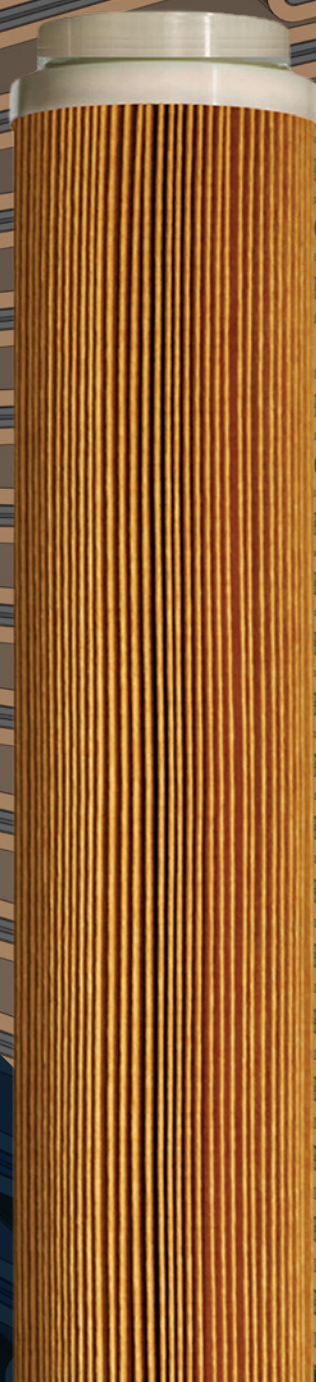




NEXT GENERATION FILTER ELEMENT MPAX™

ENHANCED CONTAMINANT
REMOVAL



PENTAIR.COM

NEXT GENERATION FILTER ELEMENT MPAX™

In today's industrial landscape, filter challenges persist, compromising service life and efficiency.

Pentair Filter Elements support higher efficiency removal of solid contaminants and particulates from fluid process streams.

ENHANCED FILTRATION PERFORMANCE: PENTAIR MPAX FILTER ELEMENT

Pentair MPAX Filter Elements support the reshaping of fluid process filtration.

- ◆ helps extend filtration life for the same flow rates
- ◆ handle higher flow rates within the same housing
- ◆ increased dirt-holding capacity¹
- ◆ optimize capital footprint

Explore the Pentair MPAX Filter Element. An advancement over standard COMPAX Filter Elements that are designed for industries to extend uptime. MPAX Filter Elements support optimal throughput and help extend intervals between change-outs for your filtration systems.

FEATURES AND BENEFITS

- ◆ Helps increase lifetime with innovative pleat design and construction¹
- ◆ Addresses low surface area utilization and pleat blinding¹
- ◆ Help enable increased flow rates without increasing vessel change-outs¹
- ◆ Utilizes the same Pentair filtration media as/ compared to Pentair COMPAX 51/52-series
- ◆ Beta 5000 rated, and tailored for application specifics²



Full Pentair MPAX Filter Element

INNOVATIVE 'M PLEATING SHAPE' DELIVERS UP TO 50%³ INCREASE IN LIFETIME

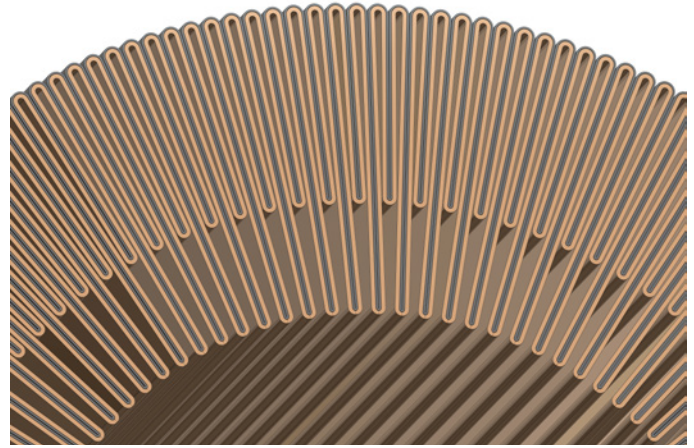
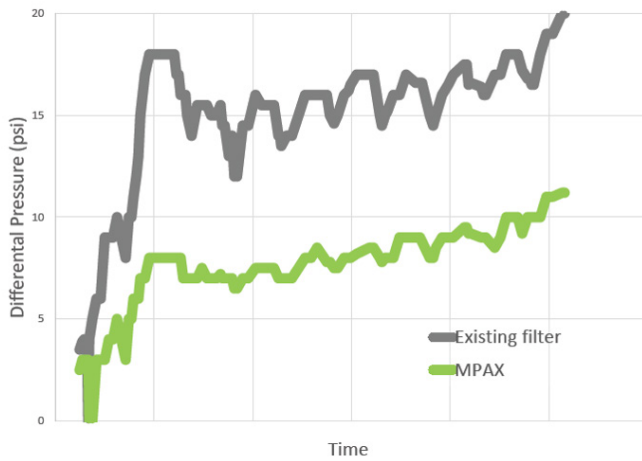
The innovative 'M pleating shape' design of the pleat structure and the media packing help ensure optimal utilization of the filter media.

For industries aiming to enhance up-time, these cartridges offer up to 50%³ increase in lifetime compared to standard Pentair COMPAX Filter Elements. Alternatively, MPAX cartridges can handle up to an additional 20%³ increase in flow rate while achieving equal life to COMPAX.



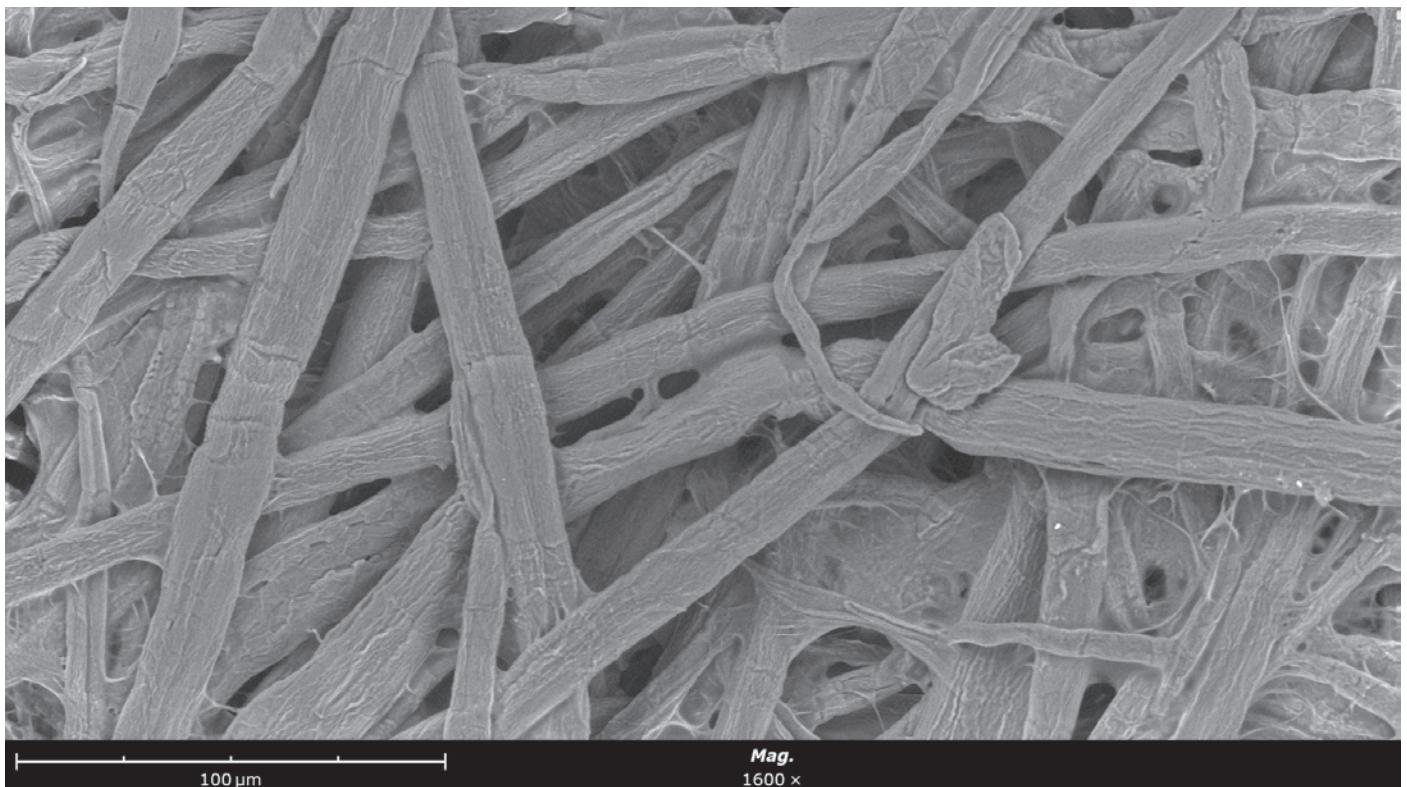
MPAX is named for the new 'M' pleating shape and media packing combination

PRESSURE COMPARISON MPAX™ WITH COMPAX 51-SERIES NEXCEL 10 μm MEDIA



MPAX SPECIFICATIONS

Element type	Pentair MPAX (51 and 52-series)
Separation media	Proprietary NEXCEL media formulation comprised of natural cellulose fibers cross-linked into a locked pore structure specifically designed to separate particulate from high-flow liquid (aqueous or hydrocarbon) streams.
Media efficiency	$\beta^{10} = 5000$ (99.98% efficiency at 10 micron)
End caps	Nylon
Seal	EPDM or Viton O-Ring
Components	Proprietary adhesive(s)
Configuration	Single open end; Outside-in flow
Dimensions	Nominal length: 40" (101.6cm)
Ratings	Recommended change out 25-30 PSID (1.72-2.07 Bars) based on process limits. Maximum operating temperature is 250°F. (121.1°C).



Microscope image of NEXCEL Media: non-woven Beta-rated media

ELEVATING YOUR PROCESS FILTRATION TO NEW HEIGHTS

From superior utilization to extended operational life and impactful cost savings, it's the key to a more productive and cost-effective filtration solution across diverse industries. Discover how Pentair MPAX™ Filter Elements can transform your processes for greater efficiency and savings.

Are you eager to enhance your filtration approach?

Contact your local account manager for more information or visit our website.

- 1 The Dirt Holding Capacity (DHC) is the amount of dirt a filter can collect before reaching a pressure differential. It depends on different parameters, including various media properties, filter surface area, pleat/block layers, flux, and particle morphology.

DHC testing was performed in Conroe, USA in 2021. Over a series of 36 tests, a life and flow rate curve was developed for Pentair MPAX and compared to an equivalent Pentair COMPAX filter at a representative flux. Through each series of tests solid concentration, solid contaminant, and test fluid were held constant.

Comparison between MPAX and COMPAX datasets show an improved life when the flow rate is maintained, or the ability to increase the flow rate and get equivalent life.
- 2 Beta ratings in filtration are used to quantify media performance in terms of micron efficiency. Our media is rated Beta 5000 @10 µm, for example, and means only 1 particle 10 µm or larger gets through the filter in 5000 (99.98% efficient at 10 µm).

Pentair tailors filters for applications in several aspects, including materials of construction for chemical compatibility and process temperatures, to meet any filtration requirements.
- 3 Nine Pentair COMPAX filters were tested to establish baseline performance within a 95% confidence interval during a lab test in Conroe, USA in 2021. Following, five Pentair MPAX were run at different flow rates to generate a life vs flow curve. The MPAX filter had a life of 256 minutes at a flow rate of 20.5 gpm, which is a 62.8% life improvement over the control element (157 minutes). MPAX also had a life of 157 minutes at a flow rate of 26.9 gpm, which is a 31% capacity improvement over the control element (20.5 gpm).



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