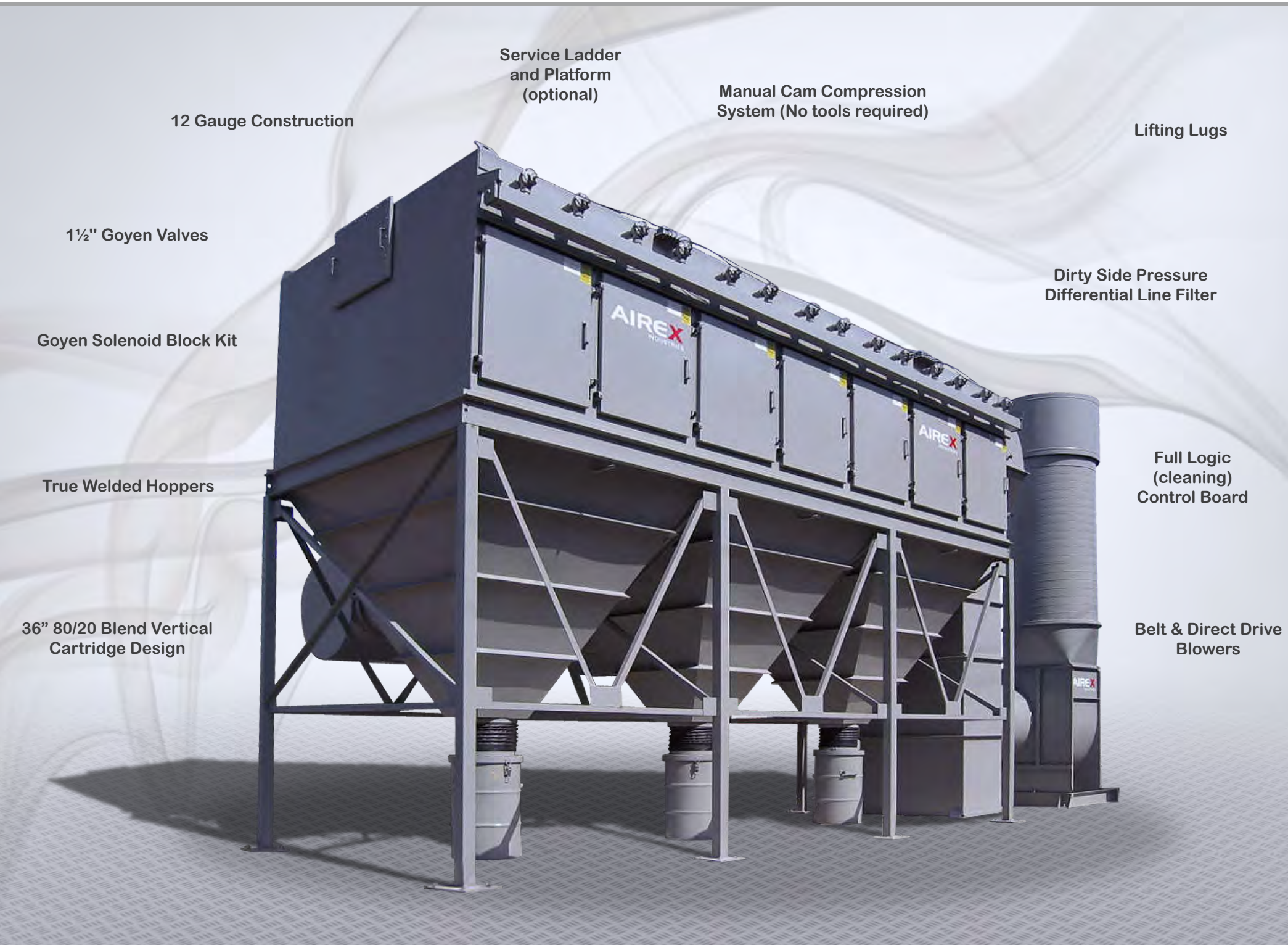


DCCCH™ SERIES



VERTICAL CARTRIDGE DUST COLLECTOR



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THE DCCH SERIES IS A POWERFUL AND ROBUST UNIT FOR YOUR INDUSTRIAL DUST COLLECTION NEEDS.

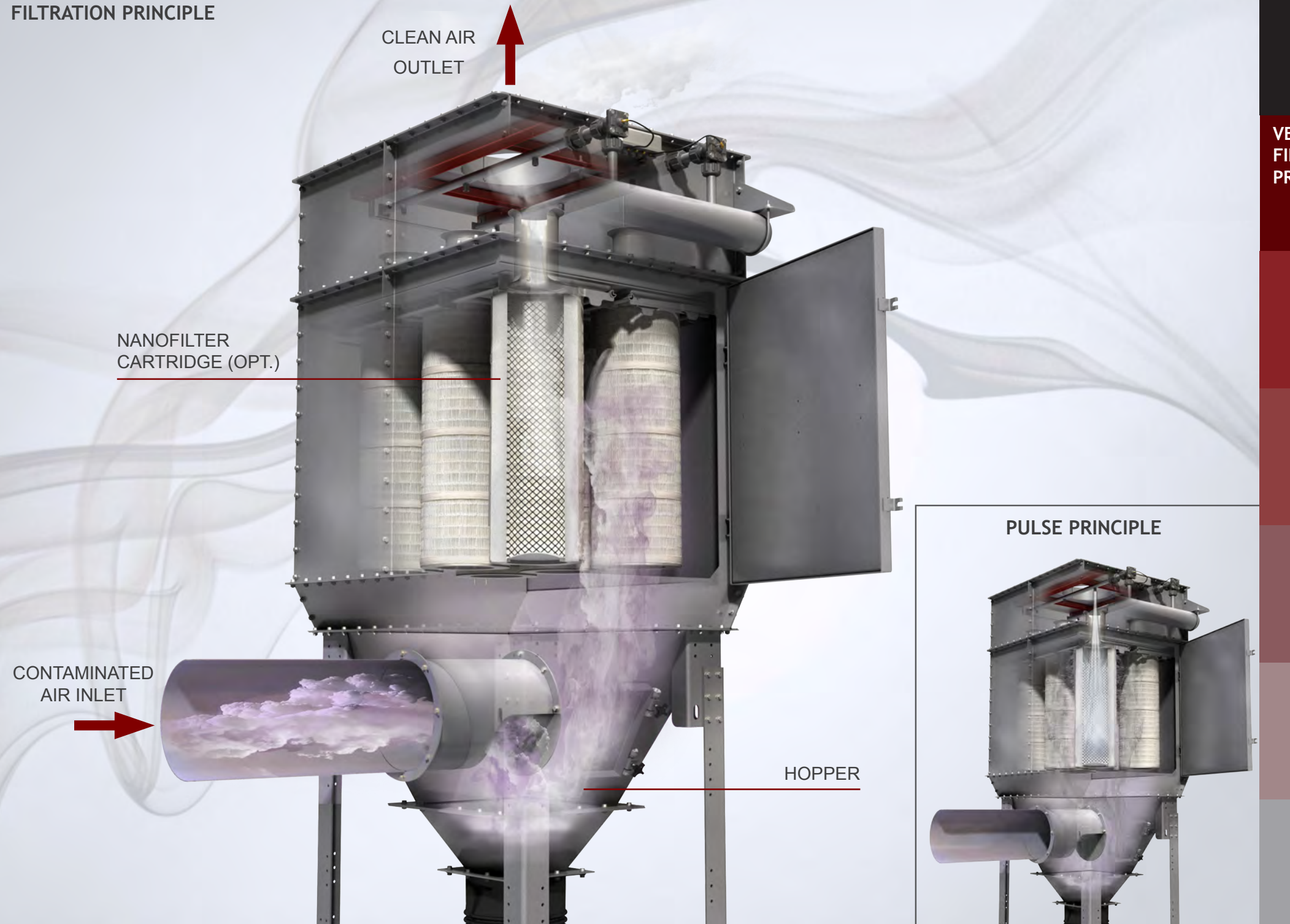
The Airex Industries DCCH™ Series dust collectors distance themselves with the ability to filter highly contaminated air volumes while remaining extremely compact. The cartridges are combined with an efficient self-cleaning system of compressed air allowing the filtration of sub-micronics dust particles in a continuous operation and with a constant differential pressure loss.

Our DCCH series includes sealed mechanisms and access doors for easy access and requires no tools to carry out the change of filter cartridges.

MAIN ADVANTAGES AT A GLANCE

- High filtration capacity**
Models from 4 to 224 cartridges and up to 100 000 CFM capacity.
- Custom engineering**
Special needs and custom designs available with DCCH systems.
- Project integration**
Avoids particle accumulation in order to better comply with NFPA regulations.
- Vertical cartridge design**
Unlike horizontal cartridge designs that reduce filtering surface efficiency by up to 30%, Airex Industries' DCCH series dust collectors maintain a 100% filtration rate at all times.

FILTRATION PRINCIPLE



**VERTICAL
FILTRATION
PRINCIPLE**

3

**HOW THE DCCH™ SERIES CARTRIDGE
DUST COLLECTOR WORKS**

The dust-laden gases enter through the side intake of the dust collector's 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 either be channeled outside or re-circulated depending on the application.

ADVANTAGES

Fast, simple and safe cartridge replacement

Cartridge replacement is performed outside the dust collector and requires no tools. This eliminates the need to work within a confined space and allows the worker to access the cartridge without getting dirty.

The cartridge comes with a rectangular top plate that simplifies manipulation and eliminates potential installation errors.

Continuous operation

Unlike other types of dust collectors such as the shaker, the cartridge dust collector does not have to be stopped in order to remove and clean dust particles from its filters.

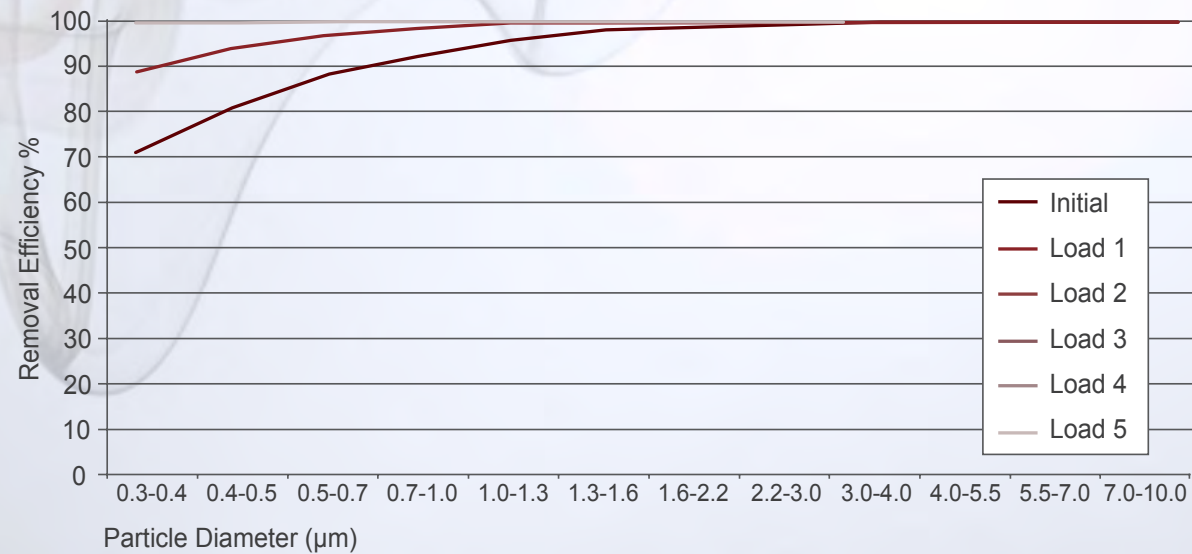
Economical

The cartridge dust collector is an economical choice because it requires minimal maintenance: only periodic cartridge replacement is necessary (depending on the application).

ASHRAE STANDARD

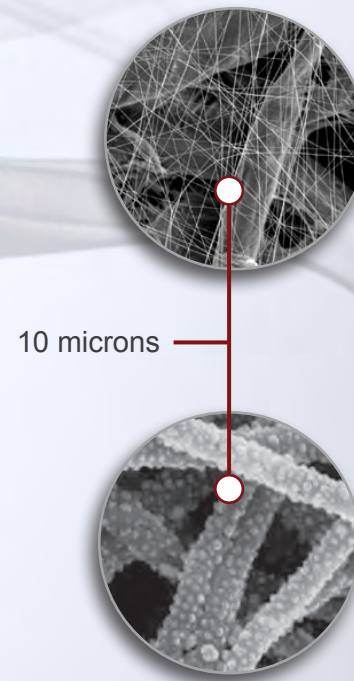
PARTICLE SIZE RANGE (µM)	GEOMETRIC MEAN DIAMETER (µM)	PARTICLE REMOVAL EFFICIENCY (%)							
		CME	INITIAL	LOAD 1	LOAD 2	LOAD 3	LOAD 4	LOAD 5	
0.30 - 0.40	0.35	71.0	71.0	88.9	99.9	99.9	99.9	100.0	
0.40 - 0.55	0.47	80.8	80.8	93.9	100.0	99.9	100.0	100.0	
0.55 - 0.70	0.62	88.0	88.0	96.9	100.0	100.0	100.0	100.0	
0.70 - 1.00	0.84	92.2	92.2	98.3	100.0	100.0	100.0	100.0	
1.00 - 1.30	1.14	95.8	95.8	99.3	100.0	100.0	100.0	100.0	
1.30 - 1.60	1.44	98.1	98.1	99.8	100.0	100.0	100.0	100.0	
1.60 - 2.20	1.88	98.6	98.6	99.8	100.0	100.0	100.0	100.0	
2.20 - 3.00	2.57	99.3	99.3	99.9	100.0	100.0	100.0	100.0	
3.00 - 4.00	3.46	99.8	99.8	100.0	100.0	100.0	100.0	100.0	
4.00 - 5.50	4.69	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
5.50 - 7.00	6.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
7.00 - 10.00	8.37	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
		CME	INITIAL	LOAD 1	LOAD 2	LOAD 3	LOAD 4	LOAD 5	
Resistance after Dust Load (in WG)			0.73	1.52	2.35	3.17	4.00		
Dust Load (gms)			17	237	407	554	668		

PARTICLE SIZE REMOVAL EFFICIENCY



NANOFILTER MEDIA

This media is made of the industries smallest fibers (10 microns)



CONVENTIONAL MEDIA

Spacing is 6 times larger than that of the nanofiber allowing small particles to become deeply embedded within the media.

NANOFILTER EFFICIENCY

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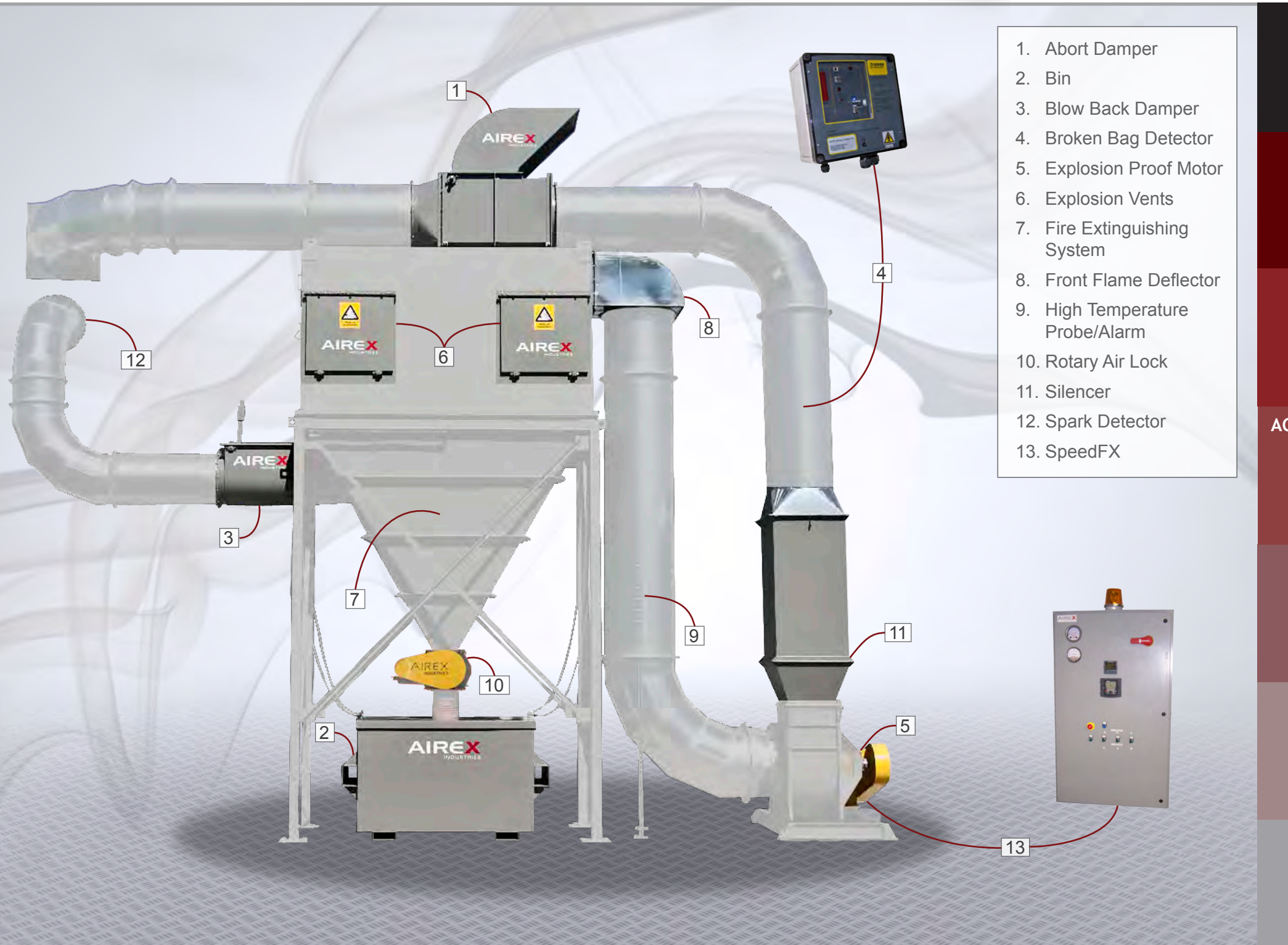
NANOFIBER FILTRATION TECHNOLOGY

Provides unequaled surface loading capabilities with nano sized interfiber pores. Dust particles easily pulse off the surface layer, keeping the media clean.

Other types of cartridge filters enable particulate to become embedded deep within the media substrate. These depth-loading filters require intensive cleaning and are subject to continual abrasion and wear. Although cellulose filters use a melt blown surface treatment to capture particles on the surface, they also form a layer approximately 100 times thicker than nanofiber filters do. This creates very deep and wide pores that allow particles to penetrate deep within the media substrate, similar to other depth-loading cartridge filters.

FILTERS FEATURES

- Best in class MERV 15 efficiency on sub micron particulate.
- Lower initial & operating pressure drop.
- Reduction in cleaning cycles, prolongs filter life.
- Compressed air and energy savings.
- Reduced outlet emissions.
- Reduced downtime.



1. Abort Damper
2. Bin
3. Blow Back Damper
4. Broken Bag Detector
5. Explosion Proof Motor
6. Explosion Vents
7. Fire Extinguishing System
8. Front Flame Deflector
9. High Temperature Probe/Alarm
10. Rotary Air Lock
11. Silencer
12. Spark Detector
13. SpeedFX

ACCESSORIES

ENHANCE YOUR PERFORMANCE AND SECURITY

Some options like the SpeedFX™ can vary motor speed and energy consumption thus improving efficiency.

A number of Airex accessories aim to meet NFPA regulations, preventing against fire and explosions while better protecting workers and facilities.

FIRE PROTECTION ACCESSORIES

- Abort Damper**
Connected with a proper spark or fire detection system, the abort damper redirects exhaust air into the atmosphere as soon as a spark is detected.
- Blow Back Damper**
Ensure there is a seal, if a fire or explosion occurs in the dust collector, preventing return of smoke and fire to the shop by the intake ductwork.
- Explosion Vents**
The explosion vents redirect a propagating flame or explosion to atmosphere via pressure rated washers.
- Rotary Air Lock**
Designed to control the flow of discharge material from a dust collector or other type of process while maintaining an air seal.
- Spark Detection & Fire Extinguishing System**
Counters the spread of fire with a temperature probe and sprinkler. :
Spraying the collector and stops the blower (eliminating oxygen intake).



1



2



3

CUSTOM
ENGINEERING

9

BECAUSE WE KNOW THAT YOU ARE DIFFERENT

Our department of engineers and experienced staff are at your disposal to design and custom engineer your equipment for your explicit needs.

We will combine our experience with your criteria to design a solution that works for you.

A complete Autocad department can also supply drawings of the equipment, ductwork and accessories. Electronic and hard copy blueprints are included with our equipment.

FINALIZED CUSTOM PROJECTS

1. Portable unit for various applications

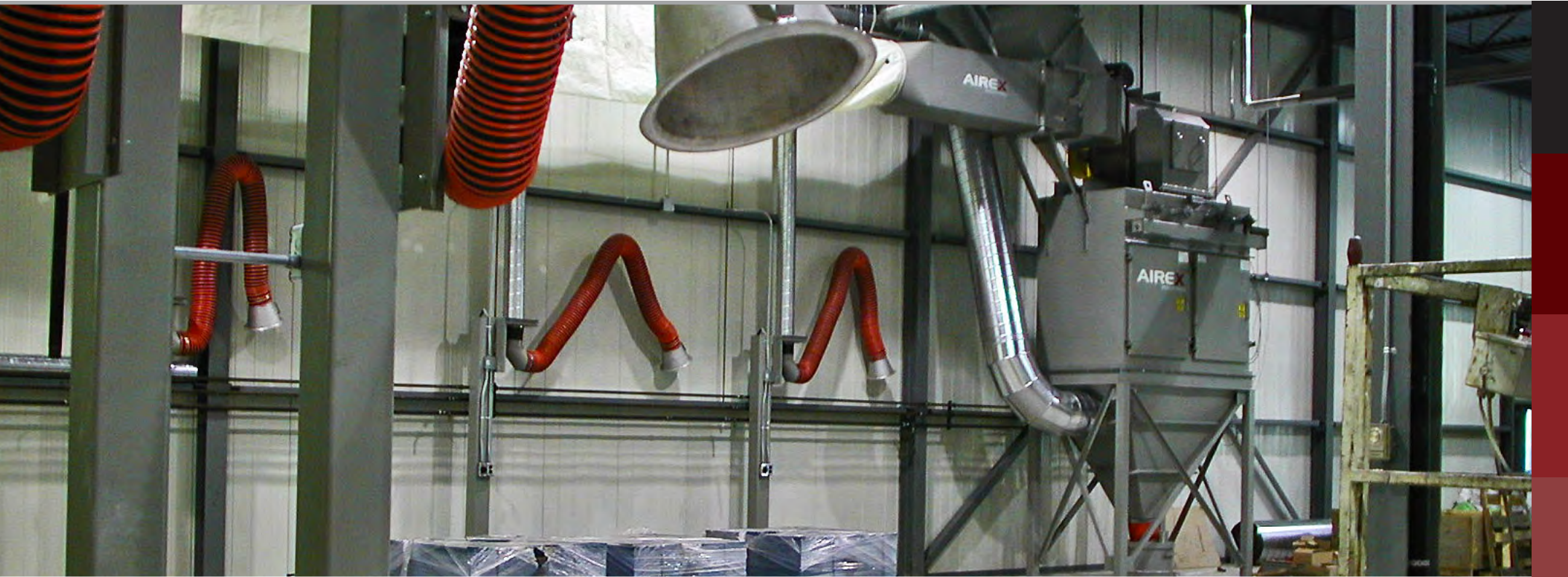
The portable unit allows for a DCCH cartridge unit to be mounted on a flatbed trailer. Ideal for construction sites and temporary installations where portability and large amounts of CFM and filtration are required.

2. Plasma/torch on stainless cutting table

Custom hoods with zipper ducts and tough applications are only part of our custom engineered solutions.

3. Torch cutting on water table

Dual suction nozzle design on a typical water table has been a successfully-engineered solution bringing maximum capture efficiency with minimal air for a large table surface.



WE SUPPORT YOU AT EACH PROJECT MILESTONE

Turnkey installations is our specialty. We don't just sell dust collectors, we sell complete systems engineered down to the smallest detail.

At the heart of our design is the DCCH dust collector. Our team of experienced application engineers will determine the size and plan turnkey solutions that suit your needs.

We don't stop working until you're satisfied. Duct sizing, hood development, air to cloth ratios, media selection, static pressure collection, health and safety requirements, NFPA regulations and production needs are all taken into consideration.

Our mission is to design a properly working system, not to sell you a collector and replacement filters.

DIFFERENT DESIGN OF PICKUP POINTS

Capture Arm

Simple design utilizes a lightweight aluminum skeleton to support a heavy-duty flex hose and spun aluminum hood.

Custom Hoods

allow you to capture and confine fumes and gradually evacuate them at a low extraction level.

Custom Booths

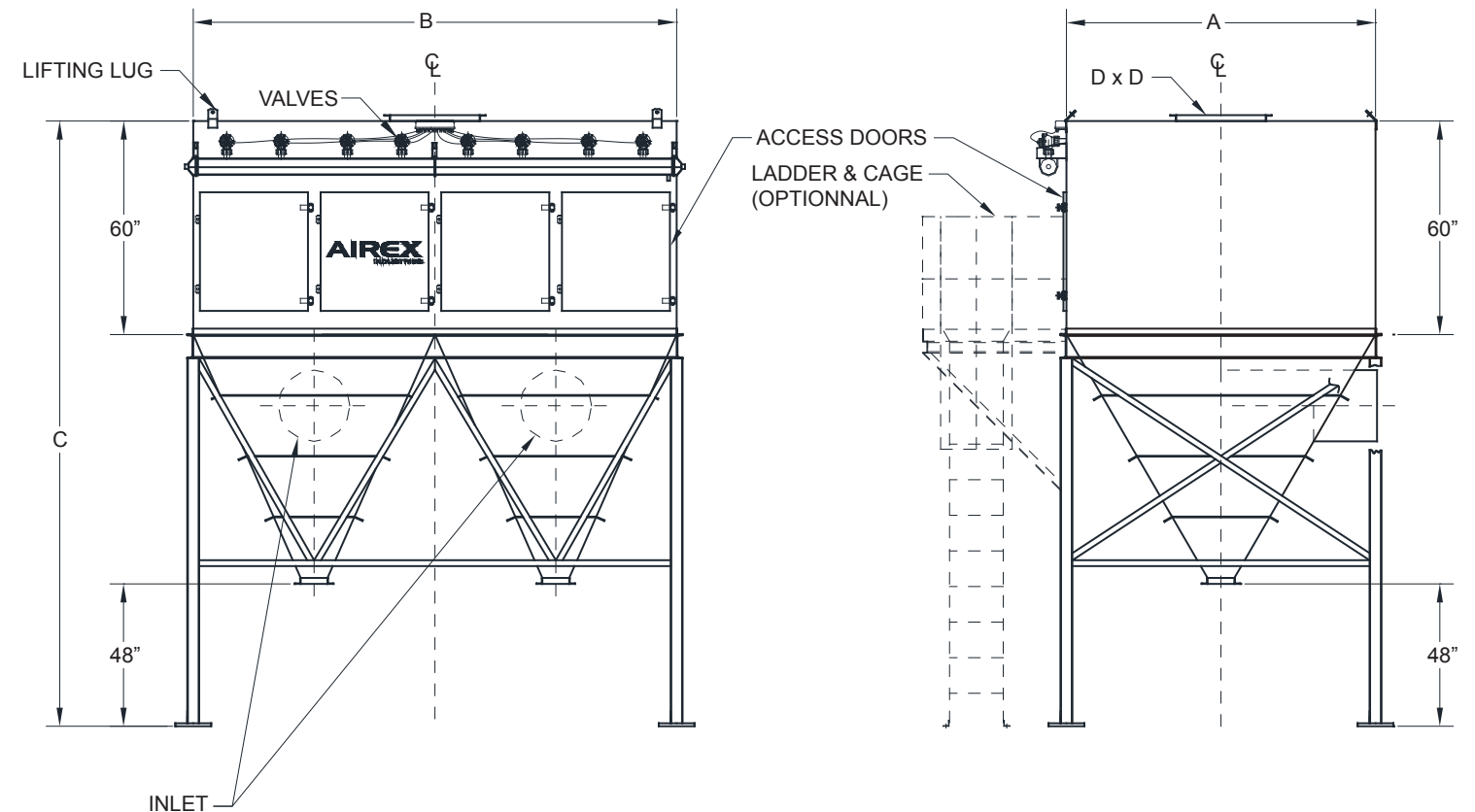
Our booths can be customized to fit your production floor needs. Optional booth curtains provide safety while providing a barrier from heat, sparks, and welding splatter.

TURNKEY
PROJECT

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TECHNICAL DATA SHEET - CARTRIDGE DUST COLLECTOR / DCCH SERIES

FILTRATION AREA FT ² / M ²	VALVES	HOPPERS	DIMENSIONS						FILTRATION AREA				WEIGHT	
			A		B		C		CELLULOSE / NANOFIBER		SPUN BOND			
			FT	MM	FT	MM	FT	MM	FT ²	M ²	FT ²	M ²	LBS	KG
4	2	1	2'-8"	813	3'-4"	1016	12'-8"	3861	1260	116	520	49	1472	669
6	2	1	3'-10"	1168	3'-4"	1016	3'-8"	3989	1890	174	780	73	1711	778
9	3	1	3'-10"	1168	4'-11"	1499	14'-0"	4267	2835	261	1170	109	2130	968
12	4	1	3'-10"	1168	6'-9"	2057	15'-7"	4750	3780	348	1560	146	2780	1264
16	4	1	5'-1"	1549	6'-9"	2057	15'-7"	4750	5040	464	2080	194	3028	1376
20	4	1	6'-3"	1905	6'-9"	2057	15'-7"	4750	6300	580	2600	243	3230	1468
24	6	1	5'-1"	1549	10'-1"	3073	18'-6"	5639	7560	696	3120	292	4509	2050
24D	6	2	5'-1"	1549	10'-11"	3327	5'-1"	4318	7560	696	3120	292	4056	1844
30	6	1	6'-3"	1905	10'-1"	3073	18'-6"	5639	9450	870	3900	364	4813	2188
30D	6	2	6'-3"	1905	10'-1"	3073	15'-2"	4623	9450	870	3900	364	4772	2169
36	6	1	7'-5"	2260	10'-1"	3073	18'-6"	5639	11340	1044	4680	437	5345	2430
36D	6	2	7'-5"	2261	10'-1"	3073	16'-2"	4928	11340	1044	4680	438	5475	2489
40	8	1	6'-3"	1905	13'-6"	4115	21'-5"	6528	12600	1160	5200	486	6491	2950
40D	8	2	6'-3"	1905	13'-6"	4115	15'-7"	4750	12600	1160	5200	486	5477	2490
48	8	1	7'-5"	2261	13'-6"	4115	21'-5"	6528	15120	1392	6240	583	6930	3150
48D	8	2	7'-5"	2261	13'-6"	4115	16'-2"	1928	15120	1392	6240	583	6300	2864
50D	10	2	6'-3"	1905	16'-10"	5131	17'-0"	5182	15750	1450	6500	607	6732	3060
56D	8	2	8'-7"	2616	13'-6"	4115	17'-3"	5258	17640	1624	7280	680	7233	3288
60D	10	2	7'-5"	2261	16'-10"	5131	17'-1"	5207	18900	1740	7800	729	7307	3321
64D	8	2	9'-10"	2616	13'-6"	4115	18'-3"	5563	20160	1856	8320	778	8100	3682
70D	10	2	8'-7"	2616	16'-10"	5131	17'-11"	5461	22050	2030	9100	850	8212	3733
80D	10	2	9'-10"	2997	16'-10"	5131	18'-1"	5512	25200	2320	10400	972	9193	4179
84D	12	2	8'-7"	2616	20'-3"	6172	18'-6"	5639	26460	2436	10920	1021	9339	4245
96D	12	2	9'-10"	2997	20'-3"	6172	18'-6"	5639	30240	2784	12480	1166	10442	4746
112T	14	3	9'-10"	2997	23'-7"	7188	18'-6"	5639	35280	3248	14560	1361	12513	5688
128T	16	3	9'-10"	2997	27'-0"	8230	18'-6"	5639	40320	3712	16640	1555	14587	6630
144T	18	3	9'-10"	2997	30'-4"	9245	18'-6"	5639	45360	4176	18720	1750	16425	7466
160T	20	3	9'-10"	2997	33'-9"	10287	19'-6"	5944	50400	4640	20800	1944	17584	7993
176T	22	3	9'-10"	2997	37'-2"	11328	20'-5"	6223	55440	5104	22880	2138	18725	8511
192T	24	3	9'-10"	2997	40'-6"	12344	21'-5"	6528	60480	5568	24960	2333	19864	9029
208T	26	3	9'-10"	2997	43'-10"	13360	22'-5"	6831	65520	6032	27040	2527	21785	9902
224T	28	3	9'-10"	2997	47'-3"	14402	23'-5"	7138	70560	6496	29120	2722	23680	10764





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