porvair filtration group

Sinterflo® MC Septa Filter Elements

Our septa filter elements are made from Sinterflo® mesh composite (MC) filter media. This unique material is made from wire mesh and perforated metal, sintered together into a durable porous filtration medium.

The various layers of woven wire mesh and/or perforated metal are chosen to achieve the filtration, pre-coat, backwash and flow requirements of the application.

Manufactured from 316L stainless steel, these can be retrofitted into existing applications.

All of our septa filter elements are designed and tested to exceed the industry standards for resin retention, mechanical integrity, pre-coatability and backwash efficiency, to extend run times and maximize ion exchange performance.

Custom configurations can be provided.

Typical Applications

- Reactor water clean-up
- Fuel pool clean-up
- Radwaste processing
- Condensate polishing

Features and Benefits

- **High strength**
  Sinterflo® septa are designed and tested to withstand the torque, tensile and collapse pressures specified by the application. Complete test reports are available upon request.
- **Temperature resistance**
  Continuous operating temperature range: -50°C to 550°C (-65°F to 1,000°F).
- **Custom configurations**
  Sinterflo® septa are available in 1", 2" and custom diameters. Lengths are provided as specified for the application.
  A variety of hardware options are also available. Our septa are available individually or as complete bundle assemblies (for top tubesheet vessels).
  End fittings and adapters are provided for proper sealing to permanent vessel internal connections.
- **Range of pore sizes**
  From 1 to 200µm.
- **Corrosion resistance**
  Sinterflo® septa are made from 316L stainless steel media. Other alloys are available upon request.

Ordering Information

For ordering information please contact a member of the sales team.

Specifications

Construction

Sinterflo® septa are made from multiple layers of woven wire mesh and perforated metal, which are sintered together into a rigid porous filtration medium.

Each layer is chosen for a particular purpose: filtration, flow distribution, backwash performance, strength and rigidity, etc. This unique material is then formed and welded into filter septa - designed and tested specifically for nuclear applications.

All Sinterflo® septa are GTAW welded using the latest techniques for weld purity and strength. All septa are 100% bubble-point tested (ARP-901) to ensure the desired filtration performance is met.

Materials of Manufacture

Filter media:	316L stainless steel wire mesh (various weaves).
End fittings:	Stainless steel adapters of various configurations.

Dimensions

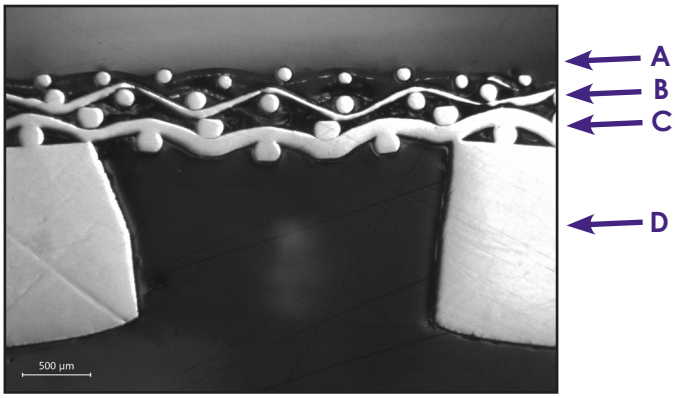
Outside diameter: 1-inch, 2-inch, custom.

Operating Temperature

Maximum continuous: -50°C to 550°C (-65°F to 1,000°F).

Other applications for our Sinterflo® MC media include:

- **Cup strainers**
  Cup strainers are underdrain strainer elements used for resin retention in deep bed demineralizers. Our strainer elements provide the required resin retention with high open area for flow, allowing improved flow distribution and ion exchange capacity utilization.
- **Vessel laterals**
  Our Sinterflo® laterals are custom designed to retain ion exchange resin beads while providing more uniform flow distribution throughout a deep bed demineralizer resin bed to optimize resin utilization.
- **Resin trap assemblies**
  Our resin trap (also called post-strainer) assemblies are designed to ensure that the ion exchange resins and precoat media are retained to avoid chemistry transient in reactor coolant and steam generators. Our resin traps are made from Sinterflo® MC media for precise resin capture and to meet flow requirements with low clean pressure drop.



A - Protective guard mesh on O.D.
B - Precision filtration weave
C - Flow distribution layer
D - Perforated metal inner core

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