

Data Sheet

Hardware for Pod disposable depth filter systems

Innovative, high-performance Pods are ideal for primary and secondary clarification in lab, pilot and process-scale applications.

Millistak+® and Clarisolve® depth filter media are offered in a scalable, disposable format, the Pod Filter System. Accommodating applications from lab to pilot to process scale, the Pod format offers greater flexibility because of its unique modular design.

The Pod system is ideal for a wide variety of primary and secondary clarification applications, including cell cultures, yeast and *E. coli* lysates post centrifuge, *E. coli* refolds, media, vaccines, plasma proteins and sera.

The system's modular design allows users to operate the system with as few as one at pilot scale and as many as 30 Pod filters installed at the process scale. These options make it easy to configure a system for a specific application, and conveniently reconfigure it as process capacity requirements scale-up or down.



Benefits

- Modular format offers scalability from 5 to 12,000 liters or more
- Optional 100% disposable flow path eliminates need for housing, CIP, cleaning validation
- Robust construction is easy to use and set up
- Increase your installed surface area by 6x within the same footprint

Linear Scalability

The innovative Pod filter system consists of seven filter sizes and two expandable holders. No matter what size Pod filter you choose, the same flow path and configuration ensures a linearly scalable solution from bench to process scale.

Easy to Use

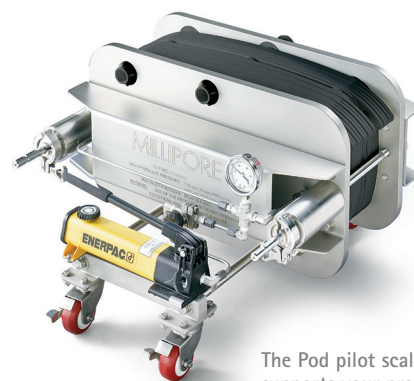
With the compact, modular design of our Pod system, you can increase productivity and shorten cycle times.

Installation and set-up of the Pod system is simple and straightforward. The unique design of the disposable adapters makes it easy to connect the Pods to the process piping. The self-contained and disposable nature of the system protects operators from exposure to biohazards and eliminates maintenance as well as cleaning validation requirements.

Configurations

- **Pilot scale holder** — accommodates up to two full size Pods. An optional accessory kit expands capacity to 5 full scale Pods. Total surface area is dependent on media grade.

- **Process scale holder** — accepts from five to ten Pods per rack. Up to three racks can be stacked for process flexibility. Total surface area is dependent on media grade.
- **Disposable adapters** — connect Pods to process piping, creating disposable flow path.
- **Disposable diverter plates** — enable more than one media grade on a single rack
- **Disposable feed and filtrate manifolds** — make your flow path 100% disposable by replacing the stainless steel manifolds with disposable versions. Available for 1, 2, and 3 rack process scale holders.



The Pod pilot scale holder supports your process as you scale up.

Pod Holder Specifications*

Surface Area	Pilot Scale	Process Scale
Materials of construction Manifold Diverter plate End plates	N/A Polypropylene 304 stainless steel	316 L stainless steel Polypropylene 304 stainless steel
All metal surfaces in contact with process fluids	N/A	316 L stainless steel
Manifold surface finish, internal	N/A	Electropolished, Ra <0.5 µm (<20 micro-inches)
End plate clamp and guide rods	17-4 PH steel	17-4 PH steel
All other metal surfaces	304 stainless steel	304 stainless steel
TC gaskets	Thermoplastic Elastomer (TPE)	Thermoplastic Elastomer (TPE)
TC clamp	304 stainless steel 2 piece clamp	304 stainless steel 2-piece clamp
Performance properties	Capable of supporting and sealing pod filters up to 50 psig maximum operating pressure at 25 °C. Inlet and outlet connection to the pods and vents are via disposable adapters.	
Maximum differential pressure Forward Reverse	50 psid (3.5 bar) at 25 °C; 15 psid (1.0 bar) at 80 °C 30 psid (2.1 bar) at 25 °C	
Regulatory information	Sealing materials and plastics in contact with the product meet USP <88> biological reactivity test for Class VI plastics and are Title 21 CFR 177.2600 and 177.1550 compliant.	

Pod Disposable Manifold Specifications*

Pod Disposable Manifold	Specifications
Materials of construction Polypropylene Double braided silicon tubing Silicone gaskets Glass filled nylon clamps	Max. operating pressure: 50 psi Hot water sanitization: 1 cycle of 80 °C for 30 minutes Toxicity: Component materials comply with the requirements of USP <88> biological reactivity tests for Class IV plastics

*No holder required for lab scale pod

Ordering Information

Description	Qty/Pk	Catalogue No.
Pilot Scale Holder		
For pod configurations from 1 to 2 filters	1	MP0DPILOT
Pilot holder expansion kit allows for pod configurations up to 5 filters	1	MP0DPILOTX
Process Scale Holders		
1-rack holder; for 5 to 10 filters; Gemü® valves	1	MP0DSYS1A
1-rack holder; for 5 to 10 filters; ITT valves	1	MP0DSYS1B
1-rack holder; for 5 to 10 filters; no valves	1	MP0DSYS1N
1-rack expansion kit; for 5 to 10 filters; no valves or casters	1	MP0DSYS1X
2-rack holder; for 5 to 20 filters; Gemü® valves	1	MP0DSYS2A
2-rack holder; for 5 to 20 filters; ITT valves	1	MP0DSYS2B
3-rack holder; for 5 to 30 filters; Gemü® valves	1	MP0DSYS3A
3-rack holder; for 5 to 30 filters; ITT valves	1	MP0DSYS3B
Holder Replacement Parts*		
Hydraulic pump		MP0DHYPUMP
Hydraulic system pressure gauge		MP0DHYGAGE
Hydraulic fluid		MP0DHFLUID
Clamp insert		MP0DINSERT
1.5 in. TC stainless steel clamp for use with MP0DINSERT		YY2004045
Clamp rod knob		MP0DCRKN0B
Clamp rod for 2 filters		MP0DCR0D02
Clamp rod for 5 filters		MP0DCR0D05
Clamp rod for 10 filters		MP0DCR0D10
Manifold elbow, 90 °C, 1.5 in. 316 stainless steel		MP0DSELB0
Manifold tee, 1.5 in. 316 stainless steel		MP0DSSTEE
Manifold spool, 1 in. x 6.60 in. L		MP0DMANSPH
Manifold spool, 1.5 in. x 13.16 in. L		MP0DMANSPV
Manifold bracket assembly		MP0DMANBRK
Replacement diaphragm for 1 in. Gemü® MP0DVALVEA		MP0DVLVADIA
Replacement diaphragm for 1 in. ITT MP0DVALVEB		MP0DVLVBIDIA
Holder Accessories*		
1-rack Disposable feed and filtrate manifold		MP0DDSPMAN1
2-rack Disposable feed and filtrate manifold		MP0DDSPMAN2
3-rack Disposable feed and filtrate manifold		MP0DDSPMAN3
Disposable adapter kit** 3 through adapters, 3 blind adapters	1	MP0DADAPT
Disposable adapter kit** 6 through adapters, required if using MP0DDIVERTR	1	MP0DADPTF
1.5 in. TC sanitary gauge, 0–4 bar (0–60 psi)	1	MP0D60PSIG
1.5 in. TC EPDM gasket	10	HGTC150EP
1.5 in. TC stainless steel clamp	1	YY2004045
Diaphragm valve, 1 in. Gemü®	1	MP0DVALVEA
Diaphragm valve, 1 in. ITT	1	MP0DVALVEB
Disposable diverter plate	10	MP0DDIVERTR
Pod pilot holder handle	1	MP0DPLTHNDL
End Plate Replacement Kit		
This kit replaces the bronze bushings with linear ball bearings to facilitate movement of the end plate. The kits come with one end plate, new guide rods and associated hardware.		
Pod Retrofit Kit for MP0DPILOT		MP0DRET1
Pod Retrofit Kit for MP0DPILOT with extension rods		MP0DRET2
Pod Retrofit Kit for process scale holders		MP0DRET3

*Consult your sales associate for replacement part and accessory availability.

**The disposable adapter kit must be ordered with individual Pod filters in order to install the Pod filter in the holder.



To place an order or receive technical assistance

In Europe, please call Customer Service:

France: 0825 045 645

Germany: 069 86798021

Italy: 848 845 645

Spain: 901 516 645 Option 1

Switzerland: 0848 645 645

United Kingdom: 0870 900 4645

For other countries across Europe,
please call: +44 (0) 115 943 0840

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