

SERVA-PAK™

Extended Surface

High Capacity

Bag Filter


Purolator®
Air Filtration
a CLARCOR company

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Extended Surface High Capacity Bag Filter

Purolator's SERVA-PAK is an extended surface high capacity air filter composed of individual dust holding pockets assembled in a metal support frame. A special multi-row stitching process performed on layers of ultra-fine glass bonded to a non-woven backing produces uniform spacing between each pocket, and provides optimum media performance while extending filter life.

Each pocket is bonded and sealed to its own J-channel support frame, which is mechanically fastened to a heavy duty, corrosion resistant, galvanized enclosure frame. This design creates a rigid, air tight construction with a minimum of 85% open face area.

The SERVA-PAK is available in a variety of filter efficiencies, face sizes, depth and capacity combinations to accommodate most system requirements: limited fan static, high concentration of contaminants, limited filter bank face area, etc. Appropriate product selection will maximize performance. (Refer to the performance data section for full listing of sizes and efficiency data.)

Fire-Resistant Construction

All SERVA-PAK filters are either Class 1 or Class 2 listed by Underwriters Laboratories, Inc. Testing is performed in accordance with ASHRAE 52.1 and 52.2 and UL Standard 900.

Header Frame Construction

The corrosion resistant, galvanized header frame is designed with interlocking mitered corners to create rigid internal support. To maximize SERVA-PAK performance the header is constructed to prevent air leakage by eliminating metal-to-metal contact points between individual components. During assembly, each fiberglass-to-metal contact point is glued to prevent air bypass between mechanically fastened pockets. A unique process of fastening adjacent J-channel frames prevents media damage during assembly and shipment.

Four Standard Sizes

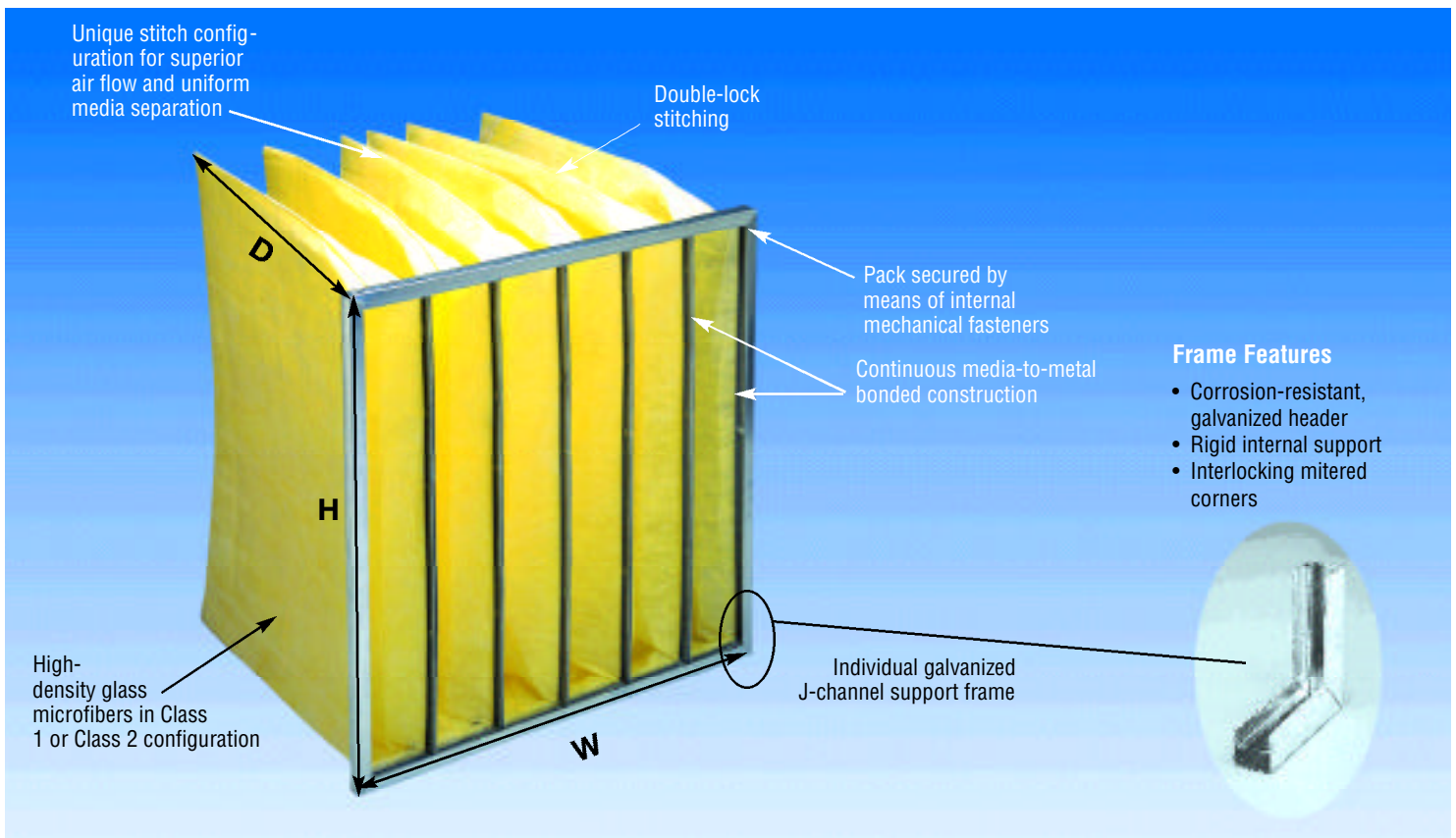
The SERVA-PAK filter is offered in four standard filter face sizes, making it adaptable to a variety of frame and track systems. These nominal filter sizes are: 12 x 24", 20 x 20", 20 x 24", and 24 x 24".

Multiple Capacities and Depths

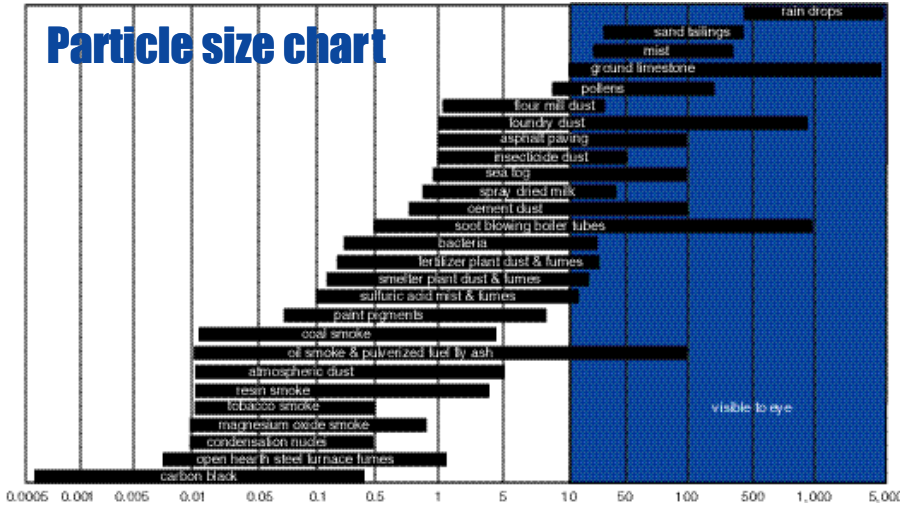
The variety of SERVA-PAK filter sizes and efficiency options allows you to match the proper filter with virtually any application. With 24 depth and capacity combinations to choose from, most system conditions, including limited fan static, high concentration of contaminants, and limited filter bank face area, can be accommodated.

Frame Features

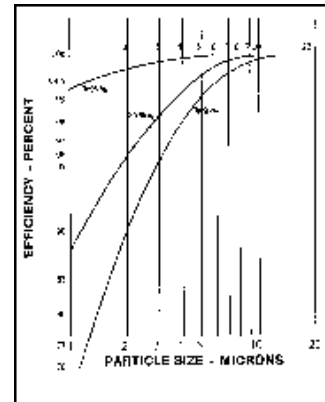
The SERVA-PAK header is manufactured from corrosion-resistant, galvanized metal. The frame features rigid internal support for the filter, and interlocking mitered corners.



Particle size chart



Efficiency curve



Suggested Product Specifications

Air filters shall be replaceable, factory assembled filters consisting of multiple dust holding pockets assembled in a corrosion-resistant galvanized steel frame.

Filter media shall be of high density ultra-fine glass microfiber formed into a .25" thick filter blanket and reinforced by an integral scrim backing. The filter shall have an average efficiency of ___% and an average arrestance of not less than ___% when tested in accordance with ASHRAE std. 52.1-1992.

A multi-row stitching process shall produce individual self-supporting dust holding pockets to achieve uniform media spacing thereby extending filter life and optimizing performance. The multiple rows of stitching shall be sealed with a hot-melt adhesive. Dust holding pockets shall be bonded to their own metal support frame and assembled into a heavy gauge galvanized steel enclosure frame. Side-by-side pockets shall be mechanically fastened to the adjacent frames using a non-piercing clinch. The open area of the filter shall be greater than 85% of the total face area.

The filter shall be rated Class 2 (or 1) by Underwriters Laboratories, Inc. Each filter shall have a rating of _____ CFM at an initial resistance not to exceed _____ inches w.g. Each filter shall have no less than _____ sq. ft. of media area.

Performance Data: SERVA-PAK 40

Nominal size WxHxD	# of pockets	Media area sq. ft.	model no.	CFM capacity			Resist. in. W.G.		
				low	med	high	low	med	high
24x24x12	6	27	SP40G6 4412	1000	1500	2000	.06	.10	.16
20x24x12	5	24	SP40G5 0412	850	1250	1600	.08	.10	.15
20x20x12	5	22	SP40G5 0012	775	1000	1500	.07	.11	.19
12x24x12	3	13	SP40G3 2412	500	750	1000	.07	.11	.18
24x24x21	6	46	SP40G6 4421	2000	2500	3000	.14	.20	.28
20x24x21	5	41	SP40G5 0421	1600	2000	2500	.13	.20	.28
20x20x21	5	39	SP40G5 0021	1500	1750	2000	.17	.22	.28
12x24x21	3	23	SP40G3 2421	1000	1250	1500	.14	.22	.32

Media efficiency

Series Rating	Media Color	Average Efficiency	Thickness	Average Arrestance	MERV
40%	yellow	35-40%	.15	95%	--
50%	tan	45-50%	.25	96%	--
65%	orange	60-65%	.25	97%	11
85%	red	80-85%	.25	98%	12
95%	yellow	90-95%	.25	99%	15

Performance Data: SERVA-PAK 50

Nominal size WxHxD	# of pockets	Media area sq. ft.	model no.	CFM capacity			Resist. in. W.G.		
				low	med	high	low	med	high
24x24x10	6	22	SP5006 4410	800	1200	1600	.08	.12	.18
20x24x10	5	18	SP5005 0410	650	1000	1250	.08	.14	.18
20x20x10	5	15	SP5005 0010	575	900	1050	.08	.14	.16
12x24x10	3	10	SP5003 2410	400	600	800	.08	.13	.20
24x24x15	6	33	SP5006 4415	1000	1500	2000	.06	.10	.16
20x24x15	5	28	SP5005 0415	750	1250	1500	.06	.13	.18
20x20x15	5	24	SP5005 0015	625	1150	1300	.06	.13	.16
12x24x15	3	16	SP5003 2415	500	750	1000	.06	.14	2.0
24x24x18	6	40	SP5006 4418	1500	2000	2500	.10	.16	.24
20x24x18	5	33	SP5005 0418	1250	1600	2000	.10	.16	.24
20x20x18	5	28	SP5005 0018	1150	1500	1750	.12	.17	.22
12x24x18	3	20	SP5003 2418	750	1000	1250	.11	.18	.27
24x24x22	6	49	SP5006 4422	2000	2500	3000	.17	.24	.34
20x24x22	5	41	SP5005 0422	1600	2000	2500	.16	.24	.34
20x20x22	5	35	SP5005 0022	1500	1750	2000	.17	.22	.28
12x24x22	3	25	SP5003 2422	1000	1250	1500	.18	.26	.37

NOTES:

- Filter face sizes: Nominal 24" x 24" = 23-5/16" x 23-5/16" Actual
Nominal 20" x 24" = 19-5/16" x 23-5/16" Actual
Nominal 20" x 20" = 19-5/16" x 19-5/16" Actual
Nominal 12" x 24" = 11-5/16" x 23-5/16" Actual.
- All performance data based on ASHRAE standard 52.1.
Performance tolerances conform to section 7.4 of ARI Standard 850-93.
- Filters operate satisfactorily in the CFM range shown.
- Use the suffix "CI" after model number when specifying U.L. Class 1.

Performance Data: SERVA-PAK 65/85/95

Nominal size WxHxD	# of pockets	Media area sq. ft.	CFM capacity			65%			Resist. in. W.G.			85%			Resist. in. W.G.			95%			Resist. in. W.G.		
			low	med	high	model no.	low	med	high	model no.	low	med	high	model no.	low	med	high	model no.	low	med	high		
24x24x15	12	61	1000	1500	2000	SP6512 4415	.16	.32	.54	SP8512 4415	.22	.39	.61	SP9512 4415	.38	.69	.82						
20x24x15	10	51	800	1250	1600	SP6510 0415	.08	.16	.25	SP8510 0415	.18	.31	.44	SP9510 0415	.33	.55	.75						
12x24x15	6	30	500	750	1000	SP6506 2415	.14	.28	.38	SP8506 2415	.20	.28	.44	SP9506 2415	.43	.54	.80						
24x24x36	10	120	2000	2500	-	SP6510 4436	.19	.30	-	SP8510 4436	.32	.46	-	SP9510 4436	.46	.67	-						
20x24x36	8	96	1600	2000	-	SP6508 0436	.19	.28	-	SP8508 0436	.29	.41	-	SP9508 0436	.33	.46	-						
12x24x36	5	60	1000	1250	-	SP6505 2436	.22	.32	-	SP8505 2436	.34	.50	-	SP9505 2436	.48	.70	-						
24x24x30	10	99	1500	2000	2500	SP6510 4430	.12	.19	.29	SP8510 4430	.20	.34	.50	SP9510 4430	.32	.50	.70						
20x24x30	8	79	1200	1600	2000	SP6508 0430	.11	.18	.26	SP8508 0430	.16	.24	.34	SP9508 0430	.32	.47	.63						
12x24x30	5	50	750	1000	1250	SP6505 2430	.13	.21	.32	SP8505 2430	.24	.37	.54	SP9505 2430	.34	.50	.70						
24x24x22	10	76	1000	1500	2000	SP6510 4422	.06	.12	.20	SP8510 4422	.14	.22	.38	SP9510 4422	.25	.40	.58						
20x24x22	8	61	800	1200	1600	SP6508 0422	.06	.10	.18	SP8508 0422	.13	.21	.31	SP9508 0422	.24	.36	.51						
12x24x22	5	38	500	750	1000	SP6505 2422	.09	.14	.25	SP8505 2422	.15	.26	.42	SP9505 2422	.33	.38	.52						
24x24x37	9	117	2000	2500	-	SP6509 4437	.19	.30	-	SP8509 4437	.30	.44	-	SP9509 4437	.48	.68	-						
24x24x30	9	87	1500	2000	2500	SP6509 4430	.12	.20	.31	SP8509 4430	.24	.37	.53	SP9509 4430	.34	.52	.73						
24x24x22	9	69	1000	1500	2000	SP6509 4422	.07	.14	.22	SP8509 4422	.16	.28	.42	SP9509 4422	.28	.45	.62						
24x24x36	8	100	1500	2000	2500	SP6508 4436	.12	.20	.30	SP8508 4436	.19	.30	.42	SP9508 4436	.30	.45	.62						
20x24x36	6	75	1200	1600	2000	SP6506 0436	.09	.14	.21	SP8506 0436	.15	.22	.31	SP9506 0436	.30	.40	.54						
12x24x36	4	50	750	1000	1250	SP6504 2436	.14	.22	.33	SP8504 2436	.20	.31	.44	SP9504 2436	.29	.43	.60						
24x24x30	8	84	1500	2000	2500	SP6508 4430	.12	.20	.30	SP8508 4430	.22	.34	.50	SP9508 4430	.34	.50	.65						
20x24x30	6	63	1200	1600	2000	SP6506 0430	.09	.15	.22	SP8506 0430	.19	.28	.38	SP9506 0430	.27	.39	.51						
12x24x30	4	42	750	1000	1250	SP6504 2430	.13	.22	.32	SP8504 2430	.21	.33	.46	SP9504 2430	.42	.61	.83						
24x24x22	8	62	1000	1500	2000	SP6508 4422	.07	.13	.21	SP8508 4422	.16	.27	.40	SP9508 4422	.30	.45	.64						
20x24x22	6	47	800	1200	1600	SP6506 0422	.05	.09	.15	SP8506 0422	.16	.25	.36	SP9506 0422	.29	.44	.62						
12x24x22	4	31	500	750	1000	SP6504 2422	-	.14	.22	SP8504 2422	.16	.28	.40	SP9504 2422	.29	.46	.64						
24x24x37	7	94	1500	2000	2500	SP6507 4437	.11	.20	.30	SP8507 4437	.18	.28	.40	SP9507 4437	.30	.44	.60						
24x24x30	7	70	1500	2000	2500	SP6507 4430	.11	.19	.28	SP8507 4430	.21	.31	.44	SP9507 4430	.31	.45	.60						
24x24x22	7	55	1000	1500	2000	SP6507 4422	.06	.12	.19	SP8507 4422	.18	.30	.44	SP9507 4422	.32	.50	.71						
24x24x36	6	78	-	1500	2000	SP6506 4436	-	.11	.20	SP8506 4436	-	.18	.28	SP9506 4436	-	.34	.48						
20x24x36	5	65	-	1200	1600	SP6505 0436	-	.12	.19	SP8505 0436	-	.18	.28	SP9505 0436	-	.34	.48						
12x24x36	3	39	-	750	1000	SP6503 2436	-	.14	.24	SP8503 2436	-	.20	.32	SP9503 2436	-	.36	.55						
20x20x36	5	55	-	1200	1600	SP6505 0036	-	.13	.20	SP8505 0036	-	.24	.35	SP9505 0036	-	.38	.55						
24x24x30	6	65	-	1500	2000	SP6506 4430	-	.11	.18	SP8506 4430	-	.24	.36	SP9506 4430	-	.33	.47						
20x24x30	5	54	-	1200	1600	SP6505 0430	-	.11	.18	SP8505 0430	-	.22	.32	SP9505 0430	-	.41	.57						
12x24x30	3	33	-	750	1000	SP6503 2430	-	.12	.18	SP8503 2430	-	.22	.33	SP9503 2430	-	.34	.50						
20x20x30	5	45	-	1200	1600	SP6505 0030	-	.14	.24	SP8505 0030	-	.28	.40	SP9505 0030	-	.48	.66						
24x24x22	6	48	1000	1250	1500	SP6506 4422	.07	.10	.13	SP8506 4422	.21	.26	.34	SP9506 4422	.36	.46	.56						
20x24x22	5	40	750	1000	1250	SP6505 0422	.06	.10	.13	SP8505 0422	.18	.24	.31	SP9505 0422	.27	.40	.49						
12x24x22	3	24	500	625	750	SP6503 2422	.07	.10	.14	SP8503 2422	.20	.26	.32	SP9503 2422	.36	.46	.57						
20x20x22	5	34	750	1000	1250	SP6505 0022	.08	.12	.17	SP8505 0022	.21	.30	.39	SP9505 0022	.36	.52	.66						

To calculate Gross media required use the following formula:

Gross media area (sq. foot.) = {2 x [(# of pockets) x (pocket width*) x (pocket depth)]} ÷ 144

Example: SP95084422 = {2 x [(8 x 25 x 22)]} ÷ 144 = 61.1 Square feet

*Pocket widths: 6- or 7-pocket = 26"; 8- or 9-pocket = 25"; 10-pocket=24.75"; 12-pocket=24"

Nominal Size W x H	Actual Size W x H
24" x 24"	23-5/16" x 23-5/16"
20" x 24"	19-5/16" x 23 5/16"
20" x 20"	19-5/16" x 19-5/16"
12" x 24"	11-5/16" x 23-5/16"

Nominal and Actual Depths are 11", 19", 22", 26", and 30"



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