



Better Air is Our Business®

AmericanAirFilter® OptiFlo DustCatcher®

Engineering Data

Supplement to Bulletin APC-1-130

The standard OptiFlo DustCatcher is a fully assembled, self-contained, horizontal cartridge, self cleaning, down-flow pulse jet dust collector. It is available in three (3) sizes to exhaust nominal airflow volumes of 600, 1200, and 1800 cfm with an overall range from 400 cfm to 2300 cfm. It is designed for continuous service and is ideal for the removal of process and fugitive dusts in Pharmaceutical, Metalworking, and Welding applications, as well as in a wide range of other Industrial processes. The OptiFlo DustCatcher is supplied complete with its own fan and an installed dust removal pail. Both the fan and the compressed air manifold/s are fully enclosed within the collector. Optional accessories are available.

Selection

Critical selection factors are:

- *Type of dust to be collected*
- *Particle size distribution*
- *Dust load (grains per cfm)*
- *Temperature and humidity*
- *Efficiency required*

It is important that good dust control design practice be followed when selecting low volume dust collectors. Pay particular attention to selecting an appropriate air/media ratio. Small collectors have less margin for error built-in, so it is advisable to err on the side of caution.

Inlet Duct Design

In small collectors, particularly 2 and 4 cartridge collectors, a significant proportion of the cartridges are pulsed at any one time, 50% in the case of the 2 cartridge unit. Under some circumstances, the power of the pulse jet cleaning may momentarily impede or reverse the direction of the airflow. This may result in a momentary loss of suction and, where the inlet duct has not been properly sized, may even result in dust being emitted back through the inlet hood. In order to prevent this occurrence, inlet ducts shall be designed for a minimum velocity of 4000 fpm. It is recommended that the designer consult Industrial Ventilation, A Manual of Recommended Practice; published by the American Conference of Governmental Industrial Hygienists for information on designing ducts.



Standard Filter Cartridge Details

Filter Media	DuraKlean™
Filter Media Area	165 sq. ft.
Outside Diameter	12.75"
Pleat Depth	2" nominal
Number of Pleats per inch (based on internal circumference)	9
Other Features	Pleat Lock Separators, Inner and Outer Wire Cage

	DustCatcher 2	DustCatcher 4	DustCatcher 6
Number of Filter Cartridges	2	4	6
Total Filter Media Area (sq. ft.)	330	660	990

Dimensions and Operating and Shipping Weights

	DustCatcher 2	DustCatcher 4	DustCatcher 6
Width	41"	41"	41"
Depth	48"	48"	48"
Height	82"	101"	120"
Operating Weight (less collected dust)	600 lbs.	700 lbs.	800 lbs.
Shipping Weight	650 lbs.	800 lbs.	900 lbs.

For more information:

OptiFlo DustCatcher Product Brochure: APC-1-130

Installation, Operation, and Maintenance Instructions: APC-3-130

Contact your AAF Representative for Sales Drawings and Electrical Connection Diagrams.

AmericanAirFilter®

OptiFlo DustCatcher®

Standard Fan Performance¹

DustCatcher 2			DustCatcher 4			DustCatcher 6		
CFM	External Static Pressure (In. W.G.)	Motor HP Req'd.	CFM	External Static Pressure (In. W.G.)	Motor HP Req'd.	CFM	External Static Pressure (In. W.G.)	Motor HP Req'd.
400	12.50	5	800	12.27	5.0	1200	12.21	7.5
500	12.30	5	900	11.93	5.0	1300	11.98	7.5
600	11.70	5	1000	11.42	5.0	1400	11.66	7.5
700	10.70	5	1100	10.74	5.0	1500	11.26	7.5
800	9.35	5	1200	9.93	5.0	1600	10.79	7.5
			1300	8.99	7.5	1700	10.26	7.5
			1400	7.98	7.5	1800	9.66	7.5
			1500	6.91	7.5	1900	9.01	7.5
						2000	8.32	7.5
Note: 1. Based on an average internal pressure loss across the filter cartridges and housing of 4" w.g.						2100	7.61	10.0
						2200	6.87	10.0
						2300	6.13	10.0

Recommended Spare Parts

Part No.	Description	Recommended Spares
5212709	Diaphragm valve	One
2342145-001	Solenoid valve	One
2342194-001	Solid state timer board	One
2348795-001	Access door knob	Four
5212733-000	5-gallon pail	One
5212741-000	Gasket for pail	Two
2341030-001	Gasket for access door	20 Feet
1778505-001	Standard filter cartridges	One replacement set

When ordering replacement parts, the customer must identify the serial number of the collector, which can be found on the equipment nameplate.

Specifications and Options

Electrical:
Control and Electrical Panel Enclosures —
Electrical Component Listings —

NEMA 4
UL And CSA

Standard Voltages Available:

208, 230, 460 & 575VAC

Motor Data:

3 Phase, 60 Hertz,
3600 rpm nominal, TEFC

Fan:

Wheel Type —
Wheel Material —

Backward Inclined
Aluminum

Other Materials of Construction:

OptiFlo DustCatcher Housing —
Door and Access Panel Gaskets —
Finish coating —

12 Gauge Mild Steel
Hollow Core Neoprene
2 Coat Enamel Finish
Outside, Prime Coat Inside

5-Gallon Capacity
Dust Collection Pail —

80 Mil. Transparent Polypropylene or White High Density Polyethylene, depending upon availability

General:

Collector Pressure

Rating —

+/- 20" w.g.

Pulse Valve Size —

¾"

Pulse Valve Qty. —

1 per Filter Cartridge

Compressed Air

Availability Req. —

80 to 100 psig

Standard Factory Pulse Interval Settings:

120 Seconds

Standard Factory Pulse Duration Settings:

Size 2:

50 milliseconds

Sizes 4 and 6:

100 milliseconds

Noise Levels:

80 to 83 dBA

(Noise levels are based on measurements taken on a size 4 DustCatcher at distances of 3, 4, and 6 feet, with and without HEPA filter. Report is available. Peak noise levels of 90 dBA occurred during pulsing).

Standard Options Available:

- Pressure Demand Control Kit
- Extended Support Legs
- Drum Adapter Kit
- Second Stage HEPA Filter Housing with Gauge
- HEPA After-Filter
- Motor HP Upgrade for High Volume Air Flow — Size 4 and 6 Only
- Explosion Vent 14" x 14"
- Spark Resistant Fan
- Explosion Proof Fan Motor
- Pressure Demand Control Kit
- Grounded Cartridge
- Additional Inlet Baffle
- Replacement Cartridges
- Spare 5 Gallon Pail
- Less Controls
- Less Fan and Motor



Better Air is Our Business®

10300 Ormsby Park Place Suite 600
Louisville, Kentucky 40223-6169
www.aafintl.com

Customer Service 800.477.1214
Fax 800.254.3019

ISO-9001 Certified Firm

AAF has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice.

©2005 AAF International
APC-7-130B OCT '05 IM 2M