

PRECISION WOUND

High Performance Water Treatment for Power Generation

Aegis® Precision Wound Condensate Polishing Septa with Stainless Steel Hardware

Graver Aegis® Precision Wound Septa are one of the critical components in a precoat system and designed to provide an optimum surface for Gravex Powdex® resin. Aegis precision wound septa are available in a variety of sizes and hardware configurations to meet every application requirement.

Maintenance-free after installation, Aegis Septa provide long-lasting, dependable and economical protection of steam generators in both nuclear and fossil fuel operations.

When used with precoat materials such as Graver's Powdex resins, Aegis wound septa will deliver the highest purity water under a variety of influent conditions.

Three yarn PLC controlled winding pattern used by Graver Technologies' assures that each element has the optimum



surface and filtration characteristics with uniform low-pressure drop and surface precoatability. Each element precoats evenly throughout the vessel, providing a maximum precoat cycle time and optimum water chemistry. Manufactured in the USA under an ISO registered quality assurance system, Aegis Septa have been consistently improved by Graver for precoat condensate systems for more than 50 years and are the worldwide standard for this application, and are the OEM standard.

1" Precoatable Elements

Aegis wound Septa are now also available in a 1-inch (25 mm) version that is easily installed in top tube sheet vessels with little or no equipment modifications.

2", 2.25", 2.375" Precoatable Elements

Aegis 2 – 2.375 inch (50 mm to 60 mm) wound filter Septa are designed for maximum durability and strength with the optimum precoat surface. Manufactured with stainless steel core and end connections, Aegis Septa have been the standard in precoat installations for over four decades.



Aegis Precision Wound deliver revolutionary features and benefits in easy-to-use formulations

FEATURES

- > Stainless steel core and end fittings
- > Backwashable
- > High surface area
- > Designed specifically for plants that need to increase condensate flow while maintaining high purity condensate and smooth, consistent precoats
- > The first septa designed for use with difficult thin-layer precoating techniques
- > Manufactured in Graver's ISO certified state of the art facility with PLC controlled winding of 100% polypropylene, prewashed yarn

BENEFITS

- > Long run times
- > Built specifically for polishing application
- > Capable of supporting power upgrades by installing increased diameter septa to reduce system flux rate with increased precoat contact time and longer run length
- > Carbon fiber available for high temperature applications

Aegis Precision Wound Condensate Polishing Septa with Stainless Steel Hardware

Specifications: 1", 2", 2.25", 2.375" Wound Filter Elements	
Standard Lengths	50" to 80" (1,270 to 2,030 mm), custom lengths also available
Element Construction (1" only)	Wound virgin polypropylene yarn
Element Construction (2", 2.25", 2.375")	Wound virgin yarn polypropylene and acrylic, or carbon fiber
Seal Mechanism (1" only)	Single open end threaded stainless steel fitting
Seal Mechanism (2", 2.25", 2.375")	Single open end (Sealfast™/Ecoloc™), flanged double open end (EPDM flat gaskets)
Hardware	Single steel end fitting and a one piece core with integrated lock seam
Clean Pressure Drop (1" only)	1 to 3 psid (0.1 to 0.2 bar) with precoat at rated flux 120°F (49°C)
Clean Pressure Drop (2", 2.25", 2.375")	0.5 to 4 psid (0.03 to 0.2 bar) with precoat at rated flux 120°F (49°C)
Backwash (precoat service)	Recommended 20 to 22 psig differential (1.3 to 1.5 bar); maximum 27psig (1.8 bar)
Recommended Flow (with precoat)	1.5 to 4.0 gsm (5.7 to 15.1 lpm) per square foot of element surface area
Maximum Operating Temperature	Polypropylene: 180°F (82°C); Carbon: 350°F (177°C); Acrylic: 220°F (105°C)

Recommended Flow Rates Per Elements (Precoat)				
	50" (1,270 mm)	60" (1,520 mm)	70" (1,780 mm)	80" (2,030 mm)
1" (25 mm) Element				
Minimum Flow Rate (gpm/lpm)	1.6 / 6.1	2.0 / 7.6	2.2 / 8.3	2.5 / 9.5
Maximum Flow Rate (gpm/lpm)	4.4 / 16.7	5.2 / 19.7	6.1 / 23.1	7.0 / 26.5
2" (51 mm) Element				
Minimum Flow Rate (gpm/lpm)	3.3 / 12.5	4.0 / 15.1	4.6 / 17.4	5.3 / 20.1
Maximum Flow Rate (gpm/lpm)	8.8 / 33.2	10.4 / 39.6	12.4 / 46.0	14.0 / 52.8
2.25" (57 mm) Element				
Minimum Flow Rate (gpm/lpm)	3.7 / 13.9	4.4 / 16.6	5.1 / 19.3	5.9 / 22.3
Maximum Flow Rate (gpm/lpm)	9.8 / 37.0	11.8 / 44.6	13.7 / 51.8	15.7 / 59.3
2.375" (60 mm) Element				
Minimum Flow Rate (gpm/lpm)	3.9 / 14.7	4.7 / 17.8	5.3 / 20.1	6.2 / 23.5
Maximum Flow Rate (gpm/lpm)	10.4 / 39.4	12.4 / 46.9	14.4 / 54.5	16.4 / 62.1



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