

## Microcap™ GPNSD

Nano-Spun Polypropylene Depth Capsule Filters



**Microcap™ GPNSD general service grade capsules are designed for the removal of particulate contaminants from chemicals, fermentation broths, buffers, biologicals, beverages, and other liquids.**

Constructed with nano-spun polypropylene depth media, these capsules offer a cost-effective solution by removing large quantities of contaminants early in the process, thereby protecting high-value filters used downstream. They are also suitable as standalone filters for clarification or particle removal in less critical applications.

Microcap™ GPNSD capsule filters achieve 99% retention of contaminants at the rated pore size, with pore size options ranging from 0.5 to 100 µm.

### Typical Applications

Microcap™ GPNSD capsules are recommended for clarification & prefiltration of:

- High Purity Chemicals
- Fermentation Broths
- Wine, Beer, Juices
- Buffers & Biologicals
- Container Wash Solutions
- Inks & Dyes
- CMP Slurries
- Water Purification

### Features and Benefits

- Wide range of high efficiency retention ratings
- High capacity for long life
- Designed for minimal extractables
- Non-fibre releasing
- Uses FDA compliant materials

### Ordering Information

Product Code: 7018-11		xxx	-	x	-	x	-	x	x	
Micron Rating (µm)	Pre-sterilised	Length	Inlet		Outlet					
P50 0.50 (µm)	N Non-sterile	02 2"	A	1/4" Female NPT	A	1/4" Female NPT	B	1/4" Male NPT	B	1/4" Male NPT
001 1.0 (µm)	S Sterile	05 5"	B	1/4" Male NPT	C	3/8" Female NPT	C	3/8" Female NPT	D	1/2" Female NPT
003 3.0 (µm)		10 10"	C	3/8" Female NPT	D	1/2" Female NPT	E	1/2" Male NPT	E	1/2" Male NPT
005 5.0 (µm)		20 20"	D	1/2" Female NPT	F	1" Sanitary	F	1" Sanitary	G	Hose Barb*
010 10 (µm)		30 30"	E	1/2" Male NPT	G	Hose Barb*				
020 20 (µm)			F	1" Sanitary						
050 50 (µm)			G	Hose Barb*						
100 100 (µm)										

## Maximum Operating Parameters

<b>Liquid Operational Pressure</b>	5.52 bar at 20°C (80 psi at 68°F)
<b>Gases Operational Pressure</b>	4.14 bar at 20°C (60 psi at 68°F)
<b>Operating Temperature (water)</b>	43°C at 2.07 bar (110°F at 30 psi)
<b>Reverse Differential Pressure</b>	1.38 bar at 20°C (20 psi at 68°F)
<b>Recommended Changeout Pressure</b>	2.41 bar (35 psid)

## Sanitisation and Sterilisation

<b>Chemical Sanitisation</b>	Performed using industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.
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## Specifications

### Materials of Manufacture

Housing:	Polypropylene
Filtration media:	Melt-Blown Polypropylene
	Depth Media
Media support:	Polypropylene
End caps:	Polypropylene
Sealing method:	Thermal bonding

## Clean Water Flow Rates

A 2" capsule with 1" sanitary inlet and outlet point, exhibits the flow-ΔP characteristics indicate below, for solutions with a viscosity of 1 centipoise.

