

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

Part 1 – General

- 1.01 Description:** Provide sliding 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, 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 five 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: 5051-H32 aluminum plate with 6061-T6 aluminum stiffeners.
 - B. Frame: ASTM A-36 steel (options include aluminum and 304 or 316 stainless steel).
 - C. Latches: stainless steel sliding latch bolts.

- D. Gasket: ASTM D2000 GR DE neoprene gasket, 25 duro with fully molded corners. In pressure exceeding 20' design pressure, 40 duro gasket is used. Optional gasket material for unusual environmental conditions include viton, silicone, hypalon and others.
- E. Guide Rails: ASTM A-36 steel (options include aluminum and 304 or 316 stainless steel).
- F. 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.
- G. Grab Handle and Panel Stops: 6061-T6 aluminum.

2.03 Design:

- A. Design Pressure: # (in feet of water). Specify seating (pushing gate closed) or unseating direction (pushing gate open).
- B. Side frames are available as angles for mounting on the exterior face of the wall surface.
- C. For horizontal sliding barriers: bottom frame supplied as a trough with a track system. On top of trough is a hinged cover plate. When lowered, the cover plate provides a flush surface with ground level. For large gates, winch assemblies with wire rope can be supplied to aid in watertight barrier operation.
- D. For vertical sliding barriers: bottom frame is a flatbar that is to be mounted flush with the ground level. Winch with wire top supplied for operating all vertical sliding barriers.
- E. Inflatable gaskets can be used as a substitute for compression gaskets.
- F. Frame(s) shall have mounting holes for expansion anchors (options include masonry subframe with welded anchors for embedment in concrete).
- G. 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 to close and secure barrier.
- B. Perform shop chalk test to insure 100% water tightness.
- 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 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.