

CENTRIFUGAL ROOF EXHAUSTERS

Direct and Belt Driven Models VEDK and VEBK

DESIGNED AND ENGINEERED TO MEET INDUSTRY NEEDS

The belt drive and direct drive spun aluminum centrifugal power roof ventilator line comprises one of the most complete product offerings available to meet various ventilation applications and specifications.

The Carnes Company has designed the VE series downblast fan to meet the rigorous performance and quality standards demanded by the HVAC industry.

The unique design of these fans recaptures lost energy and transforms it into air flow. The combination of the wheel, venturi and support structure provides maximum ventilation at extended static pressure.

Testing has been conducted to ensure durability and dependability of operation.



Direct Driven Model VEDK - Sizes 06 through 18

Carnes direct drive roof exhausters are available in six sizes with capacities from 150 to 4,300 CFM. The direct drive model reduces fan maintenance. Balancing time may also be decreased with optional electronic speed control. The rigid aluminum construction, integral deep spun venturi and diffuser support frame ensure reliable and efficient operation.

Belt Driven Model VEBK - Sizes 06 through 24

These Carnes power roof ventilators are ideal for medium capacity, medium pressure applications from 200 to 11,400 CFM. The belt drive model provides excellent selection flexibility and readily available motor alternatives at lower initial costs. The diffuser support framework of this design adds to the structural integrity of these units while allowing standard fans to operate at up to 3 inches water gauge static pressure.



Belt Driven Model VEBK - Sizes 30 through 54

Air flow performance capacities of up to 39,000 CFM can be achieved with this ventilator design. These five sizes of the VEBK series feature a circular welded steel support frame and an aluminum wind band. The three piece motor cover simplifies access for maintenance of the motor, belt, sheaves and bearings.



▼ TYPICAL SPECIFICATIONS

Roof exhaust ventilators shall be of the centrifugal belt or direct driven type. The wheel and spun venturi shall be a centrifugal design of spark resistant construction. For maximum performance and quiet, efficient operation, the wheel shall overlap the inlet venturi and have backward inclined blades. The wheels shall be dynamically balanced to assure smooth and vibration-free rotation under maximum loading. The complete drive assembly, including the motor and the wheel, shall be mounted on vibration isolators. Motor and drives shall be factory mounted. All fans shall be test run prior to shipment.

VEBK Belt Drive Series

Motor and drives shall be isolated from the exhaust airstream. Maximum exhaust temperature for continuous operation is 200°F. Air for cooling the motor shall be supplied to the internal motor compartment through louvers from a location free from discharge contaminants. Motors shall be of the heavy duty type with permanently lubricated, sealed ball bearings. Motors shall be readily accessible for maintenance. The wheel shaft shall be ground, polished, coated with a rust inhibitive finish and mounted in heavy duty, permanently sealed pillowblock ball bearings which are capable of 200,000 hours of life, average operation. The drives shall be sized at a minimum of 165% of driven horsepower. Drive belts shall be oil-resistant, non-static and be capable of 25,000 hours of life, average operation. Sheaves shall be fully machined cast iron, keyed and securely attached to the shafts. Variable pitch motor sheaves shall be standard. Two groove sheaves are standard for units with motors 3 HP and larger.

VEDK Direct Drive Series

Motor and drives shall be isolated from the exhaust airstream. Maximum exhaust temperature for continuous operation is 150°F. Air for cooling the motor shall be supplied to the internal motor compartment through louvers from a location free from discharge contaminants. Motors shall be of the heavy duty type with permanently lubricated, sealed ball bearings. Motors shall be readily accessible for maintenance. Wheels to be furnished with integral fitting for wheel puller.

The motor shall be factory wired to the disconnect junction box and a disconnect switch shall be supplied. A conduit chase shall be provided for running electrical wiring through the curb cap into the motor compartment. Field wiring of motor, disconnect and conduit are to be in accordance with electrical specifications and local codes. Heavy gauge welded galvanized birdscreen shall be furnished.

Horsepower and noise levels shall not exceed the published values and oversized motors will not be acceptable. Performance ratings shall be AMCA licensed for Air and Sound.

Centrifugal power roof ventilators shall be Carnes Company Model VEBK, belt drive, sizes 06 through 54, or Model VEDK, direct drive, sizes 06 through 18, as manufactured at Carnes Company of Verona, Wisconsin.

AMCA LICENSED AIR and SOUND DATA

Licensed to bear the AMCA Seal for both air and sound.

The Carnes Company certifies that the Models VEDK and VEBK 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 AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



UL & CSA OPTIONS

Most models are available as listed by Underwriters Laboratories under Standard 705.



Underwriters Laboratories Inc.®

These fans are available as listed by the Canadian Standards Association Testing Laboratories as approved.



COMPUTERIZED FAN SELECTION: Make the right choice with CARNES FAN-C-LECT™. The Models VEDK and VEBK, as well as the comprehensive offering of CARNES powered ventilators, are included in CARNES user friendly fan selection program.

FAN HOUSING

- Constructed with heavy gauge aluminum.
- Designed for maximum weather protection, windband and diffusers prevent the entrance of inclement weather.
- Fan hoods beaded for rigidity.
- Interior fan hood lip extended to prevent the entrance of water.
- 3 piece motor cover design (lid, motor tube and fan hood) allows easy access to motor, drives and bearings for maintenance.

MOTOR/ELECTRICAL

- UL listing under Standard 705 available as option on most models.
- Motors are UL recognized components supplied by nationally recognized manufacturers.
- Safety disconnect utility box mounted, switch and cover plate shipped loose for ease of field wiring.
- Sealed conduit chase complies with NEC, allows passage of electrical wire through curb cap into motor compartment.
- Motors through 10 HP mounted as standard.

MOTOR SUPPORT ASSEMBLY

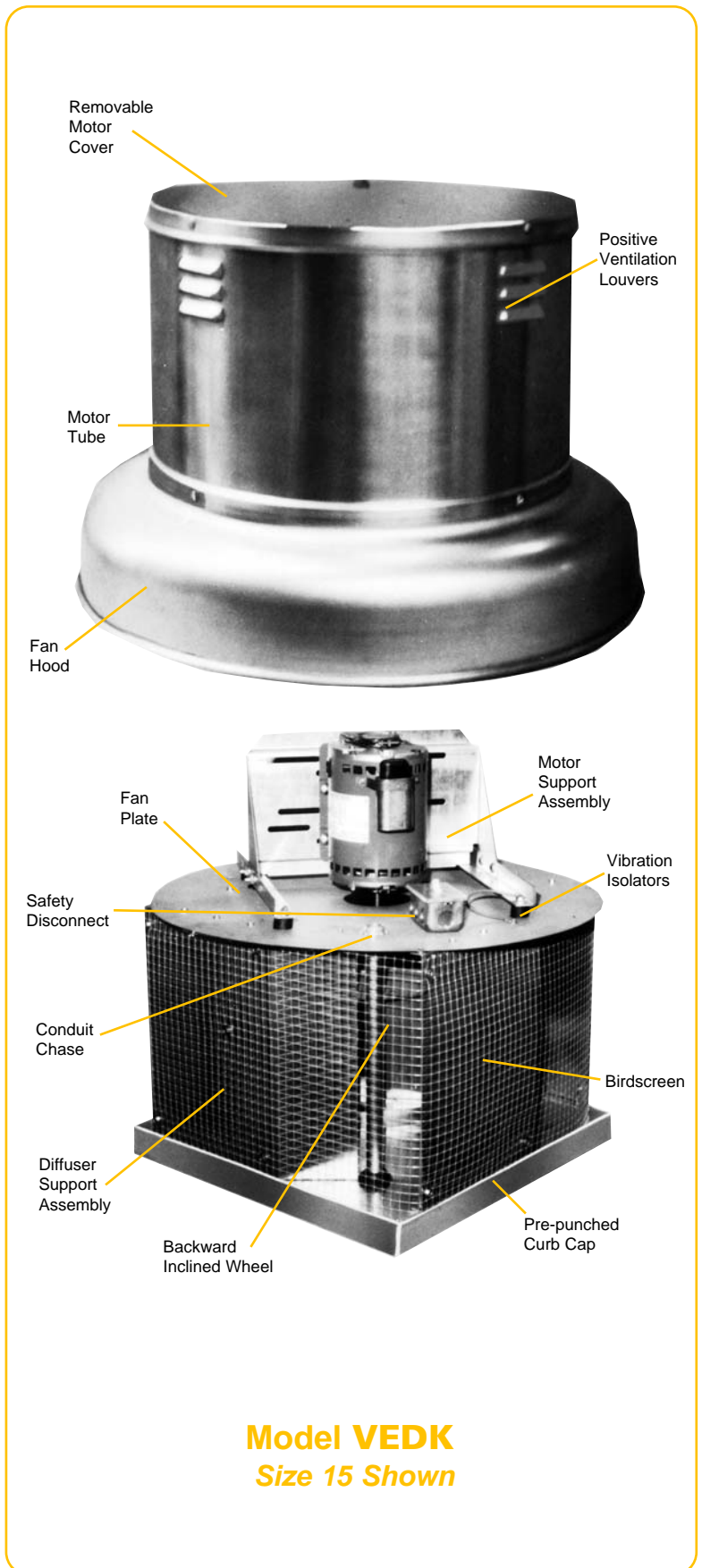
- Bolted, heavy gauge material.
- Easily adjustable belt tension.
- Motor plate accommodates multiple motor frames.
- Isolated from fan plate to reduce vibration and noise transmission.
- Allows horizontal adjustment of wheel.
- Electrically grounded to meet NEC and UL requirements.

MOTOR COMPARTMENT/TUBE

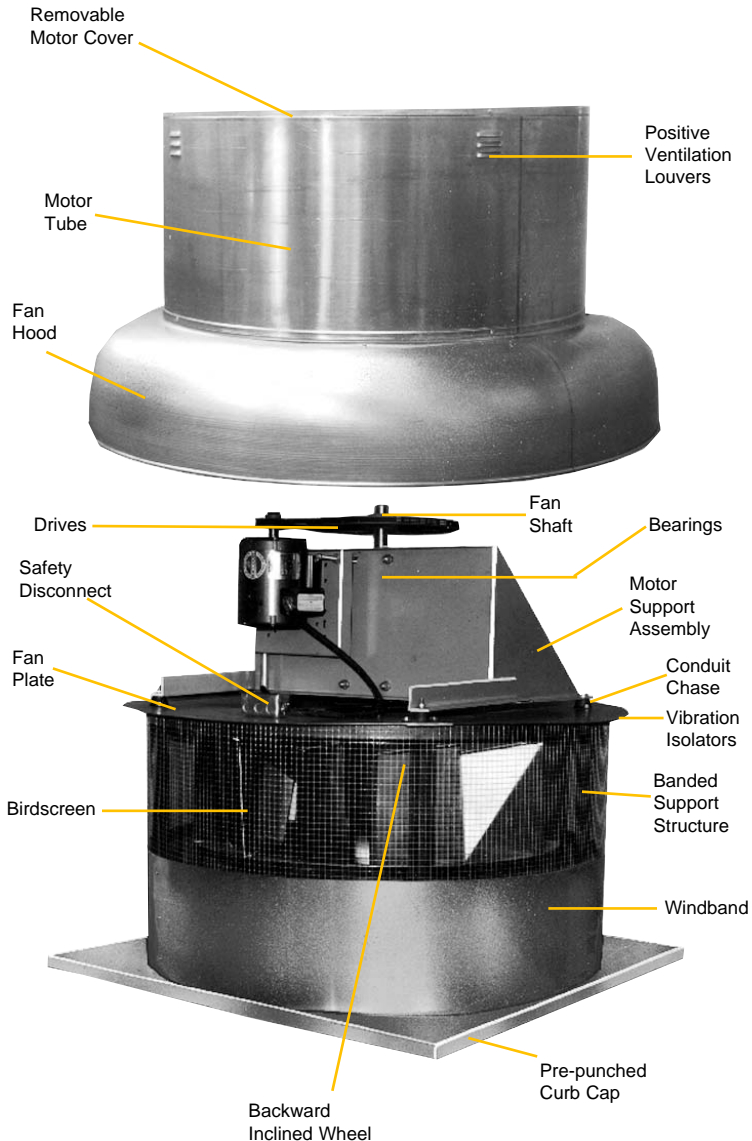
- Strategically located air intake louvers provide positive motor cooling to maximize motor life.
- Easily removable lid and tube utilize durable threaded fastener retainers.
- Fan plate isolates motor compartment from contaminated exhaust air.
- Opening around shaft sized to allow optimum air passage to ensure proper motor compartment cooling.

BIRDSCREEN

- 1/2" by 1/2" heavy gauge welded galvanized birdscreen attached to unit with easily removable fasteners.
- Birdscreen has a minimal affect on air and sound performance.



Model VEDK
Size 15 Shown



Model VEBK
Size 30 Shown

BEARINGS/SHAFT

- Eccentric locking collar bearings standard on sizes 06-18.
- Dual bearings utilized to properly support the fan shaft.
- Prelubricated sealed, self-aligning ball bearing.
- Rated at 200,000 hours average operation.
- Polished CRS fan shaft with rust inhibitive coating.

DRIVES

- Selected for 165% of the motor horsepower.
- Adjustable V-belt drives with oil resistant non-static conducting belts.
- Two belts standard on units 5 HP and larger.
- Factory preset fan RPM.
- Adjustable motor sheave allows for final air system balancing.

WHEEL

- Backward inclined median airfoil wheel constructed of non-corrosive or coated heavy gauge material.
- Usage of cooling fins on fan wheel (06-18) backplate draws cooling air down over the motor facilitating motor longevity while motor remains out of the airstream.
- Self-limiting power characteristics.
- Dynamically balanced and test run in each individual unit.

SUPPORT STRUCTURE

Sizes 06 - 24

- Galvanized or aluminum patented diffuser provides structural integrity and protection against weather penetration.
- Self-sealing diffuser fasteners prevent leakage.

Size 30 - 54

- Heavy gauge coated steel circular frame for structural strength and unit rigidity.
- Aluminum windband provides weather protection.

CURB CAP

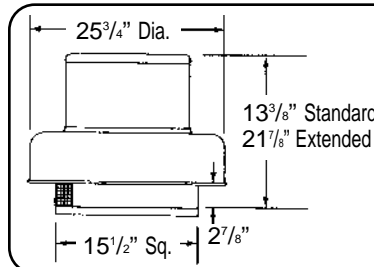
- One piece construction with fastened, overlapping corners to ensure strength.
- Prepunched mounting holes for ease of installation.
- Support structure attached with self-sealing fasteners.
- The deep spun venturi is precision matched to the wheel inlet to ensure maximum air flow along with protection from entry of adverse weather.

Cent. Power Roof Vents

VEDK 06

DIRECT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Tip Speed = 2.75 x RPM
 Unit Weight (less Motor) = 30 Lbs.
 Roof Opening = 11" Sq.
 Curb O. D. = 14" Sq.
 Damper Size = 10" Sq.

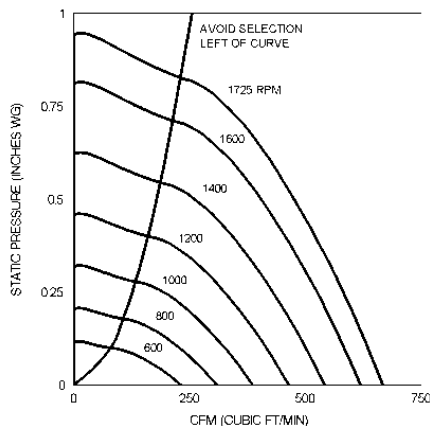
	RPM Range - Motor HP		RPM	STATIC PRESSURE, INCHES W.G.											
	F3+	J2+		.000	.125	.250	.375	.500	.625	.750	1.000	1.250			
	1/20	1/8		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES			
SPEED CONTROLLABLE MOTORS**			400	155 .01 .1											
			500	193 .01 .1											
			600	232 .01 .5											
			700	270 .01 1.0	130 .01 1.4										
			800	309 .01 1.6	202 .01 1.7										
			900	348 .02 2.2	258 .02 2.1										
			1000	386 .02 2.9	309 .02 2.7	194 .03 3.7									
			1075 *	415 .03 3.5	344 .03 3.3	251 .03 4.0									
			1100	425 .03 3.7	356 .03 3.5	266 .03 4.1									
			1200	464 .04 4.4	401 .04 4.3	325 .04 4.5	211 .05 5.5								
			1300	502 .05 5.3	446 .05 5.1	379 .05 5.1	294 .06 5.9								
			1400	541 .06 6.1	489 .06 5.9	430 .07 5.8	358 .07 6.3	259 .07 7.2							
			1500	580 .07 7.0	532 .08 6.8	477 .08 6.6	415 .08 6.9	339 .09 7.6							
			1600 *	618 .09 7.9	573 .09 7.7	523 .10 7.5	468 .10 7.5	404 .10 8.2	321 .11 9.0						
ALL OTHER MOTORS (Non-Speed Controllable)															
TE,XP, 2-Spd, 230V & All 3 Phase			1140 *	440 .03 4.0	374 .04 3.8	291 .04 4.2									
		1725 *	667 .11 9.0	625 .12 8.9	580 .12 8.8	532 .13 8.8	475 .13 9.2	412 .13 9.8	328 .13 10.6						

Performance certified is for installation type A - free inlet, free outlet. Speed (RPM) is nominal. Performance is based on actual speed of test.
**** To be Speed Controllable, motor must have 115/1 ODP. Other voltages and enclosures are non-speed controllable.**
 * Base Unit - As run motor speeds.
 + RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls. Performance ratings do not include the effects of accessories.

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{W1} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A, free inlet hemispherical sone levels.

VEDK 06 AIR PERFORMANCE



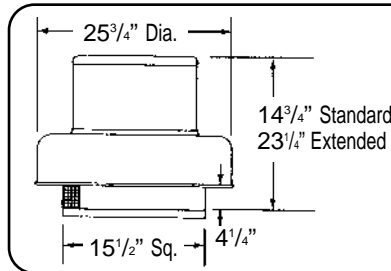
VEDK 06 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	LWA
1075	.000	65	58	55	51	51	47	43	34	56
	.125	67	58	54	50	49	45	41	37	54
	.250	68	61	56	53	52	47	43	39	57
1600	.000	79	71	69	63	61	58	55	48	67
	.125	80	71	69	62	60	57	54	48	67
	.250	81	72	68	62	60	56	53	48	66
	.375	82	72	68	61	60	56	52	48	66
	.500	81	73	69	63	62	57	53	49	68
	.625	80	75	71	64	64	59	55	51	69

VEDK 08

DIRECT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Tip Speed = 2.75 x RPM
 Unit Weight (less Motor) = 30 Lbs.
 Roof Opening = 11" Sq.
 Curb O. D. = 14" Sq.
 Damper Size = 10" Sq.

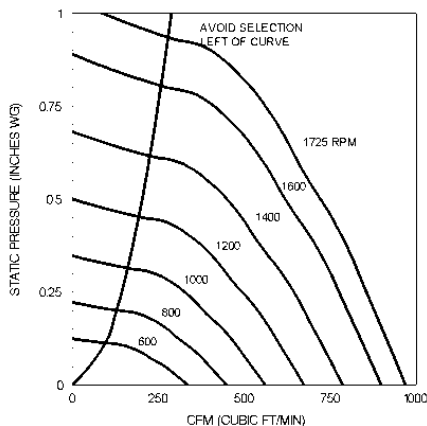
RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W.G.												
		F3+ 1/20		J2+ 1/8		.000	.125	.250	.375	.500	.625	.750	1.000	1.250
		CFM	BHP	CFM	BHP	SONES	SONES	SONES	SONES	SONES	SONES	SONES	SONES	SONES
SPEED CONTROLLABLE MOTORS**	600	337	.01											
		1.5												
	675	379	.01	196	.01									
		2.1		1.7										
	750	421	.01	269	.01									
		2.6		2.2										
	825	463	.02	330	.02									
		3.2		2.7										
	900	505	.02	389	.02	183	.03							
		3.8		3.3		3.5								
	1000	561	.03	462	.03	327	.04							
		4.7		4.2		4.2								
	1075 *	603	.04	511	.04	392	.04							
		5.5		5.0		4.8								
	1175	659	.05	576	.05	473	.06	346	.06					
	6.5		5.9		5.7		5.7							
1250	702	.06	624	.06	533	.07	425	.07						
	7.2		6.7		6.3		6.3							
1325	744	.07	671	.07	591	.08	487	.08	363	.08				
	8.0		7.5		7.0		6.9		7.0					
1400	786	.08	717	.09	643	.09	547	.09	448	.10				
	8.7		8.2		7.8		7.7		7.7					
1475	828	.09	763	.10	693	.11	608	.11	517	.11				
	9.4		9.0		8.6		8.5		8.5		396	.11		
					8.6		8.5		8.6					
1550	870	.11	808	.11	743	.12	668	.13	579	.13	484	.13	276	
	10.2		9.7		9.5		9.3		9.4		9.4		9.5	
1600 *	898	.12	838	.13	775	.13	706	.14	619	.14	537	.15	410	
	10.7		10.3		10.1		9.9		10.0		10.1		10.2	
ALL OTHER MOTORS (Non-Speed Controllable) TE,XP, 2-Spd, 230V & All 3 Phase	1140 *	640	.04	554	.05	444	.05	303	.05					
		6.1		5.6		5.4		5.5						
	1725 *	968	.15	913	.16	855	.16	795	.17	720	.17	640	.18	
		12.1		11.9		11.8		11.6		11.6		11.7	11.8	

Performance certified is for installation type A - free inlet, free outlet. Speed (RPM) is nominal. Performance is based on actual speed of test.
**** To be Speed Controllable, motor must have 115/1 ODP. Other voltages and enclosures are non-speed controllable.**
 * Base Unit - As run motor speeds.
 + RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls.
 Performance ratings do not include the effects of accessories.

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_W sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A, free inlet hemispherical sone levels.

VEDK 08 AIR PERFORMANCE



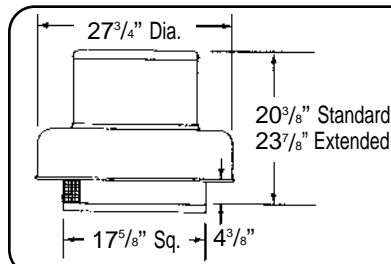
VEDK 08 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	LWA
1075	.000	67	65	60	54	54	53	53	46	61
	.125	67	65	59	53	54	52	50	45	60
	.375	65	68	58	53	54	51	48	46	60
1600	.000	78	76	74	66	64	62	63	59	72
	.250	78	76	74	65	63	61	61	57	71
	.375	78	76	73	65	63	61	59	56	70
	.500	76	76	74	65	63	61	59	56	71
	.625	75	77	74	65	63	61	59	56	71
.750	75	77	74	65	63	61	58	56	71	

VEDK 10

DIRECT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Tip Speed = 3.27 x RPM
 Unit Weight (less Motor) - 35 Lbs.
 Roof Opening - 13" Sq.
 Curb O. D. - 16" Sq.
 Damper Size - 12" Sq.

RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W.G.																		
		.000		.125		.250		.375		.500		.625		.750		1.000		1.250		
		CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	
F4+ 1/20	J3+ 1/8	M2+ 1/3	P2+ 1/2	550	556	.01	323	.02												
				700	707	.03	549	.03	176	.03										
				800	809	.04	673	.05	501	.05										
				825 *	834	.04	703	.05	542	.05										
				900	910	.06	791	.06	654	.07	426	.07								
				975	985	.07	877	.08	756	.09	605	.09								
				1050	1061	.09	961	.10	853	.11	728	.11	528	.11						
				1075 *	1086	.10	989	.11	884	.11	763	.12	587	.12						
				1175	1187	.13	1098	.14	1004	.14	901	.15	781	.15	593	.15				
				1275	1289	.16	1206	.17	1121	.18	1033	.19	928	.19	808	.20	610	.19		
				1375	1390	.20	1313	.21	1236	.22	1153	.23	1064	.24	967	.25	849	.25		
				1500	1516	.26	1445	.27	1376	.29	1302	.30	1225	.31	1140	.31	1051	.32	783	
				1575	1592	.30	1524	.32	1458	.33	1389	.34	1316	.35	1240	.36	1155	.37	959	
				1625 *	1642	.33	1577	.35	1513	.36	1447	.37	1376	.38	1306	.39	1224	.40	1043	
ALL OTHER MOTORS (Non-Speed Controllable) TE,XP, 2-Spd, 230V & All 3 Phase				1140 *	1152	.11	1060	.12	962	.13	853	.14	722	.14	470	.13				
				1725 *	1743	.40	1681	.41	1621	.43	1561	.44	1495	.45	1428	.46	1358	.47	1203	.49

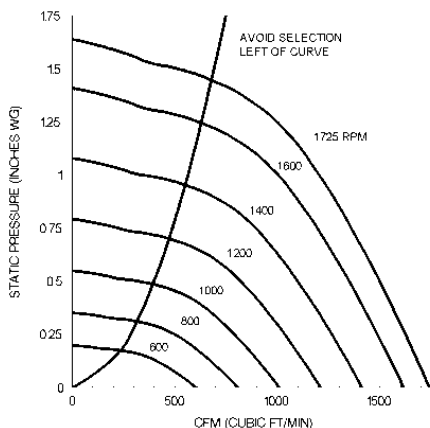
SPEED CONTROLLABLE MOTORS**

Performance certified is for installation type A - free inlet, free outlet. Speed (RPM) is nominal. Performance is based on actual speed of test.
**** To be Speed Controllable, motor must have 115/1 ODP. Other voltages and enclosures are non-speed controllable.**
 * Base Unit - As run motor speeds.
 + RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls.
 Performance ratings do not include the effects of accessories.

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_W sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A, free inlet hemispherical sone levels.

VEDK 10 AIR PERFORMANCE



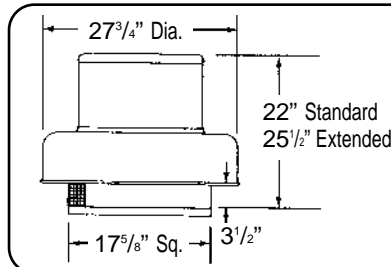
VEDK 10 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 ⁻¹² WATTS								LWA
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	
825	.000	58	66	63	57	53	48	42	37	60
	.125	59	66	62	54	49	45	44	44	58
	.375	59	66	60	51	48	46	42	38	57
1075	.000	64	70	74	64	60	56	50	44	69
	.250	65	70	73	62	56	52	49	51	67
	.500	63	71	73	59	55	53	50	45	66
1625	.000	71	78	85	80	72	68	62	57	81
	.500	72	79	84	79	69	64	60	59	80
	1.000	71	79	84	77	67	63	60	57	79

VEDK 12

DIRECT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Tip Speed = 3.27 x RPM
 Unit Weight (less Motor) = 35 Lbs.
 Roof Opening = 13" Sq.
 Curb O. D. = 16" Sq.
 Damper Size = 12" Sq.

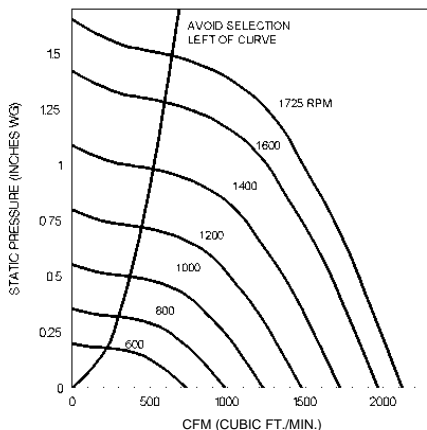
RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W.G.																	
		.000		.125		.250		.375		.500		.625		.750		1.000		1.250	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
SPEED CONTROLLABLE MOTORS**	550	676	.01	404	.02														
		2.4	1.5																
	700	861	.03	679	.03	183	.02												
		4.3	3.4	3.4															
	800	984	.04	829	.05	623	.05												
		5.3	4.4	4.4															
	825 *	1014	.05	865	.05	671	.06												
		5.6	4.8	4.6															
	900	1106	.06	971	.07	809	.07	534	.06										
		6.6	5.9	5.7	5.6														
	975	1199	.07	1075	.08	936	.09	753	.09										
		7.7	7.1	6.8	6.7														
	1050	1291	.09	1177	.10	1055	.11	897	.11	657	.11								
		8.9	8.4	8.0	7.9	7.8													
1075 *	1322	.10	1210	.11	1091	.12	943	.12	733	.12									
	9.3	8.8	8.4	8.3	8.3														
1175	1445	.13	1342	.14	1236	.15	1114	.16	965	.16	737	.15							
	11.1	10.7	10.3	10.2	10.1														
1275	1567	.17	1473	.18	1377	.19	1276	.20	1147	.20	1004	.20	766	.19					
	13.3	12.8	12.4	12.2	12.2								12.1						
1375	1690	.21	1603	.22	1515	.23	1421	.24	1317	.25	1195	.26	1085	.26					
	15.4	15.0	14.6	14.3	14.2								14.2						
1500	1844	.27	1764	.29	1684	.30	1600	.31	1514	.32	1410	.33	1298	.33	975	.32			
	17.5	17.1	16.7	16.4	16.1								16.0	16.0					
1575	1936	.32	1860	.33	1784	.34	1705	.35	1623	.36	1535	.37	1429	.38	1197	.38			
	18.6	18.3	17.9	17.6	17.3								17.2	17.2					
1625 *	1998	.35	1924	.36	1850	.37	1774	.39	1695	.40	1617	.41	1514	.42	1294	.42			
	19.5	19.1	18.8	18.5	18.1								17.9	17.9					
ALL OTHER MOTORS (Non-Speed Controllable) TE, XP, 2-Spd, 230V & All 3 Phase	1140 *	1401	.12	1296	.13	1185	.14	1055	.14	898	.15	578	.13						
		10.5	10.0	9.7	9.5							9.4							
	1725 *	2121	.42	2051	.43	1982	.44	1912	.46	1837	.47	1762	.48	1681	.49	1484	.51	1235	.50
		22	21	21	20	20	20	19.9	19.9	19.9	19.9	19.9	19.9	19.8	19.8	19.8	19.8	19.8	

Performance certified is for installation type A - free inlet, free outlet. Speed (RPM) is nominal. Performance is based on actual speed of test.
**** To be Speed Controllable, motor must have 115/1 ODP. Other voltages and enclosures are non-speed controllable.**
 * Base Unit - As run motor speeds.
 + RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls. Performance ratings do not include the effects of accessories.

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_W sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A, free inlet hemispherical sone levels.

VEDK 12 AIR PERFORMANCE



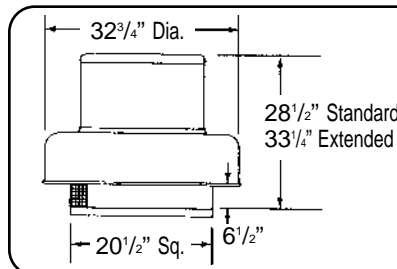
VEDK 12 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 ⁻¹² WATTS								LWA
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	
825	.000	67	67	61	56	59	55	47	39	62
	.125	67	67	61	55	54	51	44	37	60
	.375	67	69	60	53	49	47	44	41	58
1075	.000	75	75	72	63	63	64	56	48	70
	.250	74	75	72	63	59	58	52	45	68
	.500	734	75	73	61	57	55	51	47	67
1625	.000	84	87	85	78	71	74	70	62	82
	.500	83	87	85	78	70	69	65	58	81
	1.000	83	87	86	77	69	66	63	58	81

VEDK 15

DIRECT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Tip Speed = 4.06 x RPM
 Unit Weight (less Motor) = 50 Lbs.
 Roof Opening = 16" Sq.
 Curb O. D. = 19" Sq.
 Damper Size = 15" Sq.

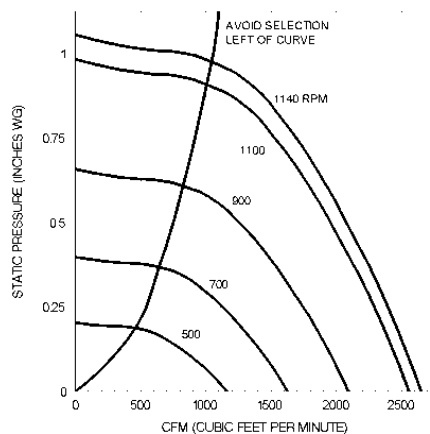
RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W.G.																					
		.000		.125		.250		.375		.500		.625		.750		1.000		1.250					
		CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES	CFM BHP	SONES				
SPEED CONTROLLABLE MOTORS**	K4+ 1/6	450	1047	.02	627	.03																	
		500	1163	.03	816	.04																	
	M3+ 1/3	550	1280	.04	976	.05																	
		600	1396	.05	1129	.06	716	.06															
	ALL OTHER MOTORS (Non-Speed Controllable) TE, XP, 2-Spd, 230V & All 3 Phase	1140 *	650	1512	.07	1272	.08	943	.08														
			700	1629	.09	1411	.09	1130	.10	542	.08												
			750	1745	.11	1549	.12	1292	.12	949	.12												
			800	1861	.13	1678	.14	1448	.14	1170	.14												
			825 *	1920	.14	1742	.15	1525	.16	1264	.16	825	.14										
			875	2036	.17	1868	.18	1672	.19	1443	.19	1138	.18										
			925	2152	.20	1994	.21	1815	.22	1603	.22	1355	.22	945	.20								
			975	2269	.24	2118	.25	1955	.26	1759	.26	1544	.26	1257	.25								
			1025	2385	.27	2242	.28	2093	.29	1913	.30	1714	.31	1480	.30	1136	.28						
1075 *			2501	.32	2365	.33	2228	.34	2058	.35	1873	.35	1670	.35	1410	.34							
		1140 *	2652	.38	2524	.39	2395	.40	2243	.41	2075	.42	1897	.42	1687	.42	836	.33					
				13.2	13.0	12.7	12.5	12.3	12.2	12.2	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3			

Performance certified for installation type A - free inlet, free outlet.
 Speed (RPM) is nominal. Performance is based on actual speed of test.
**** To be Speed Controllable, motor must have 115/1 ODP. Other voltages and enclosures are non-speed controllable.**
 * Base Unit - As run motor speeds.
 + RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls.
 Performance ratings do not include the effects of accessories.

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{W1} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A, free inlet hemispherical sone levels.

VEDK 15 AIR PERFORMANCE



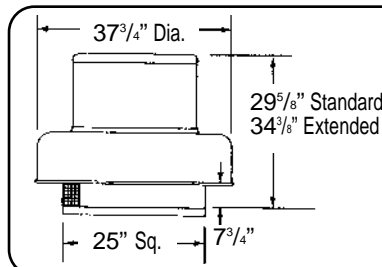
VEDK 15 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 ⁻¹² WATTS								LWA
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	
825	.000	75	77	66	63	61	58	51	44	67
	.125	75	77	65	61	59	57	50	44	66
	.250	75	76	63	59	57	55	50	43	65
	.500	75	75	62	58	56	55	51	45	64
	.750	75	75	62	58	56	55	51	46	64
1075	.000	83	82	74	70	67	67	59	52	74
	.250	83	82	73	68	64	64	59	52	73
	.500	84	81	72	66	62	62	58	52	71
	.750	85	80	71	66	62	62	59	53	71
	1.000	85	80	71	66	62	61	59	53	71

VEDK 18

DIRECT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Tip Speed = 4.94 x RPM
 Unit Weight (less Motor) = 65 Lbs.
 Roof Opening = 20 1/2" Sq.
 Curb O. D. = 23 1/2" Sq.
 Damper Size = 19" Sq.

RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W.G.																	
		.000		.125		.250		.375		.500		.625		.750		1.000		1.250	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
SPEED CONTROLLABLE MOTORS M4+ 1/3 *R3+ 3/4	600	2362	.14	2089	.15	1740	.15	1183	.14										
	650	2559	.17	2309	.18	2015	.19	1604	.19	752	.16								
	700	2756	.22	2525	.23	2280	.23	1930	.24	1435	.23								
	750	2953	.27	2737	.28	2511	.29	2216	.29	1848	.29	1291	.26						
	800	3150	.33	2948	.34	2737	.35	2489	.35	2176	.35	1751	.34	1011	.30				
	825*	3248	.36	3052	.37	2849	.38	2623	.39	2328	.39	1958	.39	1447	.35				
	875	3445	.43	3260	.44	3071	.45	2874	.46	2608	.46	2307	.46	1907	.45				
	925	3642	.51	3467	.53	3290	.54	3104	.55	2881	.55	2618	.55	2306	.54	1196	.40		
	975	3839	.59	3673	.61	3507	.63	3331	.64	3147	.64	2898	.64	2634	.63	1887	.57		
	1025	4035	.69	3878	.71	3720	.72	3555	.74	3387	.75	3171	.75	2934	.75	2324	.71	1125	.51
	1075*	4232	.80	4082	.82	3932	.83	3776	.84	3616	.86	3439	.86	3213	.86	2709	.84	1965	.75
	ALL OTHER MOTORS	1140*	4488	.95	4346	.97	4205	.99	4061	1.00	3910	1.01	3759	1.03	3566	1.03	3132	1.01	2548

Performance certified is for installation type A - free inlet, free outlet. Speed (RPM) is nominal. Performance is based on actual speed of test.

** To be Speed Controllable, motor must have 115/1 ODP. Other voltages and enclosures are non-speed controllable.

* Base Unit - As run motor speeds.

+ RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls.

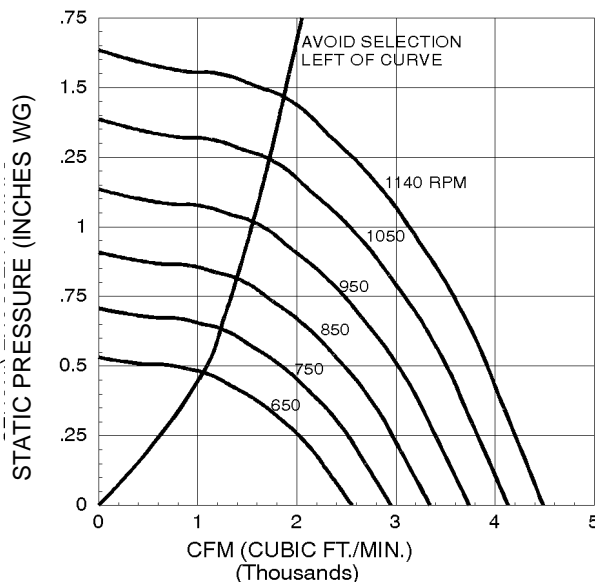
Performance ratings do not include the effects of accessories.

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{Wf} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A, free inlet hemispherical sone levels.

*NOTE: R3 motors are specifically designed to operate through the above performance range. The motor will not be damaged or harmed at the higher BHP values.

VEDK 18 AIR PERFORMANCE



VEDK 18 SOUND PERFORMANCE

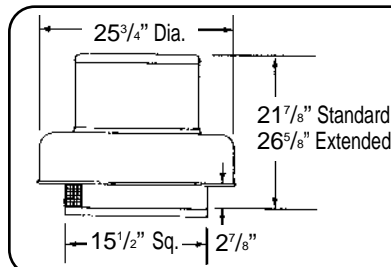
RPM	SP	SOUND POWER RE 10 ⁻¹² WATTS								LWA
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	
825	.000	75	82	79	71	68	65	58	50	75
	.125	74	81	78	70	66	63	56	49	74
	.250	73	80	77	69	65	61	54	48	73
	.500	73	80	78	70	65	60	54	49	73
	.750	74	81	78	70	64	59	54	49	73
1075	.000	84	83	81	76	72	73	71	63	80
	.250	83	83	79	75	71	72	70	64	79
	.500	82	83	78	74	70	71	68	64	78
	.750	82	82	77	73	68	69	67	64	77
	1.000	81	81	76	71	67	67	66	63	75

Cent. Power Roof Vents

VEBK 06

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Max BHP = .025 x $\left[\frac{\text{RPM}}{1000} \right]^3$

Tip Speed = 2.75 x RPM
 Max. Motor Frame Size = 56
 Unit Weight (less motor) = 30 lbs.
 Roof Opening = 11" Sq.
 Curb O. D. = 14" Sq.
 Damper Size = 10" Sq.

RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W. G.																			
		.000	.125	.250	.375	.500	.625	.750	1.000	1.250	1.500										
		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES										
K1 (1/6)	600	232 .01 .8																			
	700	271 .01 1.4	130 .01 1.2																		
K2 (1/6)	800	310 .01 1.9	202 .01 1.5																		
	900	348 .02 2.5	258 .02 1.8																		
K3 (1/6)	1000	387 .02 3.1	309 .02 2.5	194 .03 3.2																	
	1100	426 .03 3.7	356 .03 3.1	266 .03 3.4																	
K4 (1/6)	1200	465 .04 4.3	401 .04 3.8	325 .04 3.7	211 .05 4.8																
	1300	503 .05 5.0	446 .05 4.5	379 .05 4.0	294 .06 4.9																
K5 (1/6)	1400	542 .06 5.7	489 .06 5.2	430 .07 4.8	358 .07 5.2	259 .07 6.2															
	1500	581 .07 6.5	532 .08 6.0	477 .08 5.6	415 .08 5.5	339 .09 6.3															
L1 (1/4)	1550	600 .08 6.8	553 .09 6.4	500 .09 5.9	442 .09 5.7	373 .10 6.5	274 .10 7.5														
	1600	620 .09 7.2	573 .09 6.7	523 .10 6.3	468 .10 5.9	404 .10 6.6	321 .11 7.6														
M1 (1/3)	1650	639 .10 7.5	594 .10 7.1	546 .11 6.7	494 .11 6.3	434 .11 6.8	359 .12 7.7	236 .12 8.8													
	1700	658 .10 7.9	615 .11 7.5	569 .12 7.1	519 .12 6.8	462 .12 7.0	397 .13 7.8	302 .13 8.8													
P1 (1/2)	1750	678 .11 8.3	635 .12 7.9	591 .13 7.5	544 .13 7.2	489 .13 7.1	428 .14 7.9	349 .14 8.9													
	1800	697 .12 8.7	656 .13 8.3	613 .14 7.9	567 .14 7.6	515 .15 7.3	458 .15 8.1	388 .15 9.0													
M1 (1/3)	1850	716 .13 9.1	676 .14 8.7	635 .15 8.3	590 .15 8.0	541 .16 7.6	488 .16 8.2	425 .16 9.1													
	1900	736 .15 9.5	696 .15 9.1	657 .16 8.7	613 .17 8.4	567 .17 8.0	516 .17 8.4	458 .18 9.3	260 .18 11.4												
P1 (1/2)	1950	755 .16 9.9	717 .17 9.5	679 .17 9.2	636 .18 8.8	593 .18 8.5	543 .19 8.6	489 .19 9.4	335 .19 11.4												
	2000	774 .17 10.4	737 .18 10.0	701 .19 9.6	659 .19 9.2	618 .20 8.9	570 .20 8.8	519 .20 9.6	388 .21 11.5												
M1 (1/3)	2050	794 .18 10.8	757 .19 10.4	722 .20 10.0	682 .21 9.7	641 .21 9.4	596 .21 9.0	548 .22 9.7	426 .22 11.5												
	2100	813 .20 11.2	777 .21 10.9	743 .21 10.5	704 .22 10.1	665 .22 9.8	622 .23 9.5	575 .23 9.9	464 .24 11.7												
P1 (1/2)	2150	832 .21 11.7	797 .22 11.3	764 .23 11.0	727 .24 10.6	688 .24 10.2	647 .24 9.9	602 .25 10.1	502 .26 11.8	341 .26 14.1											
	2200	852 .23 12.2	817 .24 11.8	785 .24 11.4	749 .25 11.1	711 .26 10.7	673 .26 10.4	629 .27 10.2	533 .27 12.0	395 .28 14.1											
M1 (1/3)	2250	871 .24 12.6	837 .25 12.2	805 .26 11.9	771 .27 11.5	734 .27 11.2	698 .28 10.9	655 .28 10.5	563 .29 12.1	444 .30 14.1											
	2300	891 .26 13.1	857 .27 12.7	826 .28 12.3	793 .29 12.0	757 .29 11.6	721 .30 11.3	681 .30 11.0	594 .31 12.2	482 .32 14.2											
P1 (1/2)	2350	910 .28 13.5	877 .29 13.2	847 .30 12.8	815 .30 12.4	780 .31 12.1	744 .31 11.8	707 .32 11.5	623 .33 12.3	520 .34 14.2	368 .34 16.6										
	2400	929 .29 14.0	897 .30 13.6	867 .31 13.3	837 .32 13.0	802 .33 12.6	767 .33 12.3	732 .34 11.9	651 .35 12.5	559 .36 14.3	422 .36 16.5										
M1 (1/3)	2450	949 .31 14.4	917 .32 14.1	888 .33 13.8	859 .34 13.4	825 .35 13.1	791 .35 12.8	757 .36 12.4	678 .37 12.6	590 .38 14.4	476 .38 16.5										
	2500	968 .33 14.9	937 .34 14.6	908 .35 14.2	880 .36 13.9	847 .37 13.6	814 .38 13.3	780 .38 13.0	705 .39 12.8	621 .40 14.5	513 .41 16.5										

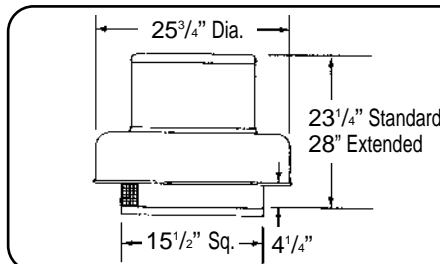
Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A, free inlet hemispherical sone levels.

VEBK 08

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Max BHP = .036 x $\left[\frac{\text{RPM}}{1000}\right]^3$

Tip Speed = 2.75 x RPM
 Max. Motor Frame Size = 56
 Unit Weight (less motor) = 30 lbs.
 Roof Opening = 11" Sq.
 Curb O. D. = 14" Sq.
 Damper Size = 10" Sq.

RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W. G.																			
		.000	.125	.250	.375	.500	.625	.750	1.000	1.250	1.500	1.750									
		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES									
K1 (1/6)	650	365 .01 2.4	163 .01 1.3																		
	750	422 .01 3.0	269 .01 1.8																		
K2 (1/6)	850	478 .02 3.7	350 .02 2.4																		
	950	534 .02 4.5	428 .03 3.1	272 .03 3.4																	
K3 (1/6)	1050	590 .03 5.2	495 .04 4.0	371 .04 4.0																	
	1150	646 .04 5.9	560 .05 4.9	453 .05 4.5	318 .05 5.0																
K4 (1/6)	1250	703 .06 6.8	624 .06 5.8	533 .07 5.1	425 .07 5.6																
	1350	759 .07 7.6	686 .08 6.7	610 .08 6.0	507 .09 6.6	393 .09 6.6															
L1 (1/4)	1450	815 .09 8.5	748 .09 7.7	677 .10 6.9	588 .10 6.8	496 .11 7.2	358 .11 7.7														
	1500	843 .10 8.9	778 .10 8.1	710 .11 7.4	628 .11 7.1	538 .12 7.5	428 .12 8.0														
M1 (1/3)	1550	871 .11 9.4	808 .11 8.6	743 .12 7.9	668 .13 7.5	579 .13 7.9	484 .13 8.3	276 .13 8.8													
	1600	899 .12 9.8	838 .13 9.1	775 .13 8.4	706 .14 7.9	619 .14 8.2	537 .15 8.6	410 .15 9.1													
P1 (1/2)	1650	927 .13 10.3	868 .14 9.6	807 .14 8.9	744 .15 8.4	659 .15 8.5	579 .16 8.9	477 .16 9.4													
	1700	955 .14 10.8	898 .15 10.0	839 .16 9.4	778 .16 8.9	700 .17 8.9	620 .17 9.3	532 .18 9.7													
M1 (1/3)	1750	984 .15 11.2	928 .16 10.5	871 .17 10.0	812 .18 9.4	740 .18 9.2	661 .19 9.6	586 .19 10.1													
	1800	1012 .17 11.7	957 .18 11.1	903 .18 10.4	845 .19 9.9	779 .20 9.6	701 .20 10.0	628 .21 10.4	366 .20 11.5												
P1 (1/2)	1850	1040 .18 12.2	987 .19 11.5	934 .20 11.0	878 .21 10.5	818 .21 10.0	742 .22 10.3	669 .22 10.7	478 .22 11.9												
	1900	1068 .20 12.6	1016 .21 12.1	965 .22 11.5	911 .22 11.0	856 .23 10.6	782 .23 10.7	710 .24 11.1	545 .25 12.2												
P1 (1/2)	1950	1096 .21 13.1	1046 .22 12.6	996 .23 12.0	943 .24 11.5	890 .25 11.1	822 .25 11.1	750 .26 11.6	600 .26 12.7												
	2000	1124 .23 13.6	1075 .24 13.1	1026 .25 12.6	975 .26 12.1	923 .26 11.6	861 .27 11.5	791 .27 11.9	655 .28 14.4	351 .28											
P1 (1/2)	2050	1152 .25 14.2	1104 .26 13.6	1057 .27 13.1	1008 .28 12.7	957 .28 12.3	900 .29 11.9	831 .29 12.4	701 .30 13.5	506 .30 14.7											
	2100	1180 .27 14.7	1134 .28 14.1	1087 .29 13.6	1040 .30 13.3	990 .30 12.8	938 .31 12.6	871 .32 12.8	743 .33 13.9	582 .33 15.1											
P1 (1/2)	2150	1208 .29 15.2	1163 .30 14.7	1117 .31 14.2	1071 .32 13.8	1023 .32 13.4	974 .33 13.2	911 .34 13.3	784 .35 14.3	638 .36 15.5											
	2200	1236 .31 15.7	1192 .32 15.2	1148 .33 14.8	1103 .34 14.3	1056 .35 14.0	1008 .35 13.8	950 .36 13.7	825 .37 14.8	693 .38 15.9	427 .36 17.4										
P1 (1/2)	2250	1265 .33 16.2	1221 .34 15.8	1178 .35 15.3	1134 .36 14.9	1088 .37 14.5	1042 .38 14.3	989 .38 14.2	865 .39 15.1	747 .40 16.3											
	2300	1293 .35 16.7	1250 .36 16.3	1208 .37 15.9	1165 .38 15.5	1120 .39 15.1	1075 .40 14.9	1028 .41 14.8	905 .42 15.5	790 .43 16.7	637 .44 17.9										
P1 (1/2)	2350	1321 .38 17.3	1279 .39 16.9	1238 .40 16.5	1196 .41 16.1	1152 .42 15.7	1108 .42 15.5	1064 .43 15.4	946 .44 15.9	832 .46 17.1	693 .46 18.3										
	2400	1349 .40 17.8	1308 .41 17.4	1267 .42 17.0	1227 .43 16.7	1184 .44 16.3	1141 .45 16.1	1098 .46 16.0	986 .47 16.4	873 .48 17.4	748 .49 18.6	547 .48 19.9									
P1 (1/2)	2450	1377 .43 18.3	1337 .44 18.0	1297 .45 17.6	1257 .46 17.3	1216 .47 16.9	1174 .48 16.6	1131 .49 16.6	1026 .50 16.8	914 .51 17.8	803 .52 19.0	636 .52 20									
	2500	1405 .45 18.9	1366 .46 18.5	1327 .47 18.2	1288 .49 17.8	1248 .50 17.5	1206 .51 17.3	1165 .51 17.2	1066 .53 17.2	955 .54 18.2	849 .55 19.3	706 .56 21									

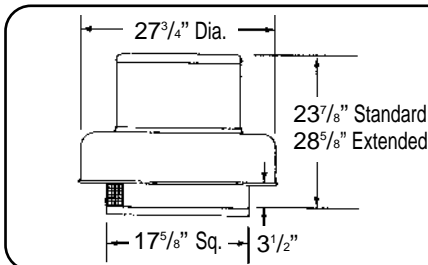
Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A, free inlet hemispherical sone levels.

VEBK 10

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Max BHP = .095 x $\left[\frac{\text{RPM}}{1000} \right]^3$

Tip Speed = 3.27 x RPM
 Max. Motor Frame Size = 145T
 Unit Weight (less motor) = 35 lbs.
 Roof Opening = 13" Sq.
 Curb O. D. = 16" Sq.
 Damper Size = 12" Sq.

RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W. G.																							
		.000		.125		.250		.375		.500		.750		1.000		1.250		1.500		2.000		2.500		2.750	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
K1 (1/6)	650	657	.02	481	.03																				
	750	758	.03	613	.04	392	.04																		
K2 (1/6)	850	859	.05	733	.05	584	.06	165	.05																
	950	960	.07	849	.07	723	.08	553	.08																
L1 (1/4)	1050	1061	.09	961	.10	853	.11	728	.11	528	.11														
	1150	1162	.12	1071	.13	974	.14	867	.14	739	.15														
M1 (1/3)	1250	1263	.15	1179	.16	1092	.17	1001	.18	893	.18	519	.17												
	1350	1364	.19	1286	.20	1208	.21	1123	.22	1031	.23	797	.24												
PI (1/2)	1400	1415	.21	1339	.22	1265	.24	1183	.24	1098	.25	891	.26	353	.22										
	1450	1465	.24	1392	.25	1321	.26	1243	.27	1164	.28	974	.29	624	.28										
R1 (3/4)	1500	1516	.26	1445	.27	1376	.29	1302	.30	1225	.31	1051	.32	783	.32										
	1550	1566	.29	1498	.30	1431	.31	1360	.33	1286	.34	1121	.35	900	.36	294	.29								
S1 (1)	1600	1617	.32	1550	.33	1486	.34	1418	.36	1346	.37	1190	.38	1001	.39	614	.36								
	1650	1668	.35	1603	.36	1540	.38	1475	.39	1406	.40	1258	.42	1085	.43	802	.42								
T1 (1-1/2)	1700	1718	.38	1655	.39	1594	.41	1532	.42	1465	.43	1325	.45	1167	.47	930	.47	330	.39						
	1750	1769	.41	1707	.43	1648	.44	1589	.46	1524	.47	1392	.49	1238	.51	1045	.51	657	.47						
S1 (1)	1800	1819	.45	1759	.47	1702	.48	1644	.50	1582	.51	1457	.53	1308	.55	1138	.56	851	.54						
	1850	1870	.49	1811	.51	1755	.52	1700	.54	1640	.55	1517	.57	1377	.59	1222	.60	990	.60						
T1 (1-1/2)	1900	1920	.53	1863	.55	1809	.56	1754	.58	1698	.59	1577	.62	1445	.64	1304	.65	1106	.65						
	1950	1971	.57	1915	.59	1862	.61	1809	.62	1755	.64	1638	.66	1513	.69	1375	.70	1210	.71						
T1 (1-1/2)	2000	2021	.62	1967	.64	1915	.65	1864	.67	1812	.69	1697	.71	1579	.74	1445	.75	1294	.76	644	.68				
	2050	2072	.67	2019	.68	1968	.70	1918	.72	1867	.74	1757	.76	1645	.79	1515	.81	1377	.82	880	.78				
T1 (1-1/2)	2100	2122	.72	2070	.73	2021	.75	1972	.77	1923	.79	1816	.82	1707	.84	1583	.86	1455	.88	1057	.87				
	2150	2173	.77	2122	.79	2074	.81	2028	.82	1978	.84	1874	.87	1768	.90	1651	.92	1526	.94	1175	.94				
T1 (1-1/2)	2200	2223	.82	2174	.84	2127	.86	2080	.88	2032	.90	1933	.93	1829	.96	1718	.98	1596	1.00	1291	1.02	450	.84		
	2250	2274	.88	2225	.90	2179	.92	2133	.94	2087	.96	1990	.99	1889	1.02	1784	1.05	1665	1.08	1394	1.09	798	.99		
T1 (1-1/2)	2300	2324	.94	2277	.96	2232	.98	2187	1.06	2142	1.02	2048	1.05	1949	1.08	1850	1.11	1734	1.13	1478	1.16	1013	1.10	440	.96
	2350	2375	1.00	2328	1.02	2284	1.04	2240	1.06	2196	1.08	2105	1.12	2008	1.15	1911	1.18	1801	1.20	1562	1.24	1187	1.22	782	1.11
T1 (1-1/2)	2400	2426	1.07	2379	1.09	2336	1.11	2293	1.13	2250	1.15	2163	1.19	2067	1.22	1972	1.25	1868	1.28	1644	1.32	1305	1.31	1017	1.24
	2450	2476	1.14	2431	1.16	2389	1.18	2346	1.20	2304	1.22	2219	1.26	2126	1.29	2033	1.33	1935	1.35	1716	1.39	1421	1.40	1199	1.37

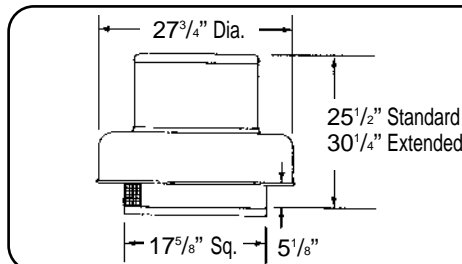
Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A, free inlet hemispherical sone levels.

VEBK 12

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Max BHP = $.10 \times \left[\frac{\text{RPM}}{1000} \right]^3$

Tip Speed = 3.27 x RPM
 Max. Motor Frame Size = 145T
 Unit Weight (less motor) = 35 lbs.
 Roof Opening = 13" Sq.
 Curb O. D. = 16" Sq.
 Damper Size = 12" Sq.

K1 (1/16)	RPM Range - Motor HP	STATIC PRESSURE, INCHES W. G.											
		.000	.125	.250	.375	.500	.750	1.000	1.250	1.500	2.000	2.500	2.750
	RPM	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP
		SONES	SONES	SONES	SONES	SONES	SONES	SONES	SONES	SONES	SONES	SONES	SONES
K2 (1/16)	550	676 .01 2.4	404 .02 1.6										
	650	799 .02 3.7	595 .03 2.8										
K3 (1/16)	750	922 .03 4.8	757 .04 3.9	487 .04 3.9									
	850	1045 .05 5.9	901 .06 5.1	718 .06 4.9									
L1 (1/4)	950	1168 .07 7.3	1041 .08 6.7	894 .08 6.4	692 .08 6.3								
	1050	1291 .09 8.9	1177 .10 8.4	1055 .11 8.0	897 .11 7.9	657 .11 7.8							
M1 (1/3)	1150	1414 .12 10.6	1310 .13 10.2	1200 .14 9.8	1072 .15 9.7	917 .15 9.6							
	1250	1537 .16 12.7	1441 .17 12.3	1342 .18 11.9	1238 .19 11.7	1104 .19 11.6	639 .17 11.6						
P1 (1/2)	1350	1660 .20 15.0	1571 .21 14.6	1481 .22 14.2	1385 .23 13.8	1275 .24 13.8	998 .24 13.8						
	1450	1783 .25 16.6	1700 .26 16.2	1617 .27 15.8	1529 .28 15.5	1441 .29 15.3	1202 .30 15.3	772 .27 15.3					
R1 (3/4)	1500	1844 .27 17.5	1764 .29 17.1	1684 .30 16.7	1600 .31 16.4	1514 .32 16.1	1298 .33 16.0	975 .32 16.0					
	1550	1906 .30 18.3	1828 .31 17.9	1751 .33 17.5	1670 .34 17.2	1587 .35 16.9	1385 .36 16.8	1126 .36 16.8					
S1 (1)	1600	1967 .33 19.0	1892 .34 18.7	1817 .36 18.4	1739 .37 18.0	1659 .38 17.7	1471 .40 17.6	1246 .40 17.6	752 .35 17.6				
	1650	2028 .36 20	1956 .38 19.5	1883 .39 19.2	1809 .40 18.9	1731 .41 18.6	1556 .43 18.4	1342 .44 18.3	1007 .42 18.4				
T1 (1-1/2)	1700	2090 .40 21	2019 .41 21	1949 .43 20	1877 .44 19.9	1802 .45 19.6	1640 .47 19.4	1437 .48 19.3	1160 .47 19.3				
	1750	2151 .43 22	2083 .45 22	2014 .46 21	1946 .48 21	1872 .49 21	1722 .51 20	1530 .53 20	1309 .52 20	802 .45 20			
T1 (1-1/2)	1800	2213 .47 23	2146 .49 23	2080 .50 23	2013 .52 22	1942 .53 22	1799 .55 21	1617 .57 21	1414 .57 21	1068 .52 21			
	1850	2274 .51 24	2210 .53 24	2145 .54 24	2080 .56 23	2012 .57 23	1873 .60 22	1703 .61 22	1510 .62 22	1233 .60 22			
T1 (1-1/2)	1900	2336 .55 25	2273 .57 25	2210 .59 25	2147 .60 25	2081 .62 24	1946 .64 24	1788 .66 24	1605 .68 24	1384 .67 23			
	1950	2397 .60 27	2336 .62 26	2274 .63 26	2213 .65 26	2150 .66 25	2018 .69 25	1872 .71 25	1699 .73 25	1507 .73 25			
T1 (1-1/2)	2000	2459 .65 28	2399 .66 28	2339 .68 27	2279 .70 27	2219 .71 27	2090 .74 26	1955 .76 26	1787 .78 26	1604 .79 26	757 .62 26		
	2050	2520 .70 29	2462 .71 29	2403 .73 29	2345 .75 28	2286 .76 28	2161 .79 27	2037 .82 27	1873 .84 27	1699 .85 27	1088 .76 27		
T1 (1-1/2)	2100	2582 .75 30	2525 .77 30	2468 .78 30	2410 .80 30	2353 .82 29	2232 .85 29	2109 .88 28	1958 .90 28	1793 .91 28	1313 .87 28		
	2150	2643 .80 32	2587 .82 31	2532 .84 31	2476 .86 31	2420 .87 31	2302 .90 30	2183 .93 30	2042 .96 30	1886 .98 30	1466 .95 29		
T1 (1-1/2)	2200	2705 .86 33	2650 .88 33	2596 .90 33	2541 .92 32	2487 .93 32	2373 .97 32	2255 .99 31	2126 1.02 31	1973 1.04 31	1616 1.04 31		
	2250	2766 .92 35	2713 .94 34	2660 .96 34	2606 .98 34	2553 1.00 34	2442 1.03 33	2328 1.06 33	2208 1.09 32	2059 1.11 32	1737 1.12 32	960 .93 32	
T1 (1-1/2)	2300	2828 .98 36	2775 1.00 36	2723 1.02 36	2671 1.04 35	2619 1.06 35	2512 1.09 35	2400 1.13 34	2290 1.16 34	2144 1.18 34	1834 1.20 33	1258 1.04 33	
	2350	2889 1.05 38	2838 1.07 37	2787 1.09 37	2736 1.11 37	2685 1.13 37	2581 1.16 36	2471 1.19 35	2361 1.23 35	2229 1.25 35	1930 1.28 35	1475 1.22 35	927 1.02 35
T1 (1-1/2)	2400	2951 1.12 39	2901 1.14 39	2851 1.16 39	2801 1.18 38	2751 1.20 38	2649 1.24 38	2542 1.27 37	2435 1.30 37	2312 1.33 37	2024 1.36 37	1627 1.32 37	1257 .122 37
	2450	3012 1.19 41	2963 1.21 41	2914 1.23 41	2865 1.25 40	2816 1.27 40	2718 1.31 40	2613 1.34 39	2508 1.38 39	2395 1.40 39	2121 1.45 38	1778 1.43 38	1501 1.38 38

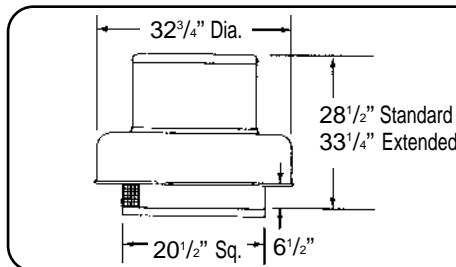
Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A, free inlet hemispherical sone levels.

VEBK 15

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Max BHP = .282 x $\left[\frac{\text{RPM}}{1000} \right]^3$
 Tip Speed = 4.06 x RPM
 Max. Motor Frame Size = 182T
 Unit Weight (less motor) = 50 lbs.
 Roof Opening = 16" Sq.
 Curb O. D. = 19" Sq.
 Damper Size = 15" Sq.

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.											
K1 (1/6)	RPM	.000	.125	.250	.375	.500	.750	1.000	1.250	1.500	2.000	2.500	2.750
		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
K2 (1/6)	550	1279 .04 3.3	976 .05 2.6										
	600	1395 .05 4.0	1129 .06 3.3	716 .06 3.2									
L1 (1/4)	650	1511 .07 4.7	1272 .08 4.0	943 .08 3.8									
	700	1628 .09 5.3	1411 .09 4.7	1130 .10 4.4	542 .08 4.5								
M1 (1/3)	750	1744 .11 6.0	1549 .12 5.5	1292 .12 5.1	949 .12 5.1								
	800	1860 .13 6.8	1678 .14 6.2	1448 .14 5.8	1170 .14 5.8								
P1 (1/2)	850	1976 .16 7.5	1805 .17 7.0	1600 .17 6.6	1358 .17 6.5	1019 .17 6.5							
	900	2093 .19 8.3	1931 .19 7.7	1744 .20 7.3	1524 .21 6.9	1255 .20 6.7							
R1 (3/4)	950	2209 .22 9.0	2056 .23 8.5	1885 .24 8.1	1681 .24 7.7	1450 .24 7.4							
	1000	2325 .25 9.8	2180 .26 9.3	2024 .27 8.9	1836 .28 8.5	1633 .28 8.3	920 .25 8.1						
S1 (1)	1050	2441 .29 10.7	2303 .31 10.2	2161 .32 9.8	1986 .32 9.4	1794 .33 9.2	1291 .31 8.9						
	1100	2558 .34 11.6	2426 .35 11.1	2293 .36 10.6	2129 .37 10.3	1951 .38 10.1	1526 .37 9.7						
T1 (1-1/2)	1150	2674 .39 12.6	2548 .40 12.1	2421 .41 11.6	2271 .42 11.3	2105 .43 11.1	1725 .43 10.7	993 .36 10.7					
	1200	2790 .44 13.5	2670 .45 13.1	2548 .46 12.6	2410 .48 12.3	2257 .49 12.1	1912 .49 11.7	1431 .47 11.6					
V1 (2)	1250	2906 .50 14.5	2791 .51 14.1	2674 .52 13.6	2548 .54 13.4	2401 .55 13.2	2082 .55 12.7	1669 .54 12.5					
	1300	3022 .56 15.6	2912 .57 15.1	2799 .59 14.7	2685 .60 14.4	2543 .61 14.2	2241 .62 13.8	1885 .62 13.5	1266 .56 13.6				
	1350	3138 .63 16.6	3032 .64 16.1	2924 .65 15.7	2815 .67 15.5	2684 .68 15.3	2398 .70 14.9	2075 .69 14.6	1641 .67 14.6				
	1400	3255 .70 17.7	3135 .71 17.3	3048 .73 16.9	2943 .74 16.6	2823 .75 16.4	2553 .77 16.1	2261 .77 15.8	1877 .76 15.7	1084 .62 15.8			
	1450	3371 .77 18.8	3273 .79 18.4	3171 .81 18.0	3070 .82 17.8	2961 .83 17.6	2707 .86 17.2	2425 .86 16.9	2095 .86 16.8	1610 .79 16.8			
	1500	3488 .86 20	3392 .87 19.5	3294 .89 19.2	3197 .90 18.9	3097 .92 18.7	2852 .95 18.4	2585 .96 18.1	2285 .95 17.9	1898 .92 17.9			
	1550	3604 .95 21	3512 .96 21	3417 .98 20	3322 1.00 20	3228 1.01 20	2995 1.04 19.0	2742 1.05 19.0	2472 1.05 19.0	2132 1.04 19.0			
	1600	3720 1.04 22	3631 1.06 22	3539 1.07 21	3448 1.09 21	3356 1.11 21	3137 1.14 21	2897 1.16 20	2643 1.16 20	2339 1.15 20			
	1650	3836 1.14 23	3747 1.16 23	3661 1.18 23	3572 1.19 22	3483 1.21 22	3278 1.24 22	3049 1.27 21	2804 1.27 21	2529 1.26 21	1650 1.15 21		
	1700	3953 1.25 24	3866 1.27 24	3783 1.28 24	3697 1.30 24	3610 1.32 23	3417 1.35 23	3201 1.38 23	2962 1.39 22	2715 1.38 22	2038 1.33 22		
	1750	4069 1.36 25	3985 1.38 25	3904 1.40 25	3820 1.42 25	3736 1.44 24	3555 1.47 24	3345 1.50 24	3118 1.51 24	2886 1.52 23	2276 1.48 23		
	1800	4185 1.48 27	4104 1.50 26	4025 1.52 26	3944 1.54 26	3862 1.56 26	3692 1.59 25	3488 1.62 25	3273 1.65 25	3047 1.65 24	2510 1.63 24	1280 1.28 24	
	1850	4301 1.61 28	4222 1.63 28	4146 1.65 27	4067 1.67 27	3987 1.69 27	3828 1.73 27	3629 1.76 26	3425 1.79 26	3206 1.79 26	2711 1.78 25	1890 1.58 25	
	1900	4417 1.74 29	4340 1.76 29	4266 1.78 29	4189 1.80 28	4112 1.82 28	3958 1.86 28	3770 1.90 28	3577 1.93 27	3363 1.94 27	2900 1.92 26	2276 1.86 26	1536 1.59 27
	1950	4534 1.88 30	4459 1.90 30	4387 1.92 30	4311 1.95 30	4236 1.97 30	4086 2.01 29	3909 2.04 29	3721 2.08 28	3518 2.09 28	3087 2.09 28	2514 2.04 27	2066 1.88 27
	1975	4592 1.96 31	4518 1.98 31	4447 2.00 30	4372 2.02 30	4298 2.04 30	4150 2.08 30	3979 2.12 29	3793 2.15 29	3595 2.17 29	3180 2.17 28	2632 2.13 28	2279 2.02 28

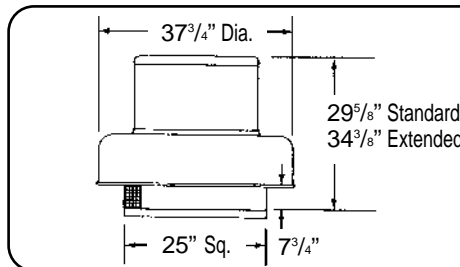
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VEBK 18

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Max BHP = .64 x $\left[\frac{\text{RPM}}{1000}\right]^3$
 Tip Speed = 4.94 x RPM
 Max. Motor Frame Size = 184T
 Unit Weight (less motor) = 65 lbs.
 Roof Opening = 20 1/2" Sq.
 Curb O. D. = 23 1/2" Sq.
 Damper Size = 19" Sq.

K1 (1/6)	RPM	STATIC PRESSURE, INCHES W. G.																								
		.000		.125		.250		.375		.500		.750		1.000		1.250		1.500		2.000		2.500		2.750		
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
L1 (1/4)	550	2079	.09	1790	.10	1416	.11	508	.08																	
	M1 (1/3)	600	2268	.12	2008	.13	1692	.14	1225	.13																
		650	2457	.15	2221	.16	1951	.17	1592	.17	937	.15														
	P1 (1/2)	700	2646	.19	2427	.20	2184	.21	1887	.22	1484	.21														
		750	2835	.24	2631	.25	2409	.26	2152	.26	1835	.27														
	R1 (3/4)	800	3024	.29	2832	.30	2629	.31	2409	.32	2134	.32	1212	.29												
		850	3213	.35	3033	.36	2845	.37	2642	.38	2401	.39	1747	.38												
	S1 (1)	900	3402	.41	3232	.42	3059	.43	2867	.44	2660	.45	2134	.46												
		950	3590	.48	3430	.49	3268	.51	3089	.52	2907	.53	2437	.54	1699	.52										
	T1 (1-1/2)	1000	3779	.56	3627	.58	3473	.59	3308	.60	3135	.61	2723	.63	2194	.62										
1050		3968	.65	3824	.66	3677	.68	3524	.69	3359	.70	2988	.72	2530	.73	1762	.69									
V1 (2)	1100	4157	.75	4019	.76	3879	.78	3737	.79	3580	.80	3247	.83	2832	.84	2281	.82									
	1150	4346	.86	4215	.87	4081	.88	3947	.90	3799	.91	3498	.94	3119	.96	2681	.95	1928	.91							
W1 (3)	1175	4441	.91	4312	.93	4181	.94	4050	.96	3907	.97	3613	1.00	3252	1.02	2835	1.02	2208	.99							
	1200	4535	.97	4409	.99	4281	1.00	4152	1.02	4015	1.03	3727	1.06	3385	1.08	2987	1.09	2451	1.06							
V1 (2)	1225	4630	1.03	4506	1.05	4381	1.07	4255	1.08	4123	1.10	3840	1.12	3515	1.15	3138	1.17	2690	1.14							
	1250	4724	1.10	4604	1.11	4480	1.13	4357	1.15	4229	1.16	3953	1.19	3645	1.22	3286	1.24	2876	1.22							
V1 (2)	1275	4819	1.17	4700	1.18	4580	1.20	4459	1.21	4336	1.23	4065	1.26	3774	1.29	3429	1.31	3031	1.30	1385	1.04					
	1300	4913	1.24	4797	1.25	4679	1.27	4560	1.29	4442	1.30	4176	1.33	3901	1.36	3563	1.39	3184	1.39	1875	1.23					
V1 (2)	1325	5008	1.31	4894	1.33	4778	1.34	4661	1.36	4545	1.38	4287	1.41	4026	1.43	3696	1.46	3336	1.47	2193	1.38					
	1350	5102	1.38	4991	1.40	4877	1.42	4762	1.44	4648	1.45	4397	1.48	4141	1.51	3828	1.54	3485	1.56	2476	1.49					
V1 (2)	1375	5197	1.46	5087	1.48	4975	1.50	4863	1.52	4751	1.53	4507	1.56	4255	1.59	3959	1.62	3633	1.65	2727	1.59					
	1400	5291	1.54	5184	1.56	5074	1.58	4964	1.60	4854	1.62	4616	1.65	4369	1.68	4088	1.71	3774	1.74	2968	1.69					
V1 (2)	1425	5386	1.63	5280	1.65	5172	1.66	5064	1.68	4956	1.70	4724	1.73	4482	1.76	4217	1.80	3908	1.83	3205	1.80	1526	1.44			
	1450	5480	1.72	5377	1.73	5271	1.75	5164	1.79	5058	1.79	4833	1.82	4594	1.85	4344	1.89	4041	1.92	3363	1.90	2035	1.70			
V1 (2)	1475	5575	1.81	5473	1.82	5369	1.84	5264	1.86	5160	1.88	4940	1.92	4706	1.95	4472	1.98	4173	2.01	3517	2.02	2379	1.89			
	1500	5669	1.90	5569	1.92	5467	1.94	5364	1.96	5261	1.98	5048	2.01	4817	2.04	4587	2.08	4304	2.11	3670	2.13	2663	2.04	1764	1.81	
V1 (2)	1525	5764	2.00	5666	2.02	5565	2.03	5464	2.05	5362	2.07	5155	2.11	4928	2.14	4702	2.18	4434	2.21	3822	2.24	2929	2.17	2209	1.99	
	1550	5858	2.10	5762	2.12	5662	2.13	5563	2.15	5463	2.17	5261	2.21	5038	2.25	4815	2.28	4563	2.31	3972	2.36	3171	2.29	2530	2.20	
V1 (2)	1575	5953	2.20	5858	2.22	5760	2.24	5662	2.26	5564	2.28	5368	2.32	5148	2.35	4929	2.39	4691	2.42	4120	2.48	3411	2.42	2814	2.37	

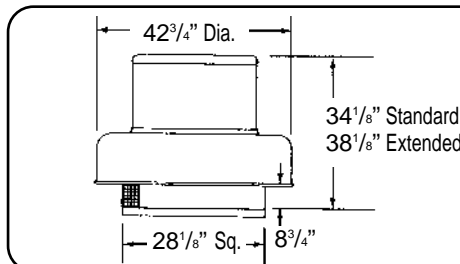
Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A, free inlet hemispherical sone levels.

VEBK 21

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Max BHP = 1.28 x $\left[\frac{\text{RPM}}{1000}\right]^3$
 Tip Speed = 5.76 x RPM
 Max. Motor Frame Size = 184T
 Unit Weight (less motor) = 100 lbs.
 Roof Opening = 23 1/2" Sq.
 Curb O. D. = 26 1/2" Sq.
 Damper Size = 22" Sq.

L1 (1/4)	RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W. G.																								
			.000		.125		.250		.375		.500		.750		1.000		1.250		1.500		2.000		2.500		2.750		
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	
M1 (1/3)	400		2231	.07	1832	.08	921	.07																			
			4.2	3.3	3.3																						
	450		2510	.11	2165	.11	1670	.12																			
			5.3	4.3	4.1																						
	500		2788	.14	2489	.15	2112	.16	1312	.15																	
			6.4	5.5	5.1																						
	550		3067	.19	2798	.20	2484	.21	2033	.21																	
			7.7	6.8	6.2																						
	600		3346	.25	3099	.26	2822	.27	2486	.27	1957	.28															
			8.8	8.1	7.4																						
650		3625	.32	3397	.33	3151	.34	2880	.35	2509	.35																
		10.0	9.2	8.6																							
700		3904	.40	3692	.41	3474	.42	3222	.43	2929	.44	1727	.41														
		11.2	10.5	9.9																							
750		4183	.49	3986	.50	3787	.52	3557	.53	3322	.53	2568	.54														
		12.5	11.8	11.2																							
800		4461	.59	4277	.61	4091	.62	3885	.63	3665	.64	3113	.65	1842	.60												
		13.8	13.2	12.7																							
850		4740	.71	4567	.73	4392	.74	4208	.76	4001	.77	3527	.78	2785	.78												
		15.2	14.6	14.1																							
875		4880	.77	4711	.79	4541	.81	4368	.82	4166	.83	3730	.85	3065	.85												
		16.1	15.4	14.8																							
900		5019	.84	4856	.86	4690	.88	4525	.89	4331	.90	3930	.93	3340	.93	2162	.87										
		16.9	16.3	15.6																							
925		5158	.92	4999	.93	4838	.95	4677	.97	4494	.98	4113	1.00	3605	1.01	2633	.98										
		17.7	17.1	16.5																							
950		5298	.99	5143	1.01	4986	1.03	4830	1.04	4656	1.06	4285	1.08	3814	1.09	3110	1.09										
		18.6	18.0	17.4																							
975		5437	1.07	5287	1.09	5134	1.11	4981	1.13	4817	1.14	4456	1.16	4020	1.18	3391	1.18	2168	1.07								
		19.4	18.8	18.3																							
1000		5577	1.16	5430	1.17	5281	1.19	5132	1.21	4977	1.23	4625	1.25	4223	1.27	3667	1.27	2625	1.22								
		20	19.7	19.2																							
1050		5856	1.34	5716	1.36	5574	1.38	5432	1.40	5291	1.42	4959	1.44	4624	1.47	4163	1.48	3512	1.47								
		22	22	21																							
1075		5995	1.44	5859	1.46	5720	1.48	5582	1.50	5443	1.52	5125	1.54	4797	1.57	4370	1.58	3791	1.58								
		23	22	22																							
1100		6134	1.54	6001	1.56	5866	1.58	5731	1.60	5595	1.62	5289	1.65	4969	1.68	4575	1.69	4066	1.70								
		24	23	23																							
1125		6274	1.65	6144	1.67	6011	1.69	5879	1.71	5747	1.73	5453	1.76	5139	1.79	4778	1.18	4337	1.82	2461	1.60						
		25	24	24																							
1150		6413	1.76	6286	1.78	6157	1.80	6027	1.82	5898	1.84	5615	1.88	5309	1.91	4979	1.93	4558	1.94	2946	1.84						
		26	25	25																							
1175		6553	1.88	6428	1.90	6302	1.92	6175	1.94	6048	1.96	5777	2.00	5477	2.03	5177	2.06	4766	2.07	3446	2.02						
		27	26	26																							
1200		6692	2.00	6571	2.02	6446	2.04	6322	2.06	6198	2.09	5937	2.13	5644	2.16	5350	2.19	4971	2.20	3915	2.20						
		27	27	26																							
1225		6831	2.13	6713	2.15	6591	2.17	6469	2.19	6348	2.22	6098	2.26	5810	2.29	5522	2.32	5175	2.34	4197	2.34						
		28	28	27																							
1250		6971	2.26	6854	2.28	6735	2.30	6616	2.33	6497	2.35	6257	2.40	5975	2.43	5693	2.46	5376	2.48	4474	2.49	2131	2.00				
		29	29	28																							
1275		7110	2.40	6996	2.42	6879	2.44	6763	2.47	6646	2.49	6412	2.54	6139	2.57	5863	2.60	5576	2.63	4748	2.64	3098	2.47				
		30	29	29																							
1300		7250	2.54	7138	2.56	7023	2.59	6909	2.61	6794	2.64	6565	2.68	6302	2.72	6031	2.75	5760	2.78	5018	2.80	3551	2.69				
		31	30	30																							
1325		7389	2.69	7280	2.71	7167	2.74	7055	2.76	6942	2.79	6718	2.84	6465	2.87	6199	2.91	5933	2.94	5239	2.97	4114	2.94	3025	2.71		
		32	31	31																							
1350		7529	2.85	7421	2.87	7311	2.89	7201	2.92	7090	2.94	6870	2.99	6627	3.04	6366	3.07	6105	3.10	5447	3.13	4472	3.13	3482	2.99		
		32	32	31																							
1375		7668	3.01	7563	3.03	7454	3.06	7346	3.08	7238	3.11	7021	3.16	6788	3.20	6531	3.24	6275	3.27	5653	3.31	4752	3.31	3975	3.23		
		33	33	32																							

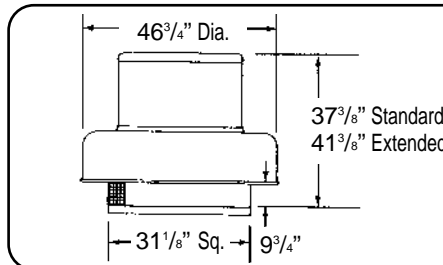
Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A, free inlet hemispherical sone levels.

VEBK 24

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Max BHP = 3.26 x $\left[\frac{\text{RPM}}{1000} \right]^3$

Tip Speed = 6.68 x RPM
 Max. Motor Frame Size = 254T
 Unit Weight (less motor) = 125 lbs.
 Roof Opening = 26 1/2" Sq.
 Curb O. D. = 29 1/2" Sq.
 Damper Size = 26" Sq.

M1 (1/3)	RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W. G.																							
			.000	.125	.250	.375	.500	.750	1.000	1.250	1.500	2.000	2.500	2.750												
			CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES											
P1 (1/2) R1 (3/4) S1 (1) T1 (1-1/2) V1 (2) W1 (3) X1 (5) Y1 (7-1/2)	400	3803 .21 6.6	3306 .21 5.8	2595 .21 4.9																						
	450	4278 .30 8.1	3849 .30 7.4	3289 .30 6.6	2561 .29 5.8																					
	500	4753 .41 9.5	4367 .41 8.9	3936 .41 8.2	3330 .41 7.5	2403 .38 7.1																				
	550	5228 .54 11.0	4877 .55 10.4	4501 .55 9.8	4013 .55 9.1	3432 .54 8.7																				
	575	5466 .62 11.8	5130 .63 11.3	4778 .63 10.6	4341 .63 10.0	3810 .62 9.6																				
	600	5704 .71 12.7	5382 .71 12.1	5052 .71 11.5	4663 .71 11.0	4163 .71 10.6	2526 .63 10.1																			
	625	5941 .80 13.7	5632 .80 13.2	5324 .81 12.5	4964 .81 12.0	4500 .80 11.6	3375 .78 10.9																			
	650	6179 .90 14.6	5881 .90 14.1	5585 .91 13.5	5248 .91 13.0	4830 .90 12.7	3836 .89 11.9																			
	675	6417 1.01 15.6	6130 1.01 15.1	5845 1.02 14.6	5528 1.02 14.1	5155 1.01 13.7	4224 1.00 13.0	1953 .84 12.8																		
	700	6654 1.12 16.7	6378 1.13 16.2	6103 1.13 15.6	5805 1.13 15.2	5476 1.13 14.9	4603 1.12 14.2	3157 1.04 13.7																		
	725	6892 1.25 17.7	6625 1.25 17.3	6359 1.26 16.7	6080 1.26 16.2	5770 1.26 16.0	4965 1.25 15.3	4009 1.23 14.7																		
	750	7130 1.38 18.8	6871 1.39 18.4	6615 1.39 17.9	6353 1.39 17.3	6053 1.39 17.1	5304 1.39 16.4	4421 1.37 15.7																		
	775	7367 1.52 19.9	7117 1.53 19.5	6869 1.53 19.0	6620 1.54 18.5	6334 1.54 18.2	5638 1.53 17.5	4810 1.51 16.9	3274 1.37 16.6																	
	800	7605 1.68 21	7362 1.68 21	7122 1.69 20	6881 1.69 19.6	6612 1.69 19.3	5967 1.69 18.7	5191 1.67 18.0	4123 1.61 17.6																	
	825	7843 1.84 22	7607 1.84 22	7374 1.85 21	7141 1.85 21	6887 1.86 20	6292 1.85 19.9	5565 1.84 19.2	4730 1.81 18.6																	
	850	8080 2.01 23	7852 2.02 23	7625 2.02 22	7399 2.03 22	7161 2.03 21	6613 2.03 21	5908 2.02 20	5122 1.99 20	3622 1.81 20																
	875	8318 2.19 25	8096 2.20 24	7876 2.20 24	7656 2.21 23	7433 2.22 23	6919 2.21 22	6245 2.20 22	5508 2.18 21	4471 2.10 21																
	900	8556 2.39 26	8340 2.39 25	8126 2.40 25	7912 2.40 24	7698 2.41 24	7204 2.41 23	6578 2.40 23	5887 2.38 22	5122 2.35 22																
	925	8793 2.59 27	8583 2.60 26	8375 2.60 26	8167 2.61 25	7959 2.61 25	7486 2.62 24	6907 2.61 24	6261 2.59 23	5516 2.56 23																
	950	9031 2.81 28	8826 2.81 27	8623 2.82 27	8421 2.83 26	8218 2.83 26	7766 2.83 26	7232 2.83 25	6601 2.81 24	5903 2.79 24																
	975	9269 3.04 29	9069 3.04 28	8871 3.05 28	8674 3.05 27	8477 3.06 27	8044 3.06 27	7553 3.06 26	6938 3.05 26	6285 3.02 25	3963 2.67 24															
	1000	9506 3.28 30	9311 3.28 29	9119 3.29 29	8926 3.29 29	8734 3.30 28	8321 3.31 28	7871 3.30 27	7272 3.29 27	6661 3.27 26	4807 3.08 25															
	1025	9744 3.53 31	9554 3.53 31	9366 3.54 30	9178 3.55 30	8990 3.55 29	8595 3.56 29	8157 3.56 29	7602 3.55 28	7017 3.53 27	5660 3.46 26															
	1050	9982 3.79 32	9796 3.80 32	9612 3.80 31	9429 3.81 31	9246 3.82 30	8869 3.83 30	8440 3.83 30	7928 3.82 29	7357 3.80 29	6085 3.74 28															
1075	10219 4.07 33	10038 4.08 33	9859 4.08 32	9679 4.09 32	9500 4.10 32	9140 4.11 31	8722 4.11 31	8251 4.10 30	7694 4.08 30	6477 4.03 29	3669 3.29 28															
1100	10457 4.36 34	10279 4.37 34	10104 4.37 34	9929 4.38 33	9754 4.39 33	9404 4.40 32	9002 4.40 32	8571 4.40 32	8026 4.38 31	6863 4.33 30	4765 3.95 30															
1125	10695 4.66 35	10521 4.67 35	10350 4.68 35	10179 4.68 34	10007 4.69 34	9665 4.70 34	9280 4.71 34	8880 4.71 33	8356 4.69 33	7244 4.64 31	5613 4.43 31	3663 3.69 31														
1150	10932 4.98 37	10762 4.99 37	10595 5.00 36	10427 5.00 36	10260 5.01 35	9925 5.02 35	9556 5.03 35	9165 5.03 35	8682 5.01 34	7621 4.97 33	6422 4.90 32	4873 4.47 32														
1175	11170 5.31 38	11008 5.32 38	10839 5.33 37	10676 5.34 37	10512 5.34 37	10184 5.36 36	9831 5.36 36	9449 5.36 36	9005 5.35 35	7985 5.32 34	6820 5.24 33	5719 5.01 33														
1200	11408 5.66 39	11244 5.67 39	11084 5.67 39	10923 5.68 39	10763 5.69 38	10442 5.70 38	10105 5.71 38	9730 5.71 37	9326 5.71 37	8327 5.67 36	7212 5.60 35	6572 5.54 34														

Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

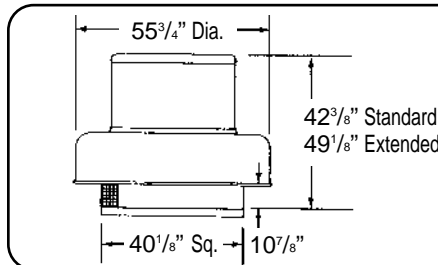
The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A, free inlet hemispherical sone levels.

Cent. Power Roof Vents

VEBK 30

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

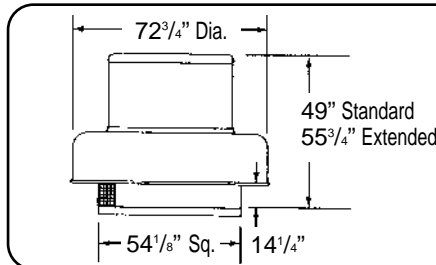
Max BHP = 7.54 x $\left[\frac{\text{RPM}}{1000}\right]^3$
 Tip Speed = 8.25 x RPM
 Max. Motor Frame Size = 254T
 Unit Weight (less motor) = 190 lbs.
 Roof Opening = 35 1/2" Sq.
 Curb O. D. = 38 1/2" Sq.
 Damper Size = 34" Sq.

RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W. G.																							
		.000		.125		.250		.375		.500		.625		.750		1.000		1.250		1.500		2.000		2.500	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
P1 (1/2)	275	4812	.14	3503	.16																				
		4.8	3.2																						
P2 (1/2)	300	5249	.18	4124	.20	1666	.15																		
		5.6	4.2			3.3																			
R1 (3/4)	325	5686	.22	4674	.25	2917	.23																		
		6.5	5.2			3.9																			
S1 (1)	350	6124	.28	5192	.31	3818	.31																		
		7.5	6.2			4.7																			
T1 (1-1/2)	375	6561	.34	5699	.38	4599	.39	2538	.32																
		8.5	7.2			5.7	5.1																		
V1 (2)	400	6999	.42	6199	.46	5234	.48	3648	.44																
		9.4	.82			6.8	5.8																		
W1 (3)	425	7436	.50	6691	.54	5850	.57	4558	.56	2405	.43														
		10.4	9.1			7.9	6.6	6.4																	
X1 (5)	450	7874	.59	7177	.64	6408	.68	5348	.68	3729	.61														
		11.4	10.1			9.0	7.7	7.1																	
Y1 (7-1/2)	475	8311	.70	7651	.74	6931	.79	6034	.80	4710	.75	2678	.60												
		12.4	11.2			10.1	8.8	7.8				7.8													
P1 (1/2)	500	8748	.82	8121	.86	7445	.91	6661	.94	5559	.92	4034	.82												
		13.5	12.3			11.3	10.0	8.9				8.5													
R1 (3/4)	525	9186	.95	8589	.99	7953	1.04	7273	1.08	6342	1.08	5037	.99	3241	.85										
		14.6	13.5			12.4	11.2	10.1				9.4													
S1 (1)	550	9623	1.09	9053	1.14	8454	1.19	7824	1.24	7006	1.25	5927	1.21	4518	1.10										
		15.7	14.6			13.6	12.7	11.5				10.5													
T1 (1-1/2)	575	10061	1.24	9515	1.30	8951	1.35	8348	1.40	7633	1.42	6719	1.41	5514	1.31										
		16.9	15.8			14.9	14.1	13.0				12.0													
V1 (2)	600	10498	1.41	9975	1.47	9443	1.52	8865	1.58	8247	1.62	7453	1.62	6412	1.57	3332	1.21								
		18.1	17.1			16.2	15.5	14.4				13.4				12.2									
W1 (3)	625	10935	1.59	10434	1.65	9931	1.71	9376	1.77	8821	1.82	8088	1.83	7207	1.81	4776	1.58								
		19.4	18.4			17.6	16.8	15.9				15.0				13.3									
X1 (5)	650	11373	1.79	10890	1.85	10408	1.92	9881	1.97	9348	2.03	8711	2.06	7977	2.06	5835	1.87								
		21	19.7			18.9	18.2	17.4				16.4				14.4									
Y1 (7-1/2)	675	11810	2.01	11346	2.07	10881	2.14	10382	2.20	9869	2.25	9323	2.30	8616	2.30	6782	2.16	4002	1.77						
		22	21			20	19.5	18.8				17.9				15.5									
P1 (1/2)	700	12248	2.24	11800	2.31	11352	2.37	10879	2.44	10384	2.50	9888	2.56	9244	2.57	7635	2.50	5394	2.22						
		23	22			22	21	20				19.4				16.6									
R1 (3/4)	725	12685	2.49	12253	2.56	11820	2.63	11372	2.69	10894	2.76	10415	2.82	9861	2.85	8426	2.82	6457	2.59	2624	1.67				
		25	24			23	22	22				21				18.4					17.6				
S1 (1)	750	13123	2.75	12704	2.83	12286	2.90	11861	2.97	11399	3.03	10937	3.10	10468	3.16	9197	3.16	7407	2.94	5076	2.57				
		26	25			24	24	24				22				20					18.7				
T1 (1-1/2)	775	13560	3.04	13155	3.11	12751	3.19	12346	3.26	11900	3.33	11453	3.39	11005	3.46	9837	3.48	8291	3.37	6267	3.07				
		28	27			26	25	24				24				21					20				
V1 (2)	800	13997	3.34	13605	3.42	13213	3.50	12822	3.57	12398	3.64	11964	3.71	11531	3.78	10467	3.83	9088	3.77	7297	3.51				
		29	28			27	26	26				25				23					21				
W1 (3)	825	14435	3.67	14055	3.74	13675	3.82	13295	3.90	12892	3.98	12472	4.05	12051	4.12	11087	4.20	9870	4.18	8242	3.93	1407	1.73		
		30	29			28	28	27				26				24					22				
X1 (5)	850	14872	4.01	14503	4.09	14134	4.17	13766	4.25	13383	4.33	12975	4.40	12567	4.48	11699	4.60	10578	4.60	9116	4.46	4810	3.46		
		32	31			30	29	28				28				26					23				
Y1 (7-1/2)	875	15310	4.37	14951	4.46	14593	4.54	14235	4.62	13871	4.71	13475	4.78	13079	4.86	12286	5.01	11214	5.02	9913	4.93	6362	4.24		
		33	32			31	30	30				29				27					24				
P1 (1/2)	900	15747	4.76	15399	4.85	15050	4.93	14702	5.02	14353	5.10	13971	5.18	13586	5.26	12816	5.41	11842	5.46	10696	5.42	7458	4.86		
		35	34			33	33	32				30				28					25				
R1 (3/4)	925	16184	5.17	15845	5.26	15506	5.34	15168	5.43	14829	5.52	14465	5.60	14090	5.68	13341	5.84	12461	5.92	11430	5.92	8473	5.44	1922	
		36	35			34	33	33				32				30					26				
S1 (1)	950	16622	5.60	16292	5.69	15962	5.78	15632	5.87	15302	5.96	14956	6.05	14591	6.13	13861	6.29	13072	6.42	12069	6.42	9419	5.98	5356	
		38	37			36	35	35				34				32					29				
T1 (1-1/2)	975	17059	6.05	16738	6.14	16416	6.24	16094	6.33	15773	6.42	15444	6.51	15089	6.60	14378	6.77	13666	6.93	12699	6.94	10320	6.70	6967	
		39	38			38	37	37				36				33					28				
V1 (2)	1000	17497	6.53	17183	6.62	16870	6.72	16556	6.81	16242	6.91	15929	7.01	15584	7.09	14890	7.26	14197	7.44	13322	7.49	11118	7.33	8068	
		41	40			39	39	38				3													

VEBK 42

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

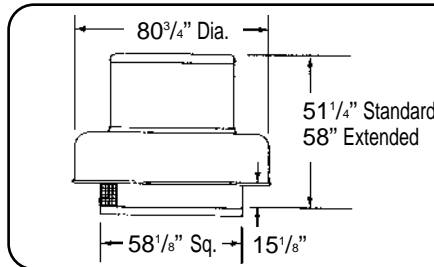
Max BHP = 39.60 x $\left[\frac{\text{RPM}}{1000}\right]^3$
 Tip Speed = 11.26 x RPM
 Max. Motor Frame Size = 254T
 Unit Weight (less motor) = 490 lbs.
 Roof Opening = 49 1/2" Sq.
 Curb O. D. = 52 1/2" Sq.
 Damper Size = 48" Sq.

SI (1)	RPM	STATIC PRESSURE, INCHES W. G.																										
		.000		.125		.250		.375		.500		.625		.750		1.000		1.250		1.500		1.750		2.000				
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP			
T1 (1-1/2)	215	8635	.35	7273	.39																							
		6.6	5.5																									
	230	9238	.43	7988	.47	5729	.46																					
		7.6	6.5	5.0																								
	245	9840	.52	8691	.56	7022	.58																					
		8.6	7.5	6.0																								
	260	10443	.62	9384	.66	7950	.70																					
		9.5	8.4	7.0																								
	275	11045	.74	10047	.78	8852	.83	6133	.76																			
		10.4	9.3	8.1	6.7																							
290	11648	.86	10701	.91	9603	.96	7755	.95																				
	11.3	10.2	9.1	7.7																								
305	12250	1.00	11350	1.05	10330	1.10	8909	1.12																				
	12.2	11.2	10.3	8.8																								
320	12853	1.16	11995	1.21	11047	1.26	9832	1.30	7447	1.22																		
	13.2	12.1	11.2	9.9	8.7																							
335	13455	1.33	12636	1.38	11755	1.44	10734	1.50	8966	1.46																		
	14.2	13.2	12.3	11.1	9.8																							
350	14058	1.52	13274	1.57	12455	1.63	11508	1.69	10151	1.70	7164	1.52																
	15.2	14.2	13.4	12.2	10.9	10.0																						
365	14660	1.72	13908	1.78	13148	1.84	12239	1.90	11079	1.93	9178	1.86																
	16.2	15.3	14.4	13.5	12.2	11.0																						
380	15263	1.94	14540	2.00	13818	2.06	12962	2.13	11987	2.18	10502	2.15																
	17.4	16.5	15.7	14.9	13.5	12.3																						
395	15865	2.18	15170	2.24	14475	2.30	13676	2.37	12837	2.44	9575	2.18																
	18.8	17.9	17.0	16.2	15.0	13.6	12.5																					
410	16468	2.44	15798	2.50	15129	2.57	14383	2.64	13575	2.71	12504	2.73	10956	2.68														
	20	19.3	18.5	17.6	16.5	15.1	13.8																					
425	17070	2.71	16424	2.78	15778	2.85	15084	2.92	14304	3.00	13411	3.05	12203	3.04														
	22	21	19.8	19.0	18.1	16.6	15.3																					
440	17673	3.01	17049	3.08	16425	3.15	15779	3.22	15025	3.30	14272	3.38	13137	3.38	8651	2.99												
	23	22	21	20	19.7	18.3	16.8	14.9																				
455	18275	3.33	17672	3.40	17069	3.47	16465	3.55	15739	3.63	15011	3.71	14054	3.74	10894	3.30												
	25	24	23	22	21	20	19.7	18.5	16.8																			
470	18878	3.67	18294	3.75	17710	3.82	17126	3.89	16447	3.98	15742	4.06	14956	4.13	12349	4.01												
	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3	14.9																
485	19480	4.03	18914	4.11	18348	4.19	17782	4.26	17150	4.35	16466	4.44	15782	4.52	13660	4.50												
	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3	14.9														
500	20083	4.42	19534	4.50	18985	4.58	18436	4.66	17847	4.74	17184	4.83	16520	4.92	14669	4.95	10887	4.54										
	30	29	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3	14.9												
515	20685	4.83	20152	4.91	19619	4.99	19086	5.07	18539	5.16	17895	5.25	17251	5.34	15595	5.42	12873	5.20										
	31	30	29	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3	14.9											
530	21287	5.26	20770	5.35	20252	5.43	19734	5.52	19216	5.60	18601	5.69	17976	5.79	16507	5.91	14205	5.78										
	32	31	30	29	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3	14.9										
545	21890	5.72	21386	5.81	20883	5.90	20379	5.98	19875	6.07	19302	6.16	18694	6.26	17407	6.44	15511	6.40	11518	5.81								
	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3	14.9								
560	22492	6.21	22002	6.30	21512	6.39	21022	6.48	20532	6.56	19999	6.66	19407	6.76	18223	6.96	16462	6.96	13728	6.66								
	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3	14.9							
575	23095	6.72	22618	6.81	22140	6.90	21663	7.00	21185	7.09	20691	7.18	20114	7.28	18961	7.49	17387	7.54	15068	7.34								
	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3	14.9						
590	23697	7.26	23232	7.36	22767	7.45	22302	7.54	21836	7.64	21371	7.73	20817	7.83	19693	8.05	18301	8.16	16383	8.06	2641	7.41						
	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3	14.9				
605	24300	7.83	23846	7.93	23392	8.02	22939	8.12	22485	8.21	22031	8.31	21516	8.41	20420	8.63	19203	8.80	17506	8.77	4840	8.39						
	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3	14.9			
620	24902	8.43	24460	8.52	24017	8.62	23574	8.72	23131	8.82	22689	8.92	22210	9.02	21141	9.25	20071	9.47	18439	9.45	6181	9.19						
	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8	15.3		
635	25505	9.05	25073	9.15	24640	9.25	24208	9.36	23776	9.46	23343	9.56	22901	9.66	21857	9.89	20813	10.12	19360	10.16	7498	10.03	14151	9.37				
	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19.7	18.3	16.8		
650	26107	9.71	25685	9.81	25263	9.92	24840	10.02	24418	10.12	23996	10																

VEBK 48

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Max BHP = 75.47 x $\left[\frac{\text{RPM}}{1000} \right]^3$

Tip Speed = 12.83 x RPM
 Max. Motor Frame Size = 254T
 Unit Weight (less motor) = 540 lbs.
 Roof Opening = 53 1/2" Sq.
 Curb O. D. = 56 1/2" Sq.
 Damper Size = 52" Sq.

RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W. G.									
		.000	.125	.250	.375	.500	.625	.750	1.000	1.250	1.500
T1 (1-1/2)		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
V1 (2)	200	12971 .52 8.6	10538 .57 6.7								
	220	14268 .70 9.9	12172 .76 8.2	9111 .73 7.1							
W1 (3)	240	15565 .91 11.4	13652 .98 9.8	11369 .98 8.6							
	260	16862 1.15 12.9	15114 1.22 11.5	13015 1.26 10.6	9976 1.18 10.2						
X1 (5)	280	18159 1.44 14.6	16590 1.51 13.7	14665 1.57 13.0	12442 1.54 12.3						
	290	18807 1.60 15.7	17320 1.67 15.0	15495 1.74 14.2	13596 1.73 13.5						
Y1 (7-1/2)	300	19456 1.77 17.0	18045 1.85 16.3	16314 1.93 15.6	14425 1.92 14.8	11492 1.82 14.5					
	310	20104 1.95 18.3	18766 2.03 17.6	17124 2.13 17.0	15241 2.13 16.2	12746 2.05 15.8					
C1 (10)	320	20753 2.15 19.6	19451 2.22 19.0	17880 2.34 18.4	16071 2.34 17.6	13968 2.29 17.0					
	330	21401 2.35 21	20128 2.43 20	18617 2.55 19.9	16901 2.57 19.1	15163 2.54 18.4	12158 2.39 18.3				
V1 (2)	340	22050 2.57 22	20804 2.65 22	19350 2.77 21	17722 2.80 21	16127 2.80 19.9	13427 2.67 19.7				
	350	22698 2.81 24	21478 2.89 23	20078 3.01 23	18550 3.06 22	16951 3.06 22	14672 2.97 21				
W1 (3)	360	23347 3.05 25	22150 3.14 25	20801 3.26 25	19374 3.33 24	17765 3.33 23	15885 3.27 23	13126 3.09 23			
	370	23995 3.32 27	22820 3.40 27	21546 3.53 27	20190 3.62 26	18598 3.62 25	17077 3.59 25	14400 3.42 25			
X1 (5)	380	24644 3.59 29	23489 3.67 29	22286 3.80 28	20999 3.93 28	19429 3.92 27	18020 3.91 27	15651 3.78 26			
	390	25292 3.88 31	24157 3.96 31	23023 4.10 31	21756 4.23 30	20252 4.23 30	18844 4.23 29	16875 4.14 28			
Y1 (7-1/2)	400	25941 4.19 32	24823 4.27 32	23755 4.41 32	22495 4.54 32	21076 4.57 31	19660 4.57 31	18076 4.51 30			
	410	26590 4.51 34	25489 4.59 34	24485 4.73 33	23230 4.87 33	21903 4.92 33	20486 4.93 32	19218 4.90 31			
C1 (10)	420	27238 4.85 35	26153 4.93 35	25211 5.07 35	23906 5.22 35	22723 5.30 34	21320 5.29 33	20048 5.28 33	15709 4.94 32		
	430	27887 5.21 36	26816 5.28 36	25934 5.43 36	24687 5.58 36	23537 5.69 36	22147 5.68 35	20870 5.67 34	16976 5.40 34		
V1 (2)	440	28535 5.58 38	27479 5.65 37	26654 5.80 37	25411 5.96 37	24345 6.10 37	22966 6.08 36	21684 6.09 36	18223 5.88 35		
	450	29184 5.97 39	28150 6.04 39	27335 6.19 39	26153 6.35 39	25097 6.50 38	23795 6.50 38	22514 6.51 37	19445 6.36 36		
W1 (3)	460	29832 6.37 40	28821 6.45 40	28013 6.60 40	26895 6.76 40	25836 6.92 40	24621 6.95 39	23348 6.95 38	20648 6.85 37		
	470	30481 6.80 42	29491 6.88 42	28690 7.02 41	27634 7.19 41	26572 7.35 41	25440 7.42 41	25175 7.41 40	21834 7.37 39	17617 6.93 39	
X1 (5)	480	31129 7.24 43	30160 7.32 43	29365 7.47 43	28369 7.63 43	27394 7.80 43	26254 7.91 42	24995 7.89 41	22738 7.87 40	18884 7.50 40	
	490	31778 7.70 45	30828 7.79 44	30039 7.93 44	29102 8.10 44	28033 8.27 44	27063 8.42 44	25821 8.39 43	23564 8.39 42	20134 8.09 41	
Y1 (7-1/2)	500	32426 8.18 46	31496 8.27 46	30712 8.41 46	29831 8.58 45	28759 8.76 45	27828 8.93 45	26649 8.93 45	24382 8.92 43	21362 8.70 42	
	510	33075 8.68 47	32162 8.77 47	31384 8.91 47	30558 9.09 47	29481 9.27 47	28569 9.44 47	27471 9.48 46	25195 9.48 45	22570 9.30 44	18676 8.79 44
C1 (10)	520	33723 9.21 49	32828 9.29 49	32054 9.44 49	31283 9.61 48	30228 9.79 48	29306 9.97 48	28288 10.05 48	26029 10.05 46	23764 9.94 45	19953 9.46 45
	530	34372 9.75 50	33494 9.84 50	32724 9.98 50	32005 10.15 50	30970 10.34 50	30040 10.52 50	29099 10.65 49	26863 10.63 48	24868 10.58 47	21212 10.15 47

Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

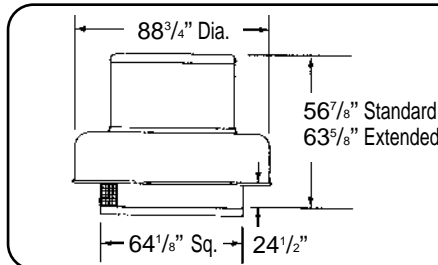
The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A, free inlet hemispherical sone levels.

Cent. Power Roof Vents

VEBK 54

BELT DRIVE PRV

PERFORMANCE DATA



DESIGN DATA

Max BHP = 110.85 x $\left[\frac{\text{RPM}}{1000}\right]^3$

Tip Speed = 14.40 x RPM
 Max. Motor Frame Size = 254T
 Unit Weight (less motor) = 665 lbs.
 Roof Opening = 59 1/2" Sq.
 Curb O. D. = 62 1/2" Sq.
 Damper Size = 58" Sq.

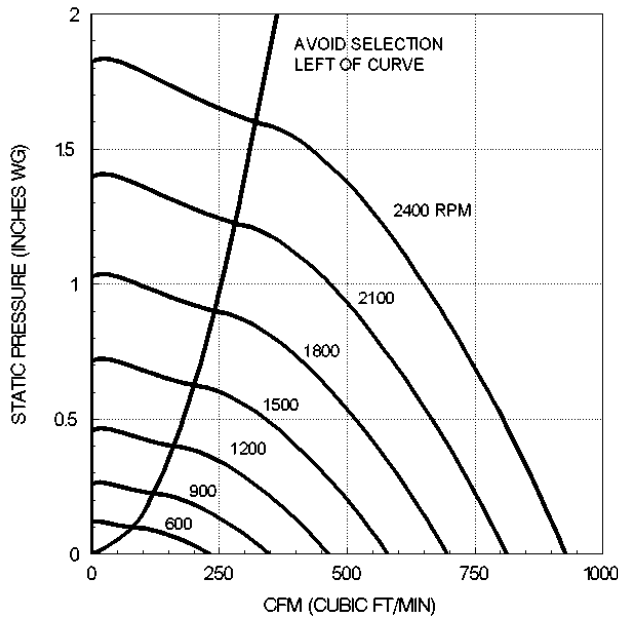
RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.									
T1 (1-1/2)	RPM	.000	.125	.250	.375	.500	.625	.750	1.000	1.250	1.500
		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
V1 (2)	190	16507 .62 9.9	13811 .73 8.3	10637 .77 6.2							
	200	17376 .72 10.6	14784 .85 9.3	11998 .90 6.8							
	210	18245 .84 11.3	15779 .97 10.3	13195 1.03 7.5							
	220	19114 .96 12.1	16762 1.10 11.2	14352 1.18 8.5	10754 1.18 7.9						
	230	19982 1.10 12.9	17727 1.24 12.0	15484 1.36 9.6	12641 1.37 8.5						
W1 (3)	240	20851 1.25 13.8	18671 1.40 12.9	16597 1.52 10.8	14058 1.56 9.1						
	250	21720 1.41 14.7	19608 1.58 13.9	17689 1.70 11.9	15304 1.75 9.8	11593 1.71 9.8					
	260	22589 1.59 15.6	20540 1.76 14.8	18679 1.89 13.2	16491 1.95 10.8	13619 1.97 10.5					
	270	23458 1.78 16.6	21466 1.97 15.8	19659 2.10 14.5	17641 2.19 12.2	15228 2.22 11.5					
	280	24326 1.98 17.9	22387 2.18 17.2	20629 2.33 16.1	18772 2.45 13.7	16623 2.48 12.5	13063 2.41 12.5				
X1 (5)	290	25195 2.20 19.4	23315 2.41 18.6	21622 2.56 17.8	19891 2.69 15.2	17830 2.73 13.5	15088 2.72 13.5				
	300	26064 2.44 21	24241 2.66 20	22612 2.81 19.3	20994 2.95 16.8	19016 2.99 14.9	16759 3.04 14.6				
	310	26933 2.69 22	25163 2.92 22	23595 3.08 21	22043 3.23 18.6	20168 3.31 16.5	18172 3.36 15.7	14979 3.29 15.7			
	320	27802 2.96 24	26082 3.19 23	24569 3.36 22	23031 3.52 20	21303 3.66 18.2	19427 3.67 16.9	16991 3.67 16.9			
	330	28670 3.25 26	26998 3.49 25	25517 3.67 24	24010 3.84 22	22427 3.99 19.9	20622 4.00 18.2	18553 4.05 18.1			
Y1 (7-1/2)	340	29539 3.55 27	27911 3.80 27	26460 3.99 26	24982 4.18 24	23537 4.32 22	21792 4.36 19.9	19964 4.43 19.3			
	350	30408 3.87 29	28821 4.13 28	27398 4.34 27	25965 4.52 26	24635 4.67 23	22937 4.77 22	21215 4.81 21			
	360	31277 4.22 31	29729 4.48 30	28332 4.70 29	26960 4.89 28	25656 5.05 25	24069 5.21 23	22412 5.20 22	17711 5.16 22		
	370	32146 4.58 32	30635 4.85 31	29261 5.08 30	27948 5.27 29	26642 5.45 27	25191 5.61 25	23589 5.62 23	19718 5.68 23		
	380	33014 4.96 34	31538 5.24 33	30187 5.49 32	28930 5.67 31	27622 5.87 28	26301 6.03 26	24738 6.10 24	21274 6.18 23		
C1 (10)	390	33883 5.36 35	32440 5.65 34	31110 5.91 33	29906 6.09 32	28595 6.31 30	27400 6.47 28	25784 6.61 26	22688 6.69 24		
	400	34752 5.78 36	33345 6.08 35	32030 6.36 34	30858 6.54 33	29568 6.77 32	28437 6.93 29	27002 7.12 28	23997 7.20 25	19296 7.06 25	
	410	35621 6.23 37	34248 6.54 36	32960 6.82 35	31803 7.02 34	30566 7.24 33	29426 7.43 31	28117 7.61 29	25201 7.70 26	21314 7.70 26	
	420	36490 6.69 38	35149 7.01 37	33887 7.30 37	32744 7.51 36	31557 7.74 35	30408 7.94 32	29222 8.12 31	26390 8.23 28	23090 8.34 27	
	425	36924 6.94 39	35599 7.26 38	34350 7.55 37	33213 7.77 36	32051 7.99 36	30897 8.21 33	29771 8.38 32	26979 8.51 28	23805 8.65 28	
	430	37358 7.18 40	36049 7.51 39	34812 7.81 38	33681 8.04 37	32544 8.26 36	31384 8.48 34	30318 8.65 32	27557 8.82 29	24516 8.96 28	
	435	37793 7.44 40	36498 7.77 39	35273 8.07 39	34148 8.30 38	33035 8.52 37	31870 8.76 35	30836 8.93 33	28132 9.14 30	25221 9.28 29	20488 9.04 29
	440	38227 7.70 41	36947 8.03 40	35733 8.33 39	34615 8.58 38	33524 8.80 38	32355 9.05 36	31332 9.22 34	28704 9.47 31	25922 9.61 29	21508 9.41 29
	445	38662 7.96 42	37396 8.30 41	36193 8.61 40	35080 8.86 39	34013 9.08 39	32838 9.34 37	31827 9.51 35	29273 9.81 32	26561 9.93 30	22519 9.80 30
	450	39096 8.23 42	37845 8.57 41	36652 8.89 41	35545 9.15 40	34500 9.36 39	33337 9.63 38	32320 9.81 36	29839 10.16 33	27166 10.23 31	23521 10.19 31

Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

The sound ratings shown are loudness values in fan sones at 5 feet (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A, free inlet hemispherical sone levels.

VEBK 06

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

VEBK 06

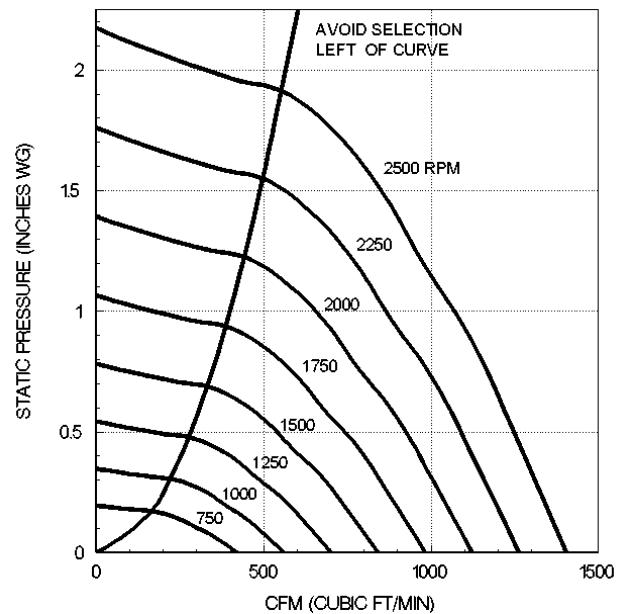
Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
600	.000	37	35	37	34	36	34	31	28	41
	.000	45	53	50	50	46	47	45	42	54
1000	.125	46	50	47	48	45	44	41	38	51
	.000	56	61	60	59	55	55	53	50	62
1400	.500	65	66	63	62	58	55	52	47	64
	.000	67	66	69	65	63	60	60	57	69
1800	.375	66	66	66	63	62	58	57	54	67
	.750	71	71	70	66	65	60	58	54	70
	.000	73	69	74	69	68	63	64	61	73
2100	.500	71	70	72	66	66	62	61	58	71
	1.000	75	75	76	69	70	64	62	58	74
	.000	76	71	77	71	70	65	66	63	75
2300	.500	74	72	75	69	69	64	64	61	74
	1.000	75	75	76	70	70	65	63	60	75
	.000	77	79	79	74	72	67	67	65	78
2500	.500	75	75	77	72	71	67	66	63	76
	1.000	75	77	76	71	70	66	64	61	75
	1.500	79	82	82	75	75	70	67	63	80

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wj} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

VEBK 08

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

VEBK 08

Sound Performance

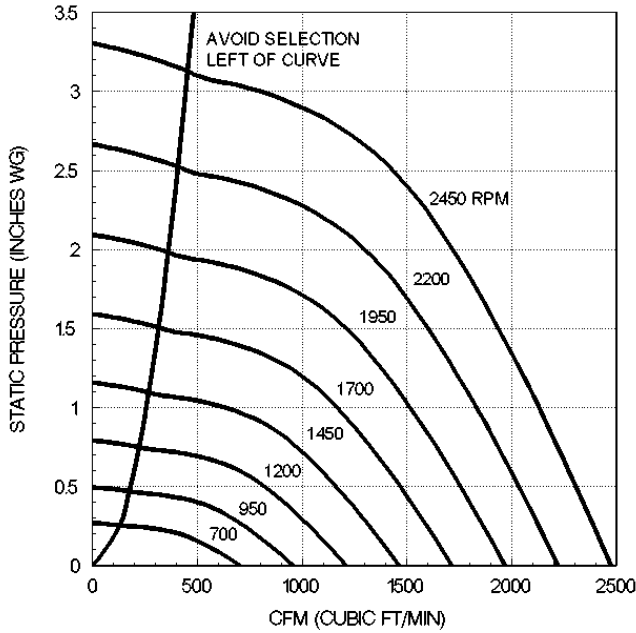
RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
650	.000	41	41	41	40	41	42	42	42	49
	.000	50	58	53	53	50	52	52	52	59
1050	.250	58	59	52	54	51	50	46	42	57
	.000	60	66	64	62	59	59	59	59	67
1450	.500	68	70	64	62	60	58	55	51	66
	.000	68	70	72	67	65	63	64	64	72
1800	.500	67	75	71	65	65	62	60	57	70
	1.000	80	78	74	68	68	64	62	57	73
	.000	73	73	78	71	70	66	67	67	76
2100	.500	71	77	77	69	69	66	65	63	75
	1.000	77	81	78	70	70	67	65	61	76
	.000	76	75	81	74	72	68	69	69	78
2300	.750	72	81	80	72	71	68	67	64	77
	1.500	85	86	83	74	74	70	68	64	80
	.000	77	78	83	77	74	70	71	71	81
2500	.500	75	81	83	76	74	70	70	68	80
	1.000	74	83	83	75	73	70	69	66	80
	1.750	85	89	86	77	75	72	70	66	82

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wj} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

Cent. Power Roof Vents

VEBK 10

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
Performance ratings (bhp) do not include transmission losses.
Performance ratings do not include the effects of accessories.

VEBK 10

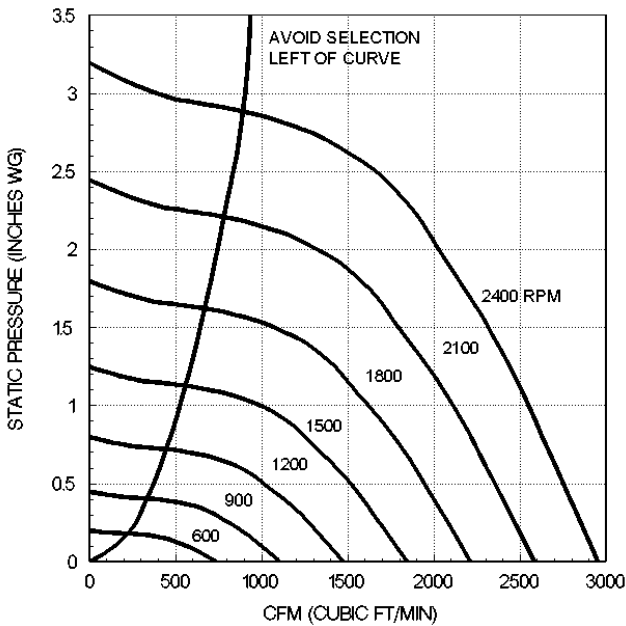
Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
650	.000	49	53	50	49	47	41	34	27	51
	.000	56	66	66	60	60	56	49	42	64
1050	.500	59	63	61	55	53	53	48	43	59
	.000	65	71	74	70	66	64	58	51	72
1400	.375	66	71	72	67	73	60	55	50	69
	.750	64	70	70	65	60	59	56	51	68
	.000	73	75	80	78	71	70	65	58	79
1750	.625	70	76	78	75	68	66	62	56	76
	1.250	68	75	76	72	65	63	63	58	74
	.000	78	79	85	83	76	75	71	64	84
2100	.500	76	80	84	82	75	72	69	63	82
	1.000	74	81	83	80	73	70	67	62	81
	2.000	72	79	81	78	71	68	68	63	79
	.000	80	84	87	88	81	78	75	69	88
2450	1.000	77	85	87	86	79	75	72	67	86
	2.000	74	84	86	84	77	72	71	67	84
	2.500	74	83	85	83	76	72	71	68	84
	3.000	76	83	85	83	76	72	71	68	84

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wi} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

VEBK 12

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
Performance ratings (bhp) do not include transmission losses.
Performance ratings do not include the effects of accessories.

VEBK 12

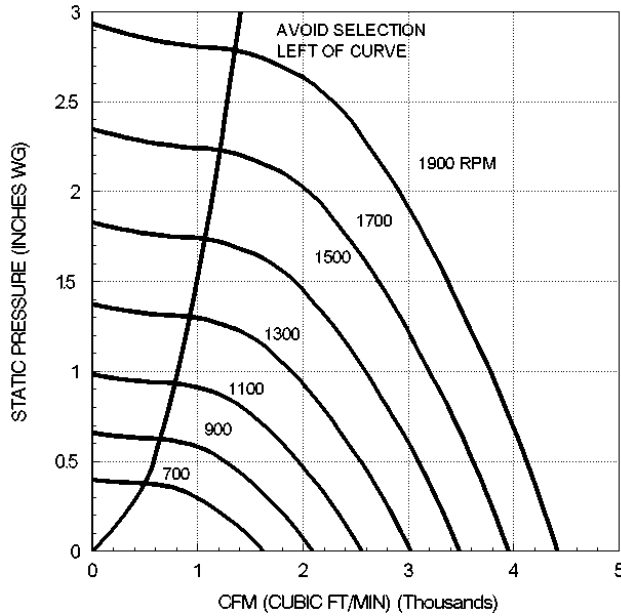
Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
550	.000	55	55	47	47	49	42	34	26	52
	.000	71	71	67	60	61	60	52	44	66
950	.375	71	72	67	58	54	52	48	43	63
	.000	81	82	82	70	66	71	64	56	77
1350	.375	80	82	82	70	64	65	59	52	76
	.750	80	82	83	68	63	61	58	53	76
	.000	85	89	87	81	73	75	72	65	84
1750	.750	85	89	87	81	72	70	67	60	83
	1.500	85	89	88	80	70	66	64	61	83
	.000	89	94	93	88	78	78	78	71	90
2100	.500	88	94	93	89	78	76	75	68	89
	1.000	88	94	93	89	78	74	72	66	89
	2.000	88	94	94	89	76	72	69	66	89
	.000	91	98	98	95	83	80	83	76	95
2450	.500	91	98	98	95	83	79	81	74	95
	1.000	91	98	98	95	83	78	78	72	95
	2.000	90	98	98	96	82	77	75	71	95
	2.750	90	98	98	96	80	76	73	70	95

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wi} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

VEBK 15

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
Performance ratings (bhp) do not include transmission losses.
Performance ratings do not include the effects of accessories.

VEBK 15

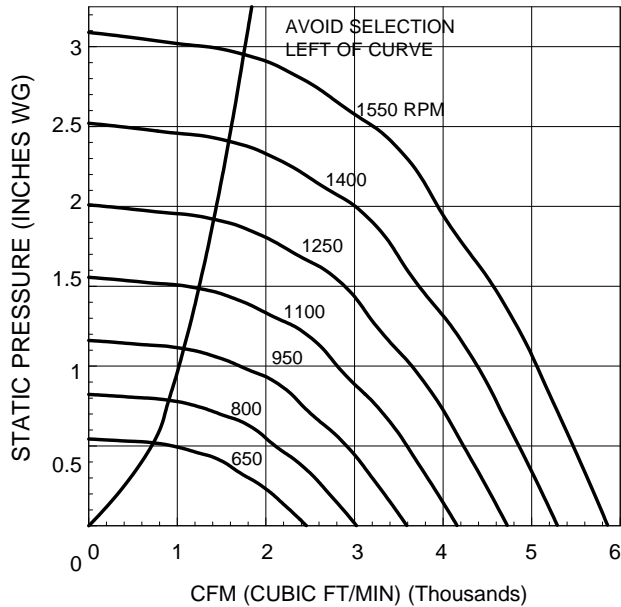
Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
550	.000	61	56	54	52	52	45	38	32	56
	.000	71	72	67	64	62	59	52	45	67
850	.500	76	70	64	59	57	55	52	46	64
	.000	75	77	75	72	70	68	63	55	76
1150	.500	76	78	75	69	66	64	60	54	73
	1.000	77	78	75	67	63	62	59	54	72
	.000	82	84	83	78	75	75	70	63	82
1450	1.000	82	84	83	75	70	69	66	61	79
	1.500	83	84	84	74	69	68	66	60	79
	.000	86	89	88	84	80	79	76	69	87
1750	1.000	85	90	88	82	77	76	72	67	85
	1.500	85	90	89	81	75	73	71	66	85
	2.250	87	89	90	81	74	72	71	66	84
	.000	87	93	91	87	83	82	79	72	90
1950	1.000	87	94	92	86	81	79	76	70	89
	2.000	86	93	92	85	78	75	74	69	88
	2.500	87	92	92	85	77	75	73	69	88
	3.000	89	92	92	85	77	75	73	69	88

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wi} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

VEBK 18

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
Performance ratings (bhp) do not include transmission losses.
Performance ratings do not include the effects of accessories.

VEBK 18

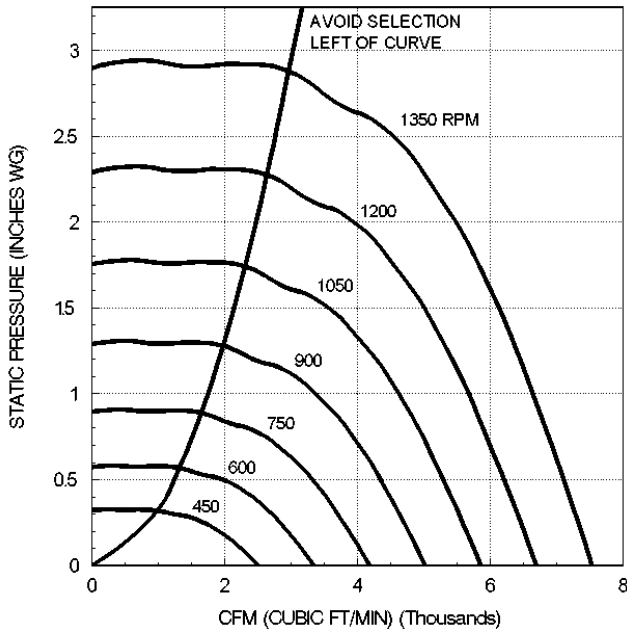
Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
550	.000	68	72	63	59	57	54	43	39	63
	.000	73	80	75	68	65	62	55	48	72
750	.625	72	79	74	67	61	56	51	47	70
	.000	77	84	82	75	71	69	65	56	79
950	.500	76	82	81	73	68	65	60	54	76
	1.000	76	82	80	72	67	63	59	54	76
	.000	84	85	83	78	74	75	73	66	82
1150	1.000	83	83	79	74	69	70	68	65	78
	1.500	82	82	78	72	68	68	67	64	76
	.000	86	89	89	83	78	78	77	71	86
1350	1.000	85	88	87	80	75	75	73	70	84
	1.750	85	87	85	78	73	71	71	68	82
	2.250	85	87	85	77	72	71	70	68	81
	.000	87	93	93	86	81	80	80	74	90
1500	1.000	86	92	92	84	79	78	77	73	88
	1.750	86	91	90	82	77	75	74	72	86
	2.250	87	90	90	81	75	73	73	71	85
	2.750	87	90	90	81	75	73	73	71	85

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wi} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

Cent. Power Roof Vents

VEBK 21
Air Performance



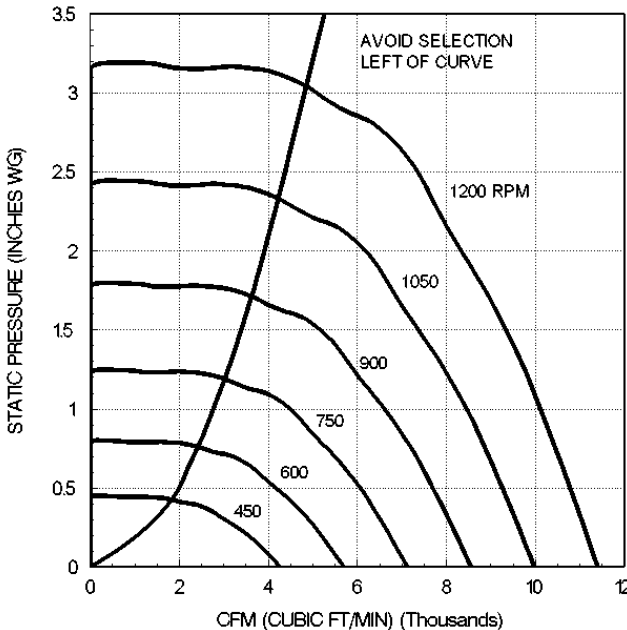
Performance certified is for installation type A - free inlet, free outlet.
Performance ratings (bhp) do not include transmission losses.
Performance ratings do not include the effects of accessories.

VEBK 21
Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
400	.000	59	59	55	54	55	52	45	38	59
	.000	67	73	66	63	63	64	58	51	69
600	.500	68	70	62	59	60	58	54	51	65
	.000	77	78	76	71	70	70	67	60	76
800	.500	76	78	75	68	67	67	62	54	74
	1.000	76	77	73	66	66	65	62	58	72
	.000	84	82	84	77	74	75	74	67	82
1000	.750	83	83	83	74	71	72	70	61	80
	1.500	82	83	81	72	70	71	68	65	78
	.000	89	86	90	82	78	78	79	73	87
1200	1.000	87	87	89	80	75	77	76	68	85
	1.500	87	87	88	79	74	76	74	68	84
	2.250	87	87	87	78	74	75	73	69	83
	.000	91	89	92	86	81	81	81	76	89
1325	1.000	90	90	91	84	79	79	79	72	88
	2.000	88	90	90	82	77	78	76	72	86
	2.500	88	90	90	82	76	77	76	62	86
	2.750	88	90	90	82	76	77	76	72	86

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wi} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

VEBK 24
Air Performance



Performance certified is for installation type A - free inlet, free outlet.
Performance ratings (bhp) do not include transmission losses.
Performance ratings do not include the effects of accessories.

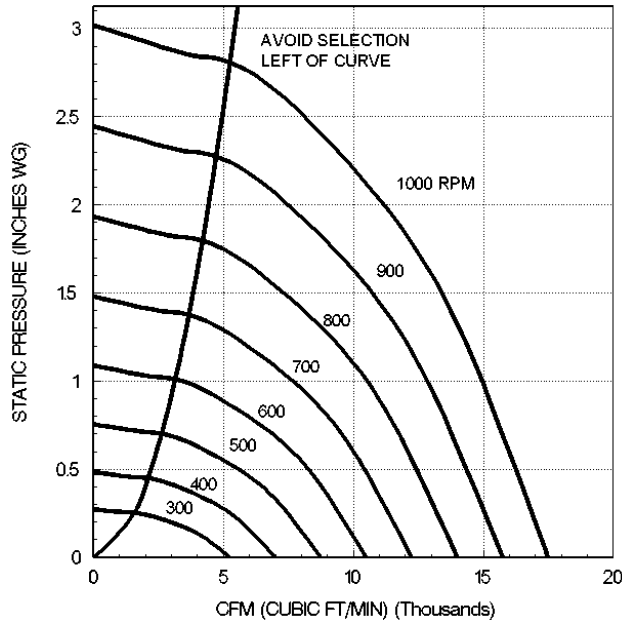
VEBK 24
Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
400	.000	67	66	62	61	62	56	50	44	65
	.000	76	75	71	69	69	66	60	54	73
550	.375	78	76	69	65	65	61	56	51	70
	.625	78	76	67	63	62	58	54	50	68
700	.000	83	82	79	74	74	73	67	61	79
	.500	84	83	77	71	71	70	63	58	77
	.750	83	83	77	70	69	67	62	57	75
	1.000	83	84	77	69	68	65	60	56	75
850	.000	88	88	85	79	78	79	73	67	85
	.500	89	89	84	77	76	77	70	65	83
	.750	89	90	84	76	75	76	69	64	82
	1.000	88	90	84	75	74	74	68	63	81
1000	1.500	88	90	84	73	72	71	66	62	81
	.000	91	92	90	84	81	83	78	72	89
	.500	92	93	90	83	80	81	76	70	88
	1.000	92	94	89	81	78	79	74	69	87
	1.500	91	94	90	80	77	77	72	67	86
2.000	91	94	90	79	76	75	71	66	85	

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wi} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

VEBK 30

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
Performance ratings (bhp) do not include transmission losses.
Performance ratings do not include the effects of accessories.

VEBK 30

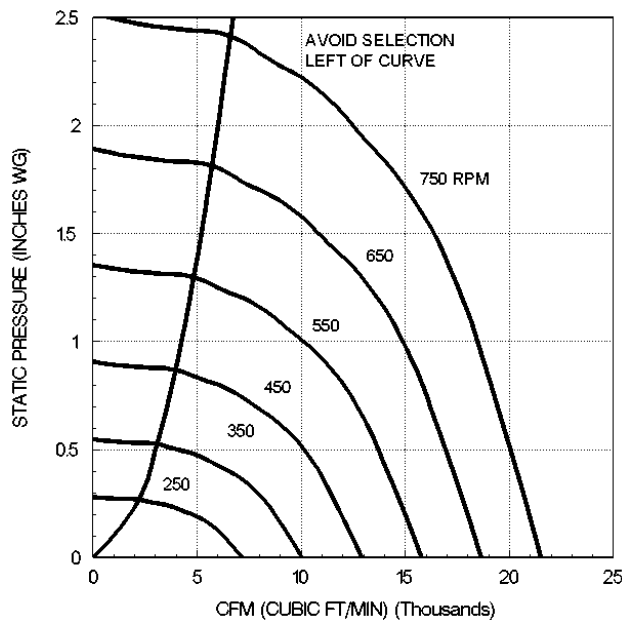
Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
275	.000	64	62	60	60	56	49	44	38	61
	.375	71	64	58	56	55	52	48	44	60
375	.000	78	78	74	72	71	66	60	54	75
	.375	76	74	68	65	64	61	56	52	69
	.625	76	73	65	62	61	58	55	50	67
475	.000	82	85	81	77	77	74	67	61	81
	.500	80	83	77	72	71	68	64	59	77
	1.000	81	81	73	68	66	65	61	57	73
600	.000	85	91	87	81	81	80	73	67	87
	.500	84	90	85	78	78	76	70	65	84
	1.000	85	88	81	74	72	71	67	63	80
	1.500	85	88	80	72	71	70	66	62	78
725	.000	88	93	91	85	84	83	77	71	90
	.500	86	93	89	83	82	80	75	70	88
	1.000	86	92	87	80	78	77	72	68	85
	1.500	87	91	84	76	74	73	70	66	82
825	2.000	87	91	84	76	74	73	70	66	82

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wj} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

VEBK 36

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
Performance ratings (bhp) do not include transmission losses.
Performance ratings do not include the effects of accessories.

VEBK 36

Sound Performance

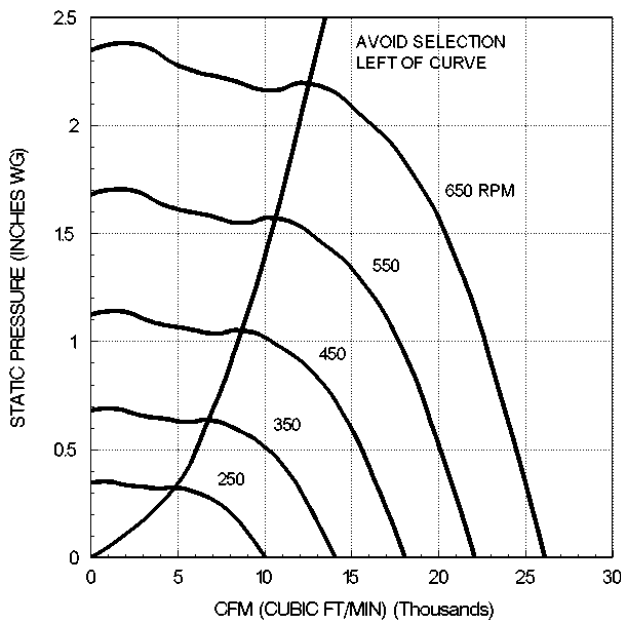
RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
250	.000	70	67	64	60	56	57	61	65	68
	.375	79	77	73	69	65	64	67	71	75
350	.500	75	68	62	59	56	53	49	42	62
	.000	85	83	78	74	70	68	70	74	79
425	.375	83	80	74	69	66	64	64	65	74
	.625	83	76	69	64	62	59	56	51	69
	.000	89	88	83	79	75	71	72	76	83
500	.500	88	85	79	73	70	67	68	69	78
	1.000	90	80	74	67	66	62	60	53	73
	.000	92	92	87	83	79	75	75	78	86
575	.500	91	90	85	78	75	72	72	73	83
	1.000	93	87	81	73	71	68	66	63	79
	1.500	94	85	78	71	70	66	64	58	77
	.000	94	95	91	86	82	78	77	80	89
650	.500	94	94	89	83	79	76	75	77	87
	1.000	94	92	87	80	76	73	72	71	84
	1.500	96	91	83	76	73	70	67	63	81
	1.750	96	90	82	75	72	69	67	61	81

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wj} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

Cent. Power Roof Vents

VEBK 42

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

VEBK 42

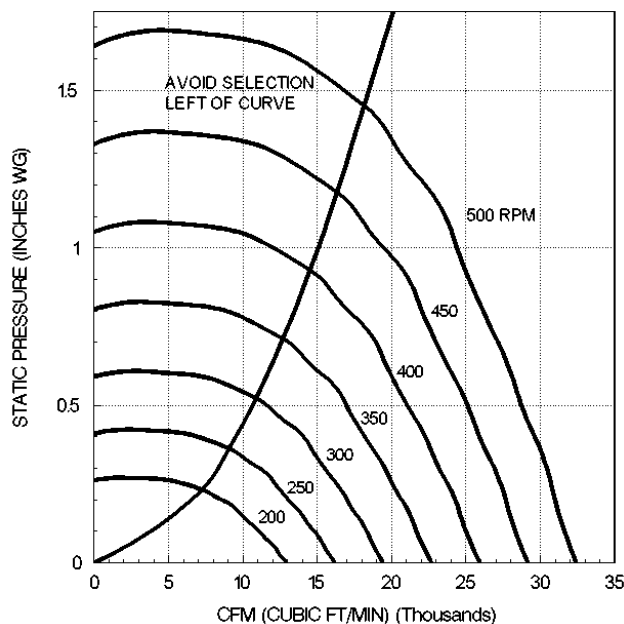
Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
215	.000	69	67	65	62	59	60	47	34	65
	.000	77	74	71	69	65	67	57	44	72
275	.375	70	66	64	62	60	56	53	50	65
	.000	83	80	77	74	70	71	65	52	77
335	.250	82	78	73	70	67	68	63	53	74
	.500	78	73	70	67	65	63	59	54	71
	.000	89	85	81	78	75	73	71	58	81
395	.375	87	83	78	74	72	70	69	59	78
	.750	83	78	74	71	69	66	63	59	75
460	.000	94	89	85	82	79	76	77	65	85
	.375	92	88	83	79	76	74	75	64	83
	.750	90	85	80	76	74	72	71	64	81
	1.000	89	82	78	75	73	70	67	63	79
525	.000	97	93	89	85	82	78	82	70	89
	.500	96	92	87	82	80	76	79	69	87
	.750	95	92	86	81	79	75	78	69	86
	1.000	94	89	84	80	78	75	75	68	84
	1.250	93	87	82	78	77	74	71	67	82

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wi} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

VEBK 48

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

VEBK 48

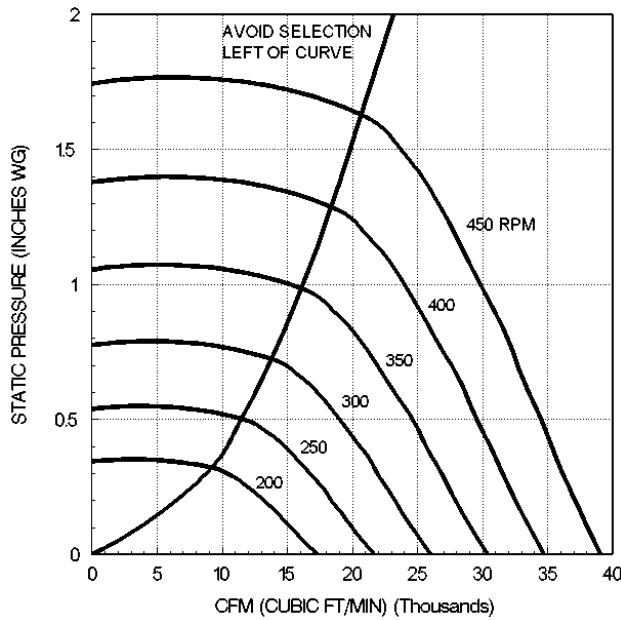
Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
200	.000	74	69	67	64	60	65	53	41	69
	.000	83	76	73	70	66	68	62	49	74
250	.250	83	75	68	64	64	63	57	48	70
	.000	91	82	78	75	72	71	69	57	79
300	.250	92	81	75	70	68	69	65	55	76
	.500	91	80	73	68	67	67	61	54	74
	.000	97	87	82	79	76	73	75	63	83
350	.375	99	86	80	73	71	72	70	60	80
	.625	98	86	78	72	70	71	66	59	79
	.000	103	91	85	82	79	75	80	68	87
400	.250	104	91	85	79	76	75	78	67	85
	.500	104	91	84	76	74	74	74	65	84
	.750	104	90	82	75	73	74	71	63	83
	.000	105	96	89	85	83	79	82	73	90
450	.250	106	96	89	83	80	78	80	71	89
	.500	106	96	88	81	78	77	78	70	88
	.750	106	96	87	80	77	77	76	68	87
	1.000	106	96	86	79	76	77	74	67	87

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wi} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

VEBK 54

Air Performance



Performance certified is for installation type A - free inlet, free outlet.
 Performance ratings (bhp) do not include transmission losses.
 Performance ratings do not include the effects of accessories.

VEBK 54

Sound Performance

RPM	SP INCH W.G.	SOUND POWER RE 10 ⁻¹² WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
190	.000	77	70	70	68	62	68	52	32	72
	.000	84	77	74	73	68	71	61	42	76
230	.375	79	71	66	65	62	62	56	42	68
	.000	88	81	77	76	72	72	67	48	79
260	.500	84	75	70	68	65	64	61	47	72
	.000	92	85	79	79	75	73	72	53	82
290	.375	89	81	75	73	71	69	68	53	77
	.625	89	79	72	70	69	66	65	52	75
320	.000	95	89	82	81	78	74	77	58	84
	.375	94	86	79	77	75	71	74	58	81
	.750	92	83	75	72	71	68	69	56	77
350	.000	98	92	84	83	81	75	82	62	87
	.375	97	90	82	81	79	74	79	63	85
	.750	96	86	77	74	74	69	73	59	80
380	.000	100	94	86	85	83	77	83	67	89
	.500	99	93	84	82	80	75	80	66	87
	.750	98	90	81	78	77	72	76	64	83
	1.000	98	89	80	76	76	71	74	63	82

The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for inlet L_{wi} sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

COMPUTERIZED FAN SELECTION: Make the right choice with CARNES **FAN-C-LECT™**. The Models **VEDK** and **VEBK**, as well as the comprehensive offering of CARNES powered ventilators, are included in CARNES user friendly fan selection program.

Cent. Power Roof Vents

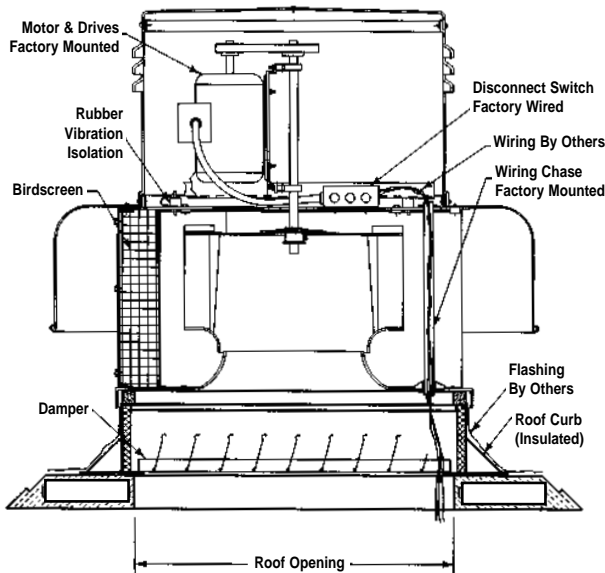


Figure 1

**POWER ROOF VENTILATOR
(NON-DUCTED INSTALLATION)**

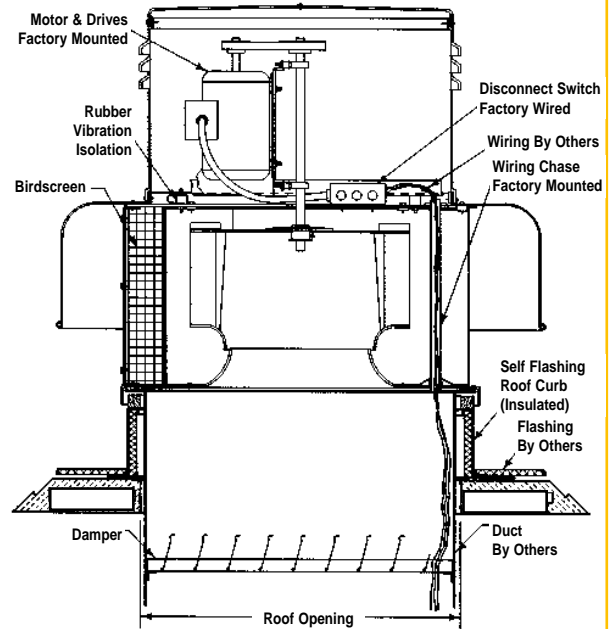


Figure 2

**POWER ROOF VENTILATOR
(DUCTED INSTALLATION)**

Figure 1 shows a typical Model **VEBK** power roof ventilator installation without duct work. The roof flashing is shown installed over standard canted style roof curb. A gravity operated backdraft damper is shown installed on the damper shelf which is located at the base of the roof curb. Power wiring is extended through the roof opening, through the damper conduit knockout, into the fan wiring chase and to the factory wired disconnect switch.

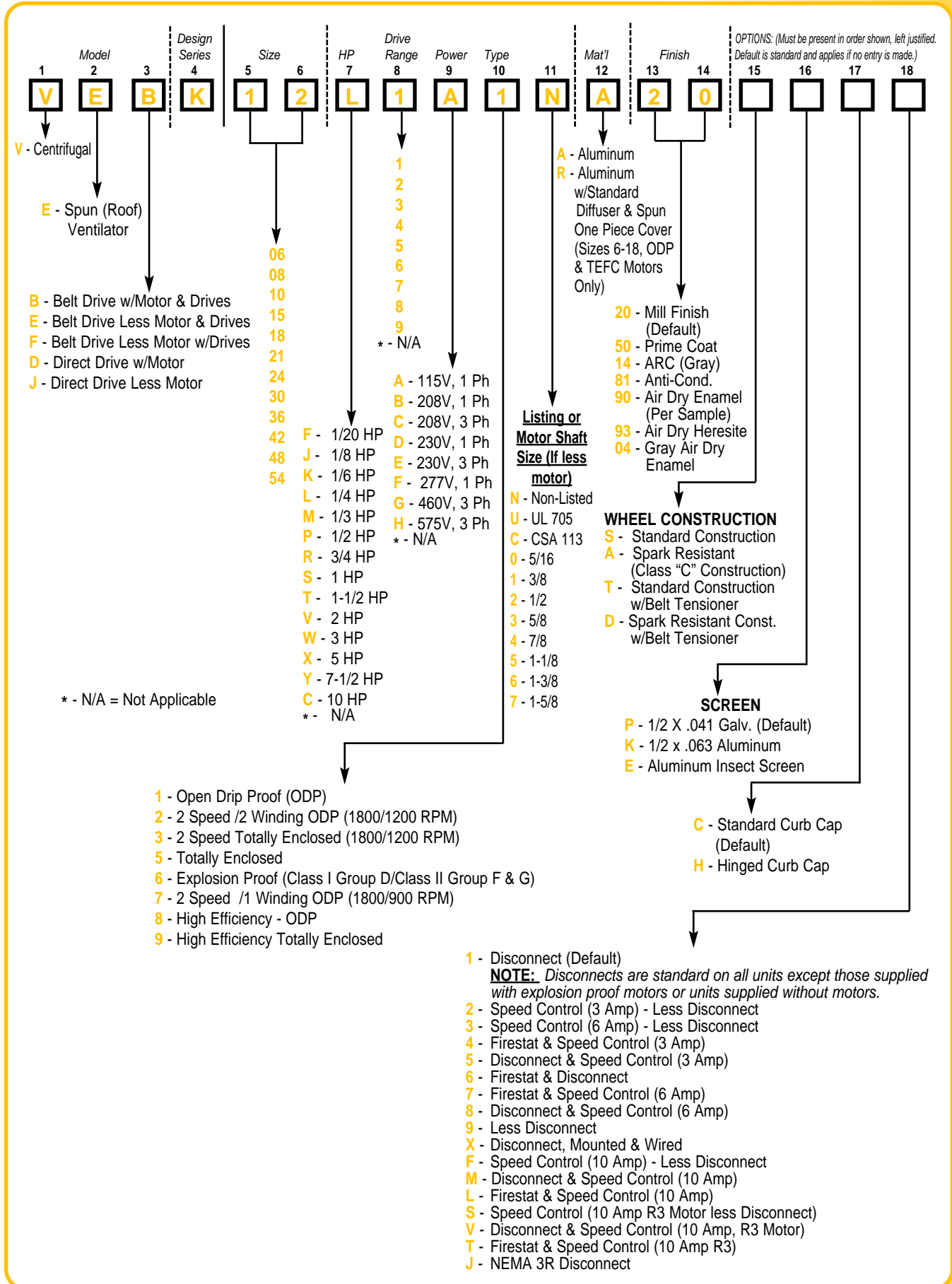
Figure 2 shows a typical Model **VEBK** power roof ventilator installation with an exhaust duct. The duct is shown extending through the roof opening and inside a typical self flashing style roof curb. A gravity operated backdraft damper is shown fastened to a 3/4" x 3/4" sheet metal angle installed inside the exhaust duct.

Proper fan performance requires uniform and stable air flow at the fan inlet. Avoid transitions, obstructions, elbows or other duct fittings near the fan inlet.

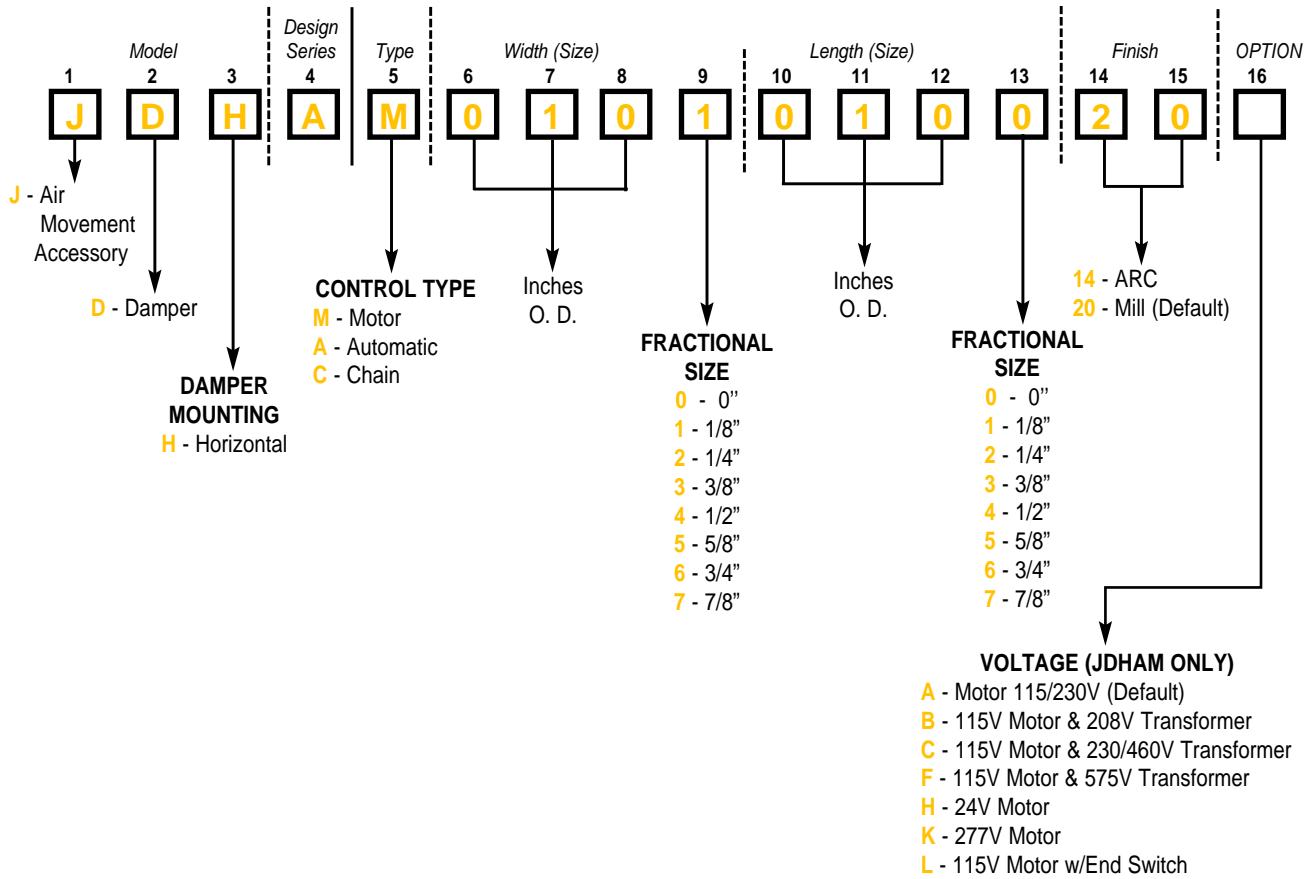
Typical roof curb height is 8" to 12" above the roof deck. Additional height reduces the likelihood of snow or rain entering through the roof opening.

Installation and electrical work should be performed by qualified personnel and must be in accordance with all applicable code requirements.

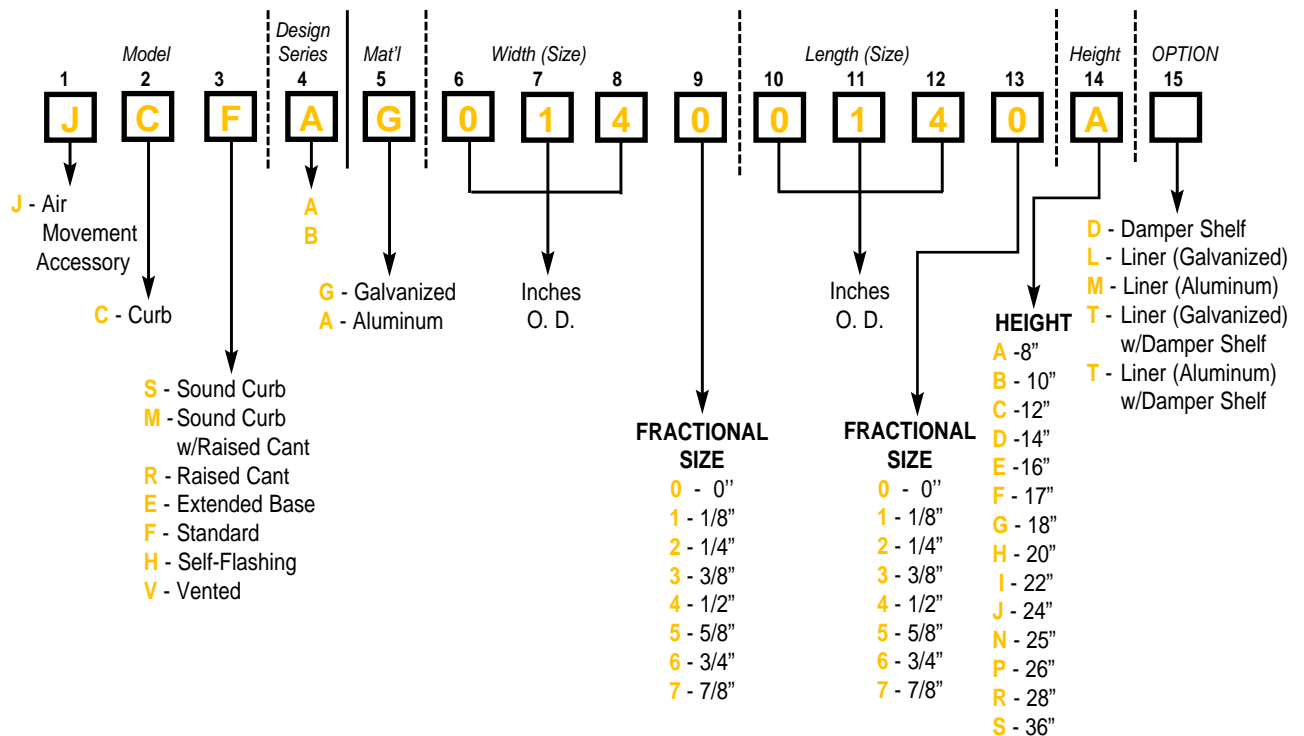
For protection of personnel, inlet guards are recommended when the fan is within reach (or within 7 feet) of occupied areas or work areas.



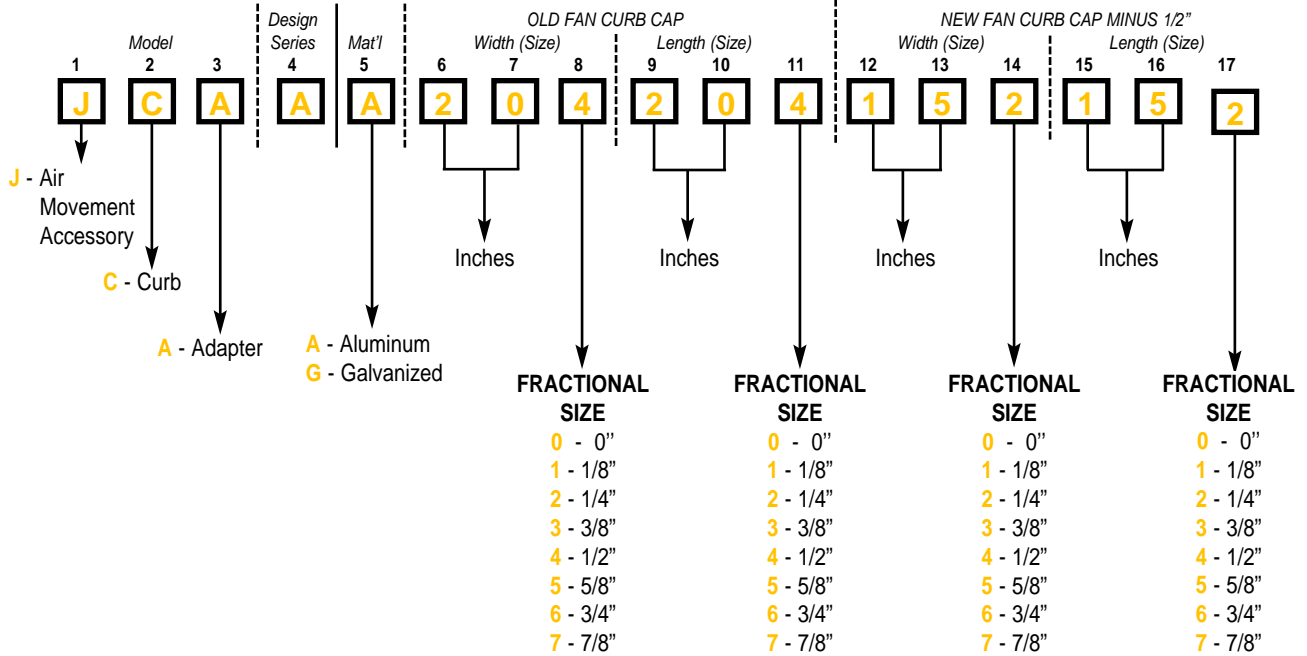
▼ Dampers



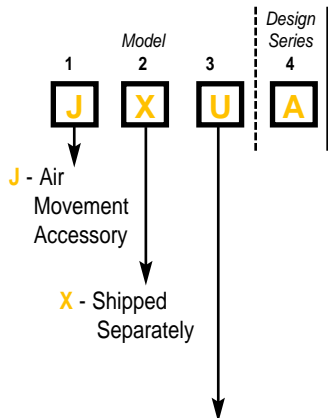
▼ Curbs



▼ Curb Cap Adapters



▼ Electrical Accessories

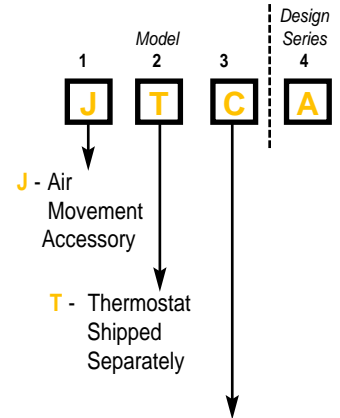


DISCONNECT SWITCHES

- A - Firestat
- J - 3 Pole, 3 Ph Explosion Proof (EX3)
- K - 2 Pole, 1 Ph Explosion Proof (EX3)
- L - 2 Pole, 1 Ph Safety Disconnect (DS2)
- M - 3 Pole, 3 Ph Safety Disconnect (DS3)
- N - 3 Pole, 3 Ph NEMA 1 (K-3) with Lock Out
- P - Two Speed, 6 Pole NEMA 3R Non-Fusible
- F - Raintight - NEMA 3R - 2 Pole, 1ø, 120-230V, 1/2 - 2 HP
- H - Raintight - NEMA 3R - 3 Pole, 3ø, 208-460V

SPEED CONTROL

- U - Solid State Speed Controller - 3A (115V/1ø)
- V - Solid State Speed Controller - 6A (115V/1ø)
- W - Solid State Speed Controller - 10A (115V/1ø)
- Y - Solid State Speed Controller - 10A (115V/1ø) (R3 Motor)



- C - Line Voltage Thermostat w/Coiled Capillary
- D - Line Voltage Thermostat w/22" Capillary and Remote Bulb

Cent. Power Roof Vents

▼ Electrical Accessories

