Purolator

POROMET®

CLEANABLE STAINLESS STEEL FILTER ELEMENTS

POROMET®

Cleanable Stainless Steel Filter Elements

For High-Temperature and High-Corrosion Processing Applications

Poromet® filter elements are standard element products designed for most commercial housings as well as our own line of housings. Poromet elements are built for high-temperature and high-corrosion applications. They are superior quality filters whose performance exceeds every other competitive element. Poromet elements can lower your costs by providing longer on-stream life and years of trouble-free service. In addition, Poromet elements are easily cleaned and can help you avoid increasing disposal costs.

POROMET®

Standard Sizes:
Poromet elements are designed to replace standard string-wound and pleated media cartridges. They are offered in 2 3/8" diameter by 10, 20, 30 and 40 inch lengths. Poromet elements are offered with the following end fitting configurations: double open ends, 1" NPT, 222 double O-rings and 226 double O-rings with locking tabs.

Electron Beam Welded End Fittings:
Purolator's exclusive electron beam welding process provides superior product quality at reduced costs. Heat distortion, oxidation and sensitization are eliminated.

Extended Filtration Area:
Poromet pleated elements have over twice the filtering area as competitive elements.

Gaskets and O-rings:
Standard materials are Buna-N. Other compounds are also available.

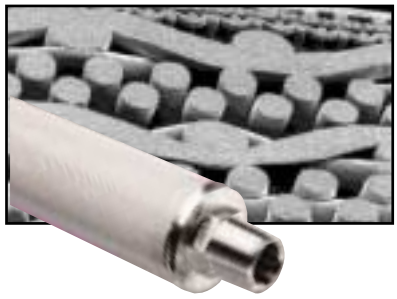
Laser Marked End Fittings:
Each Poromet element end fitting is permanently laser-marked for ease of identification and traceability.

316L Stainless Steel:
All Poromet Series elements are made from 316L stainless steel filter media. They are ideal for temperatures up to 850˚ F, and highly corrosive applications.

Electro-Polished Butt-Welded Support Cores:
Purolator-manufactured cores are designed to withstand pressures up to 250 psid. Electro-polishing removes all metal burrs, so the filtered fluids pass through the elements with less restriction.

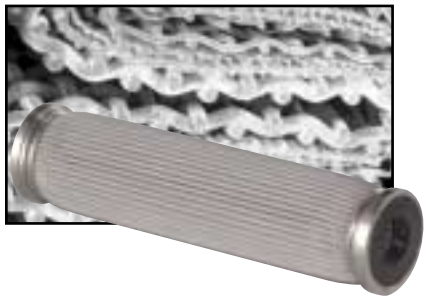
Quality Control:
Every Poromet element is bubble-point-tested prior to shipment to ensure product integrity and performance.

POROMET® ELEMENT MEDIA CHOICES



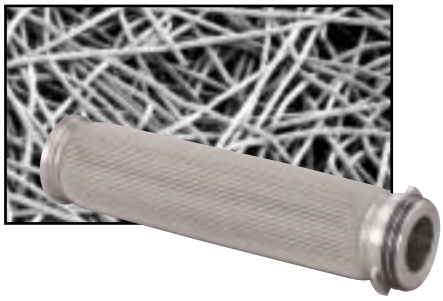
POROPLATE® MEDIA

A self-supporting medium made from multiple layers of woven wire cloth, sintered into a rigid, porous metal structure. Poroplate elements are cylindrical, surface-type filters that are perfect for back-flushing and repeated cleaning. Because Poroplate elements are self-supporting, expensive filter support cores are eliminated.



POROMESH® MEDIA

Multiple layers of diffusion-bonded wire cloth are pleated to maximize filter area and on-stream life. Poromesh media capture contaminants on the upstream surface of the filter element, where it is easily cleaned or back-flushed.



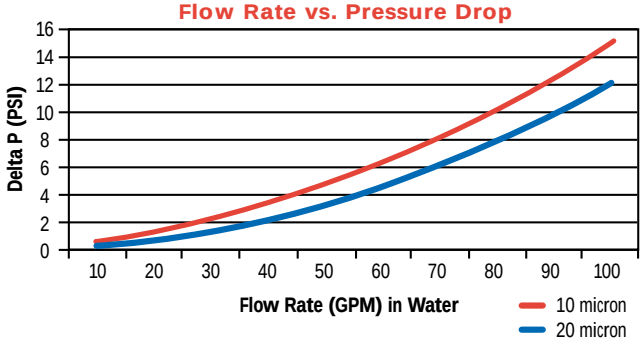
POROFELT® MEDIA

Microscopic, stainless steel fibers are random-laid and sintered in our proprietary diffusion bonding process. These media are then supported between two or more layers of wire cloth and pleated. Porofelt depth media traps particles deep within its complex pore structure. Porofelt elements provide finer filtration, with optimum dirt-holding capacity and permeability.

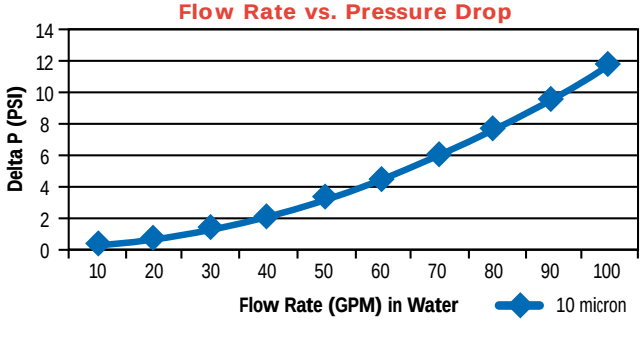
POROMET® MEDIA SELECTION GUIDE

MEDIA TYPE	ELEMENT STYLE	MAXIMUM ΔP (psid)	ABSOLUTE MICRON RATINGS	DIRT-HOLDING CAPACITY	ON-STREAM LIFE	CLEANABILITY	BACK-FLUSHABILITY
POROPLATE®	Cylindrical	125	10, 20, 40, 70, 100, 150	Good	Good	Excellent	Excellent
POROMESH®	Pleated	250	10, 20, 40, 70, 100, 150	Very Good	Very Good	Very Good	Very Good
POROFELT®	Pleated	250	3, 5, 10, 20, 40	Excellent	Excellent	Good	Good

POROPLATE® 10" DOE Elements
Flow Rate vs. Pressure Drop



POROMESH® 10" DOE Elements
Flow Rate vs. Pressure Drop



Poromet stainless steel elements are extremely versatile and can be used in a wide variety of applications with outstanding results. Check the back page of this booklet for just a few of our Poromet element success stories.

POROMET® MEDIA SELECTION GUIDE

APPLICATION	REPLACED	PROBLEMS SOLVED/END RESULT
CHEMICAL PROCESSING APPLICATIONS FOR POROMET® ELEMENTS		
HOT TOLULENE @ 85˚C	Replaced bag filters	• Used nitrogen blow back to clean element, reduced exposure to hazardous materials
TOLUNE DI-ISOCYNATE	Replaced sintered powder metal elements	• Reduced down time • Solved O-ring bypass problem with NPT connection • Provided finer filtration from 13 micron to 10 micron
HOT GAS	Replaced sintered powder metal elements	• Provided lower clean pressure drop and longer on-stream life cycle
ETHYLENE GLYCOL	New application	• Removed soft gels • Met clean pressure drop requirements of 1-2 PSI
METHYLENE CHLORIDE	Replaced disposable elements	• Eliminated swelling and shrinking of elements in fluid
VACUUM GAS OIL	Replaced fiberglass	• Fiberglass elements were expensive and required replacement every 3-4 days at 300˚F • Manual backwash, cost of replumbing and new elements had a pay back of less than 6 months
PHARMACEUTICAL APPLICATIONS FOR POROMET® ELEMENTS		
LIPID EMULSION	Replaced competitors product	• Improved workmanship and quality • Lower pressure drop • Less expensive than competitor
FOOD AND BEVERAGE APPLICATIONS FOR POROMET® ELEMENTS		
GRAPE AND CRANBERRY JUICE FROM PRESS	Replaced filter presses	• Filter presses required tear down after every batch • Automatically precoat elements with DE, eliminated hazardous airborne DE (diatomaceous earth) • Backwash continuous operations with 2 units in parallel

STANDARD CLEANABLE FILTER ELEMENTS

POROMET® ORDERING INFORMATION

EXAMPLE P/N

PM	20	DOE	10

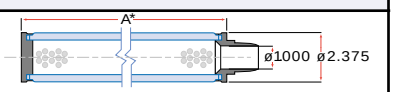
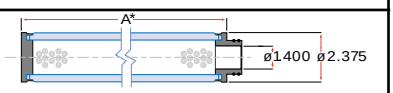
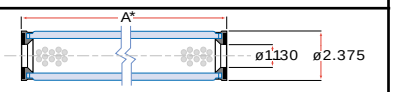
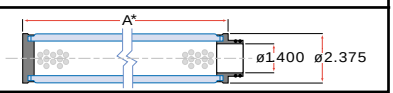
MEDIA TYPE

CODE	DESCRIPTION
PP	POROPLATE®
PM	POROMESH®
PF	POROFELT®

ELEMENT LENGTH

CODE	NOMINAL LENGTH	"A" DIMENSION*
10	10"	10.030/9.950
20	20"	20.030/19.950
30	30"	30.060/29.910
40	40"	40.060/39.910

END FITTINGS

CODE	DESCRIPTION	
NPT	1" NPT WITH HEX NUT	
226	O-RING WITH LOCKING TABS	
DOE	DOUBLE OPEN END	
OR	222 O-RING	

MEDIA GRADE: LIQUID FILTRATION RATING
POROMESH® AND POROPLATE® ELEMENTS

CODE/ MEDIA GRADE	NOMINAL	ABSOLUTE
10	2µ	10µ
20	10µ	20µ
40	30µ	40µ
70	40µ	70µ
100	100µ	100µ
150	150µ	150µ

POROFELT® ELEMENTS

CODE/ MEDIA GRADE	MEAN FLOW PORE SIZE
3	3µ
5	5µ
10	10µ
20	20µ
40	40µ

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