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**SPC-FRP-501: SPECIFICATION FOR FIBERGLASS REINFORCED  
PLASTIC (FRP) BASKET STRAINERS IN CORROSIVE PIPING  
SYSTEM- SSP & SSH SERIES**

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1. SCOPE

The fiberglass reinforced plastic basket strainer shall be designed for continuous contact with corrosive fluids operating at elevated temperature and pressures. These strainers are designed for maximum resistance to austere environments without sacrificing ergonomics for maintenance personnel. Baskets are designed to remove foreign particulate that could damage pump impellers or foul process equipment.

2. DESIGN REQUIREMENTS

2.1. Configuration

2.1.1. Strainer type shall be flanged basket.

2.2. Flanges

2.2.1. Flanges shall be ASME/ANSI 16.5 Class 150 and manufactured per PS-15-69 and ASTM D5421.

2.2.2. Flange bolt holes are spot faced and coated with resin.

2.3. Basket

2.3.1. Basket material shall be PVDF with 1/8" perforation on 3/16" centers.

2.3.2. Basket shall have handle attached to body, capable of holding 50lbs of debris.

2.3.3. Basket shall be able to withstand 5 psi pressure drop across the perforated wall.

2.3.4. Basket open area shall be 10 times greater than influent cross-section area.

2.4. Basket Maintenance

2.4.1. The basket access lid shall be a coated FRP blind flange manufactured to PS-15-69 and ASTM D5421. External coating shall match the body coating.

2.4.2. Basket shall be suspended to ensure basket seals with basket flange.

2.4.3. Optional vent plug shall allow for gas removal without lid removal.

2.4.4. Drains shall be minimum 1 inch off floor to prevent debris plugging the drain.

2.5. Operating Conditions

2.5.1. Maximum fluid temperature shall be:

2.5.1.1. SSP Series 180 deg F

2.5.1.2. SSH Series 220 deg F

2.5.2. Fluid chemical properties may alter max temperature.

2.6. Pressure Testing

2.6.1. Hydrostatic testing of strainer at 110% of rating pressure.

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## 2.7. Materials of Construction

- 2.7.1. Gaskets shall be EPDM or specified for fluid compatibility.
- 2.7.2. Resin shall be Vinyl Ester:
  - 2.7.2.1. SSP Series Derakane 411, Hetron 922, or equal.
  - 2.7.2.2. SSH series Derakane 470, Hetron 970, or equal.
- 2.7.3. Strainers shall have a shell fabricated from FRP filament wound pipe per ASTM-D2996 or be constructed with hand layup process per PS-15-69.
- 2.7.4. Overlay shall be same or better total tensile strength.
- 2.7.5. The body shall have a 100 mil chemical resistant liner with 10% glass content, an anti-wicking layer of chopped mats with 25% glass content, and a structural filament wound layer with up to 65% glass content.
- 2.7.6. Exterior coating shall have a minimum 10 mil layer of unsaturated polyester resin based, high quality gel coat with UV protective inhibitors to maximize service life.

## 3. MANUFACTURER

- 3.1. Manufacturer shall have minimum five year service history in industry.
- 3.2. Manufacturer shall maintain as-built dimensions of each strainer.
- 3.3. Manufacturer shall be ISO 9001:2015 Certified.
- 3.4. Manufacturer shall supply minimum one year warranty on lids, baskets, and gaskets to cover defect in material or workmanship.
- 3.5. Manufacturer shall supply minimum five year warranty on FRP shell to cover defect in material or workmanship.
- 3.6. Known Approved manufacturers
  - 3.6.1. Fluidtrol Process Technologies, Inc. [www.fluidtrol.com](http://www.fluidtrol.com)