# AIR CLEANING BLOWERS™

SELF CLEANING- NO FILTER ELEMENTS TO MAINTAIN

## ACB MODEL T35

**NOMINAL AIR FLOW: 3,500 CFM — M³H: 5,950**

## UNIT TECHNICAL SPECIFICATIONS

**Standard Electrical Options:**
(Other Configurations* Available Upon Request)
- 460 Volts / 60 Hz / 3 Phase
- 575 Volts / 60 Hz / 3 Phase

*All units lose capacity when operating on 50 Hz as compared to 60 Hz

**Amperage of Components:**
(60 Hz Data)
- 460/3/60 - FLA = 12.0A, MCA = 15.0A, MOP = 25.0A
- 575/3/60 - FLA = 7.9A, MCA = 9.9A, MOP = 15.0A

Air Cleaning Blowers™ (ACBs) are self-cleaning blower systems that remove dust, dirt, mist, rain, and other contaminants from air **without the use of traditional filter media**. Using multi-patented separation technology, ACBs continuously eject **debris** from the airflow while maintaining **stable airflow, pressure, and energy efficiency**. Independent, private testing has shown that ACBs remove essentially all particles larger than 2 microns.

**Since ACBs use no filter media that collect contaminants, they do not clog. Without clogging they eliminate maintenance of filter elements and can be used in remote and unattended applications.**

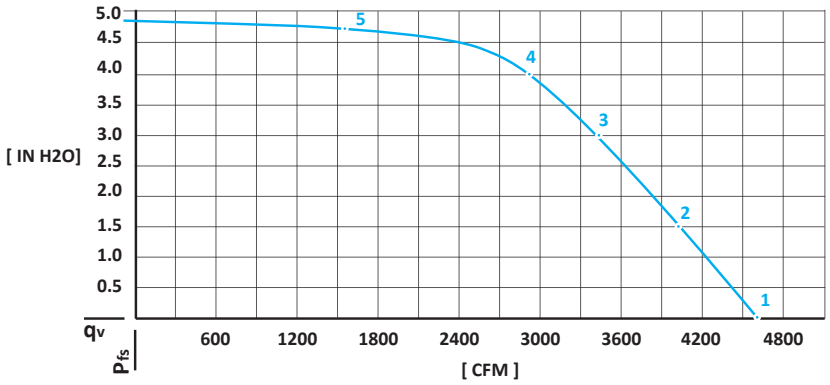
**ACBs need no valves or controls that can cause problems in cyclonic separators.**

Standard models are constructed with **Type 304 Stainless Steel cabinets**. Optional cabinet materials include **aluminum, and 316 stainless steel**. Units meet **IP54 or higher environmental protection standards** and meet **NEMA 4X requirements** when constructed with stainless steel cabinets and appropriate impeller materials.

Rain hoods and downspouts are r**emovable to facilitate installation**, but are required for proper and safe operation of standard units unless installed within ductwork.

Many 60 Hz AC units can operate on **50 Hz current without adaptation**, though with reduced airflow capacity and pressure. Additional models are available for **special AC and DC voltages and frequencies.**

## AIRFLOW PERFORMANCE




* All values labeled in the graph and table are estimates.

| Point | Power Supply V | Airflow $M^3H$ | Airflow CFM | Pressure IN H20 |
|---|---|---|---|---|
| 1 | 460 | 7900 | 4650 | 0.00 |
| 2 | 460 | 7115 | 4118 | 1.50 |
| 3 | 460 | 6080 | 3579 | 3.00 |
| 4 | 460 | 4885 | 2858 | 4.50 |
| 5 | 460 | 2608 | 1535 | 5.00 |

## OPTIONS

| | |
|---|---|
| Heating Elements | 1.5 to 20 kW of electrical-resistance heat using corrosion-resistant tubular incoloy elements (not light-weight wires). |
| Collecting Ejected Debris | Debris is normally ejected back into the atmosphere from which it came. ACBs can be connected to ductwork of dust-collection systems or to an ACB debris collector. |
| Housing for Downstream Specialty Filter Media | Activated carbon and other chemical-removing bulk media or filter elements to remove finer particles than the ACB removes. |
| Thermostat | To control the airflow or to warn user of high or low temperatures. |
| Adaptation for Installation On/In Vertical and other Air Conditioners | Provide changes of air and/or pressurization and purging to enclosures served by the Air Cleaning Blowers™. |
| Hazardous-Area Controls | To provide NFPA Type X, Y, or Z purging and pressurization. |
| Adaptation for Hazardous (Explosive) Ambients | NEC Class I Groups A, B, C, or D, Class II Groups F or G, or Class III Division/Zone 2 *or* Class I Groups C or D, Class II Groups E, F, or G, or Class III, Division/Zone 1 or 2 and their ATEX and IECEx equivalents. |
| Vibration Protection | Unit modifications to meet MIL-STD-810H vibration requirements for military and extreme industrial environments. |
| Enhanced Heating System | Electrical-resistance heat using corrosion-resistant Incoloy tubular heaters, designed for durability in harsh environments. |
| Heat Pump Integration | Heat-pump option for systems requiring reversible heating and cooling capability while maintaining ACB air-cleaning performance. |

## INSTALLATION

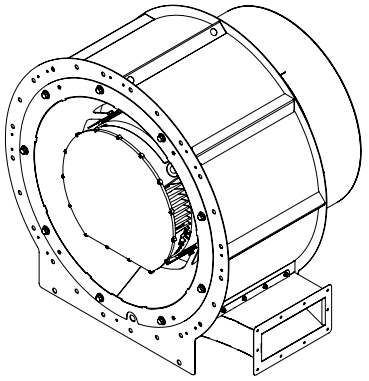
The units normally bolt to the wall. They require no additional support, unless the wall cannot support the weight indefinitely. When these ACBs are installed on a wall, the passage through the wall can be lined with a duct, if desired. Most units come with a cord for connection to a junction box.

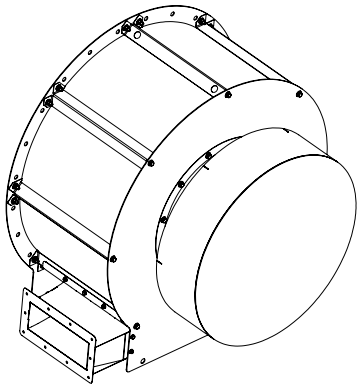
The units can come with two lifting eyes on the top that can be removed easily if necessary.

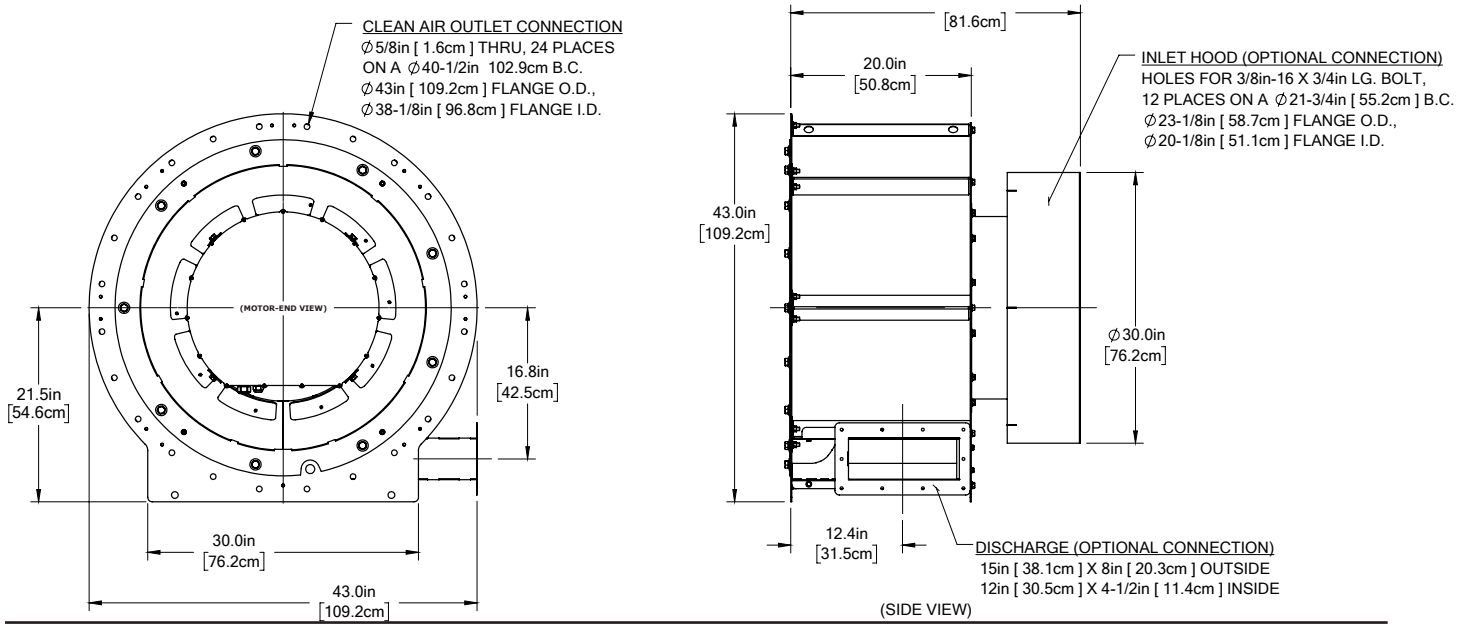
## DIMENSIONS

All dimensions are inches (IN), followed by centimeters [CM].

Approximate weight of unit: 390lbs







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## Build Your Own Model (Number):

In order to properly specify your ACB, you must make selections in each of the categories: electrical, heat, cabinet material, impeller material, exterior finish, and hazardous location. The only category that is completely optional is "additional options" and it can be ommitted if you do not have any special needs.

The electrical codes available for your ACB specification are: A, B, C, E, F, G, H and X. Select your electrical configuration using one of the codes listed below ( ). Next select a code for your desired heat option ( ).

The unit is made up 18 gauge material, with the choice of code(s): A, 4, 6, T ( ) and with your choice of finish ( ). The impeller material is ( ). Note the impeller material most common for this model is code(s): A.

Next select the desired hazardous (explosive) - location rating if applicable ( ). This will complete the mandatory fields necessary to order or specify your Air Cleaning Blower™.

You can browse through the additional options / special conditions / custom modifications and select and add a code based on your additional needs, if any.

## How to Read ACB Model Numbers

| | - | | - | | - | | - | | - | | - | | - | | - | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNIT TYPE & AIRFLOW | | ELECTRICAL | | FILTRATION | | HEAT | | CABINET | | IMPELLER | | CONFIGURATION | | EXTERIOR FINISH | | HAZARDOUS LOCATION | | ADDITIONAL OPTIONS |

Standard Design Features are in **BOLD.**

| UNIT TYPE | |
|---|---|
| CODE | |
| C | PROTECTIVE CANOPY |
| M | MOTOR-SHAFT-MOUNTED |
| R | REMOTE MOTOR |
| **T** | **STANDARD** |

| AIRFLOW (NOMINAL) | |
|---|---|
| 0 | 0-50 CFM |
| 1 | 50-125 CFM |
| 2 | 125-175 CFM |
| 3 | 175-275 CFM |
| 4 | 275-400 CFM |
| 5 | 400-500 CFM |
| 7 | 500-700 CFM |
| 8 | 700-850 CFM |
| 10 | 850-1400 CFM |
| 20 | 1400-2500 CFM |
| 35 | 2500-4500 CFM |
| 50 | 4500-6000 CFM |
| 75 | 6000-8000 CFM |
| 100 | 8500-12000 CFM |
| 150 | 12000-17000 CFM |
| # | # x 1000 = CFM |
| S | SHAFT - MOUNTED |

| HEAT | |
|---|---|
| CODE | HEAT / KW |
| **N** | **NO HEAT** |
| 1 | 1 kW |
| 2 | 2 kW |
| 3 | 3 kW |
| 4 | 4 kW |
| 5 | 5 kW |
| 6 | 6 kW |
| 7 | 7 kW |
| 8 | 8 kW |

| CABINET & IMPELLER | |
|---|---|
| CODE | MATERIAL |
| **4** | **STAINLESS STEEL 304 CABINET** |
| 6 | STAINLESS STEEL 316 |
| **A** | **ALUMINUM IMPELLER** |
| D | LDPE |
| G | GALVANIZED STEEL |
| H | HOOD |
| L | LOUVER |
| P | POLYPROPYLENE |
| R | FIBERGLASS REINFORCED |
| Y | ALS |

| CONFIGURATION | |
|---|---|
| CODE | STYLE |
| D | DUCT |
| H | HOOD ASSEMBLY |
| L | LOWER ASSEMBLY |
| R | RECTANGLE VERSION |

| EXTERIOR FINISH | |
|---|---|
| CODE | EXTERIOR FINISH |
| 4 | #4 SATIN METAL FINISH |
| A | ANODIZED |
| B | BLACK OXIDE |
| G | GALVANIZED STEEL |
| **M** | **MILL FINISH** |
| N | NICKLE PLATING |
| P | POWDER COATED PAINT |
| V | PASSIVATION COATING |
| Y | SPRAY PAINT |

| FILTER FINENESS | |
|---|---|
| CODE | FILTRATION |
| F1 | 1 µm |
| F2.5 | 2.5 µm |
| F5 | 5 µm |
| **F10** | **10 µm** |
| FH | HEPA |

| HAZARDOUS LOCATION | |
|---|---|
| CODE | HAZARDOUS LOCATION |
| E | EXPLOSION PROOF |
| H | HARSH DUTY |
| **N** | **NONE** |

**GROUP(S):**

[A] Acetylene
[B] Hydrogen
[C] Ethylene
[D] Propane
[E] Metal Dust
[F] Carbon-based
[G] Nonconductive Dust

| | | | | |
|---|---|---|---|---|
| **CLASS** | I | OR | II | OR III |
| **DIVISION** | | | 1 | OR 2 |

| ELECTRICAL | | |
|---|---|---|
| CODE | AC 60HZ | AC 50 HZ |
| A | 115V / 1 PH | |
| B | 220-240V / 1 PH | 220-240 V / 1 PH |
| C | | 220 V / 1 PH |
| E | 277V / 1 PH | 220-240 V / 1 PH |
| F | | 180-260 V / 1 PH |
| G | 208-230V / 3 PH | 200-240 V / 3 PH |
| H | 200-220V / 3 PH | 200-220 V / 3 PH |
| J | 415V / 3 PH | 415 V / 3 PH |
| K | 575V / 3 PH | |
| L | 208-230V / 1 PH | 220 V / 1 PH |
| M | 460V / 3 PH | 380-420 V / 3 PH |
| N | 460V / 3 PH | |
| P | | 380-420 V / 3 PH |
| Q | 208-230\|460V 3PH | 208-230\|460V / 3PH |
| R | 380 V / 3 PH | |
| X | 208-230\|380-460V 3PH | 380-420V / 3 PH |
| Y | 115 V / 1 PH / 400 HZ | |
| Z | 115 V / 3 PH / 400 HZ | |
| D(#) | DIRECT CURRENT (VOLTAGE) | |

| ADDITIONAL OPTIONS | |
|---|---|
| CODE | ADDITIONAL OPTIONS / SPECIAL CONDITIONS |
| -AB- | AIR CURTAIN ATTACHMENT |
| -AC- | COOLING ELEMENT INCLUDED |
| -B- | BASE |
| -CS- | CEILING SUSPENDED |
| -EC- | ELECTRONICALLY SUSPENDED |
| -F- | FLEXIBLE DUCT FOR CLEAN AIR DISCHARGE |
| -FD- | FLANGE ON DEBRIS DISCHARGE FOR DUCT OR BAG |
| -FF- | FLANGE ON CLEAN AIR DISCHARGE FOR DUCT |
| -H- | HUMIDISTAT INCLUDE |
| -PX- | PURGE TYPE (X, Y, or Z) |
| -PF- | MOUNTING FOR POST FILTER |
| -Q- | SUPPLEMENTAL SOUND DAMPENING |
| -RM- | ROOF MOUNTING KIT |
| -SM- | STAND MOUNTED |
| -T- | THERMOSTAT |
| -UV- | UV LIGHT MODULE |
| -VIB- | UNIT MODIFIED TO RESIST VIBRATION |

**DISTRIBUTED BY:**

Designed and manufactured in the U.S.A. under one or more of the following Patents #9,259,675 #10,118,115, with other patents pending.

33T00-260320-1300 ACB T35 (Pending)