

Cartridge Housing and Elements

Overview



Schroeder has depth filtration cartridges for fine filtration and the housings to fit. Standard cartridges are available in 10, 20, 30 and 40 inch lengths. These meltblown filters come in either a 2.5" or 4.5" diameter. Depth filter cartridges have larger openings towards the outside of the element and smaller openings near the center. This allows for higher dirt holding capacity to lengthen the life of the element.

Most common are the elements with a double open end (DOE). Cartridges with either a 222 o-ring seal or a FIN style are also available. The range of filtration on these elements is from 1 micron up to 100 microns. All of our elements are made from 100% pure polypropylene fibers to ensure high quality. Elements with center tubes for support are also available.

The housings for these elements are available with either a 100% polypropylene head and bowl or in electro-polished stainless steel.

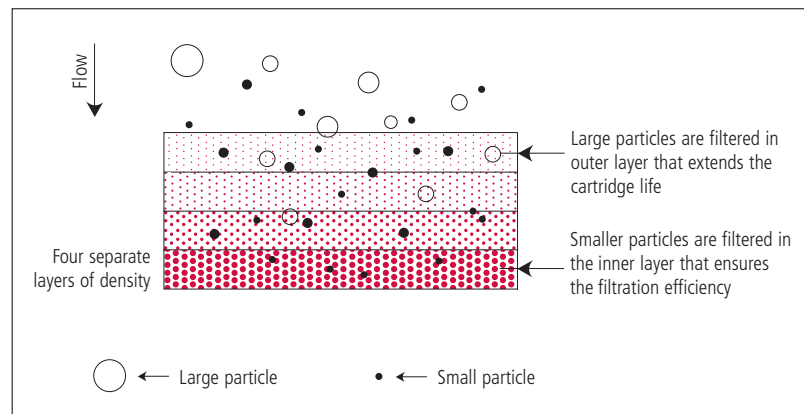
The polypropylene housings accept either the 10" or 20" elements for both 2.5" and 4.5" diameter. The threaded head and bowl allow for quick and easy changing of the elements. Various sizes of NPT ports make installation quick and easy and allow flows up to 40 gpm depending upon the housing size. Because the housings are 100% polypropylene, they are tough and durable. The 2.5" housings are rated up to 125 psi (8.6 bar) at 140°F (60°C) while the 4.5" housings are rated for 100 psi (7.0 bar) at 140°F (60°C).

Stainless steel housings are used for higher flow rates and pressure up to 150 psi (10.0 bar) at 167°F (75°C). These larger housings hold seven elements in a circular array in all four standard lengths. The quick release clamp on the lid allows for easy changing of the elements while providing a tight seal. Each one comes standard with a gauge port in the lid. DOE and 222 style cartridges are accepted by these housings.

Both types of housing are durable, built to last in harsh conditions and have low clean pressure drops.

Features

- 100% polypropylene construction
- Max operating temperature 140°F (60°C)
- Max pressure drop 46 psi (3.2 bar) @ 68°F (20°C)
- Recommended cartridge replacement at 22 psi (1.5 bar)
- Special lengths and micron ratings available upon request
- 222 o-ring seal, FIN style end caps and center support tubes available upon request



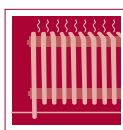
Industries Served



CHEMICAL PROCESSING



INDUSTRIAL



THERMAL TRANSFER



POWER GENERATION



PAPER INDUSTRY



STEEL MAKING



SEWAGE AND WASTEWATER TREATMENT

Cartridge Housings and Elements

How to Build a Valid Model Number for a Economical (DCE) Element:

BOX 1	BOX 2	BOX 3	BOX 4
DCE			

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	
DCE	2	10	25	= DCE21025

BOX 1	BOX 2	BOX 3	BOX 4
Filter Series	Element Size	Element Length	Micron Rating
DCE	2 = 2.5" OD 4 = 4.5" OD	5 = 4-7/8" (2.5" OD only) 10 = 9-7/8" 20 = 20" 30 = 30" (2.5" OD only) 40 = 40" (2.5" OD only)	01 = 1 μm 05 = 5 μm 10 = 10 μm 20 = 20 μm 25 = 25 μm 50 = 50 μm 75 = 75 μm 100 = 100 μm 150 = 150 μm

Filter Model Number Selection

DCE

ACE

CH1

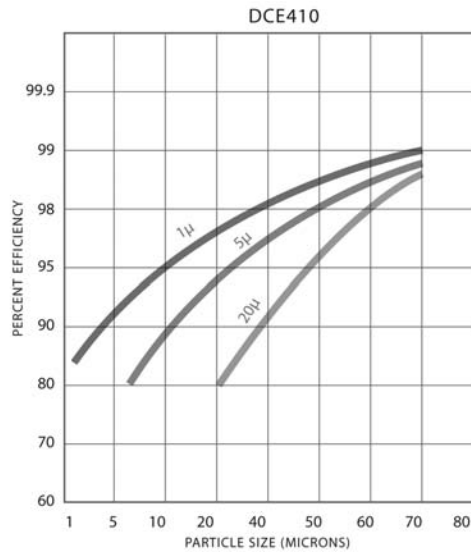
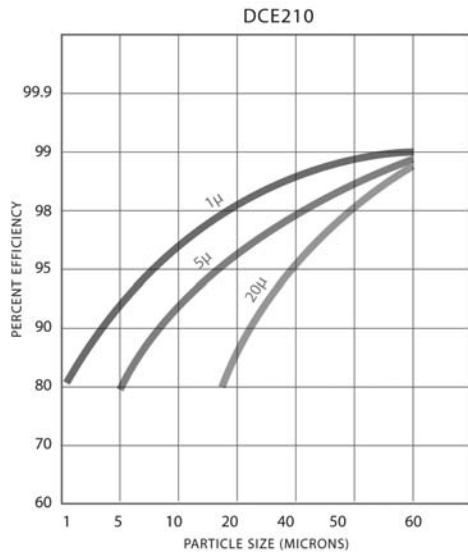
CH3 -CH7

CH12-CH24

RMF

Filter and Media are sold separately.

Filter Data





The Schroeder Process meltblown cartridge filters utilize depth filtration to achieve the highest level of filtration. The tightly controlled manufacturing process ensures consistent reliability for optimal filter performance. Their 100% polypropylene construction makes these elements versatile and suitable in a wide range of process applications.

The graded density make up of these elements increases the surface area of the elements by allowing use of all the media, not just the surface. Larger particles are captured near the less dense exterior of the element while smaller particles pass to the inner part of the element where they are trapped. This allows for higher dirt holding capacity and longer element life.

Specifications

Media:	Polypropylene
Material:	100% Meltblown Micro PP Fiber
Absolute Micron Ratings:	1µm, 3µm, 5µm, 10µm, 20µm, 25µm, 30µm, 50µm, 75µm, 100µm, 150µm
Inside Diameter:	1.1 inch (28 mm)
Outside Diameter:	2.5 inch (63 mm)
Maximum Differential Pressure and Temperature:	58 psi at 68°F (4 bar at 20°C) 29 psi at 140°F (2 bar at 60°C) 14 psi at 176°F (1 bar at 80°C)
Recommended Element Change Out:	29 psid (2.1 bar diff)
Maximum Operating Temperature:	160°F (70°C)
Efficiency:	99.98%

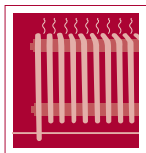
Industries Served



CHEMICAL PROCESSING



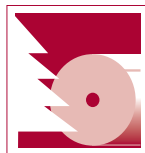
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STEEL MAKING



SEWAGE AND WASTEWATER TREATMENT

Cartridge Housings and Elements



How to Build a Valid Model Number for a Absolute (ACE) Element

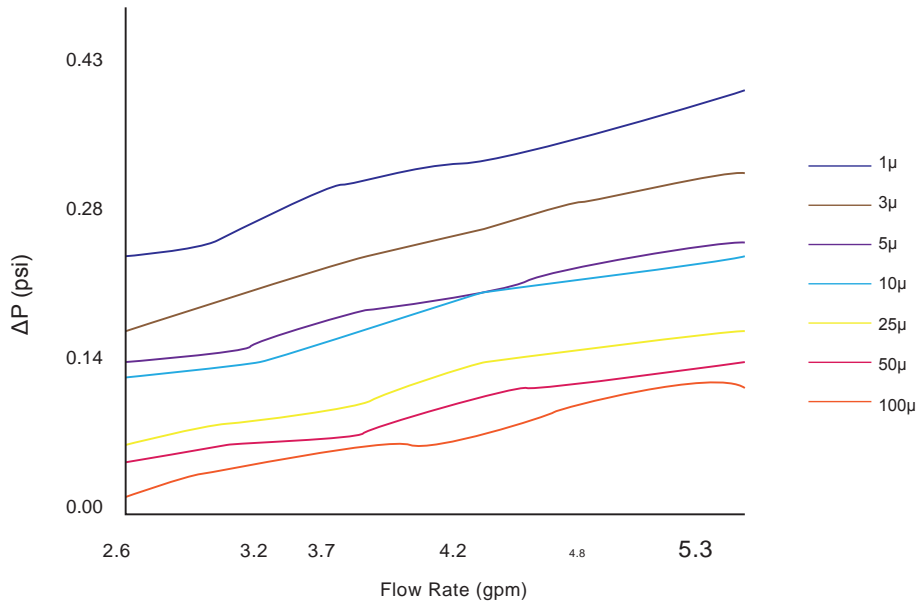
BOX 1	BOX 2	BOX 3	BOX 4
ACE			

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	
ACE	2	10	25	= ACE21025

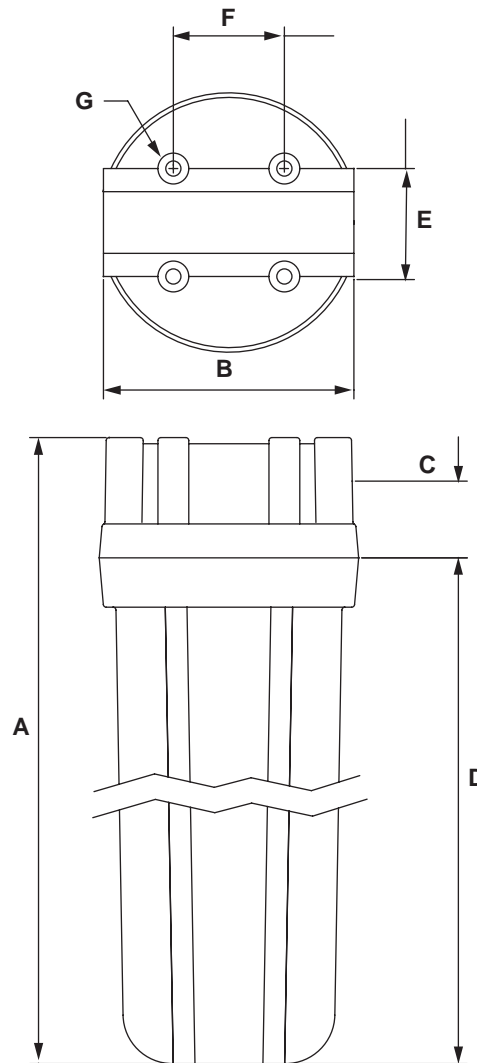
BOX 1	BOX 2	BOX 3	BOX 4
Filter Series	Element Size	Element Length	Micron Rating
ACE	2 = 2.5" OD	10 = 9 - 7/8" 20 = 20" 30 = 30" 40 = 40"	01 = 1 μm 03 = 3 μm 05 = 5 μm 10 = 10 μm 20 = 20 μm 25 = 25 μm 30 = 30 μm 50 = 50 μm 75 = 75 μm 100 = 100 μm 150 = 150 μm

- Filter Model Number Selection**
- DCE
 - ACE**
 - CH1
 - CH3 -CH7
 - CH12-CH24
 - RMF



Filter Data

Cartridge Housing



NOTE:
Drawings may change without notice. Contact factory for certified drawings.

Dimensions

	A inch (mm)	B øinch (mm)	C inch (mm)	D inch (mm)	E inch (mm)	F inch (mm)	G inch (mm)
CH1210	12.36 (314)	5.12 (130)	0.56 (14)	10.47 (266)	2.32 (59)	2.24 (57)	0.19 (5)
CH1220	22.48 (571)	5.12 (130)	0.56 (14)	20.60 (523)	2.32 (59)	2.24 (57)	0.19 (5)
CH1410	13.90 (353)	7.12 (181)	1.88 (48)	11.26 (286)	2.91 (74)	2.91 (74)	0.19 (5)
CH1420	23.78 (604)	7.12 (181)	1.88 (48)	21.26 (540)	2.91 (74)	2.91 (74)	0.19 (5)

Specifications

	CH12	CH14
Max. Flow Rate:	5-10 gpm (18.33 to 36.66 L/min)	40 gpm (150 L/min)
Max. Working Pressure:	125 psi (8.6 bar)	100 psi (7 bar)
Max Temperature:	140°F (60°C)	140°F (60°C)
Housing Material:	Polypropylene	Polypropylene
O-Ring Material:	Buna N	Buna N
Initial Pressure Drop:	1 psi at 10 gpm	1 psi at 30 gpm
Type of Element Accepted	DOE	DOE

Cartridge Housings and Elements

CH1

How to Build a Valid Model Number for a Single Cartridge PP Housing 2.5":

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9
CH								

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9
CH	1	2	10	PP	34	B	0	0

= CH1210PP34B00

BOX 1 Filter Series CH	BOX 2 No. of Cartridges per Housing 1	BOX 3 Cartridge Diameter 2 = 2.5" diameter	BOX 4 Cartridge Length 10 = 10" 20 = 20"	BOX 5 Housing Material PP = Polypropylene head and bowl
BOX 6 Connection Size 34 = 3/4" NPT	BOX 7 Seal Material B = Buna N	BOX 8 Pressure Rating 0 = 125 psi	BOX 9 Pressure Relief Button 0 = No PR Button P = PR Button in Cap	

How to Build a Valid Model Number for a Single Cartridge PP Housing 4.5":

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9
CH								

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9
CH	1	4	10	PP	1N	B	0	0

= CH1410P1NB00

BOX 1 Filter Series CH	BOX 2 No. of Cartridges per Housing 1	BOX 3 Cartridge Diameter 4 = 4.5" diameter	BOX 4 Cartridge Length 10 = 10" 20 = 20"	BOX 5 Housing Material PP = Polypropylene head and bowl
BOX 6 Connection Size 1N = 1" NPT 15 = 1.5" NPT	BOX 7 Seal Material B = Buna N	BOX 8 Pressure Rating 0 = 100 psi	BOX 9 Pressure Relief Button 0 = No PR Button P = PR Button in Cap	

*Shaded selections are preferred order codes that designate shorter lead times.

Filter Model Number Selection

DCE

ACE

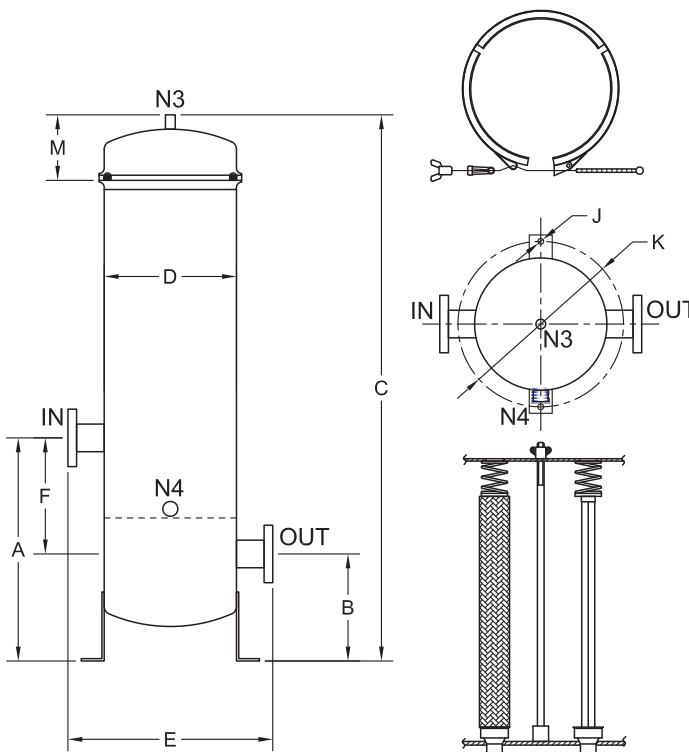
CH1

CH3 -CH7

CH12-CH24

RMF

100 psi
7 bar



NOTE: Drawings may change without notice. Contact factory for certified drawings.

Dimensions

	Cartridge		A inch (mm)	B inch (mm)	C inch (mm)	D øinch (mm)	E inch (mm)	F inch (mm)	J øinch (mm)	K øinch (mm)	M inch (mm)	N3 inch	N4 inch
	Qty	Length											
CH3220	3	20	11.02 (280)	4.72 (120)	35.04 (890)	7.09 (180)	11.81 (300)	6.30 (160)	0.35 (9)	9.29 (236)	3.35 (85)	¼	¼
CH3230	3	30	11.02 (280)	4.72 (120)	45.08 (1145)	7.09 (180)	11.81 (300)	6.30 (160)	0.35 (9)	9.29 (236)	3.35 (85)	¼	¼
CH7220	7	20	11.02 (280)	4.72 (120)	35.04 (890)	9.13 (232)	13.86 (352)	6.30 (160)	0.35 (9)	9.29 (236)	3.35 (85)	¼	¼
CH7230	7	30	11.02 (280)	4.72 (120)	45.08 (1145)	9.13 (232)	13.86 (352)	6.30 (160)	0.35 (9)	9.29 (236)	3.35 (85)	¼	¼
CH7240	7	40	11.02 (280)	4.72 (120)	55.12 (1400)	9.13 (232)	13.86 (352)	6.30 (160)	0.35 (9)	9.29 (236)	3.35 (85)	¼	¼

Specifications

Number of Elements per Housing: 3 or 7 Elements, 2" Diameter

Max. Working Pressure: 100 psi (7 bar)

Max Temperature: 167°F (75°C)

Housing Material: Stainless Steel (304 or 316)

Type of Elements Accepted: DOE (Double Open Ended), -222 O-ring

Cartridge Housings and Elements

CH3-CH7

Model #	Flow Rate	Dry Weight
CH3220	0-26 gpm (100 l / min)	40 lbs (18kg)
CH3230	0-40 gpm (150 l / min)	44 lbs (20kg)
CH7220	0-62 gpm (233 l / min)	55 lbs (25kg)
CH7230	0-92 gpm (350 l / min)	62 lbs (28kg)
CH7240	0-123 gpm (467 l / min)	68 lbs (31kg)

Flow Rate
and Weight

DCE

ACE

CH1

CH3-CH7

CH12-CH24

RMF

Filter
Model
Number
Selection

How to Build a Valid Model Number for a Multi-Cartridge Housing, 100psi:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
CH							

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
CH	7	2	40	304S	2N	E	0

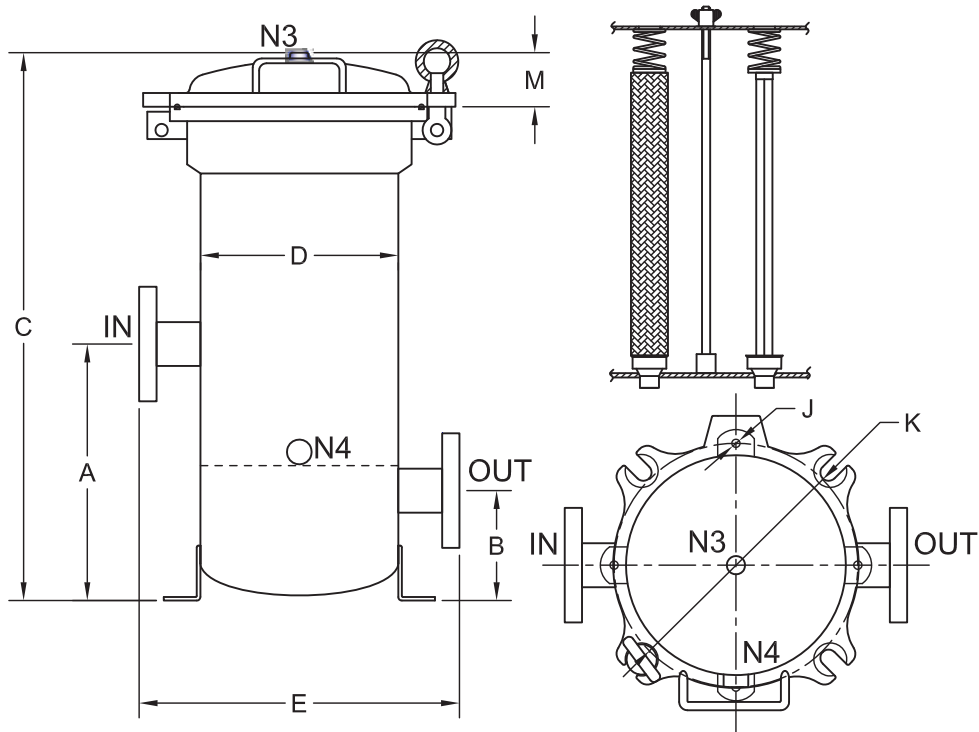
= CH7240304S2NE0

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5
Filter Series	No. of Cartridges per Housing	Cartridge Diameter	Cartridge Length	Housing Material
CH	3 7	2 = 2" diameter	20 = 20" 30 = 30" 40 = 40"	304S = 304 Stainless Steel 316S = 316 Stainless Steel

BOX 6	BOX 7	BOX 8
Connection Size	Seal Material	Pressure Rating
2N = 2" NPT 2F = 2" Flange 4F = 4" Flange	E = EPDM V = Viton	0 = 100 psi

NOTE: Elements must be purchased separately.

150 psi
10 bar



NOTE: Drawings may change without notice. Contact factory for certified drawings.

Dimensions

	Cartridge		A inch (mm)	B inch (mm)	C inch (mm)	D øinch (mm)	E inch (mm)	J øinch (mm)	K øinch (mm)	M inch (mm)	N3 inch	N4 inch
	Qty	Length										
CH3220	3	20	11.02 (280)	4.72 (120)	33.19 (843)	7.13 (181)	11.81 (300)	0.35 (9)	10.47 (266)	2.17 (55)	¼	¾
CH3230	3	30	11.02 (280)	4.72 (120)	43.23 (1098)	7.13 (181)	11.81 (300)	0.35 (9)	10.47 (266)	2.17 (55)	¼	¾
CH3240	3	40	11.02 (280)	4.72 (120)	53.27 (1353)	7.13 (181)	11.81 (300)	0.35 (9)	10.47 (266)	2.17 (55)	¼	¾
CH7220	7	20	11.02 (280)	4.72 (120)	33.58 (853)	9.13 (232)	14.09 (358)	0.35 (9)	11.34 (288)	2.56 (65)	¼	¾
CH7230	7	30	11.02 (280)	4.72 (120)	43.62 (1108)	9.13 (232)	14.09 (358)	0.35 (9)	11.34 (288)	2.56 (65)	¼	¾
CH7240	7	40	11.02 (280)	4.72 (120)	53.66 (1363)	9.13 (232)	14.09 (358)	0.35 (9)	11.34 (288)	2.56 (65)	¼	¾

Specifications

Number of Elements per Housing: 3 or 7 Elements, 2" Diameter

Max. Working Pressure: 150 psi (10 bar)

Max Temperature: 167°F (75°C)

Housing Material: Stainless Steel (304 or 316)

Type of Elements Accepted: DOE (Double Open Ended), -222 O-ring

Cartridge Housings and Elements

CH3-CH7

Model #	Flow Rate	Volume	Dry Weight
CH3220	0-26 gpm (100 l / min)	7.13 gal (27L)	66 lbs (30kg)
CH3230	0-40 gpm (150 l / min)	9.51 gal (36L)	77 lbs (35kg)
CH3240	0-53 gpm (200 l / min)	11.88 gal (45L)	88 lbs (40kg)
CH7220	0-62 gpm (233 l / min)	8.98 gal (34L)	77 lbs (35kg)
CH7230	0-92 gpm (350 l / min)	11.88 gal (45L)	88 lbs (40kg)
CH7240	0-123 gpm (467 l / min)	14.52 gal (55L)	101 lbs (46kg)

Flow Rate
Volume
and Weight

DCE

ACE

CH1

CH3-CH7

CH12-CH24

RMF

How to Build a Valid Model Number for a Multi-Cartridge Housing, 150psi:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
CH							

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
CH	7	2	40	304S	2N	E	1

= CH7240304S2NE1

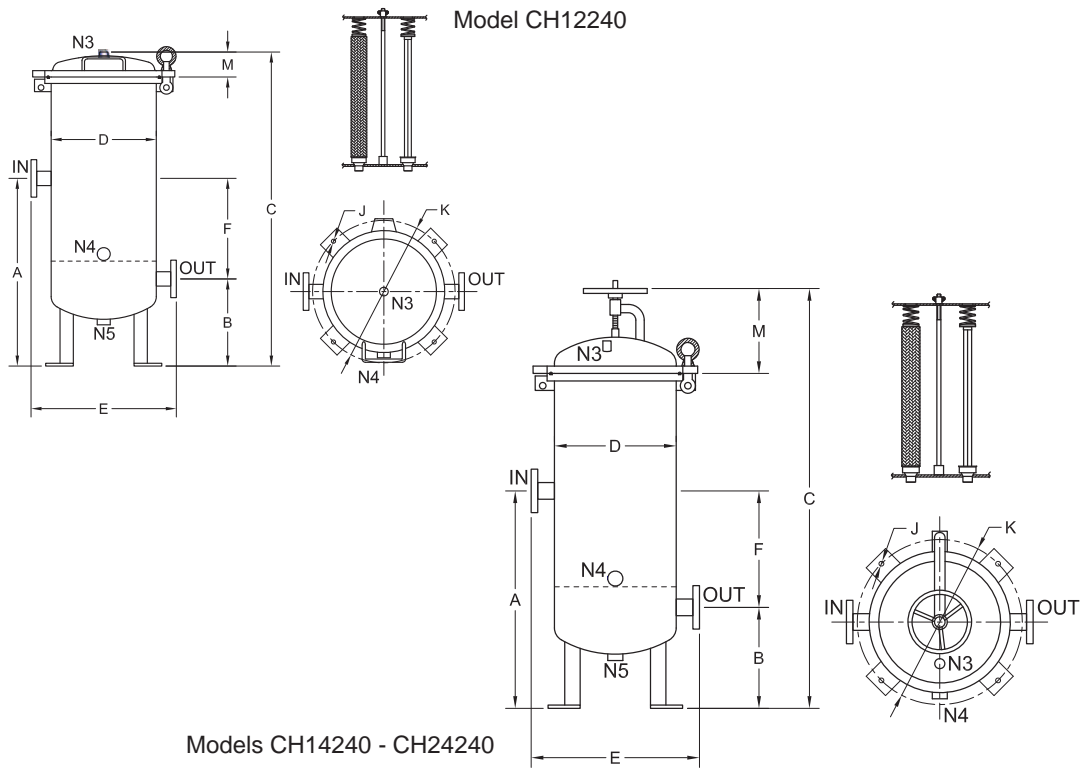
Filter
Model
Number
Selection

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5
Filter Series	No. of Cartridges per Housing	Cartridge Diameter	Cartridge Length	Housing Material
CH	3 7	2 = 2" diameter	20 = 20" 30 = 30" 40 = 40"	304S = 304 Stainless Steel 316S = 316 Stainless Steel

BOX 6	BOX 7	BOX 8
Connection Size	Seal Material	Pressure Rating
2N = 2" NPT 2F = 2" Flange	E = EPDM V = Viton	1 = 150 psi

NOTE: elements must be purchased separately.

150 psi
10 bar



Dimensions

	Cartridge		A inch (mm)	B inch (mm)	C inch (mm)	D øinch (mm)	E inch (mm)	J øinch (mm)	K øinch (mm)	M inch (mm)	N3 inch	N4 inch
	Qty	Length										
CH12240	12	40	27.56 (700)	13.78 (350)	68.03 (1728)	12.01 (305)	19.69 (500)	0.55 (14)	16.14 (410)	6.02 (153)	½	1
CH14240	14	40	27.56 (700)	13.78 (350)	76.77 (1950)	15.98 (406)	23.86 (606)	0.55 (14)	20.31 (516)	14.96 (380)	½	1
CH18240	18	40	27.56 (700)	13.78 (350)	76.77 (1950)	15.98 (406)	23.86 (606)	0.55 (14)	20.31 (516)	14.96 (380)	½	1
CH20240	20	40	27.56 (700)	13.78 (350)	76.77 (1950)	15.98 (406)	23.86 (606)	0.55 (14)	20.31 (516)	14.96 (380)	½	1
CH24240	24	40	27.56 (700)	13.78 (350)	76.97 (1955)	19.13 (486)	27.01 (686)	0.55 (14)	23.46 (596)	15.16 (385)	½	1

Specifications

Number of Elements per Housing: 12, 14, 18, 20, or 24, 2" Diameter

Max. Working Pressure: 150 psi (10 bar)

Max Temperature: 167°F (75°C)

Housing Material: Stainless Steel (304 or 316)

*Max flow rate is dependent on type of media, particle selection required, fluid viscosity and volume of contamination.

Cartridge Housings and Elements CH12-CH24

Model #	Flow Rate	Volume	Dry Weight
CH12240	0-200 gpm (755 l / min)	28.00 gal (107L)	187 lbs (85kg)
CH14240	0-240 gpm (900 l / min)	50.00 gal (198L)	275 lbs (125 kg)
CH18240	0-310 gpm (1170 l / min)	50.00 gal (198L)	275 lbs (125 kg)
CH20240	0-350 gpm (1320 l / min)	50.00 gal (198L)	275 lbs (125 kg)
CH24240	0-415 gpm (1565 l / min)	75.00 gal (286L)	320 lbs (145 kg)

Flow Rate DCE
 Volume ACE
 and Weight CH1
 CH3 -CH7
CH12-CH24
 RMF

How to Build a Valid Model Number for a Multi-Cartridge Housing:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
CH							

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
CH	18	2	40	304S	2F	E	1

= CH18240304S2FE1

Filter Model Number Selection

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5
Filter Series	No. of Cartridges per Housing	Cartridge Diameter	Cartridge Length	Housing Material
CH	12 14 18 20 24	2 = 2" diameter	40 = 40"	304S = 304 Stainless Steel 316S = 316 Stainless Steel

BOX 6	BOX 7	BOX 8
Connection Size	Seal Material	Pressure Rating
2F = 2" Flange (not available with 24 cartridges) 4F = 4" Flange	E = EPDM V = Viton	1 = 150 psi