

Fig. 1

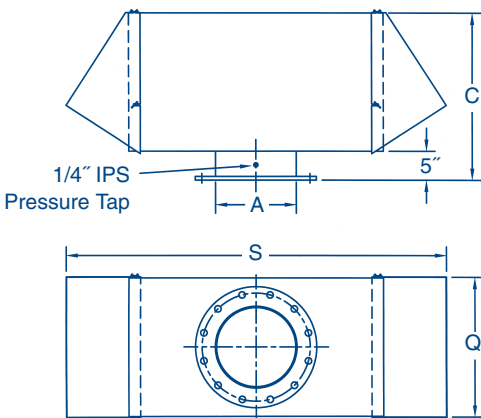


Fig. 2

### Application

The F21 Air Intake Filter is recommended for use on turbines, engines, centrifugal fans, blowers and compressors where controlled filtration is required. When used on the inlets of compressors, engines and blowers, an appropriate silencer must be installed between the air moving device and the filter.

### Design

A rigid housing designed to accept standard 24" x 24" filter elements. Various types of elements are available to provide filter efficiencies to meet the needs of engines, blowers, or compressors. Filter housings are available to accept either a single filter element or two filter elements in series. Internal design provides a safeguard to prevent small size foreign objects from entering the air intake passageway when filters are removed. Special designs available upon request.

### Construction

Welded sheet and plate steel construction. Metal joints are sealed to prevent dirt and air from bypassing the filter element. Surfaces are prime coated, followed with a final coat of machinery enamel. Flanges are drilled to match 125 lb. American Standard Flanges. Weatherhoods are included. Special finishes, or materials, are available at extra cost.

For selection of filter elements and method of determining pressure drop — SEE PAGES 2 and 3.

Model	Total Filter Element (CFM)	Number of 24" x 24" Element Openings	Outlet Nozzle Velocity (FPM)	Fig.	A	Q	C	S	Wt. Lbs.
F21-81	2,500	1	7,198	1	8	24	29	34 <sup>7</sup> / <sub>8</sub>	215
F21-101	2,500	1	4,565	1	10	24	29	34 <sup>7</sup> / <sub>8</sub>	220
F21-121	2,500	1	3,183	1	12	24	29	34 <sup>7</sup> / <sub>8</sub>	230
F21-122	5,000	2	6,365	2	12	24	29	65 <sup>3</sup> / <sub>4</sub>	330
F21-142	5,000	2	4,940	2	14	24	29	65 <sup>3</sup> / <sub>4</sub>	340
F21-162	5,000	2	3,755	2	16	24	29	65 <sup>3</sup> / <sub>4</sub>	350
F21-184	10,000	4	5,900	3	18	48	29	65 <sup>3</sup> / <sub>4</sub>	530
F21-204	10,000	4	4,760	3	20	48	29	65 <sup>3</sup> / <sub>4</sub>	545
F21-244	10,000	4	3,280	3	24	48	29	65 <sup>3</sup> / <sub>4</sub>	570
F21-246	15,000	6	4,920	4	24	48	29	75 <sup>3</sup> / <sub>4</sub>	640
F21-306	15,000	6	3,135	4	30	48	29	75 <sup>3</sup> / <sub>4</sub>	675
F21-308	20,000	8	4,180	5	30	48	29	75 <sup>3</sup> / <sub>4</sub>	765
F21-368	20,000	8	2,920	5	36	48	29	75 <sup>3</sup> / <sub>4</sub>	855

## Application

The F41 Air Intake Filter is recommended for use on the intakes of centrifugal compressors, fans, blowers, engines and turbines where dust-free process air requirements are highly critical. When used on the inlets of compressors, engines and blowers, an appropriate silencer must be installed between the air moving device and the filter.

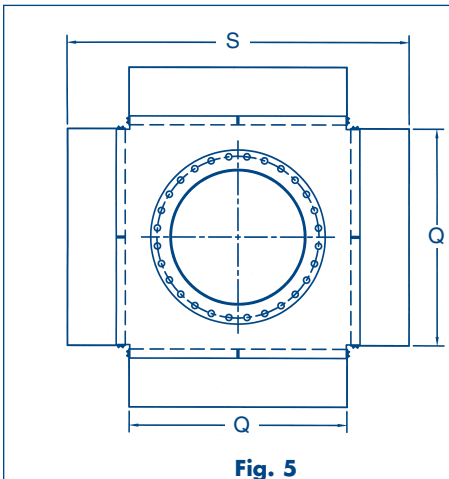
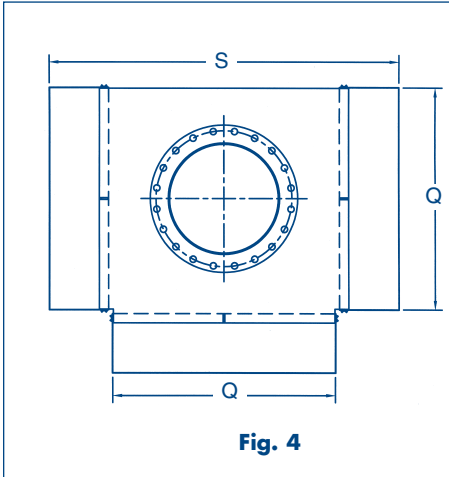
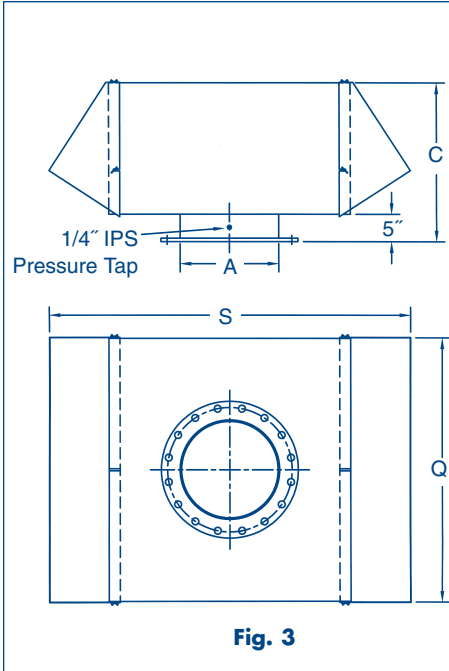
## Design

The F41 Series employs a three-stage filtering system which consists of a Type F3 primary, a Type F4 intermediate and a Type F5 final filter. The rigid housing is designed to accept 24" x 24" filter elements, wherein the final filter contains a fluid seal to prevent bypass. The internal design provides a safeguard to prevent small size foreign objects from entering the air intake passageway when filters are removed. The minimum efficiency of the final filter is not less than 99.97% (by DOP test method) on 0.3 microns and above. Field tests indicate final filters need to be changed once every 18 to 24 months if the primary and intermediate filters are properly serviced. Special designs are available upon request.

## Construction

Welded sheet and plate steel construction. Metal joints are sealed to prevent dirt and air from bypassing the filter element. All surfaces are prime coated, followed with a final coat of machinery enamel. Flanges are drilled to match 125 lb. American Standard Flanges. Weatherhoods are included. Special finishes, or materials, are available at extra cost.

For selection of filter elements and method of determining pressure drop — SEE PAGES 2 and 3.



Model	Total Filter Element (CFM)	Outlet Nozzle Velocity (FPM)	Fig.	A	Q	C	S	Wt. Lbs.	No. of 24" x 24" Filter Elements		
									F3	F4	F5
F41-81	2,500	7,198	1	8	24	29	46 <sup>7</sup> / <sub>8</sub>	315	1	1	1
F41-101	2,500	4,565	1	10	24	29	46 <sup>7</sup> / <sub>8</sub>	320	1	1	1
F41-121	2,500	3,183	1	12	24	29	46 <sup>7</sup> / <sub>8</sub>	335	1	1	1
F41-122	5,000	6,365	2	12	24	29	69 <sup>3</sup> / <sub>4</sub>	455	2	2	2
F41-142	5,000	4,940	2	14	24	29	69 <sup>3</sup> / <sub>4</sub>	465	2	2	2
F41-162	5,000	3,755	2	16	24	29	81 <sup>3</sup> / <sub>4</sub>	515	2	2	2
F41-184	10,000	5,900	3	18	48	29	81 <sup>3</sup> / <sub>4</sub>	875	4	4	4
F41-204	10,000	4,760	3	20	48	29	81 <sup>3</sup> / <sub>4</sub>	895	4	4	4
F41-244	10,000	3,280	3	24	48	29	81 <sup>3</sup> / <sub>4</sub>	915	4	4	4
F41-246	15,000	4,920	4	24	48	29	102 <sup>3</sup> / <sub>4</sub>	1180	6	6	6
F41-306	15,000	3,135	4	30	48	29	102 <sup>3</sup> / <sub>4</sub>	1215	6	6	6
F41-308	20,000	4,180	5	30	48	29	102 <sup>3</sup> / <sub>4</sub>	1415	8	8	8
F41-368	20,000	2,920	5	36	48	29	102 <sup>3</sup> / <sub>4</sub>	1505	8	8	8