CMP StarKleen™ Nano Filter Capsules



Data Sheet MECMPSNCENb

Description

CMP StarKleen[™] Nano filter capsules have been developed for the classification of both ceria and low solids colloidal silica slurries at or near tools used in advanced CMP processes, such as shallow trench isolation (STI) and barrier copper. Pall's most advanced melt-blowing process has been utilized to manufacture extremely fine fibers that improve removal efficiency of particles as fine as 100 nm. The ultra-fine fiber matrix is ideally suited for removing particles like ceria that are predominantly captured by mechanical filtration mechanisms like sieving.

Features & Benefits

- Multi-zone pore construction optimizes both efficiency and long service life
- Compact, completely disposable all-polypropylene material with Flare style or NPT connections for easy change-outs. Vents and drains are available with either NPT or Flare style fittings
- Each zone is manufactured to a given specification that ensures consistent, reproducible performance
- Steep efficiency curves result in minimal strip-out of desirable slurry particles while sharply increasing removal of oversized particles



Specifications

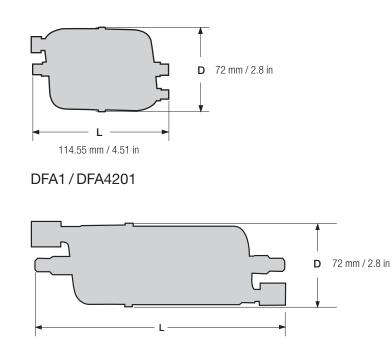
	Medium: Polypropylene		
Materials	Core: Polypropylene		
	Shell: Polypropylene		
Removal Rating	100 nm		
Operating Conditions ¹	Maximum operating pressure: 0.5 MPa @ 25 °C / 72.5 psig @ 77 °F		
	Maximum operating pressure: 0.2 MPa @ 40 °C / 29 psig @ 104 °F		
	Maximum operating temperature: 40 °C / 104 °F		
Connections	Inlet / outlet: 1/4" NPT, 1/4" Flare style, 3/8" Flare style		
	Vent / drain: 1/8" NPT, 1/4" Flare style		

¹ In compatible fluids which do not soften, swell, or adversely affect the filter performance or materials of construction.

Typical Flow Characteristics – 1 cP fluid, 20 °C

Flow rate (gpm) 0.1 14 Differential pressure (MPa) 12 Differential pressure (psid) 0.08 DFA1 / 4201 10 DFA2 0.06 8 6 0.04 4 0.02 2 0 0 1000 1500 2000 0 500 Flow rate (mL/min)

Dimensions



213.40 mm / 8.4 in

DFA2

Part Numbers / Ordering Information

Part Number	Removal rating	Connections Inlet, outlet / Vent, drain	Nominal length (mm / in)
DFA4201NP100	100 nm	1/4" NPT / 1/8" NPT	114.55 / 4.51
DFA1NP100FL4N2	100 nm	1/4" Flare style / 1/8" NPT	114.55 / 4.51
DFA2NP100F64	100 nm	3/8" Flare style / 1/4" Flare style	213.40 / 8.4



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