PRESRAY
Critical Containment Solutions

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3-Part CSI Specifications
CG3S – Sliding Flood Barrier with Mechanical Seals

These specifications are intended to be used as guidelines for architects and engineers as they establish the requirements for a particular project, and may be modified by them as deemed appropriate.

Part 1 - General

- 1.01 Description

  A. **Work Included:** Provide special barrier(s) factory assembled with frame(s) ard hardware in accordance with the contract documents.

- 1.02 Standards

  A. Comply with the provisions of (as applicable).

  1. AWS Structural Welding Code.
  2. ASME Structural Welding Code Section IX.

- 1.03 Submittals

  A. **Manufacturers Data:** Submit installation and maintenance instructions for flood barriers.

  B. **Shop Drawings:** Submit shop drawings for flood barriers including dimensioned plans and elevations, sections, connections and anchorage, and parts list.

  C. **Calculations *(Optional)*:** Submit calculations, approved by a qualified engineer, to verify the barrier's ability to withstand the design pressure loading.

- 1.04 Qualifications

  A. **Experience:** The manufacturer of the flood barrier(s) shall present evidence attesting to at least 5 years of successful experience in the design and manufacture of both the flood barrier and flood barrier seal of the type specified.

Part 2 - Products

- 2.01 Watertight barrier shall be CG3S as manufactured by Presray Corporation.

- 2.02 Materials

- Materials

  A. **Panel:** 6061 T6 Aluminum plate.

  B. **Conversion Frame & Track:** Low carbon steel (stainless steel & aluminum optional).

  C. **Finish:** Panel, bright aluminum finish. Conversion frame, brush-off blast

clean per SSPC-SP7, primed with one coat rust inhibitive, lead free, red primer.

D. **Door Gasket:** Presray type 25 durometer neoprene, molded with fully molded corners, no mitered joints allowed. (Optional materials include Viton, consult Presray in cases of unusual environmental conditions).

E. **Hardware**
Shrouds: Hinged 6061 Aluminum (other materials optional)

F. **Compression Handles:** Presray Type handles with stainless steel rollers and provisions for adjusting seal compression after installation.

- 2.03 Design

A. Watertight barrier shall be designed with applicable safety factors in accordance with AISC specifications, and shall provide an effective seal against the design pressure.

B. The design of the door shall allow the pressure on the door to be transmitted to the frame and/or dogs.

C. Frame shall include suitable anchors for embedment in concrete (options available include strap anchors for mounting in new masonry block walls, gaskets, bolts and inserts for attachment to existing concrete or block, or the frame ready for welding to existing steel structure).

- 2.04 Fabrication

A. The coaming edge contacting the door gasket shall be machined, rather than as rolled, to maximize sealing.

- 2.05 Inspection and Test

A. All steel material welds in the potential “leak path” shall be liquid penetrant inspected in accordance with ASME Code of Section VIII Div.1 of Appendix 8.

B. Finished assembly, or assembly similar in design, shall be factory leak tested in accordance with ASTM E283.

Part 3 — Execution

- 3.01 Installation

A. Install special doors in accordance with manufacturer’s instructions and approved shop drawings.

Part 4 — Warranty

- 4.01 1-year limited against defects and workmanship from date of shipment.