

CARTRIDGES DUST COLLECTOR  
DCC Series





## *General Points*

The Airex Industries line of cartridge type dust collectors offer extremely efficient and economical systems due to the continuous venturi assisted reverse pulse jet cleaning system. The system allows on-line cleaning, without significant loading thus maintaining constant internal static pressure levels.

### Selection criteria of a cartridge collector :

- 1- Type of dust
- 2- Dust concentrations
- 3- Process conditions :
  - Temperature;
  - Humidity;
  - Corrosive Agents;
  - Dew point.
- 4- Physical constraints
- 5- Duct static pressure
- 6- Disposal method





## *Theory of Operation*

### *Advantages*

#### Theory of operation

The dust laden gases enter through the side intake of the dust collectors hopper, under vacuum or pressure (except for bin vents, where the air comes in from the bottom).

The gases are then filtered through the cartridges, and exit through the venturis, into the clean air plenum. The clean air can be exhausted outside or recirculated depending on application.

#### The automatic cleaning system operates as follows :

For each row of cartridges there is a diaphragm valve connected to an air tank. The diaphragm valve is opened in sequence by a solenoid valve and electronic control board.

Short pulses of compressed air are injected through calibrated orifices in the blow tubes and into the venturis. The small primary flow of air through the venturis generates a much larger secondary flow of clean air from the plenum. The combined air flow creates a downward moving pressure wave, that breaks the accumulated dust cake on the cartridges.

The electronic controller allows only one row of cartridges to be cleaned at any given moment, thus ensuring the collector can operate continuously.

#### Advantages :

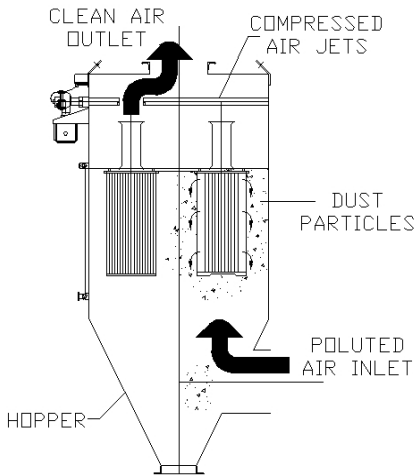
The cartridge dust collector features the following advantages :

#### Fast, simple and safe cartridge replacement :

- The entire replacement of a set of cartridges is done from outside the dust collector and requires no tools. This way the worker is not exposed to the dust.
  - The cartridge is provided with a rectangular adapter that simplifies the manipulation of the cartridge, and eliminates installation errors.

#### Economical buy :

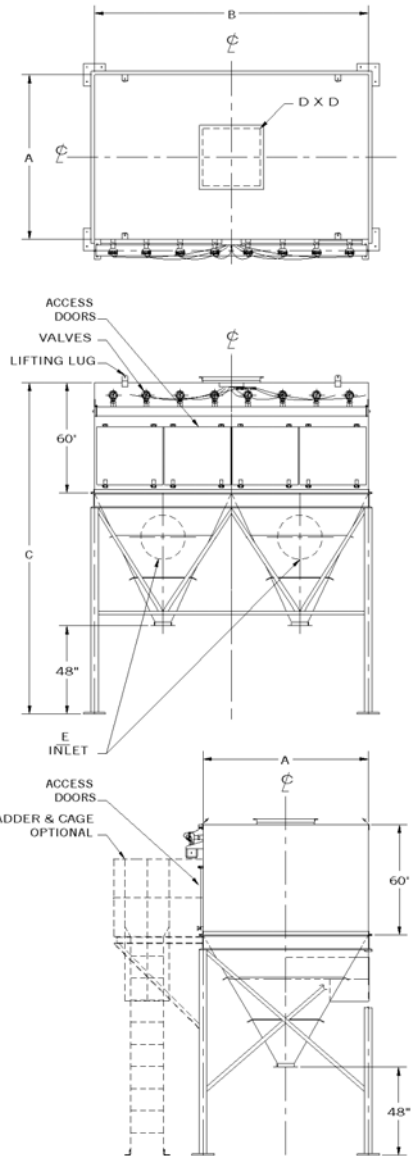
- The selection of a cartridge dust collector is a very economical choice because it requires minimum maintenance. The maintenance is limited to an annual replacement of cartridges (depending the application), providing long term profitability.
- Thanks to the high efficiency of the filtering media, it is possible to filter a larger air volume with a smaller filtering surface. This allows us to manufacture smaller collectors.
- The dust collector operates with low pressure drops, between 1" and 3" of H<sub>2</sub>O. These values can be maintained by periodic cleaning that is controlled by a standard adjustable timer.





## Technical Data Sheet – Cartridge Dust Collector / DCC SERIES

# Model DCC	# Valves	# Hoppers	Dimensions ft./mm				inlet	outlet	Filtration area ft. <sup>2</sup> / m <sup>2</sup>	Weight Lbs / kg.
			A	B	C	D				
4	2	1	2'-8"	3'-2"	11'-2"	9"	9"	900	1375	
			813	965	3404	229	229	84	625	
6	2	1	3'-10"	3'-2"	11'-8"	11"	11"	1350	1599	
			1108	965	3556	279	279	126	727	
9	3	1	3'-10"	4'-9"	12'-5"	13"	14"	2025	1989	
			1168	1448	3785	330	356	190	904	
12	4	1	3'-10"	6'-3"	13'-9"	15"	16"	2700	2607	
			1168	1905	4191	381	406	253	1185	
16	4	1	5'-1"	6'-3"	13'-9"	18"	18"	3600	2830	
			1549	1905	4191	457	457	336	1286	
20	4	1	6'-3"	6'-3"	13'-9"	20"	20"	4500	3019	
			1905	1905	4191	508	508	420	1372	
24	6	1	5'-1"	9'-3"	16'-5"	22"	22"	5400	4214	
			1549	2819	5004	559	559	505	1915	
24 D	6	2	5'-1"	9'-3"	12'-9"	22"	16"	5400	3791	
			1549	2819	3886	559	406	505	1723	
30	6	1	6'-3"	9'-3"	16'-5"	24"	25"	6750	4498	
			1905	2819	5004	610	635	630	2044	
30D	6	2	6'-3"	9'-3"	13'-9"	24"	18"	6750	4460	
			1905	2819	4191	610	457	630	2027	
36	6	1	7'-5"	9'-3"	16'-5"	26"	27"	8100	4993	
			2261	2819	5004	660	686	758	2270	
36D	6	2	7'-5"	9'-3"	14'-9"	26"	19"	8100	5115	
			2261	2819	4496	660	483	758	2325	
40	8	1	6'-3"	12'-4"	19'-0"	28"	29"	9000	6066	
			1905	3759	5791	711	737	841	2757	
40D	8	2	6'-3"	12'-4"	13'-9"	28"	20"	9000	5119	
			1905	3759	4191	711	508	841	2327	
48	8	1	7'-5"	12'-4"	19'-0"	31"	31"	10800	6476	
			2261	3759	5791	787	787	1009	2944	
48D	8	2	7'-5"	12'-4"	14'-9"	31"	22"	10800	5887	
			2261	3759	4496	787	557	1009	2676	
50D	10	2	6'-3"	15'-4"	15'-0"	31"	23"	11250	6292	
			1905	4671	4572	787	584	1051	2860	
56D	8	2	8'-7"	12'-4"	15'-10"	33"	24"	12600	6760	
			2616	3759	4826	838	610	1178	2982	
60D	10	2	7'-5"	15'-4"	15'-0"	34"	25"	13500	6829	
			2261	4674	4572	864	635	1262	3104	
64D	8	2	9'-10"	12'-4"	16'-10"	35"	26"	14400	7570	
			2997	3759	5131	889	660	1346	3441	
70D	10	2	8'-7"	15'-4"	15'-10"	37"	27"	15750	7674	
			2616	4674	4826	940	686	1472	3488	
80D	10	2	9'-10"	15'-4"	16'-10"	39"	29"	18000	8591	
			2997	4674	5131	991	737	1682	3905	
84D	12	2	8'-7"	18'-5"	15'-10"	40"	30"	18900	8728	
			2616	5613	4826	1016	762	1766	3967	
96D	12	2	9'-10"	18'-5"	16'-10"	43"	32"	21600	9758	
			2997	5613	5131	1092	813	2019	4435	
112T	14	3	9'-10"	21'-5"	16'-10"	47"	29"	25200	11694	
			2997	6529	5131	1194	737	2355	5315	
128T	16	3	9'-10"	24'-6"	15'-7"	52"	30"	28800	13633	
			2997	7468	4750	1321	762	2692	6198	
144T	18	3	9'-10"	27'-6"	16'-5"	56"	32"	32400	15348	
			2997	8382	5004	1422	813	3028	6976	
160T	20	3	9'-10"	30'-7"	17'-4"	58"	34"	36000	16434	
			2997	9322	5283	1473	864	3364	7470	
176T	22	3	9'-10"	33'-7"	18'-2"	62"	34"	39600	17500	
			2997	10236	5537	1575	864	3700	7954	
192T	24	3	9'-10"	36'-8"	19'-1"	64"	36"	43200	18564	
			2997	11176	5817	1626	915	4037	8438	
208T	26	3	9'-10"	39'-8"	19'-1"	68"	38"	46800	20360	
			2997	12090	5817	1727	965	4373	9255	
224T	28	3	9'-10"	42'-9"	19'-11"	70"	40"	50400	22130	
			2997	13030	6071	1778	1016	4710	10059	



In order to have our product meet the highest technological standards, we reserve the right to modify its specifications without notice.

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## *Completed Projects*

