

# DeltaMax<sup>®</sup>



## DeltaMax® Absolute-Rated Polypropylene Depth Filter



The DeltaMax® filter is a polypropylene depth filter with absolute removal ratings of 0.5, 1, 3, 5, 10, 20, 40 and 70 micron. It is available in standard industry lengths up to 40 inches. The DeltaMax® filter's unique spiral construction creates a gradient pore structure that maximizes service life and flow rates.

The DeltaMax® filter is compatible with a wide array of chemicals and cleaning agents. It is free of surfactants, lubricants, resin binders, adhesives, antistatic or release agents and other additives.

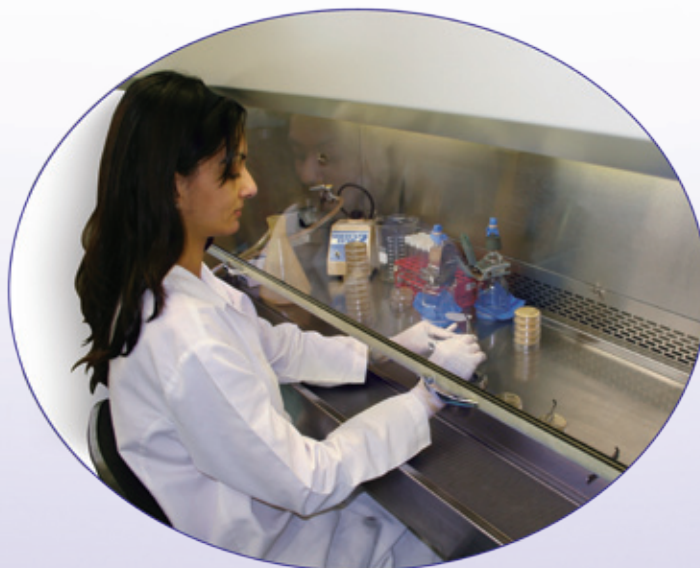
### Typical Applications

DeltaMax® filters are ideal for clarification, polishing, bioburden reduction and prefiltration in:

- Pharmaceutical and biological product and process liquids
- Cosmetics and personal care product liquids
- Microelectronic chemicals, solvents, UPW and CMP slurries
- Wine, beer, mineral water, soft drinks and other beverages
- Water purification systems
- Chemical process

### Features and Benefits

- Absolute-rated media
- Rigid support core for added strength
- Chemically inert polypropylene components
- High dirt-holding capacity for long service life
- Gradient pore structure provides high flow rates
- Resists contaminant unloading even at high differential pressures
- Withstands multiple in situ steam cycles (SIP), hot water sanitizations and chemical cleanings
- Variety of configurations available to fit existing housings



Meissner Technical Services (MTS) provides clients with support for all Meissner products in applications ranging from clarification through sterilization. Complete validation testing and documentation are available for critical applications.

## Materials of Construction

Filter Media:	Polypropylene
Core/Outer Cage:	Polypropylene
End Caps:	Polypropylene
Sealing Method:	Thermal bonding
O-rings:	Buna, EPR, silicone, Teflon® over silicone, Teflon® over Viton®
Gaskets:	Polyethylene

DeltaMax® cartridges are made of filter media which meet the criteria for a non-fiber releasing filter as defined in 21 CFR 210.3(b)(6). The cartridges meet the requirements as specified in the current USP Class VI plastics tests. All materials of construction listed above are FDA approved for food contact use per CFR Title 21,177. DeltaMax® cartridges are manufactured in conformance to cGMP. No binders, lubricants, adhesives, surfactants, anti-static or release agents are used in its construction. The filters comply with European Commission Directive 2002/72/EC and subsequent amendments up to 2008/39/EC and Commission Regulation (EU) No 10/2011.

## Filtration Ratings

Absolute Pore Sizes:  
0.5 µm, 1 µm, 3 µm, 5 µm,  
10 µm, 20 µm, 40 µm, 70 µm

## Cartridge Dimensions (Nominal)

DMG Diameter: 2.75" (7 cm)  
DMN Diameter: 2.5" (6 cm)

## Nominal Lengths

10", 20", 30", 40" (25, 50, 75, 100 cm)

## Maximum Operating Temperatures & Pressures

Δp 80 psi @ 100° F (Δp 5,5 bar @ 38° C)  
Δp 60 psi @ 150° F (Δp 4,1 bar @ 66° C)  
Δp 30 psi @ 180° F (Δp 2,1 bar @ 82° C)

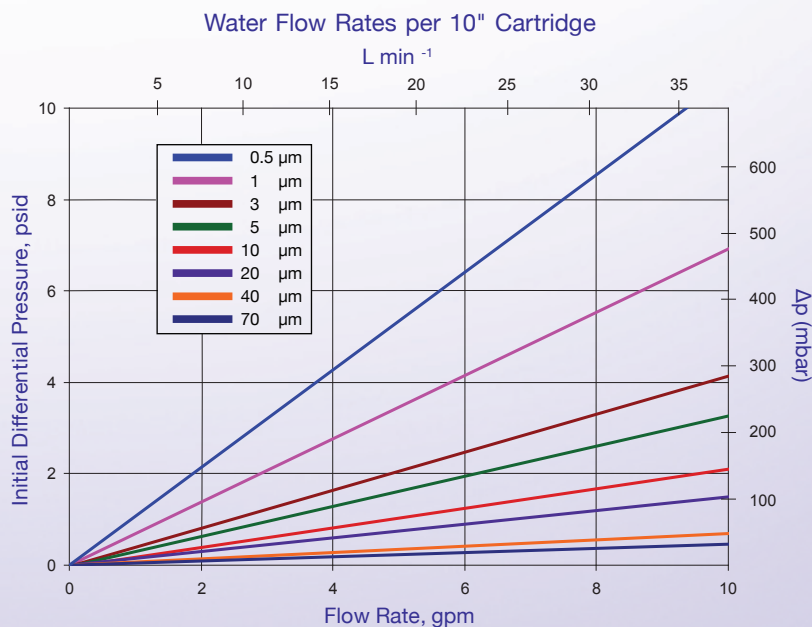
## Sterilization

Steam-in-place (SIP):  
saturated steam @ 121-135° C, 30-60 minutes  
[15 psi (1 bar) to 30 psi (2 bar), 30-60 minutes]

Autoclave: 121-135° C, 30-60 minutes

## Sanitization

Hot water maximum 90° C, 30 minutes



## DMG Configuration



-226 O-ring

External -226 O-rings with locking tabs; open end for C6 and F6 SOE configurations



-222 O-ring

External -222 O-rings; open end for C2 and F2 SOE configurations



-226 nO-Ring

External -226 nO-Ring® with locking tabs; open end for C5 and F5 SOE configurations



-222 nO-Ring

External -222 nO-Ring®, open end for C1 and F1 SOE configurations



Button Cap

Button Cap; closed end for C1, C2, C5 and C6 SOE configurations



Alignment Fin

Alignment Fin; closed end for F1, F2, F5 and F6 SOE configurations

DOE = Double Open End  
SOE = Single Open End

Filter Media	Absolute Rating (µm)	Cartridge Length	End Cap Configuration	Reinforcement Ring Option	O-Ring Material
<i>DMG</i>	<i>0.5</i>	<i>—</i>	<i>F2</i>	<i>R</i>	<i>S</i>
DMG = DeltaMax® absolute-rated polypropylene; outer cage for greater mechanical strength (2.75" diameter)	<b>0.5</b> <b>1</b> <b>3</b> <b>5</b> <b>10</b> <b>20</b> <b>40</b> <b>70</b>	<b>1</b> = 10" (25 cm) <b>2</b> = 20" (50 cm) <b>3</b> = 30" (75 cm) <b>4</b> = 40" (100 cm)	<b>C1</b> = SOE; -222 nO-ring®, button cap end <b>F1</b> = SOE; -222 nO-ring®, fin end <b>C2</b> = SOE; -222 O-rings, button cap end <b>F2</b> = SOE; -222 O-rings, fin end <b>C5</b> = SOE; -226 nO-ring®, button cap end <b>F5</b> = SOE; -226 nO-ring®, fin end <b>C6</b> = SOE; -226 O-rings, button cap end <b>F6</b> = SOE; -226 O-rings, fin end	(Blank) = Standard - no reinforcement ring  R = Reinforcement ring; required for autoclave/SIP applications	<b>B</b> = Buna <b>E</b> = EPR <b>S</b> = Silicone <b>T</b> = Teflon® over silicone <b>V</b> = Viton® <b>X</b> = Teflon® over Viton®

## DMN Configuration



-226 O-ring

External -226 O-rings with locking tabs; open end for C6 and F6 SOE configurations



-222 O-ring

External -222 O-rings; open end for C2 and F2 SOE configurations



Flat Gasket

Flat Gasket; open end for GS and GL DOE configurations



Button Cap

Button Cap; closed end for C2 and C6 SOE configurations



Alignment Fin

Alignment Fin; closed end for F2 and F6 SOE configurations

DOE = Double Open End  
SOE = Single Open End

Filter Media	Absolute Rating (µm)	Cartridge Length	End Cap Configuration	Reinforcement Ring Option	O-Ring Material
<i>DMN</i>	<i>1</i>	<i>—</i>	<i>C6</i>	<i>R</i>	<i>B</i>
DMN = DeltaMax® absolute-rated polypropylene; no cage (2.5" diameter)	<b>0.5</b> <b>1</b> <b>3</b> <b>5</b> <b>10</b> <b>20</b> <b>40</b> <b>70</b>	<b>1</b> = 10" (25 cm) <b>2</b> = 20" (50 cm) <b>3</b> = 30" (75 cm) <b>4</b> = 40" (100 cm)	<b>C2</b> = SOE; -222 O-rings, button cap end <b>F2</b> = SOE; -222 O-rings fin end <b>C6</b> = SOE; -226 O-rings button cap end <b>F6</b> = SOE; -226 O-rings, fin end <b>GS</b> = DOE; flat gaskets (9.75", 19.5", 29.25", 39" length filters) <b>GL</b> = DOE; flat gaskets (10", 20", 30", 40" length filters)	(Blank) = Standard - no reinforcement ring  R = Reinforcement ring; required for autoclave/SIP applications	<b>B</b> = Buna <b>E</b> = EPR <b>S</b> = Silicone <b>T</b> = Teflon® over silicone <b>V</b> = Viton® <b>X</b> = Teflon® over Viton® <b>P</b> = Polyethylene gaskets (GS/GL end caps only)