

**mdj AseptiCap WS** are low protein binding hydrophilic PVDF membrane capsule filters offering serial filtration incorporating a large pore size upstream membrane to protect the downstream membrane for enhanced throughput.

These capsule filters are validated to meet compendia and regulatory requirements and are well characterized. They meet key process requirements such as absolute retention efficiency, extremely low extractables, high throughputs, wide chemical compatibility and other important characteristics.

### Key features

- Absolute retention
- 100% integrity tested
- Low protein binding
- Low extractables
- Very low hold up volume in filters

### Applications

#### Sterile Filtration of

- Antibodies
- Protein Solutions
- Buffers
- Vaccine concentrates
- Small Volume Parenterals

Microbially Validated as per ASTM F 838-05
Complies with USFDA 21 CFR 210.3(b)(6)
Meets and Exceeds USFDA 21 CFR 177.1520



### Specifications

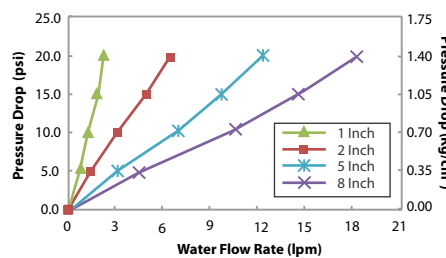
#### Pore Size

0.2 µm and 0.45 µm

#### Materials of Construction

Membrane	Hydrophilic PVDF
Support Layer	Polyester
Plastic Components	Polypropylene

#### Typical Water Flow Rates, 0.2 µm



#### Microbial Retention

**0.2 µm:** LRV >7 for *B. diminuta* (ATCC 19146) per cm<sup>2</sup>

**0.45 µm:** LRV >7 for *S. marcescens* (ATCC 14756) per cm<sup>2</sup>

#### Maximum Operating Temperature

80 °C @ ≤ 30 psi (2 Kg/cm<sup>2</sup>)

#### Maximum Differential Pressure

60 psi (4 Kg/cm<sup>2</sup>) @ 30 °C

#### Bubble Point (with water)

**0.2 µm:** ≥ 50psi (3.51Kg/cm<sup>2</sup>)

**0.45 µm:** ≥ 30 psi (2.11 Kg/cm<sup>2</sup>)

#### Sterilization

**By Autoclave:** Autoclavable at 125°C for 30 minutes, 2 Cycles. Can not be in-line steam sterilized

**By Gas:** Sterilization by Ethylene Oxide

#### Toxicity

Passes Bioreactivity test, In Vivo, as per USP <88> for Class VI plastics

#### Cytotoxicity

Passes Biological Reactivity Tests, In Vitro, USP <87> for cytotoxicity

#### Bacterial Endotoxin

Aqueous extracts exhibit < 0.25 EU/ml as established by Limulus Amebocyte Lysate (LAL) Test as per USP <85>

#### Fiber Release

Passes test as per USP and comply with USFDA 21 CFR Part 210.3(b)(6) for fiber release

#### Particle Release:

The filtrate complies with USP <788> test for particulate matter in injections

#### TOC and Conductivity

Meets the WFI requirements of USP for TOC <643> and Conductivity <645> after a 3 liter flush

#### Extractables with WFI

Passes NVR test as per USP <661>

#### Oxidizable Substances

Passes test as per USP <1231>

### Ordering Information

Type		Size		Pore Size		Inlet /Outlet		X	X	Sterility		Pack Size	
	Code	Length and EFA	Code		Code		Code			Code	Code	Code	Code
AseptiCap WS (0.45 µm Upstream)	DWSX	1" (250 cm <sup>2</sup> )	51	0.2 µm	01	¼" SHB	A	X	X	Non-Sterile	1	1	01
		2" (500 cm <sup>2</sup> )	52										
AseptiCap WS (0.8 µm Upstream)*	DWS5	5" (1000 cm <sup>2</sup> )	53	0.45 µm	02	1½" Sanitary Flange	E						
		8" (2000 cm <sup>2</sup> )	57			¾" Sanitary Flange	S						
						Quick Connector	J						
						Single Step ½" Hose Barb**	Q						
						Female Luer Lock	U						
						Male Luer Slip***	W						
		3/16" Hose Barb****	N										
		3/8" Hose Barb**	I										

**EFA:** Effective Filtration Area  
Example

DWSX	53	01	EE	X	X	1	01
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\*0.8 µm upstream is available with 0.45µm capsule filters only  
 \*\*Single step ½" hose barb and 3/8" Hose Barb end connections are not available in 1" capsule filter  
 \*\*\*Male luer slip end connection is available as outlet only in 1" capsule filters  
 \*\*\*\*3/16" hose barb end connection is available in:  
 - 1" and 2" capsule filters as inlet and outlet  
 - 5" as outlet only