

# Economy Air Intake Filters & Tank Vents

Series B70 - Enameled Carbon Steel



For more information contact :  
SparksFilters 585-624-4500

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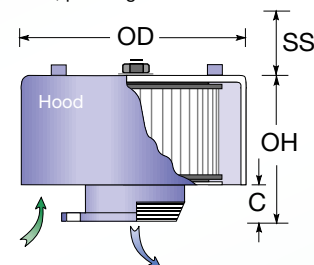
E-Mail: [Sales@sparksfilters.com](mailto:Sales@sparksfilters.com)



Economy filter housings employ lighter gauge steel construction and do not include the 304SS safety cages.

- Air Flows to 20,000 CFM
- Weather Hoods
- Enameled Steel Construction
- Connection Sizes from 1/2" to 24"

Series B70 Air Intake Filters are similar to series B10, but use a lighter gauge hood assembly (caps are available on the B10 models) and do not include throat safety cages. This design more closely matches competitive OEM equipment at value oriented prices. However, these housings will accept the same premium quality textile filter elements as the B10, B50 and other housing series. Models (not listed) are also available to accept many competitive filter element sizes, please give us a call.



Service Handles Std. on Models 18" OD & Larger

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

Consult us for use with reciprocating compressors.



A B70 filter shown cut away to illustrate an optional "K200" woven wire mesh filter element inside. Like K5 elements, K200 elements can be used dry for high flow services (K200 dry is 750µ), or when wetted with ordinary motor oil K200 can perform at down to 10µ retention in normal installation conditions. See page 30 for a list of optional filter media and connection style alternatives for these filters.

Housing Model Number	Typical CFM	Standard Outlet		Cover Style	Approximate Dimensions in Inches			Service Space	Approx Wgt Lbs.	Element Number
		Size	Type		OH	OD	C			
B70-0400-MT-005	12	1/2"	Male NPT	Hood	6 1/2"	4"	2"	4 1/4"	1	321-3394K5
B70-0400-MT-007	18	3/4"	Male NPT	Hood	6 1/2"	4"	2"	4 1/4"	1	321-3394K5
B70-0400-MT-010	25	1"	Male NPT	Hood	6 1/2"	4"	2"	4 1/4"	1	321-3394K5
LP* B70-0416-MT-005	12	1/2"	Male NPT	Hood	4 1/2"	6 1/4"	2"	2 1/4"	1	321-3395K5
LP* B70-0416-MT-007	18	3/4"	Male NPT	Hood	4 1/2"	6 1/4"	2"	2 1/4"	1	321-3395K5
LP* B70-0416-MT-010	25	1"	Male NPT	Hood	4 1/2"	6 1/4"	2"	2 1/4"	1	321-3395K5
B70-0401-MT-012	40	1 1/4"	Male NPT	Hood	6 1/2"	4 1/2"	2"	4 1/4"	2	321-3396K5
LP* B70-0417-MT-012	40	1 1/4"	Male NPT	Hood	4 1/2"	6 1/4"	2"	2 1/4"	2	321-3397K5
B70-0402-MT-015	65	1 1/2"	Male NPT	Hood	6 1/2"	5 1/2"	2"	4 1/4"	2	321-3398K5
LP* B70-0418-MT-015	65	1 1/2"	Male NPT	Hood	4 1/2"	7 1/2"	2"	2 1/4"	2	321-3399K5
B70-0403-MT-020	90	2"	Male NPT	Hood	8 1/2"	6"	2"	6 1/4"	3	321-3400K5
LP* B70-0419-MT-020	90	2"	Male NPT	Hood	6 1/8"	8"	2"	4"	3	321-3401K5
B70-0404-MT-030	200	3"	Male NPT	Hood	11 1/2"	8 1/4"	3"	8 1/4"	3	321-3402K5
LP* B70-0420-MT-030	200	3"	Male NPT	Hood	8 1/8"	10 1/2"	3"	5"	3	321-3403K5
B70-0405-MT-040	350	4"	Male NPT	Hood	11 1/2"	10"	3"	8 1/4"	14	321-3404K5
LP* B70-0421-MT-040	350	4"	Male NPT	Hood	8 1/8"	12 3/4"	3"	5"	14	321-3405K5
B70-0406-MT-050	800	5"	Male NPT	Hood	16 1/2"	12 3/4"	4"	12 1/4"	18	321-3406K5
B70-0406-FF-050	800	5"	Plate Flg	Hood	16 1/2"	12 3/4"	4"	12 1/4"	18	321-3406K5
LP* B70-0422-MT-050	800	5"	Male NPT	Hood	11 1/4"	15"	3"	8 1/4"	15	321-3407K5
LP* B70-0422-FF-050	800	5"	Plate Flg	Hood	11 1/4"	15"	3"	8 1/4"	15	321-3407K5
B70-0407-MT-060	950	6"	Male NPT	Hood	16 1/2"	14 1/2"	4"	12 1/4"	18	321-3408K5
B70-0407-FF-060	950	6"	Plate Flg	Hood	16 1/2"	14 1/2"	4"	12 1/4"	18	321-3408K5
LP* B70-0423-MT-060	950	6"	Plate Flg	Hood	11 1/4"	16 3/4"	3"	8 1/4"	15	321-3409K5
LP* B70-0423-FF-060	950	6"	Plate Flg	Hood	11 1/4"	16 3/4"	3"	8 1/4"	15	321-3409K5
B70-0408-FF-080	1800	8"	Plate Flg	Hood	16 1/2"	18"	4"	12 1/4"	35	321-3410K5
B70-0409-FF-100	3000	10"	Plate Flg	Hood	24 1/2"	21"	6"	18 1/2"	60	321-3411K5
B70-0410-FF-120	3500	12"	Plate Flg	Hood	24 1/2"	24"	6"	18 1/2"	100	321-3412K5
B70-0411-FF-140	4800	14"	Plate Flg	Hood	30 1/2"	26"	6"	24 1/2"	110	321-3413K5
B70-0412-FF-160	6000	16"	Plate Flg	Hood	30 1/2"	29"	6"	24 1/2"	150	321-3414K5
B70-0413-FF-180	7000	18"	Plate Flg	Hood	30 1/2"	32 1/2"	6"	24 1/2"	175	321-3415K5
B70-0414-FF-200	10000	20"	Plate Flg	Hood	30 1/2"	36"	6"	24 1/2"	270	321-3416K5
B70-0415-FF-240	13000	24"	Plate Flg	Hood	30 1/2"	42"	6"	24 1/2"	330	321-3417K5

Note: LP denotes our Low Profile style housings. See typ. ΔP vs. Flow data on chart at facing page.



# Air Intake Filter Choices

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

For more information contact :

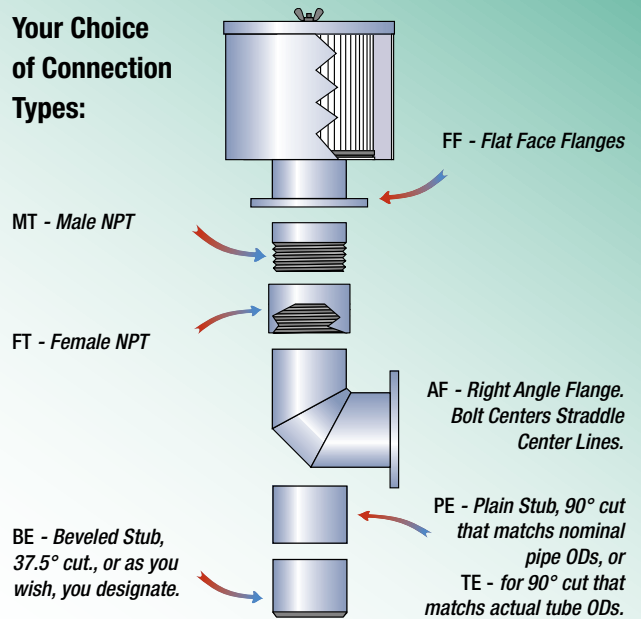
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Sparksfilters are available in a wide selection of inlet and outlet sizes and configurations in both enamel finished carbon steel, 304SS, and 316SS. Atmospheric air intake series B10, B12, and B70 with weather hoods can be mounted directly, or piped 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:

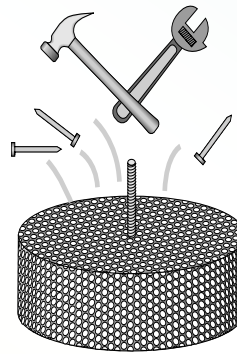


See <http://www.sparksfilters.com> for more options.

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.

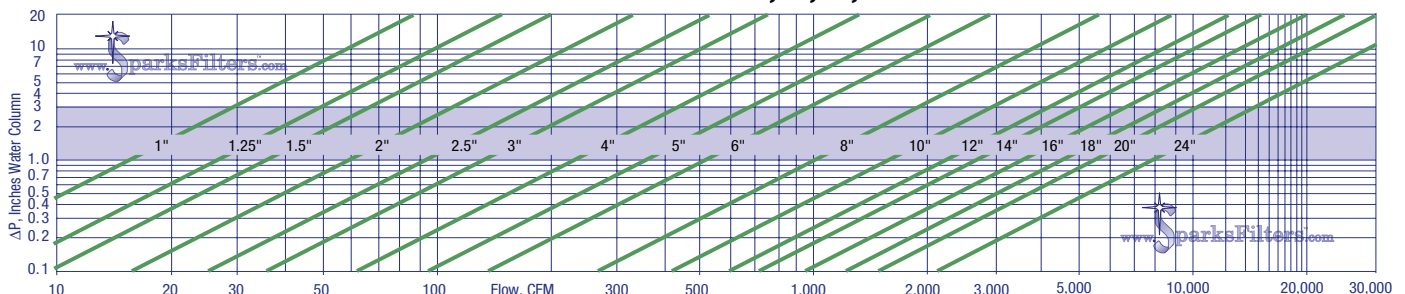


A 304SS throat safety cage sits beyond the filter element on all but economy housings. This exceptional feature ensures that the handle or pen you drop during change out doesn't fall into the process equipment downstream! And because it's 304SS, it's maintenance free.



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.