5" 6.0" 7.5" ening "JT"	x. 76 114 152 191	Movem 1.39" 2.89" 4.14" 5.64" Tota	nent 35 73 105 143	"SL 2.0" 3.0" 4.0" 5.0" Sight	." 51 76 102 127 Line
VSW-200 VSW-300 VSW-400 VSW-500 VSG	"JT 2.0" 3.0" 4.0" 5.0" Nomi "JT	51 76 102 127 nal	Mir 1.61" 1.61" 1.86" 1.86" Join Mir	41 41 47 47 47 nt Ope	Ma: 3.0" 4.5" 6.0" 7.5" ening "JT" Ma:	x. 76 114 152 191 x.	Movem 1.39" 2.89" 4.14" 5.64" Tota Movem	nent 35 73 105 143 Il nent	"SL 2.0" 3.0" 4.0" 5.0" Sight "SL	
VSW-200 VSW-300 VSW-400 VSW-500 VSG VSG-200	"JT 2.0" 3.0" 4.0" 5.0" Nomi "JT 2.0"	51 76 102 127 nal 51	Mir 1.61" 1.61" 1.86" 1.86" Join Mir 1.09"	n. 41 41 47 47 nt Ope 1. 28	Ma: 3.0" 4.5" 6.0" 7.5" ening "JT" Ma: 3.0"	x. 76 114 152 191 x. 76	Movem 1.39" 2.89" 4.14" 5.64" Tota Movem 1.91"	nent 35 73 105 143 d nent 49	"SL 2.0" 3.0" 4.0" 5.0" Sight "SL 2.0"	." 51 76 102 127 Line 

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







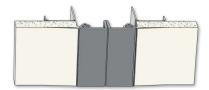
Series KX Wall-to-Wall Nominal Joint Openings 1" to 2"



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 Ceilina-to-Ceilina Nominal Joint Openings 2" to 5"



# **MM®Vertical Sealing Systems**

Barrier

## **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

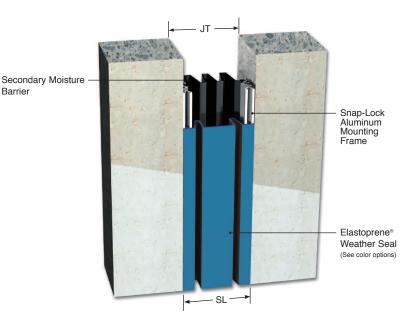


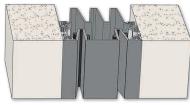
\*Stock Colors - Other colors subject to quantity minimums. Additional colors and matching available.

## **Movement Table**

	Nomi	nal		Jo	int Oper	ina "J	Total Th	ermal		
VSS-E	"JT	30	Mir		Max.		Seismic	Max.	Mover	nent
VSS-200-E	2.0"	51	1.25"	32	3.0"	76	10.0"	250	1.75"	44
VSS-300-E	3.0"	76	1.25"	32	4.5"	114	10.0"	250	3.25"	83
VSS-400-E	4.0"	102	1.75"	44	6.0"	152	10.0"	250	4.25"	108
VSS-500-E	5.0"	127	1.75"	44	7.5"	191	17.0"	432	5.75"	146
VSS-600-E	6.0"	152	1.75"	44	9.0"	229	17.0"	432	7.25"	184
VSS-700-E	7.0"	178	4.0"	102	12.0"	305	18.0"	457	8.0"	203
VSS-800-E	8.0"	203	4.0"	102	12.0"	305	18.0"	457	8.0"	203
VSS-900-E	9.0"	229	4.0"	102	15.0"	381	24.0"	610	11.0"	279
VSS-1000-E	10.0"	254	4.0"	102	15.0"	381	24.0"	610	11.0"	279
	10.0	204	4.0	102	15.0	301	24.0	010	11.0	213
VSS-I	Nomi "JT	nal		int Ope	ning "JT" Ma		Tot Mover	al	Sight Sight	Line
	Nomi	nal	Joi	int Ope	ning "JT		Tot	al	Sight	Line
VSS-I	Nomi "JT	nal	Joi Mir	int Ope n.	ning "JT' Ma	x.	Tot Mover	al nent	Sight SL	Line ."
VSS-I VSS-200-I	Nomi "JT <b>2.0</b> "	nal "	Joi Mir <b>1.25</b> "	int Ope n. 32	ning "JT" Ma <b>3.0"</b>	x. 76	Tot Mover 10.0"	al ment 250	Sight   "SL 1.75"	Line ." 44
VSS-I VSS-200-I VSS-300-I	Nomi "JT 2.0" 3.0"	nal 51 76	Joi Mir 1.25" 1.25"	int Ope n. 32 32	ening "JT" Ma 3.0" 4.5"	x. 76 114	Tot Mover 10.0" 10.0"	al ment 250 250	Sight "SL "SL 1.75" 3.25"	Line ." 44 83
VSS-I VSS-200-I VSS-300-I VSS-400-I	Nomi "JT 2.0" 3.0" 4.0"	nal 51 76 102	Joi Mii 1.25" 1.25" 1.75"	int Ope n. 32 32 44	ning "JT' Ma 3.0" 4.5" 6.0"	x. 76 114 152	Tot Mover 10.0" 10.0" 10.0"	al nent 250 250 250	Sight "SL 1.75" 3.25" 4.25"	Line 44 83 108
VSS-I VSS-200-I VSS-300-I VSS-400-I VSS-500-I	Nomi "JT 2.0" 3.0" 4.0" 5.0"	nal 51 76 102 127	Joi Mii 1.25" 1.25" 1.75" 1.75"	32 32 44 44	ening "JT" Ma 3.0" 4.5" 6.0" 7.5"	x. 76 114 152 191	Tot Mover 10.0" 10.0" 10.0" 10.0"	al ment 250 250 250 432	Sight "SL 1.75" 3.25" 4.25" 5.75"	Line 44 83 108 146
VSS-I VSS-200-I VSS-300-I VSS-400-I VSS-500-I VSS-600-I	Nomi "JT 2.0" 3.0" 4.0" 5.0"	nal 51 76 102 127 152	Joi Min 1.25" 1.25" 1.75" 1.75" 1.75"	int Ope n. 32 32 44 44 44	ning "JT" Ma 3.0" 4.5" 6.0" 7.5" 9.0"	x. 76 114 152 191 229	Tot Mover 10.0" 10.0" 10.0" 17.0"	al nent 250 250 250 432 432	Sight "SL 1.75" 3.25" 4.25" 5.75" 7.25"	Line 7 44 83 108 146 184
VSS-I VSS-200-I VSS-300-I VSS-400-I VSS-500-I VSS-600-I VSS-700-I	Nomi "JT 2.0" 3.0" 4.0" 5.0" 6.0" 7.0"	nal 76 102 127 152 178	Joi Mir 1.25" 1.25" 1.75" 1.75" 1.75" 4.0"	int Ope n. 32 32 44 44 44 44 102	ning "JT" Ma 3.0" 4.5" 6.0" 7.5" 9.0" 12.0"	x. 76 114 152 191 229 305	Tot Mover 10.0" 10.0" 10.0" 17.0" 17.0" 18.0"	al ment 250 250 250 432 432 432 457	Sight   "SL 1.75" 3.25" 4.25" 5.75" 7.25" 8.0"	Line 44 83 108 146 184 203

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



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



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	Tot Mover		Joint Opening "JT" & "SL" Min. Max.				Installation Range "JT" Min. Max.				
ESS-100	1.0"	25	.50"	13	Ma.	x. 38	.75"	1. 19	1.375"	. 35	
ESS-150	1.5"	38	.75"	19	2.25"	57	1.25"	32	1.875"	48	
ESS-200	2.0"	51	1.0"	25	3.0"	76	1.5"	38	2.375"	60	
ESS-250	2.5"	64	1.25"	32	3.75"	95	2.0"	51	2.875"	73	
ESS-300	3.0"	76	1.5"	38	4.5"	114	2.5"	64	3.375"	86	
ESS-350	3.5"	89	1.75"	44	5.25"	133	3.0"	76	3.875"	98	
ESS-400	4.0"	102	2.0"	51	6.0"	152	3.5"	89	4.375"	111	
ESS-450	4.5"	114	2.25"	57	6.75"	171	4.0"	102	4.875"	124	
ESS-500	5.0"	127	2.5"	64	7.5"	191	4.5"	114	5.375"	137	
ESS-600	6.0"	152	3.0"	76	9.0"	229	5.5"	140	6.375"	162	
ESS-700	7.0"	178	3.50"	89	10.5"	267	6.5"	165	7.375"	187	

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

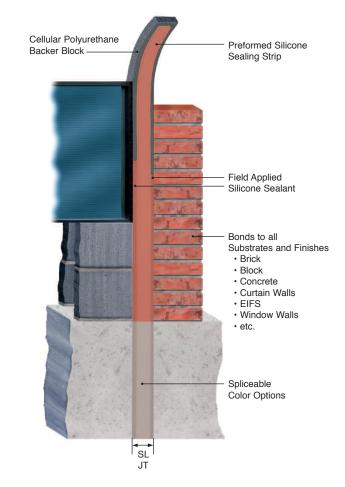
#### **Standard Colors**

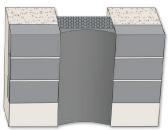


#### **Custom Colors**

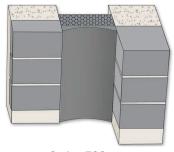


# **ESS - Engineered Seismic Silicone Sealing System**





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



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



# **MM<sup>®</sup> ColorJoint / SIF Series**

## **Performance Data**

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

- ± 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**

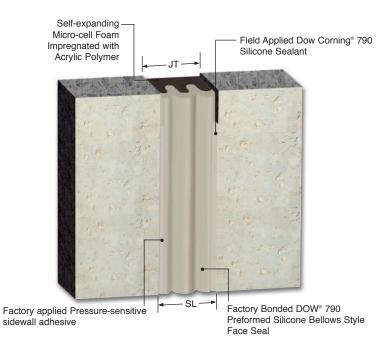
SIF	Total				Range "A				Joint Size Seal Depth	
SIF	Movem	ent	Min.		Max		Nom	inal	Seal D	Depth
SIF-050	0.50"	13	0.250"	6	0.75"	19	0.50"	13	1.50"	38
SIF-063	0.625"	16	0.312"	8	0.9375"	24	0.625"	16	1.50"	38
SIF-075	0.75"	19	0.375"	10	1.125"	29	0.75"	19	1.50"	38
SIF-100	1.00"	25	0.500"	13	1.500"	38	1.00"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

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

#### Colors



# SIF - Seismic Silicone & Impregnated Foam System



DOW<sup>®</sup> 790 is a registered trademark of Dow Corning



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





# **MM®Seismic Metal Wall Systems**

## **Performance Data**

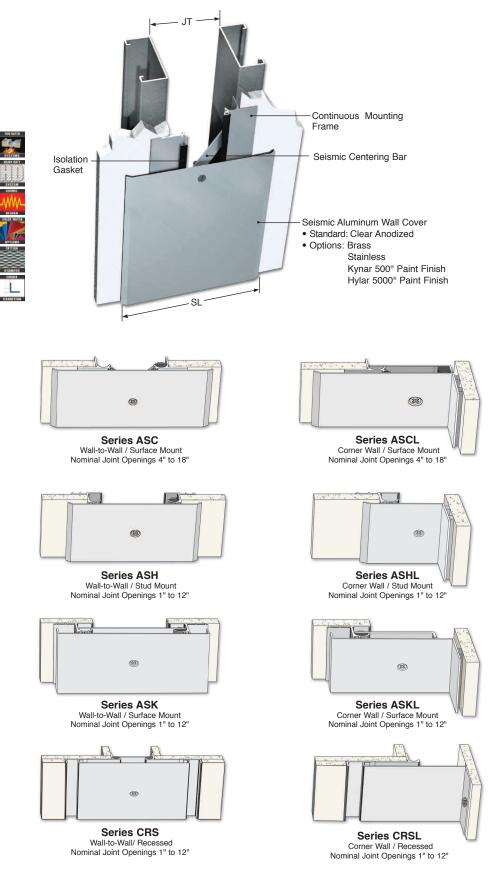
Engineered wall covers provide seismic movement in a wide range of sizes, styles and finishes. • Centering bar accommodates seismic movement.

- For ceiling applications contact factory.
- Standard clear anodized, optional bronze anodized or available Kynar<sup>®</sup> 500/Hylar<sup>®</sup> 5000 finishes.

### **Movement Table**

Aber a wayNormeNormeNormeNormeNormeSight LowASC 4.24.0"1022.25"5710.0"247.5"19.78.7"221ASC 6.36.0"12.0"3002.25"5716.0"40013.75"2007.5"10.0"50010.75"10.0"10.75"											
ASC 6-36.0"1522.235.713.0"3.0110.752.7311.75"2.93ASC 8-48.0"2.032.25"5.72.20"5.0"10.15"5.022.5.7"5.0ASC 18-018.0"4.572.25"5.72.80"7.112.5.7"6.42.5.7"6.42.5.7"6.42.5.7"6.42.5.7"6.42.5.7"6.42.5.7"6.42.5.7"6.42.5.7"6.42.5.7"6.41.0"4.5.7"6.41.0"7.5"<	ASC & ASCL		nal "								
ASC 8-4         8.0°         2.03         2.2°         57         16.0°         400         13.75°         340         14.75°         37           ASC 12-6         12.0°         305         2.2°         57         2.0°         500         17.1°         5.0°         2.17°         5.0°           ASC 18-0         1.0°         1.0°         2.5°         6.0°         7.0°         7.0°         1.0°         8.0°         2.0°           ASC 18-1         0.0°         120         2.5°         6.0°         1.0°         4.0°         1.0°         8.0°         1.0°           ASC 18-4         1.0°         2.5°         6.0°         2.0°         6.0°         1.0°         4.0°         1.0°         3.0°           ASC 18-4         1.0°         2.5°         6.0°         2.0°         5.0°         1.0°         1.0°         3.0°         7.0°	ASC 4-2	4.0"	102	2.25"	57	10.0"	254	7.75"	197	8.75"	222
ASC 12-612.0"30022.5"5728.0"57018.7"52027.7"571ASC 14-14.0"1022.5"647.0"1784.5"1146.3.7"122ASC 14-14.0"1202.5"649.5"2.417.0"1788.6.7"2.2"ASC 12-212.0"3002.5"6412.0"3.0"2.6"4.10"18.0"4.10"1.13"2.8"ASC 12-310.0"2.5"6.412.0"9.5"2.4"11.3"1.3"2.8"ASC 12-310.0"7.5"1.6"1.0"4.1"1.0"2.5"6.02.0"5.1"7.5"7.6"1.1"ASH 2-22.0"5.12.5"6.02.0"5.1"7.5"7.6"7.6"7.1"7	ASC 6-3	6.0"	152	2.25"	57	13.0"	330	10.75"	273	11.75"	298
ASC 18-918.0"4702.25"5728.0"7.0"1784.5"1446.3.7"120ASC L 4-14.0"1022.5"649.5"2417.0"1788.6.7"225ASC 12-312.0"2032.5"6412.0"3059.5"24111.3.7"230ASC 12-312.0"3052.5"6419.0"48316.5"41918.37"477ASC 13-410.0"2.5"6.010.0"7.1"7.	ASC 8-4	8.0"	203	2.25"	57	16.0"	406	13.75"	349	14.75"	375
ASCL 4-1     4.0°     102     2.5°     64     7.0°     178     4.5°     114     6.37°     12       ASCL 6-1.5     6.0°     120     2.5°     64     120°     305     6.1°     120°     305     2.1°       ASCL 12-3     120°     305     2.5°     64     120°     305     2.1°     64     120°     305     2.1°     64       ASCL 12-3     120°     305     2.5°     64     120°     50°     51°     170°     71°°     71°°     71°°       ASH 4.45     10°     25     25°     6     20°     51     1.75°     40     51°     1.0°       ASH 3.10     30°     76     25°     6     30°     76     2.5°     6     30°     75°     75°     76     70°       ASH 4.2     40°     102     25°     6     30°     70°     75°     75°     75°     70°       ASH 4.3     6°     120°     25°     6     30°     70°     75°     70°     70°     70°       ASH 4.4     80°     20°     25°     6     30°     75°     75°     70°     70°       ASH 4.5     10°     20°     20°     20°	ASC 12-6	12.0"	305	2.25"	57	22.0"	559	19.75"	502	20.75"	527
Normer ASCL 6-1.56.0"1622.5"649.5"2417.0"1788.875"225ASCL 6-2.8.0"2.032.5"649.5"2417.0"1788.875"225ASCL 12-312.0"3052.5"642.0"6102.15"5462.875"467ASH 4ASHL7.0"17.0"1718.0"17.0"	ASC 18-9	18.0"	457	2.25"	57	28.0"	711	25.75"	654	26.75"	679
ASCL 8-20     8.0"     203     2.5"     64     12.0"     305     2.4"     13.7" ≥ B       ASCL 12-30     12.0"     305     2.5"     64     10.0"     483     61.5"     41.9     43.7"     43.7"       ASL 16-4.5     10.0"     2.5"     64     2.0"     51     1.7.5"     44     4.5.7"     1.7.5"       ASH 4-20     1.0"     2.5     6.6     2.0"     51     1.7.5"     44     4.5.7"     1.7.5"       ASH 1-1     1.0"     2.5     6.6     2.0"     6.1     1.7.5"     1.60     4.5.7"     1.7.5"       ASH 2-20     1.0"     1.25     2.5"     6.6     2.0"     1.5"     3.6"     2.20     1.7.5"     2.21     1.7.5"     2.10       ASH 3-1.5     3.0"     1.5"     2.5"     6.6     1.50"     1.5"     3.5"     2.5"     1.6"       ASH 4-1     4.0"     10.2     2.5"     6.1     1.5"     3.5"     1.5"     3.5"     3.5"     3.5"     3.5"       ASH 1-5.     10.0"     2.5"     6.1     1.5"     3.5"     1.5"     3.5"     3.5"     3.5"       ASH 4-1     4.0"     10.2     2.5"     6.1     1.5"     3.5"     1.5" </th <th>ASCL 4-1</th> <th>4.0"</th> <th>102</th> <th>2.5"</th> <th>64</th> <th>7.0"</th> <th>178</th> <th>4.5"</th> <th>114</th> <th>6.375"</th> <th>162</th>	ASCL 4-1	4.0"	102	2.5"	64	7.0"	178	4.5"	114	6.375"	162
ASCL 12-30       12.0"       305       2.5"       64       19.0"       483       61.5"       41.9       63.7"       63.0"         ASH & ASHL       Norriur       Image: Superatione Superati	ASCL 6-1.5	6.0"	152	2.5"	64	9.5"	241	7.0"	178	8.875"	225
ASCL 18-4.5     18.0"     457     2.5"     64     24.0"     610     21.5"     542     23.87.5"       ASH & ASHL     "JT"     Join JUT     Max.     Max.     Morentee     Sight Line       ASH 1-1     1.0"     25     2.5"     6     2.0"     51     1.75"     44     4.5"     140       ASH 3-1.5     3.0"     76     2.5"     6     4.0"     102     2.5"     6     4.0"     14     4.25"     108     8.7"     17.5"     44     8.5"     11.5"       ASH 3-4     6.0"     102     2.5"     6     4.0"     102     5.5"     140     4.5"     11.5"     229     14.5"     8.5"       ASH 4-4     8.0"     120     2.5"     6     12.0"     10.5"     11.5"     229     14.5"     8.5"       ASH 4-1     1.0"     2.5"     6.0     12.0"     1.5"     3.6"     12.7"     7.5"     121     14.5"     14.5"     14.5"       ASH 4-1     1.0"     1.0"     2.5"     6.0     1.2"     5.5"     1.6"     1.2"     1.2"     1.2"     1.2"     1.2"     1.2"     1.2"     1.2"     1.2"     1.2"     1.2"     1.2"     1.2"     1.2" <th>ASCL 8-2</th> <th>8.0"</th> <th>203</th> <th>2.5"</th> <th>64</th> <th>12.0"</th> <th>305</th> <th>9.5"</th> <th>241</th> <th>11.375"</th> <th>289</th>	ASCL 8-2	8.0"	203	2.5"	64	12.0"	305	9.5"	241	11.375"	289
ASH & ASHL       Nominal TUT       Joint Operation Min.       Total Max.       Total Movement       Sight Line SL <sup>+</sup> ASH 1-1       1.0"       25       2.5"       6       2.0"       51       1.75"       44       4.5"       114         ASH 2-2       2.0"       51       2.5"       6       3.0"       76       2.75"       70       5.5"       140         ASH 3-1.5       3.0"       76       2.52"       6       6.0"       152       5.75"       146       8.5"       216         ASH 4-2       4.0"       102       2.5"       6       9.0"       29       8.75"       222       11.5"       292         ASH 4-3       8.0"       102       305       2.5"       6       12.0"       305       17.5"       292       14.5"       368         ASH 1-1       1.0"       25       0.0"       0       1.5"       38       1.5"       41       3.6"       127       5.0"       127       ASH       4.5"       1.5"       4.5"       1.5"       4.5"       1.5"       4.5"       1.5"       4.5"       1.5"       4.5"       1.5"       4.5"       1.5"       4.5"       1.5"       4.5"       1.5"	ASCL 12-3	12.0"	305	2.5"	64	19.0"	483	16.5"	419	18.375"	467
ASH & ASHL     "JT"     Min.     Max.     Max.     Movernet     C"SL"       ASH 1-1     1.0"     25     2.5"     6     3.0"     76     2.75"     70     5.5"     140       ASH 2-2     2.0"     51     2.5"     6     3.0"     76     2.75"     70     5.5"     140       ASH 3-1.5     3.0"     76     2.25"     6     6.0"     12     5.75"     146     8.5"     216       ASH 6-3     6.0"     12     7.5"     146     8.5"     216       ASH 6-3     6.0"     12     6.0"     152     6.0"     152     5.0"     1.2"     145     3.6"     2.2"       ASH 6-3     10"     102     0.0"     6     1.5"     1.5"     1.5"     1.5"     1.5"     3.6"     2.5"     1.5"     1.5"     3.6"     1.5"     3.6"     3	ASCL 18-4.5	18.0"	457	2.5"	64	24.0"	610	21.5"	546	23.875"	606
ASH 2-2         2.0"         51         2.5"         6         3.0"         76         2.75"         70         5.5"         140           ASH 3-1.5         3.0"         76         2.25"         6         160         122         5.75"         146         8.5"         216           ASH 6-3         6.0"         152         2.5"         6         100"         20         8.75"         220         1.5"         292           ASH 6-3         6.0"         10"         2.5"         6.6         18.0"         457         1.7.5"         292         1.5."         3.6           ASH 12-6         10"         2.5"         6.0         18.0"         457         7.5"         451         2.5"         61           ASH 14-5         10"         2.5"         6.0         10.5"         10"         5.5"         10"           ASH 14-1         4.0"         102         5.0"         0         0         10.7"         10"         12.5"         10.5"           ASH 14-1         4.0"         120         0.5"         10.5"         10.5"         10.5"         10.5"         10.5"           ASH 14-1         10.0"         12.5"         10.5" <th>ASH &amp; ASHL</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>x.</th> <th></th> <th></th> <th></th> <th></th>	ASH & ASHL						x.				
ASH 2-2         2.0"         51         2.5"         6         3.0"         76         2.75"         70         5.5"         140           ASH 3-1.5         3.0"         76         2.5"         6         4.6"         114         4.25"         108         7.0"         178           ASH 4-2         4.0"         102         2.5"         6         100"         229         8.75"         220         1.15"         292           ASH 6-3         6.0"         120"         305         1.75"         451         2.65"         5           ASH 12-6         1.0"         2.5"         6         1.0"         4.5"         1.75"         38         1.5"         38         2.5"         7.0"           ASH 14-5         0.0"         2.5"         6         1.5"         38         1.5"         38         1.5"         38         1.5"         38           ASH 14-1         0.0"         2.0"         0.0"         0.5"         1.5"         1.5"         1.5"         1.5"           ASH 14-1         0.0"         1.5"         0.0"         0.5"         1.5"         1.5"         1.5"         1.5"           ASH 14-1         0.0"         <	ASH 1-1	1.0"	25					1.75"	44	4.5"	114
ASH 3-1.5     3.0"     76     2.25"     6     6.0"     124     2.55"     146     8.5"     216       ASH 4-2     4.0"     102     2.5"     6     6.0"     122     7.5"     146     8.5"     212       ASH 6-3     6.0"     152     2.5"     6     120"     305     1.75"     224     1.15"     292       ASH 6-3     6.0"     120"     305     1.75"     293     1.45"     368       ASH 12-6     1.0"     2.5"     6     1.80"     457     1.75"     451     2.0."     51       ASH 12-5     2.0"     51     0.0"     0     2.5"     64     2.5"     64     2.5"     64     3.5"     95 <th< th=""><th>ASH 2-2</th><th>2.0"</th><th></th><th>.25"</th><th></th><th>3.0"</th><th>76</th><th></th><th>70</th><th>5.5"</th><th>140</th></th<>	ASH 2-2	2.0"		.25"		3.0"	76		70	5.5"	140
ASH 4-2     4.0"     102     2.5"     6     6.0"     152     7.5"     1.46     8.5"     2       ASH 6-3     6.0"     152     2.5"     6     9.0"     229     8.75"     222     1.15"     292       ASH 6-4     8.0"     203     2.5"     6     1.0"     305     1.75"     291     3.5"     2.7"       ASH 12-6     1.0"     2.0"     6.0"     0.0"     1.5"     3.8     1.5"     3.8     2.5"     6.1       ASH 2-5     2.0"     5.1     0.0"     0.0"     0.5"     3.7"     3.5"     3.5"     1.2"     3.5"     1.2"       ASH 2-5.     2.0"     5.1     0.0"     0.0"     0.5"     1.2"     5.1"     3.5"     1.2"     3.5"     1.2"       ASH 2-1.5     0.0"     0.0"     0.0"     1.5"     1.5"     1.5"     1.5"     1.5"     3.5"     1.5"       ASH 2-1     0.0"     0.0"     0.0"     0.10"     2.5"     1.0"     2.5"     1.5"     1.5"     1.5"       ASH 2-1     0.0"     0.0"     0.0"     0.0"     1.5"     1.5"     1.5"     1.5"     1.5"       ASH 2-1     0.0"     0.0"     0.0"     0.0"	ASH 3-1.5		76		6		114	4.25"	108	7.0"	
Name         Name <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>											
ASH 8-4     8.0"     203     2.5"     6     12.0"     305     1.7.5"     2.80     1.4.5"     3.81       ASH 12-6     12.0"     305     2.5"     6     1.60"     3.8     1.7.5"     3.8     2.5"     7       ASH 1.5.     1.0"     2.5     0.0"     0.     1.5"     3.8     1.5"     3.8     2.5"     7       ASH 2.5.     2.0"     5.1     0.0"     0.     3.5"     95     3.5"     95     3.5"     95       ASH 2.5.     3.0"     70     0.0"     0.     1.27     5.0"     1.27     3.5"     1.25     3.5"     1.27     3.5"     1.25     3.5"     1.5"					Ŭ					•	
ASH 12-6         12.0"         305         2.5"         6         18.0"         4.77         4.51         2.0."         3           ASH 1-5.         1.0"         25         0.0"         0         1.5"         38         1.5"         38         2.5"         70           ASH 2-5.         2.0"         51         0.0"         0         2.5"         64         2.5"         64         3.5"         95         3.5"         95         3.5"         95         3.5"         127           ASH 2-5.         3.0"         76         0.0"         0         127         50"         127         512         4.5"         127         52.5"         127         510         127         52.5"         128         100"         254         10.0"         254         10.2"         12.5"         12.5"           ASK 1-1         1.0"         2.5         2.5"         6         3.0"         70"         50"         12.5"         12.5"         3.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5"         12.5" <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th>-</th><th>11.75"</th><th></th><th></th><th>-</th></t<>							-	11.75"			-
ASHL 1-5     1.0"     25     0.0"     0."     1.5"     38     1.5"     38     1.5"     38     1.5"     38     1.5"     38     1.5"     38     1.5"     38     1.5"     38     1.5"     38     1.5"     39       ASH 2.5.7     3.0"     76     0.0"     0     3.5"     95     3.5"     95     3.5"     127       ASH 4.1     4.0"     102     0.0"     0     127     101     128     128       ASH 2.1     0.0"     152     0.0"     0     100"     254     100"     254       ASH 1.2.3     120"     305     0.0"     0     10.0"     254     10.0"     254       ASK 4.1     1.0"     25     2.5"     6     2.0"     51     1.7"     44     4.0"       ASK 3.1.5     3.0"     7.6     2.5"     6     2.0"     51     1.75"     10     5.0"       ASK 4.2     3.0"     7.5"     7.6     2.5"     6     3.0"     7.6     2.5"     1.6"       ASK 4.2     3.0"     7.6     2.5"     6     3.0"     1.5"     1.6"     1.0"       ASK 4.2     3.0"     7.6     2.5"     6     3.0"											
Norman         Lo         Lo         O         Z         S         A         S         Lo         S         A         A         O         O         O         A         D											-
ASHL 3-753.0"760.0"0.0"0.75"953.75"922.22ASHL 61.56.00"12.0"3.00"0.0"0.0"13.0"9513.1"9512.2"3.8114.12"2.22ASK 4.3CL3.0"7.0"3.0"7.0"3.0"7.0"3.0"7.0"3.811.5"3.811.6.2"4.13ASK 51-11.0"2.57.5"6.03.0"7.6"7.6"7.7"7.0"5.0"1.27ASK 3.1.53.0"7.62.5"6.03.0"7.6"7.7"7.05.0"1.27ASK 6.36.0"1.0"7.6"6.0"1.5"6.0"1.5"6.0"1.20"5.0"1.21ASK 6.48.0"2.0"5.0"6.0"1.20"5.0"1.20"5.0"1.20"5.0"1.20"ASK 6.48.0"9.0"2.0"6.0"1.20"6.0"1.20"3.0"1.20"3.0"1.20"3.0"1.20"3.0"1.20"ASK 6.41.0" <th< th=""><th></th><th></th><th></th><th></th><th>Ŭ</th><th></th><th></th><th></th><th></th><th></th><th></th></th<>					Ŭ						
ASHL 4-14.0"1020.0"0.0"127120"1276.25"13ASHL 6-1.56.0"1520.0"07.5"1917.5"1918.75"222ASHL 6-28.0"2030.0"015.0"31116.0"25411.25"226ASHL 12-312.0"3050.0"015.0"31116.25"41.0"254ASK & ASKLNorrightNorrightMin."Join" Max."NorrightNorrightNorrightNorrightASK 3.1.53.0"762.5"63.0"762.75"705.0"127ASK 3.1.53.0"762.5"66.0"1525.75"1468.0"203ASK 6.36.0"1522.5"610.0"1525.75"1468.0"203ASK 6.48.0"1022.5"610.0"1525.75"1468.0"203ASK 6.48.0"1022.5"610.0"1525.75"1468.0"203ASK 6.48.0"1022.5"610.0"15215.0"16015216.0"ASK 6.410.0"15215.0"1315.0"15.0"16.0"15.0"16.0"15.0"ASK 6.410.0"15215.0"1315.0"15.0"16.0"15.0"16.0"15.0"16.0"ASK 6.410.0"1515.0			-								
ASHL 6-1.56.0"1520.0"0.7.5"1917.5"1918.75"222ASHL 8-28.0"2030.0"0150"25410.0"25411.25"286ASHL 12-312.0"3050.0"0150"38115.0"38116.25"413ASK & ASKLNorrightNorrightMin."J""Min."J""NorrightNorrightNorrightNorrightNorrightASK 1-11.0"252.5"62.0"511.75"444.0"102ASK 3-1.53.0"762.5"63.0"762.75"1468.0"203ASK 6-36.0"1525.7"1468.0"2032.5"610.1"1223.6"10.1"273ASK 6-36.0"1522.5"610.1"12313.1"					v						
ASHL 8-2     8.0"     203     0.0"     0     10.0"     254     10.0"     254     11.2"     286       ASHL 12-3     12.0"     305     0.0"     0     15.0"     381     15.0"     381     16.0"     17.0"     381     16.0"     102       ASK 2-2     2.0"     5.1     7.0"     7.0"     7.0"     7.0"     5.0"     1.0"     17.0"     48     8.0"     203       ASK 3-1.0     3.0"     7.0     7.0"     7.0"     7.0"     7.0"     5.0"     1.0"     8.0"     2.0"       ASK 4-2     4.0"     102     2.0"     6.0     10.0"     2.10"     6.0"     1.0"     2.2"     1.0"     2.2"     1.0"     2.2"     1.0"     2.2"     1.0"     2.2"											
ASHL 12-3     12.0"     305     0.0"     0     15.0"     381     15.0"     381     16.2"     41       ASK & ASKL     Norrige     'JT''     Joint /Min.'     'JT''     Mor.''     Norrige     'T'''     Norrige     'S'''     'S'''     'S'''     'S'''     'S'''       ASK 1-1     1.0"     25     2.0"     6     3.0"     76     2.7"     70     50     127       ASK 2-2     2.0"     51     76     6     4.0"     114     4.20"     108     6.5"     165       ASK 3-1.5     3.0"     76     2.2"     6     4.0"     102     2.5"     6     104     152     5.75"     146     8.0"     203       ASK 6-3     6.0"     152     2.5"     6     9.0"     29     8.75"     222     11.0"     279       ASK 6-4     8.0"     203     2.5"     6     10.0"     152     5.75"     146     8.0"     203       ASK 6-3     100"     152     5.0"     13     15.9"     15.0"     16.0"     162     1.0"     298     16.0"     161       ASK 6-3     10"     5     1.5"     138     15.0"     152     1.0"     16.1"											
ASK & ASKL         Nominal "JT"         Joint Operation Min.         Total Max.         Total Mow=met         Sight Line SL"           ASK & ASKL         1.0"         25         2.5"         6         2.0"         51         1.75"         44         4.0"         102           ASK 2-2         2.0"         51         2.5"         6         3.0"         76         2.75"         70         5.0"         127           ASK 3-1.5         3.0"         76         2.5"         6         4.6"         114         4.25"         108         6.5"         165           ASK 4-2         4.0"         102         2.5"         6         6.0"         152         5.75"         146         8.0"         203           ASK 6-3         6.0"         152         2.5"         6         10.0"         29         8.75"         222         11.0"         279           ASK 6-3         6.0"         152         2.5"         6         10.0"         29         8.75"         298         14.0"         356           ASK 1-5.         1.0"         20         2.5"         6         18.0"         467         17.5"         41         4.75"         121					0						
ASK & ASKL         "JT"         Min. $Max$ .         Max.         Movermet         "GX.           ASK 1-1         1.0"         25         2.5"         6         2.0"         51         1.75"         4.4         4.0"         102           ASK 2-2         2.0"         51         2.5"         6         3.0"         76         2.75"         70         5.0"         127           ASK 3-1.5         3.0"         76         2.5"         6         4.0"         114         4.25"         108         6.5"         165           ASK 4-2         4.0"         102         2.5"         6         9.0"         122         7.5"         146         8.0"         203           ASK 6-3         6.0"         12         7.6"         6.0         120         305         1.75"         451         8.0"         203           ASK 6-3         6.0"         120         305         1.6"         1.0"         122         1.0"         212         1.0"         214         3.5"         1.0"         305         1.6"         3.6"         1.0"         3.6"         1.6"         3.6"         1.6"         3.6"         1.6"         3.6"         3.6"         3.6"<			000		<u> </u>		001				
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 3-1.5         3.0"         70         122         .25"         6         100         152         5.75"         146         8.0"         203           ASK 6-3         6.0"         152         .25"         6.6         100"         229         8.75"         220         11.0"         279           ASK 6-3         6.0"         120         305         12.5"         6         120"         305         127         451         20.0"         50           ASK 12-6         10"         20"         30"         15"         38         15"         38         15"         38         16"         31"           ASK 14-5         10"         51         1.5"         38         2.5"         44         4.5"         31"         31"           ASK 14-5         60"         152         2.15"         54         5.5"         127         32.5"         35" <th></th> <th>"JT</th> <th>19</th> <th>Mir</th> <th>ı. ·</th> <th>Ma</th> <th></th> <th>Moverr</th> <th>nent</th> <th>"SL</th> <th></th>		"JT	19	Mir	ı. ·	Ma		Moverr	nent	"SL	
ASK 3-1.5         3.0"         76         .25"         6         1.44         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         120"         305         1.75"         298         1.4."         3.5"           ASK 12-6         1.0"         2.0"         3.5"         1.3"         1.5"         38         1.0"         2.5"         6.4           ASK 12-5         2.0"         51         1.5"         38         2.5"         6.4         1.0"         2.5         3.5"         9.5           ASK 14-1         4.0"         102         2.12.5"         54         3.5"         1.5"         3.5"         1.5"           ASK 14-1         4.0"         102         2.12.5"         54         1.5"         1.5"         3.5"         1.5"           ASK 14-1         100         2.0 <th< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>											
ASK 4-2         4.0"         102         2.5"         6         6.0"         152         5.75"         146         8.0"         2.03           ASK 6-3         6.0"         152         2.5"         6         9.0"         229         8.75"         222         11.0"         279           ASK 6-3         6.0"         152         2.5"         6         12.0"         305         11.75"         229         14.0"         209           ASK 12-6         12.0"         305         2.5"         6         18.0"         2.0"         5.1"         1.0"         2.0"         5.0"         6         18.0"         2.0"         5.0"         6.0"         1.0"         2.0"         5.0"         6.0"         1.0"         2.0"         5.0"         6.0"         1.0"         2.0"         5.0"         6.0"         1.0"         2.0"         5.0"         6.0"         1.0"         2.0"         5.0"         1.0"         2.0"         5.0"         6.0"         1.0"         2.0"         5.0"         6.0"         1.0"         2.0"         5.0"         6.0"         1.0"         2.0"         5.0"         6.0"         1.0"         2.0"         5.0"         6.0"         1.0"         6.0"											
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $											
ASK 8-48.0"203.25"612.0"3051.75"2981.4.0"356ASK 12-612.0"305.25"618.0"4571.775"45120.0"508ASK 12-510"250.5"131.5"381.0"253.5"89ASK 2.5"3.0"762.125"543.75"951.625"414.75"121ASK 4.44.0"1022.125"545.0"1715.375"306.0"122ASK 6.1.56.0"1522.125"5410.0"251.625"414.75"101ASK 8.46.0"1522.125"5410.0"2547.3"6.0"122ASK 12-36.0"1522.125"5410.0"2547.3"6.0"120ASK 8.47.0"7.0"7.0"7.0"7.0"7.0"7.0"7.0"7.0"ASK 12-310.0"7.0"7.0"7.0"7.0"7.0"7.0"7.0"7.0"ASK 6.47.0"7.0"7.0"7.0"7.0"7.0"7.0"7.0"7.0"7.0"7.0"ASK 12-37.0"7.								00		0.0	
ASK 12-6         12.0"         305         .25"         6         18.0"         457         17.75"         451         20.0"         508           ASK 1-5         1.0"         25         0.5"         13         1.5"         38         1.0"         25         2.5"         64           ASK 12-5         2.0"         51         1.5"         38         2.5"         64         1.0"         25         3.5"         89           ASK 12-5         2.0"         51         1.5"         38         2.5"         64         1.0"         25         3.5"         89           ASK 14-1         4.0"         102         2.125"         54         3.75"         95         1.625"         41         4.75"         121           ASK 61.5         6.0"         152         2.125"         54         10.0"         254         7.875"         30         1.63"         8.5"         1.63"         8.5"         1.63"         8.5"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"         1.65"<											
ASKL 1-5         1.0"         25         0.5"         1.3         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 375         3.0"         76         2.125"         54         3.75"         95         1.625"         41         4.75"         121           ASKL 4-1         4.0"         102         2.125"         54         50"         127         2.875"         73         6.0"         12           ASKL 6-2         6.0"         120         2.125"         54         10.0"         25         7.875"         137         8.5"         216           ASKL 8-2         8.0"         203         2.125"         54         10.0"         251         15.0"         381         12.875"         30"         10.0"         270           ASKL 8-2         8.0"         51         1.50"         381         12.875"         30"         10.0"         270         10.0"         30"         10.0"         200         10.0"         200         10.0"         200         10.0"         200		0.0			°.						
ASKL 2-5         2.0"         51         1.5"         38         2.5"         64         1.0"         25         3.5"         8           ASKL 3-75         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"         12           ASKL 6-1.5         6.0"         122         2.125"         54         10.0"         254         7.87"         137         8.5"         216           ASKL 6-2.5         6.0"         122         2.125"         54         10.0"         254         7.87"         30         1.1"         279           ASKL 12-3         12.0"         305         2.125"         54         15.0"         311         1.2.8"         70"         1.0"         20         1.0"         279           ASKL 12-3         12.0"         305         2.125"         54         15.0"         311         1.0.0"         25         1.0."         75."         1.0"         30"         76         1.0."         1.0"         75."         1.0"         1.0" <th></th> <th></th> <th>000</th> <th></th> <th>v</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>			000		v						
ASKL 3.75         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         10.0"         254         7.87"         101         5.375"         137         8.5"         216           ASKL 8-2         8.0"         203         2.125"         54         10.0"         254         7.87"         101         5.375"         137         8.5"         216           ASKL 8-2         8.0"         203         2.125"         54         10.0"         254         7.87"         101         5.37"         137         8.5"         216           ASKL 8-2         10.0"         203         2.05"         7.6"         12.87"         277         16.0"         160"         555         16.0"         555         16.0"         555         16.0"         555         16.0"         555         16.0"         555         16.25"         16.0"         555         16.25"         16.0"         16.0"					10			1.0			• •
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         10.0"         254         7.3"         8.5"         216           ASKL 8-2         8.0"         2.03         2.125"         54         10.0"         254         7.3"         8.5"         216           ASKL 12-3         12.0"         30"         2.125"         54         10.0"         254         7.3"         8.5"         216           ASKL 12-3         12.0"         30"         2.125"         54         10.0"         254         7.3"         10.0"         279           ASKL 12-3         12.0"         30"         2.15"         54         15.0"         381         12.8"         73"         10"         279           ASKL 6-2         Mominal         Mominal <th< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>											
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"         279           ASKL 12-3         12.0"         305         2.125"         54         15.0"         381         12.875"         327         16.0"         279           ASKL 12-3         12.0"         51         1.50"         38         2.50"         64         10.0"         25         10.2"         200"         51           CRS 4.CRSL         .0""".""."."."					• ·	0.10					
ASKL 8-2         8.0"         203         2.125"         54         10.0"         254         7.875"         200         11.0"         279           ASKL 12-3         12.0"         30"         2.125"         54         15.0"         381         12.875"         20         16.0"         240           CRS & CRSL         Nomination         Joint Strepsing "JT"         Total Movement         Total Strepsing "JT"         Total Movement         Stight Line           CRS-2-1         2.0"         51         1.50"         38         2.50"         64         1.00"         25         1.25"         200           CRS-4-2         4.0"         102         2.00"         51         8.00"         203         6.00"         152         1.50"         38         2.50"         64         1.00"         25         1.52"         2.50           CRS-4-2         4.0"         102         2.00"         51         8.00"         203         6.00"         152         1.50"         381         10.00"         251         1.52"         387           CRS-6-3         6.0"         152         3.00"         76         2.00"         51         6.12"         1.50"           CRS-10-5 <th< th=""><th></th><th></th><th></th><th>-</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>				-							
ASKL 12-3         12.0"         305         2.125"         54         15.0"         381         12.875"         36.0"         46.0"           CRS & CRSL         "J"         Joint Opening "JT"         More methy         More methy         More methy         Sight Line         Sight Li											
Nominal "JT"         Joint Opening "JT" Min.         Total 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           CRS-2-5         2.0"         51         1.00"         25         3.0"         76         2.00"         51         6.125"         156           CRS-2-5         2.0"         51         1.00"         25         3.0"         76         2.00"         51         6.125"         16.125"         16.125"			200						200		2.0
CRS & CRSL         "JT"         Min."         Max.         Movement         "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"         887           CRS-10-5         10.0"         254         5.00"         127         15.00"         381         10.00"         254         14.92"         489           CRS-10-5         10.0"         51         1.00"         25         3.0"         76         2.00"         51         6.12"         150           CRS-2-5         2.0"         51         1.00"         25         3.0"         76         2.00"         51         6.12"         150           CRSL-4-1         4.0"         102         3.00"         76         6.0"         152         3.00"         76         7.0"         178	ASKL 12-3				• ·		381				
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"         152         10.25"         489           CRSL-4-1         4.0"         102         3.00"         76         6.0"         152         3.00"         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	CRS & CRSL		nai "				к.				
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	CRS-2-1	2.0"	51	1.50"	38	2.50"	64	1.00"	25	10.25"	260
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         152         3.00"         76         7.00"         178	CRS-4-2	4.0"	102	2.00"	51	8.00"	203	6.00"	152	10.00"	254
CRSL-25         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"         717	CRS-6-3	6.0"	152	3.00"	76	12.25"	311	9.25"	235	15.25"	387
CRSL-4-1         4.0"         102         3.00"         76         6.0"         152         3.00"         76         7.00"         178	CRS-10-5	10.0"	254	5.00"	127	15.00"	381	10.00"	254	19.25"	489
	CRSL-25	2.0"	51	1.00"	25	3.0"	76	2.00"	51	6.125"	156
CRSL-6-1.5 6.0" 152 4.50" 114 9.125" 232 4.625" 117 10.625" 270	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.



20 www.mmsystemscorp.com 800.241.3460



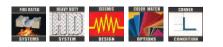
# **MM®Metal Wall and Ceiling Systems**

## **Performance Data**

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

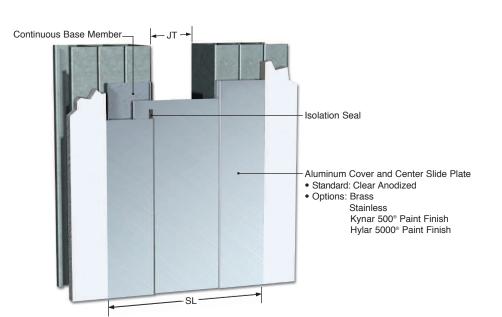
- Available in aluminum (standard), or brass and stainless laminate covers.
- Standard clear anodized, optional bronze anodized or available Kynar<sup>®</sup> 500/Hylar<sup>®</sup> 5000 finishes in 72 standard and custom colors.
- Isolation seal protects finishes during movement.
- Designs accommodate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

#### Product Features



### **Movement Table**

	Nomi	nal	loir	nt One	ning "JT'		Tota	al	Sight	ino
FX-K	"JT		Min		Ma		Mover		"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	Nomi "JT		Joir Min		ning "JT" Ma:		Tota Moverr		Sight I "SL	
FX-L 15	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 25	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
FX-L 8-4 EX-L	<b>8.0"</b> Nomi "JT	nal		nt Ope	<b>12.0"</b> ning "JT" Ma:	'	7.625" Tota Mover	al	12.75" Sight I "SL	Line
	Nomi	nal	Joir	nt Ope	ning "JT'	'	Tota	al	Sight	Line
EX-L	Nomi "JT	nal "	Joir	nt Ope 1.	ning "JT" Ma:	x.	Tota Moverr	al nent	Sight I "SL	Line "
EX-L EX-L1	Nomi "JT <b>1.0</b> "	nal " 25	Joir Min <b>0.0</b> "	nt Ope n. 0	ning "JT" Ma: <b>2.0"</b>	x. 51	Tota Movem 2.0"	al nent 51	Sight I "SL 2.0"	Line 
EX-L EX-L1 EX-L2	Nomi "JT 1.0" 2.0"	nal 25 51	Joir Min 0.0" 1.0"	nt Ope n. 0 25	ning "JT" Ma: <b>2.0"</b> <b>3.0"</b>	x. 51 76	Tota Movem 2.0" 2.0"	al nent 51 51	Sight   "SL 2.0" 3.0"	Line 751 76
EX-L EX-L1 EX-L2 EX-L4	Nomi "JT 1.0" 2.0" 2.0" 3.0" 4.0"	nal 25 51 51 76 102	Join Min 0.0" 1.0" 0.0" 1.0" 2.0"	nt Ope 1. 25 0 25 51	ning "JT" Ma: 3.0" 4.0" 5.0" 6.0"	x. 51 76 102 127 152	Tota Movem 2.0" 2.0" 4.0" 4.0"	al hent 51 51 102 102 102	Sight I "SL 2.0" 3.0" 4.0" 5.0" 6.0"	51 76 102 127 152
EX-L EX-L1 EX-L2 EX-L4 EX-L6	Nomi "JT 1.0" 2.0" 2.0" 3.0"	nal 25 51 51 76 102 nal	Join Min 0.0" 1.0" 0.0" 1.0" 2.0"	nt Ope 1. 0 25 0 25 51 nt Ope	ning "JT" Ma: 2.0" 3.0" 4.0" 5.0"	x. 51 76 102 127 152	Tota Movem 2.0" 2.0" 4.0"	al nent 51 51 102 102 102 al	Sight "SL 2.0" 3.0" 4.0" 5.0"	Line 751 76 102 127 152 Line
EX-L EX-L1 EX-L2 EX-L4 EX-L6 EX-L8	Nomi "JT 1.0" 2.0" 2.0" 3.0" 4.0" Nomi	nal 25 51 51 76 102 nal	Joir Min 0.0" 1.0" 0.0" 1.0" 2.0" Joir	nt Ope 1. 0 25 0 25 51 nt Ope	ning "JT" Ma: 2.0" 3.0" 4.0" 5.0" 6.0" ning "JT"	x. 51 76 102 127 152	Tota Movem 2.0" 2.0" 4.0" 4.0" 4.0" Tota	al nent 51 51 102 102 102 al	Sight I "SL 2.0" 3.0" 4.0" 5.0" 6.0" Sight I	Line 751 76 102 127 152 Line
EX-L EX-L1 EX-L2 EX-L4 EX-L6 EX-L8 EX-K	Nomi "JT 1.0" 2.0" 2.0" 3.0" 4.0" Nomi "JT	nal 25 51 51 76 102 nal	Joir Min 0.0" 1.0" 0.0" 1.0" 2.0" Joir Min 0.0"	nt Ope n. 25 0 25 51 nt Ope n.	ning "JT" Ma: 2.0" 3.0" 4.0" 5.0" 6.0" ning "JT" Ma:	x. 51 76 102 127 152 x.	Tota Moven 2.0" 2.0" 4.0" 4.0" Tota Moven	al nent 51 51 102 102 102 al nent	Sight I "SL 2.0" 3.0" 4.0" 5.0" 6.0" Sight I "SL	Line 51 76 102 127 152 Line
EX-L EX-L1 EX-L2 EX-L4 EX-L6 EX-L8 EX-K EX-K	Nomi "JT 1.0" 2.0" 3.0" 4.0" Nomi "JT 1.0"	nal 25 51 51 76 102 nal 25	Join Min 0.0" 1.0" 2.0" Join Min 0.0" 0.0"	nt Ope 1. 0 25 0 25 51 nt Ope 1. 0	ning "JT" Ma: 2.0" 3.0" 4.0" 5.0" 6.0" ning "JT" Ma: 1.31"	x. 51 76 102 127 152 x. 33	Tota Moven 2.0" 2.0" 4.0" 4.0" 4.0" 1.31"	al bent 51 51 102 102 102 102 al bent 33	Sight "SL 2.0" 3.0" 4.0" 5.0" 6.0" Sight "SL 3.125" 4.125" 5.125"	Line 51 76 102 127 152 Line 79
EX-L EX-L1 EX-L2 EX-L4 EX-L6 EX-L8 EX-K EX-K1 EX-K1 EX-K2	Nomi "JT 1.0" 2.0" 2.0" 3.0" 4.0" Nomi "JT 1.0" 2.0"	nal 25 51 51 76 102 nal 25 51	Joir Min 0.0" 1.0" 0.0" 1.0" 2.0" Joir Min 0.0"	nt Ope 1. 0 25 0 25 51 nt Ope 1. 0 0 0	ning "JT" Ma: 3.0" 4.0" 5.0" 6.0" ning "JT" Ma: 1.31" 2.56" 3.56" 4.56"	x. 51 76 102 127 152 x. 33 65 90 116	Tota Movem 2.0" 4.0" 4.0" 4.0" Tota Movem 1.31" 2.56" 3.56" 4.56"	al ment 51 51 102 102 102 102 102 33 65 90 116	Sight "SL 2.0" 3.0" 4.0" 5.0" 6.0" Sight 1 "SL 3.125" 4.125"	Line 51 76 102 127 152 Line 79 105
EX-L EX-L1 EX-L2 EX-L4 EX-L6 EX-L8 EX-K EX-K1 EX-K1 EX-K2 EX-K4	Nomi "JT 1.0" 2.0" 3.0" 4.0" Nomi "JT 1.0" 2.0" 2.0" 2.0"	nal 25 51 51 76 102 nal 25 51 51	Join Min 0.0" 1.0" 2.0" Join Min 0.0" 0.0" 0.0" 0.0"	nt Ope 1. 0 25 51 0 25 51 0 0 0 0 0 0 0 0 0 0 0 0 0	ning "JT" Ma: 3.0" 4.0" 5.0" 6.0" ning "JT" Ma: 1.31" 2.56" 3.56" 5.56"	x. 51 76 102 127 152 x. 33 65 90 116 141	Tota Movem 2.0" 2.0" 4.0" 4.0" 4.0" Tota Movem 1.31" 2.56" 3.56"	al beent 51 51 102 102 102 102 102 31 beent 33 65 90	Sight   "SL 2.0" 4.0" 5.0" 6.0" Sight   "SL 3.125" 4.125" 5.125" 6.125" 7.125"	Line 51 76 102 127 152 Line 79 105 130 156 181
EX-L EX-L1 EX-L2 EX-L4 EX-L6 EX-L8 EX-K EX-K1 EX-K1 EX-K2 EX-K4 EX-K6	Nomi "JT 1.0" 2.0" 3.0" 4.0" Nomi "JT 1.0" 2.0" 2.0" 3.0"	nal 25 51 51 76 102 nal 25 51 51 76 102 nal	Join Min 0.0" 1.0" 0.0" 1.0" 2.0" Join Min 0.0" 0.0" 0.0" 0.0"	nt Ope 1. 0 25 51 0 25 51 nt Ope 0 0 0 0 0 0 0 0 0 0 0 0 0	ning "JT" Ma: 3.0" 4.0" 5.0" 6.0" ning "JT" Ma: 1.31" 2.56" 3.56" 4.56"	x. 51 76 102 127 152 x. 33 65 90 116 141	Tota Movem 2.0" 4.0" 4.0" 4.0" Tota Movem 1.31" 2.56" 3.56" 4.56"	al ment 51 51 102 102 102 102 102 102 102 102 102 10	Sight   "SL 2.0" 3.0" 4.0" 5.0" 6.0" Sight   "SL 3.125" 4.125" 5.125" 6.125"	Line 51 76 102 127 152 Line 79 105 130 156 181 Line
EX-L1 EX-L2 EX-L4 EX-L6 EX-L8 EX-K EX-K1 EX-K2 EX-K2 EX-K4 EX-K8	Nomi "JT 2.0" 2.0" 3.0" 4.0" Nomi "JT 1.0" 2.0" 2.0" 3.0" 4.0" Nomi	nal 25 51 51 76 102 nal 25 51 51 76 102 nal	Join Min 0.0" 1.0" 2.0" 2.0" Join Min 0.0" 0.0" 0.0" 0.0" 0.0" 0.0" Join	nt Ope 1. 0 25 51 0 25 51 nt Ope 0 0 0 0 0 0 0 0 0 0 0 0 0	ning "JT" Ma: 2.0" 3.0" 4.0" 5.0" 6.0" ning "JT" Ma: 1.31" 2.56" 3.56" 4.56" 5.56" ning "JT"	x. 51 76 102 127 152 x. 33 65 90 116 141	Tota Movern 2.0" 4.0" 4.0" 4.0" Tota Movern 1.31" 2.56" 3.56" 4.56" 5.56" Tota	al ment 51 51 102 102 102 102 102 102 102 102 102 10	Sight   "SL 2.0" 3.0" 4.0" 5.0" 6.0" Sight   3.125" 4.125" 5.125" 6.125" 7.125" Sight	Line 51 76 102 127 152 Line 79 105 130 156 181 Line
EX-L1 EX-L1 EX-L2 EX-L4 EX-L6 EX-L8 EX-K8 EX-K1 EX-K2 EX-K2 EX-K4 EX-K6 EX-K8 X-M	Nomin" "JT 2.0" 2.0" 3.0" 4.0" Nomin" "JT 2.0" 2.0" 3.0" 4.0" Nomin" "JT	nal 25 51 51 76 102 nal 25 51 51 76 102 nal	Joir Min 0.0" 1.0" 0.0" 1.0" 2.0" Joir Min 0.0" 0.0" 0.0" 0.0" 0.0" 0.0" Joir Min	11 Ope 1. 0 25 51 11 Ope 1. 0 0 0 0 0 0 0 0 0 0 0 0 0	ning "JT" Ma: 2.0" 3.0" 4.0" 5.0" 6.0" ning "JT" Ma: 3.56" 4.56" 5.56" ning "JT" Ma:	x. 51 76 102 127 152 x. 33 65 90 116 141 x.	Tota Movem 2.0" 4.0" 4.0" 4.0" 1.0" Tota Movem 1.31" 2.56" 3.56" 4.56" 5.56" Tota Movem	al           51           51           102           102           102           102           102           102           103           65           90           116           141           al	Sight   "SL 2.0" 3.0" 4.0" 5.0" 6.0" Sight   5.125" 6.125" 6.125" 7.125" Sight   "SL	Line 51 76 102 127 152 Line 79 105 130 156 181 Line
EX-L EX-L1 EX-L2 EX-L4 EX-L6 EX-L8 EX-K8 EX-K1 EX-K2 EX-K4 EX-K6 EX-K8 X-M X-M	Nomin" "JT 1.0" 2.0" 2.0" 3.0" 4.0" Nomin" "JT 2.0" 2.0" 3.0" 4.0" Nomin" JT 1.0"	nal 25 51 51 76 102 nal 25 51 76 102 nal 76 102	Joint	Open           0           25           0           25           51           nt Open           0	ning "JT" Max 2.0" 3.0" 4.0" 5.0" 6.0" 1.31" 2.56" 3.56" 5.56" ning "JT" Max 2.88" 3.50" 4.25"	x. 51 76 102 127 152 x. 33 65 90 116 141 x. 73 89 108	Tota Movem 2.0" 4.0" 4.0" 4.0" 70ta Movem 1.31" 2.56" 3.56" 4.56" 5.56" Tota Movem 2.88"	1           51           51           102           102           102           102           102           102           103           104           33           65           90           1116           141           all           nent           73	Sight SL SL 2.0" 3.0" 4.0" 5.0" 6.0" Sight SL 5.125" 6.125" 5.125" 5.125" Sight SL Sight SL SL 4.31"	Line 76 102 127 152 Line 79 105 130 156 181 Line 110
EX-L1 EX-L1 EX-L2 EX-L4 EX-L6 EX-L8 EX-K1 EX-K1 EX-K2 EX-K2 EX-K4 EX-K6 EX-K8 X-M X-M-1 X-M-2	Nomin" "JT 2.0" 2.0" 2.0" 4.0" Nomin" "JT 2.0" 2.0" 3.0" 4.0" Nomin" J.0" 2.0" 2.0"	nal 25 51 51 76 102 nal 25 51 76 102 25 51 76 76 nal	Joint	0         25           0         25           51         0           25         0           51         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0	ning "JT" Ma: Ma: 3.0" 4.0" 5.0" 6.0" 1.31" 2.56" 3.56" 4.56" 5.56" 5.56" 2.88" 3.50"	x. 51 76 102 127 152 x. 33 65 90 116 141 141 x. 73 89 108	Tota Movem 2.0" 4.0" 4.0" 4.0" 1.31" 2.56" 3.56" 4.56" 5.56" Tota Movem 2.88" 3.50"	all           ball           ball           ball           51           51           102           102           102           102           102           102           102           102           102           102           102           102           103           104           105           106           108	Sight SL SL 2.0" 3.0" 4.0" 5.0" 6.0" 5.125" 5.125" 6.125" 5.125" Sight SL 4.31" 5.31"	Line 76 102 127 152 152 105 130 156 181 156 181 110 135 157 Line
EX-L EX-L1 EX-L2 EX-L4 EX-L6 EX-L8 EX-K1 EX-K2 EX-K4 EX-K4 EX-K6 EX-K8 X-M X-M-1 X-M-2 X-M-2 X-M-3	Nomin" "JT 1.0" 2.0" 2.0" 4.0" Nomin" "JT 2.0" 2.0" 3.0" 4.0" Nomin" 3.0" 4.0" Nomin" 3.0" 3.0" 4.0" Nomin" 3.0" 1.0" 1.0" 1.0" 1.0" 1.0" 1.0" 1.0" 2.0" 1.0" 1.0" 1.0" 1.0" 2.0" 1.0" 1.0" 1.0" 1.0" 1.0" 1.0" 1.0" 1	nal 25 51 51 76 102 nal 25 51 76 102 25 51 76 76 nal	Join Join Minn Minn Minn Minn Minn Minn Minn M	0         25           0         25           51         0           25         0           51         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0           0         0	ning "JT" Ma: 2.0" 3.0" 4.0" 5.0" 6.0" 1.31" 2.56" 3.56" 4.56" 5.56" Ma: 2.88" 3.50" 4.25" ning "JT"	x. 51 76 102 127 152 x. 33 65 90 116 141 141 x. 73 89 108	Totz Moven 2.0" 4.0" 4.0" 5.6" 3.56" 5.66" Totz Totz 8.88" 3.50" 4.25" Totz 5.61 Totz 5.61 Totz	all           ball           ball           ball           51           51           102           102           102           102           102           102           102           102           102           102           102           102           103           104           105           106           108	Sight I SL 2.0" 3.0" 4.0" 5.0" 6.0" Sight SL 5.125" 6.125" 5.125" Sight SL 5.125" 5.125" 5.125" 5.125" 5.125" 5.125" Sight SL 5.125" Sight SL 5.12" Sight SL 5.11" Sight SL 5.11"	Line 76 102 127 152 152 105 130 156 181 156 181 110 135 157 Line





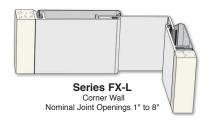
Series FX-K Wall-to-Wall Nominal Joint Openings 1" to 8"



Corner Wall Nominal Joint Openings 1" to 4"



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





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



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



# 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<sup>®</sup> 500/Hylar<sup>®</sup> 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.

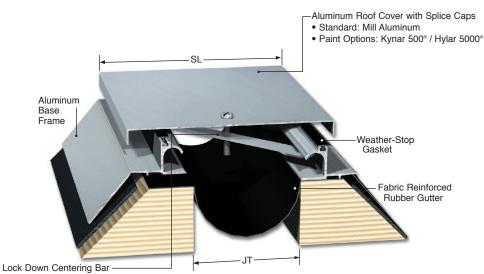
Product Features



### **Movement Table**

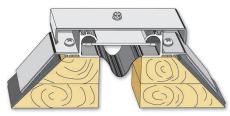
	Nomi	nal	lo	int One	ning "JT'		Tota	al	Sight I	ino
RXH	"JT		Mi		Ma		Mover		"SL	
RXH 1-1	1.0"	25	0.0"	0	2.0"	51	2.0"	51	4.0"	102
RXH 2-1	2.0"	51	1.0"	25	3.0"	76	2.0"	51	5.0"	127
RXH 4-2	4.0"	102	2.0"	51	6.0"	152	4.0"	102	8.0"	203
RXH 6-3	6.0"	152	3.0"	76	9.0"	229	6.0"	152	11.0"	279
RXH 8-4	8.0"	203	4.0"	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	Nomi "JT		Jo Mi		ning "JT' Ma		Tota Moven		Sight I "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	Nomi "JT		Jo Mi		ning "JT' Ma		Tota Moven		Sight I "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
W II/ 40.0	12.0"	305	6.0"	152	18.0"	457	12.0"	305	20.0"	508
WJK 12-6	12.0	000	0.0	152	10.0	437	12.0	000	20.0	500

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 stiffner angles. Consult factory.

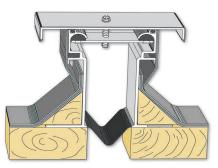


Accommodates Wind Shear & Seismic Movement

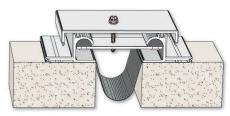
Stainless Fasteners with Neoprene Washers



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"



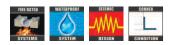
# **MM®Roof Joint Systems...Rubber Bellows**

### **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.

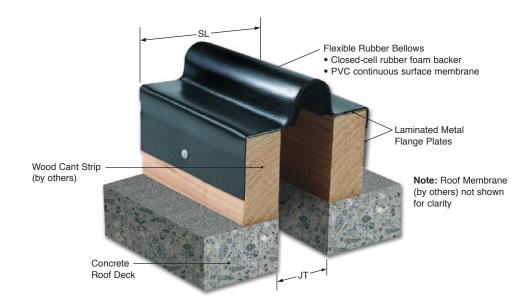
#### Product Features



### **Movement Table**

RSS	Nomi "JT		Joi Mir		ning "JT' Ma		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	Nomi "JT		Joi Mir		ning "JT" Max.		Total Movement		Sight "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	Nomi "JT		Joi Mir		ning "JT" Max.		Tota Mover		Sight "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.

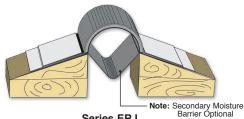




Series RSS Roof-to-Roof / Silicone Bellows Nominal Joint Openings 2" to 10"



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



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



# **MM<sup>®</sup>Fire Barriers / Life Safety Systems**

## **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

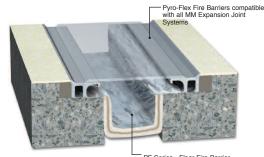
#### Availability:

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



### **Pvro-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.

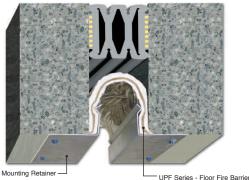


PE Series - Floor Fire Barrier Thermal, Seismic and Shear Movement Designs Available Caulkless Design

· Foil and Refractory Matrix

#### **Pyro-Flex /Underslab Floor Series**

The industries' first fully rated floor 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.



Thermal, Seismic and Shear Movement Designs Available Caulkless Design
 Foil and Refractory Matrix

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

#### **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.



PF Series - Wall Fire Barrier / Single side Foil and Refractory Matrix Caulkless Design
 Accommodates Smoke and Cycle Codes

#### **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.



PF Series - Wall Fire Barrier / Dual side Foil and Refractory Matrix Caulkless Design
 Accommodates Smoke and Cycle Codes



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

# 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 L

# 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 Comm**

1960 was the year that Julian At sales presence and, of course, with this vision and a conviction

Times have changed since 1960, to come. So in the spirit of Julian' standard - the Green Rule - trea

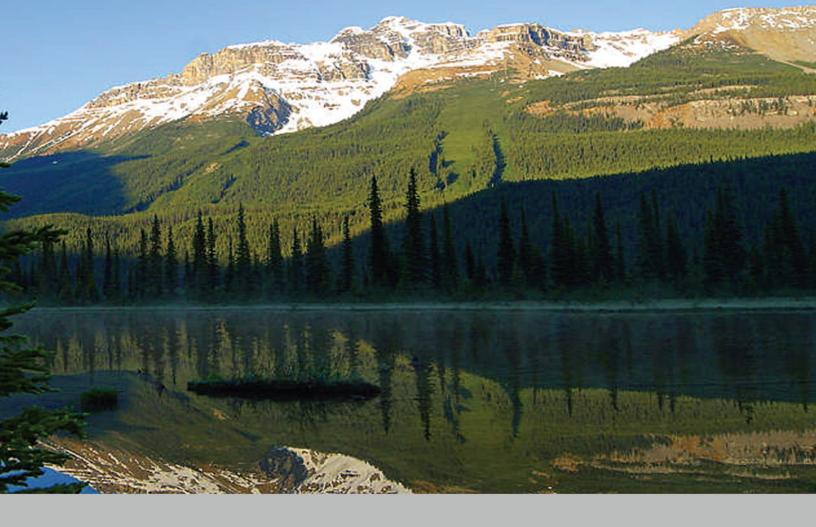
To accomplish this MM Systems for sustainable construction pro

As a start, we built a new manu

To remain on the cutting edge, professionals and companies wh products and green building pra

See our "Build Green" section of





## nitment

taway, 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 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 s adoption of the Golden Rule, current President Mike Attaway has committed to expanding it to a complementary at the environment the way we would like to leave it for the next generation and generations to come.

has committed to fostering environmentally friendly green manufacturing practices to help meet present needs ducts without compromising the ability of future generations to meet their needs.

facturing 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 no are committed to the protection of the environment through the development and promotion of sustainable actice.

of the 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 sheer. 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<sup>®</sup> / Hylar 5000<sup>®</sup> 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





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; 3624,973, Re27,761; 3738,068; 3882,5519,82,8670; 3374,609; 4663,366; 41659,453, 424,7469; 4271,651; 430,458; 4404,777; 4312,127; 4345,165; 4316,469; 4325,465; 4651,468; 4574,522; 470,517; 474,805,486; 4515,269; 3500,468; (Other Patents Pender), 375,165; 570,6611; 5462,2611; 5467,344; 5,675,566; 5,560,376; 3500,468; (Other Patents Pender)