

Removable Compression Gasket Flood Barrier (WK Model# FP-C) Specifications

Part 1 – General

- 1.01 Description:** Provide flood barrier(s) factory assembled with frame(s) and all operating components in accordance with contract specifications and approved drawings.
- 1.02 Acceptable Manufacturers:** Flood barrier shall be as manufactured by Walz & Krenzer, Inc (203-267-5712; sales@wkdoors.com).
- 1.03 Standards:** Comply with the provisions of the following (as applicable):
- A. AISC “Specifications for Design, Fabrication, and Erection of Structural Steel for Buildings”.
 - B. The Aluminum Assoc. “Aluminum Design Manual”.
 - C. AWS Structural Welding Code D1, D1.2, D1.3, D1.6.
 - D. ASME Structural Welding Code Section IX.
 - E. FEMA Bulletin 3-93, #102 & #114.
- 1.04 Submittals:**
- A. Manufacturers Data: Submit installation and maintenance manuals for flood barrier.
 - B. Shop Drawings: Submit shop drawings approved by licensed Professional Engineer for flood barrier including dimensional plans, elevations, sections, details for all mountings/connections, and parts list.
 - C. Calculations (optional for critical applications): Submit calculations approved by licensed Professional Engineer verifying the flood barrier’s ability to withstand the design pressure loading.
 - D. QA Submittals: Submit test/inspection reports showing compliance with specified performance characteristics.
- 1.05 Qualifications:** Manufacturer shall present evidence attesting to at least five years successful experience in the design and manufacture of similar closures.

Part 2 – Products

- 2.01 Product Description:** Removable flood barrier shall be Model FP-C as manufactured by Walz & Krenzer, Inc.
- 2.02 Materials:**
- A. Panel: 5051-H32 aluminum plate with 6061-T6 aluminum stiffeners (mild steel and stainless steel options are available).

- B. Frame: ASTM A-36 steel (options include aluminum and 304 or 316 stainless steel).
- C. Gasket: ASTM D2000 GR DE neoprene gasket, 25 duro with fully molded corners.
- D. Dogs/Drop bolts: stainless steel/bronze dogs or drop bolts. Utilize drop bolts for reduced maintenance and lower cost when operation is from outside only.
- E. Finish: aluminum panel painted with INSL-X CheckRust acrylic paint. Mild steel frame to be blast to near white metal per SSPC-SP-7 and primed with one coat of inorganic zinc primer. Finish coat with epoxy paint is available.
- F. Removable ramp (available as an option): aluminum or stainless steel.

2.03 Design:

- A. Design Pressure: # (in feet of water). Specify seating (pushing barrier against frame) or unseating direction (pushing barrier away from frame).
- B. Side frames are angles for mounting on the exterior face of the wall surface.
- C. Bottom frame is flatbar with a raised machined knife-edge. Standard bottom sill is raised 1.5” from floor surface.
- D. Recessed sill option or removable flush bottom sill option are available when flush sill is required.
- E. Frame(s) shall have mounting holes for expansion anchors (options include masonry subframe with welded anchors for embedment in concrete).
- F. Frame knife-edge shall be rounded and smooth to maximize sealing.
- G. Removable ramp (optional) is placed over the raised bottom sill for vehicular traffic or to prevent tripping hazard.
- H. Two (2) storage brackets per panel included.
- I. Gate size and design pressure direction shall determine the quantity and type of dog. Dogs are designed to adjust gasket compression in the field.
- J. Additional requirements such as hydrodynamic loads, impact loads and breaking wave loads shall be added as required by the specific application.

2.04 Quality Assurance:

- A. Perform shop operational test.
- B. Perform shop chalk test.
- C. Liquid Penetrant Test (for critical applications): Welds in the “potential” leak path shall be liquid penetrant inspected in accordance with Appendix VIII of Section VIII of ASME Code Div. 1.

Part 3 – Execution

3.01 Fabrication:

- A. The finished product shall be rigid, neat in appearance, and free from all defects, warps, and buckles. All exposed joints and corners shall be well rounded.
- B. The panel and frame shall be flat within 1/8” in any 6’ length.
- C. All butt welds in frame to be full penetration welds.

3.02 Installation:

- A. Install flood barrier in accordance with manufacturer’s instructions and approved shop drawings.
- B. After installation, perform field operational and chalk test per manufacturer’s instructions to verify seal.
- C. Finish paint (if applicable) after installation.

3.03 Warranty: Flood barrier shall operate satisfactorily and be free of defects in material and workmanship for a period of not less than one year from the date of delivery.