

## **SUGGESTED SPECIFICATIONS FOR MODEL FG-I SIDE HINGED INFLATABLE GASKET FLOOD GATE**

### **Part 1 – General**

- 1.01 **Description:** Provide floodgate(s) factory assembled with frame(s) and all operating components in accordance with contract specifications and approved drawings.
- 1.02 **Acceptable Manufacturers:** Floodgate 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 floodgate.
  - B. Shop Drawings: Submit shop drawings approved by licensed Professional Engineer for floodgate 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 floodgates 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-I 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 – Dual EPDM inflatable gaskets supplied with standard automotive style valve stem and 0-60 psi pressure gauge. Fabric reinforced inflatable gasket used for high-pressure applications or large size gates.
- 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
- G. Optional air sources (for when facility air source is not available) – compressed air tank, hand or foot pump, or portable air tank.
- H. Hinges – hinges to include bronze oil-impregnated thrust bearings, bushings, 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 to be radiused a minimum of 7” at frame.
- D. Roller assembly is provided on gates wider than 6’.
- E. Frame(s) shall have mounting holes for expansion anchors (options include masonry subframe with welded anchors for embedment in concrete).
- F. Dual panel hinged floodgates available with a center mullion.
- G. Sealing surfaces shall be finished to 63 micro inch to maximize sealing, uninterrupted by steps greater than .015 in., free from cracks, with finish lay parallel to seal.

### **2.04 Quality Assurance**

- A. Perform shop operational test
- B. Perform shop chalk test
- C. Air leakage test – inflate gaskets and confirm no loss of pressure over ½ hour time period.
- D. 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 floodgate in accordance with manufactures instructions and approved shop drawings.

**3.03 Warranty:** Floodgate 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.