

Filtration



Double-Open-End Liquid Filter Cartridges

A. Bonded Gradient-Density Cartridges. Ideal for removing a broad range of deformable and nondeformable particles. Rigid designs ideal for filtering high-solids, higher-viscosity fluids that require higher differential pressures. Polypropylene fiber medium is thermally bonded to a rigid core for added durability. Cartridges impart no taste, odor or color; suitable to 175°F (79°C).

µm rating, nominal	Flow rate†	Length	Catalog number	Price
1	2 GPM at <2 psid	10" (25.4 cm)	GY-01512-00	
5			GY-01512-08	
10			GY-01512-18	
25			GY-01512-28	
50			GY-01512-38	
1	5 GPM at <2 psid	20" (50.8 cm)	GY-01512-02	
5			GY-01512-12	
10			GY-01512-22	
25			GY-01512-32	
50			GY-01512-42	

B. String-Wound Gradient-Density Cartridges. Ideal for removing a broad range of deformable and non-deformable particles such as sand, silt, sludge, rust, and scale. String-wind pattern has lower pressure drop for higher flow. Polypropylene string is resistant to chemical and bacterial attack; suitable to 150°F (66°C).

µm rating, nominal	Flow rate†	Length	Catalog number	Price
5	10 GPM at <1 psid	10" (25.4 cm)	GY-01513-00	
30			GY-01513-02	
50			GY-01513-04	

C. Spun Gradient-Density Cartridges. Ideal for removing a broad range of deformable and non-deformable particles such as sand, silt, sludge, rust, and scale. Polypropylene construction is resistant to chemical and bacterial attack. One-micron and five-micron cartridges are certified to NSF Standard 42 for materials and impart no taste, odor, or color. Suitable to 145°F (63°C).

µm rating, nominal	Flow rate†	Length	Cat. no.	Price
1	5 GPM at 0.6 psid	10" (25.4 cm)	GY-01509-14	
5	5 GPM at 0.2 psid		GY-01509-15	
1	10 GPM at 0.6 psid	20" (50.8 cm)	GY-01509-37	
5	10 GPM at 0.6 psid		GY-01509-40	
25	10 GPM at 0.2 psid		GY-01509-41	

D. High-Efficiency Pleated Filter Cartridges. The pleated polypropylene (PP) design offers flow rates and dirt-loading capacities higher than spun or wound depth cartridges. Biologically safe and designed to meet FDA requirements for regulated industries. All-PP construction provides broad chemical compatibility. The gradient density microfiber media provides removal of a broader range of particle sizes than typical pleated filters. Suitable to 122°F (50°C).

µm rating, nominal	Flow rate†	Length	Catalog number	Price
0.2	2 GPM at 1 psid	10" (25.4 cm)	GY-29830-00	
	2 GPM at <1 psid	20" (50.8 cm)	GY-29830-01	

†psid refers to pounds per square inch pressure drop through the filter system.

For optimal performance, change cartridges at 25 psid.

††To use with aqueous solutions, pretreat with methanol, then rinse with water before use.

†††Pore sizes for polypropylene cartridges are nominal.

††††Filtration efficiency and chlorine reduction efficiency are reduced at higher flow rates; chlorine capacity based on 75% reduction using 2 ppm free chlorine feed concentration at 68°F (20°C).

E. Extra-Strength Pleated Cellulose Cartridges. This cellulose cartridge is blended with polyester for better wet strength. The polyester material allows more pleats to improve flow and dirt loading. Suitable to 165°F (74°C).

µm rating, nominal	Flow rate†	Length	Catalog number	Price
1	15 GPM at <1 psid	10" (25.4 cm)	GY-01509-11	
5			GY-01509-09	

F. Filter Cartridges for Ultrapure Applications. These cartridges are autoclavable to 250°F (121°C) and in-line sterilizable to 257°F (125°C) for up to 30-minute cycles. They are tolerant to an accumulated exposure of 10 hours. The filters may also be sanitized with compatible chemical agents. All cartridges are suitable to 180°F (82°C) at 10 psid.

The cartridges comply with U.S. CFR Title 21 guidelines for repeated food contact, comply with USP Class VI.121°C Plastics guidelines, and pass the MEM Elution Cytotoxicity Test. Aqueous extracts contain less than 0.25 EU/mL.

Multi-Layer Nylon Cartridges. These consist of two pleated nylon membranes with the top acting as a prefilter to increase cartridge life and efficiency.

Glass Microfiber Cartridges. Made of resin-bonded borosilicate glass microfibers that do not leach flavor-altering substances. Meet NSF Standard 53 for the reduction of cysts. Ideal as prefilters to protect membrane filter/RO systems.

Polypropylene (PP) Cartridges. Thermally bonded high-purity PP fiber. Economical for a chemically inert media with high dirt-loading capacity. Suitable for air/gas filtration; FDA-compliant. Hydrophobic; pretreat before liquid filtration.†

Pleated PTFE Cartridges. Clean room-constructed using thermal welding instead of adhesives or additives. Ideal for the more aggressive liquid or air/gas filtration applications. Hydrophobic; pretreat before liquid filtration.†

Semiconductor Cartridges. Single-layer PES membrane over PP core. Each is flushed with high-purity water to leach less than 5 ppb TOC and less than 5 ppb trace metals. Ideal for any high-purity chemical or DI water application.

Cartridge type	µm rating††	Length	Catalog number	Price
Serial nylon	0.2	10" (25.4 cm)	GY-06479-16	
	0.45		GY-06479-20	
Glass fiber	3.0	10" (25.4 cm)	GY-06479-24	
	1.0		GY-06479-32	
Polypropylene	3.0	10" (25.4 cm)	GY-06479-36	
	1.0		GY-06479-40	
Polypropylene	5	10" (25.4 cm)	GY-06479-44	
	10		GY-06479-48	
PTFE	0.1	10" (25.4 cm)	GY-06479-52	
	0.2		GY-06479-52	
Semiconductor	0.2	10" (25.4 cm)	GY-06479-60	

G. Economical Carbon-Impregnated Cartridges. These cellulose cartridges remove organic tastes/odors and chlorine, plus reduce sediment. Best suited for chemically neutral waters with lower chlorine concentrations. The 10" cartridge can treat approximately 2500 gallons at 1 GPM for chlorine†††. The 10" cartridge meets NSF Standard 42 for materials. Suitable to 125°F (52°C).

µm rating, nominal	Flow rate††	Length	Catalog number	Price
5	5 GPM at 4.0 psid	10" (25.4 cm)	GY-01509-25	
	5 GPM at 1.0 psid	20" (50.8 cm)	GY-01509-27	



Cartridge Coupler

Coupler allows you to join two 10" cartridges to fit a 20" housing, or join three 10" cartridges for a 30" housing. Compatible with all 10" cartridges on pages 292–293.

GY-01508-39 Cartridge coupler

H. Premium Carbon-Impregnated Cartridges (not shown). The pleated design offers higher flow rates and dirt-loading capacities than shorter-life block cartridges. Resists chemical attack and biofilm buildup making the filter ideal for both chlorinated and non-chlorinated water treatment applications.

The powdered carbon reduces chlorine taste/odor while the media removes sediment larger than 10 µm. The 10" cartridge can treat approximately 4000 gallons at 1 gpm for chlorine^{††}; suitable to 150°F (66°C).

µm rating, nominal	Flow rate ^{††}	Length	Catalog number	Price
10	3 GPM at <1 psid 5 GPM at <1 psid	10" (25.4 cm) 20" (50.8 cm)	GY-29830-30 GY-29830-31	

I. Granular-Activated Carbon Cartridges. These cartridges remove organic tastes/odors and chlorine plus reduce MTBE concentrations. Design reduces channeling or bypass common with GAC cartridges. Included within the cartridge is a 20-micron post-filter to reduce carbon fines^{††}. Optimal design flow is 1 GPM or less per 10" length. Meet NSF Standard 42 for materials; suitable to 125°F (52°C).

µm rating, nominal	Flow rate ^{††}	Length	Catalog number	Price
20	1 GPM at 3.0 psid 2 GPM at 15.0 psid	10" (25.4 cm) 20" (50.8 cm)	GY-01508-92 GY-01508-95	

J. Carbon Block Cartridges with Cyst Removal. The bonded powdered activated carbon filter removes organic tastes and odors, chlorine and sediment. Ideal for low or highly variable flow applications since flow cannot channel through the media like granular carbon cartridges^{††}; *Cryptosporidium* and *Giardia* cysts are also removed. The 10" cartridge can treat approximately 20,000 gallons at 1 gpm for chlorine^{††}. Cartridges are made from FDA-compliant materials and meet NSF Standard 42 for materials. suitable to 180°F (82°C).

µm rating, nominal	Flow rate ^{††}	Length	Catalog number	Price
0.5	1 GPM at 3.7 psid 2 GPM at 3.0 psid	10" (25.4 cm) 20" (50.8 cm)	GY-01508-93 GY-01508-97	

K. Carbon Cartridge—Bacteriostatic. Removes chlorine and organic chemicals for odor reduction and better taste; treats up to 3500 gallons. Contains a silver impregnated carbon to inhibit the growth of bacteria. Recommended as pretreatment to DI systems, cycling systems with long down times and other applications where effective media carbon filtration is required. Operating temp up to 90°F (32°C).

Note: Not suitable with DOE housings 01508-40 and -41 on page 295.

µm rating, nominal	Flow rate ^{††}	Length	Catalog number	Price
25	1 GPM at 4 psid	10" (25.4 cm)	GY-01508-91	

L. Mixed-Bed Deionization Cartridges. Designed for removal of dissolved solids and TOC (total organic carbon) compounds down to 16 MΩ water purity. Suitable to 100°F (38°C); all materials are FDA-compliant.

Capacity (as CaCO ₃)	Flow rate	Length	Catalog number	Price
270 grains	0.25 GPM	10" (25.4 cm)	GY-29830-63	
600 grains	0.50 GPM	20" (50.8 cm)	GY-29830-64	
1850 grains	1.25 GPM	20" (50.8 cm)	GY-29830-65	

M. Chlorine/Organics/Lead Reduction Cartridges. These cartridges combine activated carbon for chlorine, VOC, and MTBE reduction, along with an adsorbent medium for lead and mercury reduction. The filter media also removes fine sediment larger than 0.5 micron to 99.95%, including *Giardia* and *Cryptosporidium* cysts. Ideal for residential drinking water systems and deionized water recirculating systems.

Lead/mercury removed up to 2000 gal. (nominal); chlorine removed up to 20,000 gal. (nominal); VOC/MTBE removed up to 500-600 gal. Cartridges meet NSF Standard 42 for materials and chlorine taste/odor reduction. Suitable to 165°F (74°C).

µm rating, nominal	Flow rate ^{††}	Length	Catalog number	Price
0.5	1 GPM at 3.3 psid	10" (25.4 cm)	GY-29830-40	

N. Hardness/Iron Reduction Cartridges. Hexametaphosphate crystals dissolve to inhibit scale formation and iron precipitation and also to prevent system corrosion. Water heaters, food-service systems, air conditioning systems, and steamers are typical applications that benefit from this cartridge.

The FDA-compliant cartridge has a typical life of up to six months. Water being treated should have less than 257 mg/L (ppm) hardness, a pH range of 6.5 to 9.0, and maximum 1 ppm soluble iron. Cartridge is suitable to 100°F (38°C).

Flow rate, recommended	Length	Catalog number	Price
1.5 to 2.5 GPM	10" (25.4 cm)	GY-29830-60	

O. Reverse Osmosis Pretreatment Cartridges. Thermally bonded gradient-density polypropylene for RO pretreatment and other pure water applications offers up to twice the life of conventional depth filters. The filter media meets the food contact requirement of US FDA 21CFR. Applications include bottled water, beverage, and electronics. Suitable to 160°F (71°C).

µm rating, nominal	Flow rate ^{††}	Length	Catalog number	Price
1	3.2 GPM at 1.0 psid	10" (25.4 cm)	GY-29831-63	
1	6.4 GPM at 1.0 psid	20" (50.8 cm)	GY-29831-67	
5	6 GPM at 1.0 psid	10" (25.4 cm)	GY-29831-61	
5	12 GPM at 1.0 psid	20" (50.8 cm)	GY-29831-65	

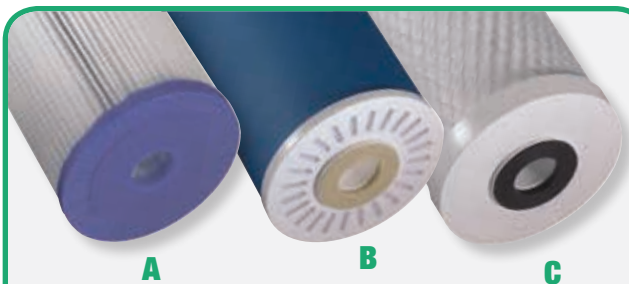
P. Well-Injection Gradient-Density Cartridges. For deep-well injection, produced water filtration, water flood/enhanced oil recovery, brine filtration, and sea water filtration. Thermally bonded polypropylene offers up to twice the life of conventional depth filters and up to 50% lower pressure drop. Suitable to 160°F (71°C).

µm rating, nominal	Flow rate ^{††}	Length	Catalog number	Price
1	5 GPM at 0.92 psid	20" (50.8 cm)	GY-29831-75	
5	5 GPM at 0.45 psid	20" (50.8 cm)	GY-29831-73	
10	5 GPM at 0.35 psid	20" (50.8 cm)	GY-29831-69	
20	5 GPM at 0.3 psid	20" (50.8 cm)	GY-29831-71	

^{††}At start-up, may contain leachable carbon dust; flush system well after installation.
^{†††}psid refers to pounds per square inch pressure drop through the filter system. For optimal performance, change cartridges at 25 psid.

^{†††}Filtration efficiency and chlorine reduction efficiency are reduced at higher flow rates; chlorine capacity based on 75% reduction using 2 ppm free chlorine feed concentration at 68°F (20°C).

Filtration



Special-Purpose Cartridges

A. Pleated Cartridges. This design offers higher flow rates and dirt-loading capacities than spun or wound depth cartridges, especially when removing lower micron-sized particles.

General-Purpose Polyester or Polypropylene. Both types are nonwoven designs giving them a graded pore structure. Choose either depending on chemical compatibility requirements. Polyester cartridges are suitable to 125°F (52°C); PP suitable to 145°F (63°C). The 50-micron cartridge is certified to NSF Standard 42 for materials.

Economical Cellulose. Cellulose is a low-cost well-performing option for pretreated waters better suited for chemically neutral waters with lower chlorine concentrations. Suitable to 145°F (63°C).

Cartridge type	µm rating	Flow rate†	Length	Catalog number	Price
Polyester	50	10 GPM at <1 psid	10" (25.4 cm)	GY-01508-80	
Polypropylene	30	30 GPM at <1 psid		GY-01508-86	
Cellulose	20	35 GPM at <1 psid		GY-01512-74	
Cellulose	20	10 GPM at <1 psid	20" (50.8 cm)	GY-01512-76	

†psid refers to pounds per square inch pressure drop through the filter system.

B. Granular Activated Carbon Cartridges remove organic tastes/odors and chlorine. Special design maximizes contact time and reduces channeling or bypass that is common with GAC cartridges. Included within the cartridge is a 20-micron post-filter to reduce carbon fines††. The 20" (50.8 cm) cartridge meets NSF Standard 42 for materials; suitable to 125°F (52°C).

µm rating, nominal	Flow rate†	Length	Catalog number	Price
20	2 GPM at 3.0 psid 4 GPM at 5.0 psid	10" (25.4 cm) 20" (50.8 cm)	GY-01512-64 GY-01512-66	

C. Carbon Block Cartridges with Cyst Removal. The bonded powdered activated carbon filter uses a unique design to remove organic tastes and odors, chlorine and sediment. *Cryptosporidium* and *Giardia* cysts are also removed with the 0.5-micron design. Cartridges are made from FDA-compliant materials and meet NSF Standard 42 for materials; suitable to 180°F (82°C).

µm rating, nominal	Flow rate†	Length	Cat. no.	Price
0.5	2 GPM at 4.6 psid 4 GPM at 8.5 psid	10" (25.4 cm) 20" (50.8 cm)	GY-01508-89 GY-01508-98	
5	2 GPM at 1.6 psid 4 GPM at 2.5 psid	10" (25.4 cm) 20" (50.8 cm)	GY-01512-54 GY-01512-56	

High-Flow Cartridge Systems

Get high flow, economically

- Up to four times the filtration area than standard cartridge systems
- Order housings and cartridges separately

Housings and caps are constructed of durable polypropylene and sealed with a Buna N O-ring. Housings are suitable to 100°F (37°C); maximum operating pressure is 100 psi (6.9 bar) for 10" (25.4 cm) housings, 90 psi (6.2 bar) for 20" (50.8 cm) housings.



Port size NPT(F)	Pressure relief valve	Height	Dia	Catalog number	Price
10" housings					
3/4"	—	13 1/8" (33.3 cm)	7 1/4" (18.4 cm)	GY-01508-65	
3/4"	Yes			GY-01508-67	
1"	—			GY-01508-70	
20" housings					
1"	—	23 3/8" (59.4 cm)	7 1/4" (18.4 cm)	GY-29802-00	
1"	Yes			GY-29802-01	

Polypropylene String-Wound Gradient-Density Cartridges feature a string-wind pattern that provides a greater surface area and has a lower pressure drop for higher flow. Polypropylene string is resistant to chemical and bacterial attack; suitable to 165°F (74°C).



µm rating, nominal	Flow rate†	Length	Catalog number	Price
0.5	10 GPM at 5 psid	10" (25.4 cm)	GY-01508-78	
5	20 GPM at 3 psid		GY-01508-76	
1	30 GPM at 6 psid	20" (50.8 cm)	GY-29802-37	
5	40 GPM at 6 psid		GY-29802-38	

Dual-Layer Gradient-Density Cartridges are high-capacity cartridges that combine a prefiltration layer with a selective postfiltration layer.

This design has a holding capacity that is two to three times traditional spun or wound designs. Cartridges are made of bacteria and chemical-resistant polypropylene; suitable to 145°F (63°C). These cartridges are certified to NSF Standard 42 for materials.



Nominal µm rating		Flow rate	Length	Catalog number	Price
Prefilter	Postfilter				
25	1	20 GPM at <1 psi	20" (50.8 cm)	GY-29802-20	
50	5			GY-29802-21	
75	25			GY-29802-22	

†psid refers to pounds per square inch pressure drop through the filter system.

Double-Open-End Filter Housings

No more difficult cartridge changes

- Screw-on filter bodies for easy changing
- Numerous material options to withstand repeated system cycling and aggressive fluids

A. General-Purpose Housing. Constructed of talc-filled polypropylene for broad chemical compatibility and durability. Designs for single or double 10" (25.4 cm) cartridges or one 20" (50.8 cm) cartridge. Suitable to 125°F (52°C); maximum pressure is 125 psi; Buna N seal†. Meets NSF Standard 42 for materials.

B. High-Temperature Housing. Constructed with glass-reinforced nylon and molded-in red for traditional identification as a high-temperature component. Suitable to 165°F (74°C); maximum pressure is 125 psi; Viton® seal†.

C. General-Purpose Housing with Transparent Sump. Constructed of talc-filled polypropylene cap and clear styrene acrylonitrile (SAN) sump. Suitable to 125°F (52°C); maximum pressure is 125 psi; Buna N seal†. A pressure relief valve is available on item 01509-02. Meets NSF Standard 42 for materials.

D. Economical High-Purity Housing. Pure polypropylene materials with ultra-smooth contact surfaces to prevent bacterial adhesion and buildup; also suitable for aggressive fluid applications. Less expensive than fluoropolymer or stainless steel designs. Housings include 1/4" plugged inlet, outlet and sump ports for sampling or differential pressure monitoring. Suitable to 100°F (38°C); maximum pressure is 100 psi; Viton® seal.†

E. Aggressive Chemical Housing. Constructed of glass-reinforced nylon—ideal for organic solvents (except ketones), seawater, alcohols, petroleum, and vegetable oils. Housing can also be used in high temperature applications—suitable to 165°F (74°C). Maximum pressure is 125 psi; Viton® seal.†

F. Heavy-duty Stainless Steel Housing. Constructed of a 304 SS sump and cast head of nickel-plated brass. A T-handle nut with shaft securely locks the head to the sump. Sump includes a plugged drain with sampling petcock separate. Suitable to 300°F (149°C); maximum pressure is 250 psi; Buna N seal.†

Note: Not designed to accept the 01508-91 silver/carbon or 01508-92 granulated activated carbon cartridge.

Key	Flow rate (GPM)	Cartridge size	NPT(F) port	Dimensions (H x dia)	Catalog number	Price
A	1 to 10	10"	3/4"	12 1/16" x 5 1/8"	GY-01508-25	
	1 to 15	20"	3/4"	22 7/8" x 5 1/8"	GY-01508-35	
B	1 to 10	10"	3/4"	12 1/16" x 5 1/8"	GY-01508-30	
	1 to 10	10"	3/4"	12 5/8" x 5 1/8"	GY-01509-00	
C	1 to 10	10"	3/4"	12 5/8" x 5 1/8"	GY-01509-02†	
	1 to 10	10"	3/4"	12 1/4" x 5 1/8"	GY-01508-27	
D	1 to 15	20"	3/4"	22 3/8" x 5 1/8"	GY-01508-29	
	1 to 10	10"	3/4"	12 1/8" x 5 1/8"	GY-01508-32	
E	1 to 10	10"	3/4"	22 1/4" x 5 1/8"	GY-01508-34	
	1 to 10	10"	3/4"	12 7/8" x 3 15/16"	GY-01508-40	
F	1 to 15	20"	3/4"	22 3/4" x 4 1/8"	GY-01508-41	

†Other seals available—contact your local office or dealer.

‡Model 01509-02 includes pressure relief valve.



G. Heavy-Duty Multiple-Cartridge Housings

- Use standard double-open-end cartridges for high-flow applications
- Configure up to 20 double-open-end cartridges in one housing
- Easy to install and maintain with wide-top access port

Ideal for most treatment applications in schools, restaurants, institutions, and process plants. Housings feature 304 stainless steel construction with epoxy finish for better chemical compatibility.

Clean and dirty drains are 1/4" NPT(F); inlet and outlet ports are 2" NPT(M). Suitable to 300°F (149°C); maximum pressure is 125 psi; Buna N seal. Use DOE cartridges on pages 292-293.



Key	Flow rate (GPM)	(Number of cartridges) Cartridge size	Dimensions (H x dia)	Catalog number	Price
G	28	(4) 9 3/4" or 10"	21" x 12"	GY-29810-05	
	56	(8) 9 3/4" or 10"; (4) 20"	32" x 12"	GY-29810-10	
	84	(12) 9 3/4" or 10"; (4) 30"	42" x 12"	GY-29810-15	
	110	(16) 9 3/4" or 10"; (4) 40"; (8) 20"	50" x 12"	GY-29810-16	
	125	(20) 9 3/4" or 10"; (4) 30"; (10) 20"	50" x 12"	GY-29810-17	

Filtration

Sanitary Strainers

Protect products and equipment from particulates

- 316 stainless steel wetted surfaces are polished to a smooth, blemish-free finish
- Mesh overscreens are hemmed smooth with no stray wire ends
- Standard clamp sizes allow easy installation or retrofit

Sanitary strainers are ideal for particulate removal or prefiltration. Available in in-line and side-inlet configurations. Side-inlet design lets you clean housing and change screens without disconnecting the strainer from process line.

What's included: strainer assemblies include housing, perforated core, internal cap and spring, assembly clamp, and gasket. Order wire mesh overscreens and replacement perforated cores separately.

Connection size (Tri-Clamp®)	Core perforations	Length	Catalog number	Price	Replacement cores	
					Catalog number	Price
In-line strainer assemblies						
1" 1.5" 2"	1/8"	15¾" (40.0 cm)	GY-29590-00		GY-29590-20	
			GY-29590-02			
			GY-29590-04			
1" 1.5" 2"	1/4"	15¾" (40.0 cm)	GY-29590-10		GY-29590-22	
			GY-29590-12			
			GY-29590-14			
Side-inlet strainer assemblies						
1" 1.5" 2"	1/8"	15¾" (40.0 cm)	GY-29590-50		GY-29590-70	
			GY-29590-52			
			GY-29590-54			
1" 1.5" 2"	1/4"	15¾" (40.0 cm)	GY-29590-60		GY-29590-72	
			GY-29590-62			
			GY-29590-64			

Mesh Overscreens, 10 7/8" (27.6 cm) L x 3" (7.6 cm) dia

Mesh size	Wire diameter (inches)	Opening size inches (microns)	Open area	Catalog number	Price
20 x 20	0.016	0.0340 (864)	46.20%	GY-29590-31	
30 x 30	0.013	0.0203 (516)	37.10%	GY-29590-32	
40 x 40	0.010	0.0150 (381)	36.00%	GY-29590-33	
60 x 60	0.0075	0.0092 (234)	30.50%	GY-29590-35	
80 x 80	0.0055	0.0070 (178)	31.40%	GY-29590-36	
100 x 100	0.0045	0.0055 (140)	30.30%	GY-29590-37	
150 x 150	0.0026	0.0041 (104)	37.40%	GY-29590-39	

In-line strainer
29590-02Side-inlet strainer
29590-54Perforated core
29590-22Mesh overscreen
29590-31

Cole-Parmer® Reusable Filtration Cartridges

Reduce operating expenses

- Unique design creates a large internal surface area to filter large volume of solids
- Easy cleaning; no tools required

Use the 50-µm filters as a prefilter to protect finer disposable filters or carbon cartridges. Use the 100-µm element to remove visible solids. Select the 200-µm element when heavy solids loading is expected. Maximum temperature for cartridges in the styrene acrylonitrile (SAN) housing is 125°F (52°C); maximum pressure is 125 psig at 65°F (18°C). Maximum temperature for the cartridges without housings is 190°F (88°C) and they may be used in the high-temperature housings found on page 295.

Pore size	Port size NPT(F)	Flow rate at 2 psid†	Element length	Housing length	Catalog number	Price
Cartridge elements with SAN housing						
50 µm 100 µm 200 µm	3/8"	10 GPM	5" (12.7 cm)	7 3/8" (18.7 cm)	GY-29650-04	
					GY-29650-00	
					GY-29650-02	
50 µm 100 µm 200 µm	3/4"	25 GPM	10" (25.4 cm)	12 5/8" (32.1 cm)	GY-29650-34	
					GY-29650-30	
					GY-29650-32	
Cartridge elements without housing						
50 µm 100 µm 200 µm	—	—	10" (25.4 cm)	—	GY-29650-54	
					GY-29650-50	
					GY-29650-52	

*psid is pounds per square inch pressure drop through the system.



29650-52



29650-00

Combination Filter/Ultraviolet Sterilizers

Filtration and sterilization in one compact unit

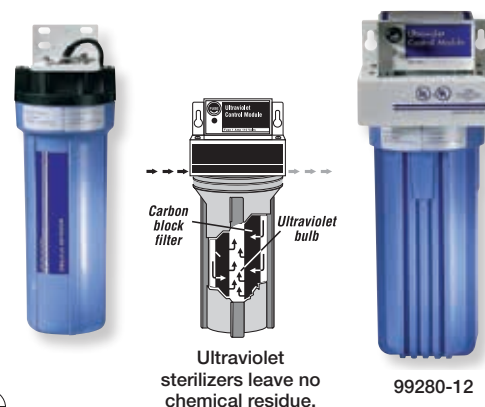
– Filters particulates down to 0.5 µm; UV system kills 99.9% of bacteria

These filter/sterilizers feature a UV bulb in the center of a carbon filter cartridge—the filter system removes chemicals and sediment, while the UV system kills 99.9% of the bacteria. UV bulb life is 9000 hours. Sterilizers feature an extended pass carbon block (EPCB) filter designed to provide longer contact with the UV system. Filter has 0.5-µm pore size to effectively remove chemicals, sediment, and *Giardia* cysts.

What's included: brackets, mounting hardware, 5 feet of polypropylene tubing (adapters included), and 6-ft cord (1-GPM 120 VAC model has two-prong plug, 2-GPM 120 VAC model has three-prong plug, 220 VAC models have a European plug).



Flow rate	Dimensions (W x H x D)	Connections (inlet/outlet)	Power	Watts	Catalog number	Price
1 GPM	4½" x 13½" x 4½" (11.4 x 34.3 x 11.4 cm)	¾" NPT(F)	120 VAC, 60 Hz 220 VAC, 50 Hz	16	GY-99280-00 GY-99280-05	
2 GPM	5½" x 15" x 5½" (14.0 x 38.1 x 14.0 cm)	¾" NPT(F)	120 VAC, 60 Hz 220 VAC, 50 Hz	16	GY-99280-12 GY-99280-17	



[GY-99280-70](#) Replacement EPCB filter

[GY-99280-50](#) Replacement UV bulb for 99280-00, -05

[GY-99280-52](#) Replacement UV bulb for 99280-12, -17

Single-Open-End Absolute-Rated Cartridge Systems

Meet your regulatory needs

These SOE cartridges have a 222 O-ring configuration to create a tight seal and prevent influent bypass. They are autoclavable to 250°F (121°C) and in-line sterilizable to 257°F (125°C) for up to 30-minute cycles; 10 hours total. May also be sanitized with compatible chemical agents. Suitable to 180°F (82°C) at 10 psid.

The cartridges comply with US CFR Title 21 guidelines for repeated food contact, comply with USP Class VI-121°C Plastics guidelines and pass the MEM Elution Cytotoxicity Test. Aqueous extracts contain less than 0.25 EU/mL and typically exhibit low levels of non-volatile residues.

Use a cartridge-sump adapter kit (sold below) to secure cartridges within housings.

Multilayer Nylon Cartridges. Two pleated nylon membranes; top layer acts as a prefilter to increase cartridge life and efficiency.

Glass Microfiber Cartridge. Resin-bonded borosilicate glass microfibers that do not leach flavor-altering substances. Meets NSF Standard 53 for the reduction of cysts. Ideal as a prefilter to protect membrane filter/RO systems.

Polypropylene (PP) Cartridges. Thermally bonded high-purity PP fiber. Economical for a chemically inert media with high dirt-loading capacity. Also suitable for air/gas filtration. All materials FDA-compliant. Hydrophobic—prewet before liquid filtration.[†]

Pleated PTFE Cartridges. Ideal for more aggressive liquid or air/gas filtration. Hydrophobic—prewet before liquid filtration.[†]

Semiconductor Cartridge. Single-layer PES membrane over PP core. Each is flushed with high-purity water to leach less than 5 ppb TOC and less than 5 ppb trace metals. Ideal for any high-purity chemical or DI water application.

Cartridge type	Pore size ^{††}	Filtration area	Length	Catalog number	Price
Serial nylon	0.20 µm 0.45 µm	6.9 sq ft	10" (25.4 cm)	GY-06479-18 GY-06479-22	
Glass fiber	3.0 µm	4.3 sq ft	10" (25.4 cm)	GY-06479-26	
Polypropylene	1.0 µm 3.0 µm 5.0 µm 10 µm	4.0 sq ft 4.7 sq ft 5.5 sq ft 5.6 sq ft	10" (25.4 cm)	GY-06479-34 GY-06479-38 GY-06479-42 GY-06479-46	
PTFE	0.1 µm 0.2 µm 0.45 µm	5.9 sq ft 5.9 sq ft 5.9 sq ft	10" (25.4 cm)	GY-06479-50 GY-06479-54 GY-06479-58	
Semiconductor	0.20 µm	6.9 sq ft	10" (25.4 cm)	GY-06479-62	

[†]To use with aqueous solutions, prewet with methanol, then rinse with water before use.

^{††}Pore sizes for polypropylene cartridges are nominal.

[GY-01508-96](#) SOE Cartridge-sump adapter kit, fills the variable gap left by various manufacturers' SOE cartridges when used in a 12" polypropylene housing



High-Purity SOE Housing

Designed for use with 222 O-ring sealing cartridges. Pure polypropylene with no fillers, colorants, plasticizers or lubricants. Molded with ultra-smooth contact surfaces to prevent bacterial adhesion and build-up. Also suitable for aggressive fluids.

Inlet/outlet ports are ¾". Housings include ¼" plugged inlet, outlet, and sump ports for sampling or differential pressure monitoring. Suitable to 100°F (38°C); max pressure is 100 psi; Viton® seal.



[GY-01508-24](#) High-purity polypropylene housing for use with SOE 222 O-ring cartridges (at left)

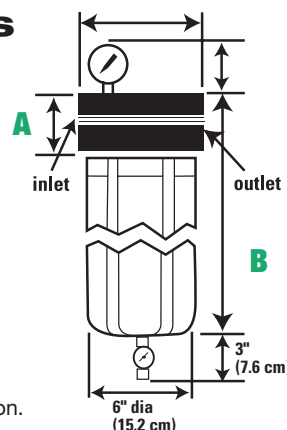
Filtration

Economical Bag Filter Systems Won't corrode

- Corrosion-proof design with broad chemical compatibility
- Polypropylene housings—strength and durability without bulk
- Conveniently collects all filtered particles within the bag

Polypropylene Filter Housings

This design is ideal for portable or small process systems. Maximum temperature is 100°F (38°C). Housings come complete with a Buna N O-ring, pressure gauge, spanner wrench, plug for 1/4" vent port, and a 3/8" drain valve. Order bag filters separately below, based on application.



Housings have a single, large thread closure for quick opening and positive sealing.



10" L housing 01510-00 (shown without gauge or drain valve)

18 1/2" L housing 01510-02

Maximum flow rate	Maximum pressure	Filter bag length	Port size	Dimensions		Catalog number	Price
				A	B		
20 GPM	100 psi	10" (25.4 cm)	1" NPT(F)	3 1/2" (8.9 cm)	13 1/8" (33.3 cm)	GY-01510-00	
			1 1/2" NPT(F)	4" (10.2 cm)	13 5/8" (34.6 cm)	GY-01510-04	
40 GPM	90 psi	18 1/2" (47 cm)	1" NPT(F)	3 1/2" (8.9 cm)	23 7/8" (60.6 cm)	GY-01510-02	
			1 1/2" NPT(F)	4" (10.2 cm)	23 7/8" (60.6 cm)	GY-01510-06	

Bag Filters for Polypropylene Bag Filter Housings

Each bag measures 4" diameter. The 10" L bags have a surface area of 0.75 ft²; 18 1/2" L bags have a surface area of 1.75 ft². See text and compatibility table below for application guidance.

Polypropylene Felt Bag Filters

These bags are ideal for general-purpose filtration. The bags are glazed to minimize fiber migration.

Pore size	10" (25.4 cm) L bag filters			18 1/2" (47 cm) L bag filters		
	Catalog number	Max flow	Price	Catalog number	Max flow	Price
1 µm	GY-01516-00	20 GPM		GY-01516-20	40 GPM	
5 µm	GY-01516-02			GY-01516-22		
10 µm	GY-01516-04			GY-01516-24		
25 µm	GY-01516-06			GY-01516-26		
50 µm	GY-01516-08	20 GPM		GY-01516-28	40 GPM	
100 µm	GY-01516-10			GY-01516-30		
200 µm	GY-01516-12			GY-01516-32		

Polypropylene Absolute-Rated High Efficiency Bag Filters

These absolute-rated versions are designed for 98% removal efficiency at the rated pore size. Bags offer three to four times the dirt-holding capacity of standard bags.

Pore size	10" (25.4 cm) L bag filters			18 1/2" (47 cm) L bag filters		
	Catalog number	Max flow	Price	Catalog number	Max flow	Price
1 µm	GY-01516-40	15 GPM		GY-01516-80	35 GPM	
5 µm	GY-01516-44			GY-01516-84		
25 µm	GY-01516-48			GY-01516-88		
50 µm	GY-01516-50	20 GPM		GY-01516-90	40 GPM	
100 µm	—			GY-01516-94		



Polypropylene bag filter 01516-20



Polypropylene high-efficiency bag filter 01516-48



Nylon bag filter 01519-16

Nylon Monofilament Bag Filters

A high-strength bag for handling a relatively more aggressive, cruder filtration application.

Pore size	10" (25.4 cm) L bag filters			18 1/2" (47 cm) L bag filters		
	Catalog number	Max flow	Price	Catalog number	Max flow	Price
50 µm	GY-01516-60	35 GPM		GY-01519-00	35 GPM	
100 µm	GY-01516-62			GY-01519-02		
200 µm	GY-01516-66			GY-01519-06		
300 µm	GY-01516-70	35 GPM		GY-01519-12	35 GPM	
400 µm	GY-01516-72			GY-01519-16		
800 µm	GY-01516-76					

Filter Compatibility†

Filtered substance	Materials	
	Polypropylene	Nylon
Organic solvents	Excellent	Excellent
Animal, petroleum, and vegetable oils	Excellent	Excellent
Micro-organisms	Excellent	Excellent
Alkalies	Excellent	Good
Organic acids	Excellent	Good
Oxidizing agents	Good	Fair
Mineral acids	Good	Poor

†Use chart as a guide only. Check chemical compatibility for specific fluids.

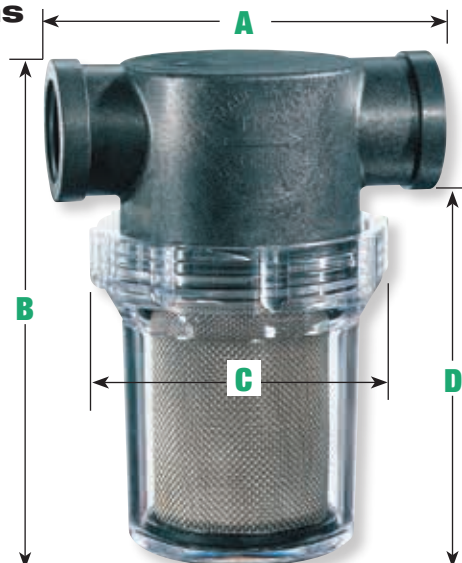
Cole-Parmer® Low-Cost In-Line Strainer Systems

Easily modify to suit your application

Low-Profile Strainers are ideal for small-scale low-volume filtration. Use in research applications, cleaning equipment, and laboratory equipment.

Intermediate Strainers feature a large filtering area in a compact size. Perfect for commercial and industrial pumps and agricultural and marine applications.

Large Strainers are primarily used in industrial and commercial industries. They feature increased flow rate and large filtration area.



This large system includes:
strainer 29595-17, mesh 29595-57,
strainer bottom 29595-79, and gasket 29595-89

1. Polypropylene Strainer Tops

Connection type	Dimensions†				Filter area	Catalog number	Price
	A	B	C	D			
Low-profile strainers							
1/8" NPT(F)	3.00"	2.67"	1.89"	2.00"	3.95 in²	GY-29595-01	
1/4" NPT(F)	(7.6 cm)	(6.8 cm)	(4.8 cm)	(5.1 cm)	(25.5 cm²)	GY-29595-03	
3/8" NPT(F)						GY-29595-05	
1/4" hose barb	3.00"	2.67"	1.89"	2.00"	3.95 in²	GY-29595-07	
1/4" John Guest® quick-disconnect	(7.6 cm)	(6.8 cm)	(4.8 cm)	(5.1 cm)	(25.5 cm²)	GY-29595-09	
3/8" John Guest quick-disconnect						GY-29595-11	
Intermediate strainers							
1/2" NPT(F)	3.58"	5.38"	2.90"	4.70"	17.33 in²	GY-29595-13	
3/4" NPT(F)	(9.1 cm)	(13.7 cm)	(7.4 cm)	(11.9)	(111.8 cm²)	GY-29595-15	
Large strainer							
1" NPT(F)	4.95"	6.40"	4.00"	5.55"	29.73 in²	GY-29595-17	
	(12.6 cm)	(16.3 cm)	(10.2 cm)	(14.1 cm)	(191.8 cm²)		

†Dimensions are for reference only.

2. 304 SS Strainer Mesh

Mesh size	Micron nominal	Catalog number	Price
Low-profile mesh			
20 x 20	915	GY-29595-31	
40 x 36	480	GY-29595-33	
80 x 80	178	GY-29595-35	
50 x 250	60	GY-29595-39	
165 x 800	15	GY-29595-41	
Intermediate mesh			
20 x 20	915	GY-29595-43	
40 x 35	480	GY-29595-45	
80 x 80	178	GY-29595-47	
Large mesh for large strainer only			
20 x 20	915	GY-29595-49	
40 x 36	480	GY-29595-51	
80 x 80	178	GY-29595-53	
24 x 110	80	GY-29595-55	
50 x 250	60	GY-29595-57	

3. Strainer Bottoms

Description	Black polypropylene		Clear nylon	
	Cat. no.	Price	Cat. no.	Price
Low-profile strainer bottoms	GY-29595-61		GY-29595-63	
Intermediate strainer bottoms	GY-29595-67		GY-29595-71	
Large strainer bottoms	GY-29595-73		GY-29595-79	

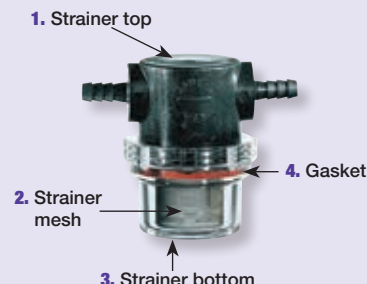
4. Gaskets seal strainer housing top to strainer housing bottom

Description	EPDM		Viton®	
	Catalog number	Price	Catalog number	Price
Low-profile strainer gasket	GY-29595-81		GY-29595-83	
Intermediate strainer gasket	GY-29595-85		GY-29595-87	
Large strainer gaskets	GY-29595-89		GY-29595-91	

Teky's Tips

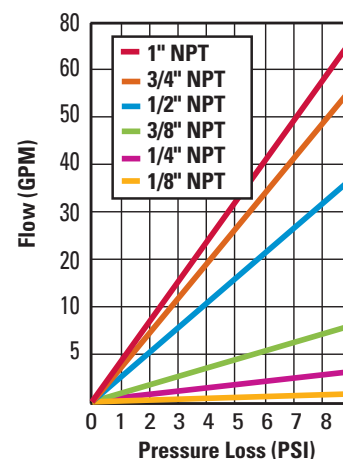


Easily build your own strainer system



Select one of each of the following from the same class.

1. Use the flow chart below to pick the correct **strainer top** for your application.
2. Pick the **strainer mesh** based on your mesh size requirements
3. Choose the appropriate **strainer bottom**, either in polypropylene or nylon.
4. Pick the appropriate **gasket**, either EPDM or Viton®.



Note 1: Graph outlines the approximate pressure loss for a given flow.

Note 2: All in-line strainer systems are rated up to 150 psi at 70°F and 100 psi at 125°F.

Note 3: Systems are not intended for applications where pressure spikes in excess of maximum pressure ratings can be expected.

Basket Strainers

Protect your line from dirt and debris

- Ideal product for the removal of crude solids
- Low pressure drop with large straining capacity
- Basket easily lifts out to clean or replace

The perforated baskets catch unwanted particles as the fluid passes through the strainer. Suitable for use in processing water, oil, paint, chemicals, or food applications.

Strainers are made of PVC and include FPM seals. The 1/2", 3/4", and 1" strainers include a 1/32" perforated basket; the 1 1/2" to 4" strainers include a 1/8" perforated basket.

Basket Strainers

Size	Catalog number	Price
1/2"	GY-29526-00	
3/4"	GY-29526-02	
1"	GY-29526-04	
1 1/2"	GY-29526-06	
2"	GY-29526-08	
3"	GY-29526-10	
4"	GY-29526-12	

Additional / Replacement Baskets

Perforation	For strainer sizes	Catalog number	Price
1/32"	1/2", 3/4", and 1"	GY-29526-40	
1/16"		GY-29526-42	
1/32"	1 1/2" and 2"	GY-29526-44	
1/16"		GY-29526-46	
1/8"		GY-29526-48	
3/16"		GY-29526-50	
1/16"	3" and 4"	GY-29526-52	
1/8"		GY-29526-54	
3/16"		GY-29526-56	

Wait! There's More...

Place a ball valve upstream of the strainer to allow for easy shutdown when emptying the strainer basket. For our "Valves" section see pages 1049-1062.



Teky's Tips



Application Tips

1. Keep fluid velocity through the strainer to less than 8 fps (2.44 m/sec). A strainer several times larger than the pipeline may be used.
2. Keep the pressure drop across a clean strainer to less than 2 psid (0.14 bar). Use the "Cv Factors" table to get pressure drop by calculating [flow (GPM)/Cv]²
3. Select a basket perforation that is one half the size of the smallest particle to be removed.
4. Eliminate down time by keeping an extra basket on hand to quickly replace dirty baskets.

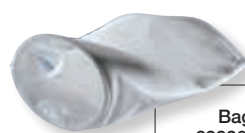
High-Flow Bag Filters

Won't corrode

- Include a built-in, flanged support base
- Dual-bottom connections for drain and outlet
- Glass reinforced polypropylene construction handles higher temperatures and pressures

The cover can be removed to lift out the basket and replace the filter bag. Cover threads do not contact the process media.

Maximum flow rate for single-length filters is 50 GPM, 100 GPM for double-length. Each filter includes a built-in vent valve with 1/4" gauge tap and a Viton® cover seal; order bags separately at right.



Bag
29990-58

Filter Bags

Made from nonwoven polypropylene felt. The single-length bags have a surface area of 2.0 sq ft while the double-length bags have 4.1 sq ft of surface area.

Pore size	Single-length bags		Double-length bags	
	Catalog number	Price/pk of 50	Catalog number	Price/pk of 50
1 µm	GY-29990-50		GY-29990-70	
5 µm	GY-29990-54		GY-29990-74	
25 µm	GY-29990-58		GY-29990-78	
100 µm	GY-29990-62		GY-29990-82	

Single- and Double-Length Bag Filter Housings

Accommodates	Connection type	Catalog number	Price
Single-length bag	2" NPT(F)	GY-29990-00	
Double-length bag	2" NPT (F)	GY-29990-04	



Housing
29990-00