

C SERIES Dust Collectors

FRED C SERIES DUST COLLECTORS STANDARD SPECIFICATIONS

| Model | Filters | Sq. Ft. Media | Hoppers | Standard Height | Standard Width | Standard Depth | Unit Weight lbs. |
|-------|---------|---------------|---------|-----------------|----------------|----------------|------------------|
| C2 | 2 | 508 | 1 | 133 5/8" | 42 1/4" | 47 7/16" | 1,025 |
| C4 | 4 | 1,016 | 1 | 140 1/8" | 42 1/4" | 47 7/16" | 1,160 |
| C6 | 6 | 1,524 | 1 | 171 1/4" | 58 1/4" | 60 13/16" | 1,888 |
| C8 | 8 | 2,032 | 1 | 158 1/8" | 63 3/4" | 42 1/4" | 1,790 |
| C12 | 12 | 3,048 | 1 | 171 1/4" | 83 3/4" | 42 1/4" | 2,465 |
| C18 | 18 | 4,572 | 1 | 171 1/4" | 88 3/4" | 57 1/4" | 3,395 |
| C24 | 24 | 6,096 | 1 | 191" | 105 25/32" | 57 1/4" | 4,050 |
| C32 | 32 | 8,128 | 1 | 189 1/4" | 105 25/32" | 74 1/4" | 5,025 |
| C40 | 40 | 10,160 | 1 | 203 1/8" | 80 1/4" | 90 1/4" | 4,880 |
| C48 | 48 | 12,192 | 2 | 187 1/2" | 106 1/4" | 74 1/4" | 5,575 |
| C56 | 56 | 14,224 | 2 | 187 1/2" | 122 1/4" | 74 1/4" | 6,245 |
| C64 | 64 | 16,256 | 2 | 192 1/2" | 138 1/4" | 74 1/4" | 6,980 |
| C72 | 72 | 18,288 | 2 | 199 5/16" | 154 1/4" | 74 1/4" | 7,657 |
| C80 | 80 | 20,320 | 2 | 206 1/4" | 170 1/4" | 74 1/4" | 8,450 |
| C88 | 88 | 22,352 | 3 | 199 5/16" | 176 1/4" | 74 1/4" | 9,495 |
| C96 | 96 | 24,384 | 3 | 199 5/16" | 202 1/4" | 74 1/4" | 10,236 |
| C112 | 112 | 28,448 | 4 | 187 1/2" | 244 1/2" | 80 1/4" | 12,490 |
| C128 | 128 | 32,512 | 4 | 192 1/2" | 276 1/2" | 80 1/4" | 13,960 |



HOW C SERIES DUST COLLECTORS OPERATE

Contaminated air enters the collector above the filter cartridges. Specially designed components in the cabinet uniformly distribute the contaminated air across the top of the filters. The contaminated air flows downward at a steady velocity. Dust is conveyed to the settling area below the filters by both air flow and gravity. Extremely small particulate is collected on the filter media, allowing clean air to return to the workplace or outside environment. Once particulate collection on the filters is sufficient to reduce air flow, the patented reverse jet pulse cleaning system propels the collected dust off of the filters and into the settling area.

Filtration

Reusable Filters

Energy Savings

Dramatically Reduced Pollution

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DOWNFLOW

The C Series downflow/verticle design produces zero velocity at the base of each filter stack, allowing the dust to settle uninhibited below the cartridges, thereby eliminating re-entrainment.

CARTRIDGE FILTERS

The standard 80/20% cellulose/polyester cartridge media is high in resin content to provide mechanical resilience, and has pleat-lock construction. Standard cartridges are rated for temperature up to 160 degrees Fahrenheit. High temperature cartridges are also available.

DUST SETTLING

The C Series design allows larger dust contaminates to have a clear path to the dust settling area and finer particles to be collected by the filters.

VENTURI

Venturi reverse pulse cleaning is the quick release of pressure through a blowtube into a venturi enductor tube into a cartridge filter. A higher volume of air is induced via this principle. The resulting burst of compressed air is more equally dispersed across the filter resulting in greater cleaning effectiveness compared to typical reverse pulse cleaning.



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PULSE JETS

Pulse jet performance and economy are maximized by Optimizing the orifice size and position. There are four methods of initiating jet pulse cleaning to best fit each application.

CYLINDRICAL FAN HOUSING

The motor, fan and inlet cone are packaged into a tubular centrifugal fan arrangement for greater performance, quieter operation and simplified maintenance.

DUST COLLECTION EFFICIENCY

The major obstacle to dust collection efficiency is re-entrainment, the re-filtering of dust that has been stirred up prior to settling. The goal is to dislodge the dust from the filter and allow it to settle in the hopper below.

The C Series utilizes patented downflow/verticle technology to minimize re-entrainment and extend filter life. Carefully managed inlet air velocity ensures that the air only flows downward, never upward or sideways. This prevents air movement below the filters where the dust has settled and results in effective cleaning while the dust collector is operating and shut down.



FEATURE

BENEFIT

| | |
|---|--|
| Cartridges arranged in a vertical orientation | Structural integrity of the filter is maintained Ensures consistent air-to-cloth ratio for each filter |
| Patented downflow/verticle airflow | Ensures uniform loading of filters while minimizing abrasion Process air assists cleaning action during online pulsing No-flow area below filters acts as a settling chamber for dust Eliminates 90 degree filter rotation required maintenance |
| Custom Designed Inlet with duct velocities ranging from 2500 to 6000 FPM | Assures proper delivery of dust to the filters and helps maintain cleaner duct work |
| Small, solid weld tube sheet below vertical cartridge | Gasket seals are enhanced as filers load and the cartridge becomes heavier Eliminates potential for metal distortion and possible leakage |
| Solid welded construction separating clean air and dirty air plenums | Reduces potential for leakage |
| Reverse jet pulse design | Venturi-assisted to optimize cleaning effectiveness |
| Pulse valve silencers | Reduces system generated noise Supplied standard vs. optional by competitors |
| Programmable Amtech pulse control with digital pressure differential sensor | Allows for online and offline initiation of cleaning cycles Increases Filter Life and decreases costs Conserves compressed air |

OPTION

BENEFIT

| | |
|--|---|
| Side Inlet | Acts as dropout box for sparks Reduces overhead ductwork clearance requirements |
| Explosion Vent Door/Latches | Latches designed to release, eliminating replacement of expensive membrane panels |
| Custom Designed Inlet with duct velocities ranging from 2500 to 6000 FPM | Assures proper delivery of dust to the filters and helps maintain cleaner duct work |
| Centrifugal Partial Width Fan | Eliminates the need for volume outlet dampers |
| Fan Silencer | Reduces sound levels in order to comply with OSHA and EPA requirements |