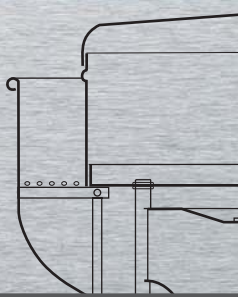
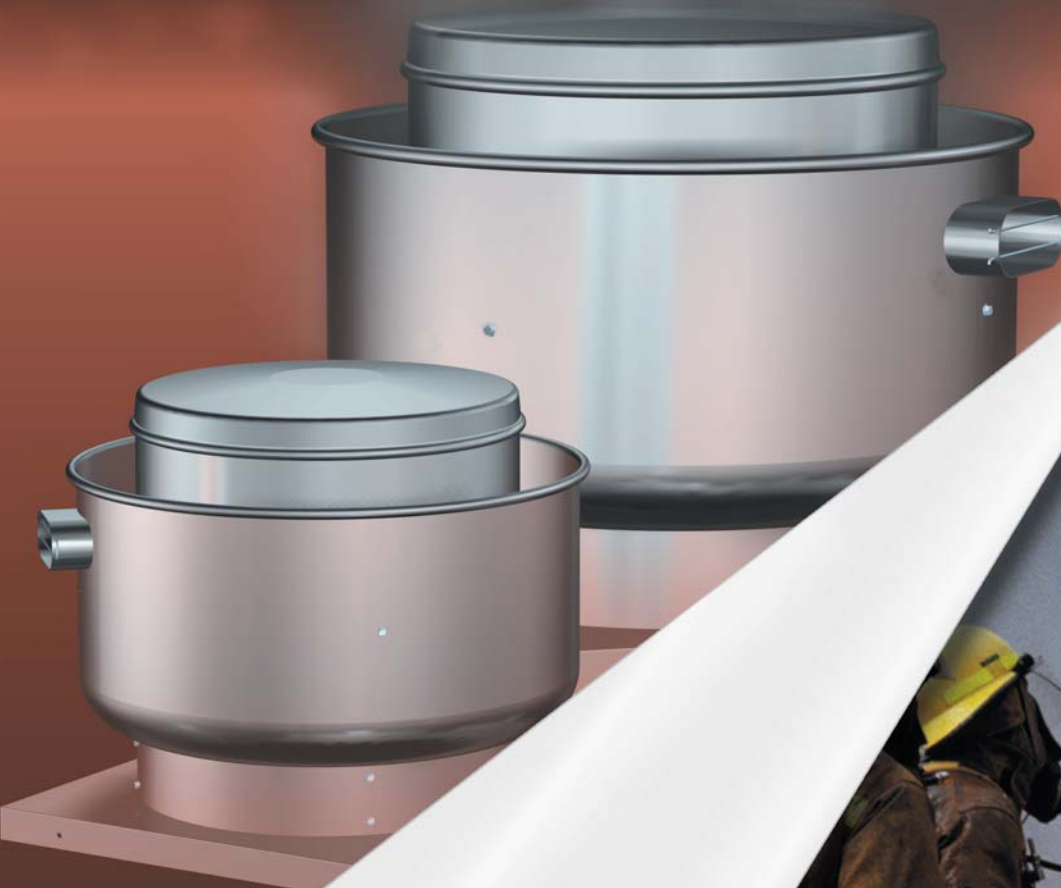


Power Ventilators for Smoke Control Systems

Model S-CUBE



 **GREENHECK**
Building Value in Air.

S-CUBE – Spun Aluminum Roof Upblast Centrifugal Exhaust Fan

When you buy a Greenheck Model S-CUBE, you receive a fan with the industry's best performance and durability for Smoke Control Applications (as found in emergency smoke control systems).

- The only spun aluminum UL Listed fan for Emergency Smoke Control Systems in the industry.
- UL Listed for 500 degrees F for 4 hours and 1,000 degrees F for 15 minutes.
- Performance up to 2.5 in. wg and 30,000 cfm, stable performance down to 300 cfm.
- When roof loads are a concern, the ideal choice is the S-CUBE (weighs half of traditional Smoke Control fans).
- Low profile, maximum of 48 inches from curb cap to top of fan.
- Multiple applications, capable of exhausting general clean air and satisfying emergency smoke control regulations.
- Performance as cataloged is assured. All fan sizes have been tested in our AMCA Accredited Laboratory and licensed to bear the AMCA sound and air performance seals.
- Greenheck subjects these products to extensive life testing, assuring you that the fans will provide many years of reliable performance.



S-CUBE model is Listed for electrical (UL/cUL 705) File No. E40001 and is Listed for Emergency Smoke Control Systems File No. MH17511



Greenheck Fan Corporation certifies that the Model S-CUBE fan shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. The certified ratings for Model S-CUBE is shown on pages 4 to 17.



World Class Manufacturing

Our advanced manufacturing processes and quality control procedures always ensure the highest product quality. Our skilled production workers use cost effective machines and unique die designs built by our own engineers to add innovative features and greater strength to our centrifugal exhaust fans. And just to be sure you get the peace-of-mind you expect when you specify Greenheck, our end of the line assemblers inspect, test run, and monitor every fan before it leaves the factory.

Leading Edge Technical Support

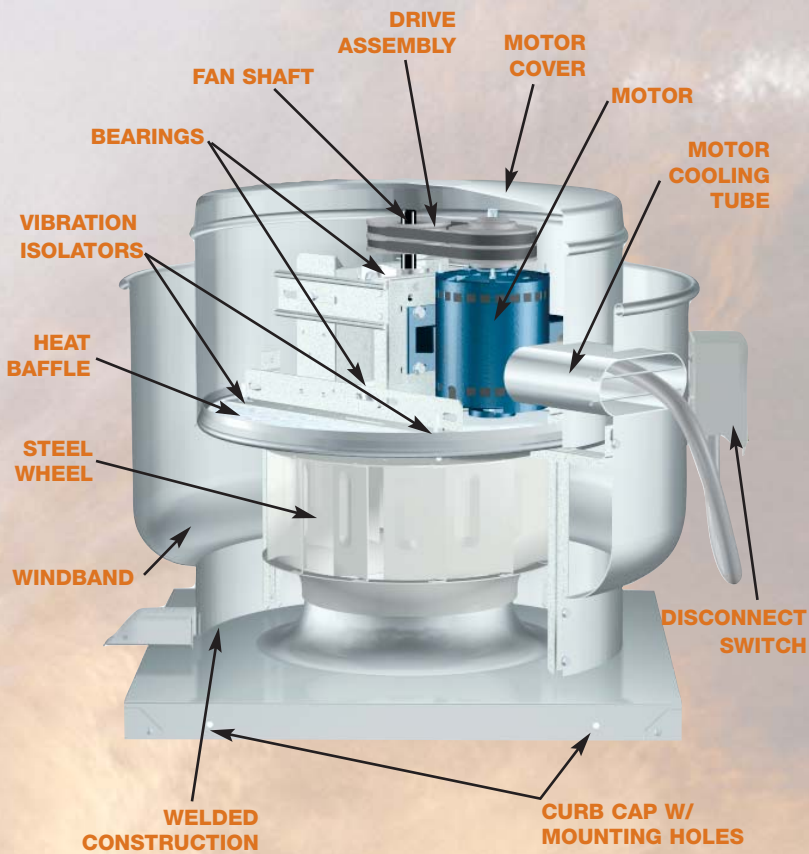
When you need extensive product and IOM (Installation and Operating Manual) information, our products are supported by the industry's best product literature, electronic media, and computer aided selection program (CAPS). You will find this information on our website at www.greenheck.com

You can always count on personal service and expertise from our national and international representative organization. To locate your nearest Greenheck representative, call 715-359-6171 or visit our website at

www.greenheck.com



Construction Features



- STEEL WHEEL** - Backward-inclined, non-overloading centrifugal steel wheel is utilized to generate high efficiency and minimal sound while moving high temperature air.
- DISCONNECT SWITCH** - Nema-3R switch is factory mounted and wired as standard. All wiring and electrical components comply with the National Electric Codes (NEC) and are either UL listed or recognized.
- FAN SHAFT** - Is precisely sized, ground, and polished so the first critical speed is at least 25% over the maximum operating speed.
- BEARINGS** - 100% factory tested and designed specifically for air handling and high temp applications with a minimum (L10) life in excess of 100,000 hours.
- MOTOR** - Carefully matched to the fan load and is mounted out of air stream.
- MOTOR COVER** - Constructed of aluminum and is easily removed for access to motor compartment and drive assembly.
- MOTOR COOLING** - Cooling fins located on top of fan wheel draw outside air through a large breather tube directly into the motor compartment.
- HEAT BAFFLE** - Insulation restricts heat from entering motor compartment.
- VIBRATION ISOLATION** - Safety Flange Vibration Isolators support the drive assembly and wheel for long life and quiet operation.
- DRIVE ASSEMBLY** - Dual Belts, pulleys, and keys are oversized 150% of driven horsepower. Machined cast pulleys are adjustable for final system balancing. Belts are static free and oil resistant.
- WINDBAND** - One piece, heavy gauge aluminum with a rolled bead for extra strength directs exhaust air away from the mounting surface.
- WELDED CONSTRUCTION** - The one-piece windband is continuously welded to the curb cap and drain trough, for superior strength.
- CURBCAPS WITH MOUNTING HOLES** - Curb cap has prepunched mounting holes to ensure correct attachment to the roof.
- NAMEPLATE** - Permanent stamped aluminum plate for exact model and serial identification.

Options and Accessories

COATINGS - Wide variety of coatings and colors are available from decorative to protective applications.

DISCONNECT SWITCHES - Assorted Nema rated switches are available for positive electrical shutoff and safety, including: dust-tight, rainproof, and corrosion-resistant.

BIRDSCREEN - Galvanized or aluminum rigid wire to protect the fan's discharge from birds or small objects.

CURB SEAL - Rubber seal between fan and curb to assure proper sealing when attached to a curb.

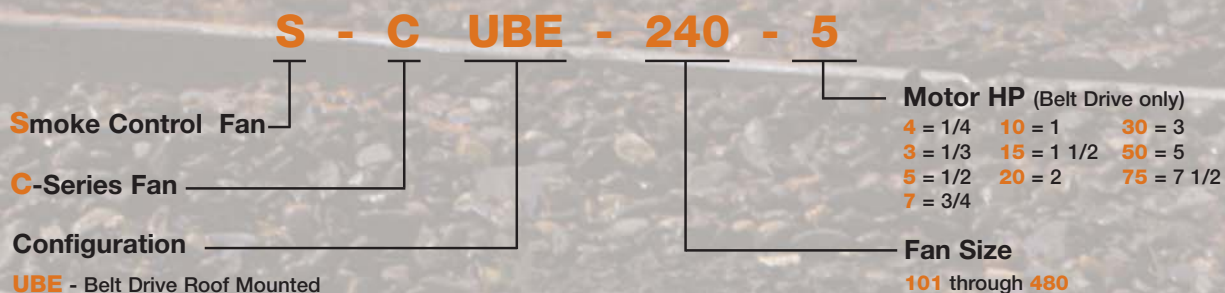
ROOF CURBS - Wide variety of roof curbs are available for mounting the fan to the roof, including: flanged, and pitched.

CURB EXTENSION - Mounts between roof curb and fan for additional height.

TIE DOWN POINTS - Four brackets located on the windband for securing the fan in heavy wind applications.

Model Number Code

The Model number system is designed to completely identify the fan. The correct code letters must be specified to designate belt drive roof mounted configurations. The remainder of the model number is determined by the size and performance selected from pages 4 through 17.

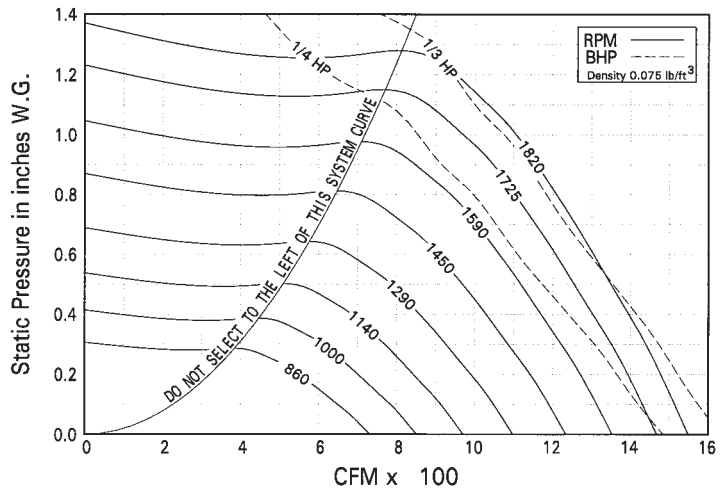


S-CUBE

Belt Drive Exhaust Fans

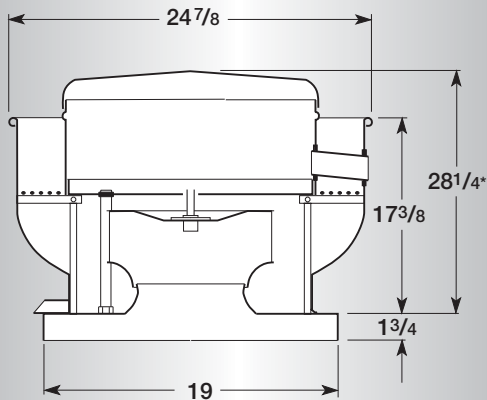


SIZE 101 STANDARD



Size 101 Dimensional Data

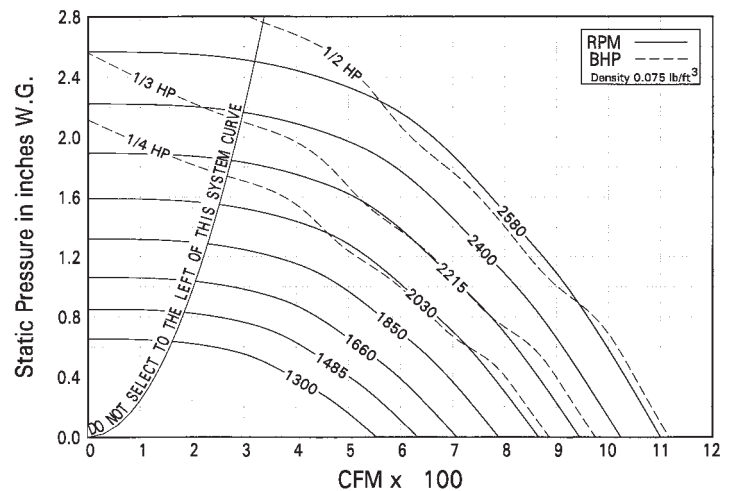
S-CUBE



Roof Opening = 14 1/2 x 14 1/2 Windband Thickness = 0.051
 Motor Cover Thickness = 0.040 Curb Cap Metal Thickness = 0.064
 Unit Weight** = 65 lbs.

All Dimensions are in inches.
 *May be greater depending on motor
 **Weight shown is largest catalogued Open Drip Proof Motor

SIZE 101HP HIGH PRESSURE



Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.



AVG. DISCHARGE VEL. (FPM) - CFM/1.28 MAXIMUM RPM - 1820
 MAX. BHP AT A GIVEN RPM - (RPM/2591)³ MAX. MOTOR FRAME SIZE - 56
 TIP SPEED = RPM X 2.913

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																					
				0		0.125		0.25		0.375		0.5		0.625		0.75		0.875		1.00		1.25			
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP		
BELT S-CUBE	101-4	1/4	960	817		724		611																	
				5.6	0.04	4.5	0.05	3.3	0.05																
			1310	1115		1052		977		898		810		676											
				8.5	0.11	8.5	0.12	8.2	0.12	7.6	0.13	7.0	0.13	6.7	0.12										
			1660	1413		1365		1313		1251		1189		1125		1056		974		861					
				12.7	0.22	12.3	0.23	12.0	0.24	11.6	0.25	11.3	0.26	10.8	0.26	10.2	0.26	9.6	0.26	9.4	0.25				
	101-3	1/3	1740	1481		1435		1386		1329		1270		1210		1146		1079		991					
				13.4	0.25	13.0	0.26	12.6	0.27	12.1	0.28	11.8	0.29	11.4	0.30	10.9	0.30	10.4	0.30	9.7	0.30				
			1820	1549		1505		1459		1406		1350		1293		1234		1171		1106		900			
				14.3	0.28	13.7	0.30	13.4	0.31	12.7	0.32	12.4	0.33	12.0	0.34	11.6	0.35	11.2	0.35	10.6	0.35	10.1	0.33		

AVG. DISCHARGE VEL. (FPM) - CFM/1.28 MAXIMUM RPM - 2580
 MAX. BHP AT A GIVEN RPM - (RPM/3195)³ MAX. MOTOR FRAME SIZE - 56
 TIP SPEED = RPM X 2.913

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																				
				0.50		0.625		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50		
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	
BELT S-CUBE	101HP-4	1/4	1300	335		182																		
				6.0	0.07	6.3	0.06																	
			1550	497		445		379																
				7.9	0.11	7.6	0.11	7.3	0.11															
			1800	637		595		550		445														
				10.6	0.18	10.1	0.18	9.8	0.18	9.3	0.18													
	2045	761		729		693		615		522		346												
		13.9	0.24	13.5	0.26	12.7	0.26	12.1	0.26	11.5	0.26	11.4	0.23											
	101HP-3	1/3	2150	812		782		752		678		600		500										
				14.1	0.28	14.1	0.29	13.5	0.30	12.5	0.30	12.0	0.30	11.5	0.30									
	2250	860		832		804		737		665		579		456										
		14.4	0.32	14.4	0.33	14.2	0.34	13.2	0.35	12.5	0.35	11.9	0.35	11.6	0.32									
101HP-5	1/2	2415	938		914		887		831		765		697		614		498							
			15.1	0.39	15.0	0.39	15.0	0.41	14.5	0.43	13.7	0.43	12.9	0.43	12.2	0.43	12.0	0.40						
		2580	1014		992		969		919		861		799		735		655		550		323			
16.8	0.48		16.4	0.48	16.0	0.49	15.7	0.52	15.1	0.53	14.4	0.53	13.7	0.53	13.2	0.53	12.9	0.49	12.5	0.43				

Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: Free inlet fan sone levels. The AMCA Certified Ratings Seal applies to sone ratings only.

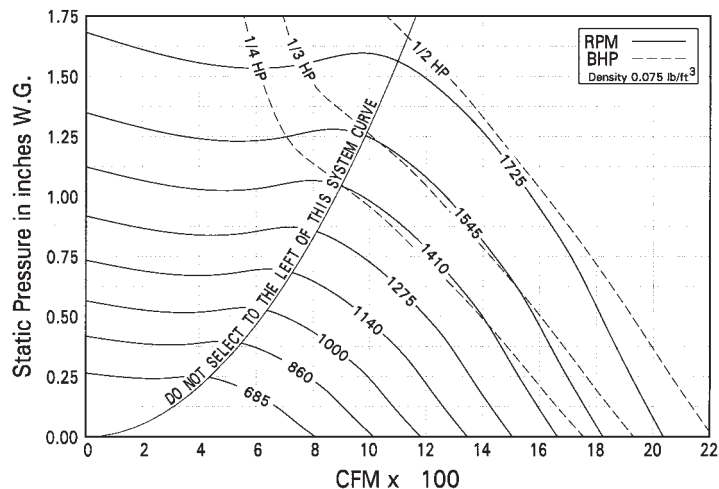


S-CUBE

Belt Drive Exhaust Fans

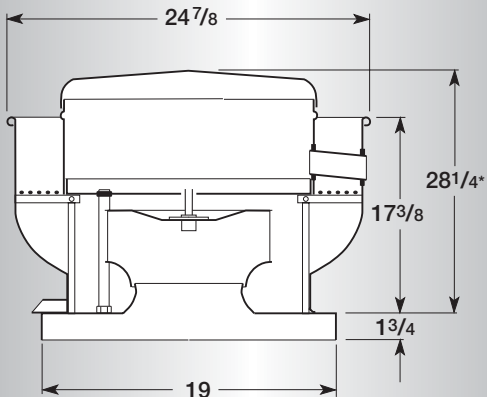


SIZE 121 STANDARD



Size 121/131 Dimensional Data

S-CUBE



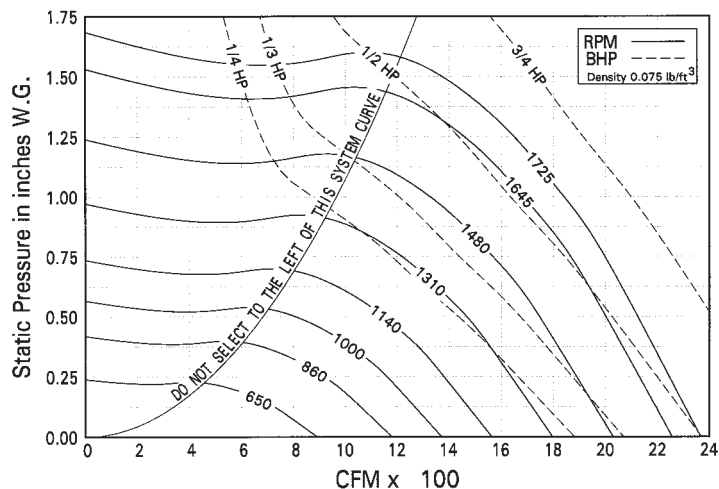
Roof Opening = 14 1/2 x 14 1/2 Windband Thickness = 0.051
 Motor Cover Thickness = 0.040 Curb Cap Metal Thickness = 0.064
 Unit Weight** = 73 lbs.

All Dimensions are in inches.

*May be greater depending on motor

**Weight shown is largest catalogued Open Drip Proof Motor

SIZE 131 STANDARD



Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

GREENHECK
 Building Value in Air.



AVG. DISCHARGE VEL. (FPM) - CFM/1.28 MAXIMUM RPM - 1725
 MAX. BHP AT A GIVEN RPM - (RPM/2199)³ MAX. MOTOR FRAME SIZE - 56
 TIP SPEED = RPM X 3.419

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																					
				0		0.125		0.25		0.375		0.5		0.625		0.75		1.00		1.25		1.50			
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP		
BELT S-CUBE	121-4	1/4	685	809		670																			
				4.4	0.02	4.4	0.03																		
			870	1027		918		797		609															
				5.4	0.05	5.7	0.06	5.7	0.06	5.8	0.06														
			1050	1240		1148		1060		952		808													
				6.5	0.09	7.0	0.10	7.2	0.10	7.2	0.11	7.1	0.11												
	1230	1452		1373		1297		1223		1127		1014		861											
		8.5	0.14	9.1	0.15	9.6	0.16	9.6	0.17	9.6	0.17	9.4	0.17	9.4	0.17										
	1410	1665		1595		1528		1463		1398		1315		1224		965									
		11.1	0.21	11.6	0.22	12.2	0.23	12.5	0.24	12.6	0.25	12.7	0.26	12.7	0.26	12.3	0.25								
	121-3	1/3	1480	1748		1681		1617		1555		1493		1421		1338		1132							
				11.9	0.25	12.4	0.26	13.1	0.27	13.5	0.28	13.7	0.29	13.8	0.29	13.8	0.30	13.6	0.30						
			1545	1824		1760		1699		1639		1580		1518		1441		1262		990					
	12.8	0.28		13.4	0.29	14.0	0.30	14.5	0.31	14.7	0.32	14.8	0.33	14.9	0.34	14.9	0.34	14.6	0.33						
	121-5	1/2	1635	1931		1870		1811		1755		1699		1643		1577		1424		1226					
				14.1	0.33	14.7	0.34	15.2	0.36	15.9	0.37	16.2	0.38	16.4	0.39	16.6	0.4	16.7	0.41	16.5	0.4				
			1725	2037		1979		1923		1869		1816		1763		1710		1571		1406		1176			
				15.6	0.39	16.1	0.4	16.7	0.41	17.3	0.43	17.9	0.44	18.2	0.45	18.4	0.46	18.7	0.47	18.6	0.48	18.4	0.46		

AVG. DISCHARGE VEL. (FPM) - CFM/1.28 MAXIMUM RPM - 1645
 MAX. BHP AT A GIVEN RPM - (RPM/2041)³ MAX. MOTOR FRAME SIZE - 56
 TIP SPEED = RPM X 3.420

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																				
				0		0.125		0.25		0.375		0.5		0.625		0.75		0.875		1.00		1.25		
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	
BELT S-CUBE	131-4	1/4	650	892		724																		
				6.2	0.03	6.0	0.03																	
			780	1070		935		756																
				7.5	0.05	7.3	0.05	6.6	0.06															
			910	1248		1133		1007		819														
				9.3	0.07	9.1	0.08	8.5	0.09	7.7	0.09													
			1045	1433		1333		1230		1104		932												
				11.4	0.11	11.1	0.12	10.6	0.13	9.9	0.13	9.1	0.13											
			1175	1612		1522		1433		1337		1214		1057										
				13.0	0.16	12.7	0.17	12.3	0.18	11.7	0.19	10.8	0.19	10.2	0.19									
			1305	1790		1709		1629		1547		1458		1340		1201		1003						
				14.6	0.22	14.3	0.23	13.9	0.24	13.5	0.25	13.0	0.26	12.0	0.26	11.5	0.26	10.8	0.24					
	131-3	1/3	1435	1968		1895		1822		1749		1671		1586		1479		1358		1198				
				15.7	0.29	15.5	0.30	15.1	0.31	14.8	0.32	14.3	0.33	13.8	0.34	13.1	0.35	12.5	0.34	11.9	0.33			
	131-5	1/2	1540	2112		2044		1976		1908		1838		1764		1678		1577		1465				
				16.7	0.35	16.5	0.37	16.2	0.38	16.0	0.39	15.6	0.41	15.2	0.42	14.6	0.42	14.0	0.43	13.4	0.43			
			1645	2256		2192		2128		2065		2001		1933		1864		1778		1684		1455		
	17.9	0.43		17.6	0.45	17.4	0.46	17.2	0.47	16.9	0.49	16.5	0.50	16.1	0.51	15.6	0.52	15.1	0.52	13.9	0.51			

Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: Free inlet fan sone levels. The AMCA Certified Ratings Seal applies to sone ratings only.

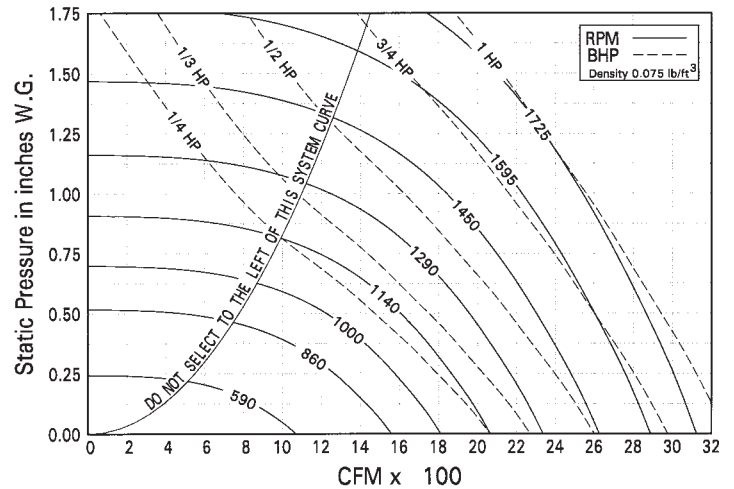


S-CUBE

Belt Drive Exhaust Fans

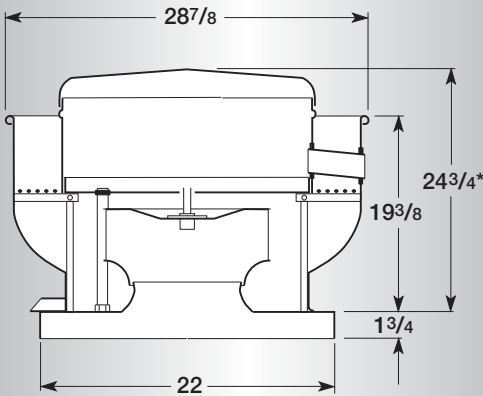


SIZE 141 STANDARD



Size 141 Dimensional Data

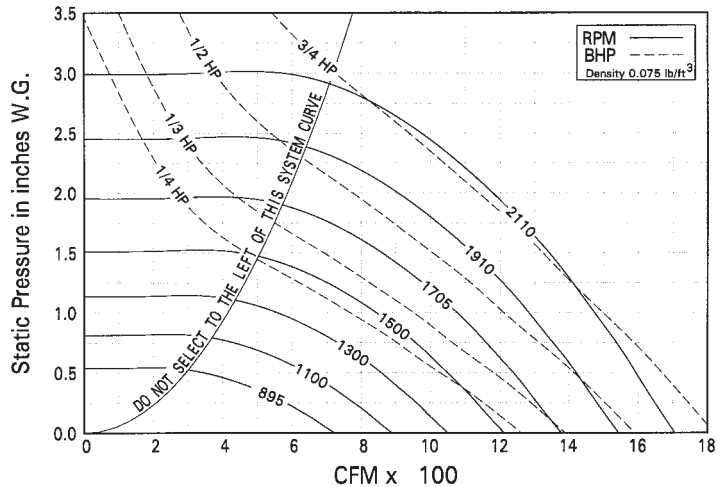
S-CUBE



Roof Opening = 18 1/2 x 18 1/2
 Motor Cover Thickness = 0.040
 Unit Weight** = 94 lbs.
 Windband Thickness = 0.051
 Curb Cap Metal Thickness = 0.064

All Dimensions are in inches.
 *May be greater depending on motor
 **Weight shown is largest catalogued Open Drip Proof Motor

SIZE 141HP HIGH PRESSURE



Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

GREENHECK
 Building Value in Air.

AVG. DISCHARGE VEL. (FPM) - CFM/1.72 MAXIMUM RPM - 1725
 MAX. BHP AT A GIVEN RPM - (RPM/1726)³ MAX. MOTOR FRAME SIZE - 145T
 TIP SPEED = RPM X 8.829

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																			
				0		0.125		0.25		0.375		0.50		0.75		1.00		1.25		1.50		1.75	
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
BELT S-CUBE	141-4	1/4	590	1069		851																	
				5.0	0.04	4.5	0.04																
			762	1380		1228		1021															
				6.4	0.08	6.5	0.08	5.7	0.09														
		734	1329		1170		945																
			6.1	0.07	6.2	0.07	5.3	0.08															
		1105	2001		1906		1793		1667		1515		998										
			10.9	0.23	10.8	0.24	10.6	0.25	10.3	0.26	10.0	0.26	9.6	0.23									
	141-3	1/3	1210	2192		2106		2006		1896		1773		1443									
				12.2	0.30	12.2	0.31	11.7	0.32	11.6	0.33	11.2	0.34	10.9	0.34								
	141-5	1/2	1390	2518		2445		2362		2271		2174		1949		1643							
				14.9	0.45	14.7	0.47	14.2	0.48	13.2	0.50	12.9	0.51	12.1	0.52	11.0	0.51						
141-7	3/4	1595	2889		2826		2757		2683		2602		2430		2225		1968		1568				
			20	0.69	19.0	0.70	18.5	0.72	19.5	0.74	16.1	0.75	13.3	0.77	12.3	0.79	12.6	0.78	11.6	0.71			
141-10	1	1725	3125		3066		3005		2936		2865		2711		2539		2339		2085		1704		
			26	0.87	23	0.88	22	0.90	24	0.92	24	0.94	15.1	0.97	13.4	0.99	14.3	1	13.8	0.98	13.8	0.91	

AVG. DISCHARGE VEL. (FPM) - CFM/1.72 MAXIMUM RPM - 2110
 MAX. BHP AT A GIVEN RPM - (RPM/2285)³ MAX. MOTOR FRAME SIZE - 145T
 TIP SPEED = RPM X 3.829

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																				
				0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50		2.75		
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	
BELT S-CUBE	141HP-4	1/4	895	331																				
				6.1	0.06																			
			1010	528																				
				6.4	0.09																			
			1125	671		478																		
				8.0	0.12	9.3	0.12																	
	1240	797		651																				
		10.2	0.16	9.7	0.16																			
	1350	906		790		633																		
		12.9	0.20	12.3	0.20	13.2	0.20																	
	1465	1016		920		798		642																
		14.2	0.24	13.5	0.26	13.2	0.26	15.5	0.26															
	141HP-3	1/3	1605	1146		1063		965		846		704												
				15.2	0.31	14.4	0.33	14.2	0.34	14.0	0.34	15.2	0.34											
	141HP-5	1/2	1725	1256		1178		1098		999		879		747										
				16.1	0.38	15.4	0.40	15.0	0.42	14.9	0.43	14.7	0.43	15.7	0.42									
	1845	1363		1292		1219		1137		1042		924		800										
				17.0	0.46	16.6	0.48	16.2	0.50	16.0	0.52	15.9	0.52	15.6	0.52	16.1	0.51							
141HP-7	3/4	1960	1463		1399		1330		1260		1176		1086		970		854							
			18.1	0.54	17.7	0.57	17.4	0.59	17.2	0.61	17.1	0.62	17.0	0.63	16.8	0.62	16.9	0.62						
2090	1575		1518		1454		1389		1320		1239		1154		1045		936		753					
			19.5	0.65	19.1	0.68	18.9	0.71	18.7	0.73	18.6	0.75	18.5	0.76	18.4	0.76	18.2	0.76	18.0	0.75	22	0.70		
2110	1592		1536		1473		1409		1341		1262		1178		1073		965		804					
			19.8	0.67	19.3	0.70	19.1	0.72	19.0	0.75	18.9	0.77	18.8	0.78	18.6	0.78	18.5	0.78	18.3	0.77	20	0.73		

Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

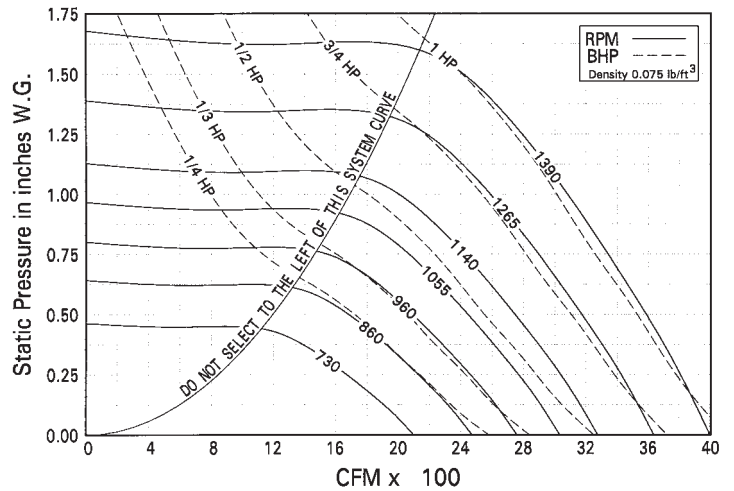
The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: Free inlet fan sone levels. The AMCA Certified Ratings Seal applies to sone ratings only.



S-CUBE

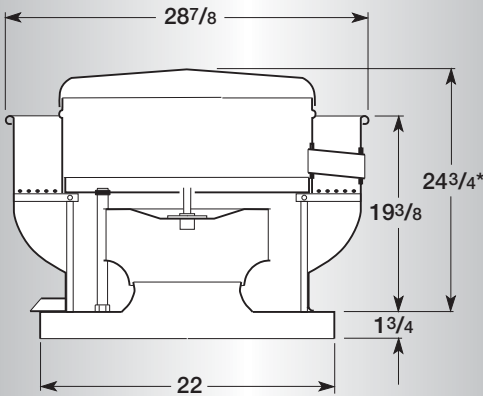
Belt Drive Exhaust Fans

SIZE 161 STANDARD



Size 161 Dimensional Data

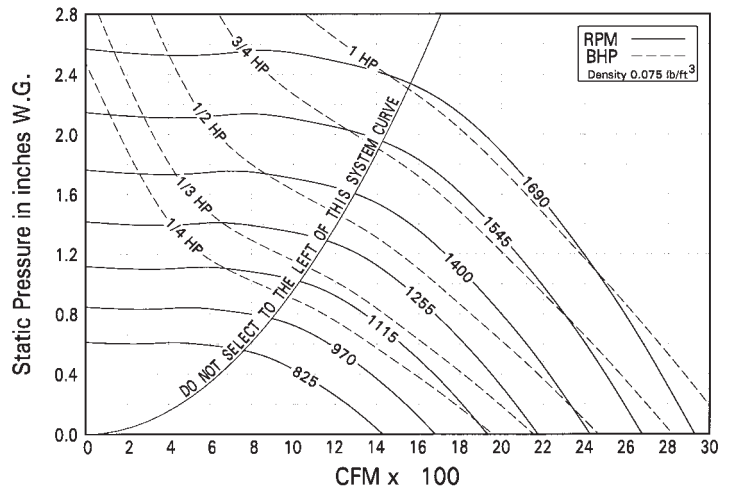
S-CUBE



Roof Opening = 18 1/2 x 18 1/2
 Motor Cover Thickness = 0.040
 Unit Weight** = 97 lbs.
 Windband Thickness = 0.051
 Curb Cap Metal Thickness = 0.064

All Dimensions are in inches.
 *May be greater depending on motor
 **Weight shown is largest catalogued Open Drip Proof Motor

SIZE 161HP HIGH PRESSURE



Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.



AVG. DISCHARGE VEL. (FPM) - CFM/1.72 MAXIMUM RPM - 1390
 MAX. BHP AT A GIVEN RPM - (RPM/1365)³ MAX. MOTOR FRAME SIZE - 145T
 TIP SPEED = RPM X 4.352

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																				
				0		0.125		0.25		0.375		0.50		0.625		0.75		1.00		1.25		1.50		
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	
BELT S-CUBE	161-4	1/4	730	2098		1905		1669		1389														
			875	8.1	0.13	8.0	0.15	7.8	0.15	7.8	0.15													
	161-3	1/3	965	2515		2362		2177		1974		1744		1365										
				11.0	0.23	10.6	0.26	10.1	0.26	9.9	0.26	9.7	0.26	9.7	0.24									
	161-5	1/2	1038	2774		2637		2477		2300		2109		1893		1584								
				12.4	0.31	12.0	0.34	11.5	0.35	11.2	0.35	10.8	0.35	10.6	0.34	10.5	0.33							
			1110	2984		2857		2712		2552		2382		2199		1992								
				13.7	0.39	13.3	0.42	12.8	0.43	12.4	0.44	12.1	0.44	11.8	0.43	11.6	0.43							
	161-7	3/4	1188	3191		3072		2941		2796		2641		2475		2297		1770						
				15.0	0.47	14.6	0.51	14.2	0.53	13.8	0.53	13.5	0.54	13.1	0.53	12.9	0.52	12.2	0.49					
			1265	3415		3304		3186		3053		2911		2764		2606		2246						
				16.7	0.58	16.3	0.62	15.8	0.64	15.4	0.65	15.0	0.65	14.7	0.66	14.5	0.65	14.0	0.64					
	161-10	1	1390	3636		3532		3426		3301		3172		3036		2894		2583		2163				
				18.5	0.7	18.1	0.74	17.7	0.77	17.2	0.78	16.8	0.79	16.5	0.79	16.3	0.79	15.8	0.78	15.2	0.75			
					3996		3901		3806		3698		3584		3464		3340		3078		2785		2394	
					22	0.93	21	0.97	21	1.01	20	1.03	19.9	1.04	19.6	1.04	19.4	1.05	19.0	1.04	18.6	1.03	18.0	1.00

AVG. DISCHARGE VEL. (FPM) - CFM/1.72 MAXIMUM RPM - 1690
 MAX. BHP AT A GIVEN RPM - (RPM/1660)³ MAX. MOTOR FRAME SIZE - 145T
 TIP SPEED = RPM X 4.352

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																				
				0.50		0.625		0.75		0.875		1.00		1.25		1.50		1.75		2.00		2.25		
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	
BELT S-CUBE	161HP-4	1/4	825	889																				
			1065	7.0	0.12																			
	161HP-3	1/3	1165	1487		1377		1252		1093														
				11.0	0.25	10.6	0.26	10.2	0.26	9.8	0.26													
	161HP-5	1/2	1255	1697		1608		1504		1395		1252												
				12.8	0.32	12.7	0.33	12.2	0.34	11.7	0.34	11.3	0.34											
			1340	1882		1799		1715		1617		1519		1218										
				13.1	0.40	12.8	0.41	12.5	0.42	12.0	0.43	11.5	0.43	10.6	0.42									
	161HP-7	3/4	1535	2053		1975		1897		1816		1724		1513										
				14.4	0.48	13.8	0.49	13.3	0.50	12.8	0.51	12.3	0.52	11.3	0.52									
	161HP-10	1	1610	2433		2368		2301		2233		2165		2015		1855		1638						
				18.1	0.70	17.7	0.72	17.2	0.73	16.8	0.74	16.4	0.76	15.7	0.78	14.9	0.79	13.5	0.78					
			1690	2573		2516		2452		2387		2322		2190		2037		1863		1651				
				19.6	0.80	19.2	0.82	18.8	0.83	18.4	0.85	18.1	0.86	17.5	0.89	16.9	0.90	15.8	0.91	14.3	0.90			
					2722		2671		2611		2550		2488		2365		2228		2082		1899		1664	
					21	0.92	21	0.94	21	0.95	20	0.97	20	0.98	19.5	1.01	19.1	1.03	18.6	1.05	16.9	1.05	15.0	1.03

Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: Free inlet fan sone levels. The AMCA Certified Ratings Seal applies to sone ratings only.



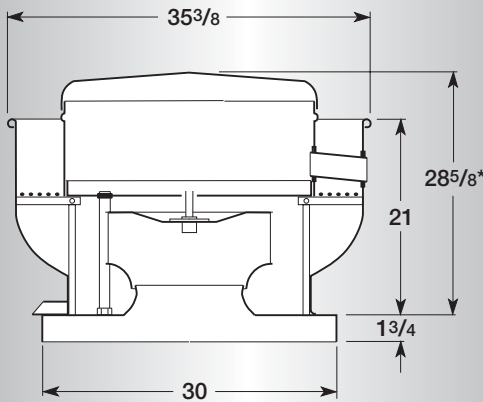
S-CUBE

Belt Drive Exhaust Fans



Size 200 Dimensional Data

S-CUBE

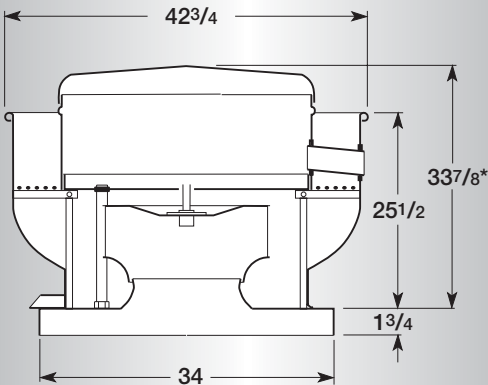


Roof Opening = 20 1/2 x 20 1/2
 Motor Cover Thickness = 0.040
 Unit Weight** = 159 lbs.

Windband Thickness = 0.051
 Curb Cap Metal Thickness = 0.064

Size 240 Dimensional Data

S-CUBE



Roof Opening = 26 1/2 x 26 1/2
 Motor Cover Thickness = 0.051
 Unit Weight** = 196 lbs.

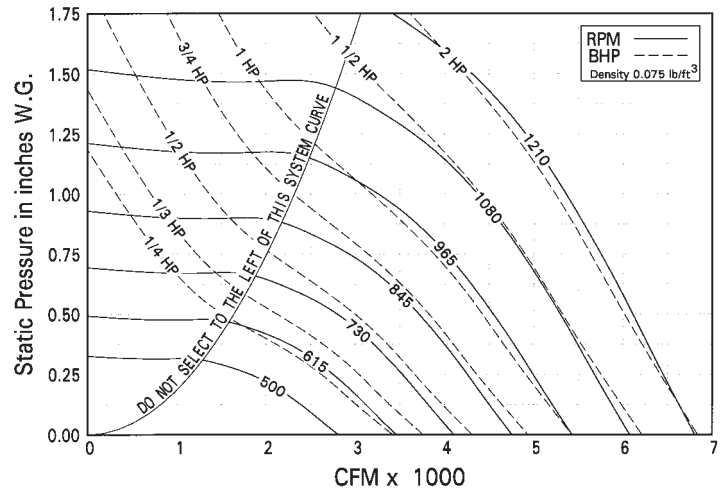
Windband Thickness = 0.064
 Curb Cap Metal Thickness = 0.064

All Dimensions are in inches.

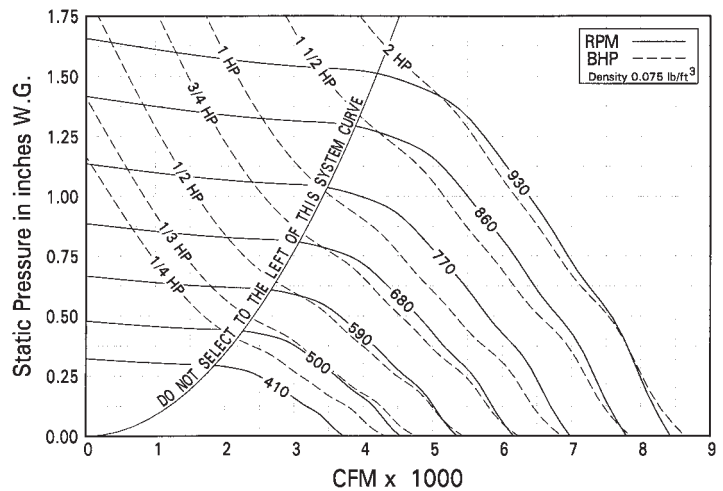
*May be greater depending on motor

**Weight shown is largest catalogued Open Drip Proof Motor

SIZE 200 STANDARD



SIZE 240 STANDARD



Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

GREENHECK
 Building Value in Air.



AVG. DISCHARGE VEL. (FPM) - CFM/2.92 MAXIMUM RPM - 1210
 MAX. BHP AT A GIVEN RPM - (RPM/946)³ MAX. MOTOR FRAME SIZE - 184T
 TIP SPEED = RPM X 5.595

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																			
				0		0.125		0.25		0.375		0.5		0.75		1.00		1.25		1.50		1.75	
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
BELT S-CUBE	200-4	1/4	500	2812		2386		1822															
				6.2	0.14	5.4	0.15	4.6	0.15														
	605	3403		3054		2675		2144															
			8.1	0.25	7.4	0.26	6.7	0.26	6.1	0.25													
	200-3	1/3	665	3740		3422		3096		2699		2073											
					9.4	0.33	8.8	0.34	8.1	0.35	7.5	0.35	7.0	0.33									
	200-5	1/2	710	3994		3694		3393		3050		2606											
					10.6	0.40	10.1	0.41	9.3	0.42	8.6	0.42	8.1	0.42									
	760	4275		3994		3718		3413		3048													
			12.1	0.49	11.7	0.51	10.9	0.52	10.1	0.52	9.4	0.51											
	200-7	3/4	820	4612		4350		4098		3828		3523		2606									
					14.1	0.61	14.1	0.63	13.0	0.65	12.2	0.65	11.4	0.65	10.7	0.61							
	875	4922		4676		4439		4192		3922		3240											
			16.3	0.75	16.3	0.77	15.2	0.78	14.7	0.79	13.5	0.79	12.4	0.78									
	200-10	1	960	5400		5176		4958		4742		4508		3985		3169							
					18.7	0.98	18.4	1.01	17.7	1.03	17.0	1.04	16.4	1.04	15.0	1.04	14.4	1.00					
	200-15	1-1/2	1030	5793		5585		5380		5179		4968		4503		3917		2972					
					21	1.22	21	1.24	20	1.26	19.2	1.28	18.7	1.29	17.5	1.29	16.4	1.27	16.8	1.18			
	1100	6187		5992		5798		5610		5421		5006		4529		3861							
			23	1.48	23	1.51	23	1.53	22	1.55	21	1.57	20	1.57	19.3	1.57	18.6	1.53					
200-20	2	1155	6496		6311		6125		5946		5767		5383		4948		4410		3629				
				24	1.72	24	1.74	23	1.77	23	1.79	22	1.81	21	1.81	20	1.81	19.2	1.80	19.9	1.71		
1210	6806		6628		6451		6279		6108		5748		5350		4892		4289		3365				
		25	1.97	24	2.00	23	2.03	23	2.05	22	2.07	21	2.09	21	2.09	19.8	2.08	19.7	2.04	21	1.88		

AVG. DISCHARGE VEL. (FPM) - CFM/3.76 MAXIMUM RPM - 930
 MAX. BHP AT A GIVEN RPM - (RPM/725)³ MAX. MOTOR FRAME SIZE - 184T
 TIP SPEED = RPM X 6.413

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																			
				0		0.125		0.25		0.375		0.50		0.625		0.75		1.00		1.25		1.50	
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
BELT S-CUBE	240-3	1/3	410	3717		3170		2471															
				6.4	0.16	5.8	0.18	5.3	0.18														
			465	4216		3768		3188		2162													
	510	7.6		0.23		7.0		0.25		6.3		0.26		5.9		0.23							
			4623	4243		3717		3134															
	240-5	1/2	548	4968		4608		4135		3638		2901											
					10.2	0.38	9.2	0.41	8.3	0.43	7.8	0.43	7.4	0.40									
	585	5303		4961		4540		4093		3565													
			11.5	0.46	10.5	0.49	9.5	0.51	8.8	0.52	8.4	0.51											
	240-7	3/4	628	5693		5368		5010		4590		4141		3600									
					12.9	0.57	11.9	0.61	11.1	0.63	10.4	0.64	9.8	0.65	9.4	0.63							
	670	6074		5763		5461		5052		4659		4202		3524									
			14.3	0.69	13.4	0.74	12.8	0.76	12.2	0.78	11.5	0.79	11.0	0.78	10.6	0.73							
	240-10	1	735	6663		6370		6133		5764		5409		5037		4618							
					16.6	0.92	15.9	0.97	15.5	0.99	15.1	1.01	14.6	1.03	13.9	1.04	13.4	1.03					
	240-15	1-1/2	790	7162		6883		6661		6361		6011		5693		5332		4453					
					18.2	1.14	17.5	1.20	17.2	1.22	16.8	1.25	16.3	1.27	15.7	1.28	15.0	1.29	14.3	1.24			
	845	7660		7400		7184		6947		6615		6304		6002		5282							
			19.6	1.39	19.0	1.46	18.6	1.49	18.2	1.51	17.6	1.54	17.0	1.56	16.4	1.57	15.4	1.56					
	240-20	2	888	8050		7802		7590		7394		7083		6772		6489		5854		5088			
				21	1.62	21	1.69	21	1.72	20	1.75	19.5	1.78	18.7	1.81	18.0	1.82	17.0	1.83	16.4	1.77		
930	8431		8194		7985		7798		7536		7233		6953		6375		5706		4324				
		24	1.86	23	1.93	23	1.98	22	2.00	22	2.03	21	2.06	19.9	2.08	18.7	2.10	17.8	2.07	17.9	1.83		

Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: Free inlet fan sone levels. The AMCA Certified Ratings Seal applies to sone ratings only.



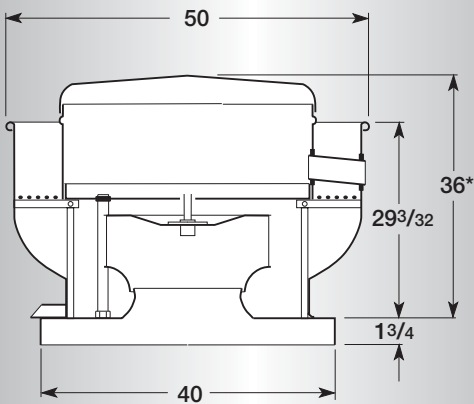
S-CUBE

Belt Drive Exhaust Fans



Size 300 Dimensional Data

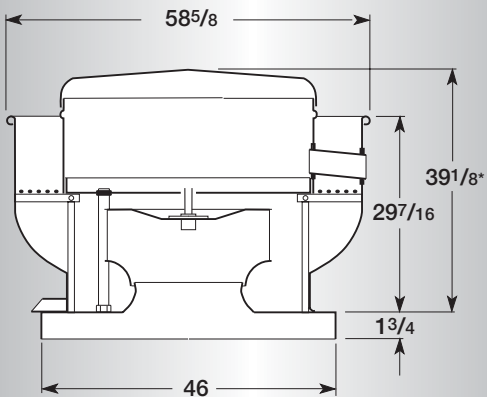
S-CUBE



Roof Opening = 32 1/2 x 32 1/2 Windband Thickness = 0.064
 Motor Cover Thickness = 0.051 Curb Cap Metal Thickness = 0.064
 Unit Weight** = 350 lbs.

Size 360 Dimensional Data

S-CUBE



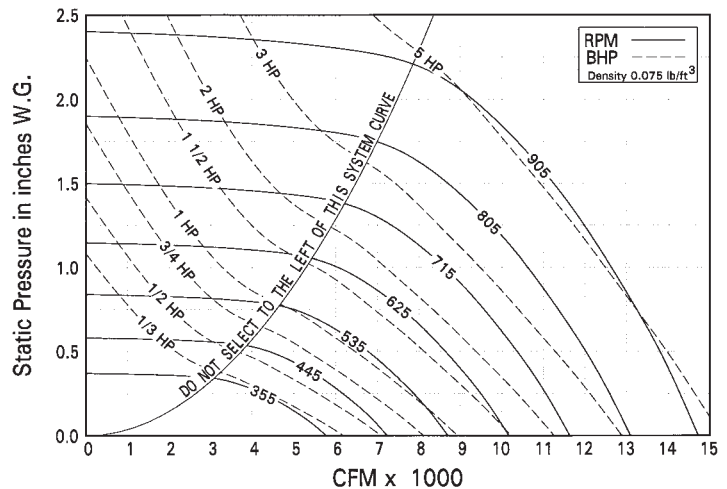
Roof Opening = 38 1/2 x 38 1/2 Windband Thickness = 0.080
 Motor Cover Thickness = 0.064 Curb Cap Metal Thickness = 0.080
 Unit Weight** = 493 lbs.

All Dimensions are in inches.

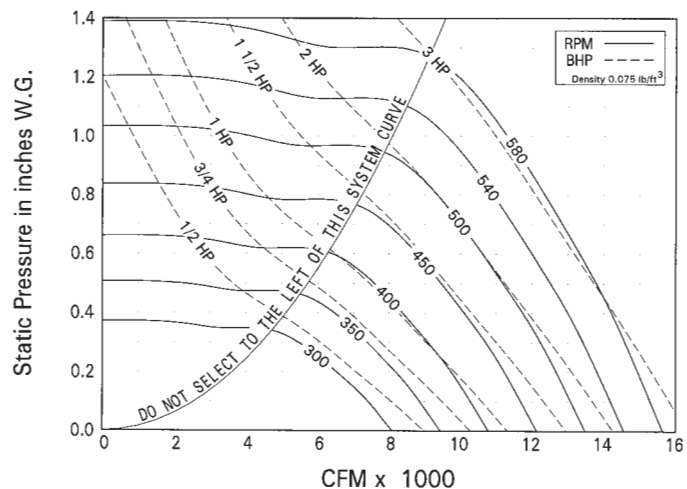
*May be greater depending on motor

**Weight shown is largest catalogued Open Drip Proof Motor

SIZE 300 STANDARD



SIZE 360 STANDARD



Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

GREENHECK
 Building Value in Air.

AVG. DISCHARGE VEL. (FPM) - CFM/5.50 MAXIMUM RPM - 905
 MAX. BHP AT A GIVEN RPM - (RPM/1522)³ TIP SPEED = RPM X 7.983
 MAX. MOTOR FRAME SIZE - 213T

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																			
				0		0.125		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00	
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
BELT S-CUBE	300-5	1/2	355	5777		5132		4227															
				6.9	0.27	6.3	0.30	5.3	0.31														
		420	6835		6314		5660																
			9.0	0.45	8.2	0.49	7.5	0.52															
	300-7	3/4	450	7323		6849		6258		4510													
				9.9	0.55	9.3	0.60	8.6	0.63	7.2	0.61												
		480	7811		7377		6844		5440														
			11.0	0.67	10.5	0.72	9.9	0.76	8.5	0.77													
	300-10	1	530	8625		8231		7772		6636													
				13.3	0.90	12.7	0.95	12.2	1.00	11.2	1.05												
	300-15	1-1/2	605	9845		9501		9127		8226		7084											
					17.0	1.34	16.4	1.40	15.7	1.46	14.8	1.54	13.5	1.55									
	300-20	2	665	10822		10508		10193		9411		8495		7271									
					20	1.77	19.7	1.85	18.6	1.92	17.5	2.02	16.7	2.07	15.1	2.04							
	300-30	3	715	11635		11344		11052		10356		9551		8572		7241							
					22	2.21	22	2.28	21	2.36	19.3	2.48	18.5	2.55	17.8	2.57	15.8	2.47					
		765	12449		12176		11904		11273		10554		9743		8756		7352						
			24	2.70	24	2.78	23	2.86	22	3.00	21	3.09	20	3.15	18.7	3.14	17.0	2.98					
	300-50	5	812	13214		12957		12700		12125		11478		10752		9883		8829		7148			
					26	3.23	26	3.32	25	3.40	24	3.55	23	3.67	23	3.74	22	3.76	19.6	3.70	18.1	3.42	
858			13963		13719		13476		12951		12355		11681		10956		10076		8945				
				29	3.81	29	3.90	28	3.99	26	4.16	26	4.30	25	4.38	24	4.44	23	4.43	21	4.31		
905	14727		14497		14266		13788		13223		12614		11963		11191		10357		9178				
		32	4.47	32	4.57	32	4.67	29	4.85	28	5.00	28	5.11	27	5.19	26	5.21	24	5.20	22	5.01		

AVG. DISCHARGE VEL. (FPM) - CFM/7.25 MAXIMUM RPM - 690
 MAX. BHP AT A GIVEN RPM - (RPM/396)³ MAX. MOTOR FRAME SIZE - 213T
 TIP SPEED = RPM X 9.425

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																			
				0		0.125		0.25		0.375		0.50		0.625		0.75		0.875		1.00		1.25	
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
BELT S-CUBE	360-5	1/2	300	8092		7206		6023															
				6.9	0.37	5.9	0.42	5.4	0.43														
		320	8631		7820		6755		5256														
			7.7	0.44	6.8	0.50	6.0	0.52	6.6	0.51													
	360-7	3/4	365	9845		9142		8299		7286		5767											
					10.2	0.66	9.4	0.72	8.5	0.77	8.0	0.78	8.3	0.74									
	360-10	1	400	10789		10153		9426		8556		7575											
					12.7	0.87	11.9	0.94	11.1	0.99	10.3	1.02	9.9	1.02									
	360-15	1-1/2	460	12408		11862		11281		10587		9814		8979		7809							
					16.8	1.32	16.5	1.40	15.8	1.48	15.1	1.53	14.5	1.55	14.0	1.56	13.5	1.52					
	360-20	2	505	13621		13125		12602		12022		11359		10647		9878		8841					
					20	1.74	20	1.83	19.8	1.92	19.0	1.99	18.6	2.04	18.3	2.06	17.9	2.06	17.0	2.02			
360-30	3	580	15644		15212		14769		14306		13783		13218		12597		11970		11287		9381		
				23	2.64	23	2.74	23	2.84	22	2.94	22	3.02	21	3.08	21	3.10	20	3.12	20	3.13	18.4	3.02

Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: Free inlet fan sone levels. The AMCA Certified Ratings Seal applies to sone ratings only.



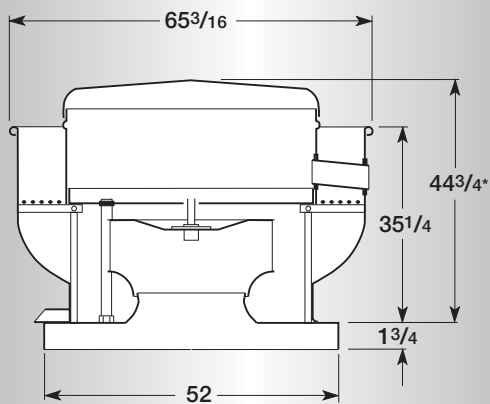


S-CUBE

Belt Drive Exhaust Fans

Size 420 Dimensional Data

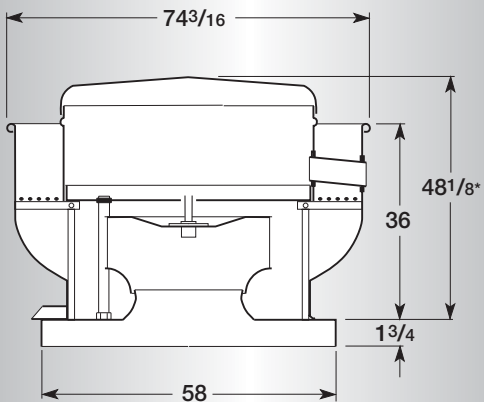
S-CUBE



Damper Size = 42 x 42 Roof Opening = 44 1/2 x 44 1/2
 Windband Thickness = 0.080 Motor Cover Thickness = 0.064
 Curb Cap Metal Thickness = 0.100 Unit Weight** = 647 lbs.

Size 480 Dimensional Data

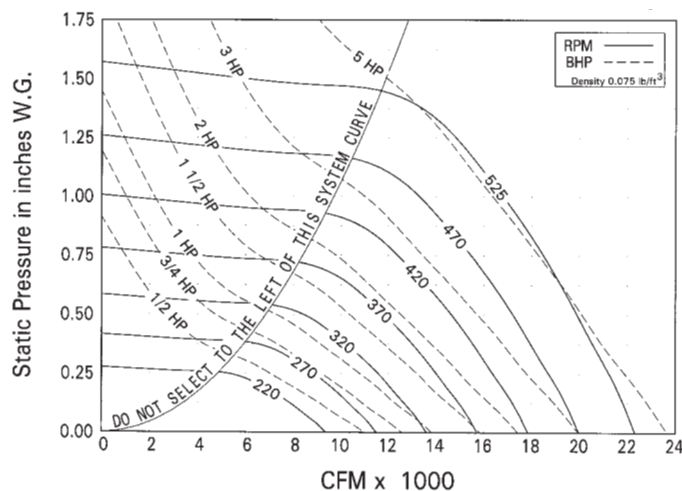
S-CUBE



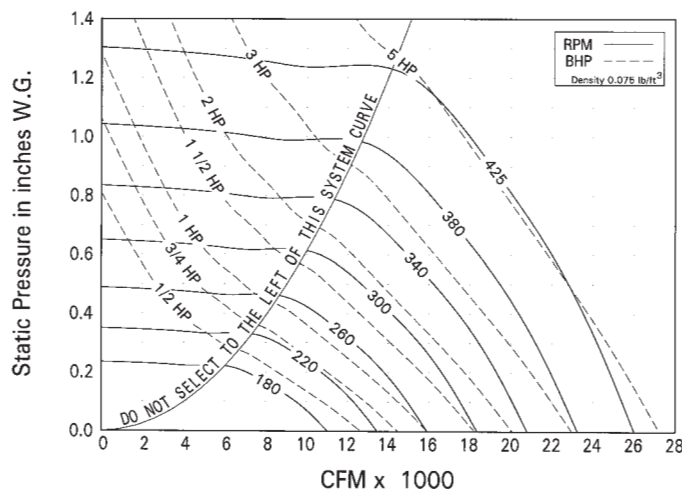
Damper Size = 48 x 48 Roof Opening = 50 1/2 x 50 1/2
 Windband Thickness = 0.080 Motor Cover Thickness = 0.064
 Curb Cap Metal Thickness = 0.100 Unit Weight** = 756 lbs.

All Dimensions are in inches.
 *May be greater depending on motor
 **Weight shown is largest catalogued Open Drip Proof Motor

SIZE 420 STANDARD



SIZE 480 STANDARD



Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.



AVG. DISCHARGE VEL. (FPM) - CFM/8.99 MAXIMUM RPM - 600
 MAX. BHP AT A GIVEN RPM - (RPM/303)³ MAX. MOTOR FRAME SIZE - 213T
 TIP SPEED = RPM X 11.06

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																				
				0		0.125		0.25		0.375		0.50		0.625		0.75		0.875		1.00		1.25		
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	
Belt S-CUBE	420-5	1/2	220	9353		7846		5075																
			6.5	0.31	6.0	0.37	5.5	0.35																
	420-7	3/4	280	245	10416		9104		7304															
				7.2	0.43	6.7	0.50	6.1	0.53															
	420-10	1	305	280	11904		10785		9418		7419													
				8.3	0.64	7.7	0.73	7.1	0.78	6.6	0.77													
	420-15	1 - 1/2	350	305	12966		11959		10781		9272													
				9.4	0.82	8.8	0.94	8.0	1.00	7.3	1.02													
	420-20	2	385	350	14879		14037		13050		11925		10562		8273									
				11.9	1.24	11.2	1.38	10.1	1.46	9.4	1.52	8.6	1.54	7.5	1.43									
	420-30	3	415	385	16367		15629		14731		13791		12701		11391		9246							
				14.4	1.65	13.5	1.81	12.4	1.91	11.7	1.99	10.7	2.05	9.7	2.05	8.5	1.92							
	420-50	5	485	415	17643		16982		16148		15303		14363		13274		12028		9889					
				17.2	2.07	16.1	2.24	14.9	2.37	13.8	2.45	13.0	2.53	11.9	2.57	10.9	2.56	9.3	2.40					
	420-50	5	525	440	18706		18103		17316		16532		15691		14740		13652		12436		10151			
				17.7	2.47	17.1	2.65	16.0	2.81	14.7	2.89	14.6	2.98	13.7	3.04	12.8	3.07	11.9	3.04	10.6	2.82			
	420-50	5	525	485	20619		20076		19394		18681		17960		17188		16313		15341		14277			
				20	3.31	19.7	3.51	19.1	3.69	17.5	3.81	17.2	3.91	16.8	4.01	16.2	4.07	15.5	4.10	14.9	4.09			
420-50	5	525	525	22319		21817		21220		20560		19904		19218		18497		17684		16795		14802		
			23	4.19	22	4.41	22	4.61	21	4.78	20	4.88	19.7	4.99	19.1	5.10	18.6	5.16	18.1	5.20	17.6	5.16		

AVG. DISCHARGE VEL. (FPM) - CFM/11.72 MAXIMUM RPM - 490
 MAX. BHP AT A GIVEN RPM - (RPM/246)³ MAX. MOTOR FRAME SIZE - 213T
 TIP SPEED = RPM X 12.63

DRIVE	MODEL	HP	RPM	STATIC PRESSURE IN INCHES OF WG																				
				0		0.100		0.125		0.25		0.375		0.50		0.625		0.75		0.875		1.00		
				Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	
Belt S-CUBE	480-5	1/2	180	11016		9463		8924																
			5.5	0.33	5.1	0.38	4.9	0.39																
	480-7	3/4	225	200	12240		10879		10490		7688													
				6.3	0.45	5.9	0.51	5.8	0.53	5.3	0.52													
	480-10	1	250	225	13770		12607		12261		10132													
				7.5	0.65	7.1	0.72	7.0	0.73	6.6	0.76													
	480-15	1 - 1/2	285	250	15300		14288		13988		12248		9988											
				9.0	0.88	8.6	0.97	8.5	0.98	8.2	1.04	7.9	1.03											
	480-20	2	315	285	17442		16554		16332		14991		13240		11154									
				11.1	1.31	10.7	1.40	10.6	1.43	10.0	1.52	9.6	1.55	9.2	1.52									
	480-30	3	360	315	19278		18475		18274		17116		15719		14033		11996							
				12.9	1.77	12.6	1.87	12.5	1.90	11.8	2.01	11.3	2.08	10.4	2.09	10.2	2.03							
	480-50	5	425	335	20502		19746		19558		18507		17320		15785		14074		11811					
				14.6	2.13	14.3	2.24	14.2	2.26	13.6	2.39	13.0	2.49	12.3	2.51	11.2	2.49	11.3	2.38					
	480-50	5	425	360	22032		21329		21153		20222		19142		17848		16410		14749					
				16.8	2.64	16.6	2.76	16.5	2.79	16.1	2.93	15.3	3.05	14.7	3.10	13.7	3.12	12.7	3.08					
	480-50	5	425	395	24174		23533		23373		22572		21605		20621		19343		18035		16522		14722	
				21	3.49	20	3.62	20	3.65	20	3.81	19.2	3.94	18.5	4.07	17.6	4.11	16.6	4.13	15.2	4.08	14.9	3.97	
480-50	5	425	425	26010		25414		25266		24521		23679		22764		21766		20556		19329		17922		
			22	4.35	22	4.49	21	4.52	21	4.69	20	4.85	19.4	4.98	18.7	5.09	17.7	5.12	16.0	5.14	15.6	5.09		

Performance shown is for installation type A: Free inlet, Free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: Free inlet fan sone levels. The AMCA Certified Ratings Seal applies to sone ratings only.



Emergency Smoke Control

Smoke management saves lives and should be an essential component of your building design. Greenheck offers a full line of smoke control products licensed by AMCA and listed with UL. No matter what air movement and control challenges you face, from simple to complex, Greenheck offers more technological expertise and more reliable product solutions than any other manufacturer. As the industry leader, we are committed to offer you the most innovative products available to ensure the buildings you design are safe.

SMD



- Up to 350°F rating
- Flexible installation
- 2,000 fpm minimum
- Leakage class I, II, or III
- Modulating option

HSD-401



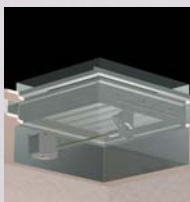
- Flanged Frame
- 3,000 fpm, 6 in.wg
- Leakage Class I
- Used as a fan isolation damper
- Flexible installation

OFSD



- Convenient
- Single-side mounting
- Grille side maintenance
- Out-of-wall construction
- Internal mount actuator

CFSO



- Convenient
- Horizontal installation
- 3 mounting configurations
- Bi-directional airflow leakage
- Electric or pneumatic actuator

Where there's
smoke...there's
Greenheck

FSD/DFD



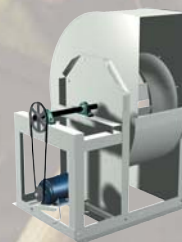
- Up to 350°F rating
- 1½ & 3 hour rating
- Flexible installation
- Modulating option
- Single-side mounting
- 2,000 fpm minimum

S-CUBE



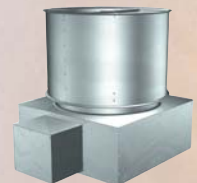
- Quiet
- Lowest profile
- Light weight
- Extended pressures
- Steel backward inclined wheel & heat baffle included

SWB



- High volumes
- Extended pressures
- Shaft seal, heat slinger and weatherhood features
- Permatector gray coating
- Steel construction

RBUMO



- Durable
- High volume
- Light weight
- Lifting lugs are standard
- Removable windband & motor cover for easy access
- Commercial & industrial applications

TBI/TDI



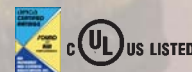
- High volumes
- Compact size
- Belt or Direct Drive
- Flexible mounting - Horz. or Vert.
- Steel or aluminum airfoil propeller blades
- Industrial construction

BISW



- Welded or Permalock seam construction
- Up through class IV construction
- Steel, aluminum or stainless steel construction materials
- Arrangement 1, 3, 4, 8, 9 or 10

TAUB



- High volume
- Medium pressure
- Heavy duty construction
- Industrial applications
- Butterfly dampers for weather protection & backdraft prevention

TCF



- Airfoil centrifugal wheel
- Welded air straightening vanes
- Inline or Roof Upblast

AX



- Cast aluminum hub and blades
- Direct Drive
- Four housing construction options

QEI



- Mixed flow wheel
- Inline or Roof Upblast
- High efficiencies and low sound levels

Emergency Smoke Control Products

APPLICATION	MODEL	PERFORMANCE	Max Ps in. wg	CERTIFICATION		RATING	LEAKAGE CLASS	PROGRAM
				AMCA	UL/cUL			
Roof	S-CUBE	850 - 30,000 cfm	2.0	Sound & Air	705 Electrical Emergency Smoke	500°F / 4 hrs. 1,000°F / 15 min.	NA	Standard
Roof	RBUMO	3,200 - 61,700 cfm	1.0	Sound & Air	705 Electrical Emergency Smoke 793 Snow Load	500°F / 4 hrs. 1,000°F / 15 min.	NA	5 Day
Roof	TAUB L/H	4,000 - 74,000 cfm	1.0	Sound & Air	705 Electrical Emergency Smoke 793 Snow Load	500°F / 4 hrs. 1,000°F / 15 min.	NA	10 Day
Roof	SWB	500 - 25,000 cfm	5.0	Sound & Air	705 Electrical Emergency Smoke	500°F / 4 hrs. 1,000°F / 15 min.	NA	5 Day
Roof	BISW	50 - 48,000 cfm	14	Sound & Air	705 Electrical Emergency Smoke	500°F / 4 hrs. 1,000°F / 15 min.	NA	10 Day
Inline / Roof	AX	500 - 115,000 cfm	5.0	Air	705 Electrical Emergency Smoke 793 Snow Load	302°F / 5 hrs 482°F / 2 hrs 500°F / 4 hrs 572°F / 30 minutes 572°F / 1 hr	NA	Std
Inline / Roof	QEI/QEID	1,000 - 95,000 cfm	8.5	Sound & Air	705 Electrical Emergency Smoke 793 Snow Load	500°F / 4 hrs.	NA	Std
Inline / Roof	TCF	1,500 - 95,000	8.5	Air	705 Electrical Emergency Smoke 793 Snow Load	500°F / 4 hrs. 1,000°F / 15 min.	NA	Std
Inline / Roof	TBI-FS	4,800 - 74,000 cfm	4.0	Sound & Air	705 Electrical Emergency Smoke 793 Snow Load	500°F / 4 hrs. 1,000°F / 15 min.	NA	10 Day
Inline / Roof	TBI-CA 4/5	800 - 96,000 cfm	3.25	Air	705 Electrical	300°F / 5 hrs.	NA	10 Day
Inline / Roof	TDI 4/5	2,100 - 95,000 cfm	2.75	Air	705 Electrical	300°F / 5 hrs.	NA	10 Day
Smoke	SMD	2,000 - 3,000 fpm	4.0	Air	555S	350°F	I,II,III	Next Day
Smoke	HSD-401	3,000 fpm	6.0	Air	555S	250°F	I	Std
Fire Smoke	FSD	2,000 - 3,000 fpm	4.0	Air	555 & 555S	350°F / 1½ - 3 hrs.	I,II,III	Next Day
Corridor/Out of Wall	CFSD/OFSD	2,000 - 3,000 fpm	4.0	Air	555 & 555S	350°F / 1½ - 3 hrs.	I,II,III	Next Day
Multi-Blade Fire	DFD	2,000 fpm	4.0	Air	555	1½ - 3 hrs	NA	Next Day

Codes & Certifications

UL 555

This standard governs fire dampers which are intended for use where air ducts penetrate or terminate at openings in walls or partitions, in air transfer openings in partitions, and where air ducts extend through floors as specified in the Standard for Installation of Air-Conditioning and Ventilating Systems, NFPA 90A. In a fire emergency the fire damper is designed to close and prevent the spread of fire from one side of the wall or partition to the other. Testing includes cycling, salt spray, dust loading, dynamic closure, fire endurance, and hose stream.

UL 555S

This standard governs smoke dampers which are intended to prevent the spread of smoke when HVAC systems shut down during a fire emergency and those which control the movement of smoke within a building when the HVAC system functions in a smoke control mode. Leakage rated dampers are intended for installation in accordance with NFPA 90A. Testing includes salt spray, dust loading, cycling, temperature degradation, operation while under heated airflow, and elevated temperature leakage.



UL - Power Ventilators for Smoke Control Systems

Ventilators or duct fans have been investigated with respect to their operation during exposure to elevated temperatures. Installed as part of a smoke control system and in accordance NFPA 92A and 92B. Requirements also include UL 705 and if applicable UL 793. Meets the IRI and SBCCI "Standard Fire Prevention Code" requirements.

UL-705

Intended to assure the buyer of the safety of electrical components and connections within power ventilators and duct fans. Limited to fans connected to permanently installed wiring that meet NFPA 70 and the National Electric Code. Tests under this standard relate to extremes of current, temperature, fuses, motor windings, bearing temperatures, and water that a fan could be subject to.

UL-793

Specific code applying to power ventilators that have integral dampers. Includes the ability for automatic damper operation that does not depend on electric power that may be interrupted during fire. Dampers blades must be capable of overcoming a 10 lb. / ft² of wind, snow, or dust load.

AMCA

The AMCA certified rating program seal assures you that a product line has been tested to the appropriate AMCA standards in accordance with a legal license agreement and that the manufacturer's catalogued certified ratings have been submitted to the AMCA staff for approval prior to publication. The twelve seals covered by AMCA are as follows:

1. Air Performance
2. Sound and Air Performance
3. CFM/Watt - Air Performance
4. Positive Pressure Ventilators- Air Performance
5. Air Leakage/Air Performance
6. Air Leakage
7. Water Penetration/Air Performance
8. Air Performance/Wind Driven Rain
9. Wind Driven Rain
10. Water Penetration/Air Performance/ Wind Driven Rain
11. Airflow Measurement Station- Air Performance
12. Prefabricated Silencer for Sound and Air Performance



Typical Specifications

Spun aluminum exhaust fans shall be centrifugal belt driven type. The fan wheel shall be centrifugal backward inclined, constructed of steel and shall include a wheel cone carefully matched to the inlet cone for precise running tolerances. Wheels shall be statically and dynamically balanced. The fan housing shall be constructed of heavy gauge aluminum with a rolled bead and a rigid internal support structure. A leak-proof fan housing shall be constructed with a one piece windband with an integral rolled bead for added strength and shall be joined to the curb cap with a continuously welded seam.

Motors shall be heavy duty ball bearing type, carefully matched to the fan load, and furnished at the specified voltage, phase and enclosure. Drive frame assembly shall be constructed of heavy gauge steel. Motors and drives shall be mounted on safety flange vibration isolators, out of the airstream. Fresh air for positive motor cooling shall be drawn into the motor compartment through a ten square inch tube free of discharge contaminants. Motors and drives shall be readily accessible for maintenance.

Precision ground and polished fan shafts shall be mounted in permanently sealed, lubricated pillow

block ball bearings. Bearings shall be selected for a minimum (L10) life in excess of 100,000 hours at maximum cataloged operating speed.

Dual drives shall be sized for a minimum of 150% of driven horsepower. Pulleys shall be of the cast type, keyed and securely attached to the wheel and motor shafts.

Motor pulleys shall be adjustable for final system balancing. A Nema-3R disconnect switch shall be factory installed and wired from the fan motor to a junction box installed outside the motor compartment. All fans shall bear the AMCA Certified Ratings Seal for sound and air performance.

Each fan shall bear a permanently affixed manufacturer's engraved metal nameplate containing the model number and individual serial number for future identification.

Fans shall be Listed by Underwriters Laboratory for UL/cUL 705 for electrical components and UL Listed for Emergency Smoke Control Systems (500 degrees F for 4 hours and 1,000 degrees F for 15 minutes).

Fans shall be Model S-CUBE as manufactured by Greenheck.



Building Value in Air

Greenheck delivers value to mechanical engineers by helping them solve virtually any air quality challenges their clients face with a comprehensive selection of top

quality, innovative air-related equipment. We offer extra value to contractors by providing easy-to-install, competitively priced, reliable products that arrive on time. And building

owners and occupants value the energy efficiency, low maintenance and quiet dependable operation they experience long after the construction project ends.

Our Warranty

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the purchase date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by Greenheck prove defective during this period, they should be returned to the nearest authorized motor service station. Greenheck will not be responsible for any removal or installation costs.

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

