

Section 5



Commercial & Industrial Products

Flow-Max[®] Commerical Quality Filter housings

Made in 316 stainless steel for increased durability.

Check out these many features and benefits:

- 100% stainless steel for durability.
- All 316 stainless steel construction.
- Convenient band clamp lid closure is standard for easy cartridge replacement.
- Pipe fittings are readily accessible for easy installation.
- Adjustable top plate accepts variable length cartridges for more options.
- Two drains provided for clean and dirty fluids.
- Legs and mounting tabs are available.



- Knife edge seals are provided at both ends of all DOE cartridges for superior performance.
- Rated for temperatures to 250° F. (No plastic holding rods.)
- Pressure rating to 150 psi.
- Housings for pressures to 300 psi are available.
- Optional sanitary connections.
- Models to accept DOE, 222 and cartridges with 226 end caps.
- Protective poly-coat over stainless steel standard finish.
- Electro-polishing is available.
- Standard, Premium Series and Jumbo models are in stock for immediate shipment.

Specifications

Material:	Multi-cartridge and Jumbo filter housings are constructed using 316L stainless steel.
Pressure rating:	Housings are rated for pressures to 150 psi (10 bar).
Temperature:	Filters are rated for temperatures to 250° F (121° C). Please consider cartridges to be used.
Gaskets & seals:	Buna-N is standard. Viton, EDPM and Teflon are available.
Finish:	Protective poly-coat over stainless is standard finish. Electro-polishing available.
Pressure drop:	Initial pressure drop is <1 psi at designed flow rates for housings only.
Cartridge types:	Housings are designed to accept DOE cartridges. Adapters for 222 & 226 cartridges available.

Models



4 & 5 round models



7 round



12 round



22 round



Premium Series

Flow-Max® Jumbo Cartridge Filter Housings

Single cartridge models for the most "user friendly" filtration possible!



Model "90"

Model "170"

Model "40"

Flow-Max® commercial quality jumbo cartridge filter housings in 316SS

Model No.	Max. Flow (GPM)	Cartridge Style	Number Of Cartridges	Pipe Size	Lid Closure	Shipping Wt. (Lbs.)
FMJCH40	50	"40"	1	2" NPT	V-Band	31
FMJCH90	100	"90"	1	2" NPT	V-Band	56
FMJCH170	150	"170"	1	2" NPT	V-Band	62

Note: Commercial quality jumbo cartridge housings are rated for pressures to 150 PSI (10 bar) and temperatures to 140°F with standard jumbo cartridges and 250°F using high temp cartridges. Pressure gauges included and installed on inlets and outlets.



User friendly Flow-Max jumbo cartridges are easy to install, easy to service and easy to replace!



Adjustable compression cap provides superior sealing for both ends of the jumbo cartridge.



Model FMJCH170

Flow-Max[®] Jumbo Cartridge Filter Housings

ASME design models.



Flow-Max filter housing for single jumbo cartridges with swing-bolt lid closure, made to ASME design standards. Flange fittings are optional.



Flow-Max[®] jumbo cartridge



Flow-Max filter housing for multiple jumbo cartridges with swing-bolt lid closure, and davit, made to ASME design standards. Flange fittings are standard.

Flow-Max[®] jumbo cartridge housings, made to ASME standards

Model No.	Max. Flow (GPM)	Cartridge Style	Number Of Cartridges	Pipe Size	Lid Closure	Shipping Wt. (Lbs.)
FMJCH40-HD	50	"40"	1	2" NPT	Swing-Bolt	75
FMJCH90-HD	100	"90"	1	2" NPT	Swing-Bolt	100
FMJCH170-HD	150	"170"	1	2" NPT	Swing-Bolt	125
FMJCH3X170-HD	450	"170"	3	4" flange	Swing-Bolt & Davit	250
FMJCH5X170-HD	750	"170"	5	6" flange	Swing-Bolt & Davit	500
FMJCH8X170-HD	1,200	"170"	8	8" flange	Swing-Bolt & Davit	950

Note: Industrial quality jumbo cartridge housings are made to ASME design standard in 304SS. "U" stamp is available by special request and cost. Filter housings are rated for pressures to 150 PSI (10 bar) and temperatures to 140°F using standard jumbo cartridges and 250°F using high temp jumbo cartridges. ASME design housings come with pressure ports; pressure gauges are additional. 316SS is available by special quote.

Flow-Max[®] industrial quality filter housings for jumbo cartridges, made to ASME design standards and rated for pressures to 300 PSI.

Model No.	Max. Flow (GPM)	Cartridge Style	Number Of Cartridges	Pipe Size	Lid Closure	Shipping Wt. (Lbs.)
FMJCH40-HDHP	50	"40"	1	2" NPT	Swing-Bolt	95
FMJCH90-HDHP	100	"90"	1	2" NPT	Swing-Bolt	120
FMJCH170-HDHP	150	"170"	1	2" NPT	Swing-Bolt	140

Note: Industrial quality jumbo cartridge housings are made to ASME design standards in 304SS.

Optional "U" Stamp for ASME certification

Description
U stamp to certify ASME design compliance (available only with housings made to ASME standards).

Note: For ASME "U" stamp, add ASME after product code.

Package Filtration System

Standard and custom systems with Flow-Max jumbo cartridge filter housings.



Typical applications

- Cooling towers
- Surface water filtration
- Ground water remediation
- Waste water
- Process water
- General water filtration
- Small community drinking water systems

Parallel systems, fully assembled with filters, centrifugal separator and controls

Fully assembled systems include Flow-Max® jumbo cartridge filter(s), constructed in 316L stainless steel, centrifugal separator, inlet / outlet pressure gauges for separator and filter(s), electrically actuated automatic 1" purge valve for separator. 110v-1ph-60hz NEMA-3R control panel with purge clock & timer, schedule 80 PVC piping, 2" bronze isolation valve between separator outlet and filter inlet, fully mounted on painted, carbon Unistrut skid.

Part No.	Max Flow Rate GPM	Housing	Number	Filter Housings Pipe Size	Separator Pipe Size	Purge Pipe Size	Optional Pump HP
FMPFS-50	50	FMJCH-90	1	2"	1-1/4"	1"	2
FMPFS-75	75	FMJCH-90	1	2"	1-1/2"	1"	3
FMPFS-100	100	FMJCH-170	1	2"	2"	1"	5
FMPFS-150	150	FMJCH-170	2	2"	2-1/2"	1"	5
FMPFS-200	300	FMJCH-170	2	2"	3"	1"	7.5

Systems with filter housings, installed in series for two and three "step" filtration

Two step and three step models with centrifugal separator and all other specifications described above.

Part No.	Max Flow Rate GPM	Housing	Number	Filter Housing Pipe Size	Separator Pipe Size	Purge Pipe Size	Optional Pump HP
FMPFS-100-2-S	100	FMJCH-90	2	2"	1-1/4"	1"	3
FMPFS-100-3-S	100	FMJCH-90	3	2"	2"	1"	5
FMPFS-150-2-S	150	FMJCH-170	2	2"	2-1/2"	1"	5
FMPFS-150-3-S	150	FMJCH-170	3	2"	2-1/2"	1"	5

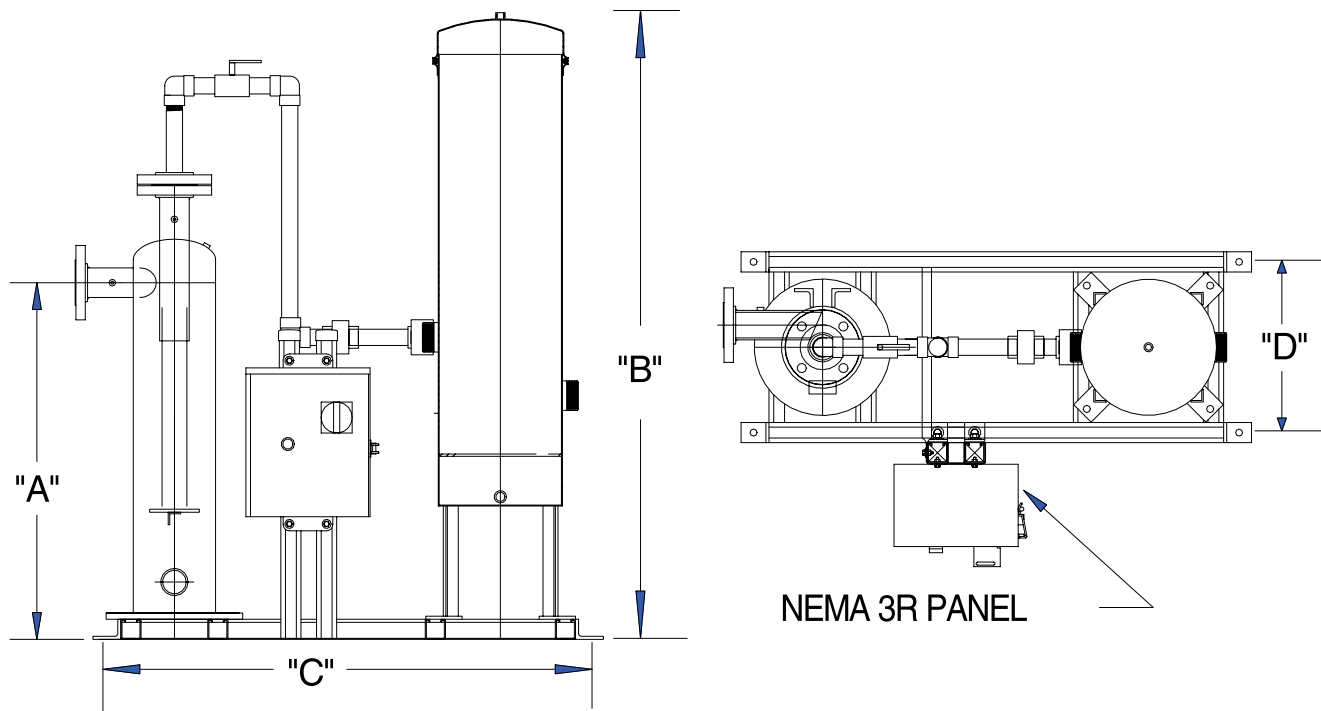
Flowmatic® three-stage systems for zero discharge, with filter housing, separator and bag filter

Systems include Flow-Max® jumbo cartridge filters, constructed in 316L stainless steel, epoxy coated carbon steel cyclone separator, #2, stainless steel bag filter (installed on outlet of the separator for zero discharge), pressure gauges and NEMA-3R control panel and time clock for automatic purge for separator, schedule 80 piping and 2" bronze isolation valve between separator outlet and cartridge filter. Systems with and without pumps are available.

Part No.	Max Flow Rate GPM	Housing	Number	Filter Housings Pipe Size	Separator Pipe Size	Purge Pipe Size	Optional Pump HP
FMPFS-50-90-B	100	FMJCH-90	1	2"	1-1/4"	1"	2
FMPFS-100-170-B	150	FMJCH-170	1	2"	2"	1"	5

Filtration Systems

Skid mounted filtration systems with filter housings, centrifugal separator, control for automatic purge, piping and shut-off valves, fully assembled, ready for installation. Systems may be shipped directly to your job site.



FLOW-MAX Filtration System

FLOW-MAX MODEL NUMBER	FLOW RATE	SEPARATOR PORT SIZE	PURGE SIZE	FILTER PORT SIZE	A	B	C	D
FMPFS-50	50 GPM	1" FLGD	1"	2"	26.50"	47.13"	39.13"	13.75"
FMPFS-75	75 GPM	1 1/4" FLGD	1"	2"	27.87"	47.13"	39.13"	13.75"
FMPFS-100	100 GPM	1 1/2" FLGD	1"	2"	27.87"	47.13"	39.13"	13.75"

Systems without centrifugal separators, with filter housings installed in parallel for higher flow rates and models with filter housings installed in series for "step" filtration using cartridges with different micron ratings, for surface water filtration.

Parallel systems (with filter housings installed in parallel for higher flow rates)

Part Number	Pipe Size For Filters	Number Filter Housings (Model FMJCH170)	Pipe Size Inlet & Outlet	Max. Flow Rate (GPM)
FMFS-P-1	2"	1	2"	150
FMFS-P-2	2"	2	3"	300
FMFS-P-3	2"	3	4"	450
FMFS-P-4	2"	4	4"	600
FMFS-P-6	2"	6	6"	900
FMFS-P-8	2"	8	8"	1,200

Note: Flow rates are for guidelines only. Actual flow rates depend on solids content, micron rating and a number of other factors.

Series systems (with filter housings installed in series for "step" filtration)

Part Number	Pipe Size For Filters	Number Filter Housings (Model FMJCH170)	Pipe Size Inlet & Outlet	Max. Flow Rate (GPM)
FMFS-S-2	2"	2	2"	150
FMFS-S-3	2"	3	2"	150

Note: Flow rates are for guidelines only. Actual flow rates depend on solids content, micron rating and a number of other factors.

Flow-Max® Jumbo Filter Cartridges

With cellulose-free synthetic and mesh media in a wide range of micron ratings.



Standard Synthetic Media



Flow-Max jumbo filter cartridge



PP Mesh Media

Model 40

Filter Housing Model	Micron Rating	Product Code with Synthetic Media	Product Code with Mesh Media	Number Per Case
40	1 Absolute	FMHC-40-1A	N. A.	1
	0.35	FMHC-40-0.35	N. A.	1
	1	FMHC-40-1	N. A.	1
	5	FMHC-40-5	N. A.	1
	20	FMHC-40-20	N. A.	1
	50	FMHC-40-50	FMHC-40-50M	1
	100	FMHC-40-100	N. A.	1
	150	N. A.	FMHC-40-150M	1

Model 90

Filter Housing Model	Micron Rating	Product Code with Synthetic Media	Product Code with Mesh Media	Number Per Case
90	1 Absolute	FMHC-90-1A	N. A.	1
	0.35	FMHC-90-0.35	N. A.	1
	1	FMHC-90-1	N. A.	1
	5	FMHC-90-5	N. A.	1
	20	FMHC-90-20	N. A.	1
	50	FMHC-90-50	FMHC-90-50M	1
	100	FMHC-90-100	N. A.	1
	150	N. A.	FMHC-90-150M	1

Model 170

Filter Housing Model	Micron Rating	Product Code with Synthetic Media	Product Code with Mesh Media	Number Per Case
170	1 Absolute	FMHC-170-1A	N. A.	1
	0.35	FMHC-170-0.35	N. A.	1
	1	FMHC-170-1	N. A.	1
	5	FMHC-170-5	N. A.	1
	20	FMHC-170-20	N. A.	1
	50	FMHC-170-50	FMHC-170-50M	1
	100	FMHC-170-100	N. A.	1
	150	N. A.	FMHC-170-150M	1

Flow-Max[®] High Temp Jumbo Cartridges

Ideal for high temperature industrial water and oil filtration.

Applications

- High temperature industrial water filtration
- Lubricating oil
- Cutting fluids
- Solvents
- Distillate fuel
- Fuel oil
- Hydraulic fluids

Specifications	Data
Maximum temperature	250°F (121°C)
Minimum temperature	-20°F (-29°C)
Maximum pressure	70 PSID (482 k PA)
Recommended change out	25 PSID (172 k PA)
Media	Phenolic impregnated cellulose
End caps, cores, outer body	Electro plated tin



Jumbo Model 40 (7-3/4" x 9-5/8") for flow rates to 50 GPM

Part Number	Model Number	Length	Micron	No. / case
FMPIC-40-5-HT	40	9-5/8"	5	1
FMPIC-40-20-HT	40	9-5/8"	20	1
FMPIC-40-50-HT	40	9-5/8"	50	1

Jumbo Model 90 (7-3/4" x 19-1/2") for flow rates to 100 GPM

Part Number	Model Number	Length	Micron	No. / case
FMPIC-90-5-HT	90	19-1/2"	5	1
FMPIC-90-20-HT	90	19-1/2"	20	1
FMPIC-90-50-HT	90	19-1/2"	50	1

Jumbo Model 170 (7-3/4" x 30-3/4") for flow rates to 150 GPM

Part Number	Model Number	Length	Micron	No. / case
FMPIC-170-5-HT	170	30-3/4"	5	1
FMPIC-170-20-HT	170	30-3/4"	20	1
FMPIC-170-50-HT	170	30-3/4"	50	1

Note: Jumbo 40, 90 and 170 cartridges listed above fit in Flow-Max housings only.

Important:

Phenolic impregnated cellulose cartridges are not suitable for potable water. Do not use with faucet.

Flow-Max® Commerical Filters

316 stainless steel filter housings with easy, safe and secure band-clamp lid closure.



4 & 5 Round Models



12 Round



22 Round



Premium Series

Flow-Max® commercial quality multi-cartridge stainless steel filter housings (316 stainless steel)

Model Number	Round	Max. Flow Rate (GPM) Pleated	Max. Flow Rate (GPM) Depth	Pipe Size	Drain Size (NPT)	No. Of Standard Cartridges	Cartridge Options (Lengths)
FM4X1-1	4	25	25	1" NPT	1/2"	4	9-3/4" - 10"
FM5X1	5	30	25	2" NPT	1/2"	5	9-3/4" - 10"
FM4X2	4	60	40	2" NPT	1/2"	4	20"
FM4X3	4	90	60	2" NPT	1/2"	4	29-1/4" or 30"
FM4X4	4	120	80	2" NPT	1/2"	4	40"
FM5X4	5	150	100	2" NPT	1/2"	5	40"
FM12X3	12	250	180	3" flange	1/2"	12	29-1/4" or 30"
FM12X4	12	300	240	3" flange	1/2"	12	40"
FM22X3	22	500	330	4" flange	1/2"	22	29-1/4" or 30"
FM22X4	22	600	440	4" flange	1/2"	22	40"

Flow-Max® Premium Series housings with mounting legs and pressure gauges

Model Number	Round	Max. Flow Rate (GPM) Pleated	Max. Flow Rate (GPM) Depth	Pipe Size	Drain Size (NPT)	No. Of Standard Cartridges	Cartridge Options (Lengths)
FMPS4X2	4	60	40	2" NPT	1/2"	4	20"
FMPS5X3	5	120	75	2" NPT	1/2"	5	29-1/4" or 30"
FMPS5X4	5	150	100	2" NPT	1/2"	5	40"
FMPS7X4	7	200	140	2" NPT	1/2"	7	40"

Note: Flow rates shown above are for guidelines only. Actual flow rates are based on cartridge type, micron rating, solids content and a number of other factors

Flow-Max® Industrial Filters

Heavy-duty filter housings made to ASME code specifications.

Typical filtration applications

- Pre-filtration for RO systems
- Drinking water filtration
- Surface water filtration
- Boilers & cooling towers
- Process water
- Ground water
- Municipal water
- Oils and hydraulic fluids

Materials and options

- 304, 316 and carbon steel
- Coatings for sea water filtration
- Duplex systems
- 300 psi pressure rating
- Electro-polishing
- Optional ASME U-Stamp available



Flow-Max® industrial filter housings using 20" cartridges

Model Number	Round	Standard Cartridge	Max. Flow With Pleated Cartridges (GPM)	Max. Flow With Depth Cartridges (GPM)	Material	Pipe Size	Drain Size	Ship. Weight (lbs.)
FMIF3X2	3	20"	60	30	Specify	2" NPT	3/4"	45
FMIF6X2	6	20"	120	60	Specify	2" flange	3/4"	55

Flow-Max® industrial filter housings using 30" cartridges

Model Number	Round	Standard Cartridge	Max. Flow With Pleated Cartridges (GPM)	Max. Flow With Depth Cartridges (GPM)	Material	Pipe Size	Drain Size	Ship. Weight (lbs.)
FMIF3X3	3	30"	90	45	Specify	2" NPT	3/4"	50
FMIF6X3	6	30"	180	90	Specify	2" flange	3/4"	65
FMIF12X3	12	30"	350	175	Specify	3" flange	3/4"	225
FMIF20X3	20	30"	600	300	Specify	4" flange	3/4"	200
FMIF26X3	26	30"	800	400	Specify	6" flange	1-1/2"	495
FMIF32X3	32	30"	1,000	500	Specify	6" flange	1-1/2"	950

Flow-Max® industrial filter housings using 40" cartridges

Model Number	Round	Standard Cartridge	Max. Flow With Pleated Cartridges (GPM)	Max. Flow With Depth Cartridges (GPM)	Material	Pipe Size	Drain Size	Ship. Weight (lbs.)
FMIF3X4	3	40"	120	60	Specify	2" NPT	3/4"	55
FMIF6X4	6	40"	175	120	Specify	2" flange	3/4"	75
FMIF12X4	12	40"	300	250	Specify	3" flange	3/4"	225
FMIF20X4	20	40"	550	425	Specify	4" flange	1-1/2"	275
FMIF26X4	26	40"	750	575	Specify	6" flange	1-1/2"	340
FMIF32X4	32	40"	1,000	720	Specify	6" flange	1-1/2"	410
FMIF52X4	52	40"	1,500	1,050	Specify	8" flange	1-1/2"	480
FMIF80X4	80	40"	2,000	1,600	Specify	8" flange	1-1/2"	800
FMIF116X4	116	40"	2,500	2,000	Specify	10" flange	1-1/2"	1,000
FMIF144X4	144	40"	3,000	2,500	Specify	12" flange	1-1/2"	1,500

Note: Industrial filter housings listed above include swing-bolt and eye nut lid closure (davit for lid lift on 12 rounds and above), seals for DOE cartridges and elements with 222 o-ring end caps, without the need for special adapters, and they accept cartridges from 2-1/2" to 2-3/4" OD. Housings are rated for pressures to 150 psi (10 bar) and temperatures to 250°F (121°C). Standard gaskets are Buna-N. For carbon steel housings add "CS" at end of product code; add "304" for 304 stainless steel; add "316" for 316 stainless steel and add "ASME" for "u" stamp. Flow rates are based on water filtration, and they are for guidelines only. Actual flow rates should be based on micron rating, solids content and a number of other factors. Shipping weights are approximate.

Flow-Max[®] In-Line Filters

Single cartridge, metal filter housings for in-line installations.

Applications

- High temperatures
- High pressures
- Aggressive chemicals
- Water
- Oils
- Coolants
- Plating solutions
- Solvents
- Lubricants
- Hydraulic fluids

Models

- Nickel plated brass heads with 304 stainless sumps and T-Handles for easy sump removal
- 304 stainless steel for DOE cartridges
- 316 stainless steel for 222 o-ring end caps
- Carbon steel



Specifications

- Rated for pressures to 250 PSI (17.5 bar)
- Rated for temperatures to 250°F (121°C)
- Buna-N seals are standard. Optional seals available

Models with nickel plated brass heads, 304 stainless steel sumps and T-Handles

Model Number	Cartridge Length	Pipe Size	No. Of Cartridges	Sump	Head	Shipping Weight (lbs.)
FM10-BN-304-34T	10" *	3/4"	1	304 SS	Nickel / Brass	7
FM20-BN-304-34T	20"	3/4"	1	304 SS	Nickel / Brass	10
FM30-BN-304-34T	30"	3/4"	1	304 SS	Nickel / Brass	12

* Accepts 10" and 9-7/8" wound or 9-3/4" cartridges with rigid end caps (pleated). Rated for pressures to 250 psi and temperatures to 250°F

Models with 304 stainless steel heads and 304 sumps

Model Number	Cartridge Length	Pipe Size	No. Of Cartridges	Sump	Head	Shipping Weight (lbs.)
FM10-304-34	10" *	3/4"	1	304 SS	304 SS	7
FM20-304-34	20"	3/4"	1	304 SS	304 SS	10
FM30-304-34	30"	3/4"	1	304 SS	304 SS	12

* Accepts 10" and 9-7/8" wound or 9-3/4" cartridges with rigid end caps (pleated). Rated for pressures to 250 psi and temperatures to 250°F

Models with 316 stainless steel construction for cartridges with 222 o-ring end caps

Model Number	Cartridge Length	Pipe Size	No. Of Cartridges	Sump	Head	Shipping Weight (lbs.)
FM10-316-34-222	10"*	3/4"	1	316 SS	316 SS	7
FM20-316-1-222	20"	1"	1	316 SS	316 SS	10

Filter housings listed directly above are rated for pressures to 250 psi and temperatures to 250°F.

Models with carbon steel sumps and cast iron heads

Model Number	Cartridge Length	Pipe Size	No. Of Cartridges	Sump	Head	Shipping Weight (lbs.)
FM10-CS-34	10"*	3/4"	1	Carbon	Cast iron	7
FM20-CS-34	20"	3/4"	1	Carbon	Cast iron	10
FM30-CS-34	30"	3/4"	1	Carbon	Cast iron	12
FM40-CS-1	40"	1"	1	Carbon	Cast iron	12

* Accepts 10" and 9-7/8" wound or 9-3/4" cartridges with rigid end caps (pleated). Rated for pressures to 250 psi and temperatures to 250°F

BIG-BUBBA®

FILTERS



Big-Bubba non-metallic filter housings

Big-Bubba® filters are bigger and better than other non-metallic filter housings because pricing is based on their economical plastic construction, while the pressure rating is nearly equal to stainless steel!

Features

- Made of glass-reinforced polypropylene for greater strength and chemical resistance.
- Will not dent, rust, chip or corrode.
- Filters accept single cartridge for convenience.
- Swing-bolt lid closure is easy, safe & secure.
- Pressure release for safety.
- Cartridge "lock" adapter to hold cartridge in place.
- Double o-rings on cartridges for superior sealing.
- Two outlets to allow piping from the same direction.

Applications

- Industrial applications for chemical compatibility.
- Pre-filtration for reverse osmosis.
- Community water systems for cyst reduction.
- Sea water filtration (for non corrosion).
- Whole house filtration for chlorine, taste, odor and sediment reduction.

U.S. and foreign patents pending.

Specifications

	BBH-150
Material, body (all wetted surfaces)	Glass reinforced PP
Material, cartridge end caps	Glass reinforced PP
Material, swing bolts	304SS
O-Ring	EPDM
Lid closure	Swing bolt
Pipe fittings (two inlets and one outlet)	2" slip
Overall height	40"
Width (vessel OD)	12"
Maximum flow rate	150 GPM (36M ³ /hr)
Maximum temperature (housing)	175°F (80°C) @80 psi
Maximum working pressure	125 psi (8.75 bar)
Burst test	300 psi
Cycles test (0 to 150 psi)	100,000

Note: Please refer to pressure drop chart to determine flow rate, based on micron rating, solids content and other factors.

Big-Bubba filter housings

Product Code	Max. Flow Rate*	Pipe Fitting	Shipping Weight (lbs.)	Carton Size	No. / Carton
BBH-150	150 GPM	2" SLIP	47	16" x 16" x 41"	1

* With pleated cartridges.

Big Bubba® Filter Cartridges

Pleated, depth & activated carbon cartridges with o-rings seals for superior performance.

Pleated for more surface area



Pleated cartridges are recommended for typical water filtration applications to remove sediment, hard solids and when high efficiency filtration is required. We offer a wide range of micron ratings, including one micron absolute for surface water filtration to reduce Giardia Cysts and Cryptosporidium.

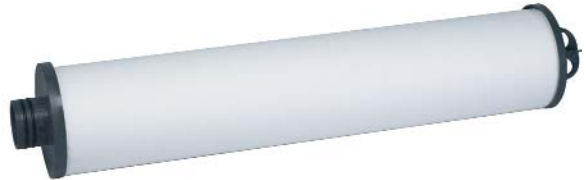
Pleated Big-Bubba® cartridges

Product code	Micron	Media Type	Seal	Number / Carton
BBC-150-P1A	1 Absolute	Polypropylene*	Double o-rings	1
BBC-150-P1	1	Polypropylene	Double o-rings	1
BBC-150-P5	5	Polypropylene	Double o-rings	1
BBC-150-P20	20	Polyester	Double o-rings	1
BBC-150-P50	50	Polyester	Double o-rings	1

* Five ply for greater removal efficiencies.

Depth cartridges

Select depth cartridges to remove sediment, gelatinous substances and when chemical compatibility is an issue. Big-Bubba depth cartridges are 100% polypropylene with EPDM o-rings.



Depth Big-Bubba® cartridges

Product code	Micron	Media Type	Seal	Number / Carton
BBC-150-D1	1	Polypropylene	Double o-rings	1
BBC-150-D5	5	Polypropylene	Double o-rings	1
BBC-150-D20	20	Polypropylene	Double o-rings	1
BBC-150-D50	50	Polypropylene	Double o-rings	1

Activated carbon cartridges



Activated carbon Big-Bubba cartridges are ideal for whole house filtration and other applications to reduce chlorine, tastes, odors and sediment from water. Activated carbon cartridges are rated at five micron, nominal.

Activated carbon Big-Bubba® cartridges

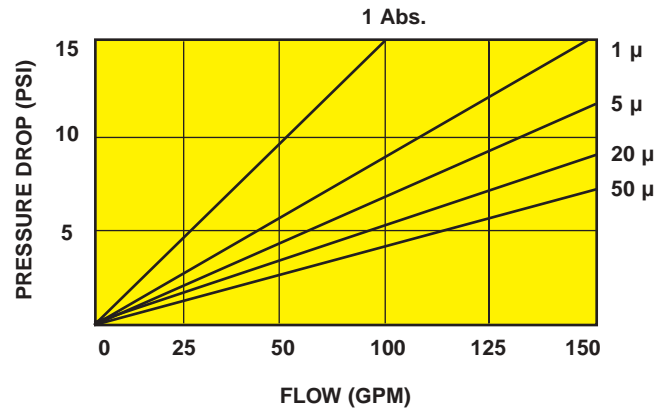
Product code	Micron	Media Type	Seal	Number / Carton
BBC-150-AC	5 Nominal	Activated carbon	Double o-rings	1

Big-Bubba® Filters & Cartridges

Technical information and spare parts.

Low pressure drop

Big-Bubba filter housings are designed to minimize pressure drop, by using 2" pipe fittings and large diameter center tubes for Big-Bubba filter cartridges. (See chart at right for pressure drop data using pleated cartridges.)



Big-Bubba cartridge specifications (Model BBC-150)

	Pleated	Depth	Activated Carbon
Media	PP	PP	Pulverized activated carbon
End caps	PP + FG	PP + FG	PP
Center tubes	PP	PP	PP
Maximum flow rate (GPM)	150	100	10
Maximum temperature	175°F (80°C)	175°F (80°C)	140°F (60°C)
Maximum ΔP (psi)	30	40	30
Chemical resistance	Excellent	Excellent	Not a factor (for water)
Length (media)	26-1/4"	26-1/4"	26-1/4"
O-rings (dual)	EPDM	EPDM	EPDM
Shipping weight (lbs.)	5	5	7
Carton dimensions	7" x 7" x 31"	7" x 7" x 31"	7" x 7" x 31"
Micron ratings	1A, 1, 5, 20, 50	1, 5, 20, 50	5

Note: Flow rates are based on each specific application, micron rating, solids content and a number of other factors. End user should consider these factors when selecting the filter housing (or number of filter housings) needed for their particular requirement.

Big-Bubba filter housing spare parts

Part Number	Description
BB-LID	Lid
BB-PR	Pressure release button, washer and screw.
PG15L25	Pressure gauge
BB-EYEBOLT	Eye bolt
BB-STUD	Stud for eye bolt
BB-POST	Post for eye bolt
BB-WINGNUT	Wing nut
BB-WASHER	Washer for lid closure
BB-LW	Lock washer for lid closure
BB-ORING-E	O-ring for lid closure, EPDM
BB-ORING-V	O-ring for lid closure, Viton
BB-COUPLER	Coupler (two piece)
BB-COUPLER-OR	O-ring for coupler and plug
BB-PLUG	Plug for second outlet
DRAINPLUG	Drain plug with o-ring
BB-CA	Cartridge adapter (goes in bottom of housing)
BB-CASCREWS	Screws for cartridge adapter
BB-SC	Shipping carton with corrugated inserts

Flow-Max[®] Industrial Filters For 40" Big-Bubba[®] Cartridges

Heavy-duty filter housings available in 304 and 316 stainless steel.

Typical filtration applications

- Pre-filtration for RO systems
- Drinking water filtration
- Surface water filtration
- Cooling towers
- Process water
- Ground water
- Municipal water
- Oils and hydraulic fluids



BBH40-SS316-NPT2
(With 2" NPT fittings in 304SS)



BBH40-SS316-FF3
(With 3" flange fittings in 316SS)

Flow-Max[®] industrial filter housings for 40" Big-Bubba cartridges

Model Number	Round	Standard Cartridges	Max. Flow Pleated Cartridges (GPM)	Max. Flow Depth Cartridge (GPM)	Material	Pipe Size	Drain Size	Ship. Weight (lbs.)
BBH40-SS304-NPT2	1	BB 40"	200	175	SS304	2" NPT	3/4"	100
BBH40-SS316-FF3	1	BB 40"	250	200	SS316	3" flange	3/4"	100

Note: Flow rates are for guidelines only. Actual flow rates are based on micron rating, solids content and other factors.

Pleated cartridges for more surface area

Pleated cartridges are recommended for typical water filtration applications to remove sediment, hard solids and when high efficiency filtration is required. We offer a wide range of micron ratings, including one micron absolute for surface water filtration to reduce Giardia Cysts and Cryptosporidium.

40 Pleated Big-Bubba[®] cartridges

Product code	Micron	Media Type	Seal	Number / Carton
BBC-40-P1A	1 Absolute	Polypropylene*	Double o-ring	1
BBC-40-P1	1	Polypropylene	Double o-ring	1
BBC-40-P5	5	Polypropylene	Double o-ring	1
BBC-40-P20	20	Polyester	Double o-ring	1
BBC-40-P50	50	Polyester	Double o-ring	1

* Five ply for greater removal efficiencies.

40 Depth Big-Bubba[®] cartridges

Product code	Micron	Media Type	Seal	Number / Carton
BBC-40-D1	1	Polypropylene	Double o-ring	1
BBC-40-D5	5	Polypropylene	Double o-ring	1
BBC-40-D20	20	Polypropylene	Double o-ring	1
BBC-40-D50	50	Polypropylene	Double o-ring	1

***Notes:** Cartridge o-rings are EPDM. Cartridge end caps have o-rings for superior sealing and cartridges lock in place for greater security.

Flow-Max[®] Bag Filters & Filter Bags

Bag housings with heavy-duty construction and swing-bolt lid closure.



Features & benefits

- Heavy-duty construction
- Swing bolt lid closure with eye nuts
- Rated for pressures to 150 PSI
- 2" NPT pipe with vent and drain
- 304 stainless steel baskets
- Adjustable legs
- Ports for pressure gauges
- Bottom outlet for easy installation
- Stainless legs on stainless models

Bag filter housing models

Model No.	No.	Description	Housing Material	Adjustable Legs	Bag Size	Pipe Size
FMBH2-CS	2	Swing-bolt bag filter	Carbon Steel	Carbon Steel	#2	2" NPT
FMBH2-304	2	Swing-bolt bag filter	304SS	Stainless	#2	2" NPT
FMBH2-316	2	Swing-bolt bag filter	316SS	Stainless	#2	2" NPT
FMBH1-CS	1	Swing-bolt bag filter	Carbon Steel	Carbon Steel	#1	2" NPT
FMBH1-304	1	Swing-bolt bag filter	304SS	Stainless	#1	2" NPT
FMBH1-316	1	Swing-bolt bag filter	316SS	Stainless	#1	2" NPT

#2 filter bags

Part Number	Number	Size	Material	Micron Rating	No./ case
FMPPFB2-1	#2	7" x 32"	PP	1	20
FMPPFB2-5	#2	7" x 32"	PP	5	20
FMPPFB2-10	#2	7" x 32"	PP	10	20
FMPPFB2-25	#2	7" x 32"	PP	25	20
FMPPFB2-50	#2	7" x 32"	PP	50	20
FMPPFB2-100	#2	7" x 32"	PP	100	20

Filter bags made with glazed polypropylene felt with galvanized carbon steel rings.

#2 mesh bags

Part Number	Number	Size	Material	Micron Rating	No./ case
FMNMOFB2-100	#2	7" x 32"	NMO	100	20
FMNMOFB2-150	#2	7" x 32"	NMO	150	20
FMNMOFB2-250	#2	7" x 32"	NMO	250	20
FMNMOFB2-400	#2	7" x 32"	NMO	400	20

Filter bags made with glazed polypropylene felt with galvanized carbon steel rings.

#1 felt bags

Part Number	Number	Size	Material	Micron Rating	No./ case
FMPPFB1-1	#1	7" x 16"	PP	1	20
FMPPFB1-5	#1	7" x 16"	PP	5	20
FMPPFB1-25	#1	7" x 16"	PP	25	20
FMPPFB1-50	#1	7" x 16"	PP	50	20
FMPPFB1-100	#1	7" x 16"	PP	100	20

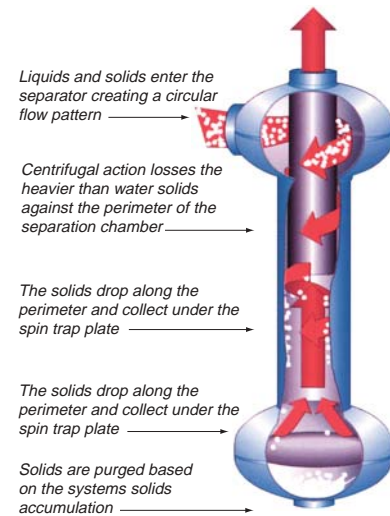
Filter bags made with glazed polypropylene felt with galvanized carbon steel rings.

Flow-Pro® Centrifugal Separators

Removes dense solids without replacable filter elements.

How they work

High velocity influent passes through the separator, which is designed to produce a circular flow pattern. Using gravitational force, sand, debris and sludge migrate to the separator's side walls and downward, into a solids holding chamber. Cleansed effluent rises up, through the vortex and is returned back to the system. Subsequently, the separated solids are purged from the holding chamber, continuously, manually or automatically, depending on what type equipment is utilized.



Features & benefits

- Removes 98% of all solids with a 1.8 specific gravity or more, and all particles greater than 40 micron in size
- Rated for pressures to 150 PSID
- Rated for temperatures to 200°F
- Epoxy coated, carbon steel construction
- No routine maintenance required
- Minimum 4 PSI pressure drop
- Compact design to save space



Flow-Pro in-line centrifugal separator

Flow-Pro in-line centrifugal separators (no legs)

Model Number	Flow Rate Range (GPM)	Diameter	Height	Inlet (Side)	Outlet (Top)	Drain (Bottom)	Shipping Weight
FP-CS-C-75	14-25	6"	22-7/16"	3/4"	3/4"	3/4"	16
FP-CS-C-100	28-49	6"	22-7/16"	1"	1"	3/4"	18
FP-CS-C-150	67-115	6"	30"	1-1/2"	1-1/2"	3/4"	22
FP-CS-C-200	90-157	10"	34"	2"	2"	1-1/2"	42
FP-CS-C-300	205-355	10"	33-7/8"	3"	3"	1-1/2"	46

Flow-Pro high flow centrifugal separators (models with legs)

Model Number	Flow Rate Range (GPM)	Diameter	Height	Inlet (Side)	Outlet (Top)	Drain (Bottom)	Shipping Weight
FP-CS-C-400	352-610	12-1/8"	53-1/2"	4" flange	4" flange	1-1/2"	165
FP-CS-C-600	800-1,385	14-1/8"	60-1/2"	6" flange	6" flange	1-1/2"	232
FP-CS-C-800	1,385-2,398	18-3/16"	70-1/2"	8" flange	8" flange	1-1/2"	365
FP-CS-C-1000	2,183-3,780	22"	86-1/2"	10" flange	10" flange	1-1/2"	575
FP-CS-C-1200	2,915-5,049	24"	100-1/2"	12" flange	12" flange	2"	852
FP-CS-C-1400	3,817-6,610	30"	111-1/2"	14" flange	14" flange	2"	1,382
FP-CS-C-1800	6,469-11,204	36-1/8"	132-1/2"	18" flange	18" flange	2"	2,140

Steel Tank Backwashing Filters

Activated carbon and layered media filters with automatic backwash.



Features

- Diaphragm valve nest
- Time clock controlled
- Epoxy lined galvanized steel for durability
- Twin tank systems available
- ASME code optional
- Skid mounting available

Activated carbon filters for chlorine, taste and odor reduction

Model Number	Tank Size	Service Pipe Size	Service Flow GPM	Service ΔP PSID	Peak Flow GPM	Peak ΔP PSID	Back Wash Flow GPM	Media Cu. Ft.	Ship. Wt. (Lbs.)
FBWFAC-36	36" x 60"	1-1/2"	21	2	65	9	70	18	2,185
FBWFAC-42	42" x 60"	1-1/2"	29	2	96	12	90	24	2,775
FBWFAC-48	48" x 60"	2"	40	1	120	6	110	32	3,670
FBWFAC-60	60" x 60"	2-1/2"	69	2	175	10	190	50	5,900

Note: Activated carbon included, supplied in bags.

Multi-Layered media filters for sediment removal

Model Number	Tank Size	Service Pipe Size	Service Flow GPM	Service ΔP PSID	Peak Flow GPM	Peak ΔP PSID	Back WWash Flow GPM	Media Cu. Ft.	Ship. Wt. (Lbs.)
FBWFML-36	36" x 60"	2"	70	2	105	9	105	22	3,200
FBWFML-42	42" x 60"	2-1/2"	95	2	140	12	150	30	3,800
FBWFML-48	48" x 60"	2-1/2"	120	1	170	6	180	40	5,410
FMWFML-60	60" x 60"	3"	200	2	260	10	300	63	9,250
FMWFML-72	72" x 60"	4"	275	3	415	7	415	91	12,900
FMWFML-84	84" x 60"	6"	385	3	580	5	570	105	15,100
FMWFML-96	96" x 60"	6"	505	2	750	4	750	145	18,200

Note: Media included, supplied in bags.

Additional models available. Please inquire.

Steel Tank Water Softeners

Industrial quality water softeners for capacities to 900,000 grains.

Features

- Diaphragm valve nest included
- Time clock controlled
- Epoxy lined galvanized steel for durability
- Twin tank systems available
- Metered systems available
- ASME code optional
- Skid mounting available



Single tank water softeners

Model Number	Capacity Max. (Grains)	Capacity Min. (Grains)	Pipe Size	Resin Cu. Ft.	Service Flow GPM	Service ΔP PSID	Peak Flow GPM	Peak ΔP PSID	BWF Flow GPM	Salt Lbs.	Salt to Reg Max	Salt to Reg Min.	Ship. Wt.
FHDS-150	150,000	100,000	1.5"	5	35	11	50	12	10	450	75	24x40	810
FHDS-210	210,000	140,000	2"	7	60	11	85	19	15	610	105	24x54	1140
FHDS-300	300,000	200,000	2"	10	75	9	105	15	20	850	150	30x48	1500
FHDS-450	450,000	300,000	2.5"	15	95	15	130	22	20	950	225	30x60	1850
FHDS-600	600,000	400,000	2.5"	20	110	14	150	22	30	1250	300	39x48	2660
FHDS-750	750,000	500,000	3"	25	140	15	180	24	30	1630	375	39x60	3150
FHDS-900	900,000	600,000	3"	30	165	14	210	21	45	1840	450	42x60	3755

Note: Salt not included.

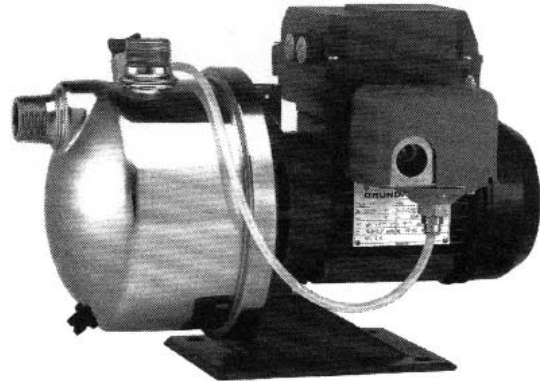
Additional models available. Please inquire.

Pumps

Booster, jet and shallow well pumps.



Sta-Rite® Non-Metallic Booster Pump



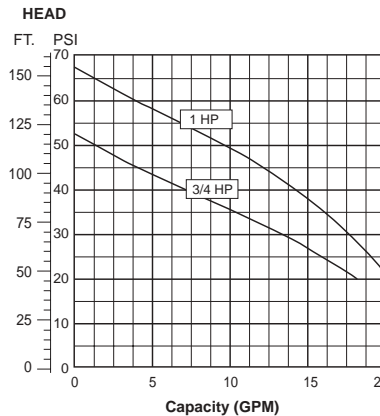
Grundfos® Stainless Steel Booster Pump

Booster pumps

Model No.	Mfg.	Housing	Pipe Material	Pipe (Suction)	H.P.	Volts (Discharge)	Htz.	Amps.	Ship Wt.(Lbs.)
FMSR1	Sta-Rite	Polymer	1-1/4"	3/4"	1/2	115/230	60	9.4	28
FMSR2	Sta-Rite	Polymer	1-1/4"	3/4"	3/4	115/230	60	12.4	30
FMG1	Grundfos	SS	1"	1"	1/2	115	60	7.6	24
FMG2	Grundfos	SS	1"	1"	1/2	230	60	3.7	24
FMG3	Grundfos	SS	1"	1"	1	115	60	13.6	30
FMG4	Grundfos	SS	1"	1"	1	230	60	7.0	30

All-In-One home water supply system

Pump with build-in pressure switch, check valve and dry run protection, eliminating the need for a pressure tank.



All-In-One home water supply system

Pump with built-in pressure switch, check valve, dry run protection. Ideal for potable water, rain water, non aggressive liquids.

Model Number	Mfg.	Type	Material (Housing)	Pipe (Suct.)	Pipe (Disch.)	H.P.	Volts	Hz	Ph.	Amps Max.	Ship Wt.
FMG5	Grundfos	Supply	SS	1"	1"	3/4	115V	60	1	7.2	30
FMG6	Grundfos	Supply	SS	1"	1"	3/4	230V	60	1	3.7	30
FMG7	Grundfos	Supply	SS	1"	1"	1	115V	60	1	9.2	30
FMG8	Grundfos	Supply	SS	1"	1"	1	230V	60	1	4.5	30

Pumps are self-priming, after initially filled with water and they are in stock, ready for shipment.

Flow-Pro® Chemical Feed Pumps

Ideal for chlorine metering in residential & commercial applications



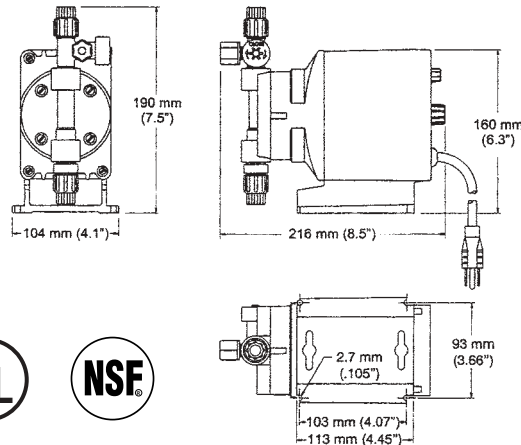
Features & benefits

- Dual output control for easy & accurate adjustment.
- Turn-down ratio (500:1) provides excellent flexibility.
- 6 - 30 GPD maximum output at 80 psi.
- Quiet operation for residential or commercial use.
- Totally enclosed construction for chemical resistance and suitability for outdoor installation.
- Safe operation, with built-in pressure relief, designed to stop pump if system backpressure is excessive.
- Thermostatic protection provided for over heating.
- Priming valve provides safe and easy priming, with out having to disconnect tubing.
- Pumps come with four self-cleaning valves to help maintain prime and eliminate scale and clogging.
- Priming valve, injection check/back pressure valve, foot valve with strainer, vinyl suction tubing, UV resistant PE discharge tubing and ceramic weight are included for complete and easy installation.
- Heads and fittings are made of high strength PVC.

Typical applications

- Residential water conditioning
- Commercial water treatment
- Irrigation
- Boiler feed
- Cooling towers
- Agriculture
- Laundries
- Livestock
- Food processing
- Car wash
- Photo processing
- Metal finishing

Dimensions



Standard models

Model No.	GPD		GPH		Liters Per Hour		ml / cc Per Min.		Electrical (w / plug)	Amps.	Ship Wt.
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.			
FP-DCP-12	0.04	12.0	0.002	0.5	0.006	1.9	0.11	32	120 VAC	1.4	8 lbs.
FP-DCP-24	0.05	24.0	0.002	1.0	0.008	3.8	0.13	63	120 VAC	1.4	8 lbs.
FP-DCP-30	0.06	30.0	0.003	1.25	0.010	4.7	0.16	79	120 VAC	1.4	8 lbs.
FP-DCP-30/230	0.06	30.0	0.003	1.25	0.010	4.7	0.16	79	230 VAC*	1.4	8 lbs.

*Plug not suitable for export. Maximum injection pressure is 80 psi (5.5 bar) for all models.

Diaphragm repair kits

Part Number	Model	Description
FP-CFP-DRK-12	FP-DCP-12	Complete repair kit with diaphragm and associated components.
FP-CFP-DRK-24	FP-DCP-24	Complete repair kit with diaphragm and associated components.
FP-CFP-DRK-30	FP-DCP-30	Complete repair kit with diaphragm and associated components.

Pulsafeeder® Chemical Metering Pump

Ideal for commercial & industrial applications.



Series A+

The Series A+ offers manual control over stroke length and stroke rate as standard with the option to select external pace for automatic control.

- 6 distinct flow/pressure envelopes
- Flow/pressure capacity ranging from 6 gpd (.95 lph) @150 psi (10.3 bar) to 48 gpd (7.57 lph) @ 50 psi (3.3 bar)
- 100:1 turn down ratio
- Optional external pacing with Auto/Manual switch
- Internally dampened to reduce noise - ideal for home installations
- Water resistant for outdoor installations



Series E+

The Series E+ Plus offers manual control over stroke length and stroke rate as standard with the option to choose between 4-20mA or external pace inputs for automatic control.

- 20 distinct flow/pressure envelopes
- Flow/pressure capacity ranging from 3 gpd (.47 lph) @300 psi (20.7 bar) to 500 gpd (78.9 lph) @ 20 psi (1.4 bar)
- 100:1 turn down ratio
- Optional 4-20mA with stop function
- Optional External Pacing with stop function
- Auto-Off-Manual selection switch with lights
- Built-in circuit protection
- Water resistant cover over controls

Series A+ (standard industrial)

Model Number	Series	Tube Size	Electrical	Flow Rate
LBC3SA-WTC1-XXX	A+	3/8"	115 Volt / 50 - 60 Hz	10 GPD @ 250 psi
LBO2SA-VTC1-XXX	A+	3/8"	115 Volt / 50 - 60 Hz	6 GPD @ 150 psi
LBO3SA-VTC1-XXX	A+	3/8"	115 Volt / 50 - 60 Hz	12 GPD @ 150 psi
LBO4SA-VTC1-XXX	A+	3/8"	115 Volt / 50 - 60 Hz	22 GPD @ 100 psi
LB64SA-VTC1-XXX	A+	3/8"	115 Volt / 50 - 60 Hz	30 GPD @ 100 psi
LBO3SB-VTC1-XXX	A+	3/8"	230 Volt / 50 - 60 Hz	12 GPD @ 150 psi
LBO4SB-VTC1-XXX	A+	3/8"	230 Volt / 50 - 60 Hz	22 GPD @ 100 psi

Series E+ (premium industrial)

Model Number	Series	Tube Size	Electrical	Flow Rate
LPB2SA-WTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	5 GPD @ 250 psi
LPA3SA-VTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	12 GPD @ 100 psi
LPB4SA-VTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	24 GPD @ 100 psi
LPE4SA-VTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	44 GPD @ 100 psi
LPH6SA-VTC3-XXX	E+	1/2"	115 Volt / 50 - 60 Hz	120 GPD @ 100 psi
LPA3SB-VTC1-XXX	E+	3/8"	230 Volt / 50 - 60 Hz	12 GPD @ 100 psi
LPB4SB-VTC1-XXX	E+	3/8"	230 Volt / 50 - 60 Hz	24 GPD @ 100 psi

Series E+ (premium industrial with capacity to accept a 4-20 mA signal)

Model Number	Series	Tube Size	Electrical	Flow Rate
LPA3MA-VTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	12 GPD @ 100 psi
LPB4MA-VTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	24 GPD @ 100 psi
LPA3MB-VTC1-XXX	E+	3/8"	230 Volt / 50 - 60 Hz	12 GPD @ 100 psi
LPB4MB-VTC1-XXX	E+	3/8"	230 Volt / 50 - 60 Hz	24 GPD @ 100 psi

Flow-Pro® Commercial Water Testing Equipment

Full line of test equipment for water treatment dealers and professionals.



Flow-Pro® 6-In-One Combination Test Kit For Water Treatment Professionals

Part Number (Test Kit)	Test	Test Type	Description / Range
FPCTK-6	P & M Alkalinity	Drop	1 drop = 10 PPM / 25 ml
	Chloride	Drop	1 drop = 10 PPM / 25 ml
	Total Hardness	Drop	1 drop = 2 PPM / 25 ml
	Sulfite	Drop	1 drop = 10 PPM / 25 ml
	Phosphate	Comparator	0 - 10 PPM & 10 - 100 PPM (dual range)
	pH	Comparator (Phenol Red)	6.8 - 8.2



P & M Alkalinity



Chloride



Total Hardness



Phosphate



pH



Sulfite

Flow-Pro® test kits for water treatment professionals

Part Number	Number	Test for	Description / range	Test Type & Sample Size	No. Per Case
FPTK-ALK	497/10	P & M Alkalinity	1 drop = 10 PPM	Drop, 25 ml	1
FPTK-CHLORIDE	507/10	Chloride	1 drop = 10 PPM	Drop, 25 ml	1
FPTK-TH2	417/2	Total Hardness	1 drop = 2 PPM	Drop, 25 ml	1
FPTK-TH10	417/10	Total Hardness	1 drop = 10 PPM	Drop, 25 ml	1
FPTK-PHOS	598	Phosphate	0-10 PPM & 10-100 PPM range	Drop, 25 ml	1
FPTK-PR	807/PH	pH (Phenol red)	6.8 - 8.2 range	Comparator	1
FPTK-IRON	4447	Iron	0 - 10 PPM range	Comparator	1
FPTK-SM	609	Sodium Molybdate	1 - 10 PPM range	Comparator	1
FPTK-C10	4263	Chlorine and Bromine	0 - 10 PPM range	Comparator	1
FPTK-SULFIDE	2233	Sulfide	0.2- 20 PPM range	Comparator	1
FPTK-SULFITE	447/10	Sulfite	1 drop = 10 PPM	Drop, 25 ml	1
FPTK-OP	667/1	Organo Phosphonate	1 drop = 1 PPM as 100% OP	Drop, 25 ml	1
FPTK-N	437/50	Nitrite	1 drop = 50 PPM as NO ₂	Drop, 5 ml	1

Note: The test kits listed above are particularly well suited for boiler and cooling tower water testing.



Reagents

Test	Product Code	Size	Description	Range
P & M Alkalinity	FP-R471/10-C	4 oz.	Sulfuric Acid titration solution	1 drop = 10 PPM / 25 ml
	FP-168-A	2 oz.	Phenolphthalein indicator solution	
	FP-165-A	2 oz.	Methyl purple indicator solution	
Chloride	FP-R501/10-C	4 oz.	Silver Nitrate titration solution	1 drop = 10 PPM / 25 ml
	FP-173-A	2 oz.	Potassium Chromate indicator sol.	
	FP-157-A	2 oz.	Hydrogen Peroxide solution, 3%	
	FP-204-A	2 oz.	Sulfuric Acid neutralizing solution	
Hardness	FP-R411/2-C	4 oz.	Hardness titration solution	1 drop = 2 PPM / 25 ml
	FP-R411/10-C	4 oz.	Hardness titration solution	Drop = 10 PPM / 25 ml
	FP-143-A	2 oz.	Hardness indicator buffer solution	
pH	FP-159PR-A	2 oz.	Phenol Red pH indicator solution	
Sodium Molybdate	FP-484NH-A	2 oz.	pH adjustor solution	
	FP-486-X	10 gr.	Sodium Molybdate indicator power	
Sulfite	FP-R441/10-C	4 oz.	Potassium Iodine-Iodate solution	1 drop = 10 PPM / 25 ml
	FP-199-B	60 gr.	Starch Acid/Sulfite indicator power	
	FP-168-A	2 oz.	Phenolphthalein indicator solution	
Organo Phosphonate	FP-R461/1C	4 oz.	Thorium Nitrate titration solution	Drop = 1 PPM OP / 25 ml
	FP-669-B	30 gr.	Phosphonate indicator powder	
	FP-465	-	Narrow range pH paper	1.3 - 4.4
	FP-R462NH-A	2 oz.	O.P. pH adjustor solution	
Nitrite	FP-R431NH/50-C	4 oz.	Ceric Sulfate titration solution	Drop = 50 PPM NO ₂ / 5ml
	FP-129-A	2 oz.	Nitrite indicator solution	
Phosphate	FP-194-A	2 oz.	Stannous Chloride liquid	
	FP-208NH-A	2 oz.	VM Phosphate reagent	
Iron	FP-4450-G	30 ml	Iron reagent #1	
	FP-4451-S	4.5 gr	Iron reagent #2 powder	
Sulfide	FP-4458-G	30 ml	Sulfide reagent A	
	FP-4459-E	15 ml	Sulfide reagent B	
	FP-4460-H	60 ml	Sulfide reagent C	
Chlorine / Bromine	FP-6807-C	5 gr.	DPD #1 powder	
	FP-6905-H	50 ml	Chlorine DPD #3R tablets	
	FP-3992-H	50 ml	Chlorine / Bromine titrant	

HF Scientific® Turbidity Meters

The newest member of the Watts Water Technologies family.



Micro 100® turbidity meter for laboratory & field use

Designed to provide the accuracy demanded for laboratory use. Auto ranging from 0 to 1000 NTU, with push button calibration. Available in White Light or Infrared. USEPA or ISO7072 compliant.

MicroTPW™ & MicroTPI™ hand held turbidity meters

Portable meter for field applications. Comes complete with shock resistant, rugged and waterproof carrying case. Auto ranging from 0 to 1,100 NTU. Push button calibration. "TPW", White Light model; "TPI, Infrared model.



HF Microtol® OnLine turbidity meter

Uses leading edge technology and thirty years of optical measurement experience to provide the most reliable line of regulatory reporting turbidity instruments available.

Catalog Number	Type	Range (NTU)	Ultrasonic Autoclean	USEPA Method 180.1	ISO 7027
20053	#2 white light	0-1000		•	
20054	#2 infrared	0-1000			•
20055	#3 white light	0-100	•	•	
20056	#3 infrared	0-100	•		•
20063	#4 white light	0-1000	•	•	
20064	#4 infrared	0-1000	•		•

Accessories

Part Number	Description
19783	HF OnLine windows software for data collection and reporting.
19609	Remote display for an additional digital readout.
19953	Primetime™ primary calibration kit (0.02, 10 & 100 NTU)
19957	Primetime™ primary calibration kit (full range including 0.02, 10 & 1000 NTU)



Each dispenser has enough reagent for 100 tests or multi-packs for 400 or 1000 tests. No foil, pouches and no mess!

PPD-2 Chlorine DPD reagent dispenser

The patented HF Powder Pop® dispenser delivers a precise dose of DPD reagent directly to the sample with the push of a button. No foil pouches to tear open and no mess to leave behind.

Number	Test (Package includes dispenser and reagent)
10500	Free chlorine, 5 ml samples for 100 tests
10500C	Free chlorine, 5 ml samples for 1000 tests (5 x 200 tests)
10502	Total chlorine, 5 ml samples for 100 tests
10502C	Total chlorine, 5 ml samples for 1000 tests (5 x 200 tests)
10504	Free chlorine, 10 ml samples for 100 tests
10504C	Free chlorine, 10 ml samples for 1000 tests (5 x 200 tests)
10506	Total chlorine, 10 ml samples for 100 tests
10506C	Total chlorine, 10 ml samples for 1000 tests (5 x 200 tests)

Chlorine Pocket Photometer

Gives accurate readings from 0 to 6 ppm. When packaged with the PPD-2 Chlorine Powder Pop dispenser the Chlorine Pocket Photometer has everything needed to measure free or total chlorine in a rugged, convenient package.



#10478 Chlorine Pocket Photometer



Chlorine Micro Check Test Strips

An accurate, safe and inexpensive alternative to reagent chlorine testing. Bottle of fifty strips.

- #09940 Free chlorine.
- #09941 Total chlorine.

CLX® OnLine Chlorine Residual Monitor

An economical and low maintenance instrument for chemical treatment applications where continuous monitoring and control of residual Free or Total Chlorine levels are required. Ability to use a 4-20mA output to control feed pumps for automatic dosing. Housed in a sturdy, shatterproof case with easy access to all functions and reagents.

- Measures Free or Total Chlorine.
- Low operating cost.
- Simple operation.
- Auto ranging from 0 to 10 mg/L.
- Uses colorimetric DPD chemistry and micro processor based technology.



Part No. 20040

Flow-Pro® Pressure Gauges

Full line of stainless steel pressure gauges with brass and stainless fittings.



Side mount models (2-1/2" diameter)

Part Number	Type	PSI	KG	Fitting	Material (Body)	Material (Fittings)	Number Per Case
PG05L25	Glycerin Filled	0-75	0-5	1/4" MNPT	304 SS	Brass	1
PG07L25	Glycerin Filled	0-100	0-7	1/4" MNPT	304 SS	Brass	1
PG15L25	Glycerin Filled	0-200	0-15	1/4" MNPT	304 SS	Brass	1
PG20L25	Glycerin Filled	0-300	0-20	1/4" MNPT	304 SS	Brass	1

Back mount models (2-1/2" diameter)

Part Number	Type	PSI	KG	Fitting	Material (Body)	Material (Fittings)	Number Per Case
PG05B25	Glycerin Filled	0-75	0-5	1/4" MNPT	304 SS	Brass	1
PG07B25	Glycerin Filled	0-100	0-7	1/4" MNPT	304 SS	Brass	1
PG15B25	Glycerin Filled	0-200	0-15	1/4" MNPT	304 SS	Brass	1
PG20B25	Glycerin Filled	0-300	0-20	1/4" MNPT	304 SS	Brass	1

All stainless steel side mount models (2-1/2" diameter)

Part Number	Type	PSI	KG	Fitting	Material (Body)	Material (Fittings)	Number Per Case
PG05L25-SS	Glycerin Filled	0-75	0-5	1/4" MNPT	304 SS	304 SS	1
PG07L25-SS	Glycerin Filled	0-100	0-7	1/4" MNPT	304 SS	304 SS	1
PG15L25-SS	Glycerin Filled	0-200	0-15	1/4" MNPT	304 SS	304 SS	1
PG20L25-SS	Glycerin Filled	0-300	0-20	1/4" MNPT	304 SS	304 SS	1

All stainless steel back mount models (2-1/2" diameter)

Part Number	Type	PSI	KG	Fitting	Material (Body)	Material (Fittings)	Number Per Case
PG05B25-SS	Glycerin Filled	0-75	0-5	1/4" MNPT	304 SS	304 SS	1
PG07B25-SS	Glycerin Filled	0-100	0-7	1/4" MNPT	304 SS	304 SS	1
PG15B25-SS	Glycerin Filled	0-200	0-15	1/4" MNPT	304 SS	304 SS	1
PG20B25-SS	Glycerin Filled	0-300	0-20	1/4" MNPT	304 SS	304 SS	1

Flow Meters

Machined and molded bodies for pipe sizes up to 2".



Features & benefits

- Battery operated
- Sturdy ABS construction
- 6 digit LCD displays up to 4 decimal points
- Measures GPM
- Rated for pressures to 300 psi (20 bar)
- Rated for temperatures to 200°F (93°C)

In-line flow meters (with molded body)

Model Number	Pipe Size (MNPT)	Range (GPM)	Range (LPM)	Material	Max. Pressure	Max. Temp.
FPILDFM-38	3/8"	0.8 - 8	3 - 30	ABS	300 psi	200°F (93°C)
FPILDFM-50	1/2"	2 - 20	7 - 70	ABS	300 psi	200°F (93°C)
FPILDFM-75	3/4"	3 - 30	11 - 110	ABS	300 psi	200°F (93°C)
FPILDFM-100	1"	5 - 50	20 - 200	ABS	300 psi	200°F (93°C)



Features & benefits

- Machined body for added strength
- Sturdy polypropylene construction
- 6 digit LCD displays up to 4 decimal points
- Measures GPM
- Rated for pressures to 300 psi (20 bar)
- Rated for temperatures to 200°F (93°C)

In-line flow meters (with machined body)

Model Number	Pipe Size (MNPT)	Range (GPM)	Range (LPM)	Material Pressure	Max. Temp.	Max.
FPILDFM-150	1-1/2"	10 - 100	40 - 400	PP	300 psi	200°F (93°C)
FPILDFM-200	2"	15 - 150	60 - 600	PP	300 psi	200°F (93°C)

Flow-Pro® Ball Valves

High quality, attractively priced ball valves in stock for immediate shipment.



Flow-Pro white NSF certified PVC ball valves (solvent connection)

Part Number	Pipe Connection	Pipe Size	Material	No. Per Case
FP-PVCBV-50	Solvent	1/2"	PVC	100
FP-PVCBV-75	Solvent	3/4"	PVC	100
FP-PVCBV-100	Solvent	1"	PVC	100
FP-PVCBV-150	Solvent	1-1/2"	PVC	48
FP-PVCBV-200	Solvent	2"	PVC	24



Flow-Pro light grey NSF certified CPVC schedule 80 ball valves (solvent connection)

Part Number	Pipe Connection	Pipe Size	Material	No. Per Case
FP-CPVCBV-50	Solvent	1/2"	CPVC	100
FP-CPVCBV-75	Solvent	3/4"	CPVC	100
FP-CPVCBV-100	Solvent	1"	CPVC	100
FP-CPVCBV-150	Solvent	1-1/2"	CPVC	48
FP-CPVCBV-200	Solvent	2"	CPVC	24



Flow-Pro true union PVC ball valves (with both end connections)

Part Number	Pipe Connection	Pipe Size	Material	No. Per Case
FP-PVCUBV-50	Solvent/Threaded	1/2"	Grey PVC	48
FP-PVCUBV-75	Solvent/Threaded	3/4"	Grey PVC	36
FP-PVCUBV-100	Solvent/Threaded	1"	Grey PVC	24
FP-PVCUBV-150	Solvent/Threaded	1-1/2"	Grey PVC	24
FP-PVCUBV-200	Solvent/Threaded	2"	Grey PVC	12
FP-PVCUBV-300	Solvent/Threaded	3"	Grey PVC	6
FP-PVCUBV-400	Solvent/Threaded	4"	Grey PVC	1



Flow-Pro NSF certified grey PVC schedule 80 unions (solvent connection)

Part Number	Pipe Connection	Pipe Size	Material	No. Per Case
FP-PVCU-50	Solvent	1/2"	PVC	100
FP-PVCU-75	Solvent	3/4"	PVC	100
FP-PVCU-100	Solvent	1"	PVC	100
FP-PVCU-150	Solvent	1-1/2"	PVC	48
FP-PVCU-200	Solvent	2"	PVC	24



Flow-Pro NSF certified forged brass ball valves (full port / socket)

Part Number	Pipe Connection	Pipe Size	Material	No. Per Case
FP-BBVS-50	Socket	1/2"	Forged Brass	100
FP-BBVS-75	Socket	3/4"	Forged Brass	60
FP-BBVS-100	Socket	1"	Forged Brass	36



Flow-Pro forged brass ball valves (full port / threaded)

Part Number	Pipe Connection	Pipe Size	Material	No. Per Case
FP-BBVT-50	FNPT	1/2"	Forged Brass	100
FP-BBVT-75	FNPT	3/4"	Forged Brass	100
FP-BBVT-100	FNPT	1"	Forged Brass	50
FP-BBVT-150	FNPT	1.5"	Forged Brass	20
FP-BBVT-200	FNPT	2"	Forged Brass	20



Flow-Pro 316 stainless steel ball valves (two piece full port / threaded)

Part Number	Pipe Connection	Pipe Size	Material	No. Per Case
FP-SBV-50	FNPT	1/2"	316 SS	80
FP-SBV-75	FNPT	3/4"	316 SS	60
FP-SBV-100	FNPT	1"	316 SS	36
FP-SBV-150	FNPT	1-1/2"	316 SS	12
FP-SBV-200	FNPT	2"	316 SS	8
FP-SBV-300	FNPT	3"	316 SS	1



Flow-Pro in-line PVC check valves (solvent connections)

Part Number	Pipe Connection	Pipe Size	Material	No. Per Case
FP-PCV-50	Solvent	1/2"	PVC	120
FP-PCV-75	Solvent	3/4"	PVC	120
FP-PCV-100	Solvent	1"	PVC	80
FP-PCV-150	Solvent	1-1/2"	PVC	60
FP-PCV-200	Solvent	2"	PVC	40



Flow-Pro bronze pressure relief valves with threaded connections (adjustable 75 to 150 psi)

Part Number	Pipe Connection	Pipe Size	Material	No. Per Case
FP-PRV-50	FNPT	1/2"	Bronze	150
FP-PRV-75	FNPT	3/4"	Bronze	150

Flow-Pro dielectric couplings to prevent electrolysis (galvanized x galvanized)

Part Number	Pipe Connection	Pipe Size	Material	No. Per Case
FP-DFG-50	1/2"	1/2"	Galvanized	1
FP-DFG-75	3/4"	3/4"	Galvanized	1