

Stainless Steel 304L and 316L WEIRS AND SCUM BAFFLES

Revised 7-30-2024

PART 1 GENERAL

1.1. SUBMITTALS

A. Shop Drawings

- i. Manufacturer's catalog information, descriptive literature, specifications, and identification of materials of construction, shop drawings and type of stainless steel.
- ii. Detailed drawings that show equipment fabrication dimensional layouts, bill of materials, bolt and anchor locations, method of attachment including number, locations, and size of fasteners, and shall be based on field measurements by the Contractor to ensure proper installation.

B. Quality Control Submittals

- i. Manufacturer's Certificate of Compliance.
- ii. Special shipping, storage and protection and handling instructions.
- iii. Manufacturer's written/printed installation instructions.
- iv. Type 304 or 316 2B finished surface and includes installation hardware and support of the same type.

1.2. WARRANTY

- A. The manufacturer shall warrant the weirs and scum baffles to be free of defects in materials and workmanship for a period of one year after the date of Substantial Completion.

1.3. COORDINATION

- A. Manufacturer shall coordinate the weir and scum baffle design and installation requirements with the clarifier mechanism, scum box and launder effluent channel configurations.

PART 2 PRODUCTS

2.1. MANUFACTURERS

- A. The weirs and scum baffles in this section shall be the products of:

- i. National Manufacturing Water Treatment Products 7870 West Ridge Road Unit #9 Fairview PA 16415 dvorse@nationalcomposites.com
- ii. Manufacturer and supplier to supply a performance bond.
- iii. The manufacturer of products shall be ISO 9001 certified.
- iv. Stainless Steel products must be completely manufactured in the U.S.A.

2.2. FRP WEIRS AND SCUM BAFFLES

- A. All weir plates, weir washers, weir splice plates, scum baffle panels, scum baffle splice plates and baffle support brackets shall be type 304 or 316 Stainless Steel. The surface shall be 2B finish unless otherwise specified.
- B. The weir plates, splice plates and weir washers shall be 14 gauge or as required. Weir plates shall not exceed 10' in length unless otherwise noted. The specific dimensions of the weirs and scum baffles shall be as shown in the drawings. The weirs shall be mounted with 1/2" x 3 3/4" stainless steel expansion anchors 2' on center for curved and 1' on center for straight runs.
- C. Scum baffle panels and splice plates shall be 10-gauge or as required. The scum baffle panels shall be 12" high and shall not exceed 10' in length unless otherwise noted. Splice plates shall be 6" x 12".
- D. Baffle Support Brackets
 - i. Size: 1/4 inch thick, 3 inches wide.
 - i. Non-algae sweep tank design:
 - 1. Upper baffle support bracket; 6-inch x 9 inch
 - 2. Lower baffle support bracket; 6-inch x 8 inch
 - ii. Algae sweep tank design:
 - 1. Upper "L" baffle support bracket design; 6-inch x 9 inch
 - 2. Lower baffle support bracket design; 6-inch x 8 inch
 - ii. Slotted to allow at least 1-1/2 inches vertical and horizontal adjustments.
- E. The brackets shall be installed on 4' centers. Fastening holes in the scum baffle panel shall have countersunk to accommodate flat head fasteners.
- F. Expansion anchors, nuts, bolts, washers, and other hardware shall be Type 304 or 316 stainless steel.

PART 3 EXECUTION

3.1. INSTALLATION

- A. The installation contractor shall field verify existing dimensions, install the weir, and scum baffle in accordance with the Contract Drawings, approved shop drawings and manufacturer's recommendations. Field cutting of panels shall be permitted to complete the structure. All the fasteners required for installation will be supplied by the weir and scum baffle manufacturer.
- B. Weirs and scum baffles must be carefully aligned and leveled to the elevations shown on the drawings. In the completed installation, no variation greater than 1/8" shall exist between any two notches of the weir plate in any one tank. In addition, the average deviation from one quadrant of the weir to any other shall not exceed 1/16". The installation contractor shall apply a suitable sealant between the weir and the wall to prevent the flow of liquid between the weir and the tank wall.

END OF SECTION