



ERTELALSOP

THE FIRST NAME IN LIQUID FILTRATION™

EFFECTIVE HIGH SOLID FILTRATION PXL FILTER MEDIA

COMPLEX OF FILTRATION MEDIUMS

PXL media is a complex of filtration mediums that enable significantly improved throughput and superior contaminant retention in high solids loading processes. Designed specifically for applications as an initial prefilter or clarification stage filter, PXL media is ideal for protecting price and contaminant sensitive process steps further downstream.

COMPOSITION

Comprised of ErtelAlsop's XL Series depth filter media, PXL media has the filtration benefits and extremely low extractables content that comes from highly purified diatomaceous earth (DE). Couple this with our proprietary P200 web complex, and the PXL media is unparalleled by other traditional cellulosic based depth filter media in gross contaminant loading capabilities.

APPLICATIONS

PXL media is designed to be the upstream bioprocessing filtration workhorse in those soft particulate, high cell count/low viability applications that readily foul the surfaces of other depth filter media. Filtering these solutions with regular depth media results in a rapid decline and termination of flow rate and throughput.

PXL media optimizes the filtration of soft particulate solutions over time by:

- Reduced fouling rate of the filter
- Reduced rate of operating pressure buildup
- Increased flowrate and throughput per setup

Some of the applications for PXL media are:

- Bulk Fermentation Cell and Debris Removal
- Bacteria
- Yeast
- Mold
- Mamalian Cell Culture Clarification
- Most other viscous bioprocess solutions with a high concentration of soft particulate



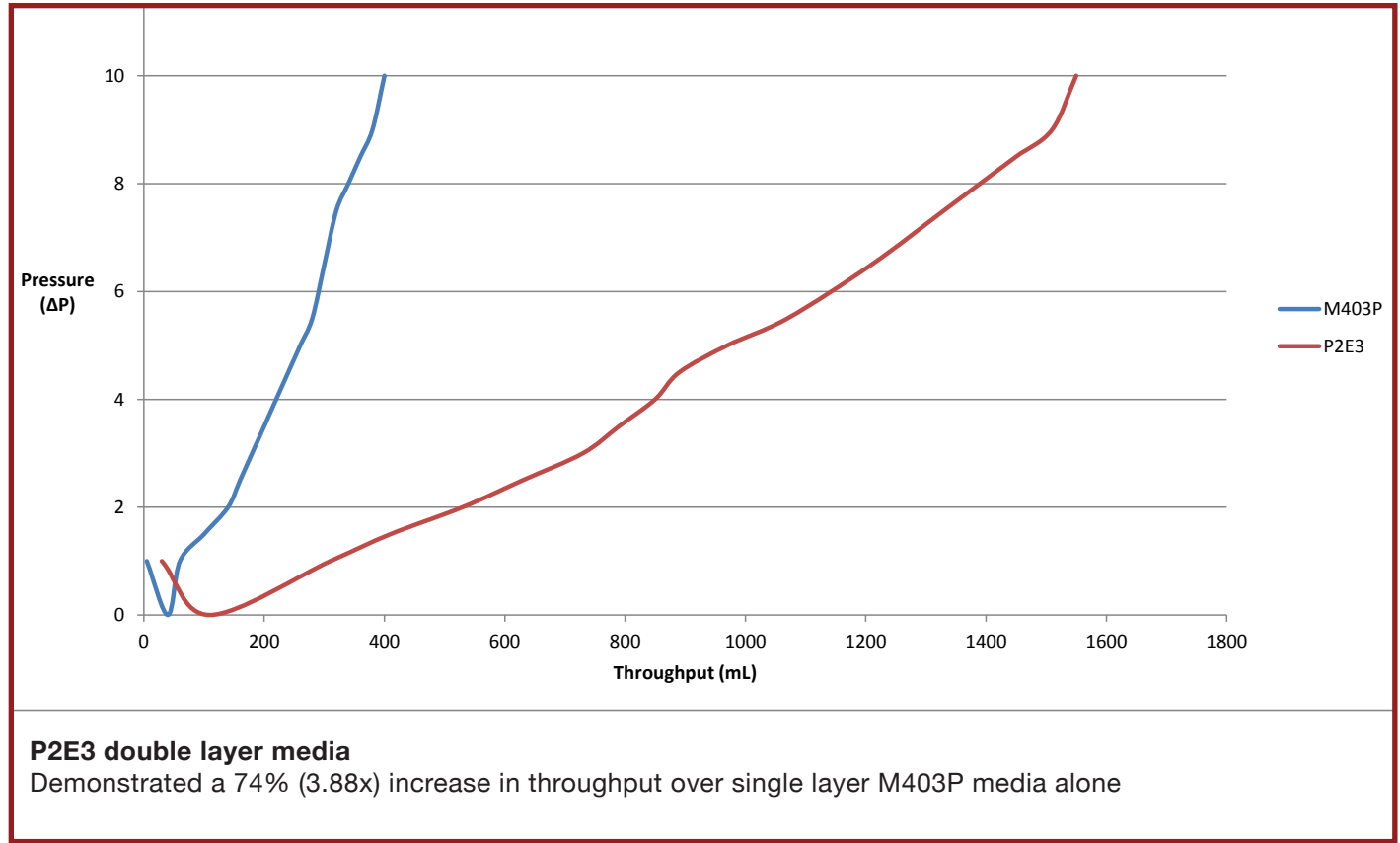
PROCESS IMPROVEMENTS

The effect of process improvements can be felt through cost savings in time and materials. Nowhere is that more evident than with the results seen with improved throughput that comes with the use of PXL media. With typical throughput improvements averaging 3 to 4x, the time involved in initial solids removal can be dramatically reduced and the amount of filtration area necessary can be significantly lowered all amounting to reduction in processing step costs.

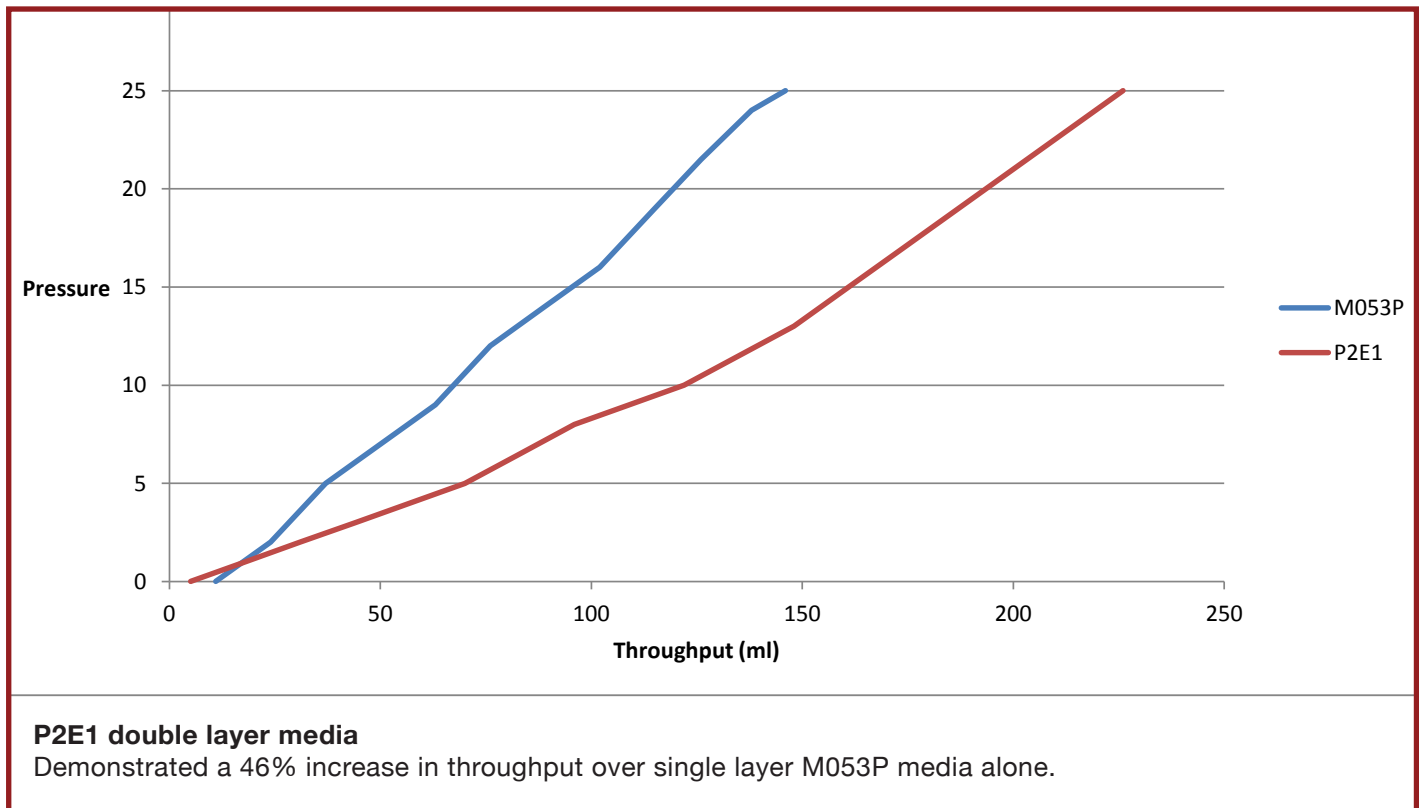
With such dramatic improvements in solids removal through the use of ErtelAlsop's new PXL filter media, the use of other more expensive and capital equipment intensive techniques become less attractive. For example

- Centrifuges pose problems due to their lack of flexibility in sizing and their expense in ever larger systems as process scales increase.
- Chemical flocculants, while promising, lack federal approval and longer term effects on product stability, efficacy and patient exposure have yet to be fully studied.
- Filter presses, still widely used in some markets, lack closed processing, are labor and capital intensive.

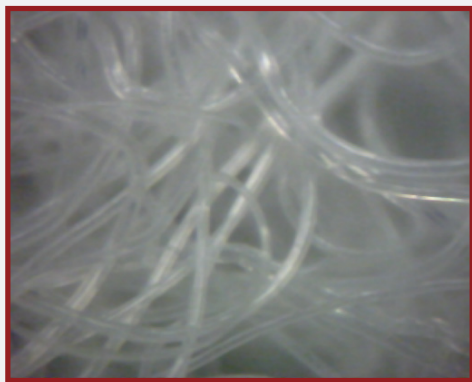
XL Series M403P Throughput



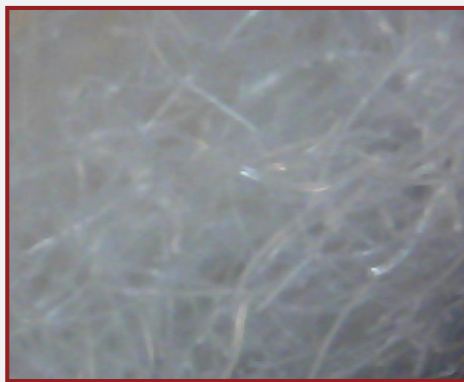
XL Series M053P Throughput



P200 WEB COMPLEX



200x Magnification



Cross Section

AVAILABLE PRODUCT RANGE/SCALABLE FORMATS

ErtelAlsop has made PXL media available in six different sizes of scalable, single-use disposable MicroCap capsules as well as 12 inch and 16 inch diameter lenticular filters for use in housings. Effective filter areas (EFA) range from as little as 23cm² to as much as 3.8 m² per 16 inch Pak cartridge.

ErtelAlsop's 12 inch diameter and 16 inch diameter lenticular filters are available in a number of different formats containing either flat gasket or locking double o-ring end fittings.

To learn more about the choice of models we offer, please contact our sales department by phone at 800-553-7835, or visit our website, www.ErtelAlsop.com for further information.



Pak Cartridge Ordering Information

Example: 12POY4P2E616 is a 12 inch, double O-Ring, poly core Pak cartridge with 16 cells of P2E6 double layer media, and EPDM gaskets.

Diameter	Core	Height	Gasket	Grade	# of Cells
12=12 inch	PO=Polypropylene Core Double O-Ring End Cap	X=7-9/16" Flat Gasket 8-9/16" Double O-Ring	2=Neoprene	See Media Grades Table	3-18
16=16 inch	PF=Polypropylene Core Flat Gasket End Cap	Y=10-7/8" Flat Gasket 11-7/8" Double O-Ring	3=Viton		
			4=EPDM		
			6=Silicone		
			7=Teflon Encap.		
			8=Other		

MicroCap Ordering Information

Example: P2E6CAP05MTB is a MC5 capsule with P2E6 double layer media, 1/2 in. sanitary clamp inlet/outlet, and vent valves.

Media Grade	Type	Size	Inlet/ Outlet	Description	Vent	Description
See Media Grades Table	CAP	01	H	Stepped Hose Barb	O	Luer Lock
		02	3H MT	3/8 in. Hose Barb 1/2 in. Sanitary Clamp	B	Vent Valve
		05				
		10	TC	1 1/2 in. Sanitary Clamp	C	Inlet/Outlet 1/4 in. Bleed Valve
		20				
		30				

PXL Media Grades

Media Grade	Nominal Retention
P2E9	0.25 – 1.0 microns
P2E8	0.3 – 1.25 microns
P2E7	0.45 – 1.5 microns
P2E6	0.8 – 2.75 microns
P2E5	1.0 – 3.0 microns
P2E4	2.5 – 6.0 microns
P2E3	5.0 – 12.0 microns
P2E2	10.0 – 17.0 microns
P2E1	15.0 – 20.0 microns

For additional
product information visit
ErtelAlsop.com

Technical Bulletin
PXL - 15

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