

**SECTION 15262  
STOP PLATE**

**PART 1 GENERAL**

**1.01 SCOPE**

- A. This Section includes furnishing and installing stop plates in the locations shown on the Drawings.
- B. Stop plates, guides, invert seat, stiffeners, seals, wall brackets, anchors, and all appurtenances necessary to make an operational system shall be provided.
- C. Additional product requirements are specified in Section 01350.

**1.02 SUBMITTALS**

- A. Submittals shall be in accordance with all requirements of Section 01300 and shall include:
  - 1. Shop Drawings for Review
    - a. Scaled dimensional drawings, including materials of construction and details of fabrication and assembly.
    - b. Manufacturer's catalog data.
  - 2. Information for the Record:
    - a. Manufacturer basis of design and calculations, as required.
    - b. Operation and maintenance manual.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Stainless Steel Stop Plate(s):
  - 1. Stop plates, accessories and components shall be supplied by a single manufacturer. Stop plates shall be manufactured by Waterman Valve, LLC, WACO Products, Inc, Golden Harvest, Inc. or Hydro Gate, Rodney Hunt Co., R.W. Gates, or approved equal (**Addendum 1, December 15, 2020**).
    - a. Materials used in construction of stop plates and appurtenances shall conform to the following specifications:
    - b. Frame, Slide, and Reinforcing: Stainless steel, ASTM A240/A240M, Type 304L, or ASTM A240/A240M, Type 316L
    - c. Stainless Steel for fasteners: F593/F594, Alloy Group 1, 2 (SS304, SS316)

- d. Invert seals: Neoprene, ASTM D2000, 60 Durometer, with a stainless steel ASTM A276, Type 304L, or Type 316L retainer bar.
  - e. Side Seals: Ultra High Molecular Weight (UHMW) Polymer, ASTM D4040
- 2. The stop plate frame shall be an integral unit of structural shapes, rigidly assembled to form the waterway opening. The primary slot of the frame shall contain polymer guide liner retained in grooves, to prevent metal-to-metal contact between stop plate and frame.
  - 3. Stop plate shall be not less than 1/4-inch thickness and shall be reinforced such that deflection under full head shall be limited to 1/720 of the span.
  - 4. Stop plates shall incorporate a flush-bottom seal of neoprene that is mechanically fastened to the bottom frame invert member.
  - 5. Side seals of UHMW polymer shall be provided. Seals shall be securely fastened to the frame with non-corrosive retainers and shall be replaceable and adjustable. A compression device shall be set behind the UHMW seal to allow for a self-adjusting seal system.
  - 6. Stop plates shall have hand holes or handles as shown on the Drawings or specified.

## 2.02 PERFORMANCE REQUIREMENTS

- A. Stop plates, stop plate guides, accessories and appurtenances shall be designed to support a hydraulic head load equal to a height differential of the stop plate height plus one foot imposed on either side of the plate, unless noted otherwise.
  - 1. The stop plate shall be designed for a maximum deflection of 1/360 of the stop plate span.
  - 2. Allowable leakage shall not exceed 0.1 gpm per foot of seating perimeter.

## 2.03 COMPONENTS OR ACCESSORIES

- A. All fasteners and anchor bolts shall be 304 stainless steel and supplied by the manufacturer.
- B. Stop plates shall have lift handles as shown on the Drawings. When the stop plate is in the closed position the handles shall not extend above the channel or interfere with channel cover plating or grating and related framing.
  - 1. Provide a minimum of one lift handle for plate widths three feet or less and a minimum of two handles for plate widths greater than three feet.

## 2.04 FABRICATION

- A. Stainless steel shall have a mill finish and comply with ASTM A276, Type 304.

- B. Aluminum shall have a mill finish and comply with ASTM B209, Type 6061-T6.
  - 1. The backside of embedded aluminum guides shall be coated with bitumastic.

### **PART 3 EXECUTION**

#### **3.01 COORDINATION**

- A. Embedded stop plate guides shall be delivered in time to permit the proper installation.
- B. Prior to fabrication, Contractor shall field measure new and existing structures.

#### **3.02 PREPARATION**

- A. When installing stop plates guides to existing concrete, the Contractor shall inspect concrete and report any damage to the Engineer that will adversely affect the stop plate installation.

#### **3.03 ERECTION AND INSTALLATION**

- A. Install stop plates plumb and level and free to slide.
- B. Stop plates, guides, accessories and appurtenances shall be installed per the manufacturer's recommendations.
- C. Anchor bolts shall be installed in accordance with manufacturer recommendations, as specified in Section 05500, as shown on the Drawings and as directed.

### **PART 4 SPECIAL PROVISIONS**

END OF SECTION

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