

SECTION 15150

BASKET STRAINER

PART 1 GENERAL

1.01 SUMMARY

This Section covers basket strainers up to 24-inches in diameter.

1.02 MEASUREMENT AND PAYMENT

- A. No separate payment for Work performed under this Section. Include cost of same in Contract price bid for Work of which this is a component part.
- B. Refer to Section 01270 – Measurement and Payment for unit price procedures.

1.03 REFERENCES

This specification references the following publications in their current editions. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

- A. ANSI B16.42: Ductile Iron Pipe Flanges and Flanged Fittings Classes 150 and 300
- B. ASTM A276/A276M: Standard Specification for Stainless Steel Bars and Shapes
- C. ASTM A395: Standard Specification for Ferritic Ductile Iron Pressure Retaining Castings for Use at Elevated Temperatures
- D. NSF/ANSI 61: Standards for Drinking Water Systems Components
- E. UNS S31600: United Numbering System (UNS) for 316 stainless steel

1.04 SUBMITTALS

- A. Submit the following under the provisions of Section 01330 – “Submittal Procedures:”
  - 1. Completed manufacturer’s data sheets, cut sheets, and catalog data.
  - 2. Manufacturer’s written and illustrated instructions for the construction and installation method.
  - 3. Instruction for handling and storage.
  - 4. Dimensions and weight.

1.05 RELATED REQUIREMENTS

- A. Section 01330 – “Submittal Procedures”

- B. Section 13346 - " Primary Instrument Devices"
- C. Section 16473 - "Water Receiving Facilities (WRF) Programmable Logic Controllers (PLC), SCADA Interface Panels and Panel Mounted Equipment"

1.06 – 1.12 (NOT USED)

1.13 WARRANTY

The manufacturer shall warrant the strainer to be free of defects in material and workmanship for a period of three years from date of shipment, provided the valve is installed and used in accordance with all applicable instructions.

PART 2 PRODUCTS

2.01 MANUFACTURER(S)

- A. CLA-VAL
- B. Or Approved Equal

2.02 MATERIALS AND/OR EQUIPMENT

A. Manufacturer/Model

CLA-VAL Model X43H H Style Strainer (or manufacturer's current equivalent model)

B. Operation and Construction

1. Strainer shall be capable of stopping debris and unwanted solid particles from passing through the internal mesh and continuing downstream.
2. Large flow area design shall allow for low pressure drop across the perpendicular steel strainer mesh
3. Body shall have internal locating ribs for locating strainer mesh screen and support frame perpendicular to the flow direction
4. Strainer shall be able to be serviced by only removing the top cover and without removing the strainer from the line.
5. Support frame shall be provided behind the strainer mesh screen to support it during use and shall be of the same material as the strainer body. Support frame shall have sufficiently large openings to allow full flow without deformation of strainer mesh screen.
6. Strainer shall have a flow area equal to or greater than 150 percent of the inlet flow area of the strainer.

7. A rectangular cover shall be provided with stainless steel air elimination valve and O-ring seal with body.
8. Two drain ports shall be provided with plugs located perpendicular to the flow. One on either side of the strainer body.
9. Strainer mesh shall be able to be cleaned by removing the mesh through the top cover or in place by reverse fluid flow through the two blow-off drain plug ports.
10. Differential Pressure Transmitter
  - a. A differential pressure transmitter shall be installed at each basket strainer to measure the difference in pressure between the inlet and outlet of the basket strainer. See Section 13346 - "Primary Instrument Devices" for more information on the differential pressure transmitter.
  - b. The transmitter shall include connections for "HIGH DIFFERENTIAL PRESSURE" to be able to be transmitted to the SCADA System. See Section 16473 - "Water Receiving Facilities (WRF) Programmable Logic Controllers (PLC), SCADA Interface Panels and Panel Mounted Equipment" for more information on the interface between the differential pressure transmitter and the SCADA system.
  - c. See Section 13346 – “Primary Instrument Devices” for details related to the manufacturer, model and set point for the differential pressure transmitter.

C. Materials

1. Body and Cover: Ductile iron ANSI B16.42, ASTM A395
2. Coating: NSF/ANSI 61 Fusion bonded epoxy coating
3. Cover Seal: Buna-N
4. Cover Fasteners: Stainless Steel
5. Strainer: 316 Stainless Steel (ASTM A276 – UNS S31600)
6. Support Frame: Ductile Iron, Epoxy coated
7. Mesh Size: 10 mesh / 2000 micron / Openings 0.078 inch

D. Maximum Temperature: 175°F

E. Pressure Rating: 250 psi for Class 150 flanges

F. End Connections: Flanged ANSI Class 150

G. For more details see “ATTACHMENT”

2.03-2.04 (NOT USED)

PART 3 EXECUTION

3.01-3.02 (NOT USED)

3.03 INSTALLATION

A. Install basket strainer per manufacturer's instructions.

B. Install strainer with cover up for ease of maintenance.

3.04-3.10 (NOT USED)

**ATTACHMENT**

*[Design Engineer is to complete blanks per site requirements]*

- A. Manufacturer: CLA-VAL
- B. Model: X43H H Style Strainer
- C. Valve Parameters:
  - 1. Nominal Diameter: \_\_\_\_\_

END OF SECTION