

SIZING DUST COLLECTOR BAGS FOR MAXIMUM EFFICIENCY

1. Determine CFM of dust collector.

2. Select best bag size from chart.

Many factors affect the performance of your shop's dust collection system. They include horsepower of the motor, fan design, duct lengths, branches and bends, collection containers, and air filtration bags. Of all these items, replacing original woven cloth bags with new felt bags is by far the most immediate and cost-effective way to improve system performance as well as workshop air cleanliness. Follow the steps below to find what you need.

Charts below are for high airflow 10 oz. Shaker Felt, singed on one side. If using your fan's maximum CFM rating, read off the maximum chart. Use the lower chart for "under load" CFM calculations. **Always select a size with at least 50% to 100% extra capacity to minimize backpressure and help disburse dust-laden air.**

Calculations and specifications are approximate. Results may vary under actual working conditions. For commercial applications use heavier 12 oz. and 16 oz. felts and design systems for 10 (or less) CFM per square foot.

- Dust collector brand & model: _____ Size of output fitting : _____ Dia / Circ / Flat Width
- Rated output: _____ CFM (max) _____ CFM (under working load) Type of dust: _____
- Is your bottom bag (the collector) felt? **NO.** All air will exit through top bag(s). **YES.** It's part of my system. Add in its size and CFM also, then reduce its value by 50% to account for any losses due to full bag.
- If same bag used for both filtration and collection, reduce value by 50% to account for loss due to dust in bag.
- Size restrictions (low ceiling, output-to-floor distance, support hook height, etc.)? _____

55 CFM/SQ FT - MAXIMUM AIRFLOW CONDITIONS

DIA. (IN.)	LENGTH (FEET)											
	2	3	4	5	6	7	8	9	10	11	12	
10	318	462	606	750	894	1038	1182	1326	1470	1614	1758	
12	389	562	734	907	1080	1253	1426	1598	1771	1944	2117	
14	462	664	865	1067	1268	1470	1671	1873	2075	2276	2478	
16	538	768	998	1229	1459	1689	1920	2150	2381	2611	2841	
18	616	875	1134	1393	1652	1911	2171	2430	2689	2948	3207	
20	696	984	1272	1560	1848	2136	2424	2712	3000	3288	3576	
24	864	1210	1555	1901	2246	2592	2937	3283	3629	3974	4320	
36	* 1426	* 1944	* 2462	* 2981	* 3499	* 4017	* 4536	* 5054	* 5572	* 6091	* 6609	
48	* 2073	* 2765	* 3456	* 4147	* 4838	* 5529	* 6220	* 6912	* 7603	* 8294	* 8985	

EXAMPLE:

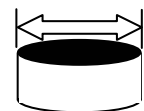
XYZ-brand dust collector, with an 20 in. dia output fitting, is rated at 800 CFM maximum and 500 CFM working (under load). Its collector is a 55 gal drum, so all air exits through the top bag. Look for a bag that will handle 1200 to 1600 CFM maximum, or 750 to 1000 CFM working (under load) output. From these charts we find the bag should be 20 in. in diameter by 4 to 5 ft. long.

40 CFM/SQ FT - HEAVY WORKING CONDITIONS

DIA. (IN.)	LENGTH (FEET)											
	2	3	4	5	6	7	8	9	10	11	12	
10	231	336	441	545	650	755	860	964	1069	1174	1278	
12	283	408	534	660	785	911	1037	1162	1288	1414	1539	
14	336	483	629	776	922	1069	1216	1362	1509	1655	1802	
16	391	559	726	894	1061	1229	1396	1564	1731	1899	2066	
18	448	636	825	1013	1202	1390	1579	1767	1956	2144	2333	
20	506	716	925	1134	1344	1553	1763	1972	2182	2391	2601	
24	628	880	1131	1382	1634	1885	2136	2388	2639	2890	3142	
36	* 1037	* 1414	* 1791	* 2168	* 2545	* 2922	* 3299	* 3676	* 4053	* 4430	* 4807	
48	* 1508	* 2011	* 2513	* 3016	* 3519	* 4021	* 4524	* 5027	* 5529	* 6032	* 6535	

3 Ways to Determine Bag Size

DIAMETER



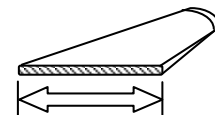
Measure across outside of output

CIRCUMFERENCE



Measure around outside of output

FLAT WIDTH



Fold old bag flat. Measure full width

FYI

Circumference divided by 3.14 (Pi) equals the Diameter

Flat Width equals one-half the Circumference.

* Call for quotes on larger sized bags.