**Product Description**

- Migutan (mig-yoo-tan) consists of heavy-duty extruded aluminum retainer rails, synthetic rubber side flashing sheets, a thermo-plastic rubber sealing insert, and stainless-steel retainer caps.
- The rails are bolted to the structural slab, the flashing sheets are integrated in a sandwich with the deck waterproofing system.
- The sealing insert is installed over the upper end of the flashing sheets and is held in compression by the stainless-steel retainer caps.
- The net result is a system that integrates the structural slab, deck waterproofing and expansion joint system which is essentially independent of the wear-course components (ex: pavers, asphalt topping, concrete topping, etc.) while ensuring that movement is properly accommodated.

**Uses and Applications**

- Plaza Decks
- Split-Slab Parking Decks
- Roof Decks
- Below-Grade Deck and Wall Joints

**Load Capacity**

**Plaza and Parking Decks:** FP 110/45 - FP 110/115: Suitable for slow moving vehicles with pneumatic tires such as cars and light trucks up to 16,860 lb.wt. (75 kN) gross.

**Ramps, Loading Docks or other Decks with Continuous Heavy-Duty (Truck, Bus) Vehicular Traffic:** Use steel legs — Consult EMSEAL.

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**System Features (in order of installation)**

1. Structural slab
2. Epoxy levelling bed ensures that retainer legs are fully supported while acting as a dielectric separator
3. Two or three piece interlocked retainer legs are free to slide relative to each other to provide positive interlocking of successive joint lengths. (Note: solid-leg FP 110/6000s & FP 110/25 interlocked by means of stainless-steel connector pins)
4. 5/16” x 4” (8mm x 100mm) epoxy anchors at 12-Inch (300mm) centers ensure secure fastening while placing no stress on concrete joint-edge (note: FP 110/25 uses counter-sink-head expansion anchor.)
5. Level-filled anchor channels protect waterproofing from damage
6. Deck waterproofing is installed across deck and up migutan retainer leg
7. Heat-weldable, high-nitrile pvc side flashing sheets are fully embedded in, welded to or adhered to upper surface of primary deck waterproofing
8. Overlay and deck membranes encapsulate migutan flashing sheet in watertight sandwich
9. Heat-weldable, sealing gland allows for watertight heat-welded transitions in direction and plane
10. Stainless-steel retaining caps and machine-screws clamp sealing gland and flashing sheet and are removable for seal maintenance
11. Pavers, asphalt, fill, or other wear-surface
12. Self-levelling, traffic-grade sealant control joint (as needed to suit application — consult EMSEAL)

**Key to system features**

1. Structural slab
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9. Heat-weldable, sealing gland allows for watertight heat-welded transitions in direction and plane
10. Stainless-steel retaining caps and machine-screws clamp sealing gland and flashing sheet and are removable for seal maintenance
11. Pavers, asphalt, fill, or other wear-surface
12. Self-levelling, traffic-grade sealant control joint (as needed to suit application — consult EMSEAL)
Selection Guide

For transitions to the vertical plane, below-grade joints, and parking decks with normal car traffic and occasional truck/bus traffic:

- FP 110/25
  - A: 2.63" (65mm)
  - B: 2.00" (50mm)
  - C: 4.33" (110mm)
  - D: 9.05" (230mm)
  - E: 0.98" (25mm)

For split-slab parking and plaza decks with normal car traffic and occasional truck/bus traffic:

- FP 110/45
- FP 110/60
- FP 110/80
- FP 110/95
- FP 110/115
  - 1.81" (46mm)
  - 2.44" (62mm)
  - 3.19" (81mm)
  - 3.81" (97mm)
  - 4.61" (117mm)

For non-vehicular-traffic plaza decks. Extra-high leg heights accommodate thick overlay systems and topping slabs. These models are supplied with extra-long (double-width) side sheets to ensure proper integration with deck waterproofing.

- FP 110/130
- FP 110/150
- FP 110/165
- FP 110/185
- FP 110/200
- FP 110/200
- FP 110/235
- FP 110/255
- FP 110/270
- FP 110/2110
- FP 110/305
  - 3.00" (76mm)
  - 2.36" (60mm)
  - 4.33" (110mm)
  - 9.33" (237mm)
  - 5.12" (117mm)
  - 5.90" (150mm)
  - 6.57" (167mm)
  - 7.36" (187mm)
  - 7.95" (202mm)
  - 8.74" (222mm)
  - 9.33" (237mm)
  - 10.12" (257mm)
  - 10.71" (272mm)
  - 11.49" (292mm)
  - 12.09" (307mm)

Note: steel legs are now available for increased loading capacity for all leg heights: contact EMSEAL.

Production length of metal parts: 13.12 LF (4 meters).
Side flashing sheets available in rolls up to 65.6 LF (20 meters).
Sealing gland available in continuous lengths practicable to shipping and to suit job — Consult EMSEAL.
Watertight Transitions & Terminations

Factory-heat-welded thermoplastic-rubber sealing insert and heat-weldable side sheets as well as factory-welded aluminum components assure watertightness through transitions and terminations. Virtually any kind of transition is both possible and practical.

Transitions From Horizontal to Vertical Planes

Transitions to the vertical plane are commonly overlooked in design, manufacture and installation. These details are critical to watertightness and can be properly addressed by the Migutan system with transition into other products by EMSEAL for waterproofing the joints in parapets, walls, split columns, etc.

Termination bar secured with stainless-steel anchors and sealed with field-applied sealant (by others)

Side sheets heat welded and encapsulated in deck waterproofing to ensure watertightness in change to vertical plane

4 1/2 inch (115mm) wide blockout with chamfered back edge in vertical plane

45-degree slope on back edge of blockouts eliminates sharp corners over which deck waterproofing is run

Low-leg-height FP 110/25 bolted to vertical surface with countersink expansion anchors

Seismic Colorseal (by EMSEAL) in joint in vertical plane

1 1/4 inch (30mm) deep blockout in vertical plane to receive FP 110/25 upturn

Aluminum flange set into epoxy-mortar setting bed and anchored to structural slab

Side flashing sheets for encapsulation in deck waterproofing

Top of FP 110 gland cut at 45° and capped with heat-welded sheet
E-2 & E-8 Deck-to-Wall Options (available for all models)

NOTE: Use E-2 where continuous runs of deck-to-wall joint are uninterrupted by columns or other elements adjacent to the run of the joint.

NOTE: Use E-8 where joint-gap alternates from deck-to-deck to deck-to-column or wall at intervals along the joint. The E-8, by removing the metal anchor bracket present in the E-2 version, eliminates the need to dog-leg around columns, walls, etc., that interrupt continuous runs.

FP 110/… with optional stainless steel coverplate

Integral coverplate is available at purchaser’s preference as an optional extra. Coverplate can be made non-skid at purchaser’s preference through the field-application of an abrasive coating after installation of the joint system.

CAD & Guide Specs

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

Warranty

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

Availability & Price

EMSEAL products are available throughout the United States and Canada. Prices are available from local representatives or direct from the manufacturer. The EMSEAL product range is continually being updated. Accordingly, we reserve the right to modify or withdraw any product without prior notice.