

**SPECIFICATIONS - DETAILED PROVISIONS**  
**Section 11352 - Scum Collection Equipment**

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**SECTION 11352**  
**SCUM COLLECTION EQUIPMENT**

**PART 1 - GENERAL**

1.01 SUMMARY

- A. Section Includes: Scum collector pipe assemblies for removing surface scum from the primary and secondary clarifiers.
- B. Related Sections:
  - 1. Section 09900 - Painting.

1.02 REFERENCES

- A. American Welding Society (AWS):
  - 1. D1.1 - Structural Welding Code – Steel
  - 2. A2.4 - Symbols for Welding and Non-destructive Testing.

1.03 SYSTEM DESCRIPTION

- A. Manually operated scum pipe for each of the primary and secondary clarifiers. Each scum pipe shall operate independently to collect skimmings when the pipe is rotated.
- B. Scum pipe assembly including a slotted pipe, supports, seals, lever operator, and other appurtenances for a complete installation.

1.04 SUBMITTALS

- A. Product Data: Include data on all components including materials of fabrication.
- B. Shop Drawings:
  - 1. Include fabrication, assembly and installation details and dimensions.

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2. Included complete information regarding location, type, size and length of all welds in accordance with AWS A2.4 “Symbols for Welding and Non-destructive Testing” of the American Welding Society, and special conditions as shown by notes and details.
3. Manufacturer’s published installation and operation instructions.

1.05 QUALITY ASSURANCE

- A. After fabrication, pipe shall be free of any noticeable warpage or distortion.
- B. Welding:
  1. All shop and field welding procedures, welders and welding operators shall be qualified and certified in accordance with the requirements of AWS D1.1 - Structural Welding, of the American Welding Society.
  2. Field Welding: In accordance with the approved shop drawings.
- C. All parts of the mechanism shall be amply proportioned for all stresses that may occur during fabrications, erection and intermittent or continuous operation. Workmanship shall be of high grade in all respects.

**PART 2 - PRODUCTS**

2.01 GENERAL

- A. Scum pipe assembly shall connect to existing scum pipe assembly as shown on the Drawings. Provide any adapters necessary to make the connection.

2.02 MANUFACTURERS

- A. Polytech - Systems Inc.
- B. Envirex.
- C. Or equal.

## 2.03 COMPONENTS

### A. Scum Pipe:

1. 16 inches in diameter.
2. Fabricate from 316 SS, 1/4 inch minimum wall thickness.
3. Slot:
  - a) Cut in the top of the pipe forming a 60 degree angle.
  - b) Edges of the slot parallel to the longitudinal axis of the pipe.
  - c) Maintain 2 - inch wide bands of the full pipe periphery at spacing not more than 2' - 6" as stiffeners.

### B. Wall thimble:

1. 316 SS pipe, 1/4 inch minimum wall thickness.

### C. Support:

1. The scum collector pipe shall be supported and revolve in a rolled 316 SS collar which shall be welded to an adjustable 316 SS 3/8 inch thick (minimum) plate.
2. A slight vertical or horizontal misalignment shall not interfere with smooth operation/rotation of the pipe.
3. The scum collector pipe shall rotate in a replaceable bearing. The bearing shall be a complete ring, or consist of three (3) bearing supports attached to the internal periphery of the collar to provide ample bearing surface for the pipe without crushing the seal.
4. Each bearing equipped with a grease fitting and extension tubing so that the bearing may be greased from the walkway.

### D. Seal:

1. Provide at each end of pipe.
2. Watertight.

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3. Material not affected by grease, mild acids or alkalies.
  4. Effective even with slight misalignment of the pipe and collar.
  5. Replaceable without removing the pipe from the supports.
  6. Will not bind or impede the smooth action of the revolving pipe.
- E. Manual Lever Operator: Lever collar and 1-1/2 inch minimum diameter stub
- F. Anchor Bolts: 316 stainless steel.
- G. All material used for scum pipes to be 316 SS.

**PART 3 - EXECUTION**

3.01 GENERAL

- A. Perform all work in strict conformance with the equipment manufacturer's recommendations and instructions.
- B. Metal components, except for bronze or stainless steel, to be submerged or within one foot of submersible shall be shop blasted (SSPC-SP10) and primed with suitable primer.

3.02 FIELD ENGINEER SERVICES

- A. Manufacturer shall provide the services of a trained, qualified representative at the jobsite, when requested by the Owner.
1. Duration: At least 1 day
  2. Services:
    - a) Inspect and assist with the scum pipe installation.
    - b) Supervise all adjustments or alterations to assure the equipment operates in accordance with the specified requirements.

**END OF SECTION 11352**