

# Zen Cap<sup>®</sup> Z Style Full Size Capsules

## 10"-40" Disposable Process Filtration

ZenCap<sup>®</sup> Z style capsule filter assemblies are ready-to-use, full size filters that offer high flows, increased throughputs, high strength, all with the convenience and cleanliness of a disposable and easy-to-install filter assembly. Designed for pre-filtration, clarification, and final filtration of medium to large scale batches (100L to 5000L), in the pharmaceutical, biotechnology, food and beverage, medical, chemical, and DI water.

ZenCap<sup>®</sup> Z Style capsule assemblies are available with a wide range of hydrophilic and hydrophobic filter media and pore sizes for liquid, gas, and venting applications. Process engineers can choose from 4 filtration medias to create any combination of **integrated** filtration train. These will allow the disposable processing to become truly flexible, clean, and optimal.

They can be built in a T-style or In-line configuration with 12 inlet and outlet fitting connections that can be mixed and matched. The filtration shell is an all-polypropylene construction that provides excellent chemical compatibility with low extractables. The shell and supports can also be constructed in nylon, polyethylene or gamma stabilized PP shells for additional compatibility. No adhesives, binders, or surfactants are used in the manufacturing process.

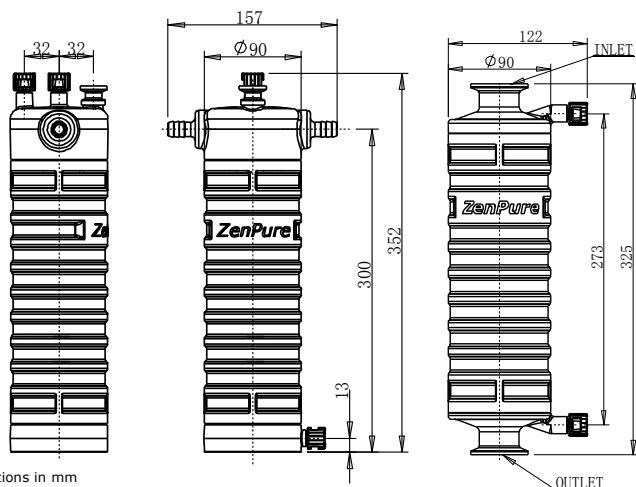


Applications	
Clarification	Water & Wine
Hard Particle	Food & Beverages
Cell Removal	Pharmaceuticals
Chemicals Biologics	
Inks, Dyes	Oils, Waters
Cosmetics Diagnostics	

### Specifications

Materials of Construction: Media	Media: Charged Nylon, Hydrophilic PTFE, Nylon, and PES Supports: Polyester Shell, Cage, Core: Polypropylene End Caps: Nylon Sealing: Thermally bonded
Fitting Connections:	12 Fittings - See Ordering Guide for availability. (Custom adaptors available upon request)
Nominal Dimensions:	Lengths: 10", 20", 30", 40" Diameter: 3.54" (90mm)
Effective Filtration Area:	See Cartridge Datasheet for more information (Dependent on Media)
Available Ratings:	0.04um - 10.0um (Dependent on Media)
Operating Conditions:	Maximum Operational Pressure: Liquid: 5.5 bar (80psi) at 72°F/22°C Minimum Burst Pressure: 8.3 bar (120psi) at 72°F/22°C Maximum Forward Differential Pressure: 5 bar (72psi) at 72°F/22°C Maximum Reverse Differential Pressure: 3.0 bar (44psi) at 72°F/22°C Maximum Operating Temperature: PP, Gamma PP & Nylon: 176°F/80°C
Regulatory Compliance:	The filters are constructed with polypropylene resins and filtration media in compliance with 21CFR Part 177 of the US Code of Federal Regulations and USP Class VI Biological Test for Plastics.

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Dimensions in mm

### Specifications (cont.)

#### Autoclavable & Sanitizable:

Capsules can be autoclaved 25 times at 257°F/125°C for 30 minutes (5 times for Nylon) or chemically sanitized in situ using common sanitizing agents or hot water at 194°F/90°C for a limited time (dependent on time and temperature). Capsules must not be in situ steam-sterilized.

#### Bacterial Endotoxin:

Effluent is non-pyrogenic per USP Bacterial Endotoxin (0.25 EU/ml), determined using Limulus Amebocyte Lysate (LAL) Test.

### PureFlo ZenCap Z Style Filter Capsule Ordering Guide

ZenCap Capsule Series	Configuration	Length	Filter Media	Pore size (Micron)	Vents **	Input Fitting	Output Fitting	Options	
LZ = Pharma Grade	I = In-Line	1 - 10"	CN = Charged Nylon	Pick From Pore Size Table	A = No vents B = 1/2" Sanitary vent C = 1/2" Sanitary vent, with upstream and down stream 1/4" Bleed Valve D = 1/2" Sanitary vent, with upstream 1/4" Bleed Valve E = 1/2" Sanitary vent, with down stream 1/4" Bleed Valve F = Inlet and Outlet 1/4" Bleed Valve G = Inlet 1/4" Bleed Valve H = Outlet 1/4" Bleed Valve Note: Option B, C, D & E not for In-Line	1QFV = 1/8" Female Quick connect	1QV	Shell Material Blank = Polypropylene -GP = Gamma Stable Polypropylene	Prefilters -G(pore Size) = Glass Fiber PreFilter -P(pore Size) = PolyPro Media PreFilter -S(pore Size) = PES PreFilter
	T = T-Line	2 - 20" 3 - 30" 4 - 40"	HF = Hydrophilic PTFE N = Nylon S = PES			1QV = 1/8" Male Quick connect w	1QV		
PP Shell & Nylon end-caps Polyester support Polypropylene Cage & Core 90mm Diameter Capsule for full size cartridges						2QFV = 1/4" Female Quick connect	2QV		
						2QV = 1/4" Male Quick connect w	2QV		
						3H = 3/8" Hose Barb	3H -N = Nylon		
						4H = 1/2" Hose Barb	4H		
						4Q = 1/2" Male Quick connect	4Q Sterilization		
						5H = 9/16" Hose Barb	5H	-ETO = Ethylene Oxide Sterilization	
						6H = 3/4" (19mm) Hose Barb	6H		
						8H = 1" (25mm) Hose Barb	8H O-Rings		
						TC = 1-1/2" Tri-Clamp	TC	Blank = O-Ring Silicon (Standard)	
						2T = 2" Tri-Clamp	2T	-OE = O-Ring EPDM -ON = O-Ring Nitrile -OV = O-Ring Viton	
Example 1 - ZenCap LZ Series Capsule, T-Line, PES 0.45um/0.2um, 20" filter, with all vent and drains, 1.5" Tri-Clamp fittings I/O, would be LZT2S045020CTCTC									
Example 2 - ZenCap LZ Series Capsule, In-Line, GF0.5um/PES 0.2um, 10" filter, with all vent and drains, 1.5" Tri-Clamp fittings I/O, would be LZI1G050S020CTCTC									

Notes: For -GP options, the standard pleat support will be PET for gamma stability

\*\* 1/4" Drain bleed Valve standard on all T-Line filters Except for option A

Pore size (Micron)			
Charged Nylon (CN)	Phylic PTFE (HF)	Nylon (N)	PES (S)
005 = 0.05	010 = 0.1	005 = 0.05	004 = 0.04
010 = 0.10	020 = 0.2	010 = 0.10	010 = 0.1
020 = 0.20	045 = 0.45	020 = 0.20	020 = 0.2
045 = 0.45	100 = 1.0	045 = 0.45	045 = 0.45
065 = 0.65	300 = 3.0	065 = 0.65	065 = 0.65
080 = 0.80	500 = 5.0	080 = 0.80	080 = 0.8
120 = 1.20	999 = 10.0	120 = 1.20	120 = 1.2



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