

SECTION 11205  
DENSITY CURRENT BAFFLE SYSTEM

PART     GENERAL

SECTION INCLUDES

Density current baffles.

RELATED SECTIONS

Section 03300 - Cast-In-Place Concrete.

Section 08342 - Fiberglass Doors and Frames.

Section 11201 - Wash Troughs.

Section 11202 - Effluent (Collection) Troughs (Launders).

Section 11203 - Finger Weir Pans.

Section 11204 - Weir Plates, Scum Baffles, and Brackets.

Section 11206 - Palmer-Bowlus Flumes.

Section 11207 - Parshall Flumes.

Section 11208 - Metering Manholes.

Section 11286 - Slide Gates and Guides.

Section 11305 - Odor Control System.

Section 13122 - Pre-Engineered Fiberglass Buildings.

Section 13411 - Instrument Consoles.

REFERENCES

ANSI/AWWA F101 - Contact Molded, Fiberglass-Reinforced Plastic Wash Water Troughs and Launderers; American Water Works Association.

ASTM D 256 - Standard Test Methods for Determining the Pendulum

Impact Resistance of Notched Specimens of Plastics.

ASTM D 570 - Standard Test Method for Water Absorption of Plastics.

ASTM D 618 - Standard Practice for Conditioning Plastics and Electrical Insulating Materials for Testing.

ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.

ASTM D 648 - Standard Test Method for Deflection Temperature of Plastics under Flexural Load.

ASTM D 696 - Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30 degrees C and 30 degrees C.

ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

ASTM D 2583 - Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor.

## SUBMITTALS

Submit under provisions of Section 01300.

Product Data: Test results of fiberglass reinforced plastic laminate.

Shop Drawings: Show:

Critical dimensions, jointing and connections, fasteners and anchors.

Materials of construction.

Sizes, spacing, and locations of structural members, connections, attachments, openings, and fasteners.

Field measurements or plans.

Samples: 8-inch square sample of fiberglass reinforced plastic laminate.

Manufacturer's installation instructions.

## DELIVERY, STORAGE, AND HANDLING

Store products indoors and protect from construction traffic and damage.

PART PRODUCTS

MANUFACTURER

Provide products manufactured by Warminster Fiberglass Company; P.O Box 188, Southampton PA 18966-0188; ASD. Tel. (215) 953-1260, Fax. (215) 357-7893.

Requests for substitution will be considered in accordance with provisions of Section 01600.

Substitutions: Not permitted.

DENSITY CURRENT BAFFLE SYSTEM

Material: Fiberglass reinforced polyester resin composite laminate, having the following physical characteristics:

Color: White.

Color: Turquoise.

Tensile strength (ASTM D 638): Minimum 9,000 psi.

Flexural strength (ASTM D 790): 16,000 psi.

Flexural modulus (ASTM D 790): 900,000 psi.

Impact, notched, Izod (ASTM D 256): 10.0 ft-lb/in.

Barcol hardness (resin-rich surface) (ASTM D 2583): 40 minimum, average.

Water absorption, (ASTM D 570): 0.2 percent at 24 hrs.

Heat distortion point, (ASTM D 648): 175 degrees F.

Coefficient of thermal expansion, average (ASTM D 696): 0.0000105 in/in/degree F.

Test coupons prepared in accordance with ASTM D 618.

Chemical resistance: Comply with ANSI/AWWA F101, Type II classification.

Baffle Segments:

Molded of fiberglass-reinforced polyester resin composite laminate, minimum 3/16 inches wall thickness, with minimum 20 mil thick gel coat each surface.

Mold integral mounting flange 1/4 inch thick along top edge, factory drilled for anchors.

Mold face sloping inward and downward to resist solids build-up.

Mold integral reinforcing flange 1/4 inch thick at bottom edge to resist sag and uplift.

For rectangular tanks, mold baffle segments straight.  
For round tanks, mold baffle segments curved for tank radius indicated on drawings.  
Factory-drill holes for end-to-end connection of baffle segments in field.  
Resin coat all cut edges and drilled holes.

Mounting Brackets: Angle brackets fabricated of same composition as baffle segments.

Provide two support brackets for each baffle segment.  
Factory-drill holes for end-to-end connection of baffle segments in field.  
Resin coat all cut edges and drilled holes.

Fasteners: 3/8 inch diameter wedge anchor bolts and fasteners of Type 316 stainless steel.

## PART EXECUTION

### EXAMINATION

Verify that dimensions are correct and project conditions are suitable for installation. Do not proceed with installation until unsatisfactory conditions have been corrected.

### INSTALLATION

Install products in accordance with manufacturer's instructions.

Ensure that products are installed plumb and true, free of warp or twist, within tolerances specified by the manufacturer and as indicated in the contract documents.

Install in accordance with approved shop drawings and in true and proper alignment.

Mounting Brackets: Install two brackets per baffle segment, equally spaced; anchor to substrates using 3/8 inch diameter stainless steel wedge anchors.

Baffle Segments: Install to full extent indicated on drawings; secure to brackets using stainless steel fasteners.

### ADJUST AND CLEAN

Clean surfaces in accordance with manufacturer's instructions.

Remove trash and debris, and leave the site in a clean condition.

END OF SECTION