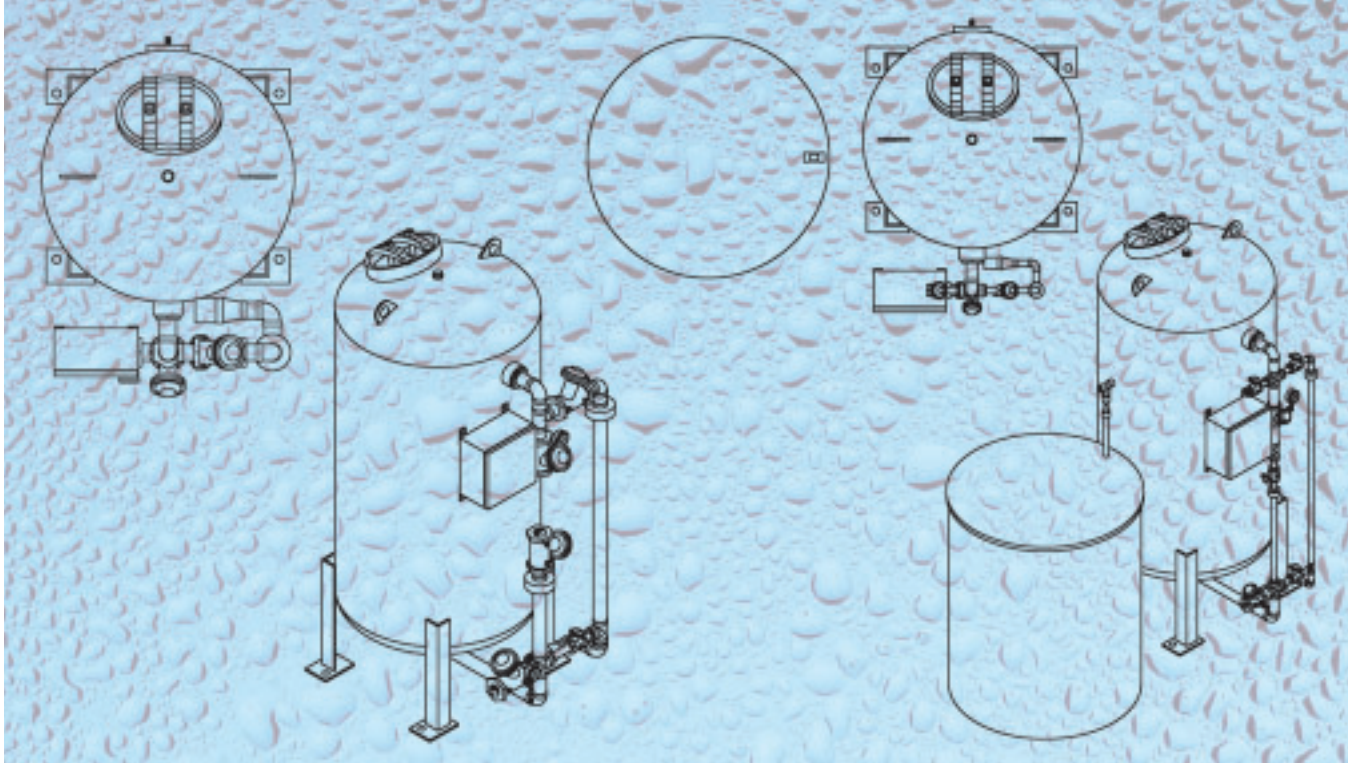


VP SERIES FILTERS & SOFTENERS: EFFICIENT, ECONOMICAL AND RELIABLE



THE EASY WAY TO PURIFY WATER

RELIABLE, SIMPLE DESIGN

FOR MAXIMUM PERFORMANCE

USFilter Value Packaged (VP) Series filters and softeners offer a low cost, reliable and efficient way to purify your water. Available in diameters from 20" to 72" and with flow rates up to 420 gallons per minute (gpm), these rugged, pre-engineered, pre-assembled units minimize installation and start-up costs. Whether you require boiler feed, process water or rinse water, the VP Series will meet your needs.

VP SERIES FEATURES MAKE THE DIFFERENCE

USFilter VP Series filters and softeners offer a wide range of features to ensure you of the highest quality, optimum performance and ease of operation.

- ◆ Simple design maximizes reliability and efficiency
- ◆ Pre-assembled construction minimizes start-up time and installation costs
- ◆ 100 psig vessel rating offers added strength and integrity
- ◆ Structural steel legs provide rigid support of vessel for safety
- ◆ Highly reliable backwash and regeneration controls
- ◆ Schedule 40 galvanized piping for long life and durability
- ◆ Optional durable, baked PVC internal and external coating extend vessel life
- ◆ Optional Schedule 80 PVC piping for enhanced corrosion-resistance or piping and process compatibility

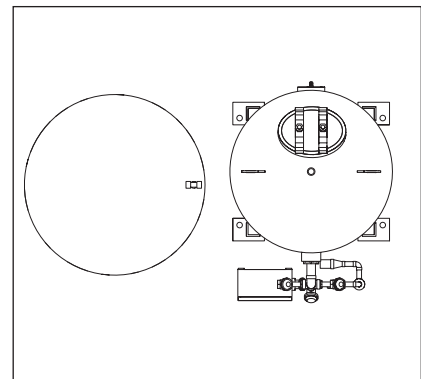
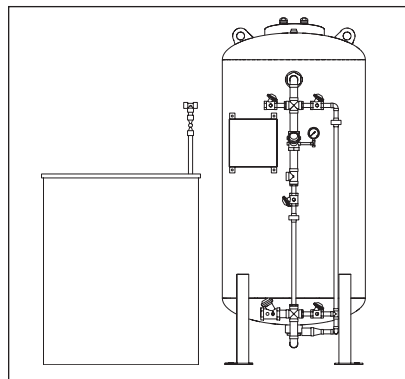
USFilter

VP SERIES FILTERS & SOFTENERS: PRE-ENGINEERED SOLUTIONS YOU CAN TRUST

"VALUE PACKAGED" FOR
ECONOMY & CONVENIENCE

VP Series filters and softeners were designed with your needs in mind and our pre-engineered options allow further tailoring to meet your specific application requirements. We'll work with you to create the solution to fit your requirements.

- ◆ Schedule 80 PVC piping for a leak-tight, corrosion-resistant design for long-term operation or piping and process compatibility.
- ◆ Baked PVC internal and external coating for long-term, maintenance-free operation and is superior to epoxy lining and paint.
- ◆ Separate source backwash on filters to permit the use of a secondary water source (other than the feedwater) for backwashing – particularly useful if the feedwater is high in suspended solids and/or the flow rate required for backwashing is not available from the feedwater source.
- ◆ ASME stamped pressure vessels offer an additional degree of safety in the vessel design. The standard ASME code option is a 100-psig rating.
- ◆ Skid mounting provides a structural steel open frame to distribute the weight of the vessel over a larger area. For duplex units, the skid is secured to both vessels, eliminating re-assembly of the interconnecting piping. The skid options consist of frames designed for seismic zone 2A.
- ◆ Depending upon your application, additional options are available.



Water softeners are supplied with a brine tank that holds enough salt to conduct at least three regenerations prior to refilling with salt.

TIME-PROVEN DESIGN FOR OPTIMUM PERFORMANCE

DESIGN PARAMETERS

Systems require customary utility connections (raw water inlet, product water outlet, drain and power), media loading and initial regeneration for immediate on-line service.

OPERATING LIMITS

Maximum Operating Pressure: 100 psig
Maximum Operating Temperature: 120°F

GENERAL SPECIFICATIONS

Pressure Vessels: Carbon steel
Sandblasted exterior steel surfaces
with a 4 to 6-mil epoxy coating
Sandblasted interior surfaces coated with
a 8 to 12-mil epoxy lining

Piping: Schedule 40 galvanized with threaded
and flanged fittings

Automatic Valves: Cast iron angle pattern globe

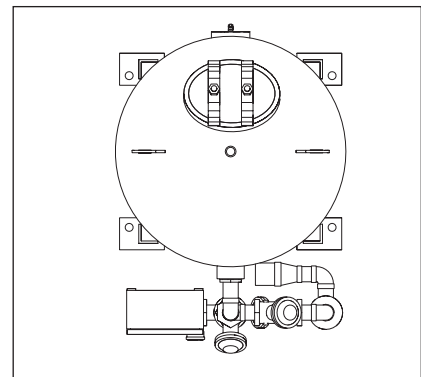
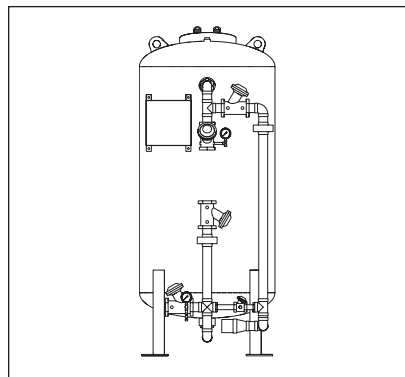
Resins/Media: Strong-acid cation resin for the softeners
30 – 40 garnet, #20 quartz and anthracite for
the multimedia filters
Bituminous carbon media for the carbon filters

Instruments: Inlet and outlet pressure indicators on filters
Inlet pressure indicator on softeners

Controls: Electro-mechanical contained in a
NEMA 1 enclosure

Regeneration: Educted NaCl for the softeners

See ordering information for available options.



Filters can be supplied with a separate connection for the backwash water as a standard option.

THERE'S A VP FOR EVERY FACILITY

Softeners: Used to remove calcium and magnesium hardness from water.

Model Number	① "Good" (gpm)	② "Better" (gpm)	③ "Best" (gpm)	④ Capacity (kgr)	Vessel Dia. x SS	Pipe Size	⑤ Overall Dimensions (L x D x H)	Shipping Weight (approx. lbs.)
VPS_020	35	25	15	150	20" x 48"	1½"	57" x 26" x 66"	1,150
VPS_024	50	35	20	210	24" x 48"	1½"	57" x 30" x 68"	1,350
VPS_030	70	50	30	300	30" x 48"	2"	66" x 38" x 71"	1,900
VPS_630	105	75	45	450	30" x 60"	2½"	66" x 40" x 83"	2,400
VPS_636	140	100	60	600	36" x 60"	2½"	102" x 46" x 87"	3,100
VPS_736	175	125	75	750	36" x 72"	3"	102" x 48" x 99"	3,600
VPS_742	245	175	105	900	42" x 72"	3"	111" x 54" x 102"	4,850
VPS_748	280	200	120	1,200	48" x 72"	4"	111" x 64" x 105"	5,900
VPS_754	350	250	150	1,500	54" x 72"	4"	118" x 70" x 106"	7,200
VPS_760	420	300	180	1,800	60" x 72"	4"	124" x 76" x 109"	8,500
VPS_766	N/A	400	240	2,400	66" x 72"	4"	145" x 82" x 111"	10,500
VPS_772	N/A	N/A	300	3,000	72" x 72"	4"	151" x 88" x 112"	12,900

① Based on 7 gpm/ft³. ② Based on 5 gpm/ft³. ③ Based on 3 gpm/ft³. ④ Based on 15 lbs. NaCl/ft³, actual capacity will depend on feedwater quality and other operating conditions. ⑤ Equipment dimensions include only the brine tank, but do not include any operating space requirements. For selecting the proper model for your specific application, contact your local USFilter sales office.

Carbon Filters: Used to remove chlorine and chloramines and reduce organics from water.

Model Number	⑥ "Good" (gpm)	⑦ "Better" (gpm)	⑧ "Best" (gpm)	Carbon Volume (ft ³)	Vessel Dia. x SS	Pipe Size	⑨ Overall Dimensions (L x D x H)	Shipping Weight (approx. lbs.)
VPC_020	20	10	5	5	20" x 48"	1"	30" x 26" x 66"	800
VPC_024	30	15	8	8	24" x 48"	1½"	30" x 30" x 68"	1,000
VPC_030	50	25	12	12	30" x 48"	1½"	33" x 38" x 71"	1,380
VPC_636	75	35	18	18	36" x 60"	2"	39" x 46" x 87"	2,190
VPC_642	95	50	24	24	42" x 60"	2"	45" x 54" x 88"	3,060
VPC_648	125	65	32	32	48" x 60"	2½"	51" x 64" x 96"	4,040
VPC_654	160	80	40	40	54" x 60"	3"	57" x 70" x 99"	5,400
VPC_660	200	100	50	50	60" x 60"	3"	63" x 76" x 102"	6,890
VPC_666	240	120	60	60	66" x 60"	3"	69" x 82" x 104"	8,380
VPC_672	N/A	150	75	75	72" x 60"	3"	75" x 88" x 105"	10,010

⑥ Based on 4 gpm/ft³. ⑦ Based on 2 gpm/ft³. ⑧ Based on 1 gpm/ft³. ⑨ Equipment dimensions only and do not include any operating space requirements. For selecting the proper model for your specific application, contact your local USFilter sales office.

Multimedia Filters: Used to remove suspended solids from water.

Model Number	⑩ "Good" (gpm)	⑪ "Better" (gpm)	⑫ "Best" (gpm)	Vessel Dia. x SS	Pipe Size	⑬ Overall Dimensions (L x D x H)	Shipping Weight (approx. lbs.)
VPF_020	35	25	15	20" x 48"	1½"	30" x 26" x 66"	1,190
VPF_024	50	40	25	24" x 48"	1½"	30" x 30" x 68"	1,530
VPF_030	70	60	40	30" x 48"	2"	33" x 38" x 71"	2,240
VPF_636	105	85	55	36" x 60"	2½"	39" x 46" x 87"	3,410
VPF_642	140	115	75	42" x 60"	2½"	45" x 54" x 88"	4,720
VPF_648	185	150	100	48" x 60"	3"	51" x 64" x 96"	6,200
VPF_654	235	190	125	54" x 60"	3"	57" x 70" x 99"	8,150
VPF_660	290	230	150	60" x 60"	4"	63" x 76" x 102"	10,260
VPF_666	350	280	190	66" x 60"	4"	69" x 82" x 104"	12,470
VPF_672	420	335	225	72" x 60"	4"	75" x 88" x 105"	14,780

⑩ Based on 15 gpm/ft². ⑪ Based on 12 gpm/ft². ⑫ Based on 8 gpm/ft². ⑬ Equipment dimensions only and do not include operating space requirements. For selecting the proper model for your specific application, contact your local USFilter sales office.

Note: These specifications are intended for general planning purposes as we continually enhance these products for greater performance and ease of operation. Exact specifications will be provided in our detailed proposal.

YOUR LOW COST SOLUTION

	VP	C	D	660	X	X	X	T	A	E	X
Technology											
C	Carbon Filter										
F	Multimedia Filter										
S	Softener										
Configuration											
S	Simplex					D	Duplex				
Vessel Size											
Filters						Softeners					
020	20" x 48"					020	20" x 48"				
024	24" x 48"					024	24" x 48"				
030	30" x 48"					030	30" x 48"				
636	36" x 60"					630	30" x 60"				
642	42" x 60"					630	30" x 60"				
648	48" x 60"					636	36" x 60"				
654	54" x 60"					736	36" x 72"				
660	60" x 60"					742	42" x 72"				
666	66" x 60"					748	48" x 72"				
672	72" x 60"					754	54" x 72"				
						760	60" x 72"				
						766	66" x 72"				
						772	72" x 72"				
Vessel Rating											
X	100 psig non-code					A	100 psig ASME code				
Vessel Support											
X	Legs, seismic zone 2A					Y	Skid, seismic zone 2A				
Coatings											
X	Epoxy interior, exterior & skid					B	Baked PVC interior, exterior & skid				
Controls											
T	Time clock initiated										
D	Differential pressure switch initiated (filters only)										
Q	Volume initiated (softeners only)										
Controls Rating											
A	NEMA 1 (standard on time clock & differential pressure initiated filters)										
C	NEMA 4X (standard on volume initiated softeners)										
Piping—Standard pipe sizes are based on the vessel's diameter (see specification charts). For technical assistance, contact USFilter.											
A	1" galvanized		D	2½" galvanized		J	1" PVC		M	2½" PVC	
B	1½" galvanized		E	3" galvanized		K	1½" PVC		N	3" PVC	
C	2" galvanized		F	4" galvanized		L	2" PVC		O	4" PVC	
Options											
X	None					U	Separate source backwash (filters only)				

SIMPLE, RELIABLE, EASY TO INSTALL & MAINTAIN

CONTROLS FOR RELIABLE OPERATION

Whichever VP Series filter or softener you choose, you are assured of a reliable source of high-quality water to meet your application needs, today and throughout the life of the system.

- ◆ Electro-mechanical and solid-state controls ensure extremely reliable operation
- ◆ Stager pilot valves ensure smooth automatic operation and prevent water hammer
- ◆ Flow totalizing meter assures consistent water quality and performance of the softeners
- ◆ Differential pressure switch on the filters ensures backwash when required
- ◆ Single enclosure for ease of maintenance and operation
- ◆ Adjustment of factory pre-set step times is easily accomplished
- ◆ NEMA rated enclosure protects electrical components from environmental conditions

DUPLEX OPERATION FOR A CONTINUOUS SUPPLY OF WATER

For an uninterrupted, continuous supply of water, VP Series filters and softeners are available in a duplex configuration. Duplex softeners operate in an alternating fashion where one softener is in the service mode, while the other is in regeneration or standby mode

and interlocked to prevent simultaneous regeneration. Duplex filters operate in a parallel fashion where both filters are in the service mode and are interlocked, so only one filter is in the backwash mode at any time.



The solid-state controller (left) is fully programmable and provides the ability to fine-tune operations to meet your application requirements. The electro-mechanical controller (right) is initiated by time clock or impulse controls. The cycle times are programmable to accommodate a wide range of applications.

THE USFILTER ADVANTAGE



USFilter's dedicated manufacturing resources are used to build the smallest, pre-engineered systems to the largest custom engineered systems.

Some of the advantages of working with USFilter include:

Quick delivery and factory direct –

We meet some of the most stringent delivery schedules in the industry and we supply systems that are manufactured in our facilities to ensure a system that is complete and ready for startup when it is delivered to your facility.

Safety – Safety is the number one priority in our facilities and our systems help ensure the safety of your workers, as well. For example, our manways are larger than other suppliers, so your workers can more safely enter and exit our systems.

Expertise and system integration –

USFilter offers more than just filters and softeners. Our systems are based on decades of experience and have been

time-tested and proven in thousands of installations. We can supply an entire fully integrated system that you require for your process.

Local sales and service centers –

With the broadest network available in the industry, USFilter service and sales centers provide easy access to professional, local support. Our network of technically trained field and sales personnel ensure you receive immediate and reliable technical assistance. We can assist you with troubleshooting, preventative maintenance contracts, emergency maintenance on any manufacturer's system, new system installations and upgrades, water sampling and analysis and all the other services you require when and where you need them.

VP SERIES AND BEYOND



We offer a complete line of reverse osmosis (left), deionization (middle) and CDI® systems (right).

With the broadest base of equipment and accessories in the industry, USFilter can supply all of your water treatment needs. Some of the pre-engineered and custom engineered equipment and accessories we offer include:

Whatever your requirements, we can engineer a fully integrated system for you.

For a catalog of USFilter water treatment equipment and accessories, call and ask for our "Water Purification Products and Services" catalog.

- ◆ Carbon towers and purifiers
- ◆ CDI continuous electrodeionization systems
- ◆ Clarifiers
- ◆ Dealkalizers and degasifiers
- ◆ Deionizers (two bed and mixed bed models)
- ◆ Gravity, greensand and multimedia filters
- ◆ Microfiltration systems
- ◆ Mobile treatment systems
- ◆ Organic scavengers
- ◆ Packed bed systems (deionizers, softeners, filters and dealkalizers)
- ◆ Precipitators
- ◆ Reverse osmosis systems
- ◆ Service deionization (SDI) units
- ◆ Softeners
- ◆ Ultrafiltration systems
- ◆ Cartridge filters
- ◆ Chemical feeders
- ◆ Clean-in-place skids
- ◆ Controls and instruments
- ◆ Meters
- ◆ Pumps
- ◆ Regulators
- ◆ Resin and media
- ◆ Sampling devices
- ◆ Spare and replacement parts
- ◆ Storage tanks
- ◆ Test kits and analyzers
- ◆ UV lights
- ◆ Valves

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