AIR CLEANING BLOWERS™

SELF CLEANING- NO FILTER ELEMENTS TO MAINTAIN

ACB T20 MODEL

NOMINAL AIR FLOW: 2000 CFM — M³H: 3,400

UNIT TECHNICAL SPECIFICATIONS

Standard Electrical Options:
(Other Configurations Available Upon Request)
- 208-230 Volts / 50-60 Hz* / 1 Phase
- 208-230 Volts / 50-60 Hz* / 3 Phase
- 460 Volts / 60 Hz / 3 Phase & 380-420 Volts / 50 Hz / 3 Phase
- 575 Volts / 60 Hz / 3 Phase

*Most Units can run on 50 Hz as well, albeit at lower RPM and CFM Output

Amperage of Components:
(60 Hz Data)
- 208-230/1/60 - FLA = 1.7A, MCA = 2.1A, MOP = 3.8A
- 208-230/3/60 - FLA = 0.8A, MCA = 1.0A MOP = 1.8A
- 460/3/60 - FLA = 0.6A, MCA = .75A, MOP = 1.35A
- 575/3/60 - FLA = 5.5A, MCA = 6.9, 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.

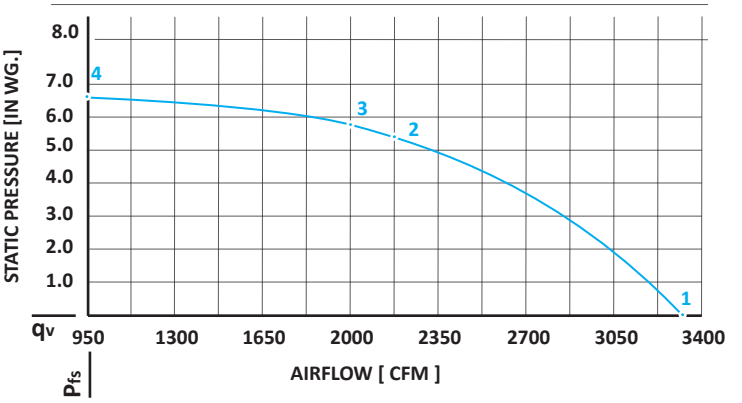
ACBs need no valves or controls that can cause problems in cyclonic separators.

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.

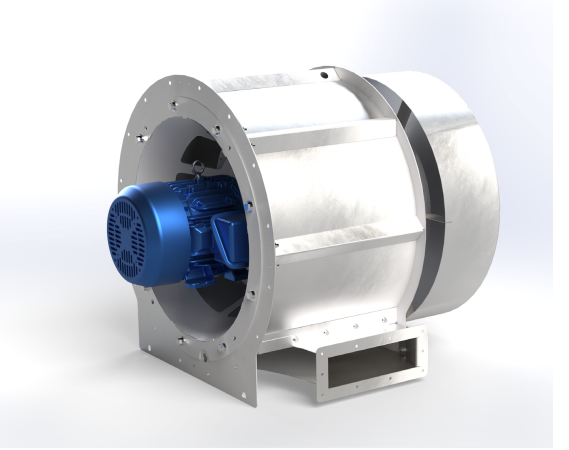
Point	Power Supply V	Airflow M^3H	Airflow CFM	Pressure IN H20
1	460	5771	3397	0.00
2	460	3695	2175	5.52
3	460	3398	2000	5.86
4	460	1614	950	6.61

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

ACB units typically bolt to a wall. They require no additional support, unless the wall cannot support the weight indefinitely. When ACBs are installed on a wall, the aperture can be aligned with a duct, if desired. These units are designed to connect directly to standard sized ducting and their flanges. Most units come equipped with a cord for connection to a junction box.



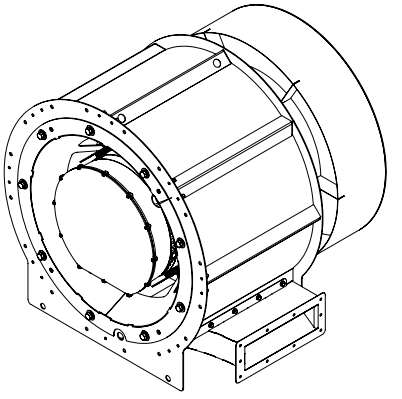
DIMENSIONS

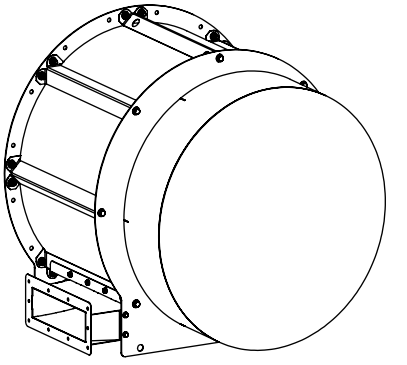
Approximate Weight of Unit: 253 lbs [115 kg]

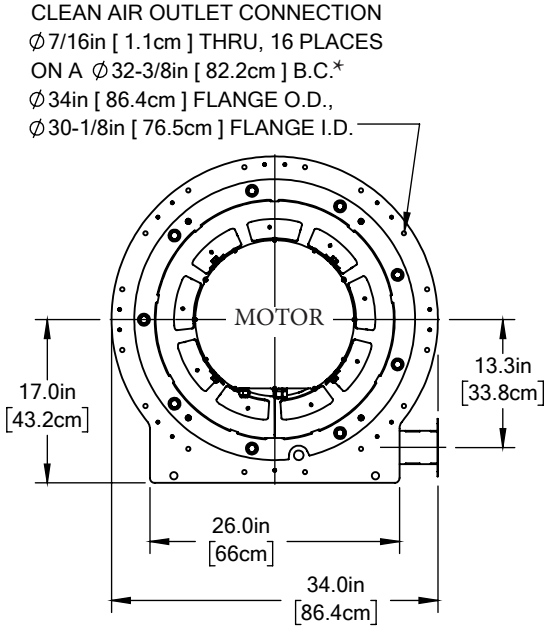
The inlet hood may be removed, allowing direct customer connections* to inlet.

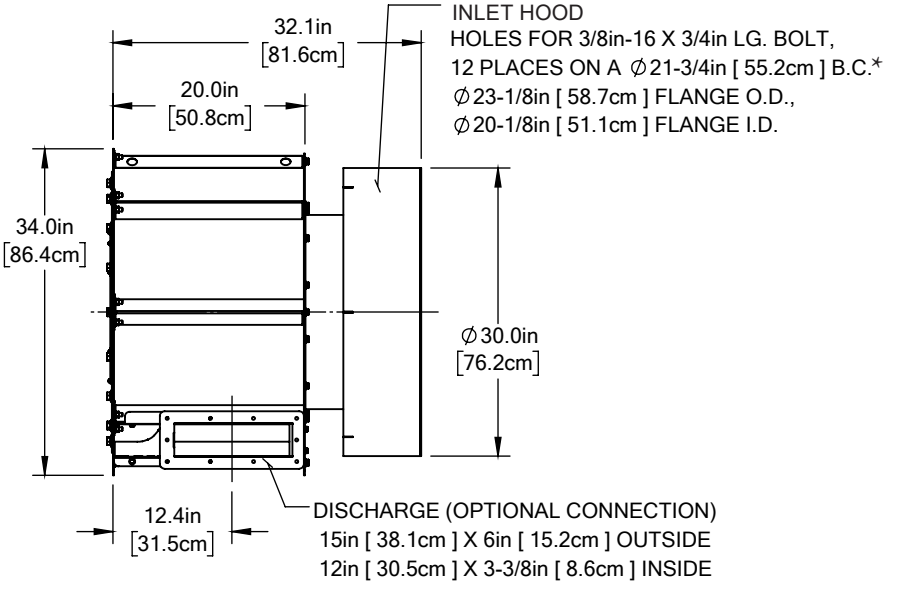
All dimensions are subject to change.

*Customer ducting connected to inlet/discharge must be self-supporting.









* B.C. = BOLT CIRCLE

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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.

33T00-260320-1255 ACB T20 (Pending)