

# Depth-Clear P-Series & LE-Series Lenticular Filter

- Single and Dual Layer Configurations



Depth-Clear P-Series depth lenticular filters are specifically formulated to meet the performance requirements of the pharmaceutical and biotech industry. The filter media utilize mechanical and electrokinetic adsorptive capture mechanisms to remove particles, microorganisms, colloids, and pyrogens from critical process streams. A leader in depth filter media development, we have invested years of research and development to create a range of filter grades to meet stringent application requirements.

The Depth-Clear proprietary formulation process produces filter media with exceptionally high effective filtration area that provides superior particle retention, high contaminant holding capacity, and long on-stream filter life. Manufacturing by means of an advanced, highly automated production process results in consistent product quality and filtration performance. Parker can provide technical assistance to validate the performance of Depth-Clear lenticular filters in new processes and applications.

The filter media is non-toxic in accordance with systemic injection testing. An alternate low extractable (LE Series) grade is available for susceptible processes and high-purity applications. The Depth-Clear P & LE grades have complete product control and traceability.



## Features and Benefits

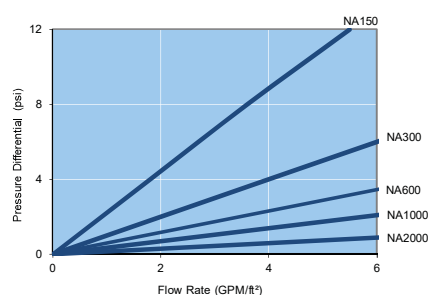
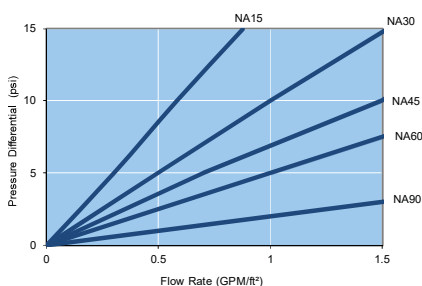
- High surface area lenticular filters provide superior filtration performance and long on-stream life cycles
- Proprietary formulation process results in depth media with exceptional particle retention via mechanical and electrokinetic capture
- The advanced manufacturing process controls result in very uniform filtration media and consistent lot-to-lot performance
- Lenticular filters are easy to handle and install, allowing for quick and easy change outs
- Special low extractable formulation (LE Series) available for sensitive applications
- Available in single (Depth-Clear) and dual-layer (Depth-Clear II) format.
- Manufactured in an ISO 9001 Certified Quality System Environment

## Applications

- Antibiotics
- Blood Products
- Cell Separation
- Intravenous Solutions
- Chromatography Column Protection
- Post Fermentation Clarification
- Small and Large Volume Parenterals
- Cough Syrups

## Performance Characteristics

### Water Flow Curve



## Specifications

### Materials of Construction

Media: Cellulose fibers with organic filter aids, and resin binders

Flat Adapter: Polypropylene

Core Straps: Stainless Steel

O-rings/Gaskets: EPR, Silicone, Nitrile, Viton®, Expanded Teflon®

Bayonet Adapter: Polypropylene

Support Material: Polypropylene

### Sterilization

In-situ Steam: 20 min. @ 134°C [273°F]  
1 hr. @ 126°C [258°F]

Autoclave: 30 min. @ 121°C [249°F]

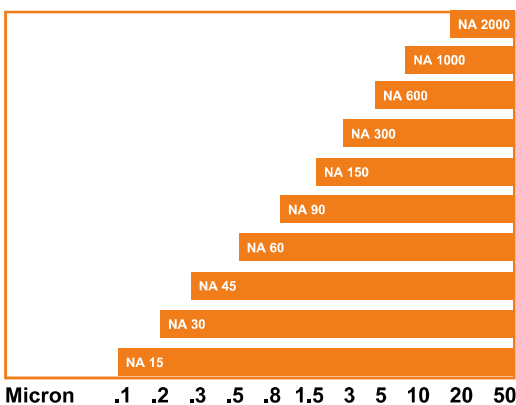
### FDA Conformity

All materials conform to FDA standards regarding material contact during food and beverage processing.

### Toxicity

Depth-Clear Series filter components comply with USP XXII standards for Class VI plastics at 121°C.

## Nominal Retention Ratings



## Performance Specifications

<b>Maximum Pressure</b>	35 psid @ 140°F / 60°C
<b>Maximum Temperature</b>	180°F / 82°C
<b>Recommended Flow Rate</b>	0.5 to 1 gpm/ft <sup>2</sup> 20-40 L/min/m <sup>2</sup>

## Nominal Dimensions

Single Layer	Diameter in (cm)	Height in (cm)	Filter Area ft <sup>2</sup> (m <sup>2</sup> )	# Cells
C9	11 1/8 [28.3]	7 11/16 [19.5]	11 (1.0)	9
C16	11 1/8 [28.3]	10 7/8 [27.6]	19 (1.8)	16
D14	16 3/4 [42.6]	10 7/8 [27.6]	38 (3.5)	14
D14B	16 3/4 [42.6]	13 [33.0]	38 (3.5)	14
Dual Layer	Diameter in (cm)	Height in (cm)	Filter Area ft <sup>2</sup> (m <sup>2</sup> )	# Cells
C8	11 1/8 [28.3]	7 11/16 [19.5]	9 3/5 (0.9)	8
C13	11 1/8 [28.3]	10 7/8 [27.6]	15 3/5 (1.5)	13
D9	16 3/4 [42.6]	10 7/8 [27.6]	24 2/5 (2.3)	9
D9B	16 3/4 [42.6]	13 [33.0]	24 2/5 (2.3)	9

Consult Factory if 12" diameter is required.

## Ordering Information

### Single-Layer Lenticular Filter Selection Guide

NA	1000	K	P	C16	-	01	B
Media	Code	Micron	Formulation	Series	Diameter/Cells	Gasket Material	Adapter
Depth-Clear	15	0.15 µm	K K Grade	P Pharmaceutical PLE <sup>1</sup> Pharmaceutical with Low Extractables	C9 9 C16 16 D14 14	01 EPR 03 Silicone 04 Nitrile 08 Viton® 09 Teflon® 15 Expanded Teflon®	B Bayonet Flat Blank

### Dual-Layer Lenticular Filter Selection Guide

NA	15	/	30	K	P	D9	-	08	B
Media	Upstream Micron <sup>2</sup>	Downstream Micron <sup>2</sup>	Formulation	Series	Diameter/Cells	Gasket Material	Adapter		
Depth-Clear II	15	0.15 µm	15 0.15 µm	P Pharmaceutical PLE <sup>1</sup> Pharmaceutical with low extractables	C8 <sup>3</sup> 8 C13 13 D9 9	01 EPR 03 Silicone 04 Nitrile 08 Viton® 09 Teflon® 15 Expanded Teflon®	B Bayonet Flat Blank		

<sup>1</sup>For single and dual layer, PLE option is only available from 0.45 - 20 µm  
<sup>2</sup>Consult factor for combinations  
<sup>3</sup>Bayonet style adapter is not available

**WARNING:** This product can expose you to chemicals including silica, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).