

# ZCore Depth Filters

## Featuring patented Z.Plex\* Technology

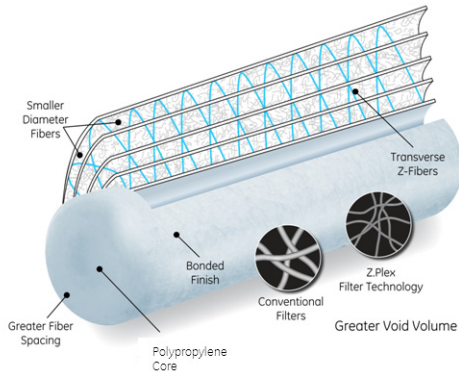


Figure 1: ZCore using Z.Plex Technology

### Features and Benefits

ZCore is manufactured using patented Z.Plex\* filter technology and is engineered specifically for high strength filtration. (See Figure 1) The patented filter matrix of the ZCore provides unmatched performance in these applications.

The ZCore filter composition incorporates small diameter fibers and an innovative 3-dimensional fiber matrix. The filter matrix maintains structural integrity while greatly increasing the filter's particle holding capacity and reducing pressure drop. An additional polypropylene support core enhances strength and temperature resistance. This unique construction allows for excellent removal efficiency, high contaminant capacity and long life.

### Benefits:

- Greater contaminant capacity compared to filters with equivalent removal efficiency (Note: 90% removal efficiency at rating using ASTM F-795 Retention based on GE efficiency test protocol)
- High Temperature Capability (see Table 3)
- Melt-bonded exterior ensures no media migration and helps prevent premature surface blinding
- Provides lower total cost of filtration operations
- FDA compliant
- Product meets criteria for USP Class VI
- High strength polypropylene core
- Resists contaminant unloading even at high differential pressures

### Typical Applications

- Elevated temperature uses such as hotwater sanitizing in food and beverage processes, process and chemical streams
- High viscosity fluids that require filter strength under heavy loading and high pressure conditions
- Applications that experience high pressure drop

### General Properties

Tables 1, 2, 3 and 4 provide information on dimensions and flow performance.

Table 1: Materials of Construction

Core	Polypropylene
Media	Polypropylene
Adapters	Polypropylene

Table 2: Nominal Outside Diameter

0.5, 1.0, 3.0 micron	2.75in (6.99 cm)
5.0 to 200 micron	2.55 in (6.48 cm)



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**Table 3: Operational Limits**

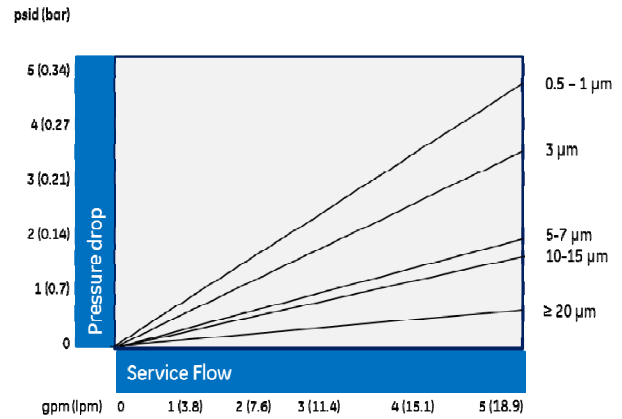
Maximum forward differential pressure	15 psid (1.03 bar) at 180°F (82°C)
	25 psid (2.07 bar) at 150°F (66°C)
	60 psid (4.14 bar) at 86°F (30°C)
Maximum recommended change-out pressure	35 psid (2.41 bar)

**Additional Information**

- ZCore cartridge filters are made from thermally bonded fibers of polypropylene. GE certifies that it uses no resin binders, lubricants, antistatic or release agents, in the manufacture of these filter cartridges. The resin used for manufacturing the filter media meet the food contact requirements of the U.S. FDA 21CFR 177.1520. ZCore cartridge filters meet the safety requirements of Article 3 of the EU Framework Regulation No. 1935/2004/EC and may be used as intended in all of the EU Member states in full compliance with the EU Plastics Regulation No. 10/2011. ZCore cartridge filters meet the criteria for USP class VI-121 C Plastics..
- ZCore cartridge filters are designed and manufactured for resistance to a wide range of chemical solutions. Conditions will vary with each application and users should carefully verify chemical compatibility. Please contact your GE representative for more information.

- ZCore cartridge filters may be autoclaved for 30 minutes at 250°F (121°C) under no end load conditions. The autoclaved cartridges must feature single open-end connections (222 o-ring with closed end). Filter cartridges should be allowed to cool to normal system operating temperatures prior to use.
- If you are ordering ZCore filters with standard ends (with no adapter on either end), select one designation from each of the first three columns. Your Product Order Number will look like this: ZCore 05-40. If you are ordering ZCore with end adapters, select designations from all applicable columns. Your Product Order Number will look like this: ZCore 05-40 XK.

**Table 4: Flow Performance in Clean Water (based on 10 inch length filter)**



**Table 5: Ordering Information**

Type	Micron Rating	Nominal cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer material	
ZCore	95 = 0.5 µm	30 = 30 µm	1 = 10 in (25 cm)	X = Plain End (no adapter)	X = Plain End (no adapter)	S = Silicone
	01 = 1 µm	40 = 40 µm	2 = 20 in (51 cm)	Y = Open End Gasket	K = Self-Spring Seal	E = EPDM
	03 = 3 µm	50 = 50 µm	3 = 30 in (76 cm)	E = 222 O-Ring	Y = Open End Gasket	V = Viton <sup>1</sup>
	05 = 5 µm	75 = 75 µm	4 = 40 in (102 cm)	F = 226 O-Ring	S = Closed End Cap	B = Buna
	07 = 7 µm	100 = 100 µm		L = Extended Core	H = Fin Adapter	P = Santoprene (flat gasket only)
	10 = 10 µm	120 = 120 µm				
	15 = 15 µm	150 = 150 µm				
	20 = 20 µm	200 = 200 µm				
	25 = 25 µm					

<sup>1</sup>Viton is a registered trademark of DuPont.

