

Sliding Watertight Barrier (WK Model# FG-S) Specifications

Part 1 – General

- 1.01 Description:** Provide sliding P-Curl gasket barrier(s) factory assembled with frame(s) and hardware in accordance with contract specifications and approved drawings.
- 1.02 Acceptable Manufacturers:** Sliding 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 D1.1, 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 reports showing compliance with specified performance characteristics.
- 1.05 Qualifications:** Manufacturer shall present evidence attesting to at least ten years successful experience in the design and manufacture of similar closures.

Part 2 – Products

- 2.01 Product Description:** Sliding barrier shall be Model FG-S as manufactured by Walz & Krenzer, Inc.
- 2.02 Materials:**
- A. Panel: ASTM A-36/ASTM A572 Gr 50 mild steel, 304/316 stainless steel, or 6061-T6 aluminum
 - B. Frame: ASTM A-36 steel or 304/316 stainless steel
 - C. Latches (if required): stainless steel latch bolts.

- D. Gasket: Walz & Krenzer P-Curl gasket made from EPDM with fully-molded straight sections (no extrusions permitted) and fully-molded corners. All joints shall be fully vulcanized. Bottom frame to side frame transition shall have a suitable radius to ensure proper seal.
- E. Fence Mechanisms: ASTM A-36 mild steel or stainless steel.
- F. Guide Rails: ASTM A-36 mild steel or stainless steel.
- G. Finish: steel or aluminum panels and frames to be coated with (1) primer coat and (2) top coats of shop polyurethane system. Stainless steel to be uniform bead blast per SSPC-SP17 (other options available upon request).

2.03 Design:

- A. Design Pressure: # (in feet of water or psi). Specify seating (pushing gate closed) or unseating direction (pushing gate open).
- B. Gasket shall be retracted to prevent dragging on frame and sill surfaces when the panel is moving.
- C. Sill plate shall be flush with no trough in ground permitted.
- D. Walz & Krenzer P-Curl gasket shall be deployed using fence mechanisms around seal perimeter. Fences can be either manually deployed or in a “quick-acting” mechanism.
- E. For large gates, winch assemblies (manual or electrical) with wire rope can be supplied to open and close the gate.
- F. Panels can be designed to roll along floor or hang from track mounted to wall/ceiling.
- G. Installation:
 - a. Frame(s) shall have mounting holes for expansion or adhesive concrete anchors for installation on existing openings.
 - b. For new concrete pours, frame(s) shall have welded embedment anchors and/or a masonry subframe.
 - c. Other options included weld-on installation (field welding by installer).
- H. 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 dimensional & flatness tests.
- B. Perform shop chalk test.
- C. All welding shall be performed in accordance with the requirements of the applicable AWS or ASME standards.
- D. Non-Destructive Testing (if required) options include:
 - a. Liquid Penetrant Test: Welds in the “potential” leak path shall be liquid penetrant inspected in accordance with Appendix VIII of Section VIII of ASME Code Div. 1.
 - b. Magnetic Particle Testing (MT) available for non-stainless steel.

- c. Other tests are available upon request.
- E. Hydrostatic Test (if required): Provide hydrostatic test data certifying that the closure furnished, or a closure of similar design, has been satisfactorily tested to verify that it will withstand the designed hydrostatic pressure with no visible leakage. Available upon request.

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. All welding shall be performed in accordance with the requirements of the applicable AWS or ASME standards.
- C. The panel gasket channel and frame knife edge shall be flat within 1/16” in any 6’ length.
- D. All butt welds 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 test per manufacturer’s instructions to verify seal.
- C. Finish paint (if applicable) after installation.

3.03 Warranty: Sliding 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.