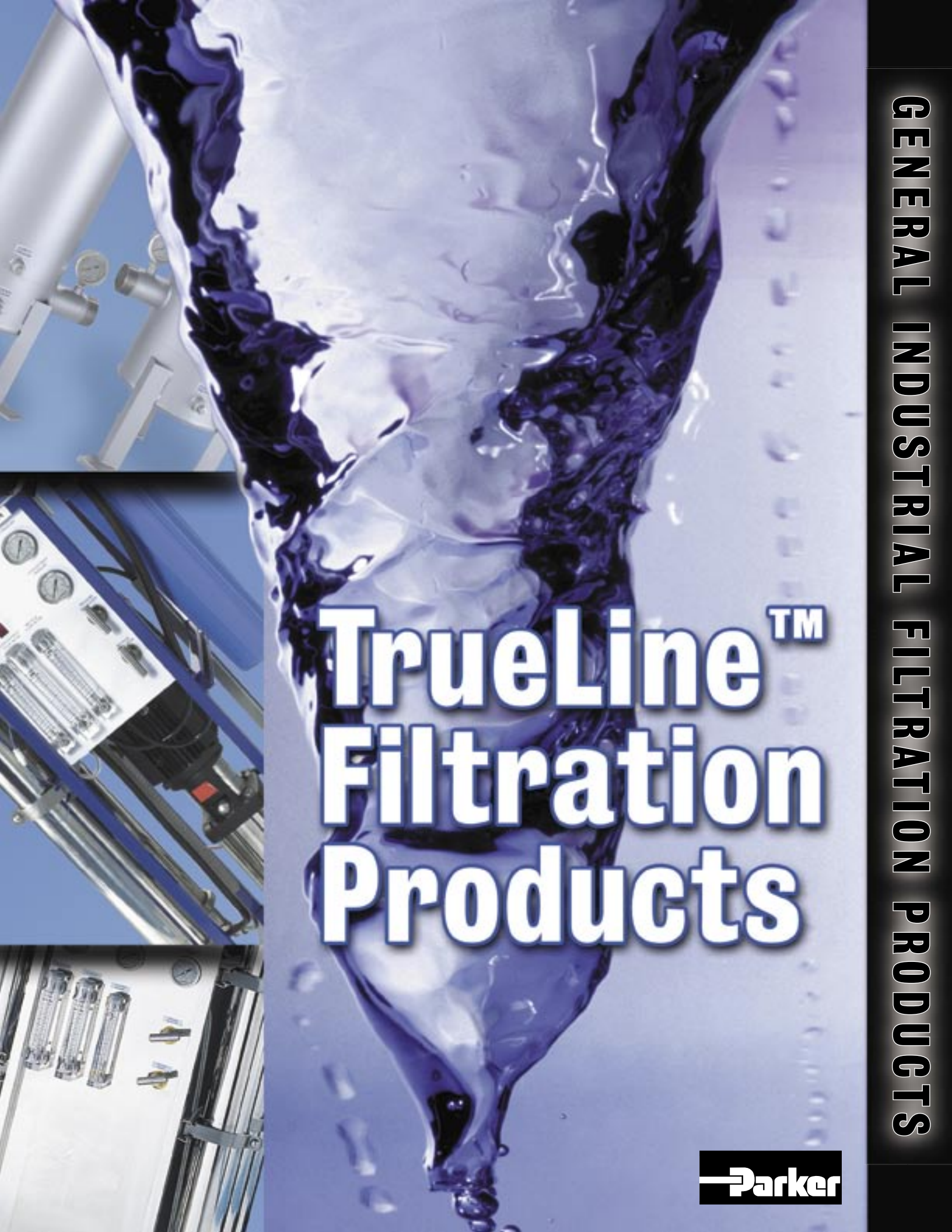


GENERAL INDUSTRIAL FILTRATION PRODUCTS

TrueLine™ Filtration Products



TrueLine™ Filtration Products

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WARNING! FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection for the products and systems and assuring that all performance, safety and warning requirements of the application are met.

TrueLine™ Single Cartridge Plastic Filter Housings

TrueLine™ filter housings are manufactured from the highest quality, FDA grade, 100% polypropylene and acrylic styrene. Leak-proof sealing is accomplished by compression against a top seated EPDM o-ring located in the housing's sump. Thick wall and added ribs make the housings ideal for a wide range of applications.

Polypropylene construction provides excellent chemical resistance with most acids, alcohol, ammonia, oils, plating solutions and many aggressive chemicals. Housings supplied with and without pressure release valves. Rated for temperatures to 125°F (52°C) and pressures to 125 psig (8.75 bar).



Commercial Models
Clear and Opaque.



Full-Flow (B-B)
Opaque. Holds 4-1/2" cartridges.



High-Purity
100% virgin polypropylene.



High-Temp
For 200°F (93°C).



Valve-In-Head
Three function valve with shut-off, by-pass & flow in clear and opaque

TrueLine™ Single Cartridge Plastic Filter Housings

10" and 20" Commercial Opaque Housings

Model Number	Type	Pipe Size	Head	Pressure Release	Sump	No. / case
FH0110BL34	10" Commercial Opaque	3/4"	Black	No	Blue	12
FH0110BL34PR	10" Commercial Opaque	3/4"	Black	Yes	Blue	12
FH0120BL34	20" Commercial Opaque	3/4"	Black	No	Blue	6
FH0120BL34PR	20" Commercial Opaque	3/4"	Black	Yes	Blue	6

10" and 20" Commercial Clear Housings

Model Number	Type	Pipe Size	Head	Pressure Release	Sump	No. / case
FH0110CB34PR	10" Commercial Clear	3/4"	Black	Yes	Clear	12
FH0120CB34PR	20" Commercial Clear	3/4"	Black	Yes	Clear	6

Valve-In-Head Housings (Three function valve with flow, shut-off, by-pass.)

Model Number	Type	Pipe Size	Head	Pressure Release	Sump	No. / case
FH0110VH34C	10" Valve-In-Head	3/4"	White	No	Clear	12
FH0110VH34W	10" Valve-In-Head	3/4"	White	No	White	12

High-Temp Housings (rated for temperatures to 200°F / 93°C)

Model Number	Type	Pipe Size	Head	Pressure Release	Sump	No. / case
FH0110HT34	10" High Temp	3/4"	Red	No	Red	12
FH0120HT34	20" High Temp	3/4"	Red	No	Red	12

Natural Polypropylene Housings

Model Number	Type	Pipe Size	Head	Pressure Release	Sump	No. / case
FH0110NP34	10" Natural Polypropylene	3/4"	NP	No	NP	12
FH0110NP34222*	12" Natural Polypropylene	3/4"	NP	No	NP	12
FH0120NP34	20" Natural Polypropylene	3/4"	NP	No	NP	6
FH0120NP34222*	20" Natural Polypropylene	3/4"	NP	No	NP	6

*Accepts 222 style cartridge only. (Flat or Fin)

TrueLine™ Pleated Filter Cartridges for Plastic Housings

With Cellulose-Free Filter Media For Water Filtration Applications



Standard 2-3/4" OD x 9-3/4" length

Product Code	Media Type	Micron Rating	Number Per Case
FC05975S035	POLYPROPYLENE	0.35	24
FC05975S1	POLYPROPYLENE	1	24
FC05975S5	POLYPROPYLENE	5	24
FC05975S20	POLYESTER	20	24
FC05975S50	POLYESTER	50	24
FC05975S100	POLYESTER	100	24

Standard 2-3/4" OD x 19-1/2" length

Product Code	Media Type	Micron Rating	Number Per Case
FC05195S1	POLYPROPYLENE	1	24
FC05195S5	POLYPROPYLENE	5	24
FC05195S20	POLYESTER	20	24
FC05195S50	POLYESTER	50	24

Standard 2-3/4" OD x 20" length

Product Code	Media Type	Micron Rating	Number Per Case
FC0520S035	POLYPROPYLENE	0.35	24
FC0520S1	POLYPROPYLENE	1	24
FC0520S5	POLYPROPYLENE	5	24
FC0520S20	POLYESTER	20	24
FC0520S50	POLYESTER	50	24

Specifications

FILTER MEDIA	SYNTHETIC (100% CELLULOSE-FREE)
END CAPS	PLASTISOL (PVC)
CENTER TUBES	POLYPROPYLENE
TEMPERATURE RANGE	40°F to 140°F (4.4°C to 60°C)
MAXIMUM PRESSURE DIFFERENTIAL	25 PSID
RECOMMENDED CHANGE OUT	20 PSID
FLOW RATE PER 10" CARTRIDGE	3-10 GPM, DEPENDING ON MICRON RATING

TrueLine™ Full-Flow Plastic Filter Housings

Polypropylene filter housings and 4-1/2" OD cartridges

Filter housing specifications & features

- Heavy-duty construction
- Rated for pressures to 125 PSI (8.75 bar)
- Rated for temperatures to 125°F (52°C)
- Made from FDA grade polypropylene
- 10" and 20" models available
- Wide range of pipe fittings



Filter Housing Models

10" Full-Flow Blue / Black Housings (B-B)

Model Number	Type	Pipe Size	Head	Pressure Release	Sump	No. / case
FH0210BL34PR	10" FULL-FLOW	3/4"	BLACK	YES	BLUE	4
FH0210BL1	10" FULL-FLOW	1"	BLACK	NO	BLUE	4
FH0210BL1PR	10" FULL-FLOW	1"	BLACK	YES	BLUE	4

20" Full-Flow Blue / Black Housings

Model Number	Type	Pipe Size	Head	Pressure Release	Sump	No. / case
FH0220BL1	20" FULL-FLOW	1"	BLACK	NO	BLUE	4
FH0220BL1PR	20" FULL-FLOW	1"	BLACK	YES	BLUE	4
FH0220BL15	20" FULL-FLOW	1-1/2"	BLACK	NO	BLUE	4
FH0220BL15PR	20" FULL-FLOW	1-1/2"	BLACK	YES	BLUE	4

TrueLine™ Full-Flow (B-B) Pleated Filter Cartridges

With Cellulose-Free Filter Media For Water Filtration Applications



0.35 nominal micron cartridges

Ideal for water filtration. Cartridges use a multi-ply filter media for greater retention efficiencies and long life.

Features & benefits

- Pleated for increased surface area
- Long life / reduced filtration costs
- Greater dirt holding capacity
- Wide range of micron ratings available
- Shrink wrapped for extra protection

Full-Flow (B-B) 4-1/2" OD x 9-3/4" length				
Product Code	Length	Media Type	Micron Rating	Number Per Case
FC05975B035	9-3/4"	POLYPROPYLENE	0.35	8
FC05975B1	9-3/4"	POLYPROPYLENE	1	8
FC05975B5	9-3/4"	POLYPROPYLENE	5	8
FC05975B20	9-3/4"	POLYESTER	20	8
FC05975B50	9-3/4"	POLYESTER	50	8

Note: Cartridges listed above fit in Full-Flow filter housings.

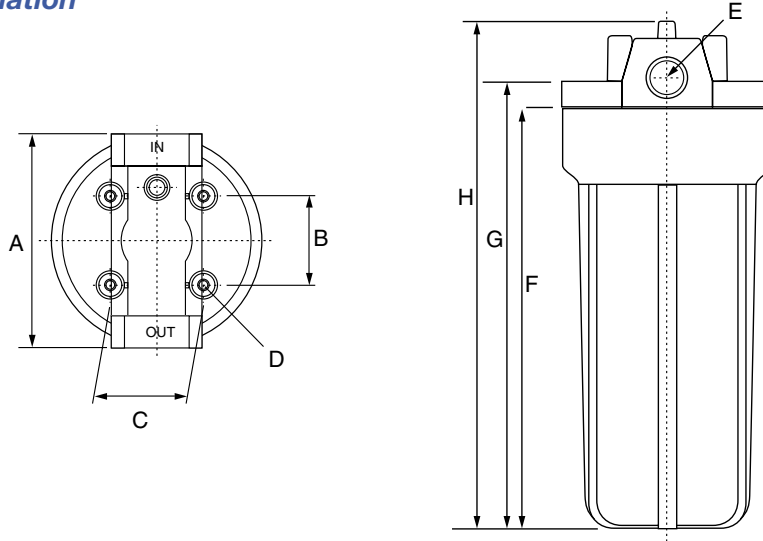
Full-Flow (B-B) 4-1/2" OD x 20" length				
Product Code	Length	Media Type	Micron Rating	Number Per Case
FC0520B035	20"	POLYPROPYLENE	0.35	4
FC0520B1	20"	POLYPROPYLENE	1	4
FC0520B5	20"	POLYPROPYLENE	5	4
FC0520B20	20"	POLYESTER	20	4
FC0520B50	20"	POLYESTER	50	4

Note: Cartridges listed above fit in Full-Flow filter housings.

Specifications	
FILTER MEDIA	SYNTHETIC (100% CELLULOSE-FREE)
END CAPS	PLASTISOL (PVC)
CENTER TUBES	POLYPROPYLENE
TEMPERATURE RANGE	40°F to 140°F (4.4°C to 60°C)
MAXIMUM PRESSURE DIFFERENTIAL	25 PSID
RECOMMENDED CHANGE OUT	20 PSID
FLOW RATE PER 10" CARTRIDGE	3-10 GPM, DEPENDING ON MICRON RATING

TrueLine™ Single Cartridge Plastic Filter Housings

Dimensional Information



Model Number	Size	Dimensions							
		A	B	C	D	E	F	G	H
10" and 20" Commercial Opaque Housings									
FH0110BL34	10"	5.35"	2.22"	2.28"	0.23"	3/4"	10.43"	11.49"	12.5"
FH0110BL34PR	10"	5.35"	2.22"	2.28"	0.23"	3/4"	10.43"	11.49"	12.5"
FH0120BL34	20"	5.35"	2.22"	2.28"	0.23"	3/4"	20.47"	21.26"	22.8"
FH0120BL34PR	20"	5.35"	2.22"	2.28"	0.23"	3/4"	20.47"	21.26"	22.8"
10" and 20" Commercial Clear Housings									
FH0110CB34PR	10"	5.35"	2.22"	2.28"	0.23"	3/4"	10.43"	11.49"	12.5"
FH0120CB34PR	20"	5.35"	2.22"	2.28"	0.23"	3/4"	20.47"	21.26"	22.8"
Valve-In-Head Housings									
FH0110VH34C	10"	5.21"	X	1.62"	X	0.75"	10.5"	13.12"	14.0"
FH0110VH34W	10"	5.21"	X	1.62"	X	0.75"	10.5"	13.12"	14.0"
High-Temp Housings (rated for temperatures to 200°F / 93°C)									
FH0110HT34	10"	5.35"	2.22"	2.28"	0.23"	3/4"	10.43"	11.49"	12.5"
FH0120HT34	20"	5.35"	2.22"	2.28"	0.23"	3/4"	20.47"	21.26"	22.8"
Natural Polypropylene Housings									
FH0110NP34	10"	4.72"	1.57"	1.18"	0.23"	3/4"	10.5"	11.0"	11.8"
FH0110NP34222	12"	5.35"	2.22"	2.28"	0.23"	3/4"	10.43"	11.49"	12.5"
FH0120NP34	20"	5.35"	2.22"	2.28"	0.23"	3/4"	20.47"	21.26"	22.8"
FH0120NP34222	20"	5.35"	2.22"	2.28"	0.23"	3/4"	20.47"	21.26"	22.8"
10" Full-Flow Blue / Black Housings (B-B)									
FH0210BL34PR	10"	7.28"	3.03"	3.03"	0.275"	3/4"	11.33"	11.57"	14.0"
FH0210BL1	10"	7.28"	3.03"	3.03"	0.275"	1"	11.33"	11.57"	14.0"
FH0210BL1PR	10"	7.28"	3.03"	3.03"	0.275"	1"	11.33"	11.57"	14.0"
20" Full-Flow Blue / Black Housings									
FH0220BL1	20"	7.28"	3.03"	3.03"	0.275"	1"	21.25"	21.65"	24.0"
FH0220BL1PR	20"	7.28"	3.03"	3.03"	0.275"	1"	21.25"	21.65"	24.0"
FH0220BL15	20"	7.28"	3.03"	3.03"	0.275"	1-1/2"	21.25"	21.65"	24.0"
FH0220BL15PR	20"	7.28"	3.03"	3.03"	0.275"	1-1/2"	21.25"	21.65"	24.0"

TrueLine™ Single Cartridge Plastic Filter Housings

Spare Parts

Part Number	Mounting Bracket	Wrench	O-Rings
10" and 20" Commercial Opaque Housings			
FH0110BL34	FP0120FM	FP01200WR	FP0180R / FP018VOR
FH0110BL34PR	FP0120FM	FP01200WR	FP0180R / FP018VOR
FH0120BL34	FP0120FM	FP01200WR	FP0180R / FP018VOR
FH0120BL34PR	FP0120FM	FP01200WR	FP0180R / FP018VOR
10" and 20" Commercial Clear Housings			
FH0110CB34PR	FP0120FM	FP01200WR	FP0180R / FP018VOR
FH0120CB34PR	FP0120FM	FP01200WR	FP0180R / FP018VOR
Valve-In-Head Housings			
FH0110VH34C	FP0115FM		FP0140R / FP014VOR
FH0110VH34W	FP0115FM		FP0140R / FP014VOR
High-Temp Housings (rated for temperatures to 200°F / 93°C)			
FH0110HT34	FP0120FM	FP01200WR	FP0180R / FP018VOR
FH0120HT34	FP0120FM	FP01200WR	FP0180R / FP018VOR
Natural Polypropylene Housings			
FH0110NP34	FP0110FM	FP01100WR	FP0140R / FP014VOR
FH0110NP34222	FP0120FM	FP01200WR	FP0180R / FP018VOR
FH0120NP34	FP0120FM	FP01200WR	FP0180R / FP018VOR
FH0120NP34222	FP0120FM	FP01200WR	FP0180R / FP018VOR
10" Full-Flow Blue / Black Housings (B-B)			
FH0210BL34PR	FP0225AFM	FP02500WR	FP0250R / FP025VOR
FH0210BL1	FP0225AFM	FP02500WR	FP0250R / FP025VOR
FH0210BL1PR	FP0225AFM	FP02500WR	FP0250R / FP025VOR
20" Full-Flow Blue / Black Housings			
FH0220BL1	FP0225AFM	FP02500WR	FP0250R / FP025VOR
FH0220BL1PR	FP0225AFM	FP02500WR	FP0250R / FP025VOR
FH0220BL15	FP0225AFM	FP02500WR	FP0250R / FP025VOR
FH0220BL15PR	FP0225AFM	FP02500WR	FP0250R / FP025VOR

Mounting Brackets, Spare Parts, Accessories

For TrueLine™ plastic filter housings



Part Number	Type	Material	Color
FP0110FM*	SINGLE	STEEL	ZINC PLATE
FP0115FM	SINGLE	STEEL	ZINC PLATE
FP0120FM	SINGLE	STEEL	WHITE
FP0225AFM	SINGLE	ALUMINUM	NATURAL

* Comes with mounting screws

TrueLine™ Single Cartridge Plastic Filter Housings

Spare Parts

Wrenches, Spare Parts, Accessories

For under counter filter housings



Wrenches for filter housing sump removal

Part Number	Material	Color
FP01100WR	POLYPROPYLENE	WHITE
FP01200WR	POLYPROPYLENE	WHITE
FP02500WR	POLYPROPYLENE	BLACK



O-Rings

Part Number	Material
FP0140R	EPDM
FP014VOR	VITON
FP0250R	EPDM
FP025VOR	VITON
FP0180R	EPDM
FP018VOR	VITON

C-MAX™ Extruded Carbon Filter Cartridges

Solid block activated carbon cartridges for wide range of applications

Applications

- Chlorine taste & odor reduction
- Sediment reduction
- VOC reduction
- Cyst reduction
- Lead reduction
- Pre and post RO treatment



Specifications	
Specifications	Data
OPERATING TEMPERATURE	40°F to 165°F (4.4°C to 73.8°C)
MAXIMUM PRESSURE DIFFERENTIAL	60 PSID
RECOMMENDED CHANGE OUT	30 PSID
FILTER MEDIA	ACTIVATED CARBON
END CAPS, CENTER TUBES, NETTING	POLYPROPYLENE

MAX-ETW: Economical, thick wall carbon block cartridges for chlorine taste and odor						
Part Number	Type	OD	Length	Micron Rating	Chlorine Reduction	No. / case
MAXETW-975	THICK WALL	2-7/8"	9-3/4"	5 NOMINAL	3,000 GALLONS	12
MAXETW-20	THICK WALL	2-7/8"	20"	5 NOMINAL	6,000 GALLONS	6
MAXETW-30	THICK WALL	2-7/8"	30"	5 NOMINAL	9,000 GALLONS	6
MAXETW-40	THICK WALL	2-7/8"	40"	5 NOMINAL	12,000 GALLONS	6
MAXETW-FF975	THICK WALL	4-5/8"	9-3/4"	5 NOMINAL	11,000 GALLONS	4
MAXETW-FF20	THICK WALL	4-5/8"	20"	5 NOMINAL	20,000 GALLONS	6

Note: MAX-ETW are identified by white end caps.

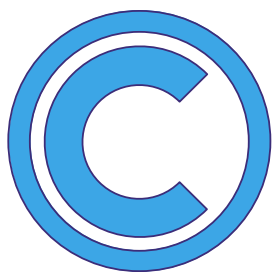
MAX-PB: Coconut shell carbon block cartridges for lead and cyst reduction						
Part Number	Type	OD	Length	Micron Rating	Chlorine Reduction	No. / case
MAXPB-975	LEAD + CYSTS	2-7/8"	9-3/4"	0.5 NOMINAL	20,000 GALS.	12
MAXPB-20	LEAD + CYSTS	2-7/8"	20"	0.5 NOMINAL	40,000 GALS.	6
MAXPB-FF975	LEAD + CYSTS	4-5/8"	9-3/4"	0.5 NOMINAL	50,000 GALS.	4
MAXPB-FF20	LEAD + CYSTS	4-5/8"	20"	0.5 NOMINAL	150,000 GALS.	6

Note: MAX-PB are identified by black end caps.

MAX-CL: Thick wall carbon block for long life and increased chlorine taste and odor reduction; removes extra fine sediment and rust particles						
Part Number	Type	OD	Length	Micron Rating	Chlorine Reduction	No. / case
MAXCL-975	THICK WALL	2-7/8"	9-3/4"	0.5 NOMINAL	20,000 GALS.	12
MAXCL-20	THICK WALL	2-7/8"	20"	0.5 NOMINAL	45,000 GALS.	6
MAXCL-FF975	THICK WALL	4-5/8"	9-3/4"	0.5 NOMINAL	70,000 GALS.	4
MAXCL-FF20	THICK WALL	4-5/8"	20"	0.5 NOMINAL	150,000 GALS.	6

Note: MAX-CL are identified by green end caps.

TrueLine™ C-MAX Carbon Filter Cartridges



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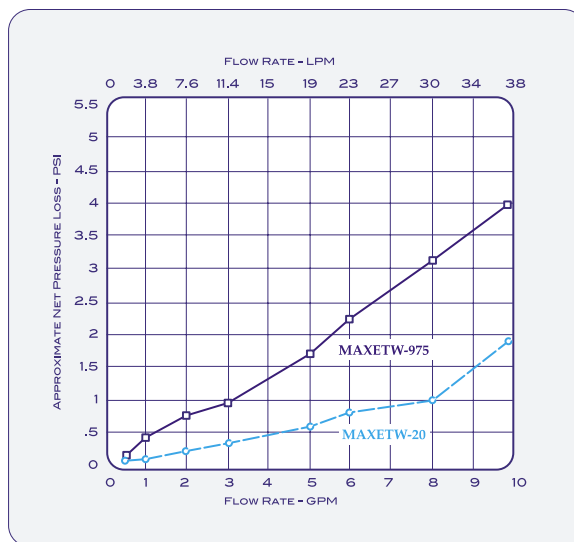
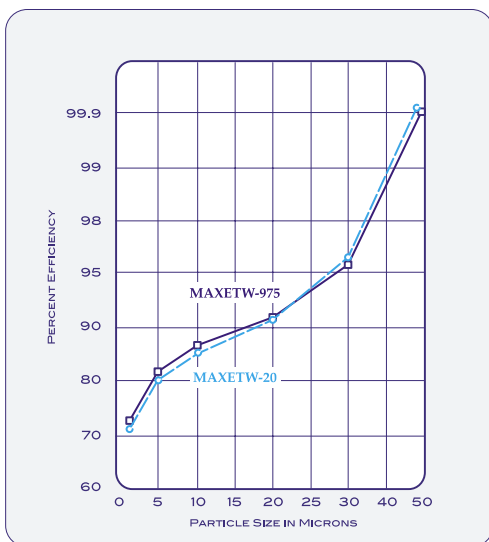
CARBON FILTERS FOR MAXIMUM WATER QUALITY IMPROVEMENT

MAXETW (ECONOMICAL THICK WALL)

Economical, thick wall carbon block cartridges for long life and increased chlorine taste and odor reduction. Reduces: chlorine taste and odor, sediment and rust particles. MAXETW Series cartridges are manufactured using a patented process that yields a cartridge with a nominal 5 micron filtration rating, high porosity and greater chlorine taste and odor removal capacity than competitive 5 micron carbon blocks.



- Solid block activated carbon for long life
- Thick wall for greater chlorine taste and odor reduction
- 5 micron nominal filtration
- Effective chlorine reduction through 3,000 gallons at GPM flow rate (MAXETW-975)



Model	Maximum Dimensions	Initial Δp (PSI) @ Flow Rate (GPM)	Micron Rating (Nominal)	Chlorine Taste and Odor Reduction @ Flow Rate (GPM)
MAXETW-975	2-7/8" x 9-3/4" (73mm x 247mm)	0.34 psi @ 1 gpm (0.02 bar @ 3.8 lpm)	5	>3,000 gallons @ 1 gpm (>11,400 liters @ 3.8 lpm)
MAXETW-20	2-7/8" x 20" (73mm x 508mm)	0.25 psi @ 2 gpm (0.08 bar @ 7.6 lpm)	5	>6,000 gallons @ 2 gpm (>22,700 liters @ 7.6 lpm)
MAXETW-FF975	4-5/8" x 9-3/4" (117mm x 247mm)	0.38 psi @ 2 gpm (0.03 bar @ 7.6 lpm)	5	>11,000 gallons @ 2 gpm (>41,600 liters @ 7.6 lpm)
MAXETW-FF20	4-5/8" x 20" (117mm x 508mm)	0.60 psi @ 4 gpm (0.04 bar @ 15 lpm)	5	>20,000 gallons @ 4 gpm (>75,700 liters @ 15 lpm)

MICRON RATING: 5 micron (nominal). Temperature range: 40 to 165°F (4.4 to 73.8°C).

NOTE: Estimated capacity using 3 ppm free available chlorine (FAC) at continuous flow to 0.1 ppm break through at 1 gpm. Performance capacity depends on system design, flow rate and certain other application conditions.

All information presented is based on data believed to be reliable. It is offered for evaluation and verification, but is not to be considered a warranty of any kind.

WARNING: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

U.S. Patent No. 5,976,432 and 5,823,668

	<p>The MAXETW series is tested and certified by NSF International under NSF/ANSI Standard 42 for material requirements only.</p>
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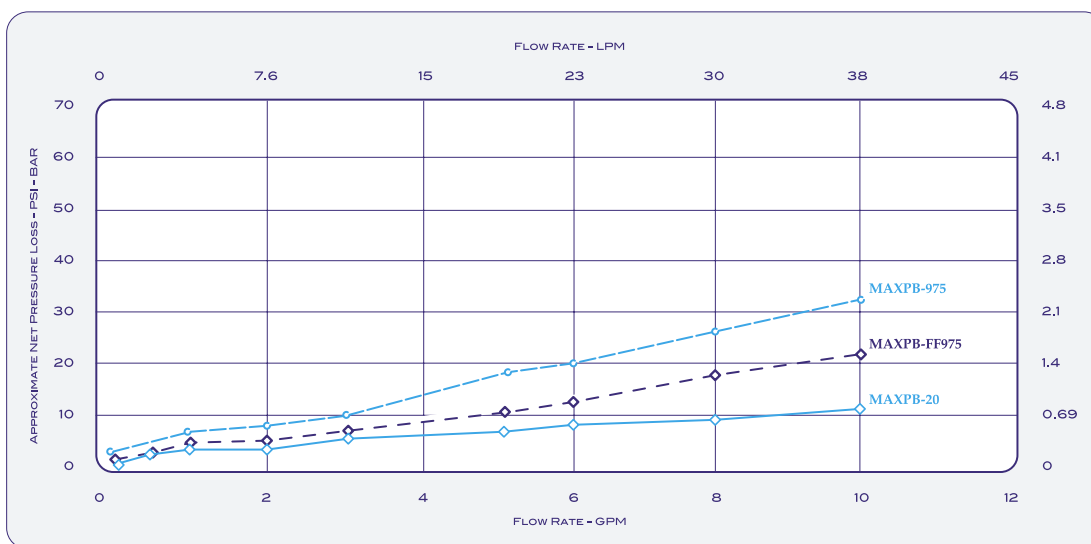


MAXPB (LEAD REDUCTION)

Coconut shell carbon block cartridges for lead and cyst reduction. Reduces: lead, VOCs, Giardia, Entamoeba, Toxoplasma and Cryptosporidium cysts, chlorine taste and odor, and fine sediment. MAXPB Series cartridges are manufactured using a patented process with a specially designed media for lead reduction. In addition to lead reduction, the unique formation of the carbon block enables it to reduce Cryptosporidium and Giardia cysts and fine sediment particles.



- Solid block activated carbon for long life
- Lead reduction through 2,000 gallons (MAXPB-975)
- 0.5 micron nominal filtration
- Effective chlorine reduction through 20,000 gallons at 1 GPM flow rate (MAXPB-975)



Model	Maximum Dimensions	Initial Δp (PSI) @ Flow Rate (GPM)	Micron Rating (Nominal)	Chlorine Taste and Odor Reduction @ Flow Rate (GPM)
MAXPB-975	2-7/8" x 9-3/4" (73mm x 247mm)	3.7 psi @ 1 gpm (0.26 bar @ 3.8 lpm)	0.5	>20,000 gallons @ 1 gpm (>75,700 liters @ 3.8 lpm)
MAXPB-20	2-7/8" x 20" (73mm x 508mm)	3.0 psi @ 2 gpm (0.21 bar @ 7.6 lpm)	0.5	>45,000 gallons @ 2 gpm (>170,300 liters @ 7.6 lpm)
MAXPB-FF975	4-5/8" x 9-3/4" (117mm x 247mm)	4.6 psi @ 2 gpm (0.32 bar @ 7.6 lpm)	0.5	>50,000 gallons @ 2 gpm (>189,300 liters @ 7.6 lpm)
MAXPB-FF20	4-5/8" x 20" (117mm x 508mm)	8.5 psi @ 4 gpm (0.59 bar @ 15.1 lpm)	0.5	>150,000 gallons @ 4 gpm (>567,800 liters @ 15.1 lpm)

Micron Rating: 0.5 micron (nominal). Temperature range: 40 to 165°F (4.4 to 73.8°C).

NOTE: Estimated capacity using 2 ppm free available chlorine (FAC) at continuous flow with greater than 90% reduction. Performance capacity depends on system design, flow rate and certain other application conditions.

All information presented is based on data believed to be reliable. It is offered for evaluation and verification, but is not to be considered a warranty of any kind.

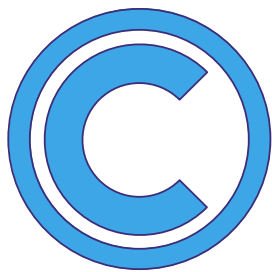
WARNING: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

U.S. Patent No. 5,976,432 and 5,823,668

	The MAXPB series is tested and certified by NSF International under NSF/ANSI Standard 42 for material requirements only.
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TrueLine™ C-MAX Carbon Filter Cartridges



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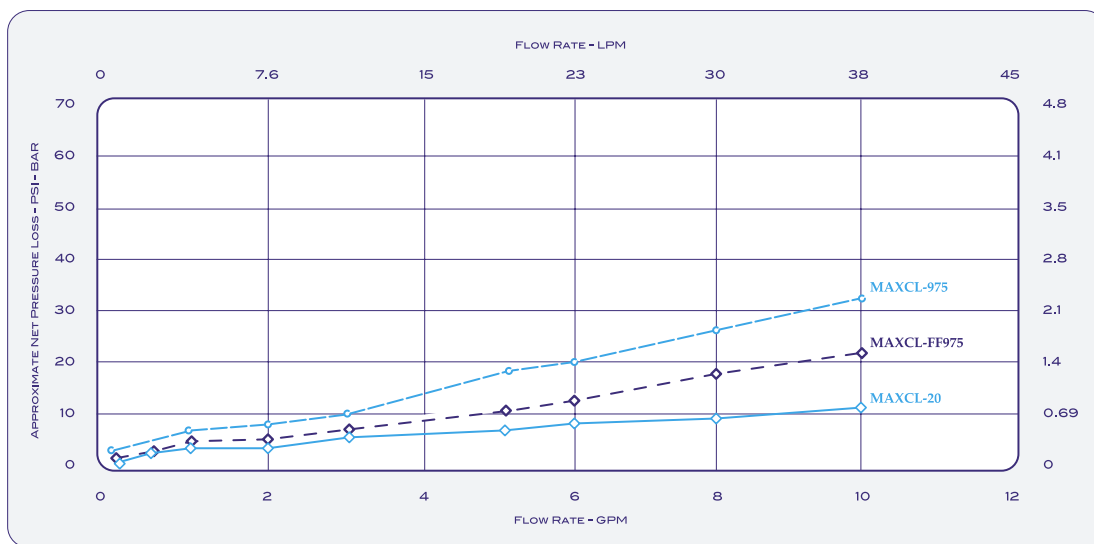
CARBON FILTERS FOR MAXIMUM WATER QUALITY IMPROVEMENT

MAXCL (MAXIMUM CHLORINE REDUCTION)

Thick wall carbon block cartridges for long life and increased chlorine taste and odor reduction. Reduces: certain VOCs, chlorine taste and odor, extra fine sediment and rust particles. MAXCL Series cartridges are manufactured using a patented process and are made entirely from FDA-approved materials. They are an ideal choice for a wide range of residential, food service, commercial and industrial applications.



- Solid block activated carbon for long life
- Thick wall for greater chlorine taste and odor reduction
- 0.5 micron nominal filtration
- Highly effective chlorine reduction through 20,000 gallons at 1 GPM flow rate (MAXCL-975)



Model	Maximum Dimensions	Initial Δp (PSI) @ Flow Rate (GPM)	Micron Rating (Nominal)	Chlorine Taste and Odor Reduction @ Flow Rate (GPM)
MAXCL-975	2-7/8" x 9-3/4" (73mm x 247mm)	3.7 psi @ 1 gpm (0.26 bar @ 3.8 lpm)	0.5	>20,000 gallons @ 1 gpm (>75,700 liters @ 3.8 lpm)
MAXCL-20	2-7/8" x 20" (73mm x 508mm)	3.0 psi @ 2 gpm (0.21 bar @ 7.6 lpm)	0.5	>45,000 gallons @ 2 gpm (>170,300 liters @ 7.6 lpm)
MAXCL-FF975	4-5/8" x 9-3/4" (117mm x 247mm)	4.6 psi @ 2 gpm (0.32 bar @ 7.6 lpm)	0.5	>50,000 gallons @ 2 gpm (>189,300 liters @ 7.6 lpm)
MAXCL-FF20	4-5/8" x 20" (117mm x 508mm)	8.5 psi @ 4 gpm (0.59 bar @ 15.1 lpm)	0.5	>150,000 gallons @ 4 gpm (>567,800 liters @ 15.1 lpm)


Micron Rating: 0.5 micron (nominal). Temperature range: 40 to 165°F (4.4 to 73.8°C).

NOTE: Estimated capacity using 2 ppm free available chlorine (FAC) at continuous flow with greater than 90% reduction. Performance capacity depends on system design, flow rate and certain other application conditions.

All information presented is based on data believed to be reliable. It is offered for evaluation and verification, but is not to be considered a warranty of any kind.

WARNING: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

U.S. Patent No. 5,976,432 and 5,823,668



The MAXCL series is tested and certified by NSF International under NSF/ANSI Standard 42 for material requirements only.



TrueLine™ Commercial RO Systems & Replacement Membranes

Fully assembled systems for municipal and well water, with top quality components for superior performance and easy installation!



**RO300G-FL,
RO500G-FL**



Units with 4" OD membranes



**RO10800G-FL model for
10,800 GPD**

TrueLine™ Reverse Osmosis Systems are designed to provide the commercial and industrial user the most trouble free, cost effective and reliable form of water treatment available. These systems are engineered to function with both well and municipal water sources (with chlorine removal provided). Dissolved solids removal rates are typically 97% or more.

Standard Features

- High rejection thin film RO membranes
- Stainless steel frames (powder coated)
- Efficient, high pressure pumps & motors
- Electronic controls
- Continuous TDS monitoring
- Level controls (on / off)
- Flow meters (product water & concentrate)
- Pressure regulator valves
- Pressure gauges for inlet and concentrate
- Stainless steel membrane housings
- Automatic fast rinse flush
- Heavy-duty pressure tubing
- Product water flow meter
- Low pressure shut-off and restart
- Pre-filter housings & cartridges*
- Recycle lines on most models
- Starter motor box
- Solenoid valves (pump & flush)
- Factory tested

Commercial RO Systems for Municipal & Well Water Applications

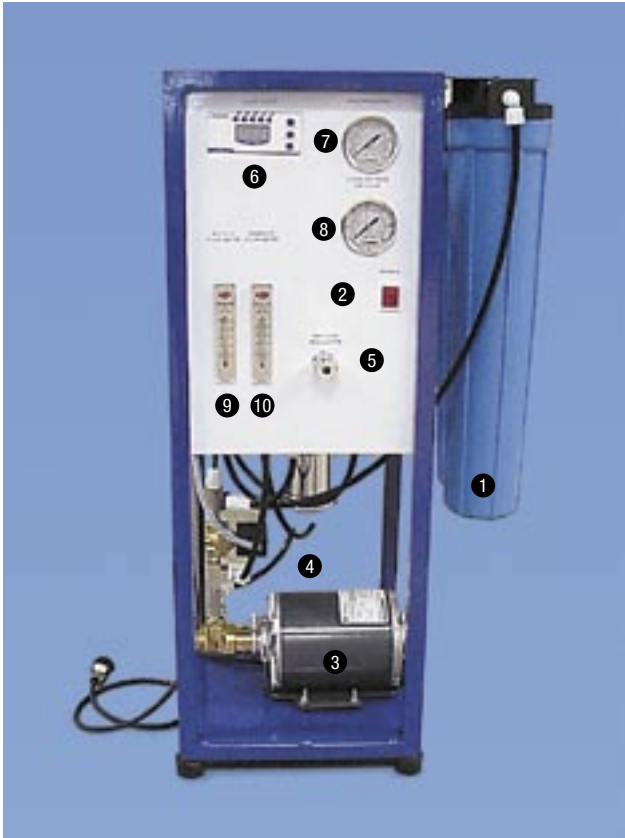
Part Number	GPD	Inlet Pipe	No. of Membranes	Membrane Size	Recycle Line	Recovery	Motor H.P.	Electrical/Phase	Ship. Weight
RO300G-FL	300	3/4"	1	2.5" X 21"	YES	TO 50%**	0.5	110 / 1	70
RO500G-FL	500	3/4"	2	2.5" X 21"	NO	22%	0.5	110 / 1	80
RO1000G-FL	1,000	3/4"	1	4" X 21"	YES	TO 50%**	1.0	110 / 1	104
RO3600G-GL	3,600	3/4"	2	4" X 40"	YES	TO 60%**	3.0	230 / 3	262
RO5400G-FL	5,400	3/4"	3	4" X 40"	NO	30%	3.0	230 / 3	341
RO7200G-FL	7,200	3/4"	4	4" X 40"	YES	TO 75%**	3.0	230 / 3	349
RO10800G-GL	10,800	1"	6	4" X 40"	YES	TO 75%**	4.0	230 / 3	509

Note: 300, 500 and 1000 GPD models are packaged in shipping cartons. 3600 GPD models and larger are packaged in shipping crates. Prefilters not included on 7,200 & 10,800 GPD models.

**With recycle line.

***CARBON PRE-FILTRATION REQUIRED FOR ALL MODELS WHEN CHLORINATED WATER IS USED.**

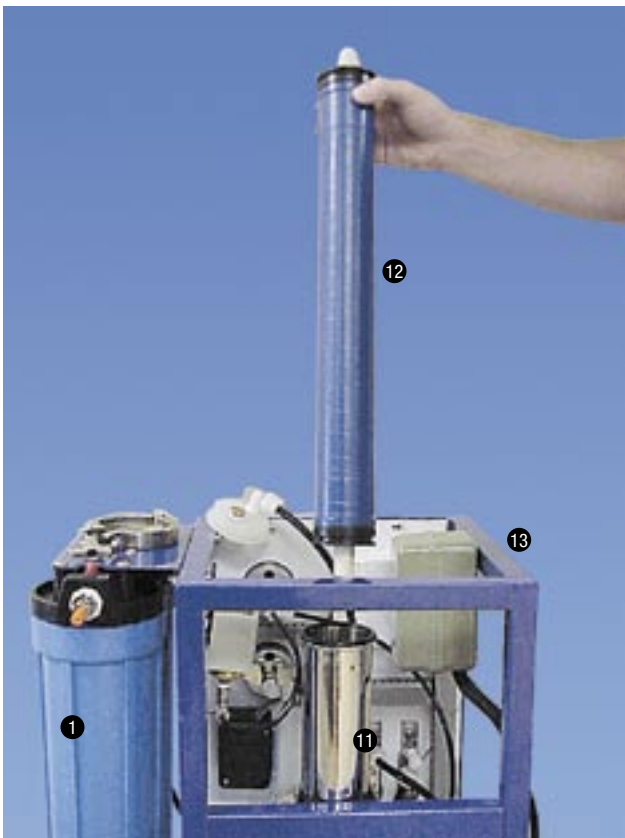
Parts Description



Principles of Reverse Osmosis

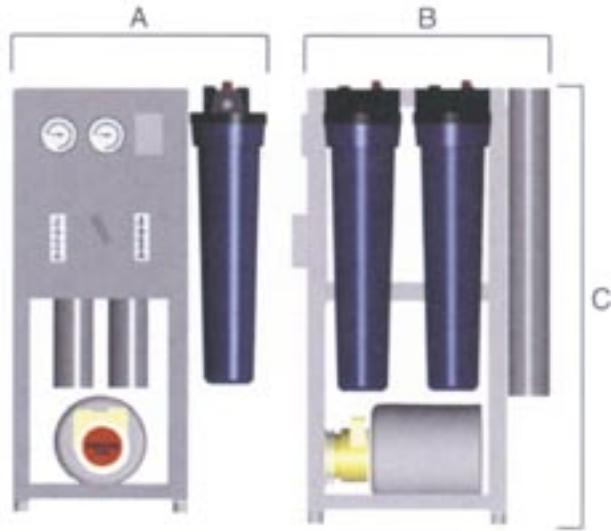
TrueLine™ Reverse Osmosis systems employ thin film composite spiral wound membrane elements for superior performance. Pump pressure is used to supply source water to reverse osmosis membranes. These special membranes allow only high quality water to permeate them. In turn, they reject metals, salts, ionic and organic impurities, which are processed to waste. Suspended solids are removed by pre-filters which are standard components on all TrueLine RO systems.

1. Pre-filters
2. Power switch
3. High pressure pump
4. Solenoid valve (pump inlet)
5. Pressure regulator valve
6. Electronic control
7. Inlet pressure gauge
8. Concentrate pressure gauge
9. Recycle line flow meter
10. Permeate flow meter
11. Membrane housing
12. Membranes
13. Starter motor box



High rejection membranes are used for optimum performance. Rejection rates are typically 98% or more.

TrueLine™ RO System Accessories



Dimensions				
Part Number	A (Front)	B (Side)	C (Height)	Ship. Wt.
RO300G-FL	20"	18"	37"	70 lbs.
RO500G-FL	20"	18"	37"	80 lbs.
RO1000G-FL	20"	18"	37"	104 lbs.
RO3600G-FL	26"	18"	59"	262 lbs.
RO5400G-FL	26"	18"	59"	341 lbs.
RO7200G-FL	26"	18"	59"	349 lbs.
RO10800G-FL	30"	24"	59"	509 lbs.

Feed Water, Electrical Requirements

Part Number	Min. Feed	Volt / Hertz	Phase	Amps
RO300G-FL	2.0 (GPM)	110V / 60HZ	1	7
RO500G-FL	2.0 (GPM)	110V / 60HZ	1	7
RO1000G-FL	4.5 (GPM)	110V / 60HZ	1	14
RO3600G-GL	13.7 (GPM)	230V / 60HZ	3	9
RO5400G-FL	13.9 (GPM)	230V / 60HZ	3	9
RO7200G-FL	13.9 (GPM)	230V / 60HZ	3	9
RO10800G-GL	18.5 (GPM)	230V / 60HZ	3	12

Liquid Level Controls

For automatic shut-off when storage tank is full.

Part Number	Description	Number Per Case
L75222	CONTROL WITH SINGLE STAGE SUCTION; 1/2" NPT FITTINGS	1

Pressure Switches

Used to maintain system pressure.

Part Number	Description	Number Per Case
U217-2E	SWITCH WITH FACTORY PRE-SET AT 30-50 PSI; WITH 1/4" NPSF INTERNAL FITTINGS	1

RO Atmospheric Storage Tanks

Part Number	Capacity (gals)	Dimensions (Dia. X Ht.)	Lid	Bulkhead Fittings	Weight (lbs)	Part Number	Description	Hole Requirements	Number Required per Tank
AST-75	75	23" x 50"	5"	1"	28	BHF-1	1" Bulkhead fitting, PP	2-1/4"	2
AST-160	160	28" x 66"	8"	1"	56	BHF-2	2" Bulkhead fitting, PP	3"	2
AST-300	300	35" x 77"	8"	2"	82				
AST-500	500	46" x 76"	8"	2"	118				
AST-1000	1000	64" x 81"	16"	2"	250				

Note: Carbon pre-filtration is required for all models when chlorinated water is used.
See information about TrueLine™ housings and carbon cartridges.

Note: Complete system design, including all accessories, available from Parker.

- Metal storage tanks with bladders
- Pressure switches
- Softeners
- Carbon pre-filters
- Shut-off valves
- Liquid level controls
- Atmospheric tank

Complete the “Application Form for Commercial Reverse Osmosis System” and fax to 317.275.8413. See next page.

Replacement Membranes

For Commercial RO Systems



Filmtec™ replacement commercial membranes for tap water (fit TrueLine™ RO Systems)

Part Number	Capacity*	OD	Length	Brand	Type
TW30-2521	300 GPD	2.5"	21"	FILMTEC™ BY DOW CORPORATION	THIN FILM
XLE-2521**	300 GPD	2.5"	21"	FILMTEC™ BY DOW CORPORATION	THIN FILM
XLE-4021**	1,000 GPD	4"	21"	FILMTEC™ BY DOW CORPORATION	THIN FILM
TW30-4040	2,200 GPD	4"	40"	FILMTEC™ BY DOW CORPORATION	THIN FILM
TW30HP-4040	2,800 GPD	4"	40"	FILMTEC™ BY DOW CORPORATION	THIN FILM
XLE-4040**	2,400 GPD	4"	40"	FILMTEC™ BY DOW CORPORATION	THIN FILM

*At 225 psi. **Membrane operates efficiently at lower applied pressures.

Additional Filmtec™ replacement commercial membranes for tap water

Part Number	Capacity*	OD	Length	Brand	Type
TW30-2514	170 GPD	2.5"	14"	FILMTEC™ BY DOW CORPORATION	THIN FILM
TW30-2540	660 GPD	2.5"	40"	FILMTEC™ BY DOW CORPORATION	THIN FILM
TW30-HP2540	1,100 GPD	2.5"	40"	FILMTEC™ BY DOW CORPORATION	THIN FILM
XLE-2540**	900 GPD	2.5"	40"	FILMTEC™ BY DOW CORPORATION	THIN FILM
TW30-4014	480 GPD	4"	14"	FILMTEC™ BY DOW CORPORATION	THIN FILM
TW30-4021	900 GPD	4"	21"	FILMTEC™ BY DOW CORPORATION	THIN FILM

*At 225 psi. **Membrane operates efficiently at lower applied pressures.

Filmtec is a registered trademark of The Dow Chemical Company



Application Form for Commercial Reverse Osmosis System

Company _____ Contact _____
Address _____ City _____ State _____ Zip _____
Phone _____ Fax _____ E-Mail _____

Application Description

Water Source

Municipal _____ Ground/well water _____ Feed water pressure _____ PSI

Requirements

Gallons of treated water required per day _____

Gallons per minute of flow (peak demand) _____

Anticipated hours of operation for unit/day _____

Maximum demand during peak hours (GPM) _____

Electric Requirements 110 V single Phase 230 V three phase

Water Analysis

TDS (ppm) _____ Hardness* (GPG) _____

Iron* (PPM) _____ Hydrogen sulfide* (ppm) _____

Manganese _____ Turbidity (NTU) _____

Nitrate (ppm) _____ Lead (ppm) _____

Arsenic (ppb) _____ pH* _____

Temperature* (°F) _____ Free chlorine residual* (ppm) _____

Is a water softener used for the feed water? Yes No *Essential information.

**Please fax form to:
Parker Hannifin Corporation
Process Filtration Division
6640 Intech Boulevard
Indianapolis, IN 46278
Fax: 317-275-8413**

TrueLine™ Pleated Replacement Cartridges

Specifications			
FILTER MEDIA	SYNTHETIC (100% CELLULOSE-FREE)		
END CAPS	PLASTISOL (PVC)		
CENTER TUBES	POLYPROPYLENE		
TEMPERATURE RANGE	40°F to 140°F (4.4°C to 60°C)		
MAXIMUM PRESSURE	25 PSID		
RECOMMENDED CHANGE OUT	20 PSID		
FLOW RATE PER 10" CARTRIDGE	3-10 GPM, DEPENDING ON MICRON RATING		
Standard 2-3/4" OD x 9-3/4" length			
Product Code	Media Type	Micron Rating	Number Per Case
FC05975S035	POLYPROPYLENE	0.35	24
FC05975S1	POLYPROPYLENE	1	24
FC05975S5	POLYPROPYLENE	5	24
FC05975S20	POLYESTER	20	24
FC05975S50	POLYESTER	50	24
FC05975S100	POLYESTER	100	24
Standard 2-3/4" OD x 19-1/2" length			
FC05195S1	POLYPROPYLENE	1	24
FC05195S5	POLYPROPYLENE	5	24
FC05195S20	POLYESTER	20	24
FC05195S50	POLYESTER	50	24
Standard 2-3/4" OD x 20" length			
FC0520S035	POLYPROPYLENE	0.35	24
FC0520S1	POLYPROPYLENE	1	24
FC0520S5	POLYPROPYLENE	5	24
FC0520S20	POLYESTER	20	24
FC0520S50	POLYESTER	50	24
Standard 2-3/4" OD x 29-1/4" length			
FC052925S035	POLYPROPYLENE	0.35	24
FC052925S1	POLYPROPYLENE	1	24
FC052925S5	POLYPROPYLENE	5	24
FC052925S20	POLYESTER	20	24
FC052925S50	POLYESTER	50	24
Standard 2-3/4" OD x 40" length			
FC0540S1	POLYPROPYLENE	1	24
FC0540S5	POLYPROPYLENE	5	24
FC0540S20	POLYESTER	20	24
FC0540S50	POLYESTER	50	24

TrueLine™ Full-Flow (B-B) Replacement Cartridges

Specifications	
FILTER MEDIA	SYNTHETIC (100% CELLULOSE-FREE)
END CAPS	PLASTISOL (PVC)
CENTER TUBES	POLYPROPYLENE
TEMPERATURE RANGE	40°F to 140°F (4.4°C to 60°C)
MAXIMUM PRESSURE	25 PSID
RECOMMENDED CHANGE OUT	20 PSID
FLOW RATE PER 10" CARTRIDGE	3-10 GPM, DEPENDING ON MICRON RATING

Full-Flow (B-B) 4-1/2" OD x 9-3/4" length				
Product Code	Length	Media Type	Micron Rating	Number Per Case
FC05975B035	9-3/4"	POLYPROPYLENE	0.35	8
FC05975B1	9-3/4"	POLYPROPYLENE	1	8
FC05975B5	9-3/4"	POLYPROPYLENE	5	8
FC05975B20	9-3/4"	POLYESTER	20	8
FC05975B50	9-3/4"	POLYESTER	50	8

Note: Cartridges listed above fit in Full-Flow filter housings.

Full-Flow (B-B) 4-1/2" OD x 20" length				
Product Code	Length	Media Type	Micron Rating	Number Per Case
FC0520B035	20"	POLYPROPYLENE	0.35	4
FC0520B1	20"	POLYPROPYLENE	1	4
FC0520B5	20"	POLYPROPYLENE	5	4
FC0520B20	20"	POLYESTER	20	4
FC0520B50	20"	POLYESTER	50	4

Note: Cartridges listed above fit in Full-Flow filter housings.

C-MAX™ Extruded Carbon Filter Cartridges

Specifications						
Specifications		Data				
OPERATING TEMPERATURE		40°F to 165°F (4.4°C to 73.8°C)				
MAXIMUM PRESSURE		60 PSID				
RECOMMENDED CHANGE OUT		30 PSID				
FILTER MEDIA		ACTIVATED CARBON				
END CAPS, CENTER TUBES, NETTING		POLYPROPYLENE				
MAX-ETW, Economical, thick wall carbon block cartridges for chlorine taste and odor						
Part Number	Type	OD	Length	Micron Rating	Chlorine Reduction	No. / case
MAXETW-975	THICK WALL	2-7/8"	9-3/4"	5 NOMINAL	3,000 GALLONS	12
MAXETW-20	THICK WALL	2-7/8"	20"	5 NOMINAL	6,000 GALLONS	6
MAXETW-30	THICK WALL	2-7/8"	30"	5 NOMINAL	9,000 GALLONS	6
MAXETW-40	THICK WALL	2-7/8"	40"	5 NOMINAL	12,000 GALLONS	6
MAXETW-FF975	THICK WALL	4-5/8"	9-3/4"	5 NOMINAL	11,000 GALLONS	4
MAXETW-FF20	THICK WALL	4-5/8"	20"	5 NOMINAL	20,000 GALLONS	6
MAX-CL, Thick wall carbon block for long life and increased chlorine taste and odor reduction; removes extra fine sediment and rust particles						
MAXCL-975	THICK WALL	2-7/8"	9-3/4"	0.5 NOMINAL	20,000 GALS.	12
MAXCL-20	THICK WALL	2-7/8"	20"	0.5 NOMINAL	45,000 GALS.	6
MAXCL-FF975	THICK WALL	4-5/8"	9-3/4"	0.5 NOMINAL	70,000 GALS.	4
MAXCL-FF20	THICK WALL	4-5/8"	20"	0.5 NOMINAL	150,000 GALS.	6
MAX-PB, Coconut shell carbon block cartridges for lead and cyst reduction						
MAXPB-975	LEAD + CYSTS	2-7/8"	9-3/4"	0.5 NOMINAL	20,000 GALS.	12
MAXPB-20	LEAD + CYSTS	2-7/8"	20"	0.5 NOMINAL	40,000 GALS.	6
MAXPB-FF975	LEAD + CYSTS	4-5/8"	9-3/4"	0.5 NOMINAL	50,000 GALS.	4
MAXPB-FF20	LEAD + CYSTS	4-5/8"	20"	0.5 NOMINAL	150,000 GALS.	6

TrueLine™ Granular Activated Carbon Cartridges (GAC)

Granular Activated Carbon Cartridges (GAC)						
PART NUMBER	TYPE	OD	LENGTH	MICRON RATING	NO. CASE	
GAC10N	GAC	2-3/4"	9-3/4"	NR	24	
GAC20NRW	GAC	2-3/4"	20"	NR	24	
GAC-BB10	GAC	4-1/2"	9-3/4"	NR	8	
GAC-BB20	GAC	4-1/2"	20"	NR	8	

Offer of Sale

The items described in this document and other documents or descriptions provided by Parker Hannifin Corporation, its subsidiaries and its authorized distributors are hereby offered for sale at prices to be established by Parker Hannifin Corporation, its subsidiaries and its authorized distributors. This offer and its acceptance by any customer ("Buyer") shall be governed by all of following Terms and Conditions. Buyer's order for any item when communicated to Parker Hannifin Corporation, its subsidiary or an authorized distributor ("Seller") verbally or in writing, shall constitute acceptance of this offer.

1. Terms and Conditions of Sale: All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein. Buyer's acceptance of any offer to sell is limited to these terms and conditions. Any terms or conditions in addition to, or inconsistent with those stated herein, proposed by Buyer in any acceptance of an offer by Seller, are hereby objected to. No such additional, different or inconsistent terms and conditions shall become part of the contract between Buyer and Seller unless expressly accepted in writing by Seller. Seller's acceptance of any offer to purchase by Buyer is expressly conditional upon Buyer's assent to all the terms and conditions stated herein, including any terms in addition to, or inconsistent with those contained in Buyer's offer. Acceptance of Seller's products shall in all events constitute such assent.

2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that the buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.

3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.

4. Warranty: Seller warrants that the items sold hereunder shall be free from defects in material or workmanship for a period of 18 months from the date of shipment from Parker Hannifin Corporation. **THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER. SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED.**

NOTWITHSTANDING THE FOREGOING, THERE ARE NO WARRANTIES WHATSOEVER ON ITEMS BUILT OR ACQUIRED WHOLLY OR PARTIALLY, TO BUYER'S DESIGNS OR SPECIFICATIONS.

5. Limitation of Remedy: SELLER'S LIABILITY ARISING FROM OR IN ANY WAY CONNECTED WITH THE ITEMS SOLD OR THIS CONTRACT SHALL BE LIMITED EXCLUSIVELY TO REPAIR OR REPLACEMENT OF THE ITEMS SOLD OR REFUND OF THE PURCHASE PRICE PAID BY BUYER, AT SELLER'S SOLE OPTION. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ITEMS SOLD HEREUNDER, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, OR IN TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY.

6. Changes, Reschedules and Cancellations: Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.

7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property. Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

10. Indemnity For Infringement of Intellectual Property Rights: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify buyer against allegations of infringement of U.S. patents, U.S. trademarks, copyrights, trade dress and trade secrets (hereinafter "Intellectual Property Rights"). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend an indemnify Buyer is contingent on the Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromises. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

11. Force Majeure: Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter "Events of Force Majeure"). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sales of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

Parker Worldwide Sales Offices

Contact Parker's worldwide Service
and distribution network by calling:

Argentina - +54 (1) 752 4129
Australia - +61 (2) 634 7777
Austria - +43 (2622) 23501 5
Belgium - +32 (2) 762 1800
Brazil - +55 (11) 847 1222
Canada - 1-800-272-7537
China - +86 (21) 6445 9339
Chile - +(562) 623-1216
Czech Republic - +42 613 41701
Denmark - +45 (43) 541133
Finland - +358 (3) 54 100
France - +33 (4) 50 258025
Germany - +49 (3727) 90991
Hong Kong - +852 2428 8008
Hungary - +36 (1) 25 22 539
India - +91 (22) 577 1671
Italy - +39 (2) 451921
Japan - +81 (45) 861 3811
Korea - +82 (2) 561 0414
Mexico - 1-800-272-7537
Netherlands - +31 (541) 585000
New Zealand - +64 (9) 573 1523
Norway - +(47) 64 86 77 60
Poland - +48 (22) 8634942
Singapore - +65 261 5233
South Africa - +27 (11) 3927280
Spain - +34 (1) 6757300
Sweden - +46 (8) 760 2960
Taiwan - +886 (2) 8787 3780
United Arab Emirates - +971 (2) 788587
United Kingdom - +44 1442 238100
United States of America - 1-800-272-7537
Venezuela - +58 (2) 238 5422

Filtration Group Technical Sales & Service Locations

**Filtration and
Separation Division**
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