

# CDF DUST COLLECTORS

**INDUSTRIAL**  
*Blast Facilities*  
by **CLEMCO**

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By Clemco Industries Corp.



# Clemco CDF Dust Collectors

- ◆ *Designed specifically for blast applications*
- ◆ *Compact design minimizes footprint*
- ◆ *Standard efficiency rating of 99.7% for submicron (0.5) particulate*
- ◆ *Built for interior or exterior installation*
- ◆ *Unique steeply pitched roof eliminates rain pooling*
- ◆ *Cost-effective, low-energy solution for all sizes of blast rooms*

**T**he Clemco CDF dust collector is high performance equipment designed and built for continuous operation and exclusively for blast applications.

*The CDF is an efficient reverse-pulse style collector used to provide ventilation for all sizes of industrial blast facilities. Units are of simple, modular design and are easy to install, operate, and maintain.*

*CDF dust collectors ventilate blast room enclosures, providing room air changes for visibility and engineered solutions for controlling respiratory protection exposure limits to dust. Depending upon the application and the blast media used, blasting generates varying degrees of dust. When sized appropriately for the enclosure, for the friability of the abrasive, and for the application, visibility is assured. With maximum visibility, the blast operator can work safely and productively and achieve critical labor efficiency.*

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## Rugged Construction

Modular design and sturdy construction: 3/16-inch and 10-gauge hot rolled steel, formed and reinforced to maintain structural integrity of 25 inches w.g. Flanged inlets and outlets ease ducting connections.

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## Simple To Install

CDF units operate on electricity and compressed air. Amperage and air usage depend upon the dust collector and exhauster size. Controls can be configured to operate on any specified electrical service.

Directing exhaust air back into your building reduces heating and cooling costs. Optional HEPA filters virtually eliminate microscopic dust emissions.

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## Easy to Operate

The most important functions of the CDF dust collector are to collect dust and to control the velocity of air movement through the room. The CDF, fitted with an exhauster motor properly sized for the blast room, draws air through the room, ducting, and high-efficiency cartridges, and vents clean air. Dust collects on the exterior surface of the cartridge and a reverse flow of air releases dust from the cartridge. Keeping the CDF operating at peak efficiency is as easy as monitoring two key gauges. A pressure regulator gauge indicates the pulse pressure set by the pressure regulator. A differential pressure gauge shows the pressure difference between the dirty and clean sides of the filters for determining the proper pulse pressure setting and the pulse 'off' time.

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## A Breeze to Maintain

Filter cartridges are easily accessible from the side, and can be changed in minutes. When properly seasoned upon installation, cartridges offer a long service life with regular monitoring and simple, occasional adjustment.





*Ensuring adequate ventilation protects workers and neighbors, safeguarding worker health and protecting the environment.*

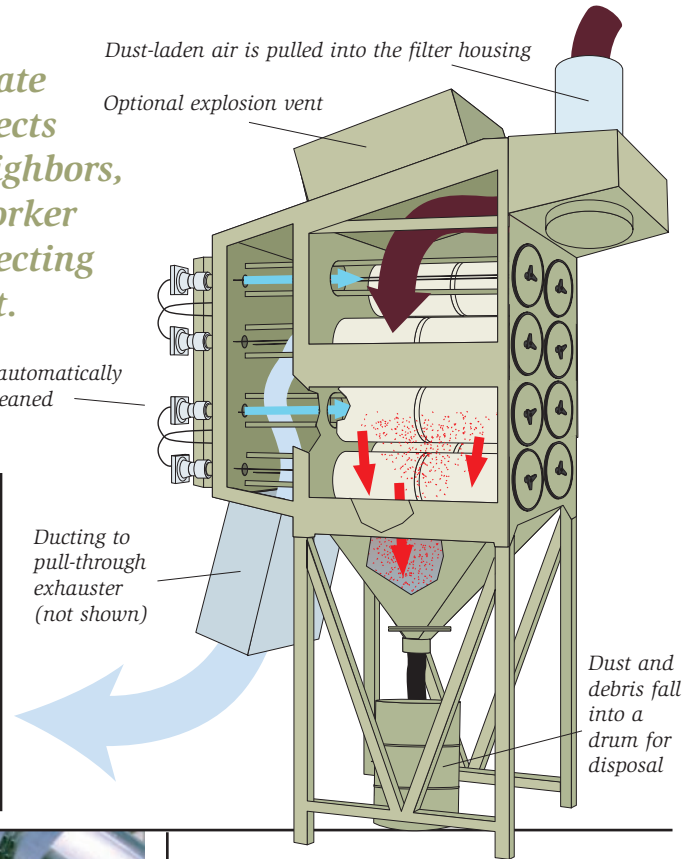
Smallest model, CDF-4 (4000 cfm) has 8 cartridges, and a top-mount exhauster.

Dust-laden air is pulled into the filter housing  
Optional explosion vent

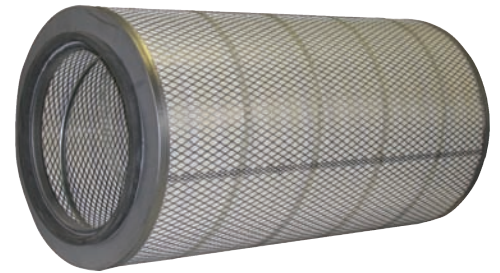
Cartridges are automatically reverse-pulse cleaned

Ducting to pull-through exhauster (not shown)

Dust and debris fall into a drum for disposal



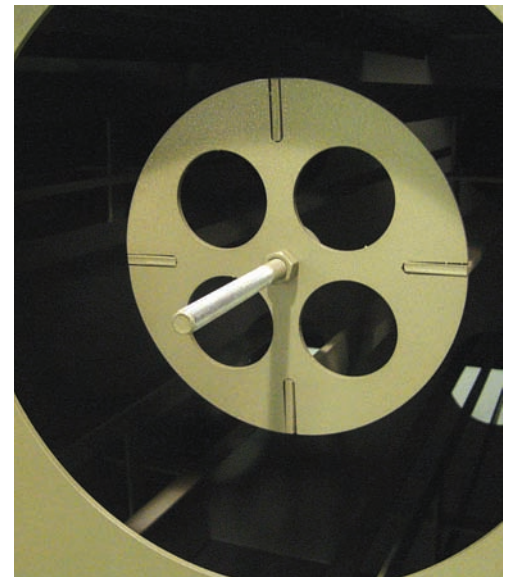
Two CDF's installed side by side at Hill AFB provide ventilation for both the recovery system and the blast room. CDF-8 on left; CDF-40 on right. Auger system transports dust to central collection area for disposal.



Each filter cartridge has 252 square feet of filter area with an efficiency rating of 99.7% for submicron (0.5) particulate.



CDF-96 in process of being installed at Randolph AFB.



Structural steel cartridge supports self-center cartridges for easy removal and replacement.

# Specifications

Model Number	Max CFM	No. of Cartridges	Filter Media Area (Sq Ft)	No. of Drums	Approx. Exhauster HP*	Exhauster Mount & Type	No. of Inlets	Dimensions/ w x d x h (Inches)	Weight in lbs
4	4,000	8	2,016	1	10	Top, direct drive	1	40 x 88 x 141	2,000
6	6,000	12	3,024	1	15	Top, direct drive	1	40 x 88 x 161	2,400
8	8,000	16	4,032	1	20	Top, direct drive	1	40 x 88 x 181	2,800
12	12,000	24	6,048	2	20	Floor, belt drive	2	80 x 88 x 161	4,400
16	16,000	32	8,064	2	30	Floor, belt drive	2	80 x 88x 181	5,100
18	18,000	36	9,072	3	30	Floor, belt drive	3	120 x 88 x 161	6,400
24	24,000	48	12,096	3	50	Floor, belt drive	3	120 x 88 x 181	7,400
32	32,000	64	16,128	4	75	Floor , belt drive	4	160 x 88 x 181	9,700
40	40,000	80	20,160	5	75	Floor, belt drive	5	200 x 88 x 181	12,000
48	48,000	96	24,192	6	100	Floor, belt drive	6	240 x 88 x 181	14,300
56	56,000	112	28,224	7	100	Floor, belt drive	7	280 x 88 x 181	16,600
64	64,000	128	32,256	8	125	Floor, belt drive	8	320 x 88 x 181	18,900
72	72,000	144	36,288	9	125	Floor, belt drive	9	360 x 88 x 181	21,200
80	80,000	160	40,320	10	150	Floor, belt drive	10	400 x 88 x 181	23,500

\*Exhauster sized to suit geographic location (altitude) and other factors that affect static pressure.

**NOTES: Higher capacity collectors are available to suit larger blast facilities. Systems can be designed and constructed to meet specified seismic requirements.**

## Standard Specifications:

**Filter cartridge** is fabricated of cellulose/polyester media with exterior wire-mesh suspension. Maximum air flow per cartridge: 500 cfm. Pressure limit: 22-in HG. Permeability: 2 cfm through 1 square foot of filter media. Each cartridge (stock no. 23744) has 252 square feet of filter media and measures 13-3/4" diameter x 26" long.

**Differential pressure gauge (Magnahelic®)** monitors pressure reading between clean and dirty sides of filters to simplify collector settings.

**Adjustable timer** controls 'off' time of cartridge pulse. 'On time' is preset; 'off time' determines time between pulses.

## Options

- ◆ Abrasive Resistant Inlets to prolong wear life
- ◆ Access Ladder and Platform to facilitate maintenance
- ◆ Explosion Venting
- ◆ Rotary Airlock Dust Discharge Valves
- ◆ Fine Material Filter Cartridges
- ◆ Photohelic® Gauge
- ◆ Bag-In/Bag-Out System
- ◆ System Sensor for Warning/Shutdown
- ◆ Controls, housed in a NEMA-4 enclosure, with an adjustable timer to control the 'off' time of the air pulse.
- ◆ HEPA Final Filter, mounted on outlet side of exhauster, captures fine particle emissions. HEPA is rated 99.97% efficient for submicron (0.3) particulates. Cartridges are constructed of aluminum filter media and measure 24-in long x 24-in wide x 11.5-in deep. Maximum air flow per cartridge is 2000 cfm. Pressure limit: 20-in Hg vacuum.

**A world-wide network of Clemco offices and Authorized Distributors are staffed by experienced personnel to assist with facility planning, installation, and service.**

### Industrial Facility Systems and Services

*Clemco Industries Corp. designs and builds blast rooms and room components to suit customer applications for all types of blast media. Rooms, floor systems, reclaimers, hoppers, and dust collectors can be purchased separately or as complete turnkey systems. Field service engineers are available for start up, installation supervision, maintenance audits, and training.*

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