

POROSINT SERIES

HIGH-STRENGTH SINTERED STAINLESS STEEL MESH FILTER CARTRIDGES



EXTREME PRESSURE & THERMAL RESILIENCE

Fully Cleanable & Regenerable Media



304 & 316L POROUS MATRIX

Advanced Process Steam &
High-Viscosity Fluid Security



MIKROPORE
FILTRATION TECHNOLOGIES LLC



316L
STAINLESS
STEEL

**SINTERED
METAL**
TECHNOLOGY

POROSINT

SERIES

HIGH-STRENGTH SINTERED
STAINLESS STEEL MESH
FILTER CARTRIDGES

EXTREME DUTY ENGINEERING FOR SEVERE INDUSTRIAL PROCESS DEMANDS

316L
PREMIUM
STEEL



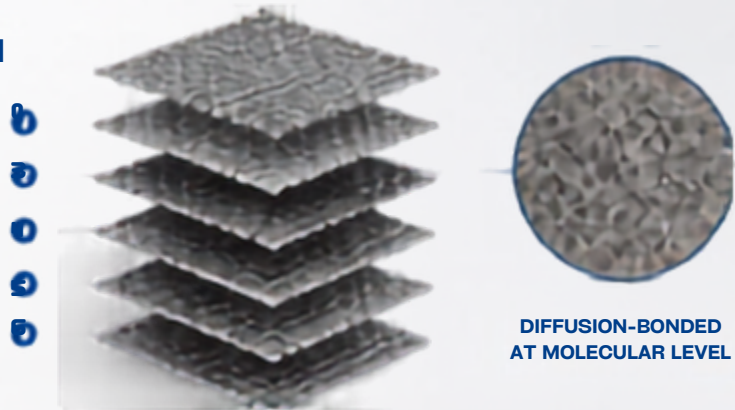
ENGINEERED FOR THE MOST DEMANDING ENVIRONMENTS

The **POROSINT Series** represents the pinnacle of metallic filtration technology, specifically engineered for applications where conventional polymeric cartridges fail.



5-LAYER DIFFUSION-BONDED CONSTRUCTION

Manufactured by diffusion-bonding 5 distinct layers of premium stainless steel wire cloth, these elements undergo a high-temperature vacuum sintering process that fuses the metallic structure at a molecular level.



RIGID FIXED-PORE POROUS MATRIX

This advanced spatial layout creates a rigid, highly porous fixed pore matrix. It delivers exceptional pressure and temperature resistance, absolute filtration accuracy, and completely eliminates any risk of media migration or fiber shedding under severe operating surges.



HIGH TEMPERATURE
RESISTANCE



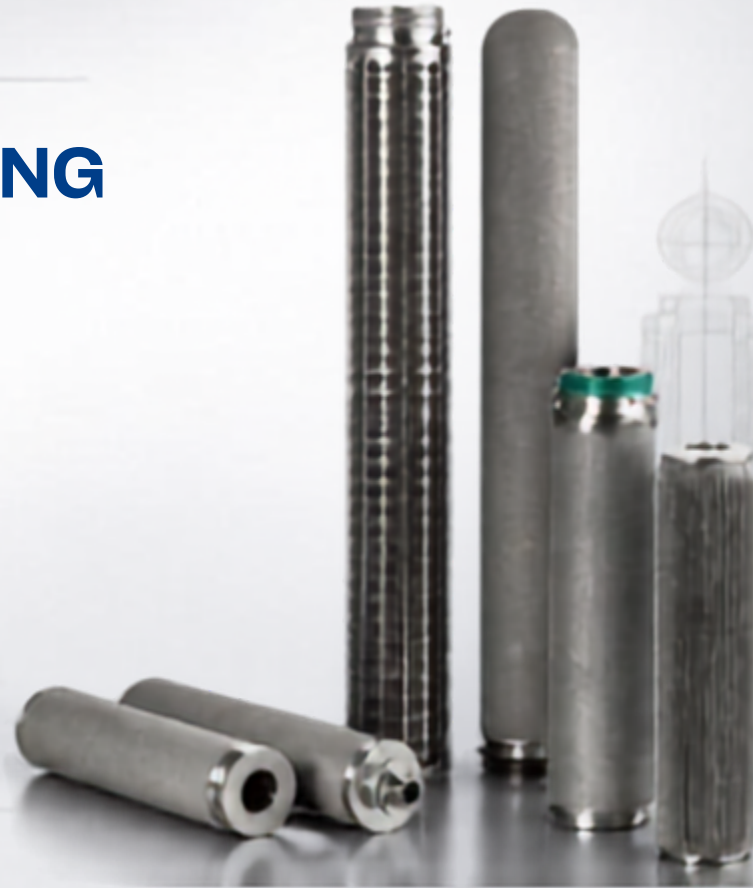
EXTREME PRESSURE
TOLERANCE



ABSOLUTE FILTRATION
ACCURACY



ZERO MEDIA MIGRATION
NO FIBER SHEDDING



ADVANCED ENGINEERING ADVANTAGES:



5-LAYER MULTI-MESH LAMINATE:

The structured matrix layers are mathematically calibrated to provide a progressive gradient—combining fine filtration mesh screens inside with robust protective and mechanical support layers on the exterior.



FULLY REGENERABLE MEDIA:

Unlike disposable components, POROSINT elements can be repeatedly back-washed, chemically sanitized, or treated in ultrasonic baths. This dynamic cleaning capability drastically extends service life and lowers your Total Cost of Ownership (TCO).



UNIVERSAL CHEMICAL & THERMAL SHIELD:

Built entirely from 100% pure virgin 304 or 316L stainless steel hardware without any chemical binders or glues, ensuring broad chemical compatibility and operational survival under intense thermal shocks.

APPLICATIONS & TECHNICAL SPECIFICATIONS

Typical Harsh-Environment Applications:



Process Steam Filtration:

Production of culinary-grade steam for direct food contact and sterile utility steam for biotechnology autoclave/SIP lines.



High-Visibility Fluid Refining:

Smooth handling of technical resins, optical gums, molten polymers, and high-temperature organic liquids.



Aggressive Feed Solutions:

Decarbonization loops, strong chemical catalysts, acids, alkalis, and ozone-containing technical water systems.



Extreme-Pressure Pneumatics:

Heavy-duty compressed air and gas purification requiring absolute mechanical structural integrity.

Technical Working Characteristics:



Materials of Construction:

SS304 or SS316L
(Filter Media, Core, Cage, and End Caps).



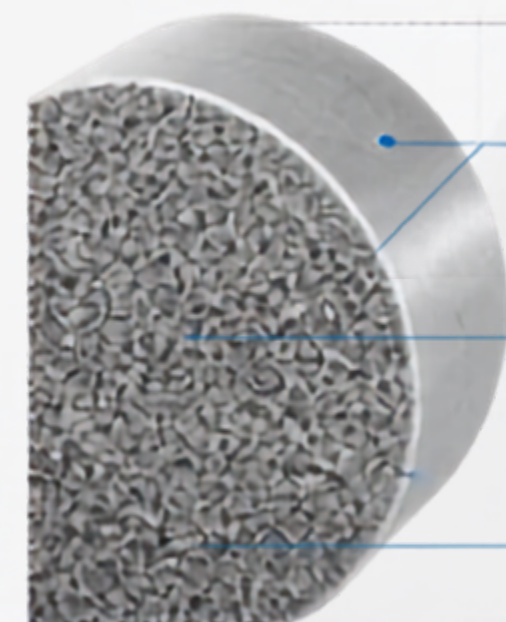
Maximum Differential Pressure Capability:

Up to **6.0** bar (87 psi).



Maximum Continuous Service Temperature:

Up to **280** °C (536 °F)



Sintered
Metal Media

Robust
Structural Core

Precision
Metal End Cap

PERFORMANCE & SELECTION CONFIGURATOR



High Porosity for Maximum Volumetric Throughput

The molecular bonding of the sintered wire cloth creates a uniform pore size distribution with incredibly high open-area porosity. This advanced geometric design provides massive fluid throughput rates with minimal initial resistance, protecting sensitive downstream instrumentation without compromising system efficiency.



Part Number / Selection Configurator

Build your custom Mikropore POROSINT part number using the matrix below:

CODE	MATERIAL	MICRON RATING	ADAPTER TYPE	ELEMENT LENGHT	SEAL MATERIAL	OUTER DIAMETER
PST-MSH (POROSINT Mesh)	304 = Stainless 304 316 = Stainless 316L	010 = 1.0 µm 030 = 3.0 µm 100 = 10 µm 200 = 20 µm 300 = 30 µm	214 = 222 / Fin End 222 = 222 / Flat End 216 = 226 / Fin End 226 = 226 / Flat End M20 = M20 / M22 M30 = M30 / Fin End M3F = M30 / Flat End	025 = 2.5 Inch 050 = 5 Inch 100 = 10 Inch 200 = 20 Inch 300 = 30 Inch 400 = 40 Inch	S = Silicone E = EPDM V = Viton T = TEV (Teflon Encap) B = Butyronitrile (NBR) P = PTFE	D60 = φ 60mm D31 = φ 31mm D38 = φ 38mm



Ordering Example: **PST-MSH-316-030-216-100-V-D60**

(POROSINT Mesh, 316L Stainless Steel, 3.0 µm rating, 226/Fin adapter, 10-inch length, Viton seals, 60mm outer diameter).

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FILTRATION • PERFORMANCE • RELIABILITY

