

# ГЛУБИННЫЕ ФИЛЬТРЫ MILLISTAK+ M



**Алматы** (7273)495-231  
**Ангарск** (3955)60-70-56  
**Архангельск** (8182)63-90-72  
**Астрахань** (8512)99-46-04  
**Барнаул** (3852)73-04-60  
**Белгород** (4722)40-23-64  
**Благовещенск** (4162)22-76-07  
**Брянск** (4832)59-03-52  
**Владивосток** (423)249-28-31  
**Владикавказ** (8672)28-90-48  
**Владимир** (4922)49-43-18  
**Волгоград** (844)278-03-48  
**Вологда** (8172)26-41-59  
**Воронеж** (473)204-51-73  
**Екатеринбург** (343)384-55-89

**Иваново** (4932)77-34-06  
**Ижевск** (3412)26-03-58  
**Иркутск** (395)279-98-46  
**Казань** (843)206-01-48  
**Калининград** (4012)72-03-81  
**Калуга** (4842)92-23-67  
**Кемерово** (3842)65-04-62  
**Киров** (8332)68-02-04  
**Коломна** (4966)23-41-49  
**Кострома** (4942)77-07-48  
**Краснодар** (861)203-40-90  
**Красноярск** (391)204-63-61  
**Курск** (4712)77-13-04  
**Курган** (3522)50-90-47  
**Липецк** (4742)52-20-81

**Магнитогорск** (3519)55-03-13  
**Москва** (495)268-04-70  
**Мурманск** (8152)59-64-93  
**Набережные Челны** (8552)20-53-41  
**Нижний Новгород** (831)429-08-12  
**Новокузнецк** (3843)20-46-81  
**Ноябрьск** (3496)41-32-12  
**Новосибирск** (383)227-86-73  
**Омск** (3812)21-46-40  
**Орел** (4862)44-53-42  
**Оренбург** (3532)37-68-04  
**Пенза** (8412)22-31-16  
**Петрозаводск** (8142)55-98-37  
**Псков** (8112)59-10-37

**Пермь** (342)205-81-47  
**Ростов-на-Дону** (863)308-18-15  
**Рязань** (4912)46-61-64  
**Самара** (846)206-03-16  
**Саранск** (8342)22-96-24  
**Санкт-Петербург** (812)309-46-40  
**Саратов** (845)249-38-78  
**Севастополь** (8692)22-31-93  
**Симферополь** (3652)67-13-56  
**Смоленск** (4812)29-41-54  
**Сочи** (862)225-72-31  
**Ставрополь** (8652)20-65-13  
**Сургут** (3462)77-98-35  
**Сыктывкар** (8212)25-95-17  
**Тамбов** (4752)50-40-97

**Тверь** (4822)63-31-35  
**Тольятти** (8482)63-91-07  
**Томск** (3822)98-41-53  
**Тула** (4872)33-79-87  
**Тюмень** (3452)66-21-18  
**Ульяновск** (8422)24-23-59  
**Улан-Удэ** (3012)59-97-51  
**Уфа** (347)229-48-12  
**Хабаровск** (4212)92-98-04  
**Чебоксары** (8352)28-53-07  
**Челябинск** (351)202-03-61  
**Череповец** (8202)49-02-64  
**Чита** (3022)38-34-83  
**Якутск** (4112)23-90-97  
**Ярославль** (4852)69-52-93

**Россия** +7(495)268-04-70

**Казахстан** +7(7172)727-132

**Киргизия** +996(312)96-26-47

<https://millipore.nt-rt.ru> || <mailto:mer@nt-rt.ru>

# Millistak+® Pod disposable depth filter system

Innovative, High-Performance Pod Filters are Ideal for Primary and Secondary Clarification in Lab, Pilot and Process-scale Applications

Millistak+® depth filter media is 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 and 100% disposable design.

The Millistak+® 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.

Millistak+® Pod filters are available in three distinct series of media grades in order to meet your specific application needs. Millistak+® DE, CE and HC media deliver optimal performance through a gradient density matrix, as well as positive surface charge properties.



## Benefits

- Low hold-up volume for greater product yield
- Broad range of media types offered in single and multi-layer products
- Millistak+® HC dual-action media improves prefiltration and compresses clarification
- Flexible, modular format offers scalability up to 20,000 L
- Patented disposable design eliminates need for housing, CIP or cleaning validation
- Self-contained Pod filters protect operators from exposure to biohazards
- Robust construction is easy to use and set up
- Smaller footprint facilitates use in tight spaces

## Easy to Use

With the compact, modular design of our Millistak+® Pod system, you can increase productivity and shorten cycle times from bench to manufacturing scale.

Installation and setup of the Pod system is simple and straightforward. The unique design of the disposable adapters and disposable manifolds makes it easy to connect the Pod filters to the rest of the unit operations in the process. 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

- µPod® filter – 23 cm<sup>2</sup>
- Lab-scale Pod filters – 0.027 m<sup>2</sup> and 0.054 m<sup>2</sup>
- Process-scale Pod filters:
  - Millistak+® DE and CE media – 0.11 m<sup>2</sup>, 0.77 m<sup>2</sup> and 1.4 m<sup>2</sup>
  - Millistak+® HC media – 0.11 m<sup>2</sup>, 0.55 m<sup>2</sup> and 1.1 m<sup>2</sup>
- Process-scale Pod holder – accepts from five to 10 process-scale Pod filters per rack. Up to three racks can be stacked for process flexibility.
- Pilot-scale Pod holder – accommodates up to two process-scale Pod filters for configurations from 0.11 m<sup>2</sup> to 2.8 m<sup>2</sup>, depending on media type. An optional accessory kit expands capacity to five process-scale Pod filters.
- Disposable adapter – connects Pod filters to process piping, creating a disposable flow path.
- Disposable diverter plate – enables two media grades to be processed on a single rack.
- Millistak+® bulk packaging – optimizes transport and reception processes as well as reduces waste.

## Millistak+® Depth Filter Media

Available in three media series, the proven filtration performance of Millistak+® filter media in the Pod format provides greater flexibility and reduced cycle times. Millistak+® Pod filters incorporate multiple graded-density layers and adsorptive, positively charged filter media. Composed of select grade cellulose fiber and diatomaceous earth, the Millistak+® DE series not only improves the manufacturing process, but also increases contaminant holding. The Millistak+® CE series consists of single-layer media with cellulose fibers that are suitable for coarse filtration applications.

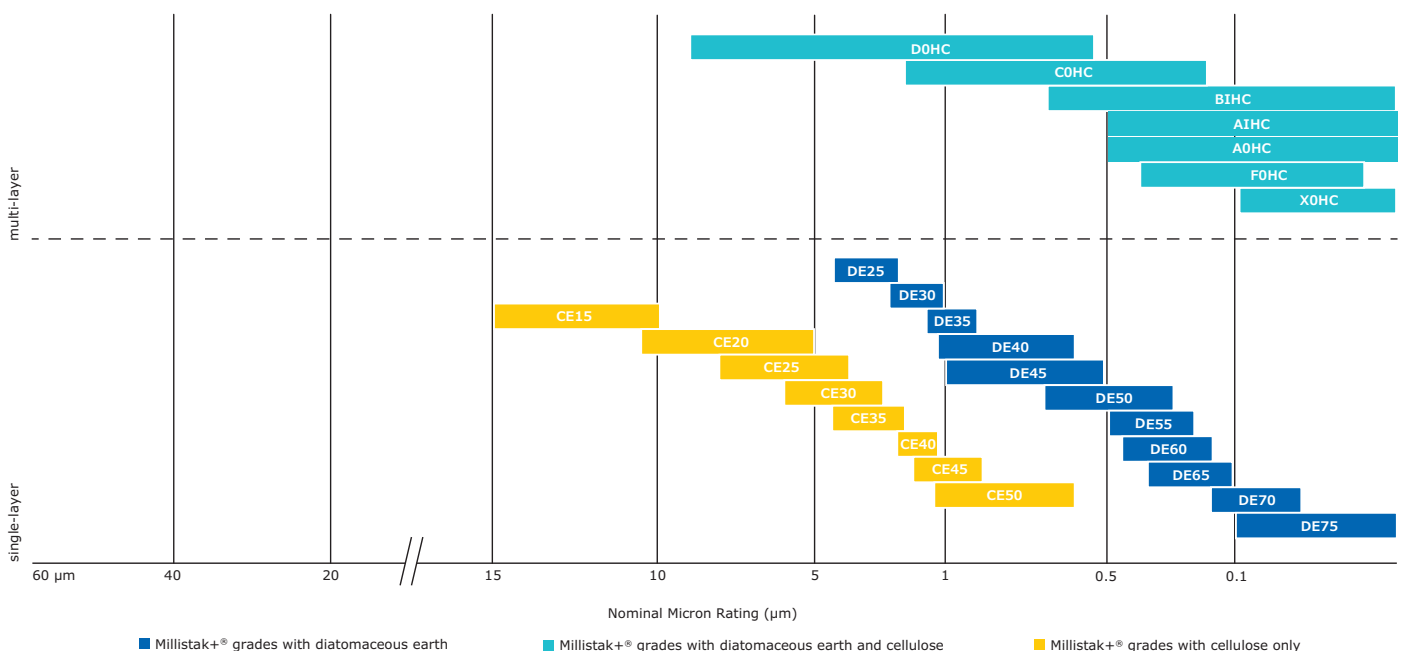
The Millistak+® HC series improves productivity by combining multiple media grades into one device, enabling compression of multiple filtration stages downstream of the bioreactor.

## Bulk Packaging

To improve sustainability of the packaging and shipping of filter products, we have developed a bulk pack solution for Millistak+® HC multi-layer process-scale Pod filters with the aim to optimize transport and reception processes as well as to reduce waste. Bulk packaging configuration includes 27 Pods in 3 boxes with 9 Pods per layer on 1 pallet.

### The key benefits are:

- 24% reduction in corrugated packaging waste to recycle or dispose
- 94% reduction of paper documentation
- 12% decrease in number of deliveries, which will further reduce energy use and emissions
- 70% reduction in operator time to open and manage the product and packaging



## Typical Extractables

|                                    | Millistak+® Single-Layer Pods<br>(CE & DE Media)                                                                                                                                                                                                                                      | Millistak+® HC Media<br>(non X0HC/F0HC)                                                                                                                                                                                                                                                                         | Millistak+® X0HC/F0HC Media                                                                                                                                                                                                                        |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conductivity                       | 1.52 – 1.94 $\mu\text{S}/\text{cm}$ post autoclave<br>(1 cycle of 60 minutes at 123 °C)<br>and pure water flush of 5 L/ft <sup>2</sup> (50 L/m <sup>2</sup> ) of media surface area                                                                                                   | 3.64 – 10.5 $\mu\text{S}/\text{cm}$ post autoclave<br>(1 cycle of 60 minutes at 123 °C)<br>and pure water flush of 10 L/ft <sup>2</sup><br>(100 L/m <sup>2</sup> ) of media surface area                                                                                                                        | 19.34 – 53.2 $\mu\text{S}/\text{cm}$ (X0HC) and 21.4<br>– 42.7 $\mu\text{S}/\text{cm}$ (F0HC) post autoclave<br>(1 cycle of 60 minutes at 123 °C) and<br>pure water flush of 10 L/ft <sup>2</sup> (100 L/m <sup>2</sup> )<br>of media surface area |
| NVR<br>Gravimetric<br>Extractables | Not Tested                                                                                                                                                                                                                                                                            | 420 – 750 mg/ft <sup>2</sup> (process-scale) and<br>630 – 1251 mg/m <sup>2</sup> (lab-scale) per<br>24 hour static soak in pure water<br>(type 1 DI water) post autoclave<br>(1 cycle of 60 minutes at 123 °C)<br>and pure water flush of 10 L/ft <sup>2</sup><br>(100 L/m <sup>2</sup> ) of media surface area | Not Tested                                                                                                                                                                                                                                         |
| TOC                                | 910 – 1800 ppb post autoclave<br>(1 cycle of 60 minutes at 123 °C) and<br>pure water flush of 5 L/ft <sup>2</sup> (50 L/m <sup>2</sup> ) of<br>media surface area                                                                                                                     | 720 – 4600 ppb post autoclave<br>(1 cycle of 60 minutes at 123 °C)<br>and pure water flush of 10 L/ft <sup>2</sup><br>(100 L/m <sup>2</sup> ) of media surface area                                                                                                                                             | 1200 – 2800 ppb (X0HC) and 460<br>– 3200 ppb (F0HC) post autoclave<br>(1 cycle of 60 minutes at 123 °C)<br>and pure water flush of 10 L/ft <sup>2</sup><br>(100 L/m <sup>2</sup> ) of media surface area                                           |
| Metals                             | Per 24-hour static soak in 10 liters pure water post autoclave (1 cycle of 30 minutes at 123 °C) and pure water flush of 10 liters<br>per ft <sup>2</sup> (100 L/m <sup>2</sup> ) of surface area. Values based on worse case data from both process-scale and lab-scale pod devices. |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                    |

| Metal<br>(mg/ft <sup>2</sup> Media) | DE Series | CE Series | CR Series | HC Series<br>(A1HC, C0HC, D0HC) | X0HC Series | F0HC Series |
|-------------------------------------|-----------|-----------|-----------|---------------------------------|-------------|-------------|
| Aluminum                            | ≤ 0.026   | ≤ 0.059   | ≤ 0.033   | ≤ 0.010                         | ≤ 0.084     | ≤ 0.049     |
| Arsenic                             | ≤ 0.003   | ≤ 0.000   | ≤ 0.001   | ≤ 0.010                         | ≤ 0.009     | ≤ 0.004     |
| Calcium                             | ≤ 2.15    | ≤ 5.74    | ≤ 1.505   | ≤ 1.78                          | ≤ 9.598     | ≤ 2.96      |
| Chromium                            | ≤ 0.010   | ≤ 0.000   | ≤ 0.032   | ≤ 0.010                         | ≤ 0.001     | ≤ 0.000     |
| Cobalt                              | ≤ 0.000   | ≤ 0.000   | ≤ 0.001   | ≤ 0.010                         | ≤ 0.001     | ≤ 0.001     |
| Copper                              | ≤ 0.003   | ≤ 0.000   | ≤ 0.035   | ≤ 0.010                         | ≤ 0.009     | ≤ 0.015     |
| Iron                                | ≤ 0.000   | ≤ 0.000   | ≤ 0.041   | ≤ 0.010                         | ≤ 0.000     | BDL         |
| Lead                                | ≤ 0.000   | ≤ 0.000   | ≤ 0.001   | ≤ 0.010                         | ≤ 0.000     | BDL         |
| Magnesium                           | ≤ 1.70    | ≤ 2.87    | ≤ 1.129   | ≤ 0.655                         | ≤ 3.91      | ≤ 1.16      |
| Manganese                           | ≤ 0.010   | ≤ 0.001   | ≤ 0.624   | ≤ 0.120                         | ≤ 0.425     | ≤ 0.181     |
| Mercury                             | ≤ 0.000   | ≤ 0.000   | ≤ 0.001   | ≤ 0.010                         | ≤ 0.000     | BDL         |
| Nickel                              | ≤ 0.001   | ≤ 0.000   | ≤ 0.005   | ≤ 0.010                         | ≤ 0.000     | ≤ 0.020     |
| Potassium                           | ≤ 0.872   | ≤ 1.036   | ≤ 0.380   | ≤ 0.084                         | ≤ 0.817     | ≤ 0.439     |
| Sodium                              | ≤ 11.517  | ≤ 9.913   | ≤ 17.513  | ≤ 2.74                          | ≤ 14.022    | ≤ 17.313    |
| Titanium                            | ≤ 0.000   | ≤ 0.000   | ≤ 0.012   | ≤ 0.010                         | ≤ 0.013     | BDL         |
| Zinc                                | ≤ 0.002   | ≤ 0.003   | ≤ 0.046   | ≤ 0.010                         | ≤ 0.046     | ≤ 0.052     |

BDL = Below Detectable Limits



**Small scale:**  
HC, DE, CE: 23 cm<sup>2</sup>



**Lab scale:**  
HC, DE, CE:  
0.027 - 0.054 m<sup>2</sup>



**Pilot scale:**  
HC: 0.11 – 5.5 m<sup>2</sup>  
DE or CE: 0.11 - 7 m<sup>2</sup>



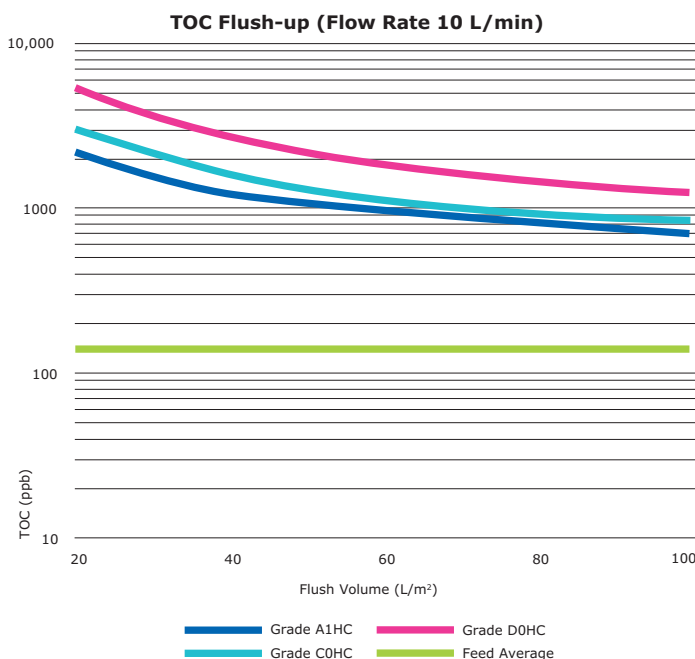
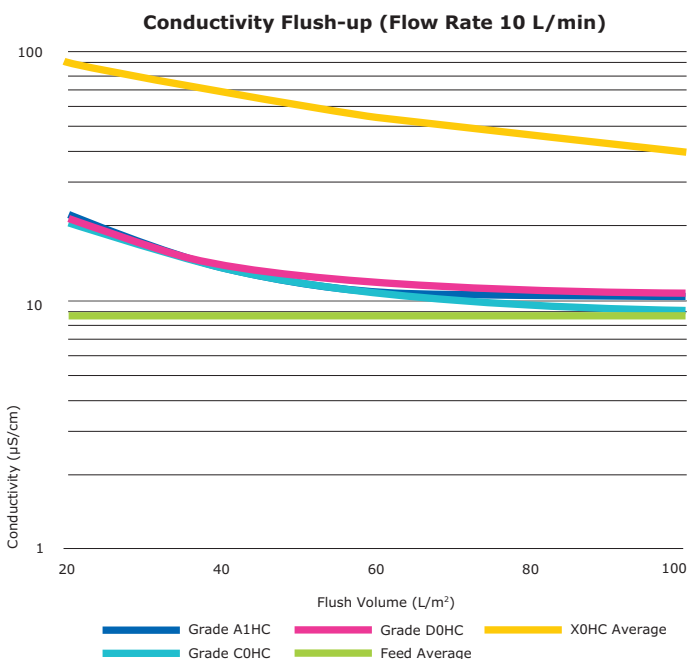
**Process scale:**  
HC: 5.5 – 33 m<sup>2</sup>  
DE or CE: 7 - 42 m<sup>2</sup>

## Millistak+® Pod Filter Specifications

|                                         | µPod® Filter                                                                                                                                                | Lab scale Pod Filter                                  |                     | Multi-layer and Single-Layer Process-scale Pod Filter                   | Multi-layer Process-scale Pod Filter | Single-Layer Process-scale Pod Filter | Multi-layer Process-scale Pod Filter | Single-Layer Process-scale Pod Filter |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|---------------------|-------------------------------------------------------------------------|--------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|
| Surface Area                            | 23 cm²                                                                                                                                                      | 0.027 m² (0.29 ft²)                                   | 0.054 m² (0.58 ft²) | 0.11 m² (1.2 ft²)                                                       | 0.55 m² (5.9 ft²)                    | 0.77 m² (8.3 ft²)                     | 1.1 m² (11.8 ft²)                    | 1.4 m² (15.4 ft²)                     |
| Media Grade                             | HC, CE and DE media                                                                                                                                         | HC, CE and DE media                                   | HC, CE and DE media | HC, CE and DE media                                                     | HC media                             | CE and DE media                       | HC media                             | CE and DE media                       |
| Materials of Construction               |                                                                                                                                                             |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Filter Media                            | Cellulose fibers with inorganic filter aid (CE Media contains cellulose only)                                                                               |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Filter Membrane                         | Mixed esters of cellulose (grades A1HC and B1HC only)                                                                                                       |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Pod Housings                            | Glass filled polypropylene                                                                                                                                  |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Adapters                                | Glass filled polypropylene*                                                                                                                                 |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Gaskets and Plugs                       | Thermo plastic elastomer (TPE)*                                                                                                                             |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Inlet, Vent and Outlet Connections      | Female luer                                                                                                                                                 | Hose barb                                             |                     | Flat seal                                                               |                                      |                                       |                                      |                                       |
| Pod Dimensions                          |                                                                                                                                                             |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Length                                  | 3.5 in. (8.9 cm)                                                                                                                                            | 8.5 in. (22 cm)                                       |                     | 24.2 in. (62 cm)                                                        |                                      |                                       |                                      |                                       |
| Height                                  | 2.6 in. (6.6 cm)                                                                                                                                            | 5.3 in. (14 cm)                                       |                     | 12.5 in. (32 cm)                                                        |                                      |                                       |                                      |                                       |
| Thickness                               | 1.6 in. (4.1 cm)                                                                                                                                            | 2.9 in. (7.9 cm)                                      | 3.7 in. (9.4 cm)    | 1.2 in. (3.0 cm)                                                        | 2.8 in. (7.1 cm)                     | 3.1 in. (7.9 cm)                      | 4.8 in. (12.2 cm)                    | 5.0 in. (12.7 cm)                     |
| Maximum Operating Pressure              | 50 psig (3.5 bar) at ≤ 40 °C                                                                                                                                | 30 psig (2.1 bar) at 25 °C                            |                     | 50 psig (3.5 bar) at 25 °C; 15 psig (1.0 bar) at 80 °C                  |                                      |                                       |                                      |                                       |
| Maximum Differential Pressure           |                                                                                                                                                             |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Forward                                 | 30 psid (2.1 bar) at 40 °C                                                                                                                                  | 30 psid (2.1 bar) at 4 °C; 30 psid (2.1 bar) at 37 °C |                     | 30 psid (2.1 bar) at 25 °C; 15 psid (1.0 bar) at 80 °C                  |                                      |                                       |                                      |                                       |
| Reverse                                 | 15 psid (1.0 bar) at 40 °C                                                                                                                                  | 30 psid (2.1 bar) at 37 °C                            |                     | 30 psid (2.1 bar) at 25 °C                                              |                                      |                                       |                                      |                                       |
| Sterilization                           | Integrity is maintained after 2 autoclave cycles of 60 minutes at 123 °C                                                                                    |                                                       |                     | Integrity is maintained after 1 autoclave cycle of 60 minutes at 123 °C |                                      |                                       |                                      |                                       |
| Indirect Food Additive                  | All component materials meet the FDA Indirect Food Additive Requirements cited in 21 CFR 177-182.                                                           |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Toxicity                                | All component materials meet the requirements of the current USP <88> Biological Reactivity Test For Class VI Plastics.                                     |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Bacterial Endotoxin                     | For Media Only: < 0.25 EU/mL as determined by the Limulus Amebocyte Lysate (LAL) test.                                                                      |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |
| Pressure Equipment Directive 2014/68/EU | Devices and associated holders are designed and manufactured in accordance with the sound engineering practices (SEP) cited in Article 4(3) of 2014/68/EU.* |                                                       |                     |                                                                         |                                      |                                       |                                      |                                       |

\*Process scale only

## Conductivity/ TOC



## Water Flow Rates

| Millistak+® HC Filter Series |                                                           |                 |
|------------------------------|-----------------------------------------------------------|-----------------|
| Media Type/<br>Grade         | Water Flow Rate L/min/m <sup>2</sup><br>at 10 psid, 21 °C |                 |
| D0HC                         | CE25                                                      | 1425.8 – 2619.1 |
|                              | DE40                                                      | 454.6 – 835.1   |
| C0HC                         | DE30                                                      | 974.1 – 1789.3  |
|                              | DE60                                                      | 99.0 – 181.9    |
| B1HC                         | DE50                                                      | 212.2 – 389.8   |
|                              | DE75                                                      | 31.6 – 58.0     |
| A0HC                         | DE60                                                      | 99.0 – 181.9    |
|                              | DE75                                                      | 31.6 – 58.0     |
| F0HC                         | DE60                                                      | 99.0 – 181.9    |
|                              | IM75                                                      | 39.0 – 54.6     |
| A1HC                         | DE60                                                      | 99.0 – 181.9    |
|                              | DE75                                                      | 31.6 – 58.0     |
| X0HC                         | IM75                                                      | 39.0 – 54.6     |
|                              | IM83                                                      | 21.2 – 27.7     |

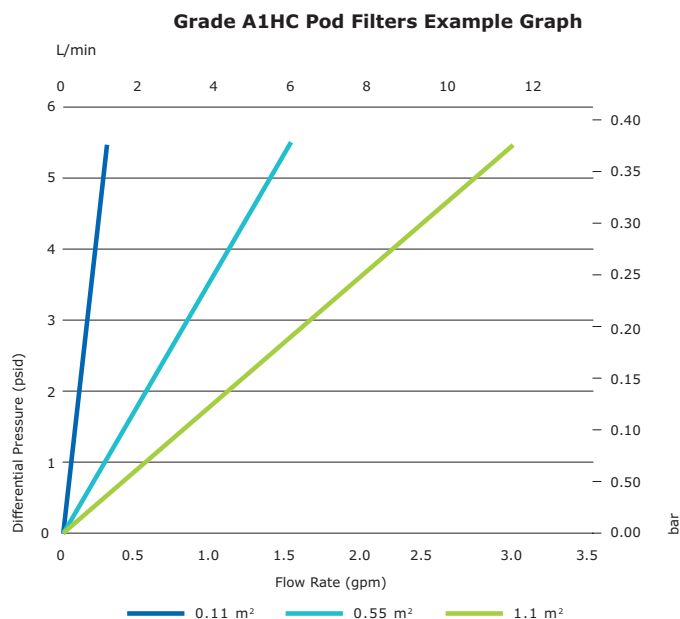
| Millistak+® CE Filter Series |                                                           |  |
|------------------------------|-----------------------------------------------------------|--|
| Media Type/<br>Grade         | Water Flow Rate L/min/m <sup>2</sup><br>at 10 psid, 21 °C |  |
| CE15                         | 3054.9 – 5611.5                                           |  |
| CE20                         | 2082.6 – 3825.5                                           |  |
| CE25                         | 1425.8 – 2619.1                                           |  |
| CE30                         | 974.1 – 1789.3                                            |  |
| CE35                         | 665.5 – 1222.4                                            |  |
| CE40                         | 454.6 – 835.1                                             |  |
| CE45                         | 310.6 – 570.5                                             |  |
| CE50                         | 212.2 – 389.8                                             |  |

| Millistak+® DE Filter Series |                                                           |  |
|------------------------------|-----------------------------------------------------------|--|
| Media Type/<br>Grade         | Water Flow Rate L/min/m <sup>2</sup><br>at 10 psid, 21 °C |  |
| DE25                         | 1425.8 – 2619.1                                           |  |
| DE30                         | 974.1 – 1789.3                                            |  |
| DE35                         | 665.5 – 1222.4                                            |  |
| DE40                         | 454.6 – 835.1                                             |  |
| DE45                         | 310.6 – 570.5                                             |  |
| DE50                         | 212.2 – 389.8                                             |  |
| DE55                         | 145.0 – 266.3                                             |  |
| DE60                         | 99.0 – 181.9                                              |  |
| DE65                         | 67.7 – 124.3                                              |  |
| DE70                         | 46.2 – 84.9                                               |  |
| DE75                         | 31.6 – 58.0                                               |  |

## Choose the Right Media

| Media Grade       | Application                                                                                                   | Characteristics                                                                                     | Media Construction |
|-------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------|
| Single-layer CE   | Primary (coarse) clarification                                                                                | Cellulose fibers                                                                                    | CE15 to 50         |
| Single-layer DE   | Primary or secondary clarification                                                                            | Cellulose fibers + inorganic filter aid                                                             | DE25 to 75         |
| Double-layer D0HC | Primary clarification directly out of the bioreactor                                                          | A more open CE layer and DE media combination                                                       | CE25 + DE40        |
| Double-layer C0HC | Perfusion bioreactor fluid                                                                                    | Two layers of a more open DE media                                                                  | DE30 + DE60        |
| Double-layer A0HC | Centrate clarification                                                                                        | Two layers of a tighter DE media                                                                    | DE60 + DE75        |
| Double-layer F0HC | Secondary clarification of pretreated harvest by acid precipitation or flocculation, <i>E. coli</i> and yeast | Two DE layers. Provides sterile filter protection without an RW01 membrane                          | DE60 + IM75        |
| Double-layer X0HC | Secondary clarification of bioreactor harvests, primarily for cell cultures                                   | Two DE layers. Provides sterile filter protection without an RW01 membrane                          | IM75 + IM83        |
| Triple-layer A1HC | Post-TFF (Prostak™ system) clarification fluids and primary or secondary clarification                        | Tightest media combination with an additional membrane layer to protect downstream membrane filters | DE60 + DE75 + RW01 |
| Triple-layer B1HC | Post-centrifuge or settled permeate containing cellular particulate and primary or secondary clarification    | A more open first layer with an additional membrane layer to protect downstream membrane filters    | DE50 + DE75 + RW01 |

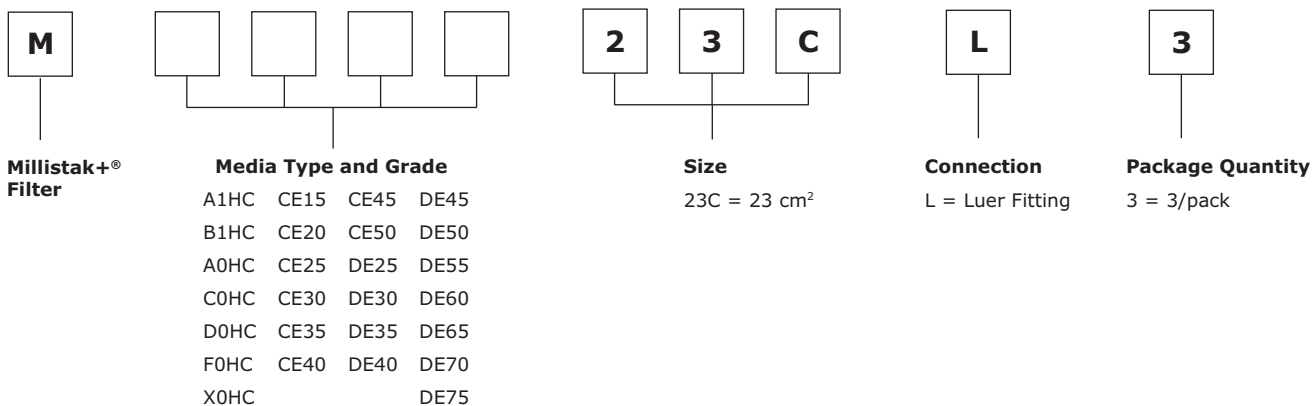
Note: For clarification of serum, plasma, vaccines, cell culture or other fluids, choice of media grade should be based on small-scale trials. Reference our Clarification Portfolio Guide for additional information.



## Water Permeability

## Ordering Information

### µPod® Filter

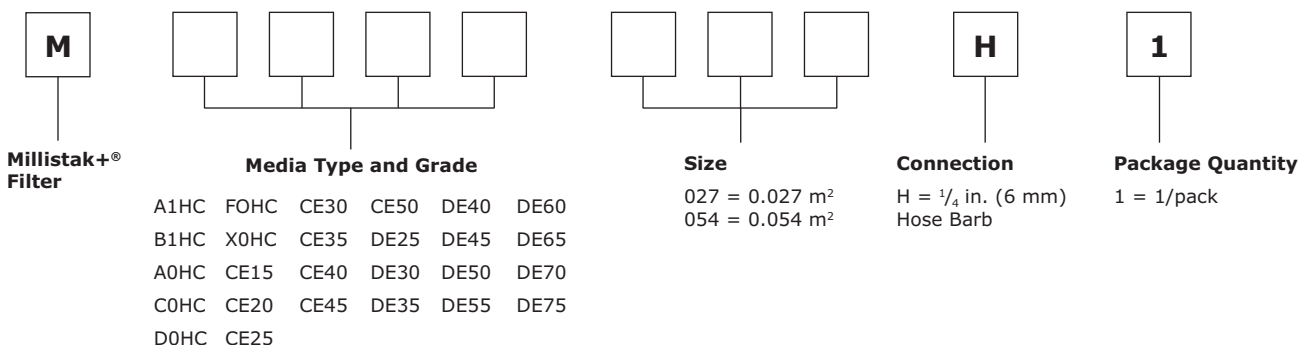


### µPod® Filter Accessories

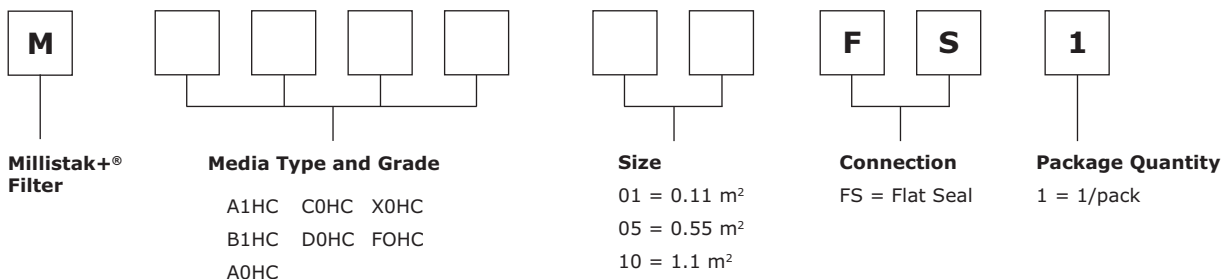
µPod® Tubing Kit Catalogue No. MTUBEKITL1

Gauge 0 – 60 psi and Connection Fittings Catalogue No. XXPXLGAGE

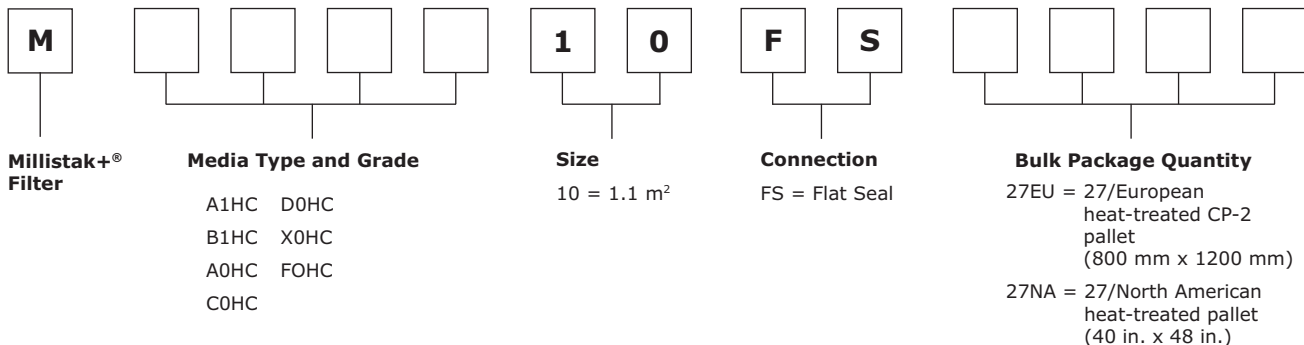
### Lab-scale Pod Filter



### Multi-layer Process-scale Pod Filter



### Multi-layer Process-scale Pod Filter in Bulk Packaging Format



Алматы (7273)495-231  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Курган (3522)50-90-47  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Ноябрьск (3496)41-32-12  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37

Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Саранск (8342)22-96-24  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97

Тверь (4822)63-31-35  
Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

<https://millipore.nt-rt.ru> || <mailto:mer@nt-rt.ru>