Target Market:

Coatings

Application:

High Quality Printing Companies

Application Description

High resolution printing for bar coding, magazines, packaging and labeling use a variety of colors that are sprayed onto the surface in precise areas. To maintain the appropriate print quality, each color must be filtered to remove particles that can plug the spray nozzles or cause print misses.

Material: Porous Polyethylene

Types of Filters Used

Typical filters used in high quality printing applications are polyolefin depth filters or No. 3 or No. 4 size bag filters.

Purpose of Filtration

The primary purpose of filtration is to remove particulate contamination that causes print imperfections or misses. Each color is filtered (often in Graco housings) on the printing machine.

Common Filtration-Related Problems

- Fish Eyes - Defects caused by lubricating oils (silicone) sometimes found on filters to assist in the manufacturing processing
- Nozzle Plugging - Particulate by-pass or bleed through the filter
- Print Misses - Incorrect printing caused by contaminants

POREX

Sintered High-Density or Ultra-High Molecular Weight Polyethylene

FEATURE	ADVANTAGE	BENEFIT
Rigid, Omni-Directional Pore Structure		
· Absolute Ratings	• Consistent pore structure minimizes performance changes caused by differential pressure	• Reproducible performance
· Narrow Pore Size Distribution	• Highly-effective surface filtration for particles larger than the filter pore size rating	• Allows for effective cleaning, backwash and reuse
· Thermally-Bonded	• Sintered omni-directional pore structure	• No media migration, bypass or unloading from 5 to 100 microns
· Excellent Chemical and Thermal Compatibility	• High chemical resistance of HDPE and UHMWPE	• No chemical degradation resulting in bypass or contamination of the process fluid
	• Completely incineratable with a high BTU output	• No incineration residue
Unique, Molded Radial Design		
· High Surface Area	• Low pressure drop and higher flow rate	• Increased life or fewer filters results in lower filtration costs
· Open Channels	• Easy access to filtration area	• Effective filtration and cleaning
· Single-Layer Structural Media	• Eliminates unnecessary support materials	• Improves backwash and cleanability
· Rigid, One-Piece Construction	• Multiple diameters, lengths and end configurations	• Easily adapts to existing filtration systems

PERFORMANCE COMPARISON

Rigid, Omni-Directional Pore Structure

POREX Radial Cartridge Filter vs	Bags	Depth Cartridges
Micron Rating	= / -	= / -
Absolute Filtration	= / +	= / +
Surface Retention	= / +	= / +
Classification Filtration	+	= / +
Sintered Process	+	+
Polyolefin Material	= / +	=
Chemical Compatibility	=	=
Thermal Compatibility	=	=

Unique, Molded Radial Design

POREX Radial Cartridge Filter vs	Bags	Depth Cartridges
Backflushable	+	+
Surface Area	+	+
Molded Construction	+	+
Rigid Structure	+	= / +
Open Pleats	+	+
Disposal Cost	-	+
Performance Priced	+	+
Single Material	= / +	=
Vessel Seal	+	=
Housing Fit	-	=

Symbol Key: = Porex equivalent + Porex advantage - Porex potential limitation

POREX

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