

## IN-LINE CENTRIFUGAL DUCT FANS

### Direct and Belt Driven Models VIDK and VIBK

#### DESIGNED AND ENGINEERED TO MEET INDUSTRY NEEDS

The Carnes Company centrifugal in-line duct fans have been developed to efficiently handle the wide range of air flows and installations that are required in today's HVAC applications.

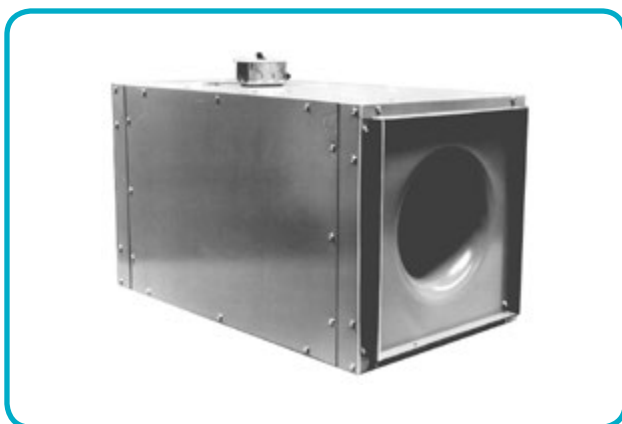
The compact square design of the VI-Series fan provides maximum air moving capacity from a minimum possible space-unit that can be tucked away in unused areas. The K-Series in-line fans feature universal mounting capabilities allowing the units to be installed horizontally, vertically or at an angle.

The K-Series in-line duct fans have been designed for easy and uncomplicated access to the fan's interior by using the removable access panels. All moving parts - motor, drives, wheel, shaft and bearings can be removed without disturbing the inlet

or outlet duct connections. Duct connections are simplified and less costly without the need for round to square transitions.

Superior aerodynamic performance is provided by the deep spun inlet combined with the backward inclined wheel. Housing sizes and internal baffling are selected for optimum performance levels. The air flow design of these centrifugal fans has been thoroughly tested at Carnes' accredited laboratories. Testing has also been conducted to ensure trouble-free start-up and to ensure product durability and dependability of operation.

In-line duct fans are designed for general indoor air handling needs and should not be used in an application requiring a leak-proof ventilator.



#### Model VIDK

##### Direct Driven - Sizes 06 through 18

Carnes direct drive in-line fans are available in six sizes with capacities from 150 to 4200 CFM. The internal compartment isolates the motor from the airstream, protecting it from contaminants that may be present. Direct drive reduces fan maintenance, and when used with the optional electronic speed control, balancing time may be decreased.

Maximum exhaust temperature for continuous operation is 150°F.

#### Model VIBK

##### Belt Driven - Sizes 06 through 42

Air flow performance is from 100 to over 25,000 CFM with the VIBK belt drive in-line duct fans. Ten sizes are available ranging from 06 to 42. The motor is located externally from the galvanized housing and the bearings and belt are in an enclosure for out of the airstream operation. Belt driven fans feature a wide range of performance and readily available motor selections.

Maximum exhaust temperature for continuous operation is 200°F.



**▼ TYPICAL SPECIFICATIONS**

Centrifugal in-line duct fans shall be of the centrifugal belt or direct driven type. The wheel and spun venturi shall be a centrifugal design of non-sparking construction. For maximum performance and quiet efficient operation, the wheel shall overlap the inlet venturi and have backward inclined median airfoil 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.

**VIBK BELT DRIVE SERIES**

Motors shall be isolated from the exhaust airstream. Motor shall be mounted external to the cabinet and 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. 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. 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.

**VIDK DIRECT DRIVE SERIES**

Motors shall be isolated from the exhaust airstream. Air for cooling the motor shall be supplied to the internal motor compartment through an air tube from a location free from discharge contaminants. Motors shall be of the heavy-duty type with permanently lubricated, sealed bearings. Wheels to be furnished with integral fitting for wheel puller. Electrical wiring shall be routed to the motor compartment through the air tube.

The motor shall be factory wired to the disconnect junction box and a disconnect switch shall be supplied. Wheel, shaft, bearings, motor and drive components shall be readily accessible for inspection, repair or replacement without disturbing inlet or outlet duct work.

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 in-line duct fans shall be Carnes Company Model VIBK, belt drive, sizes 06 through 42, or Model VIDK, 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 VIDK and VIBK 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 OPTION**

Models VIDK and VIBK are listed to UL Standard 705 and to CSA Standard C22.2 No. 113-12. File Number E27827. UL listing may be optional and must be specified when required.



**POWER VENTILATOR**

## CONSTRUCTION

### FAN HOUSING

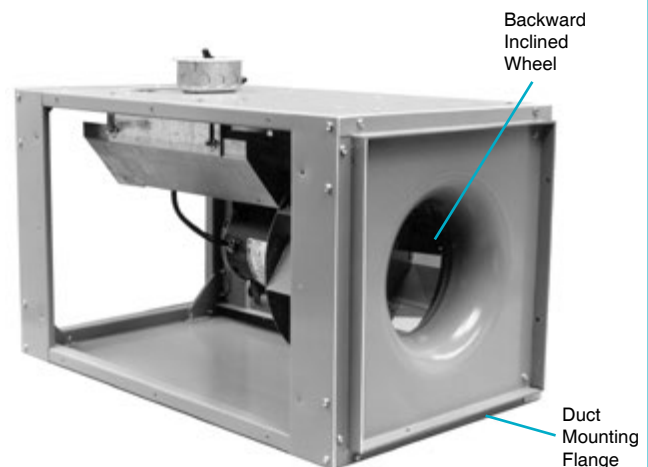
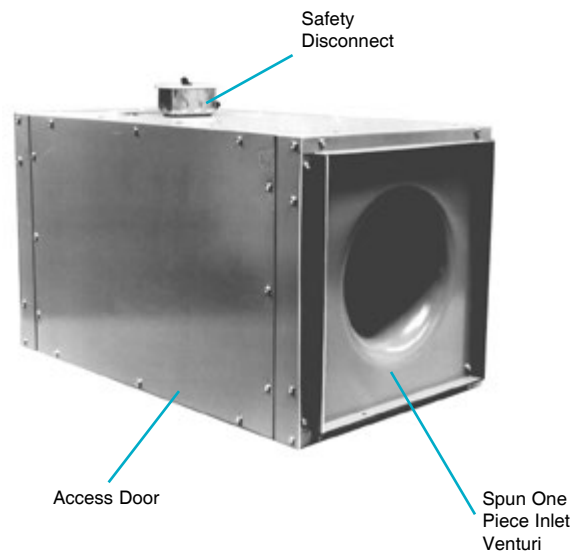
- Compact square design maximizes performance levels, minimizes installation space required.
- Constructed of heavy-gauge, coated corrosion resistant steel.
- Dual side panels for access to unit interior.
- Integral duct connections at fan inlet and discharge for ease of installation.

### MOTOR/ELECTRICAL

- **UL** listing under Standard 705 available as option on most models.
- Motors are UL recognized components supplied by nationally recognized manufacturers.
- Electrical boxes mounted on belt drive, but shipped loose on direct drive.
- All motors mounted to units for ease of fan installation.

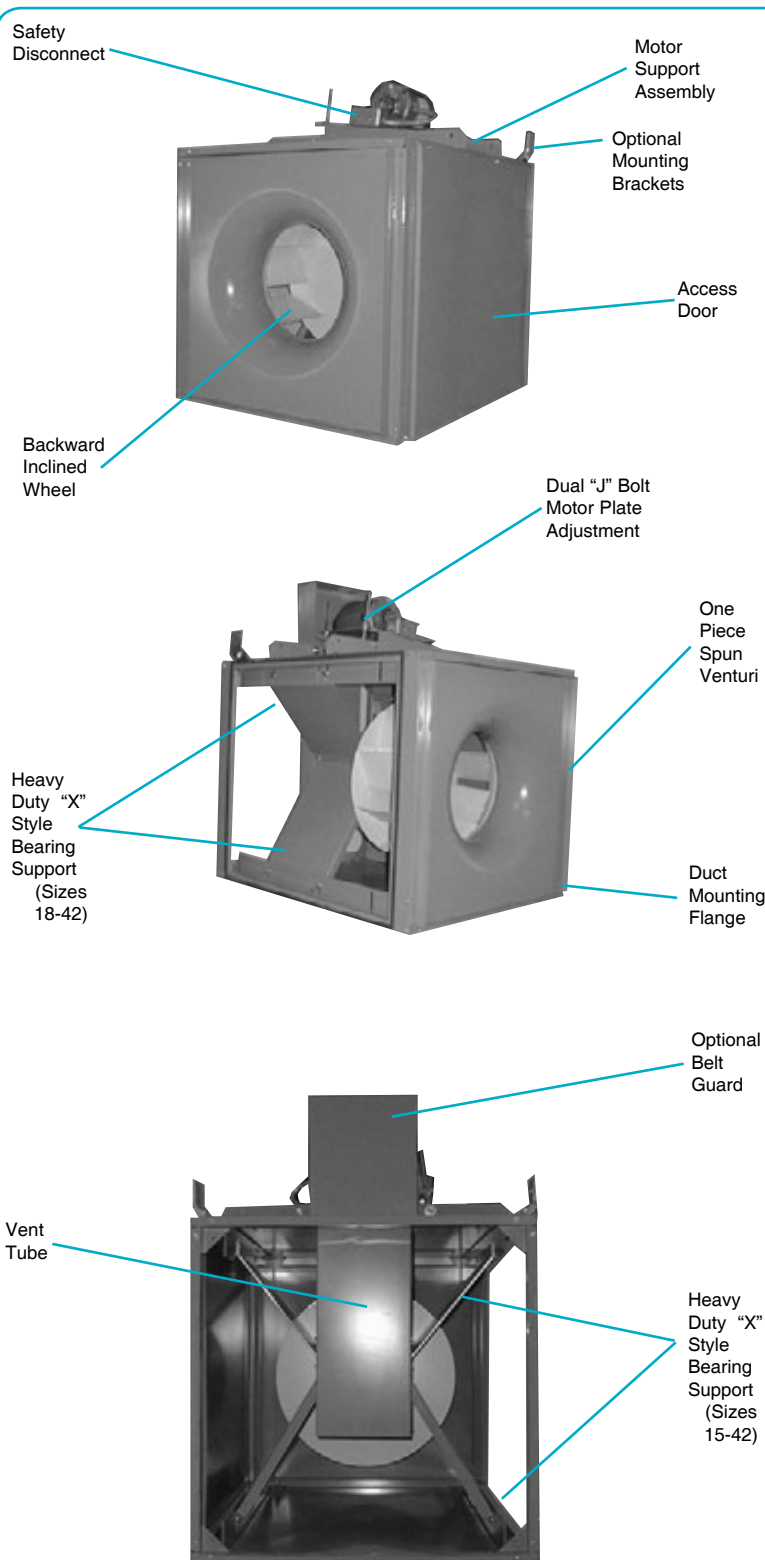
### MOTOR SUPPORT ASSEMBLY

- Bolted, heavy-gauge material.
- Motor plate accommodates multiple motor frames.
- Allows horizontal and vertical adjustment of wheel.
- Electrically grounded to meet NEC and UL requirements.



**Model VIDK**

# FEATURES



**Model VIBK**

## BEARINGS/SHAFT

- Dual bearings utilized to properly support the fan shaft.
- Prelubricated sealed, self-aligning.
- Rated at 200,000 hours average operation.
- Polished CRS fan shaft with rust inhibitive coating.
- Heavy-duty "X" style bearing support braces (sizes 15-42).

## 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 sheaves allow for final air system balancing.

## WHEEL

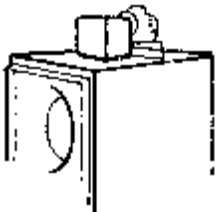
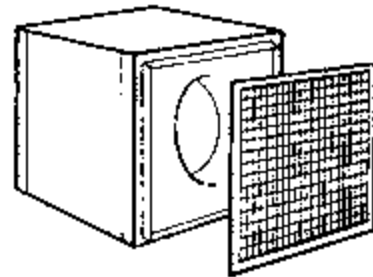
- Backward inclined wheels constructed of non-corrosive or coated heavy gauge material (size 42 is aluminum).
- Usage of cooling fins (06-18) on fan wheel backplate circulates cooling air over the motor facilitating longevity while motor remains out of the airstream.
- Self-limiting power characteristics.
- Dynamically balanced and test run in each individual unit.

## FAN INLET

- Baffle reduces fan inlet swirl to promote optimum air performance.
- The deep spun venturi is precision matched to the wheel inlet to ensure maximum air flow.
- Inlet venturi spun from heavy-gauge noncorrosive material - sizes 06 through 15 formed using galvanized steel and sizes 18 through 42 are produced from aluminum.

**INLET OR OUTLET GUARD**

When units are installed with inlets or outlets exposed, screen guards are available to prevent people or objects from having accidental contact with the interior. Guards consist of 1/2" galvanized wire.

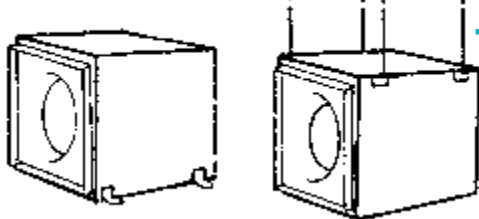
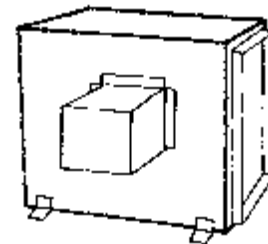


**BELT GUARD**

When units are installed in exposed areas, belt guards are available to prevent contact with the moving belt or sheave.

**WEATHER PROTECTION PACKAGE**

Units may be mounted outside and exposed to the weather when the accessory weather package is installed. Package consists of gasketed access panels and weather cover for motor and drive. Unit must be installed with the motor at the side. Additional field caulking of cabinet seams will provide a watertight unit. Optional cabinet insulation is also recommended for outdoor locations.

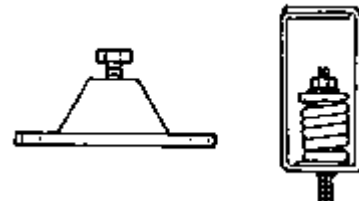


**MOUNTING BRACKETS**

Accessory mounting brackets are available for floor mounted, side wall mounted or ceiling hung units. Units may be hung in a vertical or horizontal position.

**VIBRATION ISOLATORS**

Suspension mounting isolators are available in rubber-in-shear (Sizes 06-18) and spring (Sizes 21-42). Floor mounting isolators are the rubber-in-shear type for all sizes.



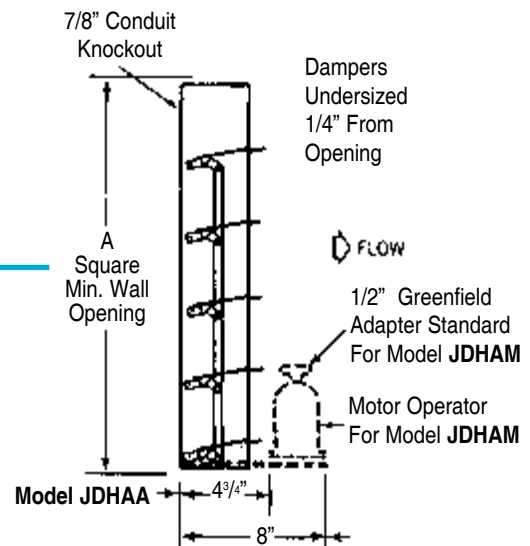
**INSULATED HOUSING**

Unit casings may be insulated with 1" fiberglass insulation to prevent condensation and/or reduce noise. The 1" 3 lb. density fiberglass has a heavy density exposed surface to prevent erosion. The insulation is attached with pin spot/stakes and adhesive for a permanent bond.

**BACKDRAFT DAMPERS**

Carnes Model JDHAA automatic dampers are available to prevent backflow when units are shut down. Damper frames are heavy-duty box type. Blades are aluminum with felt edges and are linked together for quiet operation. A counterbalance spring is adjustable for tension to provide minimum resistance to air flow.

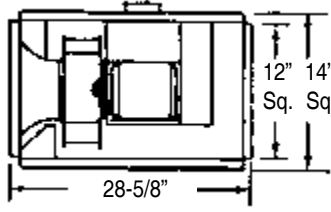
Motorized operation (JDHAM) may be provided by adding the motor pack available for 115/208/230 volt operation. Transformers are available for 460 or 560 volt operation.



# VIDK 06

## DIRECT DRIVE

### PERFORMANCE DATA



**DESIGN DATA**  
 Tip Speed = 2.75 x RPM  
 Unit Weight = 60 Lbs.  
 Outlet Velocity (FPM) = 1.000 x CFM

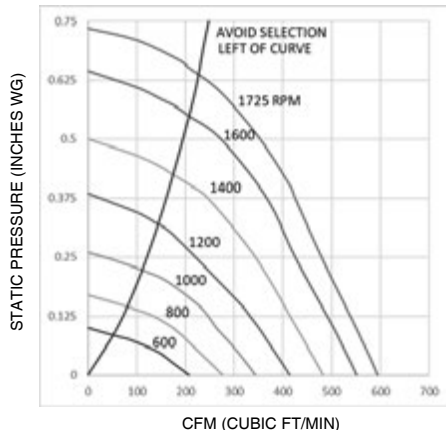
RPM Range - Motor HP			STATIC PRESSURE, INCHES W.G.								
F3+ 1/20	J2+ 1/8	RPM	.000	.125	.250	.375	.500	.625	.750	1.000	1.250
			CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
<b>SPEED CONTROLLABLE MOTORS**</b>		400	138 .00 -.6								
		500	173 .00 .2								
		600	207 .01 1.7								
		700	242 .01 1.7								
		800	276 .01 2.5	137 .01 2.7							
		900	311 .02 3.2	198 .02 3.2							
		1000	345 .02 3.9	247 .03 3.9							
		1075 *	371 .03 4.5	278 .03 4.6	135 .03 4.9						
		1100	380 .03 4.7	288 .03 4.8	161 .03 5.0						
		1200	414 .04 5.5	330 .04 5.7	237 .05 5.9						
		1300	449 .05 6.5	374 .06 6.7	296 .06 6.7	147 .06 7.1					
		1400	483 .07 7.6	414 .07 7.7	343 .07 7.7	246 .07 7.9					
		1500	518 .08 8.7	453 .09 8.8	385 .09 8.8	309 .09 8.9	169 .09 9.2				
		1600 *	552 .10 10.0	492 .10 10.0	425 .11 10.0	367 .11 10.1	273 .11 10.3	104 .10 10.5			
		<b>ALL OTHER MOTORS</b>		1140 *	394 .04 5.0	304 .04 5.2	199 .04 5.4				
1725 *	596 .13 11.2			540 .13 11.2	479 .13 11.3	425 .13 11.3	353 .14 11.4	240 .13 11.6			

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<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>W</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

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.

### VIDK 06 AIR PERFORMANCE



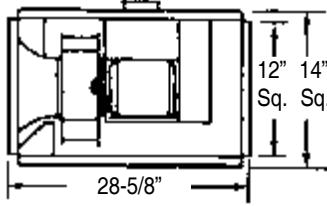
### VIDK 06 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 <sup>-12</sup> WATTS								LWA
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	
1075	.000	69	64	57	56	54	50	45	38	59
	.125	69	67	58	55	53	49	44	36	59
1600	.000	74	80	68	64	65	61	58	51	70
	.250	75	80	72	63	64	60	57	49	70
	.375	74	80	72	64	65	60	57	50	70
	.500	74	80	73	65	66	61	57	50	71
	.625	74	80	74	66	67	62	57	50	72

# VIDK 08

## DIRECT DRIVE

### PERFORMANCE DATA



**DESIGN DATA**

Tip Speed = 2.75 x RPM  
 Unit Weight = 60 Lbs.  
 Outlet Velocity (FPM) = 1.000 x CFM

RPM Range - Motor HP		RPM	STATIC PRESSURE, INCHES W.G.								
F3+ 1/20	J3+ 1/8		.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
<b>SPEED CONTROLLABLE MOTORS**</b>		600	257 .01 1.4								
		675	289 .01 1.9								
		750	322 .01 2.4	154 .01 1.8							
		825	354 .02 2.9	226 .02 2.5							
		900	386 .02 3.5	272 .02 3.1							
		1000	429 .03 4.2	333 .03 3.9	134 .03 3.5						
		1075 *	461 .03 4.7	372 .04 4.5	235 .04 4.1						
		1175	504 .05 5.5	423 .05 5.4	324 .05 4.9						
		1250	536 .05 6.0	460 .06 6.0	371 .06 5.5	208 .06 5.2					
		1325	568 .07 6.6	499 .07 6.6	419 .07 6.1	296 .07 5.9					
		1400	600 .08 7.2	536 .08 7.3	463 .09 6.8	366 .09 6.5	160 .08 6.2				
		1475	632 .09 7.7	572 .10 7.8	503 .10 7.4	420 .10 7.1	279 .10 6.8				
		1550	665 .10 8.3	606 .11 8.4	541 .12 8.1	466 .12 7.7	361 .12 7.5	147 .11 7.2			
		1600 *	686 .12 8.7	629 .12 8.8	567 .13 8.5	498 .13 8.2	407 .13 7.9	250 .13 7.7			
<b>ALL OTHER MOTORS</b>		1140 *	489 .04 5.2	405 .05 5.1	296 .05 4.7						
		1725 *	740 .14 9.8	686 .15 9.8	630 .16 9.6	573 .16 9.2	498 .16 9.0	396 .16 8.8	217 .15 8.6		

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.**

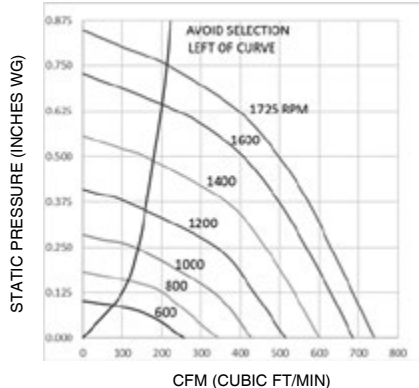
- \* Base Unit - As run motor speed.
- + RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls.

Performance ratings do not include the effects of accessories.

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>W1</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

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.

### VIDK 08 AIR PERFORMANCE



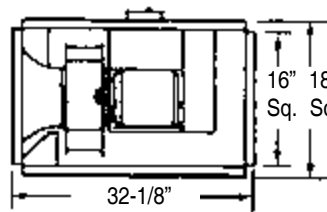
### VIDK 08 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 <sup>-12</sup> WATTS								LWA
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	
1075	.000	59	60	58	57	51	51	49	47	59
	.125	60	62	57	56	50	50	48	46	58
1600	.000	66	68	68	66	63	60	59	57	69
	.250	66	70	68	65	62	59	58	56	68
	.375	66	70	68	65	62	59	58	55	68
	.500	66	70	68	65	62	59	58	55	68
	.625	66	70	68	65	62	59	58	55	68

# VIDK 10

## DIRECT DRIVE

### PERFORMANCE DATA



**DESIGN DATA**

Tip Speed = 3.27 x RPM  
 Unit Weight = 75 Lbs.  
 Outlet Velocity (FPM) = .562 x CFM

RPM Range - Motor HP		STATIC PRESSURE, INCHES W.G.												
		.000	.125	.250	.375	.500	.625	.750	1.000	1.250				
F4+ 1/20	J3+ 1/8	M2+ 1/3	P2+ 1/2	RPM	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
<b>SPEED CONTROLLABLE MOTORS**</b>				550	538 .01 2.1	253 .01 0.9								
				700	685 .02 3.6	502 .03 2.4								
				800	782 .03 4.8	625 .04 3.5	411 .04 2.8							
				825 *	807 .04 5.1	655 .04 3.7	469 .05 3.1							
				900	880 .05 5.9	743 .06 4.5	590 .06 3.9							
				975	953 .06 6.7	829 .07 5.3	690 .07 4.8	492 .07 4.3						
				1050	1027 .08 7.6	913 .09 6.0	785 .09 5.6	643 .09 5.1	296 .08 4.5					
				1075 *	1051 .08 7.9	940 .09 6.3	816 .10 5.9	682 .10 5.3	408 .09 4.8					
				1175	1149 .11 9.2	1049 .12 7.4	937 .13 7.0	820 .13 6.5	683 .13 6.0	336 .11 5.4				
				1275	1247 .14 10.6	1156 .15 8.9	1054 .16 8.2	948 .16 7.7	838 .17 7.1	673 .17 6.6	241 .13 6.0			
				1375	1345 .18 12.0	1262 .19 10.4	1168 .20 9.5	1070 .20 9.0	971 .21 8.5	861 .21 7.9	686 .20 7.3			
				1500	1467 .23 13.9	1392 .24 12.4	1307 .25 11.2	1219 .26 10.7	1129 .27 10.2	1036 .27 10.2	933 .28 9.1	487 .24 8.0		
				1575	1540 .27 15.1	1470 .28 13.6	1390 .29 12.3	1306 .30 11.8	1221 .31 11.3	1134 .31 10.8	1044 .32 10.3	762 .31 9.0		
				1625 *	1589 .29 15.9	1522 .31 14.4	1444 .31 13.0	1363 .32 12.6	1281 .33 12.1	1197 .34 11.6	1111 .35 11.1	881 .34 10.1		
<b>ALL OTHER MOTORS</b>				1140 *	1115 .10 8.8	1011 .11 7.0	895 .12 6.6	774 .12 6.1	601 .12 5.6					
				1725 *	1687 .35 17.7	1625 .37 16.2	1552 .37 14.8	1476 .38 14.1	1399 .39 13.6	1321 .40 13.1	1242 .41 12.7	1067 .42 11.7	757 .39 10.8	

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.**

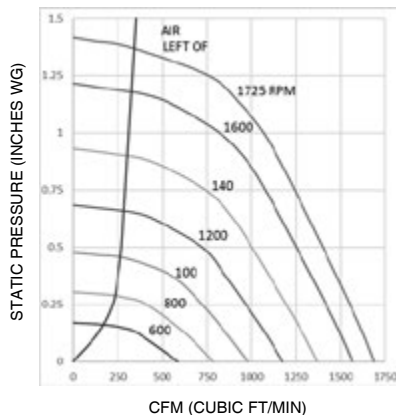
\* Base Unit - As run motor speeds.

+ 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<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>W1</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

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.

### VIDK 10 AIR PERFORMANCE



### VIDK 10 SOUND PERFORMANCE

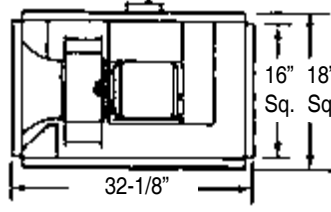
RPM	SP	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	LWA
875	.000	63	60	57	52	63	59	46	33	65
	.125	64	58	57	52	55	51	44	37	58
1075	.000	68	66	62	58	64	65	54	41	69
	.250	69	65	61	58	57	56	51	44	62
1625	.500	70	65	61	56	53	53	50	45	60
	.000	78	76	73	70	67	76	71	58	79
	.500	80	77	71	70	66	67	64	57	73
	1.000	80	77	71	68	63	59	62	57	71



# VIDK 12

## DIRECT DRIVE

### PERFORMANCE DATA



**DESIGN DATA**  
 Tip Speed = 3.27 x RPM  
 Unit Weight = 75 Lbs.  
 Outlet Velocity (FPM) = .562 x CFM

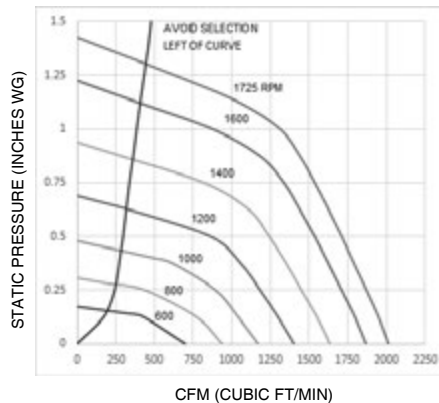
RPM Range - Motor HP		STATIC PRESSURE, INCHES W.G.															
F4+	J3+	M2+	P2+	RPM	.000	.125	.250	.375	.500	.625	.750	1.000	1.250				
1/20	1/8	1/3	1/2		CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP				
				SONES													
<b>SPEED CONTROLLABLE MOTORS**</b>				550	642 .02 2.9	224 .02 1.3											
				700	817 .04 4.4	621 .04 3.3											
				800	933 .05 5.6	768 .06 4.5	438 .05 3.4										
				825 *	962 .06 2.9	803 .07 4.9	531 .06 3.8										
				900	1050 .08 6.9	906 .08 6.0	729 .09 4.9										
				975	1137 .10 7.9	1005 .11 7.1	855 .11 6.1	510 .10 4.9									
				1050	1225 .12 9.0	1104 .13 8.2	968 .14 7.3	782 .13 6.1	165 .09 4.9								
				1075 *	1254 .13 9.4	1136 .14 8.7	1004 .14 7.8	842 .15 6.6	308 .11 5.4								
				1175	1371 .17 10.8	1265 .18 10.2	1147 .19 9.5	1018 .19 8.4	779 .18 7.2	191 .12 5.9							
				1275	1487 .22 11.9	1392 .23 11.3	1284 .24 10.8	1169 .24 9.9	1034 .24 8.8	740 .23 7.8	139 .15 6.7						
				1375	1604 .28 13.1	1518 .29 12.6	1417 .30 12.0	1315 .30 11.4	1203 .31 10.5	1062 .30 9.5	701 .27 8.6						
				1500	1750 .36 15.0	1674 .37 14.4	1580 .38 13.7	1489 .39 13.1	1391 .39 12.4	1288 .40 11.6	1152 .40 10.7	320 .27 9.0					
				1575	1837 .42 16.3	1766 .43 15.7	1678 .44 15.1	1590 .45 14.4	1500 .45 13.7	1402 .46 12.9	1292 .46 12.1	740 .40 11.0					
				1625 *	1896 .46 17.1	1827 .47 16.5	1742 .48 15.9	1657 .50 15.3	1572 .50 14.7	1478 .50 13.9	1383 .51 13.0	977 .47 11.4					
				<b>ALL OTHER MOTORS</b>				1140 *	1330 .16 10.4	1220 .17 9.7	1099 .17 9.0	961 .17 7.8	660 .16 6.5				
								1725 *	2012 .55 18.8	1948 .56 18.2	1870 .57 17.7	1789 .59 17.1	1710 .60 16.6	1625 .60 15.9	1536 .60 15.1	1310 .60 13.4	629 .48 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<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>W1</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

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.

### VIDK 12 AIR PERFORMANCE



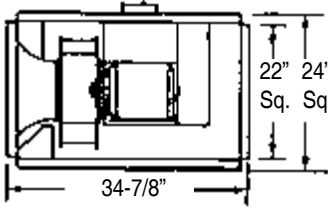
### VIDK 12 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	LWA
825	.000	62	61	57	54	58	59	53	47	63
	.125	61	61	57	54	57	55	46	36	61
1075	.000	66	68	65	60	61	67	61	55	70
	.250	66	68	65	60	60	63	54	45	67
1625	.500	65	66	63	59	59	58	52	46	64
	.000	75	76	76	72	69	73	73	67	79
	.500	74	76	76	72	69	71	70	60	77
	1.000	72	74	73	69	67	67	63	58	73

# VIDK 15

## DIRECT DRIVE

### PERFORMANCE DATA



**DESIGN DATA**  
 Tip Speed = 4.06 x RPM  
 Unit Weight = 90 Lbs.  
 Outlet Velocity (FPM) = .298 x CFM

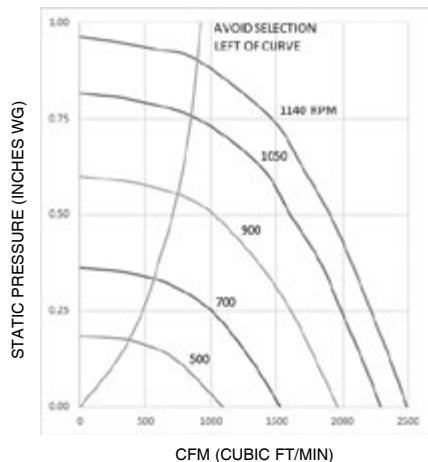
RPM Range - Motor HP			STATIC PRESSURE, INCHES W.G.									
K4+ 1/6	M3+ 1/3	RPM	.000	.125	.250	.375	.500	.625	.750	1.000	1.250	
			CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
SPEED CONTROLLABLE MOTORS**		450	983 .02 2.6	511 .03 1.3								
		500	1093 .03 3.2	726 .04 2.1								
		550	1202 .04 3.8	885 .05 2.8								
		600	1311 .06 4.5	1043 .06 3.4	466 .05 2.6							
		650	1420 .07 5.2	1173 .08 4.1	802 .08 3.5							
		700	1530 .09 5.9	1301 .10 4.9	1005 .10 4.3							
		750	1639 .11 6.7	1427 .12 5.8	1158 .12 5.1	684 .11 4.3						
		800	1748 .13 7.8	1551 .14 6.8	1325 .15 5.9	1002 .15 5.2						
		825 *	1803 .15 8.4	1612 .16 7.3	1407 .16 6.4	1127 .16 5.7	116 .09 4.9					
		875	1912 .18 9.6	1734 .19 8.5	1545 .19 7.4	1285 .20 6.6	852 .18 5.8					
		925	2021 .21 10.4	1854 .22 9.4	1674 .23 8.3	1441 .23 7.5	1163 .23 6.7	224 .13 6.0				
		975	2131 .24 11.2	1973 .26 10.2	1802 .26 9.2	1607 .27 8.4	1375 .27 7.6	930 .25 6.9				
		1025	2240 .28 12.0	2092 .30 11.1	1929 .31 10.2	1770 .31 9.3	1529 .31 8.6	1254 .31 7.9	549 .23 7.2			
	1075 *	2349 .33 12.9	2209 .34 12.0	2054 .35 11.1	1901 .36 10.1	1687 .36 9.5	1490 .36 8.8	1066 .33 8.1				
ALL OTHER MOTORS		1140 *	2491 .39 14.0	2360 .41 13.2	2215 .42 12.3	2069 .43 11.4	1903 .43 10.7	1691 .43 10.1	1460 .43 9.4			

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<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>Wj</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

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.

### VIDK 15 AIR PERFORMANCE



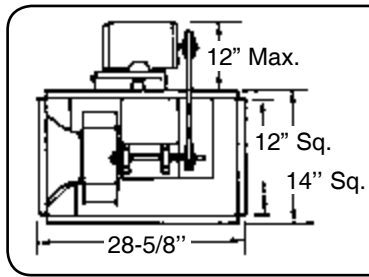
### VIDK 15 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	LWA
825	.000	67	67	64	61	66	67	49	32	71
	.125	68	67	64	60	63	63	48	34	67
	.250	69	66	64	59	60	59	48	37	65
	.500	68	63	61	56	55	51	46	40	60
1075	.000	73	73	71	67	70	74	62	44	77
	.250	74	73	71	67	67	69	59	45	73
	.500	74	73	71	67	65	67	58	45	72
	.750	74	73	71	67	65	67	58	45	72

# VIBK 06

## BELT DRIVE

### PERFORMANCE DATA



### DESIGN DATA

$$\text{Max BHP} = .028 \times \left[ \frac{\text{RPM}}{1000} \right]^3$$

Average Weight = 65 Lbs.  
 Outlet Velocity (FPM) = 1.000 x CFM  
 Tip Speed = 2.75 x RPM

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.												
K1 (1/6)	RPM	.000	.125	.250	.375	.500	.625	.750	1.000	1.250	1.500	1.750	2.000	
		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
K2 (1/6)	600	207 .01 1.0												
	700	242 .01 1.7												
K3 (1/6)	800	276 .01 2.5	137 .01 2.7											
	900	311 .02 3.2	198 .02 3.3											
K4 (1/6)	1000	345 .02 3.9	247 .03 3.9											
	1100	380 .03 4.7	288 .03 4.8	161 .03 5.0										
K5 (1/6)	1200	414 .04 5.5	330 .04 5.7	237 .05 5.9										
	1300	449 .05 6.5	374 .06 6.7	296 .06 6.7	147 .06 7.1									
L1 (1/4)	1400	483 .07 7.6	414 .07 7.7	385 .09 8.8	169 .09 9.2									
	1500	518 .08 8.7	453 .09 8.8	399 .10 6.5	321 .10 6.5	217 .10 6.6								
M1 (1/3)	1550	535 .09 9.3	473 .09 9.4	405 .10 9.4	338 .10 9.5	222 .10 9.7								
	1600	552 .10 10.0	492 .10 10.0	425 .11 10.0	367 .11 10.1	273 .11 10.3	104 .10 10.5							
P1 (1/2)	1650	570 .11 10.5	511 .11 10.6	445 .12 10.6	393 .12 10.6	306 .12 10.8	160 .11 11.0							
	1700	587 .12 11.0	530 .12 11.0	468 .13 11.0	414 .13 11.0	338 .13 11.2	214 .13 11.4							
MI (1/3)	1750	604 .13 11.4	549 .14 11.4	490 .14 11.5	435 .14 11.5	368 .14 11.6	267 .14 11.8	111 .13 12.0						
	1800	621 .14 11.8	568 .15 11.8	512 .15 11.9	456 .15 11.9	397 .15 12.0	313 .15 12.2	167 .15 12.4						
MI (1/3)	1850	639 .15 12.2	586 .16 12.3	533 .16 12.4	477 .16 12.4	425 .17 12.4	345 .17 12.6	221 .16 12.8						
	1900	673 .18 13.2	623 .19 13.2	574 .19 13.3	516 .19 13.4	473 .19 13.3	407 .20 13.4	326 .20 13.6						
MI (1/3)	1950	686 .22 11.2	642 .22 10.9	593 .22 10.5	540 .22 10.2	485 .22 10.3	421 .22 10.4	349 .22 10.5						
	2000	690 .20 13.6	642 .20 13.7	594 .20 13.8	536 .21 13.9	494 .21 13.8	436 .21 14.1	361 .21 14.1	104 .20 14.6					
MI (1/3)	2050	708 .21 14.1	660 .22 14.2	613 .22 14.3	559 .22 14.3	515 .22 14.3	465 .23 14.3	393 .23 14.6	161 .22 15.1					
	2100	725 .23 14.6	678 .23 14.7	633 .24 14.8	581 .24 14.9	536 .24 14.9	493 .24 14.8	425 .25 15.1	216 .24 15.7					
MI (1/3)	2150	742 .24 15.1	697 .25 15.2	652 .25 15.4	603 .26 15.5	556 .26 15.5	516 .26 15.4	454 .26 15.7	270 .26 16.2					
	2200	760 .26 15.5	715 .27 15.7	672 .27 15.9	625 .27 16.1	576 .28 16.2	537 .28 16.1	483 .28 16.2	323 .28 16.8					
MI (1/3)	2250	777 .28 16.0	733 .28 16.2	691 .29 16.5	646 .29 16.7	596 .29 16.8	558 .30 16.7	511 .30 16.7	375 .30 17.3	132 .28 17.8				
	2300	794 .30 16.5	751 .30 16.8	710 .31 17.0	668 .31 17.2	615 .32 17.4	579 .32 17.4	539 .32 17.3	411 .32 17.8	189 .31 18.3				
MI (1/3)	2350	811 .32 17.2	770 .32 17.4	729 .33 17.6	688 .33 17.8	637 .34 18.0	600 .34 18.0	563 .34 17.9	443 .34 18.3	244 .33 18.8				
	2400	829 .34 17.8	788 .34 18.0	748 .35 18.2	708 .35 18.4	660 .36 18.6	620 .36 18.6	584 .36 18.5	475 .37 18.8	298 .36 19.3				
MI (1/3)	2450	846 .36 18.5	806 .37 18.6	767 .37 18.8	727 .38 19.0	682 .38 19.2	640 .38 19.3	605 .38 19.4	506 .39 19.4	351 .38 19.9	128 .36 20.4			
	2500	863 .38 19.1	824 .39 19.3	786 .40 19.5	747 .40 19.6	704 .40 19.8	660 .40 20.0	626 .41 19.9	535 .42 20.0	403 .41 20.5	185 .39 21.0			

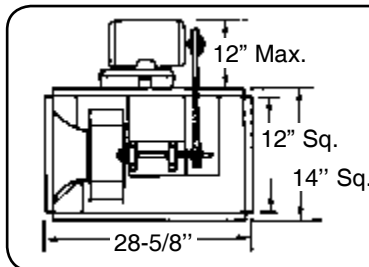
Performance certified is for installation type A - free inlet, free outlet.  
 Performance ratings (bhp) do not include transmission losses.  
 Performance ratings do not include the effects of accessories.

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.

# VIBK 08

## BELT DRIVE

### PERFORMANCE DATA



#### DESIGN DATA

$$\text{Max BHP} = .035 \times \left[ \frac{\text{RPM}}{1000} \right]^3$$

Average Weight = 65 Lbs.

Outlet Velocity (FPM) = 1.000 x CFM

Tip Speed = 2.75 x RPM

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.												
K1 (1/6)	RPM	.000	.125	.250	.375	.500	.625	.750	1.000	1.250	1.500	1.750	2.000	
		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
K2 (1/6)	650	279 .01 1.7												
	750	322 .01 2.4	154 .01 1.8											
K3 (1/6)	850	364 .02 3.1	241 .02 2.7											
	950	407 .02 3.8	304 .03 3.5											
K4 (1/6)	1050	450 .03 4.6	359 .04 4.3	206 .04 3.9										
	1150	493 .04 5.3	410 .05 5.2	305 .05 4.7										
L1 (1/4)	1250	536 .05 6.0	460 .06 6.0	371 .06 5.5	208 .06 5.2									
	1350	579 .07 6.8	511 .07 6.9	434 .08 6.3	320 .08 6.1									
M1 (1/3)	1450	622 .09 7.5	560 .09 7.6	490 .10 7.2	404 .10 6.9	249 .10 6.6								
	1500	643 .09 7.9	583 .10 8.0	516 .10 7.6	435 .11 7.3	309 .11 7.1								
PT (1/2)	1550	665 .10 8.3	606 .11 8.4	541 .12 8.1	466 .12 7.7	361 .12 7.5								
	1600	686 .12 8.7	629 .12 8.8	567 .13 8.5	498 .13 8.2	407 .13 7.9	250 .13 7.7							
	1650	707 .13 9.1	652 .13 9.2	592 .14 9.0	530 .14 8.6	451 .14 8.4	313 .14 8.1							
	1700	729 .14 9.6	675 .15 9.6	617 .15 9.4	560 .15 9.0	483 .16 8.8	372 .16 8.6							
	1750	750 .15 10.0	697 .16 10.0	642 .16 9.9	586 .17 9.5	513 .17 9.3	449 .17 9.1	269 .17 8.9						
	1800	772 .16 10.5	720 .17 10.5	668 .18 10.4	612 .18 9.9	545 .19 9.7	466 .19 9.5	334 .18 9.3						
	1850	793 .18 10.9	742 .19 10.5	693 .19 10.8	638 .20 10.4	577 .20 10.2	508 .20 10.0	394 .20 9.8						
	1900	815 .19 11.3	765 .20 11.3	718 .21 11.3	664 .21 10.9	609 .22 10.6	539 .22 10.5	443 .22 10.3						
	1950	836 .21 11.8	787 .22 11.8	743 .22 11.8	689 .23 11.4	640 .23 11.1	570 .24 10.9	490 .24 10.8						
	2000	857 .23 12.2	809 .23 12.2	768 .24 12.3	715 .25 11.9	666 .25 11.6	601 .26 11.4	536 .26 11.3	268 .24 11.0					
	2050	879 .24 12.7	831 .25 12.7	792 .26 12.7	740 .26 12.4	692 .27 12.1	633 .27 11.9	571 .28 11.7	351 .27 11.5					
	2100	900 .26 13.2	854 .27 13.2	815 .28 13.2	765 .28 12.9	718 .29 12.6	665 .29 12.4	602 .30 12.3	411 .29 12.0					
	2150	922 .28 13.6	876 .29 13.6	838 .30 13.6	790 .30 13.4	744 .31 13.1	697 .31 12.9	633 .32 12.8	470 .32 12.6					
	2200	943 .30 14.1	898 .31 14.1	861 .32 14.1	815 .32 13.9	770 .33 13.7	726 .33 13.4	664 .34 13.3	518 .34 13.1	224 .31 12.8				
	2250	965 .32 14.5	920 .33 14.5	884 .34 14.5	841 .35 14.4	795 .35 14.2	752 .36 13.9	696 .36 13.7	564 .36 13.5	328 .35 13.4				
	2300	986 .34 15.0	942 .35 15.0	907 .36 15.0	866 .37 14.9	821 .37 14.6	778 .38 14.4	728 .39 14.2	610 .39 14.0	402 .38 13.8				
	2350	1008 .37 15.5	964 .38 15.5	930 .39 15.5	891 .39 15.4	846 .40 15.1	804 .40 14.9	760 .41 14.6	649 .42 14.5	463 .41 14.3				
	2400	1029 .39 16.0	986 .40 16.0	952 .41 15.9	916 .42 15.9	871 .42 15.6	830 .43 15.4	789 .44 15.1	680 .44 14.9	522 .44 14.7	224 .40 14.6			
	2450	1050 .41 16.5	1008 .43 16.5	975 .44 16.4	941 .44 16.4	896 .45 16.1	856 .45 15.9	816 .46 15.6	711 .47 15.4	570 .47 15.2	329 .45 15.0			
	2500	1072 .44 17.0	1030 .45 16.9	997 .46 16.9	965 .47 16.9	921 .48 16.6	881 .48 16.4	842 .49 16.1	741 .50 15.9	616 .50 15.7	417 .49 15.5			

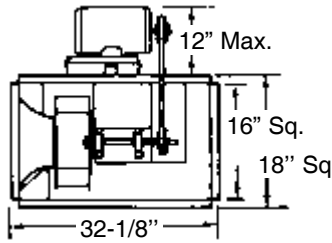
Performance certified is for installation type A - free inlet, free outlet.  
 Performance ratings (bhp) do not include transmission losses.  
 Performance ratings do not include the effects of accessories.

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.

# VIBK 10

## BELT DRIVE

### PERFORMANCE DATA



#### DESIGN DATA

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

Average Weight = 80 Lbs.  
 Outlet Velocity (FPM) = .562 x CFM  
 Tip Speed = 3.27 x RPM

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.													
K1 (1/6)	RPM	.000	.250	.500	.750	1.000	1.250	1.500	1.750	2.000	2.250	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	
K2 (1/6)	650	636 .02 3.1													
	750	733 .03 4.2	243 .03 2.2												
L1 (1/4)	850	831 .04 5.4	514 .05 3.4												
	950	929 .06 6.4	657 .07 4.5												
M1 (1/3)	1050	1027 .08 7.6	785 .09 5.6	296 .08 4.5											
	1150	1125 .10 8.9	907 .12 6.7	625 .12 5.7											
PI (1/2)	1250	1222 .13 10.3	1025 .15 7.9	801 .16 6.9											
	1350	1320 .17 11.6	1139 .19 9.2	938 .20 8.1	626 .19 7.0										
R1 (3/4)	1400	1369 .19 12.4	1196 .21 9.8	1003 .22 8.8	745 .22 7.7										
	1450	1418 .21 13.2	1252 .23 10.5	1066 .24 9.5	855 .25 8.4										
S1 (1)	1500	1467 .23 13.9	1307 .25 11.2	1129 .27 10.2	933 .28 9.1	487 .24 8.1									
	1550	1516 .25 14.7	1363 .27 11.9	1190 .29 10.9	1010 .30 9.9	702 .29 8.8									
T1 (1-1/2)	1600	1565 .28 15.5	1417 .33 13.4	1311 .35 12.4	1144 .36 11.4	362 .28 9.4									
	1650	1613 .31 16.3	1471 .40 12.8	1223 .41 11.3	1060 .43 10.7	835 .42 10.7									
S1 (1)	1700	1662 .34 17.2	1525 .36 14.3	1370 .38 13.2	1210 .40 12.2	1028 .40 11.3	647 .36 10.3								
	1750	1711 .37 18.0	1578 .39 15.2	1429 .41 14.0	1273 .43 13.1	1105 .44 12.2	826 .42 11.2								
S1 (1)	1800	1760 .40 18.6	1632 .42 16.7	1544 .48 15.4	1398 .50 14.5	1248 .51 13.7	1062 .51 12.9	654 .45 12.1							
	1850	1809 .43 19.3	1685 .46 16.0	1442 .57 14.4	1304 .59 13.2	1154 .60 13.1	943 .59 13.1	617 .54 13.2							
S1 (1)	1900	1858 .47 20.1	1737 .50 17.4	1601 .52 16.0	1460 .54 15.3	1314 .56 14.5	1148 .56 13.8	863 .53 13.1							
	1950	1907 .51 21.0	1790 .54 18.2	1658 .56 16.8	1520 .58 16.0	1380 .60 15.3	1226 .61 14.5	984 .59 13.8	399 .46 13.0						
S1 (1)	2000	1956 .55 21.8	1842 .58 19.0	1714 .60 17.5	1581 .62 16.9	1444 .64 16.1	1302 .65 15.3	1101 .64 14.5	714 .58 13.7						
	2050	2005 .59 22.6	1895 .62 19.9	1770 .64 18.2	1640 .66 17.7	1507 .69 16.9	1370 .70 16.1	1209 .70 15.3	927 .67 14.5						
S1 (1)	2100	2054 .63 23.5	1947 .67 20.7	1825 .69 19.0	1699 .71 18.5	1570 .73 17.7	1437 .75 16.9	1287 .76 16.1	1048 .73 15.3	592 .63 14.5					
	2150	2102 .68 22	1999 .71 21.6	1881 .73 19.7	1757 .76 19.3	1631 .78 18.5	1503 .80 17.7	1364 .81 16.9	1166 .80 16.1	817 .73 15.3					
S1 (1)	2200	2151 .73 25.2	2051 .76 22.6	1936 .78 20.5	1815 .81 20.1	1693 .83 19.4	1569 .86 18.6	1439 .87 17.8	1282 .87 17.0	1012 .83 16.2	312 .60 15.4				
	2250	2200 .78 26.2	2103 .81 23.6	1990 .84 21.3	1873 .86 20.8	1754 .89 20.2	1632 .91 19.4	1507 .93 18.6	1362 .93 17.8	1132 .90 17.1	730 .80 16.3				
S1 (1)	2300	2249 .89 27.2	2154 .87 24.5	2045 .89 22.1	1930 .92 21.7	1814 .94 21.0	1695 .97 20.3	1574 .99 19.5	1439 .99 18.7	1250 .98 17.9	953 .92 17.1				
	2350	2298 .89 28.2	2206 .93 25.5	2098 .95 23.0	1987 .98 22.5	1874 .100 21.9	1758 .103 21.1	1640 .105 20.3	1516 .106 19.5	1113 .101 18.7	671 .88 17.1				
S1 (1)	2400	2347 .94 29.2	2257 .99 26.6	2152 .101 23.9	2043 .104 23.3	1933 .106 22.8	1819 .109 22.0	1705 .111 21.2	1587 .113 20.4	1447 .113 19.6	1232 .110 18.7	896 .101 17.9			
	2450	2396 .100 30.2	2308 .105 27.6	2206 .107 25.0	2100 .110 24.2	1991 .113 23.7	1881 .115 22.9	1769 .118 22.1	1654 .120 21.3	1525 .120 20.4	1350 .118 19.6	1108 .114 18.8	570 .94 18.0		

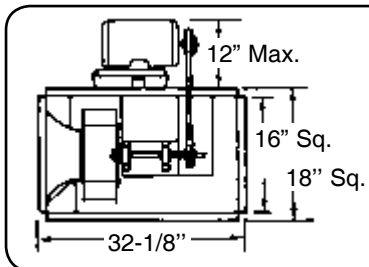
Performance certified is for installation type A - free inlet, free outlet.  
 Performance ratings (bhp) do not include transmission losses.  
 Performance ratings do not include the effects of accessories.

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.

# VIBK 12

## BELT DRIVE

### PERFORMANCE DATA



#### DESIGN DATA

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

Average Weight = 80 Lbs.  
 Outlet Velocity (FPM) = .562 x CFM  
 Tip Speed = 3.27 x RPM

RPM Range - Motor HP	RPM	STATIC PRESSURE, INCHES W. G.											
		.000	.250	.500	.750	1.000	1.250	1.500	1.750	2.000	2.250	2.500	2.750
K1 (1/6)		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 (1/6)	600	700 .02 3.5											
	700	817 .04 4.4											
K3 (1/6)	800	933 .05 5.6	438 .05 3.4										
L1 (1/4)	900	1050 .08 6.9	729 .09 4.9										
M1 (1/3)	1000	1167 .11 8.3	893 .12 6.5										
	1100	1283 .14 9.8	1041 .15 8.3	448 .13 5.8									
	1200	1400 .18 11.1	1182 .20 9.8	862 .20 7.6									
	1300	1517 .23 12.2	1317 .25 11.1	1080 .26 9.3	283 .18 7.2								
	1400	1633 .29 13.5	1449 .31 12.3	1241 .32 10.9	821 .30 9.0								
PI (1/2)	1450	1692 .33 14.3	1515 .35 13.0	1316 .36 11.7	990 .35 9.9								
	1500	1750 .36 15.0	1580 .38 13.7	1391 .39 12.4	1152 .40 10.7	320 .27 9.1							
	1550	1808 .40 15.8	1645 .42 14.6	1464 .43 13.2	1246 .44 11.6	602 .35 10.0							
	1600	1867 .44 16.7	1710 .46 15.5	1536 .48 14.2	1337 .48 12.6	875 .44 10.9							
R1 (3/4)	1650	1925 .48 17.5	1774 .50 16.4	1606 .52 15.2	1421 .53 13.5	1062 .50 11.9	202 .33 10.2						
	1700	1983 .52 18.3	1838 .55 17.2	1675 .57 16.1	1498 .58 14.6	1229 .57 12.9	489 .43 11.2						
	1750	2042 .57 19.2	1902 .60 18.1	1744 .62 17.1	1573 .63 15.6	1364 .63 13.9	767 .53 12.3						
	1800	2100 .62 20.0	1965 .65 19.1	1812 .68 18.0	1648 .68 16.6	1457 .69 14.9	1035 .64 13.3	178 .42 11.6					
	1850	2158 .68 21.0	2028 .70 20.0	1878 .73 19.0	1722 .74 17.7	1549 .75 16.0	1205 .71 14.3	466 .53 12.7					
S1 (1)	1900	2217 .73 21.9	2091 .76 20.9	1945 .79 20.0	1795 .80 18.8	1633 .81 17.1	1371 .79 15.4	746 .65 13.7					
	1950	2275 .79 22.8	2154 .82 21.9	2011 .85 21.0	1868 .86 19.9	1710 .87 18.2	1513 .87 16.5	1020 .78 14.8	226 .54 13.1				
	2000	2333 .85 23.7	2217 .88 22.9	2076 .92 22.0	1938 .93 21.1	1786 .94 19.4	1606 .94 17.7	1230 .89 14.2	513 .68 14.2				
	2050	2392 .92 24.7	2279 .95 23.9	2142 .98 23.0	2008 1.00 22.2	1861 1.01 20.6	1698 1.01 18.9	1399 .98 17.1	794 .82 15.3				
	2100	2450 .99 25.7	2341 1.02 24.9	2207 1.05 24.1	2077 1.08 23.2	1789 1.09 20.1	1564 1.08 18.3	1068 .96 16.5	330 .71 14.7				
	2150	2508 1.06 26.8	2403 1.09 26.0	2272 1.13 25.1	2145 1.16 24.3	2009 1.16 23.1	1866 1.17 21.3	1683 1.17 19.5	1294 1.10 17.7	616 .86 15.9			
	2200	2567 1.14 27.9	2464 1.17 27.1	2337 1.20 26.3	2213 1.24 25.5	2082 1.24 24.4	1942 1.25 22.6	1776 1.25 20.8	1463 1.20 19.0	895 1.02 17.2	191 .76 15.4		
	2250	2625 1.22 28.9	2525 1.25 28.2	2402 1.28 27.5	2279 1.32 26.7	2154 1.32 25.7	2017 1.33 23.9	1868 1.34 22.1	1629 1.32 20.3	1169 1.20 18.5	480 .92 16.6		
	2300	2683 1.30 30.0	2586 1.33 29.3	2466 1.37 28.6	2346 1.41 27.9	2225 1.41 27.1	2092 1.42 25.3	1959 1.43 23.5	1776 1.43 21.6	1389 1.33 19.8	764 1.10 17.9		
	2350	2742 1.39 30.7	2646 1.42 30.1	2530 1.46 29.4	2412 1.49 28.7	2295 1.51 27.9	2167 1.52 26.4	2036 1.53 24.6	1870 1.52 22.8	1558 1.47 21.0	1041 1.29 19.2	382 1.00 17.4	
	2400	2800 1.48 31.5	2707 1.51 30.8	2594 1.55 30.2	2478 1.59 29.5	2364 1.61 28.8	2240 1.61 27.5	2112 1.62 25.7	1962 1.63 24.0	1724 1.59 22.2	1313 1.48 20.5	667 1.19 18.7	

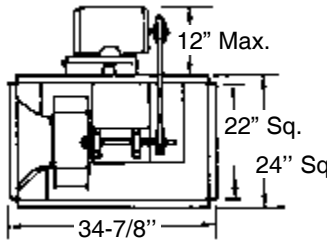
Performance certified is for installation type A - free inlet, free outlet.  
 Performance ratings (bhp) do not include transmission losses.  
 Performance ratings do not include the effects of accessories.

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.

# VIBK 15

## BELT DRIVE

### PERFORMANCE DATA



**DESIGN DATA**

Max BHP =  $.263 \times \left[ \frac{\text{RPM}}{1000} \right]^3$

Average Weight = 95 Lbs.

Outlet Velocity (FPM) =  $2.98 \times \text{CFM}$

Tip Speed =  $4.06 \times \text{RPM}$

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.												
K1 (1/6)	RPM	.000	.250	.500	.750	1.000	1.250	1.500	1.750	2.000	2.250	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
K2 (1/6)	550	1202 .04 3.8												
	600	1311 .06 4.5	466 .05 2.6											
L1 (1/4) M1 (1/3)	650	1420 .07 5.2	802 .08 3.5											
	700	1530 .09 5.9	1005 .10 4.3											
P1 (1/2)	750	1639 .11 6.7	1158 .12 5.1											
	800	1748 .13 7.8	1325 .15 5.9											
R1 (3/4)	850	1857 .16 9.0	1479 .18 6.9	678 .15 5.3										
	900	1967 .19 10.1	1610 .21 7.9	1022 .20 6.3										
S1 (1)	950	2076 .23 10.8	1738 .25 8.8	1288 .25 7.2										
	1000	2185 .26 11.6	1865 .28 9.7	1452 .29 8.1										
T1 (1-1/2)	1050	2294 .30 12.5	1991 .33 10.6	1604 .34 9.0	893 .30 7.7									
	1100	2404 .35 13.3	2116 .38 11.5	1771 .39 10.0	1236 .37 8.6									
V1 (2)	1150	2513 .40 14.2	2239 .43 12.5	1935 .44 10.9	1510 .44 9.7									
	1200	2622 .45 15.1	2361 .48 13.4	2087 .50 11.9	1703 .50 10.7	931 .43 9.4								
	1250	2732 .51 16.0	2482 .55 14.4	2217 .57 12.9	1856 .57 11.7	1291 .53 10.5								
	1300	2841 .58 16.9	2603 .61 15.4	2347 .63 13.9	2010 .64 12.8	1603 .63 11.6								
	1350	2950 .65 17.9	2722 .68 16.4	2474 .70 14.9	2178 .72 13.8	1854 .72 12.7	1114 .62 11.5							
	1400	3059 .72 18.9	2841 .76 17.4	2602 .78 16.0	2343 .80 14.8	2010 .80 13.9	1460 .75 12.7							
	1450	3169 .80 19.9	2959 .84 18.6	2729 .87 17.2	2504 .89 16.0	2163 .89 15.0	1775 .87 13.9	785 .64 12.7						
	1500	3278 .89 21.2	3077 .93 19.9	2854 .96 18.6	2635 .98 17.3	2317 .99 16.1	2026 .98 15.0	1368 .88 14.0						
	1550	3387 .98 22.7	3194 1.03 21.3	2978 1.05 20.0	2765 1.08 18.6	2485 1.09 17.4	2200 1.09 16.2	1710 1.04 15.2	454 .65 14.2					
	1600	3496 1.08 24.3	3309 1.12 22.9	3102 1.15 21.4	2894 1.18 20.0	2651 1.20 18.7	2354 1.20 17.5	2003 1.18 16.4	1337 1.04 15.4					
	1650	3606 1.18 26.0	3424 1.23 24.6	3224 1.26 23.1	3022 1.29 21.6	2814 1.31 20.1	2506 1.31 18.8	2253 1.31 17.6	1683 1.22 16.6	231 .70 15.6				
	1700	3715 1.29 27.9	3538 1.34 26.3	3346 1.38 24.7	3150 1.40 23.1	2959 1.43 21.6	2668 1.44 20.2	2417 1.43 18.9	2020 1.40 17.9	1356 1.24 16.9				
	1750	3824 1.41 29.7	3653 1.46 28.1	3468 1.50 26.5	3276 1.53 24.8	3090 1.56 23.2	2835 1.57 21.7	2571 1.57 20.2	2274 1.55 19.2	1704 1.43 18.2	242 .83 17.3			
	1800	3933 1.53 31.2	3767 1.59 29.6	3588 1.63 27.9	3402 1.65 26.2	3220 1.69 24.5	3000 1.70 23.0	2722 1.70 21.6	2498 1.70 20.4	2043 1.68 19.5	1397 1.45 18.6			
	1850	4043 1.67 32.4	3881 1.72 30.8	3708 1.76 29.1	3527 1.79 27.5	3348 1.82 25.8	3163 1.85 24.3	2881 1.85 22.9	2653 1.85 21.7	2326 1.82 20.7	1765 1.68 19.8	448 1.07 18.9		
	1900	4152 1.80 33.6	3994 1.86 31.9	3828 1.91 30.3	3652 1.94 28.7	3476 1.97 27.1	3306 2.00 25.6	3049 2.00 24.3	2807 2.00 22.9	2576 2.00 22.0	2105 1.91 21.1	1511 1.72 20.2		
	1925	4207 1.88 34.2	4051 1.93 32.6	3887 1.98 31.0	3714 2.01 29.4	3540 2.04 27.8	3372 2.08 26.2	3132 2.08 24.9	2883 2.08 24.9	2672 2.08 22.6	2273 2.03 21.7	1687 1.84 20.8		
	1950	4261 1.95 34.8	4107 2.0 33.2	3947 2.06 31.6	3775 2.09 30.0	3604 2.12 28.4	3437 2.15 26.9	3215 2.17 25.6	2958 2.17 24.3	2750 2.16 23.2	2405 2.13 22.3	1860 1.97 21.4	819 142 20.5	

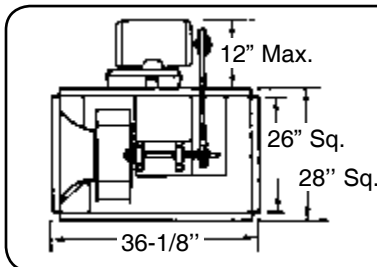
Performance certified is for installation type A - free inlet, free outlet.  
 Performance ratings (bhp) do not include transmission losses.  
 Performance ratings do not include the effects of accessories.

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.

# VIBK 18

## BELT DRIVE

### PERFORMANCE DATA



### DESIGN DATA

$$\text{Max BHP} = .690 \times \left[ \frac{\text{RPM}}{1000} \right]^3$$

Average Weight = 145 Lbs.  
 Outlet Velocity (FPM) = .213 x CFM  
 Tip Speed = 4.94 x RPM

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.														
K1 (1/16)	L1 (1/4)	RPM	.000	.250	.500	.750	1.000	1.250	1.500	1.750	2.000	2.250	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	CFM BHP	CFM BHP
M1 (1/3)	P1 (1/2)	550	2089 .11 5.1	1165 .11 3.9												
		600	2278 .15 6.0	1551 .15 4.9												
	R1 (3/4)	650	2468 .19 6.9	1839 .20 6.0												
		700	2658 .23 7.8	2117 .25 7.1	948 .20 5.9											
	S1 (1)	750	2848 .29 8.8	2366 .30 8.0	1409 .27 6.9											
		800	3038 .35 9.7	2589 .37 9.0	1855 .35 8.0											
	T1 (1-1/2)	850	3228 .42 10.7	2809 .44 10.1	2202 .44 9.0	1040 .34 8.0										
		900	3418 .50 11.7	3025 .52 11.2	2492 .52 10.2	1595 .46 9.1										
	V1 (2)	950	3608 .58 12.8	3236 .61 12.4	2774 .62 11.3	1992 .58 10.3	438 .33 9.3									
		1000	3797 .68 13.9	3435 .71 13.5	3048 .72 12.5	2453 .70 11.5	1445 .59 10.5									
W1 (3)	1050	3987 .79 15.0	3632 .81 14.7	3298 .84 13.8	2750 .82 12.8	1918 .75 11.8										
	1100	4177 .90 16.2	3828 .93 15.9	3522 .96 15.0	3039 .95 14.1	2329 .90 13.2	1405 .76 12.4									
V1 (2)	1150	4367 1.03 17.4	4024 1.06 17.1	3744 1.09 16.3	3322 1.09 15.4	2794 1.07 14.6	1944 .95 13.8									
	1175	4462 1.10 18.1	4124 1.13 17.8	3854 1.16 17.0	3461 1.17 16.0	2954 1.15 15.3	2152 1.05 14.5	818 .71 13.8								
V1 (2)	1200	4557 1.17 18.7	4226 1.21 18.4	3963 1.23 17.7	3599 1.25 16.7	3102 1.22 15.9	2327 1.14 15.2	1421 .95 14.5								
	1225	4652 1.25 19.4	4327 1.28 19.0	4071 1.31 18.3	3735 1.33 17.3	3249 1.31 16.6	2559 1.24 16.0	1773 1.09 15.3								
W1 (3)	1250	4747 1.33 20.0	4428 1.36 19.7	4180 1.39 19.0	3870 1.41 18.0	3394 1.39 17.3	2794 1.34 16.7	2030 1.21 16.0	414 .69 15.4							
	1275	4842 1.41 20.7	4529 1.45 20.3	4287 1.47 19.7	3989 1.50 18.8	3537 1.48 18.0	3025 1.45 17.4	2271 1.32 16.7	1026 .96 16.1							
W1 (3)	1300	4937 1.49 21.3	4630 1.53 20.9	4395 1.56 20.4	4102 1.59 19.5	3679 1.57 18.7	3221 1.55 18.1	2448 1.43 17.4	1626 1.24 16.8							
	1325	5032 1.58 22.0	4731 1.62 21.6	4501 1.65 21.1	4214 1.68 20.2	3819 1.67 19.4	3370 1.64 18.8	2642 1.55 18.1	1934 1.39 17.5							
W1 (3)	1350	5126 1.67 22.7	4831 1.72 22.3	4602 1.74 28	4326 1.77 20.9	3959 1.77 20.1	3518 1.74 19.5	2879 1.66 18.9	2191 1.52 18.2	779 1.01 17.6						
	1375	5221 1.77 23.4	4931 1.81 23.0	4702 1.84 22.5	4437 1.87 21.6	4097 1.87 20.8	3664 1.85 20.2	3113 1.79 19.6	2438 1.66 19.0	1386 1.32 18.3						
W1 (3)	1400	5316 1.87 24.1	5031 1.91 23.7	4801 1.94 23.2	4548 1.97 22.4	4234 1.98 21.5	3808 1.95 20.9	3345 1.92 20.3	2615 1.78 19.7	1895 1.60 19.1						
	1425	5411 1.97 24.7	5131 2.02 24.3	4900 2.04 23.9	4658 2.07 23.1	4370 2.09 22.2	3952 2.07 21.6	3592 2.07 21.6	3534 2.04 21.0	2794 1.92 20.4	2156 1.74 19.7	657 1.11 19.0				
W1 (3)	1450	5506 2.07 25.4	5230 2.12 25.0	4999 2.15 24.5	4767 2.18 23.7	4504 2.21 22.9	4094 2.18 22.2	3683 2.15 21.6	3033 2.05 21.0	2412 1.90 20.4	1267 1.45 19.8					
	1475	5601 2.8 26.1	5330 2.23 25.6	5097 2.26 25.2	4877 2.29 24.4	4619 2.32 23.6	4234 2.30 22.9	3831 2.27 22.3	3268 2.19 21.7	2642 2.05 21.0	1866 1.82 20.4					
W1 (3)	1500	5696 2.29 26.7	5429 2.35 26.3	5196 2.37 25.9	4985 2.41 25.1	4732 2.44 24.3	43674 2.42 23.5	3977 2.40 22.9	3500 2.34 22.3	2819 2.20 21.7	2168 2.00 21.1	642 1.27 20.4				
	1525	5791 2.41 27.4	5528 2.47 27.0	5294 2.49 26.5	5093 2.53 25.8	4844 2.56 25.0	4513 2.55 24.2	4122 2.52 23.6	3730 2.50 23.0	3002 2.35 22.3	2426 2.17 21.7	1252 1.65 21.1				
W1 (3)	1550	5886 2.53 28.0	5627 2.59 27.6	5392 2.61 27.2	5201 2.65 26.5	4956 2.68 25.7	4650 2.68 24.9	4266 2.66 24.3	3882 2.63 23.6	3241 2.51 23.0	2680 2.35 22.4	1853 2.05 21.8				
	1575	5981 2.66 28.7	5726 2.72 28.3	5490 2.74 27.9	5309 2.78 27.3	5067 2.81 26.4	4787 2.82 25.6	4408 2.79 24.9	4030 2.76 24.3	3476 2.67 23.7	2877 2.52 23.1	2221 2.30 22.4	717 1.49 21.8			

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. In-line Duct Fans



# VIBK 21

## BELT DRIVE

### PERFORMANCE DATA

**DESIGN DATA**

Max BHP =  $1.29 \times \left[ \frac{\text{RPM}}{1000} \right]^3$

Average Weight = 200 Lbs.

Outlet Velocity (FPM) =  $.171 \times \text{CFM}$

Tip Speed =  $5.76 \times \text{RPM}$

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.													
L1 (1/4)	RPM	.000	.250	.500	.750	1.000	1.250	1.500	1.750	2.000	2.250	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	
M1 (1/3)	400	2184 .08 3.7													
	450	2457 .11 4.7	1213 .11 4.3												
	500	2730 .15 5.7	1750 .17 5.5												
	550	3003 .21 6.8	2182 .23 6.6												
	600	3276 .27 7.8	2558 .29 7.4	1117 .24 7.1											
	650	3548 .34 8.8	2907 .37 8.4	1876 .35 8.2											
	700	3821 .42 9.9	3235 .46 9.4	2408 .46 9.3											
	750	4094 .52 11.0	3556 .56 10.6	2868 .57 10.6	1665 .49 10.2										
	800	4367 .63 12.3	3872 .68 11.9	3255 .70 11.9	2341 .65 11.6										
	850	4640 .76 13.6	4183 .81 13.2	3629 .84 13.2	2881 .82 13.0	1612 .68 12.6									
P1 (1/2)	875	4777 .83 14.2	4333 .88 13.9	3813 .91 13.8	3115 .90 13.8	2058 .80 13.4									
	900	4913 .90 14.8	4481 .95 14.6	3983 .99 14.5	3344 .98 14.6	2427 .91 14.2									
	925	5050 .98 15.5	4630 1.03 15.3	4150 1.07 15.2	3565 1.08 15.3	2717 1.01 14.9	995 .69 14.5								
	950	5186 1.06 16.2	4777 1.12 16.0	4314 1.16 15.9	3759 1.17 16.1	2995 1.12 15.8	1795 .94 15.3								
	975	5223 1.15 17.0	4924 1.20 16.8	4478 1.25 16.7	3950 1.26 16.8	3265 1.23 16.6	2251 1.09 16.1								
	1000	5459 1.24 17.7	5071 1.30 17.5	4640 1.34 17.4	4139 1.36 17.5	3500 1.34 17.4	2622 1.23 17.0								
	1050	5732 1.43 19.2	5362 1.49 19.0	4962 1.54 18.8	4511 1.58 18.9	3960 1.57 19.0	3214 1.49 18.7	2168 1.32 18.3							
	1075	5869 1.54 19.9	5507 1.60 19.7	5121 1.65 19.4	4694 1.69 19.6	4170 1.69 19.7	3489 1.63 19.4	2570 1.48 19.1							
	1100	6005 1.65 21	5652 1.71 20	5279 1.77 20	4863 1.81 20	4364 1.81 20	3744 1.77 20	2939 1.65 20	1454 1.27 20						
	1125	6142 1.76 21	5796 1.83 21	5436 1.89 21	5030 1.93 21	4555 1.94 21	3978 1.91 21	3240 1.81 21	2144 1.57 20						
R1 (3/4)	1150	6278 1.88 22	5940 1.95 22	5593 2.01 21	5195 2.05 21	4744 2.07 21	4209 2.05 21	3519 1.96 21	2609 1.78 21						
	1175	6415 2.01 23	6084 2.08 22	5748 2.14 22	5360 2.19 22	4931 2.21 22	4437 2.20 22	3793 2.13 22	2982 1.98 22	1507 1.53 22					
	1200	6551 2.14 23	6227 2.21 23	5903 2.28 23	5523 2.32 23	5117 2.35 23	4648 2.35 23	4054 2.29 23	3328 2.17 22	2234 1.89 22					
	1225	6688 2.27 24	6370 2.35 24	6053 2.42 23	5685 2.46 23	5301 2.50 23	4841 2.50 23	4289 2.46 23	3610 2.35 23	2723 2.14 23					
	1250	6824 2.42 25	6513 2.49 24	6202 2.56 24	5846 2.61 24	5480 2.66 24	5033 2.66 24	4521 2.62 24	3887 2.53 24	3097 2.36 24	1762 1.92 24				
	1275	6961 2.56 26	6656 2.64 25	6351 2.71 25	6006 2.77 25	5648 2.81 25	5223 2.82 25	4750 2.80 25	4161 2.73 25	3464 2.59 25	2418 2.28 24				
	1300	7097 2.72 26	6798 2.79 26	6499 2.87 26	6166 2.93 25	5814 2.97 25	5411 2.99 25	4976 2.98 25	4415 2.79 25	3752 2.79 25	2899 2.56 25				
	1325	7233 2.88 27	6940 2.96 27	6647 3.03 26	6325 3.09 26	5980 3.14 26	5597 3.17 26	5173 3.16 26	4650 3.11 26	4031 3.00 26	3272 2.81 26	2101 2.40 26			
	1350	7370 3.04 28	7082 3.12 27	6794 3.20 27	6483 3.27 27	6144 3.32 27	5782 3.35 27	5366 3.34 27	4882 3.31 27	4306 3.22 27	3640 3.06 27	2679 2.75 26			

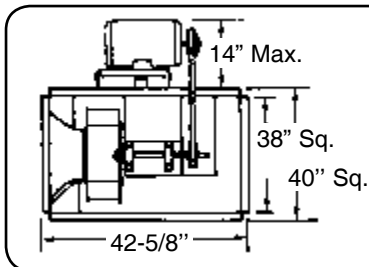
Performance certified is for installation type A - free inlet, free outlet.  
 Performance ratings (bhp) do not include transmission losses.  
 Performance ratings do not include the effects of accessories.

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.

# VIBK 24

## BELT DRIVE

### PERFORMANCE DATA



### DESIGN DATA

$$\text{Max BHP} = 3.22 \times \left[ \frac{\text{RPM}}{1000} \right]^3$$

Average Weight = 250 Lbs.  
 Outlet Velocity (FPM) = .099 x CFM  
 Tip Speed = 6.68 x RPM

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.												
MT1 (1/3)	RPM	.000	.250	.500	.750	1.000	1.250	1.500	1.750	2.000	2.250	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)	400	3752 .19 7.2	2208 .19 4.8											
	450	4220 .27 9.0	2980 .29 6.2											
R1 (3/4)	500	4689 .38 10.6	3633 .40 7.6											
	550	5185 .50 12.4	4248 .54 9.2	2842 .50 8.2										
S1 (1)	575	5393 .57 13.4	4533 .61 10.2	3286 .58 9.0										
	600	5627 .65 14.4	4806 .69 11.3	3709 .69 9.8										
T1 (1-1/2)	625	5862 .74 15.4	5077 .78 12.3	4058 .78 10.7	2259 .63 9.9									
	650	6096 .83 16.4	5345 .87 13.3	4399 .88 11.6	2951 .79 10.8									
V1 (2)	675	6331 .93 17.5	5610 .97 14.5	4732 .99 12.5	3506 .93 11.7									
	700	6565 1.03 18.6	5874 1.08 15.7	5049 1.11 13.5	3950 1.05 12.7									
W1 (3)	725	6800 1.15 19.8	6135 1.20 16.8	5361 1.23 14.5	4384 1.19 13.7	2703 .99 12.9								
	750	7034 1.27 21	6395 1.32 18.0	5669 1.36 15.7	4755 1.34 14.7	3395 1.22 13.9								
X1 (5)	775	7269 1.40 22	6654 1.46 19.3	5973 1.50 16.9	5101 1.49 15.7	3958 1.36 14.9								
	800	7503 1.54 23	6911 1.60 21	6265 1.65 18.2	5441 1.65 16.8	4415 1.55 16.0	2177 1.14 15.3							
Y1 (7-1/2)	825	7737 1.69 25	7165 1.75 22	6540 1.80 19.4	5773 1.81 17.9	4853 1.74 17.1	3431 1.55 16.3							
	850	7972 1.85 26	7417 1.91 23	6813 1.96 21	6091 1.98 19.0	5267 1.95 18.2	4056 1.80 17.4							
Z1 (9)	875	8206 2.02 28	7667 2.11 25	7084 2.14 22	6405 2.16 20	5616 2.14 19.3	4590 2.03 18.6	2215 1.34 17.9						
	900	8441 2.20 29	7916 2.26 26	7353 2.32 23	6715 2.35 21	5960 2.34 20	5035 2.22 19.6	3653 1.99 18.9						
AA1 (11)	925	8675 2.39 30	8165 2.45 27	7620 2.51 24	7022 2.55 22	6299 2.55 21	5471 2.46 21	4304 2.30 19.9						
	950	8910 2.59 31	8412 1.65 28	7886 2.71 26	7326 2.76 24	6633 2.77 22	5884 2.22 22	4866 2.51 20	3155 2.15 20					
BB1 (13)	975	9144 2.79 33	8659 2.86 29	8150 2.93 27	7620 2.99 25	6951 2.99 23	6233 2.96 23	5322 2.80 22	4027 2.55 21					
	1000	9379 3.02 34	8906 3.09 31	8412 3.15 28	7896 3.21 26	7266 3.23 24	6578 3.20 24	5762 3.08 23	4669 2.91 22					
CC1 (15)	1025	9613 3.25 35	9152 3.32 32	8674 3.39 29	8170 3.45 27	7578 3.47 25	6918 3.46 25	6195 3.37 24	5231 3.15 23	3815 2.80 23				
	1050	9848 3.49 37	9397 3.57 34	8934 3.64 31	8442 3.70 28	7887 3.73 27	7255 3.73 26	6576 3.68 25	5693 3.49 24	4520 3.26 24				
DD1 (17)	1075	10082 3.75 38	10374 3.82 35	9193 3.90 32	8712 3.96 30	8193 4.01 28	7580 4.01 27	6924 3.97 26	6134 3.82 26	5126 3.64 25	3206 2.92 25			
	1100	10317 4.01 40	9886 4.09 36	9451 4.17 34	8981 4.23 31	8496 4.29 29	7897 4.29 28	7268 4.27 27	6568 4.15 27	5684 4.01 26	4410 3.60 25			
EE1 (19)	1125	10551 4.29 41	10130 4.37 38	9708 4.45 35	9248 4.52 33	8789 4.59 31	8211 4.59 29	7608 4.58 28	6975 4.52 28	6131 4.30 27	5092 4.10 27	2508 2.67 26		
	1150	10786 4.59 43	10374 4.67 40	9964 4.75 37	9515 4.82 34	9065 4.89 32	8522 4.91 30	7944 4.91 30	7325 4.85 29	6571 4.67 28	5658 4.38 28	4379 4.01 27		
FF1 (21)	1175	11020 4.89 44	10617 4.98 41	10217 5.06 38	9779 5.13 36	9340 5.20 34	8831 5.23 32	8270 5.24 31	7670 5.19 30	7006 5.06 30	6177 4.91 29	5083 4.57 29	2249 2.84 28	
	1200	11255 5.21 46	10860 5.30 43	10468 5.38 40	10043 5.45 37	9612 5.53 35	9137 5.57 33	8588 5.58 32	8012 5.55 31	7419 5.49 31	6623 5.24 30	5689 5.05 30	4418 4.47 29	

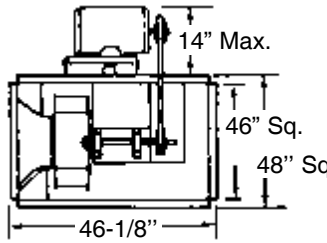
Performance certified is for installation type A - free inlet, free outlet.  
 Performance ratings (bhp) do not include transmission losses.  
 Performance ratings do not include the effects of accessories.

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.

# VIBK 30

## BELT DRIVE

### PERFORMANCE DATA



**DESIGN DATA**

Max BHP =  $8.10 \times \left[ \frac{\text{RPM}}{1000} \right]^3$

Average Weight = 335 Lbs.

Outlet Velocity (FPM) = .068 x CFM

Tip Speed = 8.12 x RPM

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.													
P1 (1/2)	RPM	.000	.250	.500	.750	1.000	1.250	1.500	1.750	2.000	2.250	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	
R1 (3/4)	275	4436 .13 5.8													
	300	4840 .17 6.9													
S1 (1)	325	5243 .22 8.2	2794 .26 6.1												
	350	5646 .27 9.6	3571 .34 6.4												
T1 (1-1/2)	375	6050 .34 11.1	4248 .42 7.2												
	400	6453 .41 11.9	4824 .50 8.3												
V1 (2)	425	6856 .49 12.7	5377 .60 9.4												
	450	7259 .58 13.6	5902 .70 10.4	3622 .68 9.9											
W1 (3)	475	7663 .68 14.4	6386 .81 11.5	4467 .84 10.4											
	500	8066 .80 15.3	6863 .93 12.5	5189 .99 11.0											
X1 (5)	525	8469 .92 16.4	7333 1.07 13.6	5866 1.15 11.8	3112 .97 12.6										
	550	8873 1.06 17.9	7797 1.22 15.2	6468 1.32 13.1	4397 1.29 13.2										
V1 (7-1/2)	575	9276 1.21 19.5	8257 1.38 16.7	7031 1.49 14.4	5247 1.53 13.9										
	600	9679 1.38 21	8712 1.55 18.3	7582 1.68 15.9	6013 1.77 14.7										
C1 (10)	625	10083 1.56 23	9156 1.74 20	8123 1.88 17.4	6700 2.01 15.7	4620 1.76 16.3									
	650	10486 1.75 25	9596 1.94 22	8611 2.09 19.2	7371 2.27 17.2	5588 2.09 17.0									
V1 (7-1/2)	675	10889 1.96 27	10034 2.16 24	9094 2.32 21	7954 2.53 18.7	6425 2.41 17.8	3808 1.94 18.4								
	700	11292 2.19 29	10468 2.39 26	9571 2.56 23	8516 2.79 20	7142 2.71 18.7	5223 2.49 19.3								
C1 (10)	725	11696 2.43 32	10901 2.64 28	10043 2.83 25	9070 3.08 22	7826 3.02 20	6189 2.90 20								
	750	12099 2.69 34	11332 2.91 30	10511 3.10 27	9616 3.39 24	8496 3.36 22	7029 3.29 21	4923 2.89 22							
V1 (7-1/2)	775	12502 2.97 35	11761 3.19 32	10975 3.40 29	10136 3.71 26	9083 3.69 24	7773 3.67 22	6106 3.47 23							
	800	12906 3.27 37	12189 3.50 33	11436 3.72 30	10623 4.04 27	9648 4.03 25	8462 4.06 23	6977 3.92 23	4606 3.27 25						
V1 (7-1/2)	825	13309 3.58 38	12615 3.82 34	11893 4.06 31	11105 4.40 29	10205 4.39 27	9138 4.47 25	7813 4.39 24	6027 4.04 25						
	850	13712 3.92 39	13040 4.16 36	12348 4.41 33	11582 4.77 30	10755 4.77 28	9779 4.89 26	8544 4.84 25	7056 4.64 26						
V1 (7-1/2)	875	14116 4.28 40	13463 4.53 37	12792 4.78 34	12056 5.17 32	11297 5.17 30	10349 5.30 28	9233 5.31 27	7903 5.17 26	6113 4.72 28					
	900	14519 4.65 41	13886 4.91 38	13233 5.18 36	12526 5.59 33	11804 5.59 31	10912 5.73 29	9910 5.80 28	8722 5.73 27	7245 5.47 28					
V1 (7-1/2)	925	14922 5.05 42	14307 5.32 40	13672 5.59 37	12993 6.04 35	12290 6.02 33	11468 6.18 31	10571 6.31 29	9420 6.25 28	8098 6.06 29	6338 5.53 31				
	950	15325 5.47 44	14728 5.74 41	14109 6.02 39	13457 6.50 36	12772 6.47 34	12017 6.66 32	11144 6.79 31	10106 6.80 30	8935 6.69 30	7516 6.40 31				
V1 (7-1/2)	975	15729 5.92 45	15148 6.19 43	14545 6.48 40	13918 7.00 38	13251 6.95 36	12560 7.16 34	11709 7.30 32	10782 7.37 31	9685 7.30 31	8383 7.06 33	6679 6.47 33			
	1000	16132 6.38 47	15567 6.67 44	14979 6.96 42	14376 7.51 39	13725 7.46 37	13075 7.68 35	12268 7.83 34	11438 7.97 33	10377 7.91 32	9223 7.76 32	7858 7.43 33	5559 6.26 35		

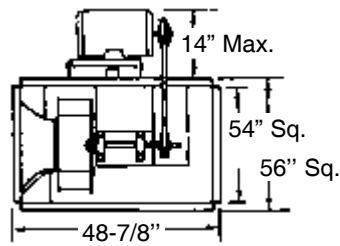
Performance certified is for installation type A - free inlet, free outlet.  
 Performance ratings (bhp) do not include transmission losses.  
 Performance ratings do not include the effects of accessories.

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.

# VIBK 36

## BELT DRIVE

### PERFORMANCE DATA



#### DESIGN DATA

$$\text{Max BHP} = 21.3 \times \left[ \frac{\text{RPM}}{1000} \right]^3$$

Average Weight = 450 Lbs.  
 Outlet Velocity (FPM) = .049 x CFM  
 Tip Speed = 9.62 x RPM

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.											
RI (3/4)	RPM	.000	.250	.375	.500	.625	.750	1.000	1.250	1.500	1.750	2.000	2.250
		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	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
S1 (1)	250	7141 .30 8.3	1999 .22 3.1										
	270	7713 .37 9.3	4261 .39 4.2										
T1 (1-1/2)	290	8284 .46 10.3	5629 .50 5.4										
	310	8855 .57 11.3	6615 .63 6.6	2755 .46 5.0									
V1 (2)	330	9426 .68 12.4	7552 .77 8.0	5141 .71 6.1									
	350	9998 .82 13.5	8287 .91 9.3	6633 .88 7.3									
W1 (3)	370	10569 .96 14.6	9006 1.07 10.7	7630 1.06 8.5	4637 .93 7.1								
	390	11140 1.13 15.8	9685 1.24 12.0	8597 1.26 9.9	6933 1.20 8.4	2731 .75 7.1							
X1 (5)	410	11712 1.31 16.9	10355 1.43 13.4	9466 1.47 11.4	7955 1.42 9.7	4725 1.22 8.4							
	430	12283 1.51 18.1	11010 1.64 14.8	10199 1.69 12.9	8946 1.66 11.1	7088 1.58 9.7	3218 1.06 8.4						
Y1 (7-1/2)	450	12854 1.73 19.3	11653 1.87 16.2	10920 1.92 14.5	9911 1.93 12.7	8469 1.87 11.2	5285 1.63 9.9						
	470	13426 1.97 20	12290 2.12 17.6	11603 2.17 16.0	10803 2.22 14.3	9473 2.16 12.7	7647 2.06 11.5						
C1 (10)	490	13997 2.24 22	12922 2.39 18.9	12277 2.45 17.5	11539 2.50 15.9	10451 2.48 14.3	9127 2.40 13.0	3183 1.38 10.5					
	510	14568 2.52 23	13548 2.69 20	12943 2.74 18.9	12264 2.80 17.4	11408 2.82 15.9	10136 2.75 14.6	4885 2.16 12.2					
	530	15139 2.83 24	14158 3.00 22	13593 3.06 20	12966 3.13 18.9	12246 3.18 17.5	11121 3.12 16.0	7375 2.86 13.7					
	550	15711 3.16 26	14765 3.34 23	14235 3.41 22	13645 3.47 20	12980 3.53 18.9	12085 3.53 17.6	9651 3.36 15.2	3736 2.03 13.1				
	570	16282 3.52 27	15370 3.70 24	14873 3.78 23	14316 3.85 23	13704 3.91 20	13022 3.96 19.1	10753 3.79 16.7	5436 3.01 14.7				
	590	16853 3.91 28	15972 4.09 26	15507 4.18 24	14982 4.25 23	14409 4.32 22	13762 4.37 21	11759 4.26 17.8	7949 3.92 16.2	2232 1.74 14.3			
	610	17425 4.32 30	16572 4.51 27	16137 4.60 26	15632 4.67 25	15089 4.75 23	14492 4.81 22	12744 4.75 19.6	10238 4.53 17.7	4705 3.11 15.9			
	630	17996 4.76 31	17170 4.96 29	16757 5.06 27	16275 5.13 26	15762 5.20 25	15214 5.28 24	13711 5.29 21	11651 5.10 19.2	6667 4.26 17.5			
	650	18567 5.22 32	17767 5.43 30	17367 5.53 29	16914 5.61 28	16431 5.69 27	15911 5.77 25	14661 5.86 23	12665 5.66 21	9135 5.29 19.1	4358 3.32 17.4		
	670	19139 5.72 34	18362 5.93 31	17974 6.04 30	17549 6.13 29	17089 6.20 28	16589 6.29 27	15475 6.41 25	13660 6.27 22	11415 6.03 21	5977 4.69 19.1		
	680	19424 5.98 34	18659 6.20 32	18277 6.30 31	17866 6.40 30	17412 6.48 29	16927 6.56 28	15844 6.69 25	14150 6.58 23	12242 6.38 21	7141 5.33 19.9	2323 2.54 18.3	
	690	19710 6.25 35	18956 6.47 33	18579 6.58 32	18181 6.68 31	17735 6.75 30	17263 6.84 28	16210 6.98 26	14637 6.91 24	12757 6.70 22	8400 5.97 21	4257 3.69 19.1	
	700	19996 6.52 36	19252 6.75 34	18881 6.86 33	18496 6.96 32	18056 7.04 30	17597 7.12 29	16575 7.27 27	15120 7.24 25	13266 7.03 23	9626 6.58 22	5078 4.44 20	
	710	20281 6.81 37	19549 7.03 35	19182 7.15 33	18811 7.26 32	18376 7.33 31	17931 7.42 30	16938 7.58 28	15599 7.58 26	13771 7.38 24	10777 7.00 22	5888 5.23 21	
	720	20567 7.10 37	19844 7.33 35	19483 7.44 34	19122 7.56 33	18696 7.64 32	18263 7.72 31	17229 7.89 29	16074 7.94 27	14272 7.73 25	11914 7.43 23	6749 6.02 22	
	730	20852 7.40 38	20140 7.63 36	19784 7.75 35	19427 7.86 34	19015 7.95 33	18592 8.03 32	17658 8.21 30	16546 8.31 27	14768 8.09 25	12991 7.87 24	8020 6.73 22	4202 4.18 21
	740	21138 7.71 39	20435 7.94 37	20084 8.06 36	19732 8.18 35	19333 8.27 34	18916 8.35 33	18011 8.53 30	16966 8.66 28	15261 8.46 26	13507 8.24 25	9275 7.47 23	5185 5.09 22
	750	21424 8.02 40	20730 8.26 38	20383 8.38 37	20037 8.50 36	19650 8.60 35	19239 8.68 33	18353 8.86 31	17336 9.00 29	15750 8.85 27	14020 8.63 25	10484 8.13 23	5997 5.96 22

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.

# VIBK 42

## BELT DRIVE

### PERFORMANCE DATA

**DESIGN DATA**

Max BHP =  $40.0 \times \left[ \frac{\text{RPM}}{1000} \right]^3$

Average Weight = 450 Lbs.

Outlet Velocity (FPM) = .049 x CFM

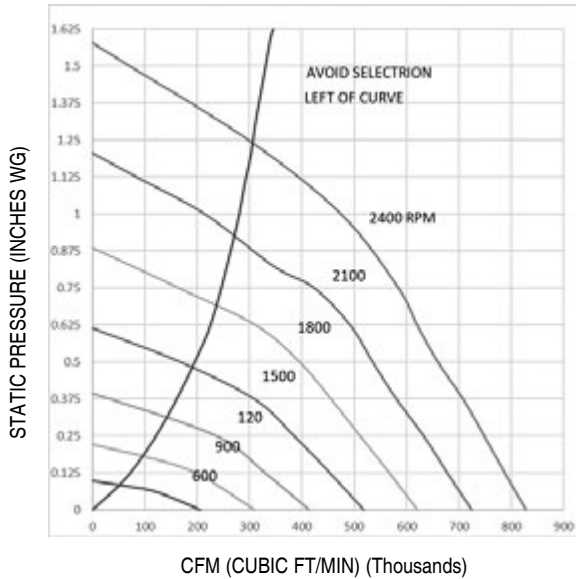
Tip Speed = 11.26 x RPM

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.											
S1 (1)	RPM	.000	.250	.375	.500	.625	.750	1.000	1.250	1.500	1.750	2.000	2.250
		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	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
T1 (1-1/2)	215	8935 0.38 6.4	1838 0.20 4.3										
	230	9559 0.46 7.1	4800 0.43 5.3										
	245	10182 0.56 7.9	6216 0.56 6.2										
	260	10806 0.67 8.6	7385 0.70 7.1										
	275	11429 0.79 9.3	8428 0.84 8.0	4989 0.68 7.0									
	290	12052 0.92 10.2	9425 1.00 8.9	6696 0.90 8.0									
	305	12676 1.07 11.0	10301 1.17 9.9	8003 1.09 9.0	2754 0.58 8.1								
	320	13299 1.24 12.0	11074 1.34 10.9	9164 1.30 10.1	6133 1.11 9.2								
	335	13923 1.42 13.2	11835 1.53 12.0	10200 1.51 11.1	7745 1.38 10.2	2092 0.64 9.4							
	350	14546 1.62 14.5	12586 1.75 13.3	11203 1.75 12.3	9069 1.65 11.4	5350 1.26 10.5							
W1 (3)	365	15169 1.84 15.8	13328 1.97 14.6	12170 2.00 13.6	10237 1.92 12.6	7722 1.73 11.7							
	380	15793 2.08 17.2	14062 2.22 16.1	12950 2.25 15.0	11315 2.20 14.0	9188 2.05 13.0	4417 1.31 12.1						
	395	16416 2.33 18.6	14769 2.49 17.6	13720 2.52 16.5	12328 2.50 15.4	10430 2.38 14.4	7975 2.15 13.4						
	410	17040 2.61 19.8	15453 2.77 18.7	14480 2.81 17.8	13321 2.82 16.7	11592 2.72 15.7	9458 2.53 14.8						
	425	17663 2.91 21	16132 3.07 19.8	15232 3.13 19.0	14238 3.16 18.0	12660 3.08 17.1	10818 2.93 16.1						
	440	18286 3.22 22	16808 3.40 21	15977 3.46 20	15016 3.50 19.3	13675 3.45 18.4	11995 3.32 17.4	5295 2.07 15.6					
	455	18910 3.57 23	17480 3.74 22	16715 3.82 22	15786 3.86 21	14671 3.85 19.7	13143 3.75 18.8	9043 3.26 17.0					
	470	19533 3.93 24	18149 4.11 23	17446 4.20 23	16547 4.24 22	15648 4.28 21	14171 4.17 20	10587 3.78 18.4					
	485	20157 4.32 25	18815 4.51 24	18145 4.60 24	17301 4.65 23	16430 4.69 22	15181 4.63 22	12033 4.32 19.9					
	500	20780 4.73 26	19479 4.93 26	18828 5.03 25	18049 5.09 25	17204 5.13 24	16174 5.11 23	13221 4.83 19.6	8791 4.03				
X1 (5)	515	21403 5.17 27	20140 5.37 27	19509 5.47 27	18790 5.55 26	17970 5.59 25	17149 5.63 24	14386 5.37 23	10803 4.83				
	530	22027 5.64 29	20799 5.84 28	20186 5.95 29	19526 6.04 27	18729 6.08 26	17931 6.12 26	15494 5.94 24	12278 5.48				
	545	22650 6.13 30	21457 6.34 29	20860 6.45 29	20257 6.55 29	19481 6.60 28	18706 6.64 27	16518 6.51 26	13673 6.15	9214 5.11			
	560	23274 6.65 31	22112 6.87 31	21531 6.98 30	20950 7.09 30	20228 7.14 30	19473 7.19 29	17527 7.12 27	14859 6.79	11420 6.15			
	575	23897 7.20 32	22766 7.42 32	22200 7.53 32	21634 7.65 32	20969 7.72 31	20234 7.77 30	18522 7.77 29	16023 7.47	12904 6.91	5867 4.18		
	590	24520 7.77 33	23418 8.01 33	22866 8.12 33	22315 8.24 33	21706 8.33 33	20989 8.38 32	19503 8.45 31	17146 8.18	14359 7.71	10156 6.55		
	605	25144 8.38 35	24069 8.62 35	23531 8.74 35	22993 8.86 35	22437 8.97 35	21739 9.02 34	20342 9.11 32	18174 8.89	15612 8.49	12348 7.76		
	620	25767 9.02 36	24718 9.26 36	24193 9.39 36	23669 9.51 37	23144 9.63 36	22483 9.69 36	21120 9.79 34	19188 9.64	16788 9.28	13833 8.64	7126 5.63	
	635	26391 9.69 38	25366 9.94 38	24854 10.07 38	24342 10.19 38	23829 10.31 38	23223 10.39 38	21892 10.50 36	20188 10.43	17946 10.11	15291 9.57	11508 8.40	
	650	27014 10.39 40	26013 10.65 40	25513 10.78 39	25012 10.90 40	24512 11.03 40	23958 11.13 40	22657 11.24 39	21176 11.26	19037 10.96	16588 10.49	13522 9.69	6330 5.87

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.

## VIBK 06 AIR PERFORMANCE



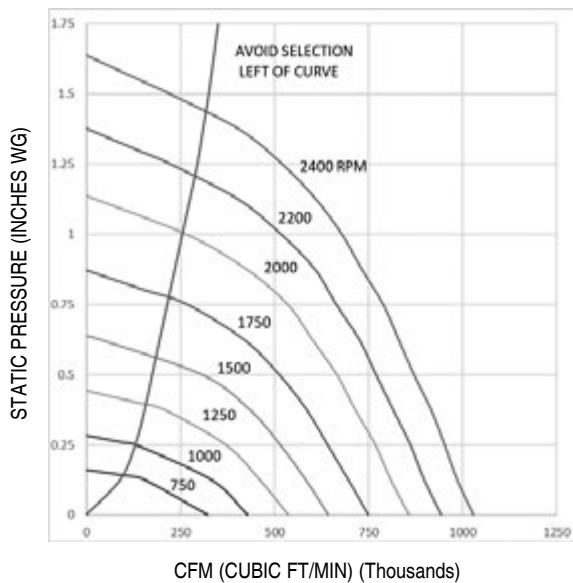
Performance certified is for installation type A - free inlet, free outlet.  
Performance ratings (bhp) do not include transmission losses.  
Performance ratings do not include the effects of accessories.

## VIBK 06 SOUND PERFORMANCE

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
600	.000	53	45	43	42	38	33	26	19	43
	.125	68	64	56	54	51	47	41	34	57
1000	.000	68	61	55	54	52	48	43	36	57
	.375	72	75	68	62	62	57	52	45	67
1400	.000	72	74	64	61	61	57	53	46	66
	.750	72	75	68	62	62	57	52	45	67
1800	.000	75	81	72	67	67	64	61	54	73
	.375	76	81	76	67	67	63	60	53	73
	.750	75	81	77	69	69	65	60	53	74
2100	.000	77	83	78	71	70	68	65	59	76
	.500	78	84	81	73	70	67	64	58	77
	1.000	77	83	82	74	72	69	64	58	78
2300	.000	79	85	82	74	72	71	67	62	79
	.500	80	85	84	76	71	70	66	61	80
	1.000	79	85	84	77	73	71	67	61	80
2500	.000	79	85	82	74	72	71	67	62	79
	.500	80	85	84	76	71	70	66	61	80
	1.000	79	85	84	77	73	71	67	61	80
	1.500	79	85	85	79	75	73	68	61	82

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

## VIBK 08 AIR PERFORMANCE



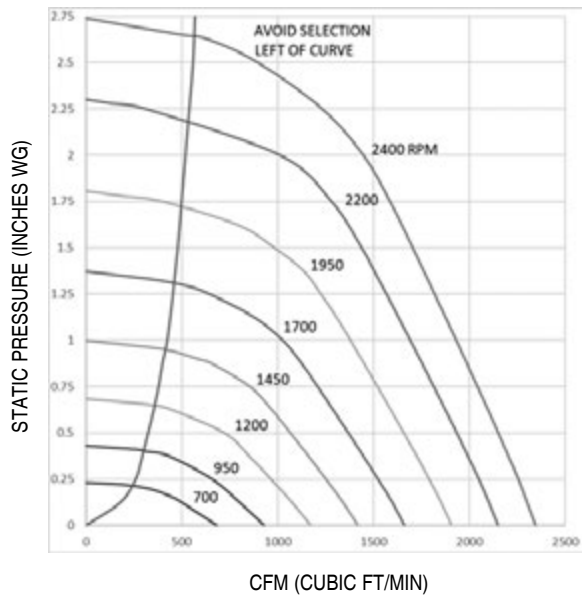
Performance certified is for installation type A - free inlet, free outlet.  
Performance ratings (bhp) do not include transmission losses.  
Performance ratings do not include the effects of accessories.

## VIBK 08 SOUND PERFORMANCE

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
650	.000	49	47	46	42	40	39	36	34	46
	.250	60	61	56	55	50	50	47	45	57
1050	.000	59	60	57	56	51	51	48	46	58
	.250	60	61	56	55	50	50	47	45	57
1450	.000	64	67	65	64	60	58	56	54	66
	.500	64	68	64	62	59	57	55	51	65
1800	.000	68	71	71	69	66	62	62	60	72
	.500	67	72	71	67	65	61	61	57	71
	.750	68	71	71	66	65	62	60	55	70
2100	.000	71	74	75	72	71	66	66	63	76
	.500	69	75	76	71	70	65	65	62	75
	1.000	71	74	76	70	69	65	64	60	74
2300	.000	72	75	77	74	74	68	68	66	78
	.750	70	76	78	73	72	67	67	64	77
	1.250	72	76	78	72	71	67	67	62	76
2500	.000	72	75	77	74	74	68	68	66	78
	.500	70	77	78	74	73	67	67	65	77
	1.000	71	76	78	72	72	67	67	63	77
	1.500	73	75	78	71	71	67	67	61	76

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

**VIBK 10**  
**AIR PERFORMANCE**



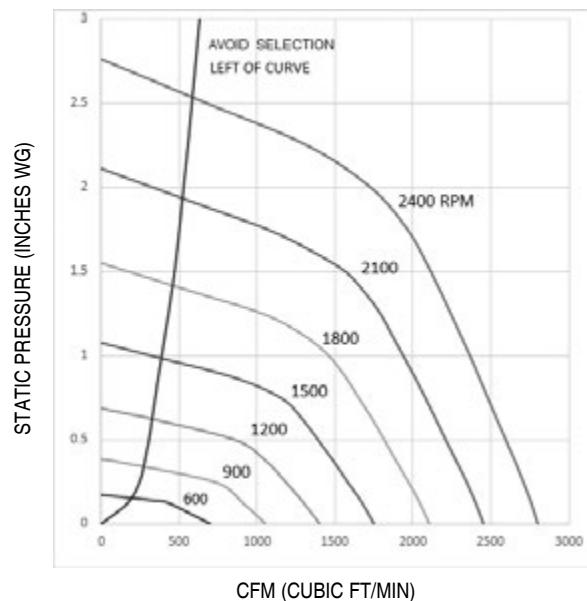
Performance certified is for installation type A - free inlet, free outlet.  
Performance ratings (bhp) do not include transmission losses.  
Performance ratings do not include the effects of accessories.

**VIBK 10**  
**SOUND PERFORMANCE**

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	LWA
650	.000	55	52	48	50	55	47	34	21	56
	.000	68	65	62	57	64	64	54	41	68
1050	.500	69	64	60	56	52	53	50	45	60
	.000	75	72	69	66	66	72	65	52	75
1400	.375	76	72	68	66	63	63	59	52	69
	.750	76	73	67	63	58	56	58	53	66
	.000	80	78	75	72	67	78	74	61	81
1750	.625	82	79	73	72	67	68	66	59	75
	1.250	82	79	73	69	65	59	63	59	72
	.000	85	83	80	77	72	79	79	69	84
2100	.500	86	84	78	77	72	75	72	65	81
	1.000	87	84	79	76	72	71	70	65	79
	2.000	87	84	79	74	69	63	65	64	77
	.000	85	83	80	77	72	79	79	69	84
2450	.500	86	84	78	77	72	75	72	65	81
	1.000	87	84	79	76	72	71	70	65	79
	2.000	87	84	79	74	69	63	65	64	77
	2.500	87	84	79	73	68	59	63	64	76

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

**VIBK 12**  
**AIR PERFORMANCE**



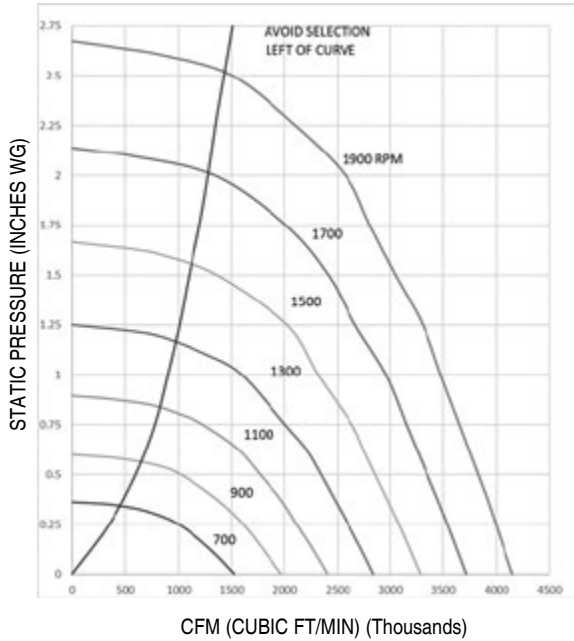
Performance certified is for installation type A - free inlet, free outlet.  
Performance ratings (bhp) do not include transmission losses.  
Performance ratings do not include the effects of accessories.

**VIBK 12**  
**SOUND PERFORMANCE**

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	LWA
600	.000	54	51	46	46	52	46	40	34	54
	.000	65	67	63	59	60	65	58	52	68
1000	.375	63	64	61	57	57	54	49	44	61
	.000	72	74	72	68	68	71	69	63	76
	.375	71	73	72	68	68	70	64	55	74
1400	.750	71	73	72	68	68	70	64	55	74
	.000	77	78	78	74	74	73	76	69	81
	.750	75	77	77	73	73	71	70	62	78
1750	1.250	74	75	75	71	71	68	64	60	75
	.000	81	81	83	79	79	75	81	75	85
	.500	80	81	82	80	80	75	80	72	84
2100	1.000	78	80	82	79	79	74	77	68	83
	2.000	78	78	79	76	76	72	67	64	79
	.000	84	84	86	83	83	77	84	79	88
2450	.500	83	84	86	83	83	77	84	77	88
	1.000	81	83	86	83	83	77	83	74	87
	2.000	81	82	83	81	81	76	75	70	84
	2.750	80	80	81	79	79	76	69	67	82

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

**VIBK 15**  
AIR PERFORMANCE



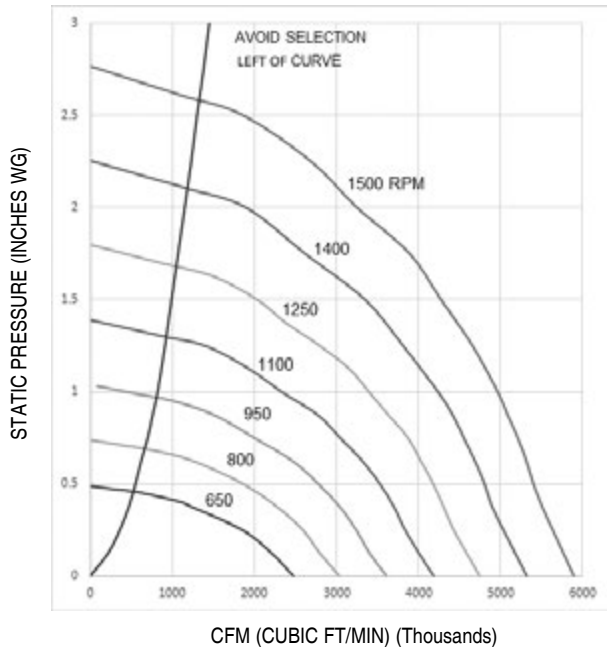
Performance certified is for installation type A - free inlet, free outlet.  
Performance ratings (bhp) do not include transmission losses.  
Performance ratings do not include the effects of accessories.

**VIBK 15**  
SOUND PERFORMANCE

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
550	.000	58	57	53	56	59	48	30	13	60
	.850	68	67	65	62	67	68	51	33	72
1150	.500	69	66	64	58	59	56	49	43	64
	.000	75	74	73	69	71	75	65	48	78
	.500	76	75	72	68	66	67	60	49	73
1450	.750	76	74	71	67	65	63	58	52	71
	.000	80	80	78	76	74	79	76	58	83
	1.000	80	80	78	75	71	71	67	59	78
1750	1.500	82	80	75	73	68	67	63	57	75
	.000	84	84	83	81	77	82	85	67	89
	1.000	84	85	83	81	72	76	78	65	84
	1.500	83	85	82	81	74	75	73	66	83
1950	2.000	85	85	80	79	73	73	69	64	81
	.000	84	84	83	81	77	82	85	67	89
	1.000	84	85	83	81	75	76	78	65	84
	2.000	85	85	80	79	73	73	69	64	81
1950	2.500	87	85	79	77	72	70	66	61	79
	2.750	77	85	78	77	71	69	64	60	78

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

**VIBK 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.

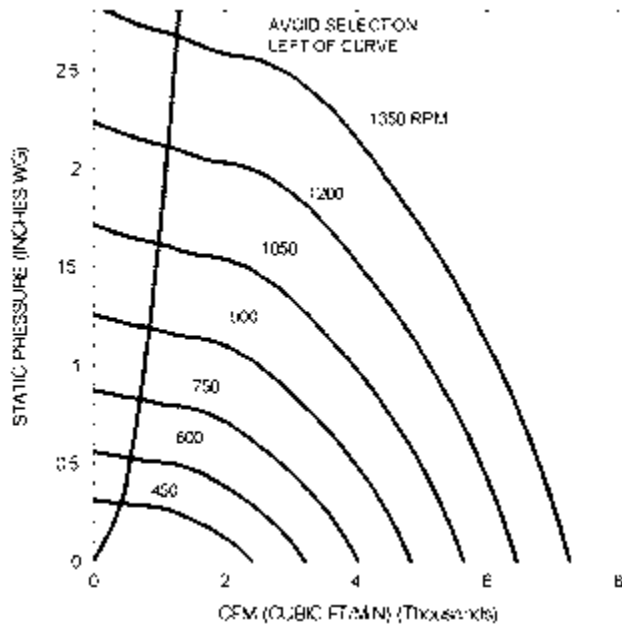
**VIBK 18**  
SOUND PERFORMANCE

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
550	.000	68	68	65	60	59	54	46	39	64
	.750	72	73	72	65	65	61	54	46	70
950	.625	74	71	69	62	61	57	51	46	66
	.000	78	78	77	73	70	68	61	54	76
	.500	77	78	75	70	67	64	59	53	73
1150	1.000	78	75	71	67	63	60	56	51	70
	.000	82	82	82	79	74	73	68	60	81
	.750	80	83	80	76	71	69	65	59	78
1350	1.250	81	82	77	74	68	67	63	57	76
	.000	85	85	86	84	77	78	73	65	85
	1.000	82	87	84	82	74	74	70	64	83
1500	1.500	83	87	82	80	73	72	68	63	81
	2.000	84	87	80	78	71	70	66	61	79
	.000	85	85	86	84	77	78	73	65	85
	1.000	82	87	84	82	74	74	70	64	83
1500	1.750	83	87	81	79	72	71	67	62	80
	2.000	84	87	80	78	71	70	66	61	79
	2.500	80	87	78	76	70	68	64	60	78

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.



**VIBK 21**  
AIR PERFORMANCE



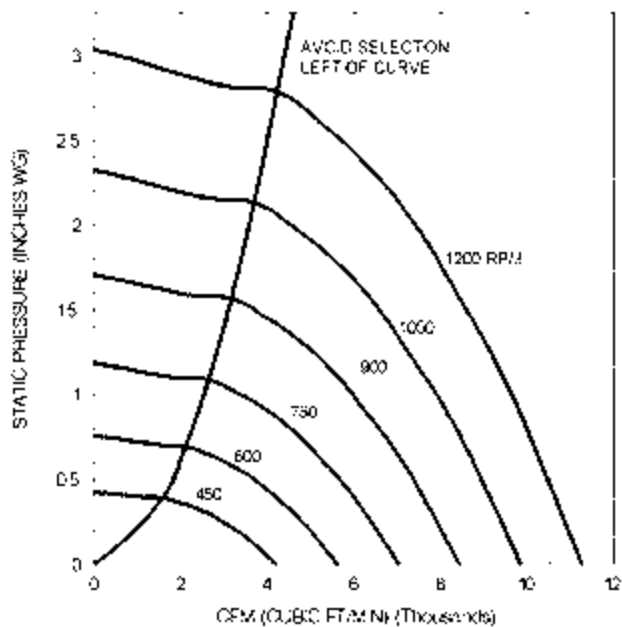
Performance certified is for installation type A - free inlet, free outlet.  
Performance ratings (bhp) do not include transmission losses.  
Performance ratings do not include the effects of accessories.

**VIBK 21**  
SOUND PERFORMANCE

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
400	.000	62	60	55	53	53	49	41	33	58
600	.000	70	71	67	62	62	61	54	46	68
	.500	73	70	65	62	62	57	50	43	67
750	.000	74	76	73	68	66	67	62	54	73
	.375	75	76	72	68	67	66	59	50	73
	.750	78	76	72	68	67	64	57	50	73
900	.000	78	79	78	73	70	71	68	60	78
	.500	78	80	77	73	70	72	65	57	78
	1.000	81	81	77	72	70	70	64	56	77
1075	.000	81	83	83	78	73	75	73	65	82
	.500	81	84	82	78	73	76	72	63	82
	1.000	81	85	82	78	73	77	71	63	82
	1.500	85	85	82	77	74	75	69	62	82
1250	.000	84	86	87	83	78	78	77	71	86
	.750	84	87	86	82	78	79	76	68	86
	1.250	84	88	86	82	77	80	75	68	86
	1.750	86	88	86	81	78	79	74	67	86
	2.250	90	89	86	82	78	78	73	66	86

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

**VIBK 24**  
AIR PERFORMANCE



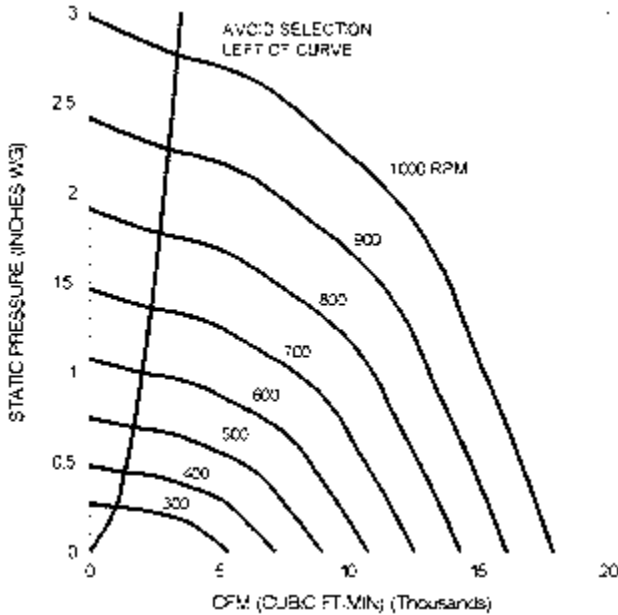
Performance certified is for installation type A - free inlet, free outlet.  
Performance ratings (bhp) do not include transmission losses.  
Performance ratings do not include the effects of accessories.

**VIBK 24**  
SOUND PERFORMANCE

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
400	.000	66	63	59	60	67	62	47	32	69
550	.000	75	73	68	66	72	73	61	46	76
	.500	73	71	66	64	64	61	55	49	68
675	.000	80	79	75	70	74	78	70	55	81
	.250	80	79	74	70	71	73	66	54	77
	.500	79	79	74	70	69	69	62	54	75
	.750	79	77	72	68	68	67	62	55	74
800	.000	85	84	80	74	75	82	77	62	86
	.375	84	85	80	74	74	77	72	61	82
	.625	83	85	80	73	73	74	68	60	80
	1.000	84	82	78	72	72	72	67	60	78
	1.250	84	81	78	71	72	71	67	61	78
925	.000	88	89	85	78	77	86	83	69	89
	.375	87	89	85	78	76	82	78	67	86
	.625	87	89	84	77	76	80	75	66	85
	1.000	87	88	84	77	75	77	72	65	83
	1.250	87	87	83	76	75	76	72	65	82
	1.500	88	86	83	75	75	75	71	65	82

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

**VIBK 30**  
AIR PERFORMANCE



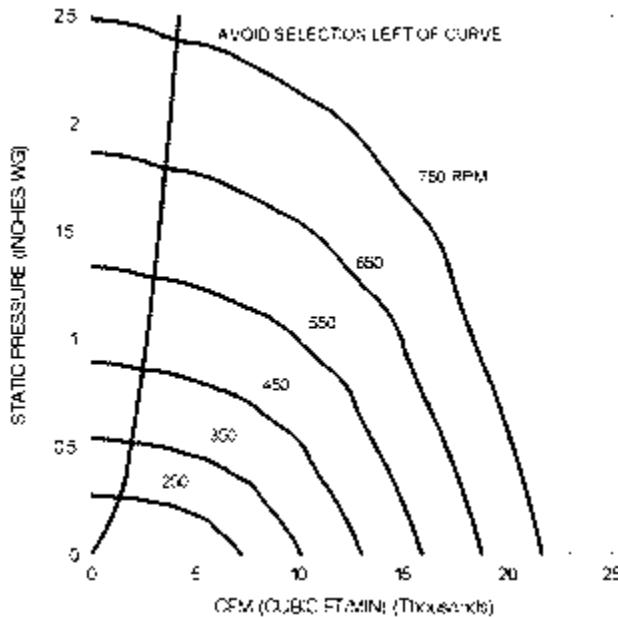
Performance certified is for installation type A - free inlet, free outlet.  
Performance ratings (bhp) do not include transmission losses.  
Performance ratings do not include the effects of accessories.

**VIBK 30**  
SOUND PERFORMANCE

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	LWA
275	.000	59	58	58	63	63	52	46	41	65
	.375	66	65	60	60	56	54	57	59	64
375	.000	67	67	64	65	76	62	56	50	76
	.375	66	65	60	60	56	54	57	59	64
	.750	66	65	60	60	56	54	57	59	64
475	.000	73	73	71	70	77	72	63	57	79
	.375	73	71	67	66	69	64	60	58	72
	.500	75	71	67	66	65	62	60	61	70
550	.000	77	77	75	73	78	78	67	61	82
	.375	75	75	72	70	73	72	64	60	77
	.750	82	75	72	68	67	64	63	65	73
625	.000	81	81	78	76	79	83	71	65	86
	.375	79	79	76	73	76	78	68	64	82
	.625	81	79	76	72	74	74	67	64	79
	1.000	88	79	76	71	70	67	66	68	76
700	.000	84	84	81	78	80	88	75	69	90
	.375	82	83	80	76	77	84	72	67	86
	.625	81	82	79	75	76	81	70	66	84
	1.000	88	82	79	74	74	75	69	69	80
	1.250	93	82	79	74	73	70	68	70	79

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

**VIBK 36**  
AIR PERFORMANCE



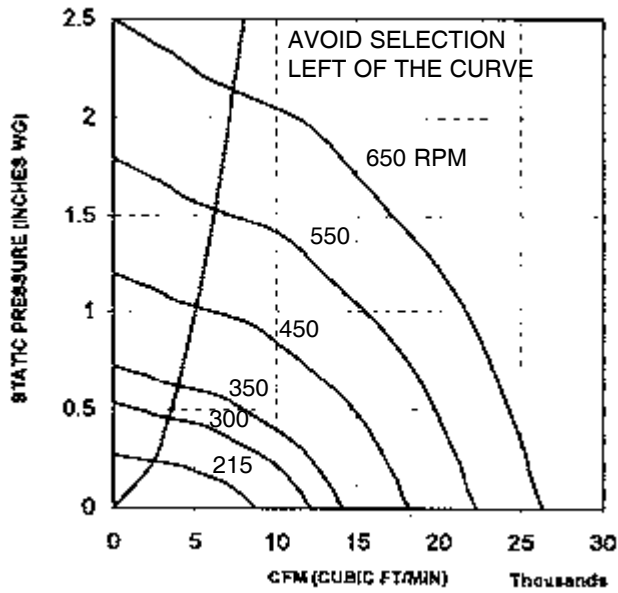
Performance certified is for installation type A - free inlet, free outlet.  
Performance ratings (bhp) do not include transmission losses.  
Performance ratings do not include the effects of accessories.

**VIBK 36**  
SOUND PERFORMANCE

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	LWA
250	.000	71	68	61	57	53	61	60	59	66
330	.000	77	75	69	64	60	64	66	65	71
	.375	72	68	65	61	56	52	47	41	63
450	.000	83	84	79	73	69	67	73	72	78
	.250	81	82	78	72	68	65	70	68	77
	.500	80	80	75	71	67	63	63	59	73
530	.000	86	88	84	77	73	69	76	76	82
	.375	84	86	82	76	72	68	73	71	81
	.750	83	84	80	75	71	67	66	62	77
610	.000	88	90	88	82	77	73	78	79	87
	.375	87	89	87	81	76	72	76	76	85
	.750	86	88	85	80	76	71	72	70	82
	1.000	86	87	84	79	75	71	69	66	81
710	.000	91	93	92	87	81	77	79	83	90
	.500	90	92	91	86	81	77	78	80	89
	.750	89	91	90	85	80	76	77	78	88
	1.250	89	90	88	84	79	75	73	71	86
	1.750	91	89	85	82	78	73	69	64	84

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

**VIBK 42**  
**AIR PERFORMANCE**



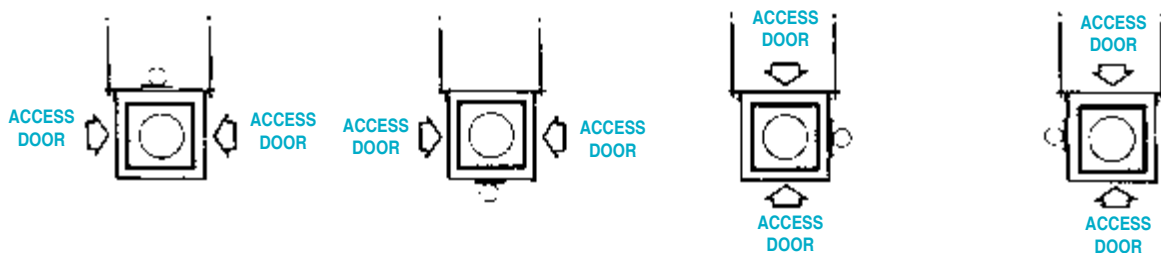
Performance certified is for installation type A - free inlet, free outlet.  
Performance ratings (bhp) do not include transmission losses.  
Performance ratings do not include the effects of accessories.

**VIBK 42**  
**SOUND PERFORMANCE**

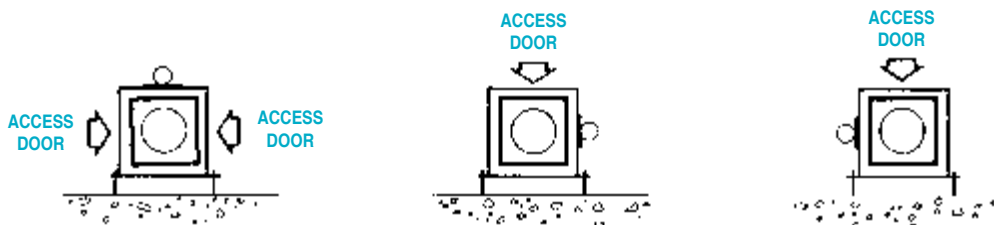
RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
215	.000	70	68	64	60	57	60	46	30	64
	.375	74	71	68	64	60	54	48	42	66
275	.000	82	79	76	72	68	67	66	50	75
	.250	82	77	74	71	67	66	63	51	74
	.500	79	76	73	70	65	61	54	48	72
335	.000	87	83	81	77	73	70	74	58	81
	.375	87	81	78	75	71	69	70	57	79
	.75	84	81	77	75	70	66	59	53	76
395	.000	92	88	85	82	77	74	77	65	85
	.375	93	87	84	81	77	74	75	65	84
	.750	91	85	81	79	76	73	72	63	82
	1.000	88	85	81	79	75	71	64	58	81
470	.000	98	94	91	88	84	80	80	76	91
	.500	100	94	90	87	83	80	79	74	90
	.750	99	93	88	85	82	79	78	73	88
	1.250	98	92	87	85	82	79	77	72	88
	1.750	94	91	88	85	81	77	72	65	88

The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Values shown are for inlet L<sub>wi</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

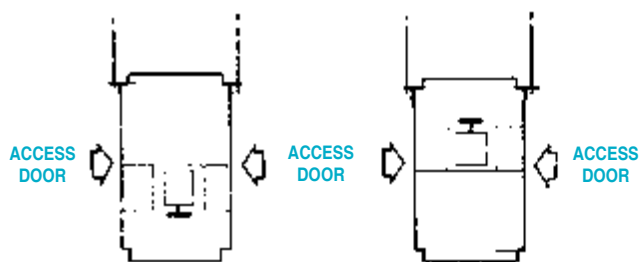
**HORIZONTAL CEILING SUSPENDED**



**FLOOR MOUNTED**

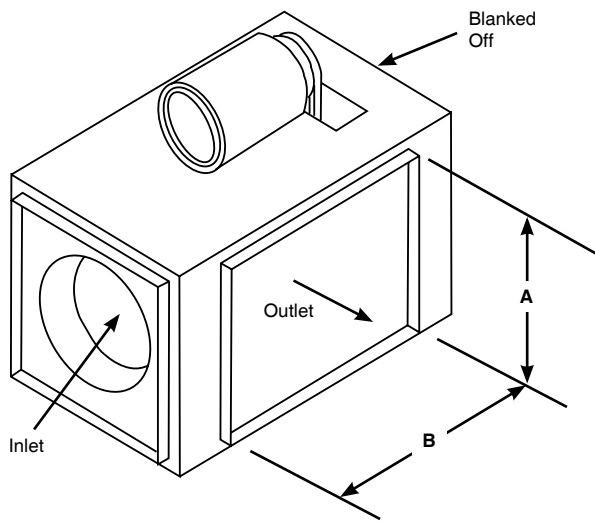


**VERTICAL CEILING SUSPENDED**

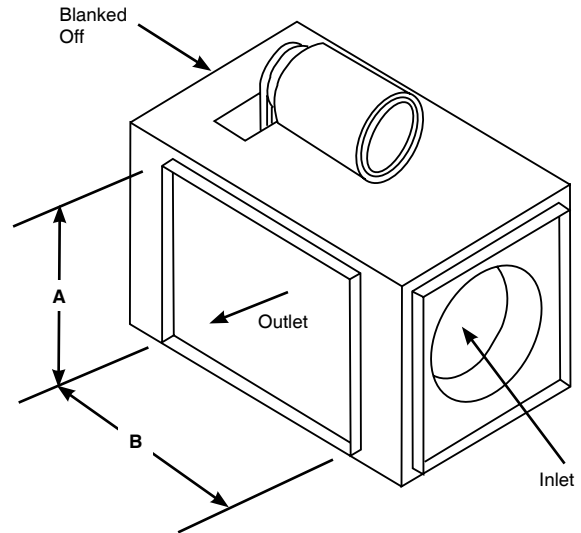


**WALL MOUNTED**





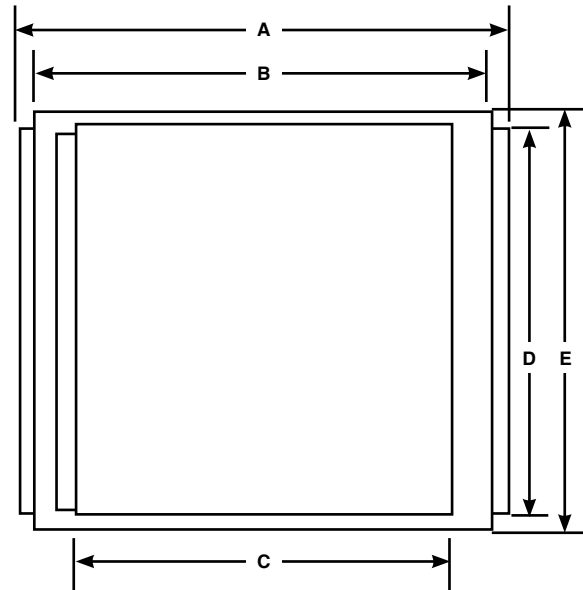
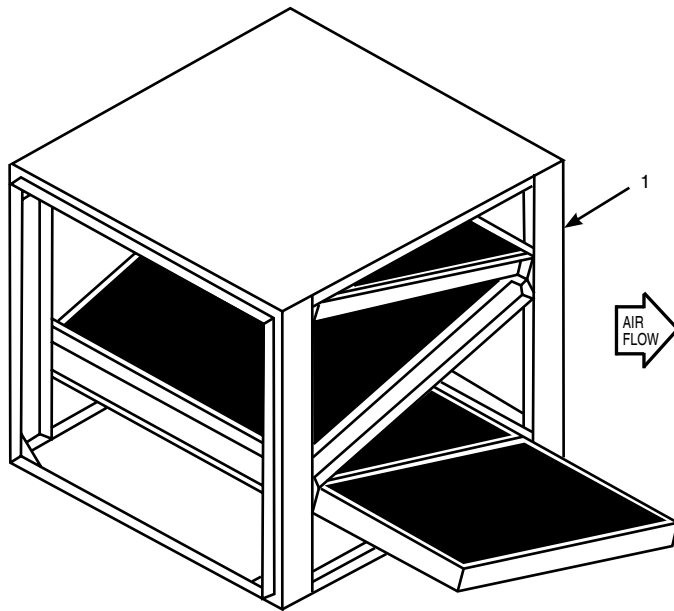
**RH Discharge**



**LH Discharge**

**NOTE:** Consult factory for side discharge.

Unit Size	A	B
06-08	12	21-5/8
10-12	16	25-1/8
15	22	27-7/8
18	26	29-1/8
21	29	26-3/8
24	38	29-5/8
30	46	33-1/8
36-42	54	33-5/8



Unit Size	Max. CFM	Filter Size	Filter Qty.	Filter Area	Max. Filler Face Vel.
6	900	12 x 24	1	2.00	450
8	1170	12 x 24	2	2.00	585
10	2200	16 x 25	2	5.56	396
12	2750	16 x 25	2	5.56	495
15	4150	24 x 24	2	8.00	519
18	5650	24 x 24	3	12.00	471
21	7150	12 x 24	3	15.00	477
		18 x 24	3		
24	10900	20 x 20	8	22.22	491
30	17200	16 x 25	12	33.33	518
36	21000	20 x 25	12	58.33	360
		16 x 25	6		
42	27000	20 x 25	12	58.33	463
		16 x 25	6		

DIMENSIONS LISTED IN INCHES (In Millimeters)					
Size	A	B	C	D	E
06/08	30-3/4	28-3/4	14	12	14
10/12	32-7/8	30-7/8	18	16	18
15	31-1/8	29-1/8	24	22	24
18	31-1/8	28-3/4	28	26	28
21	37-1/2	35-1/2	31	29	31
24	33-3/8	31-3/8	40	38	40
30	38	36	48	46	48
36/42	38-3/4	36-3/4	56	54	56

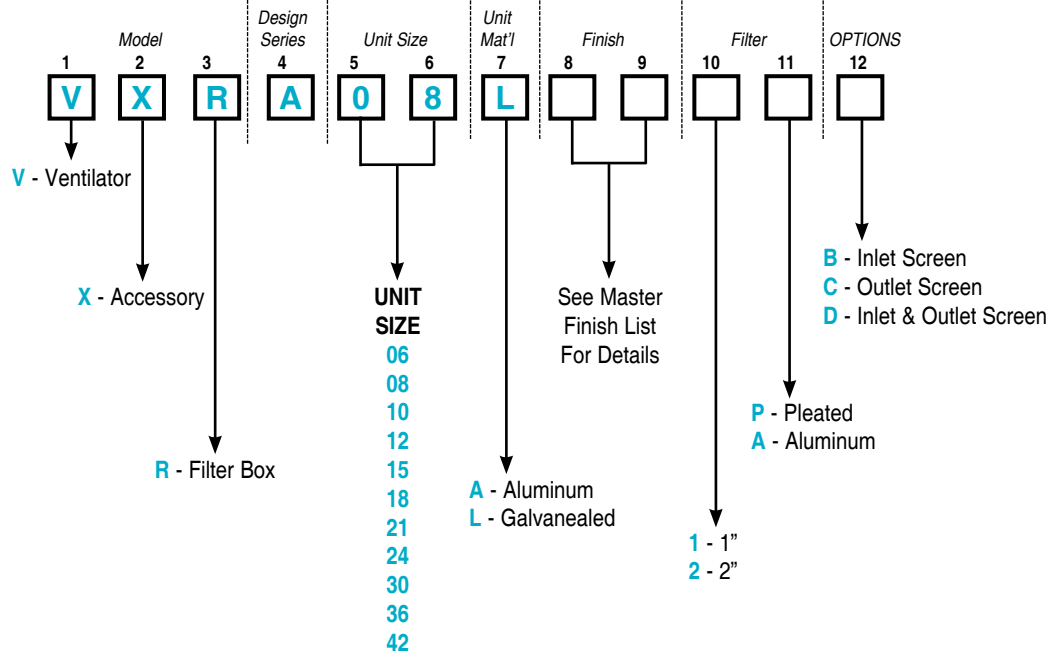
**STANDARD FEATURES**

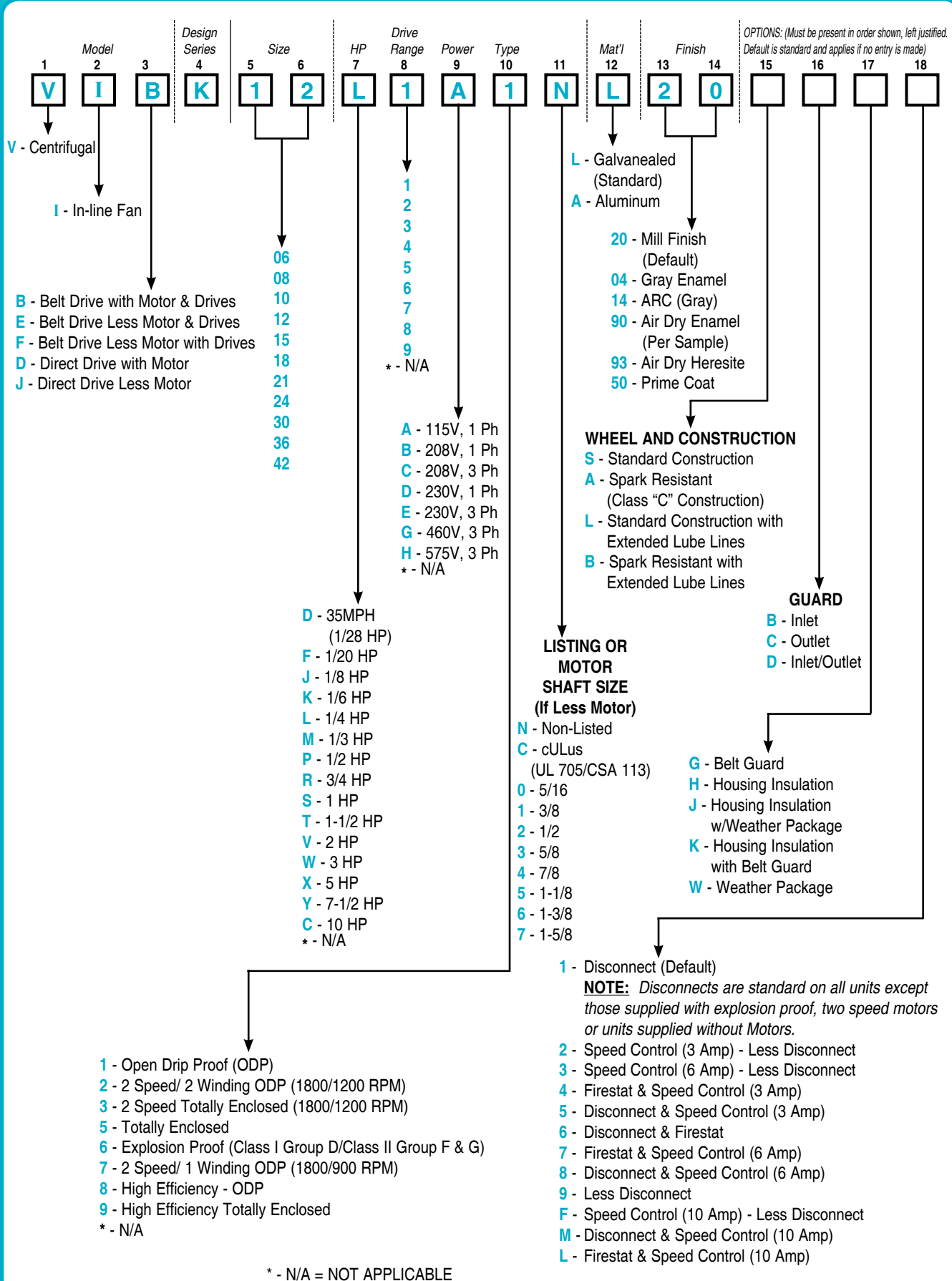
- Galvanealed construction (aluminum optional).
- Hinged dual access doors with 1/4 turn fasteners.
- Joining strips for attachment to VIBK/VIDK.

**FILTERS**

1. Aluminum 2"
2. Pleated 2"
3. No filter

▼ Filter Box

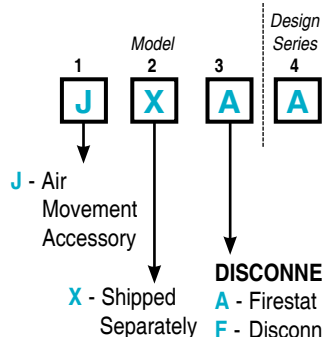




\* - N/A = NOT APPLICABLE



▼ Electrical Accessories



**DISCONNECT SWITCHES**

- A - Firestat
- F - Disconnect, 2 Pole, 1 Ph NEMA 3R
- H - Disconnect, 3 Pole, 3 Ph NEMA 3R
- J - Disconnect, 3 Pole, 3 Ph Explosion Proof
- K - Disconnect, 2 Pole, 1 Ph Explosion Proof
- L - Disconnect, 2 Pole, 1 Ph NEMA 1
- M - Disconnect, 3 Pole, 3 Ph NEMA 1
- N - Disconnect, 3 Pole, 3 Ph NEMA 1 with Locking Hasp
- P - Disconnect, 6 Pole, 40 AMP., for 2 Speed, 2 Winding Motors

**HI-LOW-OFF SWITCHES**

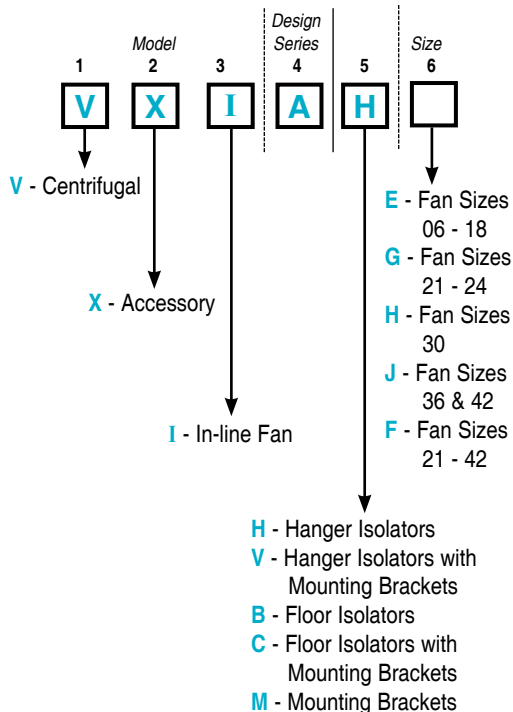
- R - 1 or 3 Ph to 1 HP, for 2 Speed, 2 Winding Motors
- S - 1 Ph to 1/2 HP, for 2 Speed, 2 Winding Motors
- T - 3 Ph to 2 HP, for 2 Speed, 2 Winding Motors

**SPEED CONTROLLERS**

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

**NOTE:** Disconnect switch (NEMA 1 - Mounted) is standard on all units except those with explosion proof motors, or units without motor. Units with two speed motors are fitted with two separate standard disconnects unless ordered otherwise.

▼ Mounting Accessories



- H - Hanger Isolators
- V - Hanger Isolators with Mounting Brackets
- B - Floor Isolators
- C - Floor Isolators with Mounting Brackets
- M - Mounting Brackets

▼ Dampers

