

# Accordion Style Air Intake Filters

Series A10, A30, A40, A50 - Enameled Carbon Steel

Series A12, A32, A42, A52 - 304 Stainless Steel



For more information contact :

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See <http://www.sparksfilters.com> for more options.

Superior Performance  
In Handling The Pulse  
Flow of Reciprocating  
Compressors



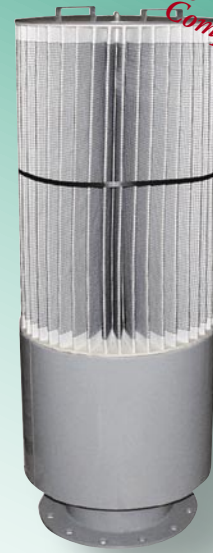
Series A10  
Filter W/Weather Hood



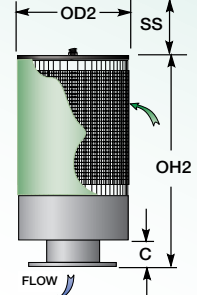
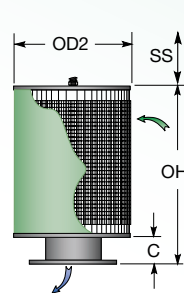
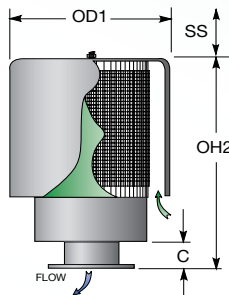
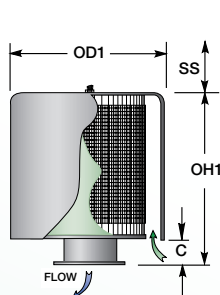
Series A30  
Filter Silencer W/Weather Hood



Series A40  
Filter W/Top



Series A50  
Filter Silencer W/Top



- Intake Air Flows to 6,700 CFM
- Low  $\Delta P \leq 3"$  W.C.
- 304SS Throat Safety Cages Std.
- Enameled Steel Construction

Series A10, A30, A40, & A50 air intake filters offer time honored protection for compressors, blowers, turbines, engines, and other air handling equipment. They are fabricated from heavy gauge enameled steel. Weather hoods on models A10 & A30 reject rain and snow. Any standard models can be modified at your request to more exactly fit your needs.

• Connection Sizes 4" to 30"

Male NPT (MT) or flat face flanges (FF) are std. Flanges match diameter & drilling for 150# ANSI standard. Specify optional right angle base (AF) for side mounts, (FT) for female NPT, (BE) for bevel or (PE) for square cut that match nominal pipe ODs, or (TE) for square cut that match actual tube ODs. Increased or decreased connections sizes are also optional on any model.

• Accordion Elements w/Prefilter

These washable pleated textile media elements are rugged performers. They have very high dirt holding capacity and high efficiency. In each unit, a single accordion filter element is placed over the housing's fixed perforated center tube. The "accordion" element is cinched in place with a supplied retaining strap (not shown), and is then wrapped with a 90µ prefilter blanket (not shown). Permanent housing gaskets (not shown) seal each end of the filter element.



A\_\_ - 0105 - FF - 060 \*Sparks Filter Catalog Numbers.  
 Connection Size: Std. outlets allow for min.  $\Delta P$ . Smaller connections reduce flow. Change the last three digits, ie: 6" = 060, 22" = 220, 3 1/2" = 035, etc.  
 Connection Type: MT = Male NPT, FF = Plate Flange, others available.  
 Model Designation: See Specifications below.  
 Series Designation: Designate  
 A10 for enameled steel filter with weather hood  
 A12 for 304SS filter w/weather hood  
 A30 for enameled steel filter silencer with weather hood  
 A32 for 304SS filter silencer w/weather hood  
 A40 for enameled steel filter with top only (indoor use)  
 A42 for 304SS filter with top only (indoor use)  
 A50 for enameled steel filter silencer with top only (indoor use)  
 A52 for 304SS filter silencer with top only (indoor use)

See Chart above to fill in the A\_\_ Series Designation, or to change the connection type or size.

*Housing Model No. (Enter the 4 opt. series digits, see above)	Typical CFM	Standard Outlet		Opt. Outlet Size, in.	Dimensions, in.					Approx Wgt Lbs.				Filter Element Number	
		Size	Type		OH1	OH2	OD1	OD2	C	Service Space	Series A10-	Series A30-	Series A40-		Series A50-
A__ -0008-MT-040	185	4"	MPT	5,6	13	17	10½	8½	3	9	20	40	15	35	324-4603WK5
A__ -0085-MT-040	280	4"	MPT	5,6	17	23	10½	8½	3	13	30	50	20	40	324-4606WK5
A__ -0105-FF-060	420	6"	FLG	8	20½	28	14½	10½	3	16½	40	65	30	55	324-4604WK5
A__ -0125-FF-080	580	8"	FLG	10	24	33	16½	12½	4	19	55	90	40	75	324-4610WK5
A__ -0145-FF-100	800	10"	FLG	12	27	37½	18½	14½	4	22	70	110	50	90	324-4601WK5
A__ -0018-FF-100	1085	10"	FLG	12,14,16	24	33	24½	18½	4	19	100	150	80	130	324-4609WK5
A__ -0185-FF-100	1630	10"	FLG	12,14,16	33	46½	24½	18½	4	28	120	180	90	150	324-4607WK5
A__ -0022-FF-140	1890	14"	FLG	16,18,20	40	51	32½	22½	6	23	150	210	115	175	324-4602WK5
A__ -0225-FF-140	2835	14"	FLG	16,18,20	41	57½	32½	22½	6	34	200	320	150	270	324-4615WK5
A__ -0245-FF-140	3500	14"	FLG	16,18,20,22	43	61	36½	24½	6	37	300	380	240	320	324-4616WK5
A__ -0285-FF-200	4780	20"	FLG	22,24,26	47	66½	42	28½	6	40	400	520	330	450	324-4614WK5
A__ -0325-FF-240	5700	24"	FLG	26,30	47	66½	47	32½	6	40	450	690	360	600	324-4617WK5
A__ -0365-FF-260	6650	26"	FLG	30	47	66½	51½	36½	6	40	470	760	370	660	324-4618WK5



<- Filter element has no center core and is "stretched" into place over fixed core in housing.



<- Housing has fixed 58% open area perforated center tube to support filter element. (Housing gaskets, cinch strap, & prefilter wrap not shown)



# Air Intake Filter Choices

Model Considerations, Air Flow Sizing, Connection Style Choices, Plate Flange Sizing

For more information contact :

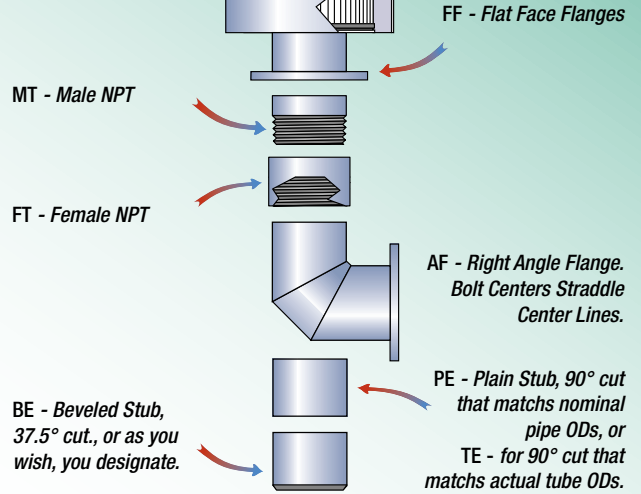
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Sparksfilters are available in a wide selection of inlet and outlet sizes and configurations in both enamel finished carbon steel, 304SS, and 316SS. Atmospheric air intake series B10, B12, and B70 with weather hoods can be mounted directly, or piped from a roof top installation to equipment below. In sheltered installations, hoodless air intake series B50 and B52 with exposed filter elements make inspection or pre-filter cleaning a breeze. To silence excess noise at the equipment's inlet, chamber silenced series C10 & C12, or tube silenced series D10 & D12 can cut noise in half. In-line filters E20, E22, & Side Arm Housings F20, & F22 permit installation anywhere between the inlet source and equipment being served. They're perfect for indoor placement with exterior draws, eliminating the need to climb onto the roof. Models with bolt seal closures serve internal pressures to 5 psid (opt. greater) in air or gas services. The H20, H22 exhaust series can stop most mist and smoke in its tracks, without the  $\Delta P$  penalty loss of older designs. Their revolutionary radial fin reverse flow design makes it happen. An exclusive removable 304SS perforated steel safety cage guards the housing's throat to eliminate the heart attacks when you drop your hat or the wing nut during change out of the filter element. This cage has been sized with excess open area to avoid pressure loss. If you've ever searched for the wing nut when changing the air filter on your auto, you know first hand just how important a throat guard can be. Standard models have male NPT (MT) or flat face flange (FF) connections. Flanges match the diameter & drilling for 150# ANSI standard. Select optional right angle base (AF) for side mounts, female NPT (FT), bevel (BV) or square cut stub necks (PE) where you wish to weld in place. The right angle connection permits exterior wall mounts with gravity still working on your side to ensure an enduring element seal. For situations where you absolutely positively must go truly on edge, we can provide units for horizontal mount with special interior element side mount support assemblies. Increased or decreased connection sizes are also available on any model. Consult us for other material options.

## Your Choice of Connection Types:

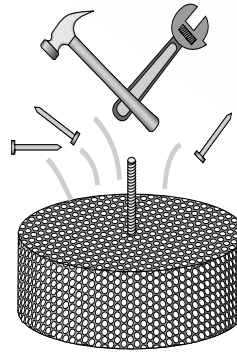


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Flange	Bore	OD	BC	Hole Bore	# Holes
3	3.5	7.5	6	0.75	4
4	4.5		7.5	0.75	8
5	5.6	10	8.5	0.875	8
6	6.7	11	9.5	0.875	8
8	8.7	13.5	11.75	0.875	8
10	10.88	16	14.25	1	12
12	12.88	19	17	1	12
14	14.1	21	18.75	1.125	12
16	16.1	23.5	21.25	1.125	16
18	18.1	25	22.75	1.25	16
20	20.2	27.5	25	1.25	20
24	24.2	3	29.5	1.375	20

Thickness = 3/8" to 1/2" all

Data above will assist in matching the flange connection of any existing filter housing(s) in need of replacement. Sparks™ flanges match the diameter & drilling for 150# ANSI standard. Since it is not practical to measure the Bore of an installed unit, wrestle with your not very flexible metal tape to measure a 90° arc (1/4 of the circle, see red line) over the bolts of your existing flange. Multiply by 4. Count the bolts. Compare with the chart above. **Do Not** rely upon the more easily measured flange OD for flange sizing as it can vary between suppliers.

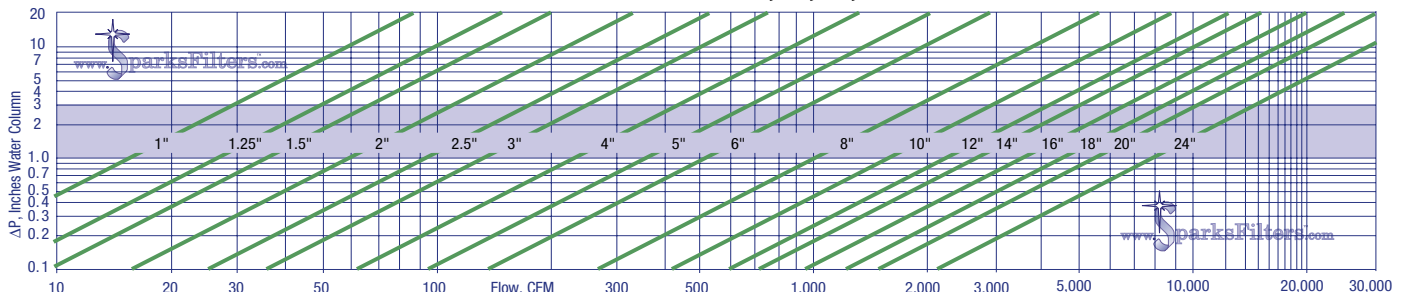


A 304SS throat safety cage sits beyond the filter element on all but economy housings. This exceptional feature ensures that the handle or pen you drop during change out doesn't fall into the process equipment downstream! And because it's 304SS, it's maintenance free.



Wing nuts and sealing washer for easy access. Another small detail that eliminates your need to hunt around for a wrench in order to take a quick look at the filter element.

## $\Delta P$ vs. Flow: Series A, B, C, and D



Use the chart above to access the initial  $\Delta P$  vs. flow for series A, B, C, & D air intakes. Be aware that the maximum practical flow through a filter housing, like other piping, is limited primarily by the cross sectional area of the connection. Compare the connection size shown

below with the desired flow. It is prudent to select a connection having a value that is central to the shaded area. While engines and reciprocating compressors can tolerate inlet air restrictions to 20" W.C., lesser blowers or fans may require element service at 5" W.C. While the initial  $\Delta P$  does not

increase, the specific filtration resistance of the airborne contaminants in your location ultimately dictate element life. High performance textile elements routinely serve for periods from 3 mos. to 2 yrs., with 1 yr. being common.