

**SUGGESTED SPECIFICATIONS FOR MODEL FG-LS
SIDE HINGED LIP SEAL FLOOD GATE**

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. or approved equal.
- 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
 - D. ASME Structural Welding Code Section IX
 - E. FEMA Bulletin 3-93, #102 & #114
- 1.04 **Submittals:**
- A. Manufactures Data: Submit installation and maintenance manuals for flood barriers.
 - B. Shop Drawings: Submit shop drawings approved by licensed Professional Engineer for flood barriers including dimensional plans and elevations, sections and details for all mountings and connections, and parts list.
 - C. Calculations (optional for critical applications): Submit calculations approved by licensed Professional Engineer verifying the flood barriers ability to withstand the design pressure loading.
 - D. QA Submittals: Submit test reports showing compliance with specified performance characteristics.
- 1.04 **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: Side hinged flood barrier shall be Model FG-LS as manufactured by Walz & Krenzer, Inc.

2.02 Materials:

- A. Panel – 5052-H32 aluminum plate with 6061-T6 aluminum stiffeners (mild steel and stainless steel available).
- B. Frame – A-36 steel (aluminum and stainless steel available).
- C. Latches – stainless steel sliding latch bolts

- D. Gasket – Walz & Krenzer neoprene lip seal gasket, 60 duro with fully molded corners.
- E. Finish – aluminum panel painted with INSL-X CheckRust acrylic paint. Frame blast clean per SSPC-SP7, primed with inorganic zinc primer. Other finishes, including powder coating and anodizing available.
- F. Grab Handle and Panel Stops – 6061-T6 aluminum
Hinges – hinges to include bronze oil-impregnated thrust bearing and stainless steel hinge pins.

2.03 Design

- A. Side frames are available as angles for mounting on the exterior face of the wall surface, or as flatbars for mounting inside doorjamb.
- B. Bottom frame is a ½” flatbar, which can be recessed ½” into floor surface to achieve a flush bottom sill.
- C. Corners of flood barriers have small (2”) radius.
- D. Roller assembly is provided on gates wider than 4’, or for gates with flush bottom sills.
- E. Opening device for latching gate provided.
- F. Frame(s) shall have mounting holes for expansion anchors (options include masonry subframe with welded anchors for embedment in concrete).
- G. Dual panel hinged floodgates available with a diagonal brace for support at the center seam. Alternative bracing configurations are available.
- H. In cases where the radius corners create an interference problem, or at the junction of panels in multi-panel floodgates, square corners can be utilized. Very slight leakage may occur at the square gasket corner, however this leakage rate is typically well under the allowable FEMA leakage rate for the protected area.

2.04 Quality Assurance

- A. Perform shop operational test
- B. Perform shop hose 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.

3.02 Installation: Install flood barrier in accordance with manufactures instructions and approved shop drawings.

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.