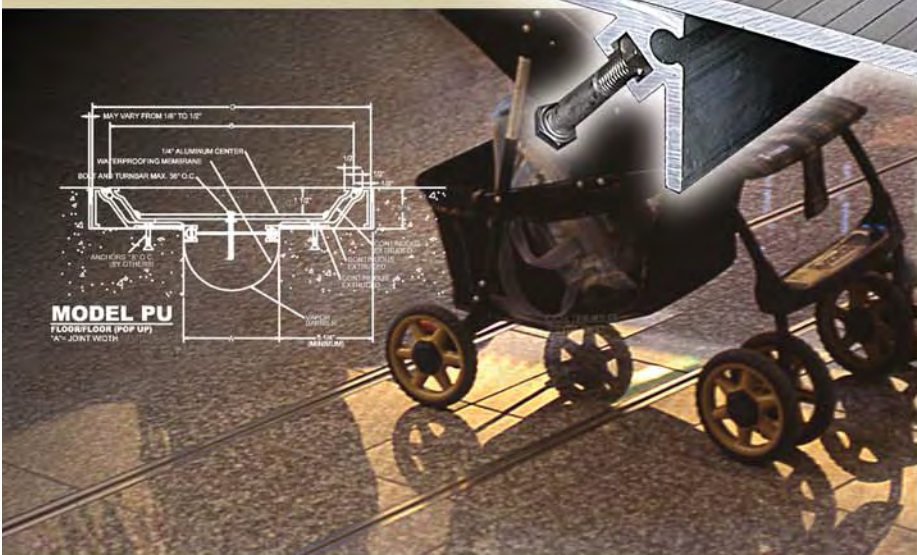


SEISMIC

seismicjoints.com

EXPANSION JOINTS



JOINTS



M. H. POWELL & CO., INC.

Interior seismic systems

- Floors
- Walls
- Ceilings

Exterior seismic systems

- Floors
- Walls
- Roofs

Fire Barrier

- UL Tested

Parking structure systems

- Floors

Compression seals



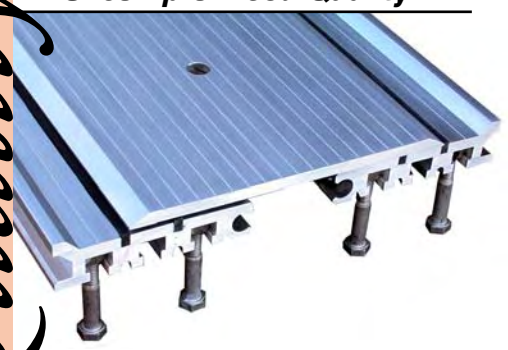
Quality, Form, Function

M. H. POWELL & CO., INC. SEISMIC EXPANSION JOINTS

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Uncompromised Quality

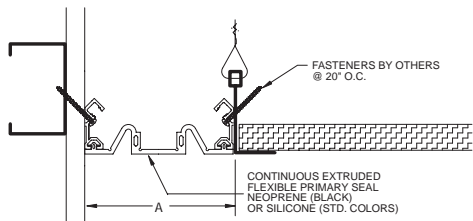


Practical Solutions

After 47 years of leadership in the expansion joint industry, M. H. Powell & Co, Inc. continues to provide new and innovative solutions. Steve Heller, CEO of M. H. Powell & Co., keeps the company in the forefront of expansion joint technology that was pioneered by founder, Harvey Powell.

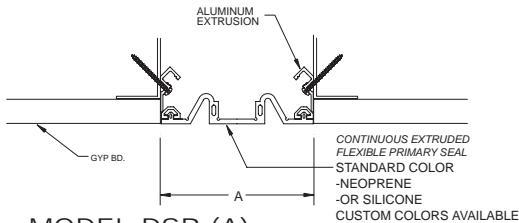
M. H. Powell & Co. is best known for their dedication to providing truly quality products.

INTERIOR / EXTERIOR ELASTOMERIC SEALS



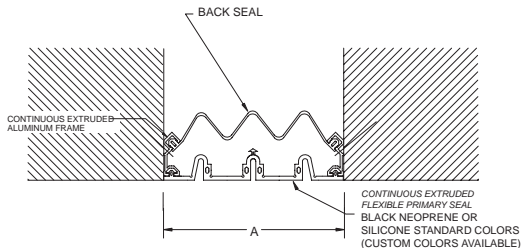
MODEL DSB-(A)

CEILING/WALL
INTERIOR ELASTOMERIC
"A" = JOINT WIDTH



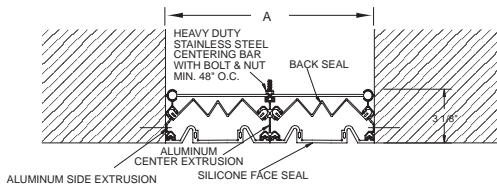
MODEL DSB-(A)

WALLS OR CEILINGS - INTERIOR
(ELASTOMERIC)
"A" = JOINT WIDTH



MODEL DSB-(A)-B (BACK SEAL)

WALL - EXTERIOR
(ELASTOMERIC)
"A" = JOINT WIDTH



MODEL DSB-(A)-XWD

WALL - EXTERIOR
(ELASTOMERIC) EXTRA WIDE (FOR JOINTS OVER 10")
"A" = JOINT WIDTH

ELASTOMERIC SEISMIC SEALS

	INTERIOR	EXTERIOR
"A"	W/O BACK SEAL	WITH BACK SEAL
2"	DSB-2	DSB-2B
3"	DSB-3	DSB-3B
4"	DSB-4	DSB-4B
5"	DSB-5	DSB-5B
6"	DSB-6	DSB-6B
7"	DSB-7	DSB-7B
8"	DSB-8	DSB-8B
9"	DSB-9	DSB-9B
10"	DSB-10	DSB-10B
Up to 36"		

OUTER SEAL MATERIAL

- NEOPRENE (BLACK)
 - SILICONE (COLOR AS SELECTED)
 - SANTOPRENE (TPE) (COLOR AS SELECTED)
- (CAUTION: thermal plastic, such as Santoprene, will melt at 350° F and may ignite when exposed to flame)

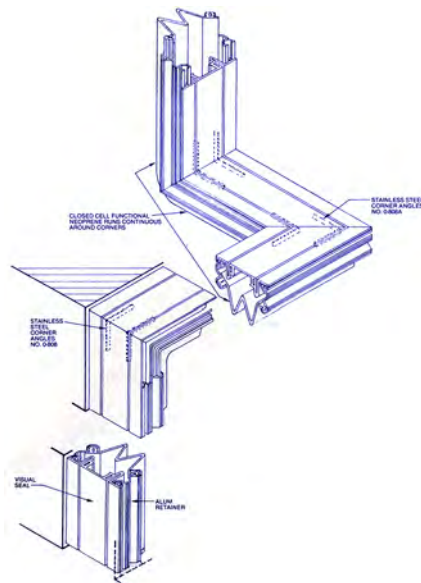
STANDARD COLORS:

- Precast White
- Black
- Gray
- Bronze
- Sandstone

Extruded Silicone Elastomeric Seals

Elastomeric seals in extruded silicone are available in custom colors.

- The color of silicone seals does not fade
- In case of fire
 - Silicone has much greater resistance to fire
 - Exposure to extreme heat will not produce toxic fumes



Elastomeric Seismic Joints

Standard Duty Floor Seismic Joints

FLOORS STANDARD DUTY

MODEL	MOVEMENTS		Min. Opening	B Cover
	A Sep	Max. Opening		
Dimensions in Inches & Millimeters				
BO-1	1" (25.40)	3-3/4" (95.25)	0 (0)	4" (101.60)
BO-2	2" (50.80)	3-3/4" (95.25)	0 (0)	4" (101.60)
BO-3	3" (76.20)	3-3/4" (95.25)	0 (0)	5" (127.00)
BO-3-3	3" (76.20)	5-3/4" (146.05)	0 (0)	7" (177.80)
BO-4	4" (101.60)	5-3/4" (146.05)	0 (0)	7" (177.80)
BO-4-4	4" (101.60)	7-3/4" (196.85)	0 (0)	9" (228.60)
BO-5	5" (127.00)	7-3/4" (196.85)	0 (0)	9" (228.60)
BO-5-5	5" (127.00)	9-3/4" (247.65)	0 (0)	11" (279.40)
BO-6	6" (152.40)	9-3/4" (247.65)	0 (0)	11" (279.40)
BO-6-6	6" (152.40)	11-3/4" (298.45)	0 (0)	13" (330.20)
BO-7	7" (177.80)	11-3/4" (298.45)	0 (0)	13" (330.20)
BO-7-7	7" (177.80)	13-3/4" (349.25)	0 (0)	15" (381.00)
BO-8	8" (203.20)	13-3/4" (349.25)	0 (0)	15" (381.00)
BO-8-8	8" (203.20)	15-3/4" (400.05)	0 (0)	17" (431.80)
BO-9	9" (228.60)	15-3/4" (400.05)	0 (0)	17" (431.80)
BO-9-9	9" (228.60)	17-3/4" (450.85)	0 (0)	19" (482.60)
BO-10	10" (254.00)	17-3/4" (450.85)	0 (0)	19" (482.60)

- BO NOTES: - .250 safety margin (1/8" overlap per side) min. req. per opening.
 • BOL same as above to match Floor / Floor.
 • Movement will be reduced in a 90° condition.

BOC-2	2" (50.8)		3" (76.20)
BOC-3	3" (76.2)		4" (101.60)
BOC-4	4" (101.6)		5-1/2" (165.10)
BOC-5	5" (127.0)		6-1/2" (158.75)
BOC-6	6" (152.4)		8" (203.20)
BOC-7	7" (177.8)		9-1/2" (241.30)
BOC-8	8" (203.2)		11" (279.40)

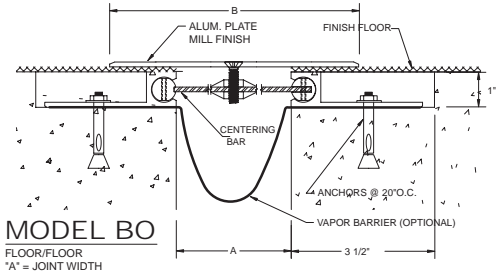
TS-1	1" (25.40)	3-3/4" (95.25)	0 (0)	4" (101.60)
TS-2	2" (50.80)	3-3/4" (95.25)	0 (0)	4" (101.60)
TS-3	3" (76.20)	3-3/4" (95.25)	0 (0)	4" (101.60)
TS-3-3	3" (76.20)	5-3/4" (146.05)	0 (0)	6" (152.40)
TS-4	4" (101.60)	5-3/4" (146.05)	0 (0)	6" (152.40)
TS-4-4	4" (101.60)	7-3/4" (196.85)	0 (0)	8" (203.20)
TS-5	5" (127.00)	7-3/4" (196.85)	0 (0)	8" (203.20)
TS-5-5	5" (127.00)	9-3/4" (247.65)	0 (0)	10" (254.00)
TS-6	6" (152.40)	9-3/4" (247.65)	0 (0)	10" (254.00)
TS-6-6	6" (152.40)	11-3/4" (298.45)	0 (0)	12" (304.80)
TS-7	7" (177.80)	11-3/4" (298.45)	0 (0)	12" (304.80)
TS-7-7	7" (177.80)	13-3/4" (349.25)	0 (0)	14" (355.60)
TS-8	8" (203.20)	13-3/4" (349.25)	0 (0)	14" (355.60)
TS-8-8	8" (203.20)	15-3/4" (400.05)	0 (0)	16" (406.40)
TS-9	9" (228.60)	15-3/4" (400.05)	0 (0)	16" (406.40)
TS-9-9	9" (228.60)	17-3/4" (450.85)	0 (0)	18" (457.20)
TS-10	10" (254.00)	17-3/4" (450.85)	0 (0)	18" (457.20)

TS NOTES: TSL – (corner condition) available to match Floor/Floor.
 Call for clarifications. (Note: movement is reduced by 50%.
 Consult factory for movements greater than 50%.)

XX-1	1" (25.40)	3-3/4" (95.25)	0 (0)	4" (101.60)
XX-2	2" (50.80)	3-3/4" (95.25)	0 (0)	4" (101.60)
XX-3	3" (76.20)	3-3/4" (95.25)	0 (0)	4" (101.60)
XX-3-3	3" (76.20)	5-3/4" (146.05)	0 (0)	6" (152.40)
XX-4	4" (101.60)	5-3/4" (146.05)	0 (0)	6" (152.40)
XX-4-4	4" (101.60)	7-3/4" (196.85)	0 (0)	8" (203.20)
XX-5	5" (127.00)	7-3/4" (196.85)	0 (0)	8" (203.20)
XX-5-5	5" (127.00)	9-3/4" (247.65)	0 (0)	10" (254.00)
XX-6	6" (152.40)	9-3/4" (247.65)	0 (0)	10" (254.00)
XX-6-6	6" (152.40)	11-3/4" (298.45)	0 (0)	12" (304.80)
XX-7	7" (177.80)	11-3/4" (298.45)	0 (0)	12" (304.80)
XX-7-7	7" (177.80)	13-3/4" (349.25)	0 (0)	14" (355.60)
XX-8	8" (203.20)	13-3/4" (349.25)	0 (0)	14" (355.60)

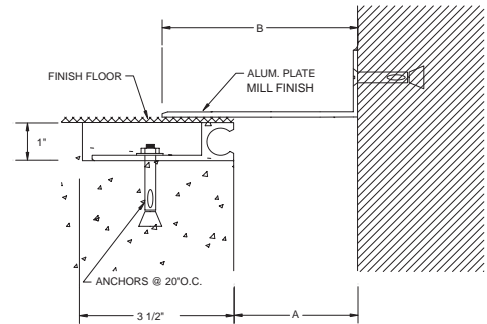
XX NOTES: XXL – (Corner Condition) available to match Floor / Floor
 (Note: movement is reduced by 50%, consult factory for movements greater than 50%.)

Available: (New to Existing) Model NX and (Existing to Existing) No Blockout



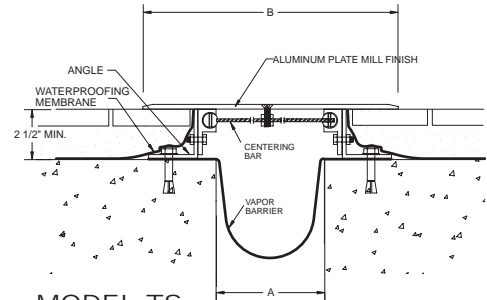
MODEL BO

FLOOR/FLOOR
 *A" = JOINT WIDTH



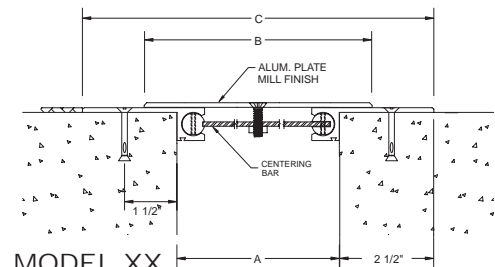
MODEL BOC

FLOOR/WALL
 *A" = Joint Width



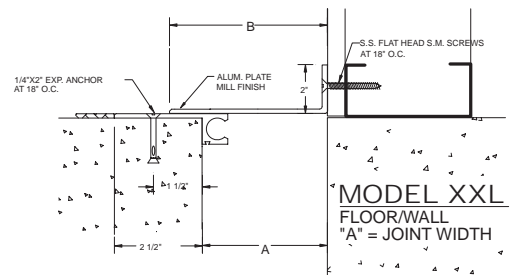
MODEL TS

FLOOR/FLOOR (TOPPING SLAB)
 *A" = Joint Width



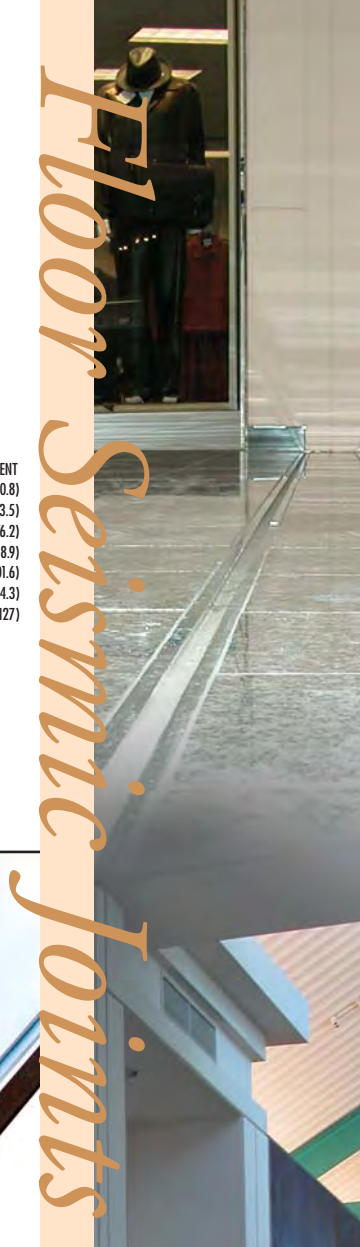
MODEL XX

FLOOR/FLOOR (EXISTING TO EXISTING)
 *A" = JOINT WIDTH



MODEL XXL

FLOOR/WALL
 *A" = JOINT WIDTH



Floor Seismic Joints

FLOORS STANDARD DUTY

MODEL	SEPARATION	COVER
NB-2 (50.8)	2"	9" (228.60)
NB-3 (76.2)	3"	10" (254.00)
NB-4 (101.6)	4"	11" (279.40)
NB-5 (127)	5"	12" (304.80)
NB-6 (50.8)	6"	13" (330.20)
NB-7 (50.8)	7"	14" (355.60)

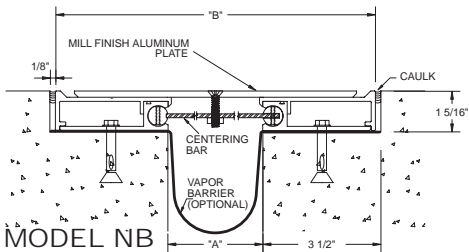
8" AND OVER = CUSTOM FABRICATED
(Provides joint separation and structural movement when detailing.)

MODEL	"A"	"B"	"C"	MOVEMENT
PU-4	4"(101.6)	12.25"(311.2)	14.25"(362)	2.00"(50.8)
PU-5	5"(127)	13.25"(336.6)	15.25"(387.4)	2.50"(63.5)
PU-6	6"(152.4)	14.25"(362)	16.25"(412.8)	3.00"(76.2)
PU-7	7"(177.8)	15.25"(387.4)	17.25"(438.2)	3.50"(88.9)
PU-8	8"(203.2)	16.25"(412.8)	18.25"(463.6)	4.00"(101.6)
PU-9	9"(228.6)	17.25"(438.2)	19.25"(489)	4.50"(114.3)
PU-10	10"(254)	18.25"(463.6)	20.25"(514.4)	5.00"(127)

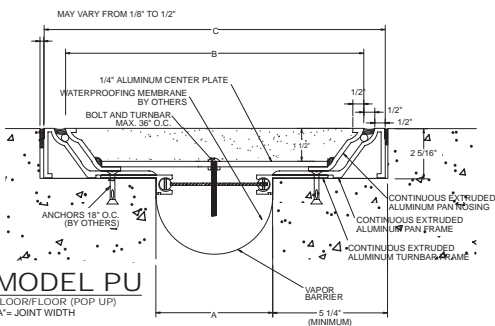
TN IS A CUSTOM FABRICATED SEISMIC EXPANSION JOINT COVER

ALL FLOOR JOINTS SYSTEMS ARE COMPATIBLE WITH OPTIONAL FIRE BARRIER (PAGE 13)

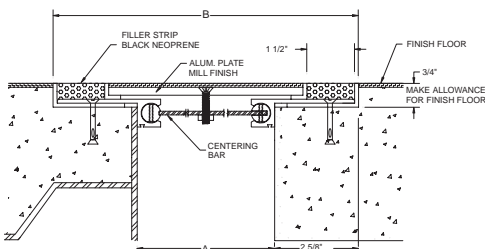
*Aesthetically pleasing,
Functionally sound*



MODEL NB
FLOOR/FLOOR (NO BUMP)
"A"= JOINT WIDTH

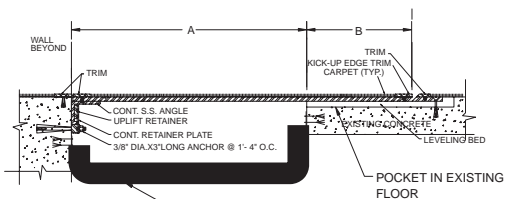


MODEL PU
FLOOR/FLOOR (POP UP)
"A"= JOINT WIDTH

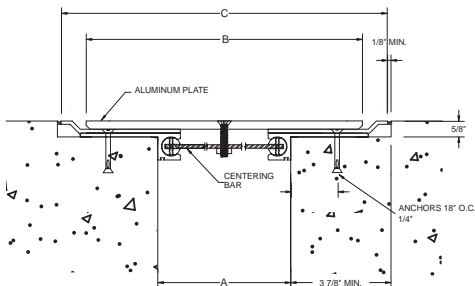


MODEL TN
FLOOR/FLOOR (THINLINE)
"A"= JOINT WIDTH

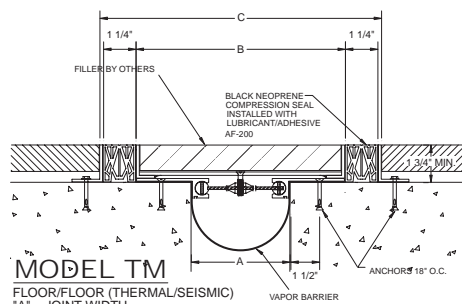
SPECIAL CONSTRUCTION



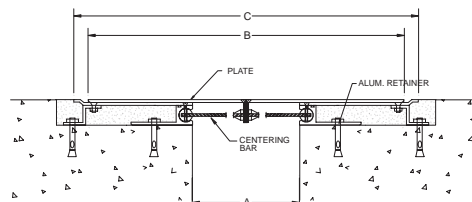
100% ROTATION
FLOOR/FLOOR
"A" = Joint Width



MODEL NB18
FLOOR/FLOOR (NO BUMP THIN LINE)
"A"= JOINT WIDTH



MODEL TM
FLOOR/FLOOR (THERMAL/SEISMIC)
"A" = JOINT WIDTH



MODEL NBXW
FLOOR/FLOOR (NO BUMP EXTRA WIDE)
"A" = JOINT WIDTH

Interior / Exterior Seismic Joints

INTERIOR / EXTERIOR ALUMINUM

MODEL	A = VOID	B = BASE	C = A + B	Movement
Dimensions in Inches & Millimeters				
KH-1	1" (25.40)	1-1/2" (38.10)	4" (101.60)	+/- 100%
KH-2	2" (50.80)	1-1/2" (38.10)	5" (127.00)	+/- 50%
KH-2-2	2" (50.80)	2-1/4" (57.15)	6-1/2" (165.10)	+/- 100%
KH-3	3" (76.20)	2-1/4" (57.15)	7-1/2" (190.50)	+/- 50%
KH-3-3	3" (76.20)	3-3/8" (85.72)	9-3/4" (247.65)	+/- 100%
KH-4	4" (101.60)	2-1/4" (57.15)	8-1/2" (215.90)	+/- 50%
KH-4-4	4" (101.60)	4-1/4" (107.95)	12-1/2" (317.50)	+/- 100%
KH-5	5" (127.00)	3-3/8" (85.72)	11-3/4" (298.45)	+/- 50%
KH-6	6" (152.40)	3-3/8" (85.72)	12-3/4" (323.85)	+/- 50%
KH-7	7" (177.80)	4-1/4" (107.95)	15-1/2" (393.70)	+/- 50%
KH-8	8" (203.20)	4-1/4" (107.95)	16-1/2" (419.10)	+/- 50%

KH NOTES: Clear anodize standard finish (available with stainless steel & bronze laminated on exposed surfaces).
KHS = stainless steel
KHB = bronze

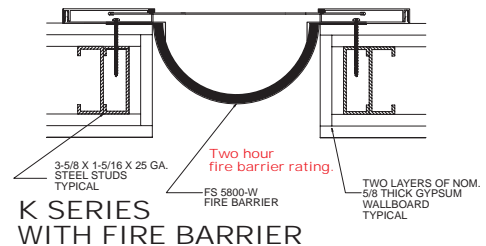
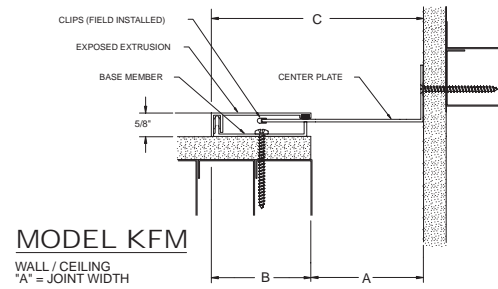
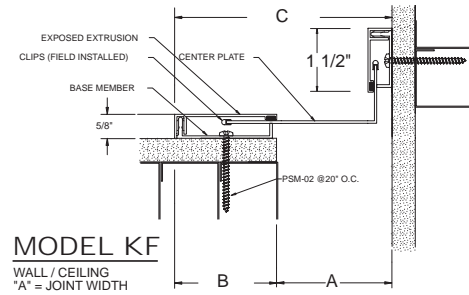
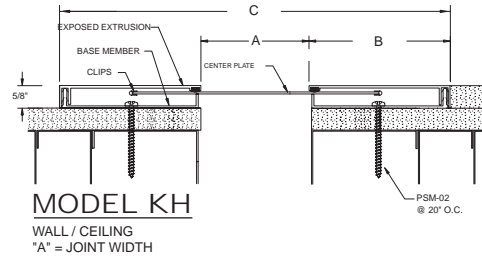
B = 1-1/2", 2-1/4", 3-3/8", 4-1/2"

MODEL	A = VOID	B = BASE	C = A + B	Movement
Dimensions in Inches & Millimeters				
KF-1	1" (25.40)	1-1/2" (38.10)	2-1/2" (63.5)	3/4" (19)
KF-2	2" (50.80)	1-1/2" (38.10)	3-1/2" (88.5)	3/4" (19)
KF-2-2	2" (50.80)	2-1/4" (57.15)	4-1/4" (107.95)	1" (25.4)
KF-3	3" (76.20)	2-1/4" (57.15)	5-1/4" (133.35)	1" (25.4)
KF-3-3	3" (76.20)	3-3/8" (85.72)	6-3/8" (161.92)	1-5/8" (47.6)
KF-4	4" (101.60)	2-1/4" (57.15)	6-1/4" (158.75)	1-1/8" (47.6)
KF-4-4	4" (101.60)	4-1/4" (107.95)	8-1/4" (209.29)	2-1/8" (53.97)
KF-5	5" (127.00)	3-3/8" (85.72)	8-3/8" (222.25)	1-5/8" (47.6)
KF-6	6" (152.40)	3-3/8" (85.72)	9-3/8" (247.65)	1-5/8" (47.6)
KF-7	7" (177.80)	4-1/4" (107.95)	11-1/4" (285.75)	2-1/8" (53.97)
KF-8	8" (203.20)	4-1/4" (107.95)	12-1/4" (311.15)	2-1/8" (53.97)

KF NOTES: Clear anodize standard finish (available with stainless steel & bronze laminated on exposed surfaces).
KHS = stainless steel
KHB = bronze

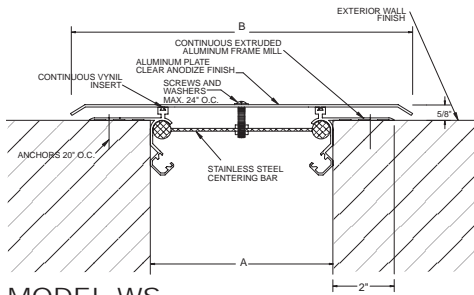
MODEL	A = VOID	B = BASE	C = A + B	Movement
Dimensions in Inches & Millimeters				
KFM-1	1" (25.40)	1-1/2" (38.10)	2-1/2" (63.5)	3/4" (19)
KFM-2	2" (50.80)	1-1/2" (38.10)	3-1/2" (88.5)	3/4" (19)
KFM-2-2	2" (50.80)	2-1/4" (57.15)	4-1/4" (107.95)	1" (25.4)
KFM-3	3" (76.20)	2-1/4" (57.15)	5-1/4" (133.35)	1" (25.4)
KFM-3-3	3" (76.20)	3-3/8" (85.72)	6-3/8" (161.92)	1-5/8" (47.6)
KFM-4	4" (101.60)	2-1/4" (57.15)	6-1/4" (158.75)	1-1/8" (47.6)
KFM-4-4	4" (101.60)	4-1/4" (107.95)	8-1/4" (209.29)	2-1/8" (53.97)
KFM-5	5" (127.00)	3-3/8" (85.72)	8-3/8" (222.25)	1-5/8" (47.6)
KFM-6	6" (152.40)	3-3/8" (85.72)	9-3/8" (247.65)	1-5/8" (47.6)
KFM-7	7" (177.80)	4-1/4" (107.95)	11-1/4" (285.75)	2-1/8" (53.97)
KFM-8	8" (203.20)	4-1/4" (107.95)	12-1/4" (311.15)	2-1/8" (53.97)

KFM NOTES: Clear anodize standard finish (available with stainless steel & bronze laminated on exposed surfaces).
KHS = stainless steel
KHB = bronze

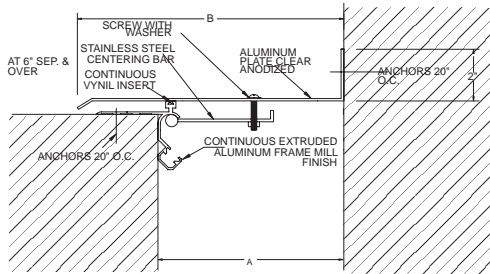


M. H. Powell & Co., Inc.
Seismic Expansion Joints
(323) 887-0037

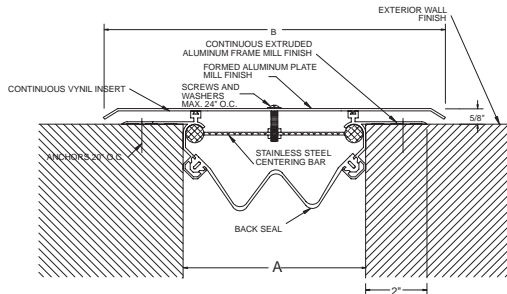
INTERIOR / EXTERIOR ALUMINUM



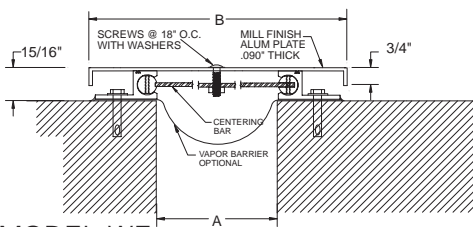
MODEL WS
WALL/CEILING
A = JOINT WIDTH



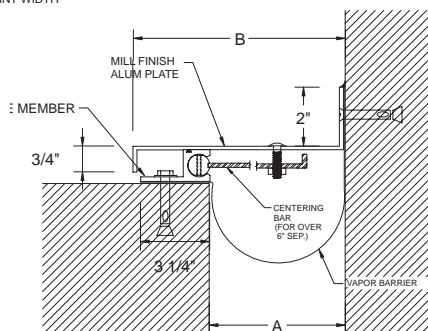
MODEL WSL
WALL/CEILING
A = JOINT WIDTH



MODEL WSE
EXTERIOR WALL (ALUMINUM)
A = JOINT WIDTH



MODEL WE
EXTERIOR WALL (ALUMINUM)
A = JOINT WIDTH



MODEL WEL
EXTERIOR WALL (ALUMINUM)
CORNER CONDITION
A = JOINT WIDTH

MOVEMENTS

MODEL	A Sep.	Max. Opening	Min. Opening	B Cover
WE-1	1" (25.40)	3-3/4" (95.25)	0 (0) *	6" (152.40)
WE-2	2" (50.80)	3-3/4" (95.25)	0 (0) *	7" (177.80)
WE-3	3" (76.20)	3-3/4" (95.25)	0 (0) *	8" (203.20)
WE3-3	3" (76.20)	5-3/4" (146.05)	0 (0) *	8" (203.20)
WE-4	4" (101.60)	5-3/4" (146.05)	0 (0) *	6" (152.40)
WE-4-4	4" (101.60)	7-3/4" (196.85)	0 (0) *	8" (203.20)
WE-5	5" (127.00)	7-3/4" (196.85)	0 (0) *	8" (203.20)
WE-5-5	5" (127.00)	9-3/4" (247.65)	0 (0) *	10" (254.00)
WE-6	6" (152.40)	9-3/4" (247.65)	0 (0) *	10" (254.00)
WE-6-6	6" (152.40)	11-3/4" (298.45)	0 (0) *	12" (304.80)
WE-7	7" (177.80)	11-3/4" (298.45)	0 (0) *	12" (304.80)
WE-7-7	7" (177.80)	13-3/4" (349.25)	0 (0) *	14" (355.60)
WE-8	8" (203.20)	13-3/4" (349.25)	0 (0) *	14" (355.60)
WE-8-8	8" (203.20)	15-3/4" (400.05)	0 (0) *	16" (406.40)
WE-9	9" (228.60)	15-3/4" (400.05)	0 (0) *	16" (406.40)
WE-9-9	9" (228.60)	17-3/4" (450.85)	0 (0) *	18" (457.20)
WE-10	10" (254.00)	17-3/4" (450.85)	0 (0) *	18" (457.20)

WE NOTES: * .250 safety margin (1/8" overlap per side) min. req. per opening.
WEL same as above to match roof / floor
Movement will vary due to 90° condition, consult factory for movement.

WS SYSTEMS (WS & WSL)

Full movement systems for larger joint openings

WS

"A" = Seismic void
"B" = (A) Seismic void plus design movement
(Note: "A" minimum over seismic void (A) to cover base extrusions)

WSL

"A" = Seismic void
(Note: "A" minimum over seismic void (A) to cover base extrusions)

WSL IS A CUSTOM FABRICATED SEISMIC EXPANSION JOINT COVER

ORDER INFORMATION:

SEPARATION PLUS MOVEMENT REQUIREMENTS

SAMPLE 8" SEPARATION WITH 4" MOVEMENT = 12" COVER

WSL - 8-4 (12" COVER MINIMUM)

WEL

"A" = Seismic void
"B" = Seismic void plus movement, plus 1" for cover size

OPTIONAL FINISHES FOR WE, WS, WSL, AND WEL

Standard finishes:

Interior: Clear Anodized
Exterior: Mill

Optional finishes:

- Colored Anodize
- Painted Alum.
- S.S. Covers

ALL COVERS ARE COMPATIBLE WITH FIRE BARRIER (PAGE 13)



ROOF SYSTEMS

MODEL	A Sep.	Max Opening	MOVEMENTS	
			Min. Opening	B Cover
Dimensions in Inches & Millimeters				
RR-1	1" (25.40)	3-3/4" (95.25)	0 (0)	4" (101.60)
RR-2	2" (50.80)	3-3/4" (95.25)	0 (0)	4" (101.60)
RR-3	3" (76.20)	3-3/4" (95.25)	0 (0)	4" (101.60)
RR-3-3	3" (76.20)	5-3/4" (146.05)	0 (0)	6" (152.40)
RR-4	4" (101.60)	5-3/4" (146.05)	0 (0)	6" (152.40)
RR-4-4	4" (101.60)	7-3/4" (196.85)	0 (0)	8" (203.20)
RR-5	5" (127.00)	7-3/4" (196.85)	0 (0)	8" (203.20)
RR-5-5	5" (127.00)	9-3/4" (247.65)	0 (0)	10" (254.00)
RR-6	6" (152.40)	9-3/4" (247.65)	0 (0)	10" (254.00)
RR-6-6	6" (152.40)	11-3/4" (298.45)	0 (0)	12" (304.80)
RR-7	7" (177.80)	11-3/4" (298.45)	0 (0)	12" (304.80)
RR-7-7	7" (177.80)	13-3/4" (349.25)	0 (0)	14" (355.60)
RR-8	8" (203.20)	13-3/4" (349.25)	0 (0)	14" (355.60)
RR-8-8	8" (203.20)	15-3/4" (400.05)	0 (0)	16" (406.40)
RR-9	9" (228.60)	15-3/4" (400.05)	0 (0)	16" (406.40)
RR-9-9	9" (228.60)	17-3/4" (450.85)	0 (0)	18" (457.20)
RR-10	10" (254.00)	17-3/4" (450.85)	0 (0)	18" (457.20)

RR NOTES:

.250 safety margin (1/8" overlap per side) min. req. per opening
 Movement will vary due to 90° condition, consult factory for movement.

RW

RW IS A CUSTOM FABRICATED JOINT COVER

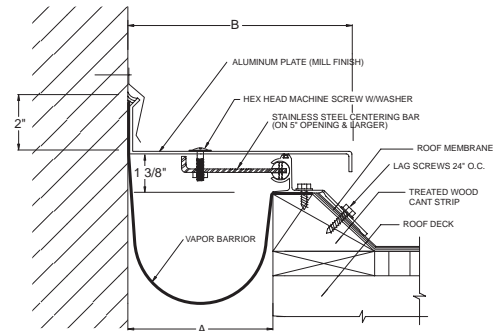
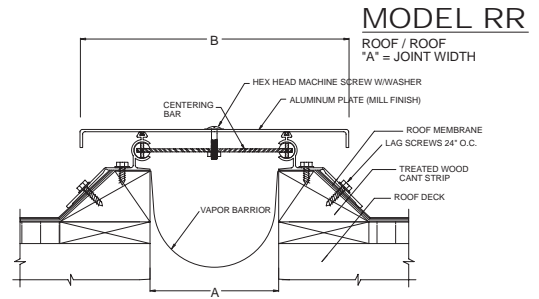
ORDER INFORMATION:

SEPARATION PLUS MOVEMENT REQUIREMENTS

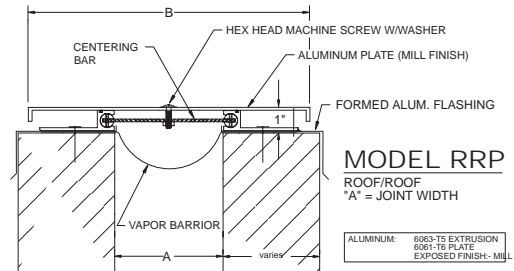
SAMPLE: 10" SEPARATION WITH 10" MOVEMENT = 20" COVER
 RW -10-10 (20" COVER MINIMUM)

B = A (SEISMIC SEPARATION PLUS MOVEMENT AND 1/2")

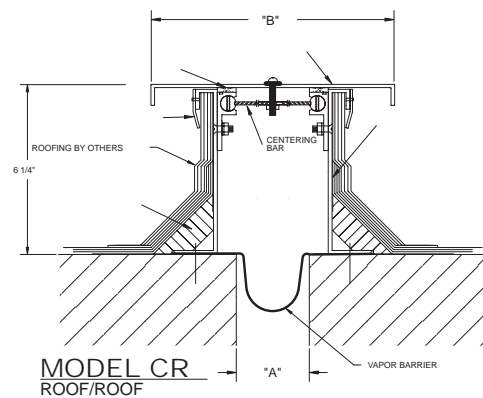
RRP AND CR SPECIFICATIONS SAME AS RR



MODEL RW

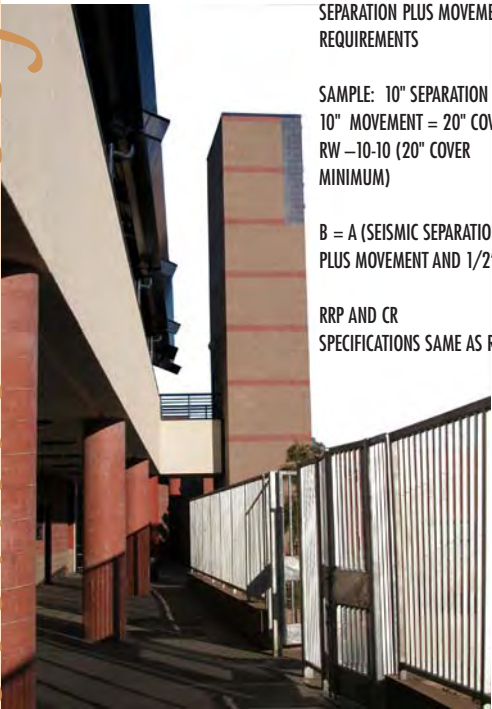


MODEL RRP
 ROOF/ROOF
 "A" = JOINT WIDTH



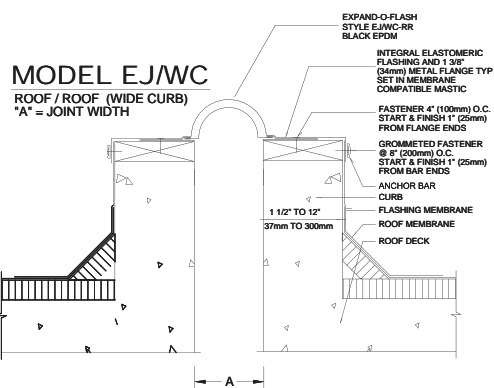
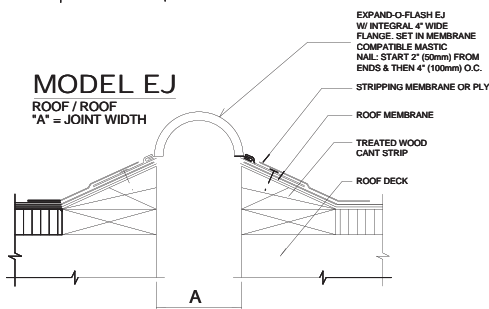
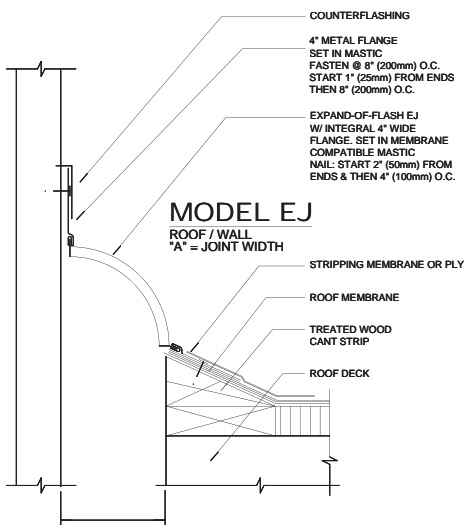
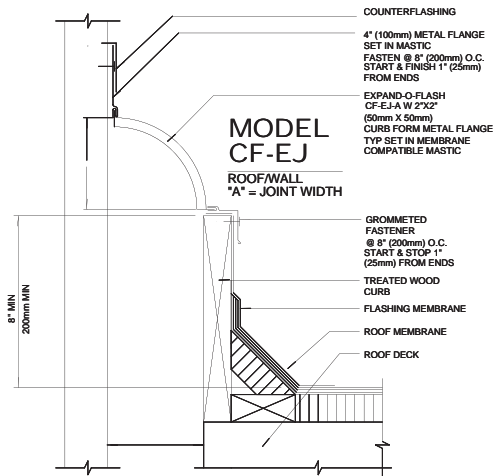
MODEL CR
 ROOF/ROOF

Seismic Roof Systems



M. H. Powell & Co., Inc.
Seismic Expansion Joints
 (323) 887-0037

ROOF SYSTEMS



MODEL CF, EJ, AND CF-EJ
 Selection Chart No. 1 for Standard Products Sizes 2" Thru 54" Available on Request
 Model N (Neoprene) Available 4"-12" Bellows Widths
 Model E (EPDM) Available 4"-8" Bellows Widths

Standard Color: Black White Available on Request

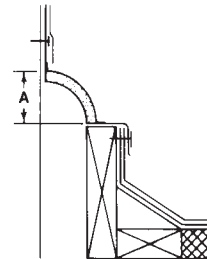
Joint Opening Or Span	Bellows Width*	Foam Thickness	Style EJ		Style CF and CF-EJ	
			Style	Length	Style	Length
1 1/2" to 2 1/2"	4"	3/8"	EJ-4	10 ft./50 ft.	CF-4, CF-EJ-4	10 ft.
2 1/2" to 3 1/2"	6"	1/2"	EJ-6	10 ft./50 ft.	CF-6, CF-EJ-6	10 ft.
3 1/2" to 5"	8"	1/2"	EJ-8	10 ft./50 ft.	CF-8, CF-EJ-8	10 ft.
5" to 6 1/2"	10"	5/8"	EJ-10	10 ft.	CF-10, CF-EJ-10	10 ft.
6 1/2" to 8"	12"	3/4"	EJ-12	10 ft.	CF-12, CF-EJ-12	10 ft.

Based on the rule of thumb method to determine bellows width for joint openings for CF (Curb Form) and CF-EJ styles: Roof to Roof = 1.5 (outside of wood curb to outside of wood curb minus 4 inches); Roof to Wall: Bellows width = 1.5 (outside of wood curb to wall minus 2 inches). Call for curb widths greater than 2 1/2".

Installation Guide

Vertical Distance Requirement in Roof to Wall Installations

Bellows	Mounting Height	Width "A"
4"	2.50"	
6"	3.75"	
8"	5.00"	
10"	6.25"	
12"	7.50"	
14"	8.75"	
16"	10.25"	
18"	11.50"	
20"	12.75"	
24"	15.25"	



* Standard bellows width.
 ** Made to order.

Seismic Roof Systems



Heavy Duty Floor Systems

HEAVY DUTY FLOOR SYSTEMS

Auto traffic seismic joint custom designs are available to conform to design needs and structure requirements. Contact M. H. Powell & Co. at (323) 887-0037 (phone), (323) 887-0877 (fax), or by e-mail, sales@mhpowell.com

MODEL	A Sep. Dimensions in Inches & Millimeters	Max. Opening	Min. Opening	B Cover
HD-1	1" (25.40)	3-3/4" (95.25)	0 (0)	4" (101.60)
HD-2	2" (50.80)	3-3/4" (95.25)	0 (0)	4" (101.60)
HD-3	3" (76.20)	3-3/4" (95.25)	0 (0)	4" (101.60)
HD-3-3	3" (76.20)	5-3/4" (146.05)	0 (0)	6" (152.40)
HD-4	4" (101.60)	5-3/4" (146.05)	0 (0)	6" (152.40)
HD-4-4	4" (101.60)	7-3/4" (196.85)	0 (0)	8" (203.20)
HD-5	5" (127.00)	7-3/4" (196.85)	0 (0)	8" (203.20)
HD-5-5	5" (127.00)	9-3/4" (247.65)	0 (0)	10" (254.00)
HD-6	6" (152.40)	9-3/4" (247.65)	0 (0)	10" (254.00)
HD-6-6	6" (152.40)	11-3/4" (298.45)	0 (0)	12" (304.80)
HD-7	7" (177.80)	11-3/4" (298.45)	0 (0)	12" (304.80)
HD-7-7	7" (177.80)	13-3/4" (349.25)	0 (0)	14" (355.60)
HD-8	8" (203.20)	13-3/4" (349.25)	0 (0)	14" (355.60)

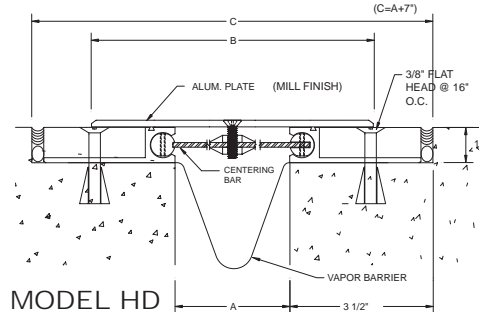
HD NOTES: Call for details on larger sizes.
HDL (corner condition) to match floor to floor
(call for movements).

MODEL HDCIP
HDCIP a cast in place heavy duty parking structure joint designed for H-20 loading and will allow for contraction up to 7".

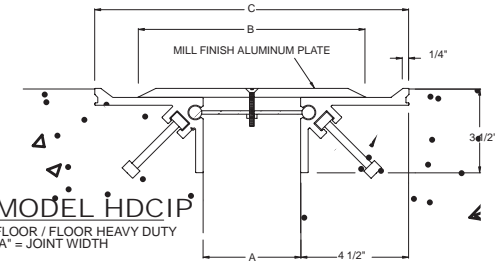
HDCIP Note: Provide seismic void ("A" dimension) when ordering or specifying.

MODEL HDEX
HDEX designed for existing conditions and auto traffic providing limited movement.

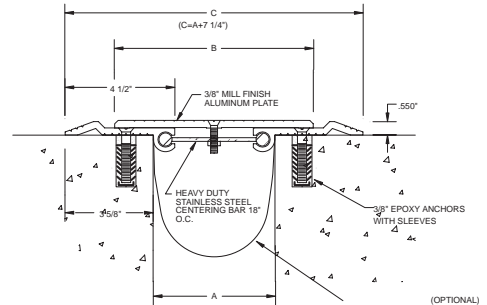
HDEX Note: "B" = seismic void ("A" dimension) plus a maximum movement of 4 1/2".



MODEL HD
FLOOR / FLOOR HEAVY DUTY
"A" = JOINT WIDTH



MODEL HDCIP
FLOOR / FLOOR HEAVY DUTY
"A" = JOINT WIDTH



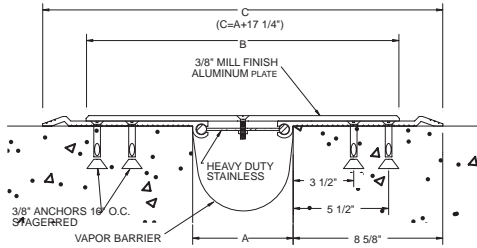
MODEL HDEX
HEAVY DUTY FLOOR
"A" = JOINT WIDTH



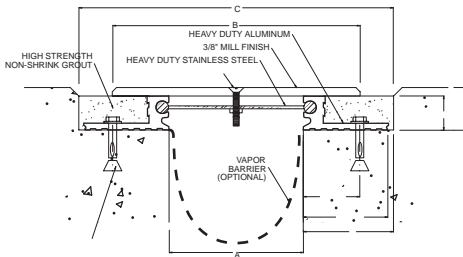
M. H. Powell & Co., Inc.
Seismic Expansion Joints
(323) 887-0037



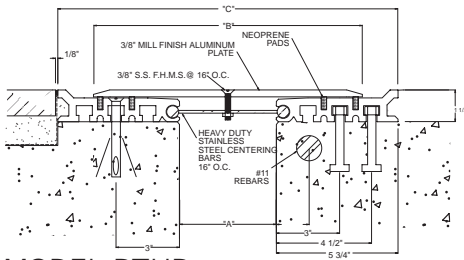
HEAVY DUTY FLOOR SYSTEMS



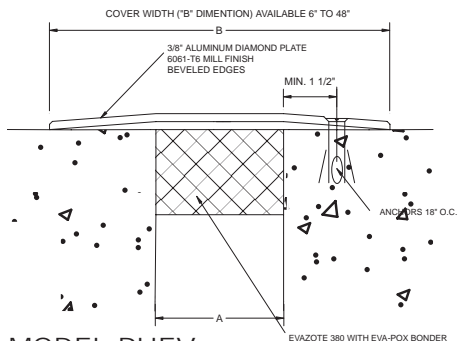
MODEL HDEXW
HEAVY DUTY FLOOR
"A" = JOINT WIDTH



MODEL BOHD
FLOOR/FLOOR HEAVY DUTY
"A" = JOINT WIDTH



MODEL PTHD
FLOOR / FLOOR HEAVY DUTY
"A" = JOINT WIDTH



MODEL PHEV
W/ EVAZOTE 380
"A" = JOINT WIDTH

MODEL HDEXW

HDEXW is designed for auto traffic and existing conditions.

(Note B = seismic void ("A" dimension) plus movement requirements.)

MODEL	A Sep. Dimensions in Inches & Millimeters	Max. Opening	Min. Opening	B Cover
BOHD-1	1" (25.40)	3-3/4" (95.25)	0 (0)	4" (101.60)
BOHD-2	2" (50.80)	3-3/4" (95.25)	0 (0)	4" (101.60)
BOHD-3	3" (76.20)	3-3/4" (95.25)	0 (0)	4" (101.60)
BOHD-3-3	3" (76.20)	5-3/4" (146.05)	0 (0)	6" (152.40)
BOHD-4	4" (101.60)	5-3/4" (146.05)	0 (0)	6" (152.40)
BOHD-4-4	4" (101.60)	7-3/4" (196.85)	0 (0)	8" (203.20)
BOHD-5	5" (127.00)	7-3/4" (196.85)	0 (0)	8" (203.20)
BOHD-5-5	5" (127.00)	9-3/4" (247.65)	0 (0)	10" (254.00)
BOHD-6	6" (152.40)	9-3/4" (247.65)	0 (0)	10" (254.00)
BOHD-6-6	6" (152.40)	11-3/4" (298.45)	0 (0)	12" (304.80)
BOHD-7	7" (177.80)	11-3/4" (298.45)	0 (0)	12" (304.80)
BOHD-7-7	7" (177.80)	13-3/4" (349.25)	0 (0)	14" (355.60)
BOHD-8	8" (203.20)	13-3/4" (349.25)	0 (0)	14" (355.60)

BOHD NOTES: Call for details on larger sizes.

BOHDL (corner condition) to match floor to floor (call for movements).

MODEL PTHD

PTHD is a cast in place joint H-20 loading system designed for post tension concrete construction and will accommodate vertical, horizontal and lateral displacements along with post tension shrinkage.

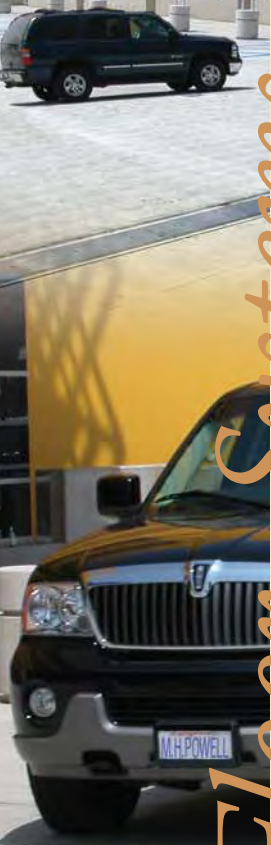
Note: provide seismic void and projected concrete shrinkage with ordering or specifying.

MODEL PHEV

"No frills" auto traffic thresholds with Evazote 380 water proofing. Cover plate up to 48" wide available.



Heavy Duty Floor Systems



Elastomeric Floor Systems

FLEXIBLE FLOOR SEAL SYSTEMS

MODEL	A Sep (Min. Install Width)	Max. Opening	Min. Opening	Movement
Dimensions in Inches & Millimeters				
WSS-250	1-1/2" (38.10)	2-1/4" (57.15)	3/4" (19.05)	1-1/2" (38.10)
WSS-325	2" (50.80)	3" (76.20)	1-1/4" (31.75)	1-3/4" (44.45)
WSS-400	2-1/4" (57.15)	3-3/4" (92.25)	1-1/2" (38.10)	2-1/4" (57.15)
WSS-500	2-7/8" (73.03)	4-3/4" (120.65)	1-3/4" (44.45)	3" (76.20)
WSS-600	3-3/8" (85.73)	5-3/4" (146.05)	2-1/8" (53.98)	3-5/8" (92.08)

NOTE: Recognition of this minimum dimension is important in prescribing the width at which the joint opening is formed. The temperature/adjustment table should reflect this accuracy.

DSBF

The DSBF floor joint system uses extruded aluminum retainers to support a rugged dense neoprene seal. The device may be supported internally and/or externally, depending on building configuration. The flat exterior seal is furnished in long lengths, returns are mitered, reinforced and sealed with a compatible sealant. The inner functional membrane made of closed cell neoprene spills into the vertical functional seal (where applicable) at the exterior of the structure. Available in sizes from 2" to 4" .

Applications

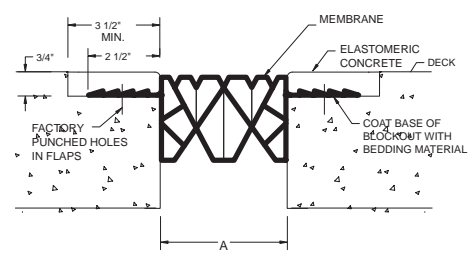
Typically used for interior floor joints, can be used for exterior applications. Suitable for use in all but full vehicular traffic situations. Does not interfere with pedestrian traffic; low profile accepts carpeting.

MODEL	Nominal Size	Inner Closed Cell Neoprene Seal	Outer Dense Neoprene Seal	Extruded Aluminum Retainer
DSBF-2	2" (50.8 mm)	N/A	4-2568	3-2427
DSBF-3	3" (76.2 mm)	5-1411	3-2449	5-1420
DSBF-4	4" (101.6 mm)	5-1411	4-2584	5-1420

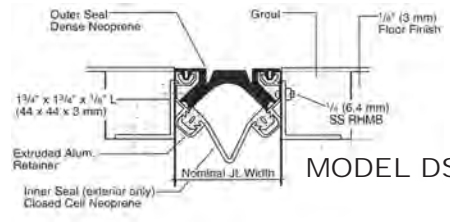
EV SYSTEMS

For conditions with continuous or heavy exposure to moisture. Pedestrian traffic areas require a joint cover (not part of the system shown in detail).

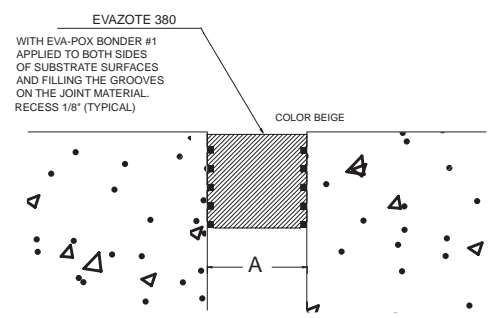
For joint widths ("A" dimension) 1/2" to 11". EV material width, for ordering, is joint width plus 25%.



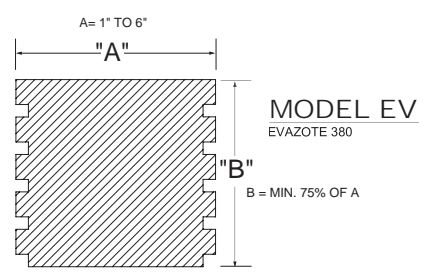
MODEL WSS
WING SEAL SYSTEM
"A" = JOINT WIDTH



MODEL DSBF



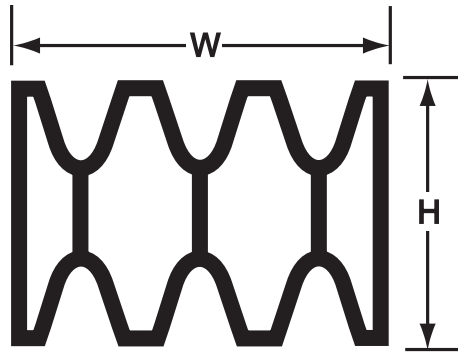
MODEL EV
EVAZOTE 380
"A" = JOINT WIDTH



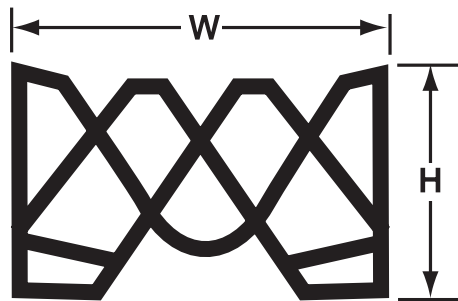
MODEL EV
EVAZOTE 380
B = MIN. 75% OF A



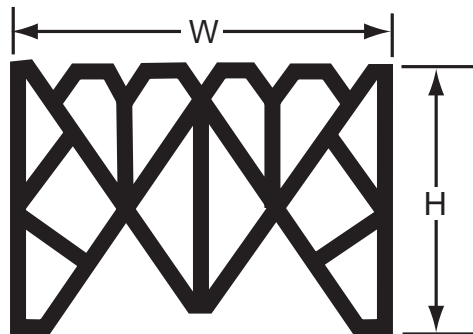
COMPRESSION SEALS



CS SERIES



AW SERIES



AF SERIES



Catalog Number	SEAL CHARACTERISTICS				JOINT DESIGN CRITERIA	
	Nominal Width (W)	Nominal Height (H)	Max. Movement	Narrowest Opening	Widest Opening	Minimum Depth
CS-200	2.00	1.50	0.70	1.00	1.70	1.80
CS-250	2.50	2.00	0.83	1.30	2.13	2.30
CS-300	3.00	2.16	1.07	1.48	2.55	2.46
CS-362	3.62	2.25	1.45	1.65	3.10	2.55
CS-400	4.00	2.75	1.40	2.00	3.40	3.05
CS-500	5.00	2.75	1.75	2.50	4.25	3.05
CS-600	6.00	3.00	2.10	3.00	5.10	3.40
AW-262	2.62	2.00	1.38	1.10	2.23	2.50
AW-362	3.62	2.25	1.75	1.35	3.10	3.00
AF-200	2.00	1.50	0.80	0.90	1.70	1.75
AF-225	2.25	1.50	0.90	1.00	1.90	1.75
AF-250	2.50	2.00	1.10	1.20	2.13	2.20
AF-300	3.00	2.12	1.45	1.10	2.55	2.50
AF-400	4.00	2.81	1.80	1.60	3.40	3.20
AF-500	5.00	3.25	2.30	1.95	4.25	3.70

NOTES: *Thickness of seal wall and internal web are not drawn to scale.

- Maximum movement that seal will accommodate in joint of correct design.
- A narrower opening will put excessive stress on seal and may cause premature failure.
- A wider opening may not provide sufficient compressive force to hold seal in place.

CS Series

Also known as "Concourse" seals, the CS series preformed seals feature a level top surface that is particularly suited for pedestrian traffic in a variety of buildings.

The cross sections depicted, as with all cross section illustrations, show the seal in its uncompressed state. Once in the compressed state, the top sections are much closer together and form a level walking surface and a pleasing visual effect for exposed vertical applications.

AF and AW Series

The AF and AW Series seal also features a level top surface suited for pedestrians and low stress traffic with a greater range of movement than the CS-Series seal. The "honeycomb" design creates the necessary outward pressure for a tight seal and assures watertightness even if the surface should become perforated.

The cross sections depicted show the seal in its uncompressed state. Once in the compressed state, the top sections are much closer together and form a level walking surface. This profile also presents a pleasing visual effect for exposed vertical applications.



Neoprene Compression Seals

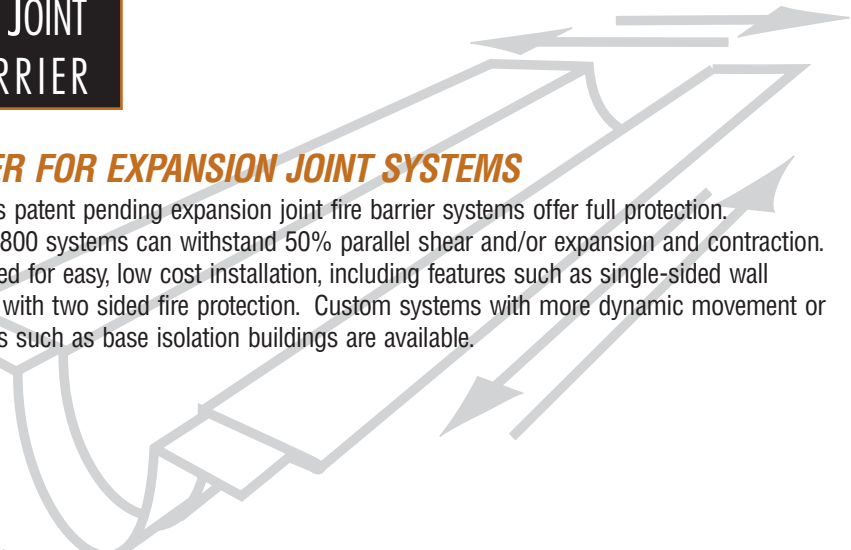


Fire Protection Systems

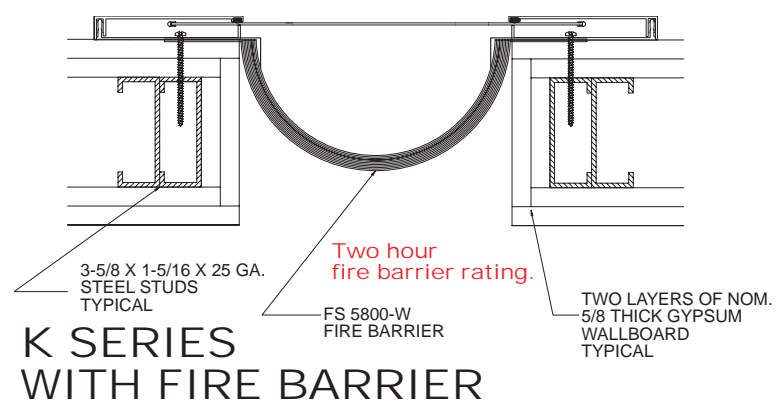
EXPANSION JOINT FIRE BARRIER

FIRE BARRIER FOR EXPANSION JOINT SYSTEMS

Thermal Structures patent pending expansion joint fire barrier systems offer full protection. The standard FS 5800 systems can withstand 50% parallel shear and/or expansion and contraction. FS 5800 is designed for easy, low cost installation, including features such as single-sided wall barrier installation with two sided fire protection. Custom systems with more dynamic movement or unique applications such as base isolation buildings are available.



- ▼ **UL Listed for 1 & 2 hour Fire Rating per UL2079 (current code)**
- ▼ **Quick, Cost Effective Installation No caulk needed!**
- ▼ **50% Expansion, Contraction and Parallel Lateral Shear Movement is Standard**
- ▼ **Compatible with most Expansion Joint Assemblies.**
- ▼ **Standard Open Widths Up to 30 inches**
- ▼ **Custom Systems Available**
- ▼ **Meets requirements of UBC, BOCA, NFPA, ICBO and SBCCI**
- ▼ **ISO 9001 Certified**



Floor Fire Joint Barrier*	Nominal Joint Width	Wall Fire Joint Barrier	Nominal Joint Width	Floor to Wall Fire Barrier	Nominal Joint Width
FS 5800-F1	1 inch	FS 5800-W1	1 inch	FS 5800-FW	1 inch
FS 5800-F2	2 inches	FS 5800-W2	2 inches	FS 5800-FW2	2 inches
FS 5800-F3	3 inches	FS 5800-W3	3 inches	FS 5800-FW3	3 inches
FS 5800-F4	4 inches	FS 5800-W4	4 inches	FS 5800-FW4	4 inches
FS 5800-F5	5 inches	FS 5800-W5	5 inches	FS 5800-FW5	5 inches
FS 5800-F6	6 inches	FS 5800-W6	6 inches	FS 5800-FW6	6 inches
FS 5800-F8	8 inches	FS 5800-W8	8 inches	FS 5800-FW8	8 inches
FS 5800-F10	10 inches	FS 5800-W10	10 inches	FS 5800-FW10	10 inches
FS 5800-F12	12 inches	FS 5800-W12	12 inches	FS 5800-FW12	12 inches
FS 5800-F14	14 inches	FS 5800-W14	14 inches	FS 5800-FW14	14 inches
FS 5800-F16	16 inches	FS 5800-W16	16 inches	FS 5800-FW16	16 inches
FS 5800-F18	18 inches	FS 5800-W18	18 inches	FS 5800-FW18	18 inches
FS 5800-F20	20 inches	FS 5800-W20	20 inches	FS 5800-FW20	20 inches



Specifications

Note: Guide Specification contains performance and descriptive requirements which apply to a variety of standard and custom products by M. H. Powell & Co., Inc. Edit section to include only requirements applicable to project and to scheduled joint covers. Contact M. H. Powell & Co. for assistance

Section 05810 Expansion Joint Covers

PART 1 – GENERAL

1.01 WORK INCLUDED

- A. Joint covers for [seismic] [expansion] [wind sway] [and other building movement] joints.

1.02 RELATED WORK

- A. Preparation of joint, setting and joint cover into adjacent work non-shrink grout for block outs, and adjacent finishes.

1.03 SYSTEM DESCRIPTION

- A. Joint covers shall permit restrained movement of joint without disengagement of cover. Describe special movement conditions.
- B. Fire rated joint covers shall have been tested per UL2029 and classified by Underwriters Laboratories. Fire rating shall be [1 hour] [2 hours] [not less than rating of adjacent construction]. Materials shall be inorganic and shall not create smoke or contribute fuel during a fire.
- C. Allowable load on floor joint cover plate shall be 200 psi [or as specified for vehicular traffic and/or H2O loading].
- D. Spherical Model Centering Bars must be fully engaged with the base member.

1.04 SUBMITTALS

- A. Submit shop drawings and product data indicating joint cover profile details, dimensions, location within the work, affected adjacent construction, anchorage, finishes, splices, and accessories.
- B. Submit manufacturer's installation instructions.
- C. Fire Rated Joint Covers: Submit numbers of UL Classification.

1.05 DELIVERY STORAGE, AND HANDLING

- A. Provide temporary protective cover on [anodized aluminum] [stainless steel] [bronze] finished surfaces.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Specifications and Drawings are based on M. H. Powell, Inc., 2313 Yates Ave., Commerce, CA 90040, phone (323) 887-0037
- B. Substitutions: Submit proposed substitutes in writing to architect no less than 30 days before bids are due. Submit samples and product data to demonstrate acceptability of proposed substitute. Acceptance will be by addendum.

2.02 MATERIALS

- A. Aluminum: 6063-T5 or 6061T6 extrusions; 6061-T6 plate; 5052-H32 sheet
- B. Stainless Steel: Model 304.
- C. Bronze: Alloy 385 extrusions; 280 sheet and plate.
- D. Water Barrier: Flexible TPE, or Neoprene, [30 mils] [60 mils] thick.
- E. Fire Barrier: Provide model required for indicated fire resistance and fabricated of layers of ceramic fiber insulation, metallic insulation, or silica fiber fabric with 3000°F approximate melting temperature.
- F. Fireproofing: Model required by fire rating; asbestos not acceptable.
- G. Provide fasteners, accessories, and other materials required for complete installation to manufacturer's instructions.

WARRANTY

M. H. Powell & Co., Inc. warrants to its purchasers that all materials furnished by it will be free from defects in materials and/or workmanship. This warranty shall extend for a period of one (1) year following the date of shipment by us. All defective materials will be refurbished after inspection by our company showing the materials have failed under this warranty and providing a written claim is presented to us within the warranty period. Under this warranty, we agree to refurbish the defective materials at no charge, excluding re-installing costs. This is in lieu of all other warranties expressed or implied and is the sole warranty extended by us. Our liability under this warranty is limited to the refurbishing of materials and does not include any responsibility for consequential or other damages of any nature.

NOTICES

M. H. Powell & Co's fire rated materials shown in this catalog are covered under one or more U.S. and foreign patents and patents pending. ASTM E119/E814 test standards do not imply performance characteristics in actual fire. UL classifications are subject to re-examination, revision and possible cancellation. M. H. Powell & Co. reserves the right to make design changes we deem advisable to improve our products. Contact M. H. Powell & Co. for current information.

2.03 FABRICATION

- A. Flexible Floor Joint Covers:
 - 1. Joint covers shall consist of cover plate fastened through center of spring steel centering bars. Bars shall be attached to spheres which are retained in tracks in extruded base members. Set centering bars diagonally at 20 inches on center maximum [or 12 inches on center for heavy duty models].
 - 2. Cover Plates: [Aluminum] [Bronze] [Stainless steel] with [smooth] [fluted] [grooved] [abrasive] [1/8 inch recessed] surface.
- B. Roof Joint Covers: Provide sealing washers and gaskets, splice covers, counterflashing flanges, and end closures.
- C. Fire Rated Joint Covers: [TSI 5800]
- D. Fabricate special transitions, corner fittings, and end closures. Miter and weld joints.
- E. Shop assemble components and package with anchors and fittings. Provide components in single lengths where possible, minimize site splicing.

2.04 FINISHES

- A. Aluminum:
 - 1. Floors and Roofs: Mill finish.
 - 2. Walls and Ceilings: [Clear anodized, AA M43-C2 1-A21.]
 - 3. Surfaces Contacting Concrete: Zinc chromate shop or suitable coating.
- B. Bronze: Satin finish. [Or suitable coating.]
- C. Stainless Steel: Satin finish.
- D. Elastomeric Black Neoprene or Vinyl: Gray color. Optional white, black or custom colors are available for some products.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements [and block out dimensions] are as shown on shop drawings.

3.02 INSTALLATION

- A. Install joint covers to manufacturer's instructions. Align work plumb, level, and flush with adjacent surfaces. Rigidly anchor to substrate. Make allowances for change in joint size due to difference between installation and building operating temperatures.
- B. Fire Rated Joint Covers: Install to requirements of fire rated design. Install fire barriers as required.
- C. Water Barrier: Provide water barriers at exterior joints and where called for on Drawings. Provide drainage fittings where called for on Drawings.

3.03 ADJUSTING AND PROTECTION

- A. Adjust joint cover to freely accommodate joint movement.
- B. Protect installation from damage by work of other trades. Where required, remove and store cover plate and install temporary protection over joints; reinstall cover plate before completion of work.

3.04 SCHEDULE

- Indicate M. H. Powell, Inc. product number on drawings or schedule.
- A. Interior Floor Joints: _____
- B. Interior Wall Joints: _____
- C. Ceiling Joints: _____
- D. Fire Rated Joints: _____
- E. Exterior Floor Joints: _____
- F. Exterior Wall and Soffit Joints: _____
- G. Roof Joints: _____



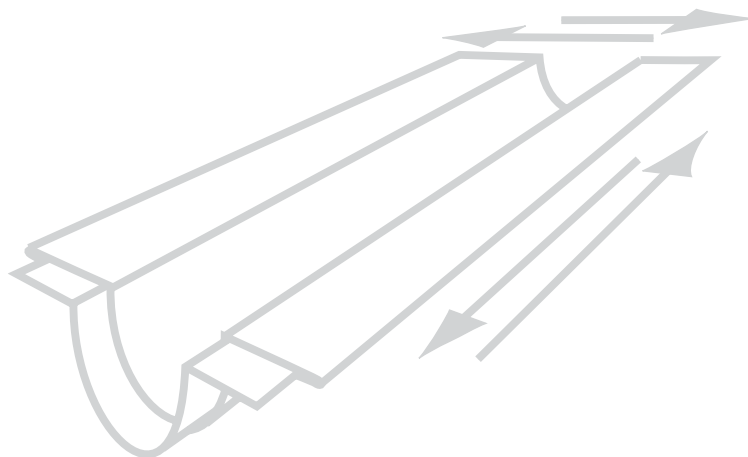
SEISMIC EXPANSION JOINTS

*Expansion Joint Covers and Assemblies by
M. H. Powell & Co., Inc.*

*Fire Protection Systems by
Thermal Structures, Inc.*

*Flexible Roof Systems by
Johns Manville*

*Neoprene Extruded Products by
The D.S. Brown Company*



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All specifications are subject to change without notice