

MARTIN® Insertable Dust Collector

hæY 5` _R]Ud` _® PowerCore®



Systems To Fit Your Application

Martin Engineering offers a full range of system sizes and filter materials to match application requirements.

Explosion-proof models are also available for use in explosive environments.

System Requirements

Compressed Air: 10.2 cfm @ 90-100 psi

Electrical: 230/460V 3-Phase 60Hz

(also available in 380V/50Hz)

Max. Operating Temperature: 180°F (82°C)

Benefits

Effective Dust Capture

High efficiency filters remove 99.99 percent of all particles larger than 0.5 micron.

Continuous Operation

Automatic “reverse jet” cleaning sequence keeps filters working effectively with minimum compressed air.

Returns Product To The Process

Dust stays within the transfer point. Valuable material returns to the material handling system.

Low Energy Costs

Small, efficient integral fan operates only when conveyor runs.

Economical Installation

No ductwork to install, balance, or clean.

To overcome the maintenance problems and operating costs of centralized dust control systems, Martin Engineering recommends the use of [insertable dust collectors](#) on conveyor transfer points.

Rather than carry dust-laden air to a central collector, insertable systems filter the air inside the transfer point. There is no large fan, no ductwork, and no central bag house. Insertable filters are integrated into the transfer point enclosure, where they can easily return material to the conveying system.

Designed Efficiency

Insertable collectors can effectively handle the heavy concentrations of dust and high volumes of air arising at belt conveyor transfer points.

Donaldson® PowerCore® Insertable Dust Collectors are designed to remove 99.99 percent by weight of all dry particulate particles 0.5 micron and larger in size.

(This efficiency is based on a time-weighted average and assures the collector will be installed, operated, and maintained in accordance with instructions.)

No Dust Disposal

No haulage costs for waste disposal. Valuable material returns to the process. No equipment needed to handle, package, or dispose of dust.

Compact Design

Small “footprint” reduces space requirements and installation cost.

Minimum Maintenance

“Clean side” access for inspection and filter changeout. No tools required to change filter.

Flexible Design

Stand-alone system or use to supplement existing central dust collector systems.

TECHNICAL DATA SHEET

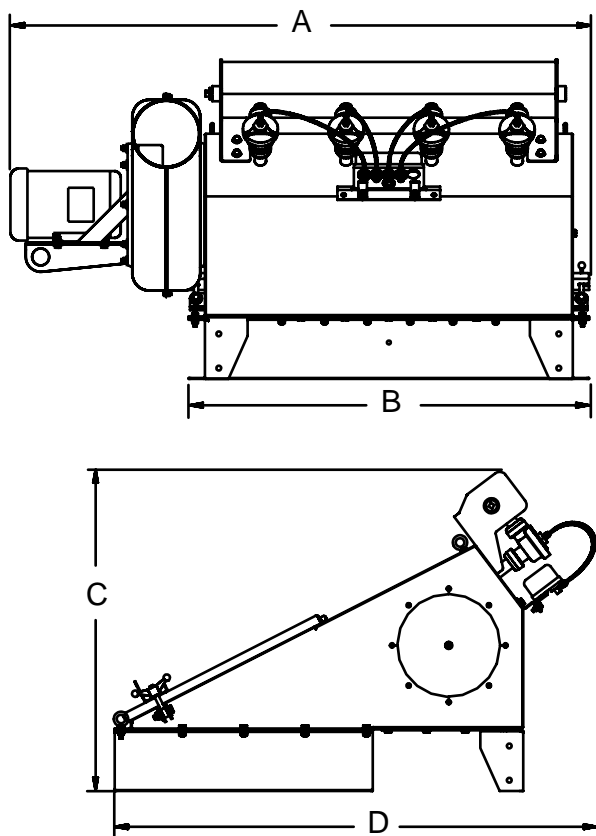
Dimensions & Specifications for 460V 60Hz Models

Air Flow (cfm)	Collector P/N*	Adapter Flange P/N	Power hp (kw)	Quantity of Filters	Opening Size Required (E) in. (mm)
0 - 800	INS-084X	38627-CPV-2	2 (1.5)	2	22.75 x 26.14 (578 x 664)
800 - 1000	INS-104X	38627-CPV-2	3 (2.25)	2	22.75 x 26.14 (578 x 664)
1000 - 1500	INS-154X	38627-CPV-3	3 (2.25)	3	32.75 x 26.14 (832 x 664)
1500 - 1800	INS-184X	38627-CPV-4	3 (2.25)	4	42.75 x 26.14 (1086 x 664)
1800 - 2000	INS-204X	38627-CPV-4	5 (3.75)	4	42.75 x 26.14 (1086 x 664)
2000 - 3000	INS-304X	38627-CPV-6	5 (3.75)	6	32 x 65 (813 x 1651)

Air Flow (cfm)	Weight lbs (kg)	Dim. A in. (mm)	Dim. B in. (mm)	Dim. C** in. (mm)	Dim. D in. (mm)
0 - 800	383 (174)	42.3 (1074)	26.8 (681)	37.2 (945)	47.7 (1212)
800 - 1000	407 (185)	44.2 (1123)	26.8 (681)	37.2 (945)	47.7 (1212)
1000 - 1500	487 (221)	54.2 (1377)	36.8 (935)	37.2 (945)	47.7 (1212)
1500 - 1800	655 (297)	66.6 (1692)	46.8 (1189)	37.2 (945)	47.7 (1212)
1800 - 2000	624 (283)	64.2 (1631)	46.8 (1189)	37.2 (945)	47.7 (1212)
2000 - 3000	833 (378)	54.9 (1394)	32.2 (818)	46.1 (1171)	83.6 (2123)

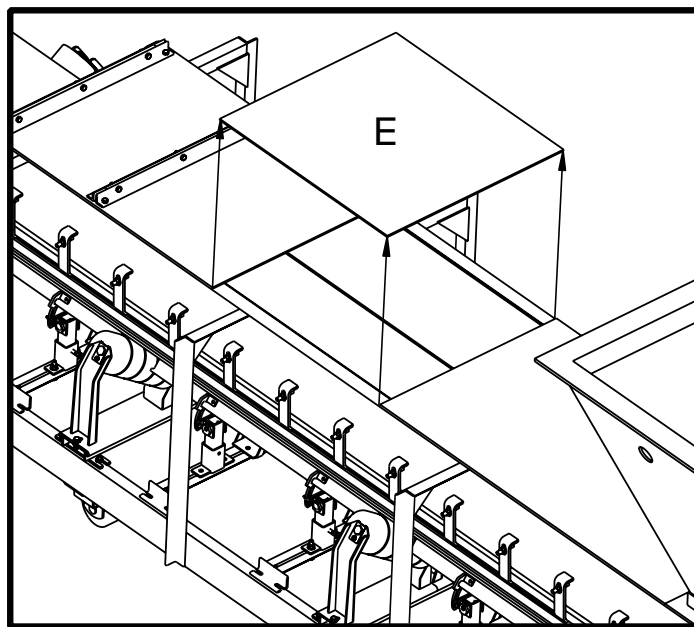
* X indicates service duty application: Standard-Duty (Blank) or Hazardous-Duty (E).

** For opening access door, allow 2.5 in. above unit for P/N INS-15X, INS-18X, INS-20X, and 20.5 in. for P/N INS-30X.



REPLACEMENT FILTERS

Standard: P/N 38432-FP
Explosion-Proof: P/N 38432-FPE

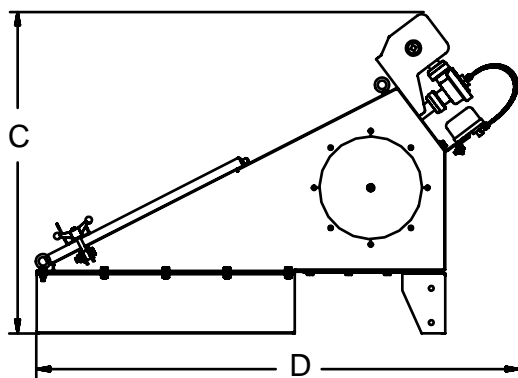
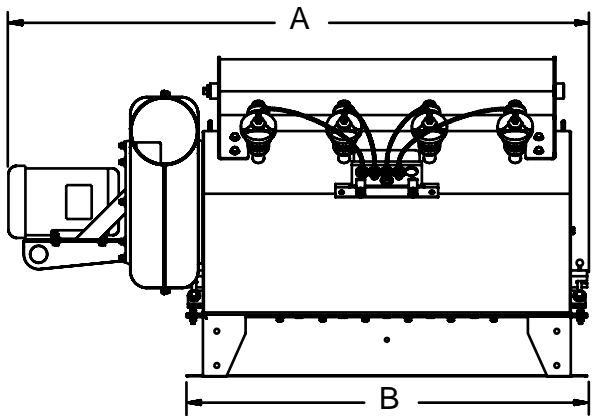


Dimensions & Specifications for 380V 50Hz Models

Air Flow (cfm)	Collector P/N	Adapter Flange P/N	Power hp (kw)	Quantity of Filters	Opening Size Required (E) in. (mm)
0 - 1000	INS-103	38627-CPV-2	3 (2.25)	2	22.75 x 26.14 (578 x 664)
1000 - 1500	INS-153	38627-CPV-3	3 (2.25)	3	32.75 x 26.14 (832 x 664)
1500 - 2000	INS-203	38627-CPV-4	5 (3.75)	4	42.75 x 26.14 (1086 x 664)
2000 - 3000	INS-303	38627-CPV-6	7.5 (5.60)	6	32 x 65 (813 x 1651)

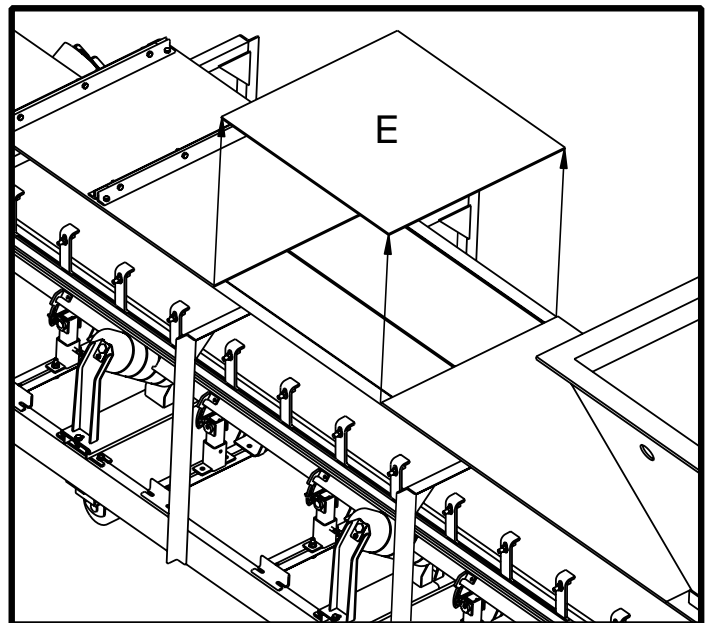
Air Flow (cfm)	Weight lbs (kg)	Dim. A in. (mm)	Dim. B in. (mm)	Dim. C* in. (mm)	Dim. D in. (mm)
0 - 1000	527 (239)	47.6 (1209)	26.8 (681)	37.2 (945)	47.7 (1212)
1000 - 1500	607 (275)	57.6 (1463)	36.8 (935)	37.2 (945)	47.7 (1212)
1500 - 2000	733 (332)	71.1 (1806)	46.8 (1189)	37.2 (945)	47.7 (1212)
2000 - 3000	927 (420)	59.8 (1519)	32.2 (818)	46.1 (1171)	83.6 (2123)

*For opening access door, allow 2.5 in. above unit for P/N INS-15X, INS-18X, INS-20X, and 20.5 in. for P/N INS-30X.



REPLACEMENT FILTERS

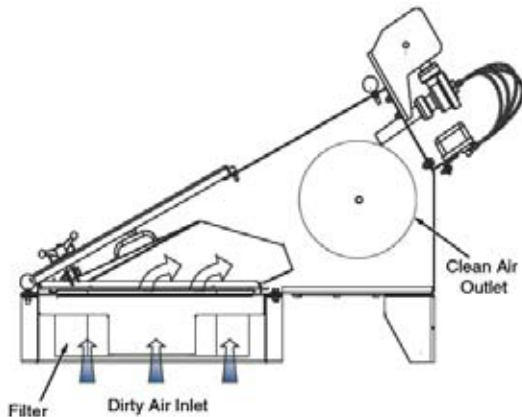
Standard: P/N 38432-FP
 Explosion-Proof: P/N 38432-FPE



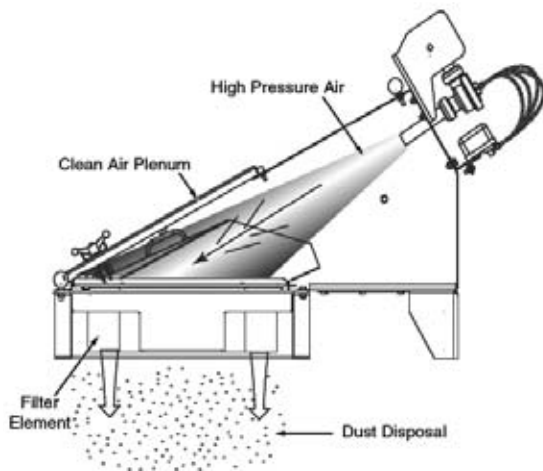
How It Works

An integral fan pulls dust-laden air through the filter elements. The air passes through the filter, leaving the particles on the filter element.

Each filter element is regularly cleaned by a "reverse jet" of compressed air, which is injected into the filter element. This causes a momentary reversal of the air flow dislodging the dust cake back into the main material body.



Standard Operation



Self-Cleaning Operation



Typical Installation



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QUALITY MANAGEMENT SYSTEM
CERTIFIED BY DNV
== ISO 9001:2008 ==