

ВЫСОКОЭФФЕКТИВНЫЕ ФИЛЬТРЫ CLARIGARD



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>

Clarigard® Filters

High-performance filters for the clarification and prefiltration of process fluids

Clarigard® filters' 99.99% retention characteristic makes them ideal for the protection of critical downstream process steps such as membrane filters or chromatography columns. The graded-density depth structure of Clarigard® filter media provides maximum filtration capacity, and the polypropylene construction offers low extractable levels and broad chemical compatibility.

Clarigard® 0.2 µm and 0.3 µm filters will easily extend the capacity of sterilizing-grade filters. Clarigard® high performance prefilters consistently produce a 1–2 log bioburden reduction.

Benefits

- 99.99% retention rating
- High capacity media
- Low extractable levels
- Effectively protects expensive membrane filters from premature plugging
- Designed for rigorous process conditions and broad chemical compatibility
- Ideal for designing scalable solutions from bench top to full-scale manufacturing



Regulatory Compliance

Clarigard® filters are designed, developed, and manufactured in accordance with a Quality Management System approved by an accredited registering body to an ISO® 9000 Quality Systems Standard and are shipped with a Certificate of Quality. Each Opticap® XL capsule and cartridge filter is supported by a Validation Guide for compliance with regulatory requirements.

Multiple Formats Available

Clarigard® filters are available in two formats, five pore sizes, and multiple configurations that vary by filtration area and the type of inlet/outlet connection.

Media Types

Clarigard® Media (99.99% retention)

- 0.2 µm
- 0.3 µm
- 0.5 µm
- 1.0 µm
- 3.0 µm

Filter Formats

- Opticap® XL disposable capsule filters
- Cartridge filters

Applications

Precipitate Removal

- Protein processing
- Plasma fractions

Undissolved Constituent Removal

- Cell culture media
- Buffer salts
- Ophthalmics
- LVP/SVP

Carbon Fine Removal

- Carbon beds in water processing
- Powdered carbon in chemical synthesis

Gases

- Dust, rust and other solids

Opticap® XL Disposable Capsule Filters

Opticap® XL disposable capsule filters with Clarigard® media are available in multiple filter sizes, providing an optimal choice for every application.

The patented Opticap® XL capsule design allows unparalleled thermal and hydraulic stress resistance in a disposable filter, resulting in reliability, high confidence in the sterility process and improved cleanliness. The unique capsule design with Clarigard® media minimizes hold-up volume and reduces production losses.

The Right Size

A wide range of filter sizes is available to fit all of your application needs for easy scale-up of your small volume filtration steps to larger, full-scale filtration processes.

The Right Connections

Self-contained and disposable, Opticap® XL capsule filters are supplied with a choice of inlet and outlet connections to optimize your filtration process, including sanitary flanges which provide a higher flow rate, fractional sanitary flanges, and hose barbs.

Cartridge Filters

Clarigard® cartridge filters provide high throughput and minimal differential pressure. Cartridges are robust, strong, resilient and are designed to withstand multiple steam-in-place cycles. A full range of filter sizes are available to suit your application requirements. A variety of connection options are offered for easy adaptation to existing housings.

Small scale filter capsules are available for use as a selection tool when evaluating several media configurations for use to clarify process fluid. These devices have been developed to minimize hold-up volume when evaluating these multiple media configurations.



Opticap® XL Filters



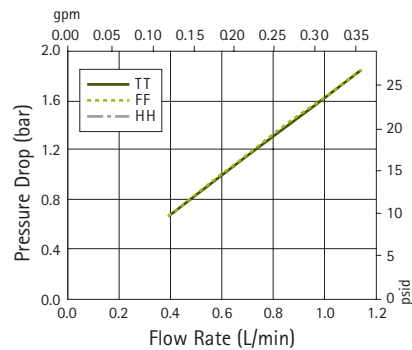
Cartridge Filters

Specifications

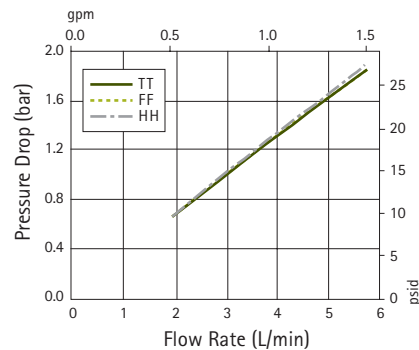
	Small Scale Filter Capsules			Cartridge Filters		
	Opticap® XL 1	Opticap® XL 5	Opticap® XL 10	1-inch	2-inch	Per 10-inch
Nominal dimensions						
Maximum length	21.6 cm (8.5 in.)	21.6 cm (8.5 in.)	33.5 cm (13.2 in.)	118.0 mm (4.6 in.)	—	—
Diameter	10.7 cm (4.2 in.)	10.7 cm (4.2 in.)	10.7 cm (4.2 in.)	88 mm (3.5 in.) O.D.	7.0 cm (2.8 in.)	7.0 cm (2.8 in.)
Filter element length	2.5 cm (1 in.)	12.7 cm (5 in.)	25.4 cm (10 in.)	25 mm (1 in.)	—	—
Materials of construction						
Filter media	Polypropylene			Polypropylene	Polypropylene	
Supports	Polypropylene			—	Polypropylene	
Structural components	Polypropylene			Polypropylene	Polypropylene	
Vent o-rings	Polypropylene			—	Polypropylene	
O-rings	—			—	Silicone	
Vent/drain	1/4 in. hose barb with double o-ring seal			1/4 in. hose barb	—	
Maximum inlet pressure	5.5 bar (80 psi) at 23 °C			—	—	
	2.8 bar (40 psi) at 60 °C			—	—	
	1.0 bar (15 psi) at 80 °C			—	—	
Maximum operating temperature	—			60 °C	80 °C continuous	
Maximum differential pressure						
Forward	4.8 bar (70 psid) at ambient room temperature			—	4.8 bar (70 psid) at 23 °C	
NVR gravimetric extractables	After autoclaving and a 24 hour soak in ASTM® Type 1 reagent grade water at controlled room temperature:					
	≤ 10 mg	≤ 10 mg	≤ 15 mg	—	—	≤ 10 mg
Bacterial endotoxin	Aqueous extraction contains <0.25 EU/mL as determined by the Limulus Amebocyte Lysate (LAL) Test (except Small Scale Filter Capsules).					
Oxidizable substances	Meets the requirements of the USP Oxidizable Substances Test after a water flush of:					
	≤ 1000 mL	≤ 2000 mL	≤ 3000 mL	—	—	3000 mL
Sterilization by autoclave	May be autoclaved for 3 cycles of 30 minutes at 126 °C. (Cannot be steam sterilized in-line.)			Not autoclavable	May be autoclaved for 10 cycles of 30 minutes at 126 °C or steam sterilized for 10 cycles for 30 minutes at 126 °C or hot water sanitized at 80 °C maximum for 30 minutes.	
Non-fiber releasing	Clarigard® media meets the criteria for a "non-fiber releasing" filter as defined in 21 CFR 210.3 (b) (6).					
Component material toxicity	Component materials were tested and meet the criteria of the USP <88> Reactivity Test for Class VI Plastics. Clarigard® filters meet the requirements of the USP <88> Safety Test utilizing a 0.9% sodium chloride extraction. Except Small Scale Filter Capsules.					
Indirect food additive	All component materials meet the FDA Indirect Food Additive Requirements cited in 21 CFR 177–182 (except Small Scale Filter Capsules).					
European pressure Equipment directive	We certify that this product complies with the European Pressure Equipment Directive, 97/23/EC of 29 May 1997. This product has been classified under Article 3 § 3 of the Pressure Vessel Directive. It has been designed and manufactured in accordance with sound engineering practice to ensure safe use. In compliance with Article 3 § 3 of this Pressure Equipment Directive, this product does not bear the CE mark.			—	—	—

Typical Clean Water Flow Rates

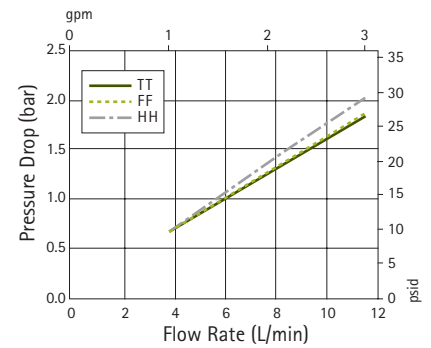
Opticap® XL 1 Capsule with Clarigard® Media –
0.2 µm Nominal (K002)



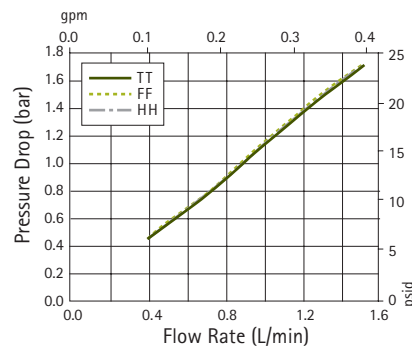
Opticap® XL 5 Capsule with Clarigard® Media –
0.2 µm Nominal (K002)



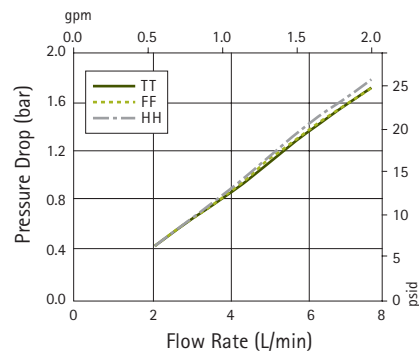
Opticap® XL 10 Capsule with Clarigard® Media –
0.2 µm Nominal (K002)



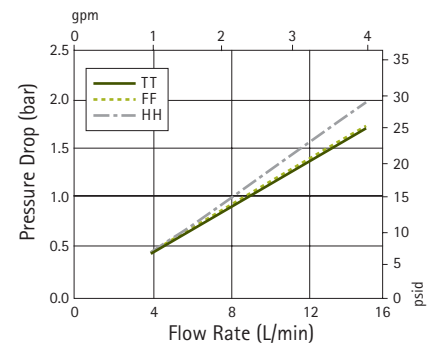
Opticap® XL 1 Capsule with Clarigard® Media –
0.3 and 0.5 µm Nominal (K003, K005)



Opticap® XL 5 Capsule with Clarigard® Media –
0.3 and 0.5 µm Nominal (K003, K005)

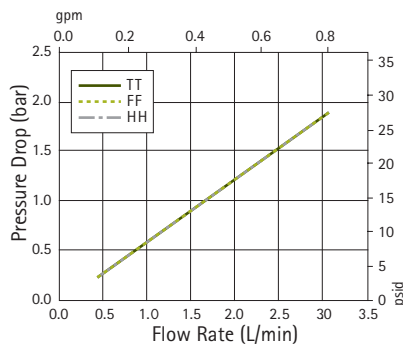


Opticap® XL 10 Capsule with Clarigard® Media –
0.3 and 0.5 µm Nominal (K003, K005)

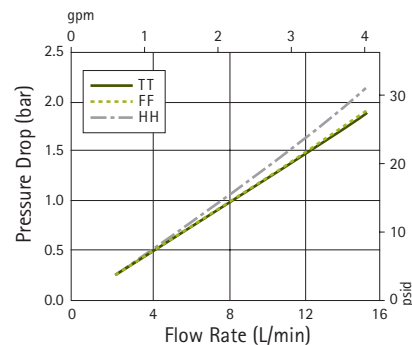


Opticap® XL Legends Refer to Connection Type
 TT = 38 mm (1 1/2 in.) Sanitary Flange Inlet and Outlet
 FF = 19 mm (3/4 in.) Sanitary Flange Inlet and Outlet
 HH = 14 mm (9/16 in.) Hose Barb Inlet and Outlet

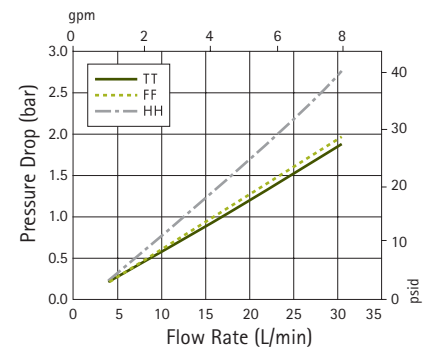
Opticap® XL 1 Capsule with Clarigard® Media –
1.0 µm Nominal (K010)



Opticap® XL 5 Capsule with Clarigard® Media –
1.0 µm Nominal (K010)

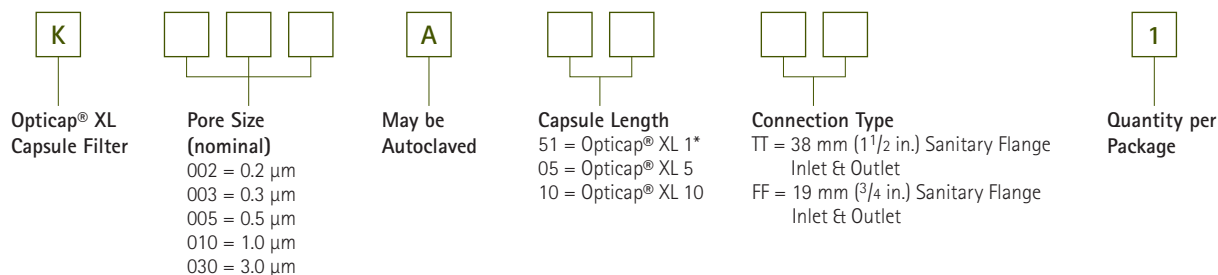


Opticap® XL 10 Capsule with Clarigard® Media –
1.0 µm Nominal (K010)



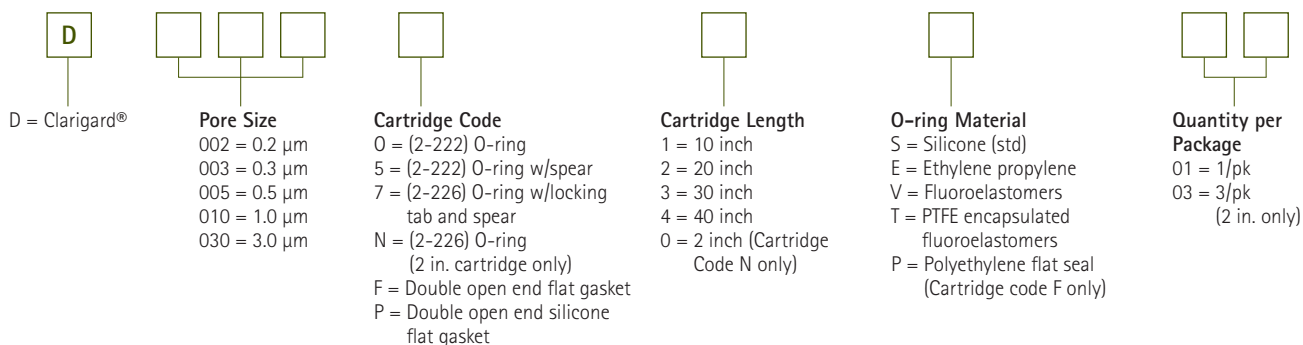
Ordering Information

Opticap® XL Capsule Filters



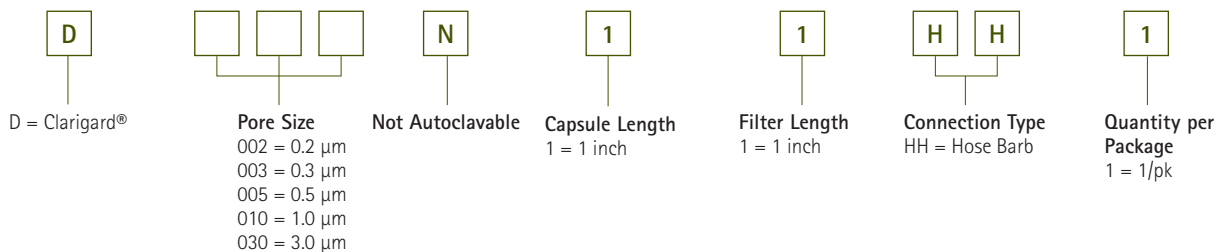
*1-inch filter element in a 5-inch capsule housing.

Cartridge Filters



*Not all configurations are available.

Small Scale Filter Capsules



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>