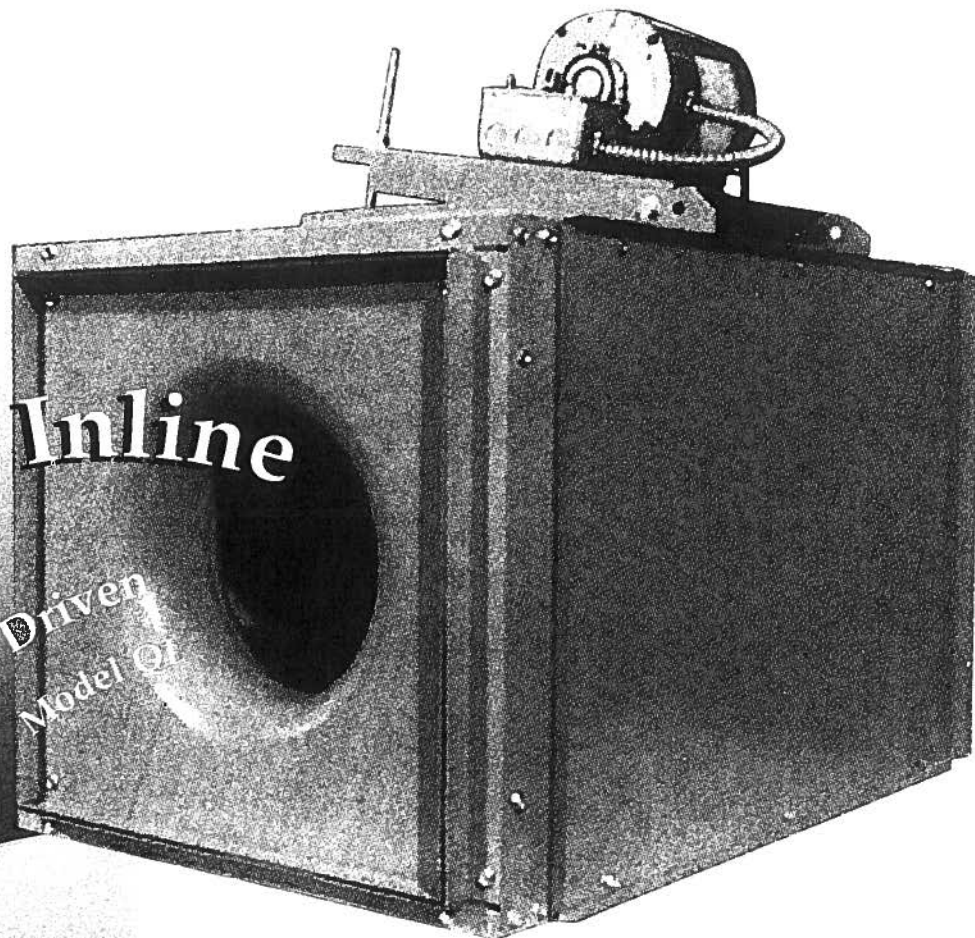


# Quietaire

C O R P O R A T I O N

Centrifugal  
Duct Fans  
Direct And Belt Driven  
Model QI



**Catalog QI107-C**  
November 2002

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## **INLINE CENTRIFUGAL DUCT FANS**

### **DESIGNED AND ENGINEERED TO MEET INDUSTRY NEEDS**

The Quietaire Corp. Centrifugal Inline Duct fans have been developed to efficiently handle the wide range of air flows and installations that are required in today's HVAC applications.

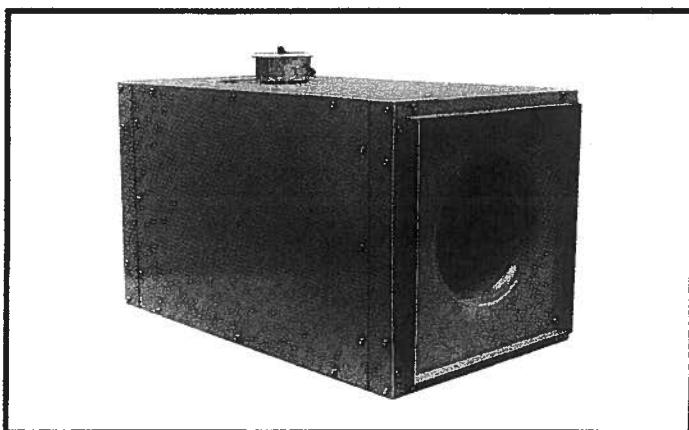
The compact square design of the QI Series fan provides maximum air moving capacity from a minimum possible space-unit and can be tucked away in unused areas. The K-Series inline fans feature universal mounting capabilities allowing the units to be installed horizontally, vertically or at an angle.

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

turbing 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 proved 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 Quietaire AMCA International Accredited Laboratory. Testing has also been conducted to ensure trouble-free start-up and to ensure product durability and dependability of operation.

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



#### **Model QIBK**

##### **Belt Driven - Sizes 06 through 36**

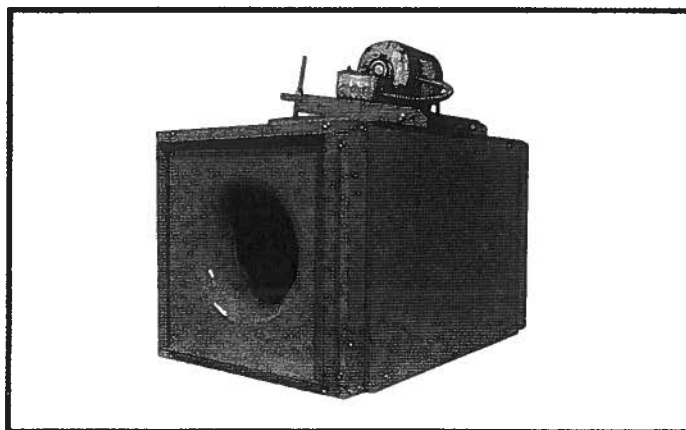
Air flow performance is from 100 to over 21,000 CFM with the QIBK belt drive inline duct fans. Ten sizes are available ranging from 06 to 36. The motor is located externally from the galvanized housing and the bearings and belt are in an enclosure for out of the airstream operation. Belt driven fans feature a wide range of performance and readily available motor selections. Maximum exhaust temperature for continuous operation is 200° F.

#### **Model QIDK**

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

Quietaire direct drive inline 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 contaminant's 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.



## TYPICAL SPECIFICATIONS

Centrifugal inline 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.

### QIBK BELT DRIVE SERIES

Motors shall be isolated from the exhaust airstream. The motor shall be mounted external to the cabinet and free from discharge contaminant's. Motors shall be of the heavy duty type with permanently lubricated, sealed ball bearings. Motors shall be readily accessible for maintenance. The wheel shaft shall be ground, polished, coated with a rust inhibitive finish and mounted in heavy duty, permanently sealed pillowblock ball bearings which are capable of 200,000 hours of life, average operation. The drives shall be sized at a minimum of 165% of driven horsepower. Drive belts shall be oil resistant, non-static and be capable to 25,000 hours of life, average operation. Sheaves shall be fully machined cast iron or pressed steel, keyed and securely attached to the shafts. Variable pitch motor shaves shall be standard.

### QIDK 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 contaminant's. 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 inline duct fans shall be Quietaire Corporation Model QIBK, belt drive, sizes 06 through 36, or Model QIDK, direct drive, sizes 06 through 18, as manufactured at Quietaire Corporation of Houston, Texas.

### AMCA LICENSED AIR and SOUND DATA

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

The Quietaire Corporation 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 & CSA OPTIONS

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



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



# **CONSTRUCTION**

## **FAN HOUSING**

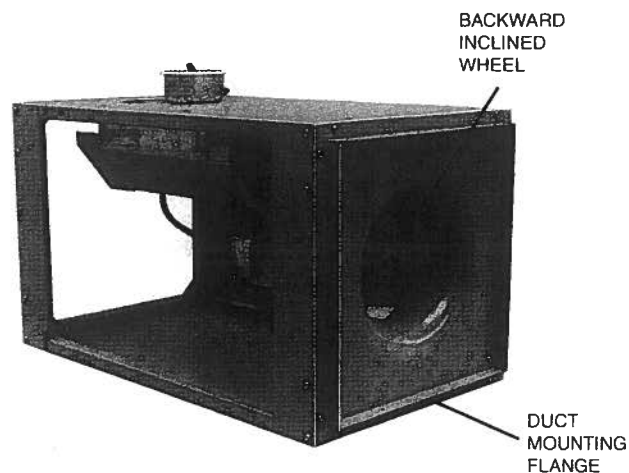
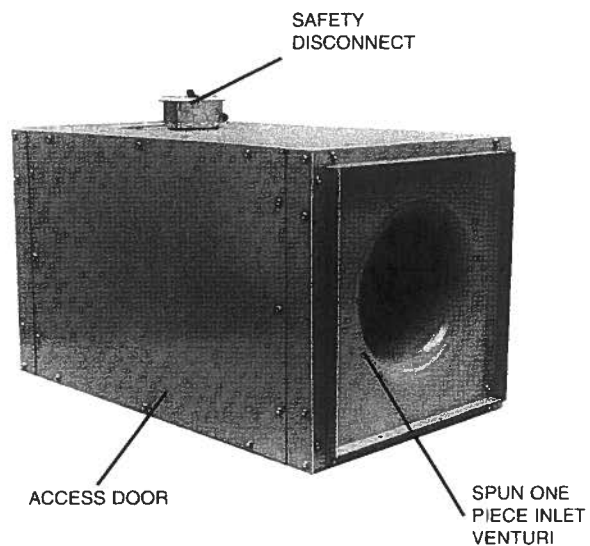
- Compact square design maximizes performance levels, minimizes installation space required
- Constructed of heavy gauge, coated corrosion resistant steel
- Dual side panels for access to unit interior
- Integral duct connections at fan inlet and discharge eliminates need for round to square transitions
- Duct connection flange 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
- Safety disconnect on belt, shipped loose on direct drive
- All motors mounted to units for ease of fan installation

## **MOTOR SUPPORT ASSEMBLY**

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



**Model QIDK**

# FEATURES

SAFETY  
DISCONNECT

MOTOR  
SUPPORT  
ASSEMBLY

ACCESS  
DOOR

BACKWARD  
INCLINED  
WHEEL

DUAL "J" BOLT  
MOTOR PLATE  
ADJUSTMENT

ONE  
PIECE  
SPUN  
VENTURI

HEAVY  
DUTY "X"  
STYLE  
BEARING  
SUPPORT  
(Sizes  
18-36)

DUCT  
MOUNTING  
FLANGE

OPTIONAL  
BELT  
GUARD

VENT  
TUBE

HEAVY  
DUTY "X"  
STYLE  
BEARING  
SUPPORT  
(Sizes  
18-36)

**Model QIBK**

## 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 18-36).

## 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

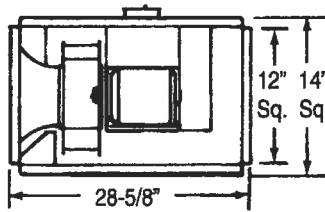
## WHEEL

- Backward inclined wheels constructed of non-corrosive or coated heavy gauge material
- 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 airflow
- Inlet venturi spun from heavy gauge noncorrosive material - Sizes 06 through 15 formed using galvanized steel and Sizes 18 through 36 produced from aluminum

# QIDK 06 DIRECT DRIVE



## DESIGN DATA

Tip Speed = 2.75 x RPM

Unit Weight = 60 Lbs.

Outlet Velocity (FPM) = 1.000 x CFM

## PERFORMANCE DATA

RPM Range - Motor HP			RPM	STATIC PRESSURE, INCHES W.G.								
F3+ 1/20	J2+ 1/8	.000 CFM BHP SONES		.125 CFM BHP SONES	.250 CFM BHP SONES	.375 CFM BHP SONES	.500 CFM BHP SONES	.625 CFM BHP SONES	.750 CFM BHP SONES	1.000 CFM BHP SONES	1.250 CFM BHP SONES	
SPEED CONTROLLABLE MOTORS			400	132 .01 .0								
			500	189 .01 .2								
			600	227 .01 1.1								
			700	265 .01 1.7								
			800	303 .01 2.3	163 .01 1.7							
			900	341 .02 2.9	226 .02 2.4							
			1000	379 .03 3.6	280 .03 3.0							
			1075 *	407 .03 4.1	316 .03 3.6	190 .03 3.6						
			1100	417 .03 4.3	328 .04 3.7	208 .04 3.8						
			1200	455 .05 5.0	373 .05 4.4	275 .05 4.4						
			1300	492 .06 5.8	418 .06 5.2	334 .06 5.1	217 .06 5.2					
			1400	530 .07 6.5	462 .07 6.0	388 .08 5.8	291 .08 5.9					
		1500	568 .09 7.3	504 .09 6.8	437 .09 6.5	357 .09 6.6	249 .09 6.6					
		1600 *	606 .11 8.2	547 .11 7.7	485 .11 7.3	413 .11 7.3	326 .11 7.4	179 .11 7.4				
ALL OTHER MOTORS			1140 *	432 .04 4.6	347 .04 4.0	237 .04 4.0						
		1725 *	653 .14 9.2	599 .14 8.8	541 .14 8.4	481 .14 8.3	407 .14 8.4	319 .14 8.4				

Performance shown is for installation type A - free inlet, free outlet.

Speed (RPM) is nominal. Performance is based on actual speed of test.

\* Base Unit - As run motor speeds.

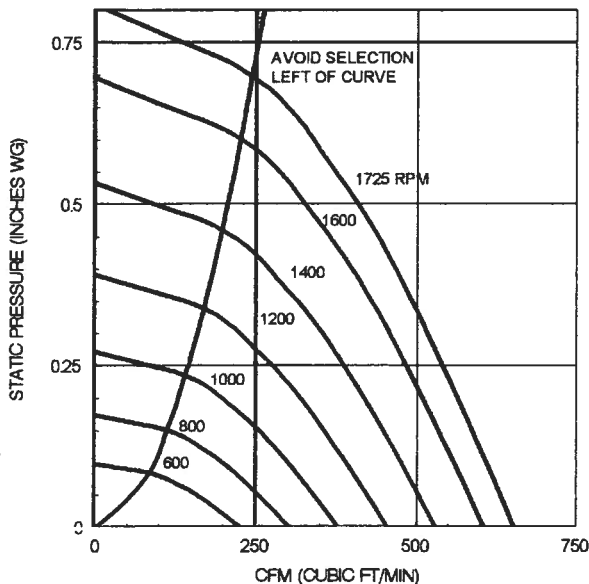
+ RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls.

Performance ratings do not include the effects of appurtenances in the airstream.

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 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 fan sone levels.

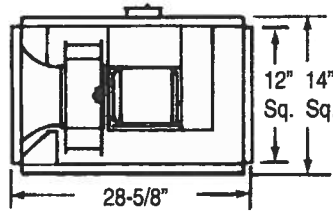
## QIDK 06 AIR PERFORMANCE



## QIDK 06 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								
		1	2	3	4	5	6	7	8	LWA
1075	.000	55	55	53	54	51	52	49	45	58
	.125	55	55	51	53	50	50	45	40	56
1600	.000	67	67	65	64	62	60	59	56	68
	.250	69	66	64	62	61	59	56	51	66
	.375	70	67	65	62	61	59	56	51	66
	.500	70	68	65	62	61	59	56	50	66
	.625	70	68	65	62	61	59	56	50	66

# QIDK 08 DIRECT DRIVE



**DESIGN DATA**  
 Tip Speed =  $2.75 \times \text{RPM}$   
 Unit Weight = 60 Lbs.  
 Outlet Velocity (FPM) =  $1.000 \times \text{CFM}$

## PERFORMANCE DATA

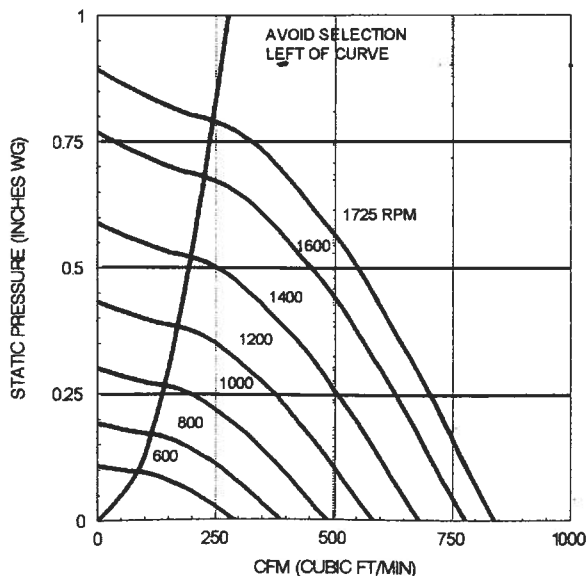
RPM Range - Motor HP			RPM	STATIC PRESSURE, INCHES W.G.								
F3+	J2+	.000		.125	.250	.375	.500	.625	.750	1.000	1.250	
1/20	1/8	CFM BHP SONES		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
SPEED CONTROLLABLE MOTORS			600	293 .01 1.3								
			675	329 .01 1.7								
			750	366 .01 2.2	183 .01 1.6							
			825	403 .02 2.7	248 .02 2.2							
			900	439 .02 3.2	302 .03 2.7							
			1000	488 .03 3.8	366 .03 3.5	193 .03 3.2						
			1075 *	525 .04 4.4	412 .04 4.1	271 .04 3.8						
			1175	573 .05 5.1	472 .05 4.8	358 .06 4.5	126 .05 4.4					
			1250	610 .06 5.7	515 .07 5.4	411 .07 5.1	266 .06 4.9					
			1325	647 .07 6.3	557 .08 6.0	462 .08 5.8	340 .08 5.5					
			1400	683 .09 6.9	598 .09 6.6	509 .09 6.4	406 .09 6.1	254 .09 5.9				
			1475	720 .10 7.5	638 .11 7.2	556 .11 7.0	466 .11 6.7	342 .11 6.5				
			1550	756 .12 8.1	678 .12 7.9	601 .13 7.7	517 .13 7.4	410 .13 7.2	253 .12 7.0			
			1600 *	781 .13 8.5	705 .13 8.3	631 .14 8.1	550 .14 7.8	455 .14 7.6	327 .14 7.4			
ALL OTHER MOTORS			1140 *	556 .05 4.8	451 .05 4.6	329 .05 4.2						
			1725 *	842 .16 9.6	771 .17 9.4	705 .17 9.2	630 .18 9.0	553 .18 8.8	452 .17 8.6	326 .17 8.4		

Performance shown is for installation type A - free inlet, free outlet.  
 Speed (RPM) is nominal. Performance is based on actual speed of test.  
 \* 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 appurtenances in the airstream.

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

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

## QIDK 08 AIR PERFORMANCE



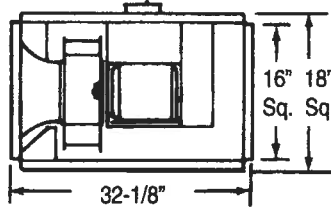
## QIDK 08 SOUND PERFORMANCE

		SOUND POWER RE $10^{-12}$ WATTS								
		OCTAVE BANDS								
RPM	SP	1	2	3	4	5	6	7	8	LWA
1075	.000	55	56	55	56	51	51	49	47	58
	.125	55	57	54	54	50	50	58	45	57
1600	.000	68	67	67	66	63	60	59	57	69
	.250	67	68	67	64	62	59	58	56	68
	.375	66	68	67	64	62	59	58	55	67
	.500	66	67	66	63	61	59	57	53	67
	.625	65	67	66	63	61	59	57	51	67



# QIDK 10

## BELT DRIVE



### DESIGN DATA

Tip Speed = 3.27 x RPM

Unit Weight = 75 Lbs.

Outlet Velocity (FPM) = .562 x CFM

## PERFORMANCE DATA

RPM Range - Motor HP					RPM	STATIC PRESSURE, INCHES W.G.							
F4+	J3+	M2+	P2+	.000		.125	.250	.375	.500	.625	.750	1.000	1.250
1/20	1/8	1/3	1/2	CFM BHP SONES		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
SPEED CONTROLLABLE MOTORS					550	514 .01 1.8	226 .01 1.0						
					700	655 .03 3.2	466 .03 2.1						
					800	748 .04 4.2	583 .05 3.0	369 .05 2.8					
					825 *	771 .05 4.5	611 .05 3.3	417 .05 3.1					
					900	842 .06 5.3	694 .07 4.1	544 .07 3.7					
					975	912 .08 6.1	776 .08 4.9	640 .09 4.4	442 .09 4.4				
					1050	982 .10 6.9	856 .10 5.8	732 .11 5.0	580 .11 5.0	247 .09 5.0			
					1075 *	1005 .11 7.1	882 .11 6.1	761 .12 5.3	621 .12 5.2	385 .11 5.2			
					1175	1099 .14 8.3	986 .14 7.3	874 .15 6.5	760 .15 6.1	606 .15 6.1	285 .13 6.1		
					1275	1192 .18 9.5	1088 .18 8.5	984 .19 7.7	884 .19 7.1	773 .20 7.0	603 .19 7.0		
					1375	1286 .22 10.8	1189 .23 9.8	1093 .23 9.0	998 .24 8.2	901 .25 8.0	781 .25 7.9	618 .24 7.9	
					1500 *	1403 .29 12.5	1314 .30 11.6	1226 .30 10.7	1138 .31 10.0	1053 .32 9.3	960 .32 9.2	845 .32 9.2	450 .29 9.3
					1575	1473 .34 13.6	1389 .34 12.6	1305 .35 11.8	1219 .35 11.0	1138 .36 10.3	1054 .37 10.0	964 .37 10.0	688 .36 10.1
					1625 *	1519 .37 14.4	1438 .38 13.4	1357 .38 12.6	1276 .39 11.8	1195 .40 11.0	1115 .40 10.6	1029 .41 10.6	786 .40 10.7
ALL OTHER MOTORS					1140 *	1066 .13 7.9	950 .13 6.9	835 .14 6.1	716 .14 5.8	538 .14 5.8			
					1725 *	1613 .44 15.9	1536 .45 14.9	1460 .45 14.1	1383 .46 13.2	1306 .47 12.6	1232 .48 11.9	1154 .48 11.7	964 .49 11.7

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

\* Base Unit - As run motor speeds.

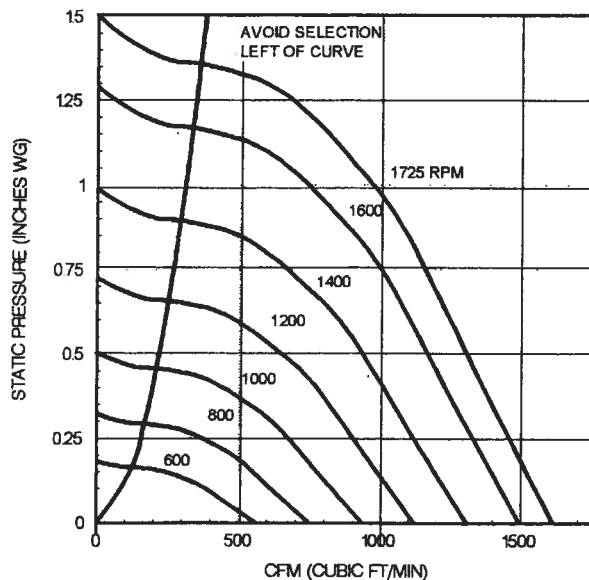
+ RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls.

Performance ratings do not include the effects of appurtenances in the airstream.

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>i sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

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

## QIDK 10 AIR PERFORMANCE



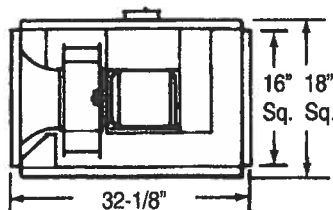
## QIDK 10 SOUND PERFORMANCE

RPM	SP	SOUND POWER RE 10 <sup>-12</sup> WATTS							
		OCTAVE BANDS							
		1	2	3	4	5	6	7	8
875	.000	51	58	57	55	61	56	45	34
	.125	52	57	55	52	55	51	43	36
1075	.000	56	62	64	58	66	63	53	42
	.250	58	61	62	56	57	56	49	43
	.500	61	62	60	55	55	55	49	42
1625	.000	73	69	75	72	70	74	68	57
	.500	73	70	74	70	66	67	63	56
	1.000	73	72	75	69	64	65	62	55
									LWA
									63
									58
									69
									62
									61
									78
									73
									72



# QIDK 12

## BELT DRIVE



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

### PERFORMANCE DATA

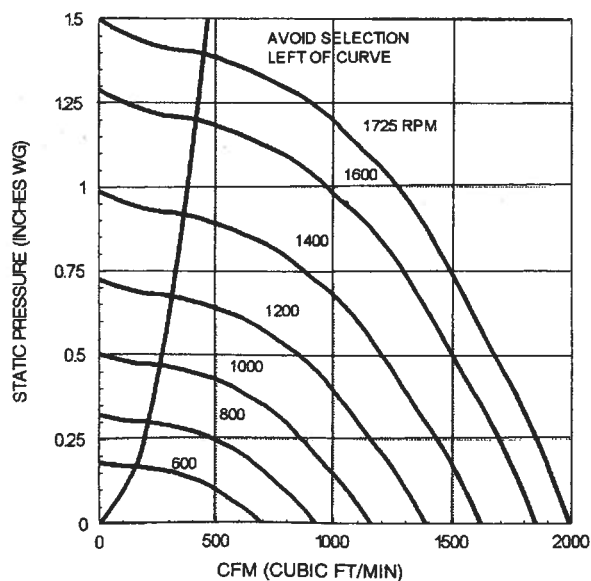
RPM Range - Motor HP					RPM	STATIC PRESSURE, INCHES W.G.							
F4+	J3+	M2+	P2+	.000		.125	.250	.375	.500	.625	.750	1.000	1.250
1/20	1/8	1/3	1/2	CFM BHP SONES		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
SPEED CONTROLLABLE MOTORS					550	636 .01 2.3	300 .01 1.1						
					700	809 .03 3.6	601 .03 2.5						
					800	925 .04 4.7	748 .05 3.6	484 .05 3.1					
					825 *	953 .05 5.0	784 .05 3.9	547 .05 3.3					
					900	1040 .06 6.0	888 .07 4.9	700 .07 4.2	273 .05 3.8				
					975	1127 .08 7.2	990 .09 5.9	826 .09 5.1	580 .08 4.6				
					1050	1213 .10 8.2	1090 .11 7.0	939 .11 6.0	762 .11 5.5	383 .09 5.2			
					1075 *	1242 .11 8.5	1123 .11 7.3	976 .12 6.3	810 .12 5.8	503 .11 5.4			
					1175	1358 .14 9.7	1251 .15 8.6	1121 .15 7.6	980 .16 7.0	793 .15 6.6	434 .13 6.3		
					1275	1473 .18 11.0	1375 .19 9.9	1259 .19 9.0	1134 .20 8.3	994 .20 7.8	792 .19 7.5	402 .15 7.3	
					1375	1589 .22 12.2	1498 .23 11.3	1395 .24 10.5	1280 .25 9.7	1162 .25 9.1	1024 .25 8.8	810 .24 8.5	
					1500 *	1733 .29 13.9	1649 .30 13.0	1562 .31 12.2	1456 .32 11.5	1350 .32 10.8	1237 .33 10.4	1112 .33 10.0	621 .27 9.5
					1575	1820 .33 15.3	1740 .35 14.3	1663 .36 13.5	1560 .37 12.7	1459 .37 12.0	1358 .38 11.5	1240 .38 11.2	902 .35 10.9
ALL OTHER MOTORS					1625 *	1878 .37 16.2	1800 .38 15.3	1724 .39 14.4	1629 .40 13.6	1531 .41 12.9	1433 .41 12.3	1325 .42 11.9	1034 .40 11.7
					1140 *	1317 .13 9.3	1209 .14 8.1	1070 .14 7.2	921 .14 6.6	708 .14 6.2			
					1725 *	1993 .44 18.2	1920 .45 17.3	1848 .47 16.4	1764 .48 15.6	1672 .48 14.8	1580 .49 14.0	1487 .50 13.6	1268 .49 12.9

Performance shown is for installation type A - free inlet, free outlet.  
 Speed (RPM) is nominal. Performance is based on actual speed of test.  
 \* 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 appurtenances in the airstream.

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 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 fan sone levels.

### QIDK 12 AIR PERFORMANCE

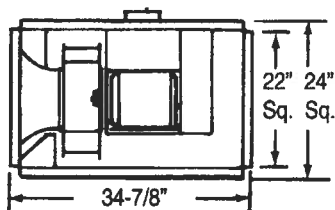


### QIDK 12 SOUND PERFORMANCE

		SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								
RPM	SP	1	2	3	4	5	6	7	8	LWA
825	.000	55	60	58	55	59	58	44	31	63
	.125	55	58	55	52	55	52	42	32	58
1075	.000	62	65	66	61	63	67	55	42	70
	.250	62	62	63	58	60	60	51	42	65
	.500	64	64	62	56	56	55	49	44	61
1625	.000	78	75	79	75	71	74	72	59	79
	.500	77	74	76	72	68	69	67	57	76
	1.000	76	75	76	70	66	66	63	56	74

# QIDK 15 DIRECT DRIVE

## PERFORMANCE DATA



### DESIGN DATA

Tip Speed =  $4.06 \times \text{RPM}$   
Unit Weight = 90 Lbs.  
Outlet Velocity (FPM) =  $.298 \times \text{CFM}$

RPM Range - Motor HP			RPM	STATIC PRESSURE, INCHES W.G.								
K4+ 1/6	M3+ 1/3	.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	975 .02 2.0	567 .02 1.1							
			500	1084 .03 2.5	752 .03 1.7							
			550	1192 .04 3.1	906 .05 2.3							
			600	1300 .05 3.7	1050 .06 3.0	621 .06 2.5						
			650	1409 .06 4.4	1180 .07 3.7	859 .07 3.1						
			700	1517 .08 5.1	1308 .09 4.4	1039 .09 3.8						
			750	1625 .10 5.8	1433 .11 5.1	1198 .12 4.6	853 .11 4.0					
			800	1734 .12 6.5	1556 .13 5.9	1347 .14 5.3	1067 .14 4.8					
			825 *	1788 .13 6.9	1617 .14 6.3	1420 .15 5.7	1157 .15 5.2	680 .13 4.9				
			875	1896 .16 7.7	1735 .17 7.0	1554 .18 6.5	1333 .18 6.0	1025 .18 5.4				
			925	2005 .18 8.4	1852 .20 7.8	1684 .21 7.3	1486 .22 6.7	1236 .22 6.2	819 .19 6.0			
			975	2113 .22 9.2	1968 .23 8.6	1811 .24 8.1	1635 .25 7.5	1416 .25 7.0	1131 .25 6.6			
		1025	2221 .25 10.0	2084 .27 9.4	1937 .28 8.9	1781 .29 8.4	1585 .30 7.8	1349 .29 7.4	978 .27 7.2			
		1075 *	2330 .29 10.8	2198 .30 10.2	2062 .32 9.7	1912 .33 9.2	1737 .34 8.7	1530 .34 8.2	1270 .33 7.8			
ALL OTHER MOTORS			1140 *	2471 .34 11.9	2347 .36 11.4	2222 .38 10.8	2080 .39 10.4	1930 .40 9.9	1753 .41 9.4	1540 .40 9.0		

Performance shown is for installation type A - free inlet, free outlet.

Speed (RPM) is nominal. Performance is based on actual speed of test.

\* Base Unit - As run motor speeds.

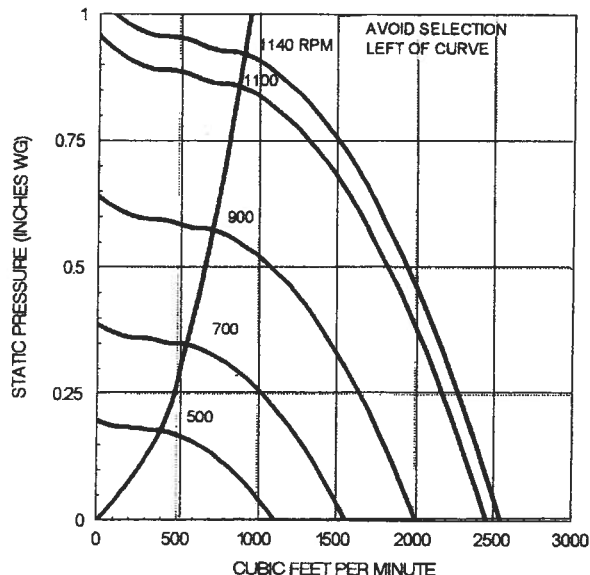
+ RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls.

Performance ratings do not include the effects of appurtenances in the airstream.

The sound power level ratings shown are in decibels, referred to  $10^{-12}$  watts calculated per AMCA Standard 301. Values shown are for inlet  $L_{w1}$  sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

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

## QIDK 15 AIR PERFORMANCE



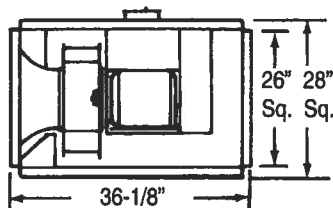
## QIDK 15 SOUND PERFORMANCE

RPM		SOUND POWER RE $10^{-12}$ WATTS									
		OCTAVE BANDS									
		SP	1	2	3	4	5	6	7	8	LWA
825	.000	66	64	64	64	64	64	57	50	43	67
	.125	65	65	64	63	61	55	49	42	65	
	.250	65	65	63	60	59	53	47	41	63	
	.500	64	63	60	56	56	52	47	42	60	
1075	.000	75	72	71	71	70	65	58	51	74	
	.250	74	72	71	69	68	63	57	50	72	
	.500	73	72	70	67	65	61	55	49	70	
	.750	73	71	70	64	62	59	55	49	67	

# QIDK 18

## DIRECT DRIVE

### PERFORMANCE DATA



**DESIGN DATA**  
 Tip Speed =  $4.94 \times \text{RPM}$   
 Unit Weight = 140 Lbs.  
 Outlet Velocity (FPM) =  $.213 \times \text{CFM}$

RPM Range - Motor HP			RPM	STATIC PRESSURE, INCHES W.G.								
M4+	R3+	.000		.125	.250	.375	.500	.625	.750	1.000	1.250	
13	34	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			600	2216 .16 7.0	1907 .17 5.7	1478 .16 5.1	673 .13 4.9					
			650	2400 .20 7.9	2120 .21 6.8	1766 .21 6.1	1238 .19 5.7					
			700	2585 .25 9.0	2330 .26 7.9	2017 .27 7.1	1598 .25 6.7	888 .21 6.5				
			750	2770 .31 10.2	2536 .32 9.1	2261 .33 8.1	1899 .32 7.7	1425 .29 7.3	380 .19 7.3			
			800	2954 .37 11.5	2736 .39 10.3	2486 .40 9.3	2183 .39 8.8	1789 .37 8.4	1221 .34 8.2			
			825*	3047 .41 12.2	2835 .43 11.0	2595 .43 10.0	2309 .43 9.3	1949 .42 9.0	1474 .39 8.6	473 .27 8.6		
			875	3231 .49 13.5	3031 .51 12.3	2810 .52 11.3	2558 .52 10.5	2246 .51 10.1	1866 .49 9.7	1322 .44 9.5		
			925	3416 .58 14.9	3227 .60 13.7	3022 .61 12.6	2800 .61 11.7	2527 .61 11.2	2195 .60 10.8	1801 .55 10.5		
			975	3601 .68 16.2	3421 .70 15.1	3232 .71 14.0	3023 .72 13.0	2779 .72 12.4	2491 .71 12.0	2158 .66 11.7	1024 .55 11.3	
			1025	3785 .79 17.7	3614 .81 16.5	3440 .82 15.4	3241 .83 14.4	3025 .84 13.6	2778 .83 13.3	2475 .81 12.9	1694 .72 12.3	
ALL OTHER MOTORS			1075 *	3970 .91 19.1	3807 .93 17.9	3645 .95 16.9	3456 .96 15.9	3266 .97 14.9	3031 .96 14.5	2770 .95 14.1	2137 .89 13.4	778 .63 13.3
			1140 *	4210 1.08 21	4056 1.11 19.5	3904 1.13 18.5	3732 1.14 17.6	3553 1.15 16.8	3353 1.15 16.0	3131 1.14 15.7	2588 1.07 15.0	1826 .99 14.5

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

\* Base Unit - As run motor speeds.

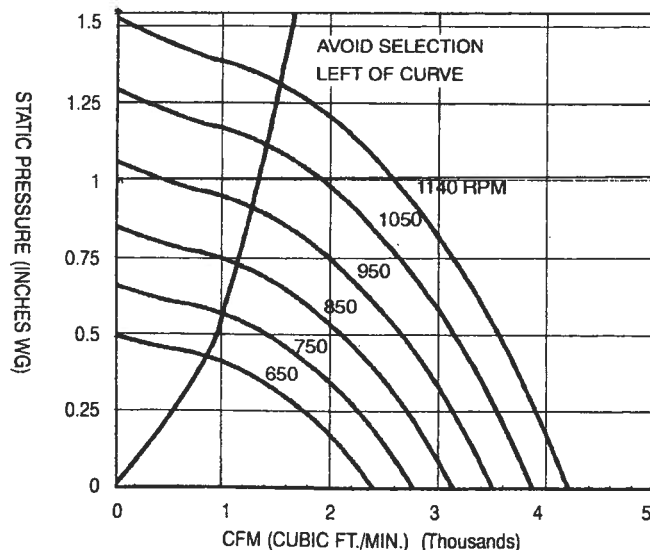
+ RPM range capable with solid state speed control. AMCA Seal for sound rating does not apply to units with speed controls.

Performance ratings do not include the effects of appurtenances in the airstream.

The sound power level ratings shown are in decibels, referred to  $10^{-12}$  watts calculated per AMCA Standard 301. Values shown are for inlet  $L_{w1}$  sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

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

### QIBK 18 AIR PERFORMANCE



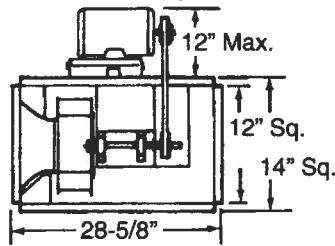
\*NOTE: R3 motors are specifically designed to operate through the above performance range. The motor will not be damaged or harmed at the higher BHP values.

### QIBK 18 SOUND PERFORMANCE

RPM		SOUND POWER RE $10^{-12}$ WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
825	.000	71	78	70	68	68	71	62	51	75
	.125	71	77	70	68	67	68	61	51	73
	.250	70	76	69	67	65	65	59	51	71
	.500	69	75	68	66	63	63	58	50	70
	.750	69	74	68	65	63	62	57	49	69
1075	.000	74	83	77	76	71	79	72	61	82
	.250	75	82	76	75	71	75	70	60	80
	.500	76	81	76	75	70	72	67	59	78
	.750	75	80	75	74	69	71	67	59	77
	1.00	75	79	75	73	68	70	66	58	76

# QIBK 06

## BELT DRIVE



### 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

### PERFORMANCE DATA

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	
K2 (1/6)	600	227 .01 1.1												
	700	265 .01 1.7												
K3 (1/6)	800	303 .01 2.3	163 .01 1.7											
	900	341 .02 2.9	226 .02 2.4											
K4 (1/6)	1000	379 .03 3.6	280 .03 3.0											
	1100	417 .04 4.3	328 .04 3.7	208 .04 3.7										
K5 (1/6)	1200	455 .05 5.0	373 .05 4.4	275 .05 4.4										
	1300	492 .06 5.8	418 .06 5.2	334 .06 5.1	217 .06 5.2									
L1 (1/4)	1400	530 .07 6.5	462 .07 6.0	388 .08 5.8	291 .08 5.8									
	1500	568 .09 7.3	504 .09 6.8	437 .09 6.5	357 .09 6.5	249 .09 6.6								
M1 (1/3)	1550	587 .10 7.7	526 .10 7.2	461 .10 6.9	386 .10 6.9	291 .10 7.0								
	1600	606 .11 8.1	547 .11 7.7	485 .11 7.3	413 .11 7.3	326 .11 7.4	179 .11 7.4							
P1 (1/2)	1650	625 .12 8.6	568 .12 8.1	508 .12 7.7	440 .13 7.7	359 .12 7.7	249 .12 7.8							
	1700	644 .13 9.0	588 .13 8.6	529 .13 8.1	467 .14 8.1	391 .14 8.1	301 .13 8.2							
	1750	663 .14 9.4	609 .14 9.0	552 .15 8.6	493 .15 8.5	423 .15 8.6	337 .15 8.6	192 .14 8.7						
	1800	682 .15 9.9	629 .16 9.4	574 .16 9.1	517 .16 8.9	451 .16 9.0	373 .16 9.1	265 .16 9.1						
	1850	701 .17 10.3	650 .17 9.9	596 .17 9.5	541 .17 9.3	479 .18 9.4	405 .18 9.5	318 .17 9.5						
	1900	720 .18 10.8	670 .18 10.4	618 .18 10.0	565 .19 9.7	506 .19 9.8	437 .19 9.9	357 .19 10.0						
	1950	739 .20 11.2	690 .20 10.9	640 .20 10.5	589 .20 10.2	532 .21 10.3	469 .21 10.4	393 .20 10.5						
	2000	758 .21 11.8	710 .21 11.4	661 .22 11.0	612 .22 10.7	559 .22 10.7	498 .22 10.8	426 .22 10.9						
	2050	777 .23 12.2	730 .23 11.9	683 .23 11.5	634 .23 11.2	584 .24 11.2	525 .24 11.2	458 .24 11.3	269 .23 11.5					
	2100	795 .24 12.7	751 .25 12.4	704 .25 12.1	656 .25 11.8	608 .26 11.7	552 .26 11.7	491 .26 11.8	329 .25 12.0					
	2150	814 .26 13.2	770 .26 12.9	725 .27 12.6	679 .27 12.3	632 .27 12.2	579 .28 12.3	522 .28 12.4	381 .27 12.5					
	2200	833 .28 13.7	790 .28 13.4	747 .29 13.1	701 .29 12.8	656 .29 12.6	605 .30 12.7	550 .30 12.8	417 .29 13.0					
	2250	852 .30 14.2	810 .30 13.9	768 .30 13.6	723 .31 13.4	679 .31 13.1	632 .32 13.2	577 .32 13.3	453 .31 13.5	229 .29 13.7				
	2300	871 .32 14.6	830 .32 14.4	789 .33 14.1	745 .33 13.9	703 .33 13.6	656 .34 13.7	605 .34 13.8	485 .34 14.0	314 .33 14.1				
	2350	890 .34 15.1	850 .34 14.8	810 .35 14.6	767 .35 14.4	726 .35 14.1	681 .36 14.1	631 .36 14.2	518 .36 14.5	370 .35 14.6				
	2400	909 .36 15.6	870 .37 15.3	830 .37 15.1	789 .37 14.8	747 .37 14.6	705 .38 14.6	658 .39 14.7	551 .38 14.9	423 .38 15.1				
	2450	928 .39 16.2	890 .39 15.9	851 .39 15.6	810 .40 15.4	769 .40 15.1	728 .40 15.0	685 .41 15.1	583 .41 15.4	459 .40 15.6				
	2500	947 .41 16.7	909 .41 16.4	871 .42 16.1	832 .42 15.9	792 .42 15.7	752 .43 15.5	709 .43 15.6	613 .44 15.8	495 .43 16.0	313 .41 16.2			

Performance shown is for installation type A - free inlet, free outlet.

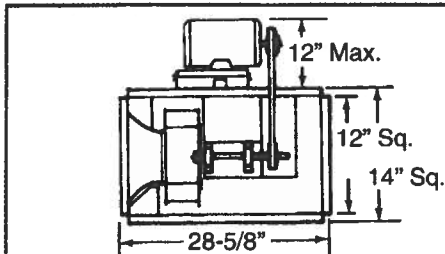
Power rating (BHP) does not include drive losses.

Performance ratings do not include the effects of appurtenances in the airstream.

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

# QIBK 08

## BELT DRIVE



### 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

### PERFORMANCE DATA

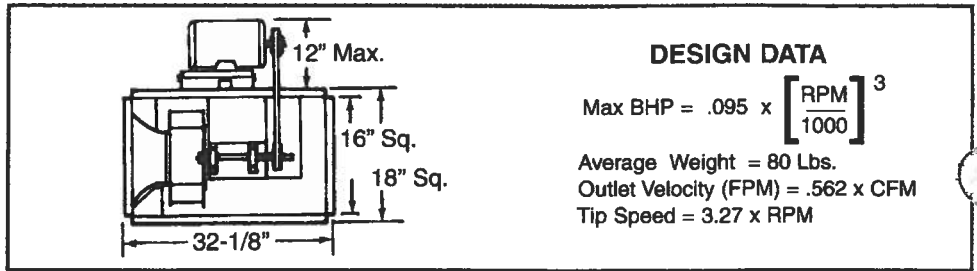
RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.												
K1 (1/6)	RPM	.000	.125	.250	.375	.500	.625	.750	1.000	1.250	1.500	1.750	2.000	
		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES
K2 (1/6)	650	317 .01 1.6												
	750	366 .01 2.2	183 .01 1.6											
K3 (1/6)	850	415 .02 2.8	268 .02 2.4											
	950	464 .03 3.5	335 .03 3.1											
K4 (1/6)	1050	512 .04 4.2	397 .04 3.9	248 .04 3.5										
	1150	561 .05 4.9	457 .05 4.7	337 .05 4.3										
L1 (1/4)	1250	610 .06 5.7	515 .07 5.4	411 .07 5.1	266 .06 4.9									
	1350	659 .08 6.5	571 .08 6.2	478 .08 6.0	363 .08 5.7									
M1 (1/3)	1450	708 .10 7.3	625 .10 7.0	540 .10 6.8	447 .11 6.5	315 .10 6.3								
	1500	732 .11 7.7	652 .11 7.4	571 .11 7.2	483 .12 6.9	365 .11 6.7								
P1 (1/2)	1550	756 .12 8.1	678 .12 7.9	601 .13 7.6	517 .13 7.4	410 .13 7.2	253 .12 7.0							
	1600	781 .13 8.5	705 .13 8.3	631 .14 8.1	550 .14 7.8	455 .14 7.6	327 .14 7.4							
	1650	805 .14 8.9	731 .15 8.7	661 .15 8.5	583 .15 8.3	497 .16 8.0	383 .15 7.8							
	1700	830 .16 9.3	758 .16 9.1	690 .16 9.0	614 .17 8.8	535 .17 8.5	429 .17 8.3	281 .16 8.2						
	1750	854 .17 9.8	784 .18 9.6	719 .18 9.4	645 .18 9.2	570 .18 9.0	475 .18 8.8	355 .18 8.6						
	1800	878 .19 10.3	810 .19 10.1	747 .19 9.9	676 .20 9.7	604 .20 9.4	518 .20 9.3	413 .19 9.1						
	1850	903 .20 10.7	836 .21 10.5	774 .21 10.4	707 .21 10.2	637 .22 9.9	560 .22 9.7	459 .21 9.6						
	1900	927 .22 11.1	862 .22 11.0	802 .23 10.8	737 .23 10.7	670 .24 10.4	598 .24 10.2	504 .23 10.1						
	1950	952 .24 11.6	888 .24 11.4	829 .25 11.3	767 .25 11.1	701 .25 10.9	632 .26 10.7	549 .25 10.6	298 .23 10.4					
	2000	976 .25 12.1	914 .26 11.9	856 .27 11.7	797 .27 11.6	732 .27 11.4	666 .28 11.2	591 .28 11.1	386 .26 10.8					
	2050	1000 .27 12.6	940 .28 12.4	883 .29 12.3	827 .29 12.1	764 .29 11.9	700 .30 11.7	632 .30 11.6	444 .29 11.3					
	2100	1025 .29 13.1	966 .30 13.0	910 .31 12.8	856 .31 12.6	794 .31 12.4	733 .32 12.2	668 .32 12.1	497 .31 11.9					
	2150	1049 .32 13.6	991 .32 13.4	937 .33 13.3	884 .33 13.1	825 .34 13.0	766 .34 12.8	702 .34 12.6	542 .34 12.4	246 .30 12.4				
	2200	1074 .34 14.1	1017 .35 13.9	964 .35 13.8	912 .36 13.6	855 .36 13.5	796 .36 13.4	736 .37 13.2	588 .36 13.0	374 .34 12.8				
	2250	1098 .36 14.6	1042 .37 14.4	990 .38 14.3	940 .38 14.1	885 .38 14.0	828 .39 13.8	770 .39 13.7	632 .39 13.5	448 .38 13.3				
	2300	1122 .39 15.1	1068 .39 14.9	1017 .40 14.8	967 .40 14.6	915 .41 14.5	859 .41 14.4	803 .42 14.2	674 .42 14.0	506 .41 13.8				
	2350	1147 .41 15.6	1093 .42 15.4	1043 .43 15.3	995 .43 15.1	944 .44 15.0	889 .44 14.9	836 .44 14.7	716 .45 14.5	557 .44 14.3	251 .39 14.3			
	2400	1171 .44 16.1	1119 .45 16.0	1069 .45 15.8	1022 .46 15.7	974 .46 15.5	920 .47 15.4	866 .47 15.2	754 .48 14.9	603 .47 14.8	389 .44 14.7			
	2450	1196 .47 16.7	1144 .48 16.5	1095 .48 16.4	1049 .49 16.2	1003 .49 16.0	950 .50 15.9	897 .50 15.8	789 .51 15.4	648 .50 15.3	474 .48 15.1			
	2500	1220 .50 17.2	1170 .50 17.1	1121 .51 16.9	1076 .52 16.8	1031 .52 16.6	980 .53 16.5	928 .53 16.3	823 .54 16.0	694 .53 15.8	532 .52 15.6			

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

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

# QIBK 10

## BELT DRIVE



### PERFORMANCE DATA

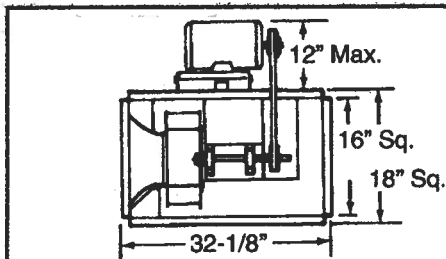
RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.												
K1 (1/6)	RPM	.000	.250	.500	.750	1.000	1.250	1.500	1.750	2.000	2.250	2.500	2.750	
		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	
K2 (1/6)	650	608 .02 3.1												
	750	701 .04 3.8	225 .04 2.5											
L1 (1/4)	850	795 .05 4.7	461 .06 3.3											
	950	888 .07 5.9	609 .08 4.3											
M1 (1/3)	1050	982 .10 7.3	732 .11 5.2	247 .09 5.1										
	1150	1075 .13 8.8	846 .14 6.3	558 .14 6.1										
P1 (1/2)	1250	1169 .17 9.2	957 .18 7.3	732 .19 6.8										
	1350	1262 .21 10.4	1067 .22 8.6	869 .23 7.7	562 .22 7.6									
	1400	1309 .24 11.1	1120 .25 9.3	932 .26 8.2	667 .25 8.1									
	1450	1356 .26 11.7	1173 .27 9.9	993 .29 8.7	760 .29 8.6									
	1500	1403 .29 12.4	1226 .30 10.6	1053 .32 9.2	845 .32 9.1	450 .29 9.0								
	1550	1449 .32 13.2	1279 .33 11.4	1110 .35 9.9	927 .35 9.6	625 .33 9.6								
	1600	1496 .35 13.9	1331 .36 12.1	1167 .38 10.6	997 .39 10.1	738 .38 10.1								
	1650	1543 .39 14.6	1382 .40 12.8	1223 .41 11.3	1060 .43 10.7	835 .42 10.7								
R1 (3/4)	1700	1590 .42 15.4	1434 .44 13.6	1278 .45 12.1	1123 .46 11.3	922 .47 11.2	610 .43 11.3							
	1750	1636 .46 16.1	1485 .47 14.3	1333 .49 12.8	1185 .51 11.9	1005 .51 11.9	744 .49 11.9							
	1800	1683 .50 16.9	1536 .52 15.2	1388 .53 13.6	1246 .55 12.5	1088 .56 12.5	847 .54 12.5							
	1850	1730 .54 17.7	1587 .56 16.0	1442 .57 14.4	1304 .59 13.2	1154 .60 13.1	943 .59 13.2	617 .54 13.2						
S1 (1)	1900	1777 .59 18.5	1637 .60 16.8	1498 .62 15.2	1361 .64 14.0	1218 .65 13.8	1029 .65 13.7	770 .62 13.8						
	1950	1823 .64 19.3	1688 .65 17.6	1552 .67 16.1	1418 .69 14.8	1281 .70 14.4	1113 .70 14.4	885 .69 14.4						
T1 (1 1/4)	2000	1870 .69 20	1738 .70 18.4	1606 .72 17.0	1474 .74 15.7	1343 .75 15.1	1196 .76 15.1	982 .74 15.0	675 .68 15.1					
	2050	1917 .74 21	1788 .76 19.3	1659 .77 17.8	1530 .79 16.6	1404 .81 15.7	1267 .82 15.7	1074 .81 15.7	825 .77 15.7					
	2100	1964 .80 22	1837 .81 20	1712 .83 18.6	1585 .85 17.4	1464 .87 16.4	1331 .88 16.3	1159 .88 16.3	943 .85 16.3	494 .74 16.4				
	2150	2010 .85 22	1887 .87 21	1764 .89 19.4	1640 .90 18.2	1522 .93 17.1	1394 .94 16.9	1242 .94 16.9	1041 .92 16.9	770 .88 16.9				
	2200	2057 .91 23	1937 .93 22	1817 .95 20	1695 .96 19.0	1579 .99 17.9	1456 .101 17.6	1325 .101 17.5	1137 .100 17.5	905 .96 17.5				
	2250	2104 .98 24	1986 .100 22	1869 .101 21	1749 .103 19.8	1636 .105 18.7	1518 .107 18.2	1393 .108 18.2	1221 .108 18.1	1018 .105 18.1	674 .97 18.2			
	2300	2151 .105 25	2035 .106 23	1921 .108 22	1806 .109 21	1692 .112 19.6	1580 .114 18.9	1457 .115 18.8	1305 .115 18.8	1116 .113 18.8	870 .108 18.8			
	2350	2197 .112 26	2085 .113 24	1972 .115 23	1860 .117 22	1748 .119 20	1639 .122 19.5	1520 .123 19.5	1388 .123 19.4	1212 .122 19.4	1004 .118 19.4	570 .105 19.5		
	2400	2244 .119 26	2134 .121 25	2024 .123 24	1914 .124 22	1803 .126 21	1697 .129 20	1583 .131 20	1466 .132 20	1296 .131 20	1106 .128 20	851 .122 20		
	2450	2291 .126 27	2183 .128 26	2075 .130 25	1967 .132 23	1858 .134 22	1754 .137 21	1645 .139 21	1530 .140 21	1380 .139 21	1204 .137 21	986 .132 21		

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

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

# QIBK 12

## BELT DRIVE



### DESIGN DATA

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

$$\text{Average Weight} = 80 \text{ Lbs.}$$

$$\text{Outlet Velocity (FPM)} = .562 \times \text{CFM}$$

$$\text{Tip Speed} = 3.27 \times \text{RPM}$$

### PERFORMANCE DATA

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.												
KT (1/6)	(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
K3 (1/6)	L1 (1/4)	600	693 .02 3.4											
		700	809 .03 4.6											
		800	925 .04 5.6	484 .05 3.2										
		900	1040 .06 6.7	700 .07 4.5										
M1 (1/3)	P1 (1/2)	1000	1156 .09 8.3	865 .10 6.0										
		1100	1271 .11 10.1	1012 .13 7.7	601 .12 6.3									
		1200	1387 .15 12.1	1155 .16 9.6	851 .17 7.6									
		1300	1502 .19 11.2	1293 .21 9.3	1036 .21 8.1	543 .18 7.5								
R1 (3/4)	S1 (1)	1400	1618 .24 12.5	1429 .25 10.8	1201 .27 9.4	877 .25 8.7								
		1450	1676 .26 13.2	1496 .28 11.5	1276 .29 10.1	997 .29 9.3								
		1500	1733 .29 13.9	1562 .31 12.2	1350 .32 10.8	1112 .33 10.0	621 .27 9.5							
		1550	1791 .32 14.6	1628 .34 13.0	1423 .36 11.5	1197 .36 10.7	831 .33 10.1							
T1 (1 1/4)		1600	1849 .35 15.6	1695 .37 13.8	1495 .39 12.3	1283 .40 11.4	968 .38 10.8							
		1650	1907 .38 16.6	1755 .41 14.8	1569 .43 13.2	1366 .43 12.2	1094 .42 11.5	547 .32 11.3						
		1700	1965 .42 17.5	1817 .45 15.8	1637 .46 14.1	1449 .48 13.1	1210 .47 12.3	796 .42 11.9						
		1750	2022 .46 18.6	1879 .49 16.8	1707 .50 15.2	1524 .52 13.9	1314 .52 13.2	979 .48 12.5						
		1800	2080 .50 19.6	1941 .53 17.8	1776 .55 16.2	1599 .56 14.8	1400 .56 14.0	1112 .54 13.4	546 .41 13.3					
		1850	2138 .54 21	2002 .57 18.9	1844 .59 17.2	1673 .61 15.7	1485 .61 14.9	1235 .60 14.2	823 .53 13.9					
		1900	2196 .59 22	2064 .62 20	1913 .64 18.3	1745 .66 16.8	1569 .66 15.8	1352 .66 15.1	1027 .61 14.6					
		1950	2253 .64 23	2125 .66 21	1980 .69 19.4	1818 .71 17.8	1652 .72 16.8	1457 .72 16.0	1161 .68 15.3	631 .53 15.3				
		2000	2311 .69 24	2185 .72 22	2047 .74 20	1889 .76 18.9	1729 .77 17.8	1544 .77 17.0	1290 .75 16.2	896 .67 15.9				
		2050	2369 .74 25	2246 .77 23	2114 .80 22	1960 .82 19.9	1804 .83 18.6	1629 .83 17.9	1408 .82 17.1	1098 .77 16.6				
		2100	2427 .79 26	2307 .83 24	2181 .85 22	2030 .87 21	1878 .89 19.5	1714 .90 18.7	1524 .89 18.0	1237 .84 17.4	766 .71 17.4			
		2150	2485 .85 27	2367 .88 25	2247 .91 23	2100 .94 22	1951 .95 20	1797 .96 19.6	1621 .96 18.9	1369 .93 18.2	1006 .85 18.0			
		2200	2542 .91 28	2428 .95 26	2313 .98 24	2169 1.00 23	2024 1.02 21	1879 1.03 20	1707 1.03 19.8	1487 1.01 19.1	1202 .95 18.7	637 .73 18.9		
		2250	2600 .98 29	2488 1.01 27	2381 1.04 25	2237 1.07 24	2096 1.09 22	1954 1.10 21	1792 1.10 21	1604 1.09 20	1336 1.04 19.5	932 .93 19.4		
		2300	2658 1.04 30	2548 1.08 28	2441 1.11 26	2306 1.13 25	2168 1.16 23	2029 1.17 22	1877 1.18 22	1712 1.17 21	1467 1.14 20	1146 1.07 20		
		2350	2716 1.11 31	2608 1.15 29	2503 1.18 27	2374 1.21 26	2242 1.23 24	2103 1.25 23	1960 1.26 22	1799 1.25 22	1586 1.23 21	1319 1.16 21	868 1.00 21	
		2400	2774 1.18 31	2668 1.22 30	2565 1.26 28	2441 1.28 27	2309 1.31 25	2176 1.32 24	2042 1.34 23	1884 1.34 23	1702 1.32 22	1453 1.27 22	1109 1.18 22	
		2450	2831 1.26 32	2728 1.30 31	2627 1.33 29	2508 1.36 28	2379 1.39 26	2249 1.41 25	2119 1.42 24	1969 1.42 24	1817 1.42 23	1581 1.39 22	1311 1.31 22	832 1.09 22

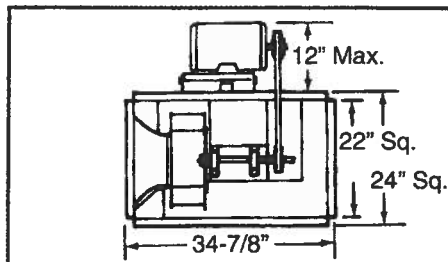
Performance shown is for installation type A - free inlet, free outlet.  
Power rating (BHP) does not include drive losses.  
Performance ratings do not include the effects of appurtenances in the airstream.

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



# QIBK 15

## BELT DRIVE



### DESIGN DATA

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

Average Weight = 95 Lbs.

Outlet Velocity (FPM) = 2.98 x CFM

Tip Speed = 4.06 x RPM

### PERFORMANCE DATA

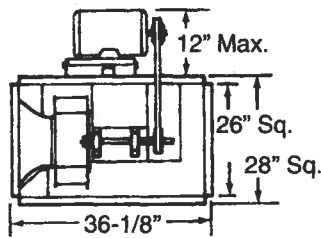
RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.												
K1 (1/6)	RPM	.000	.250	.500	.750	1.000	1.250	1.500	1.750	2.000	2.250	2.500	2.750	
		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	
K2 (1/6)	550	1192 .04 3.1												
	600	1300 .05 3.7	621 .06 2.5											
L1 (1/4) M1 (1/3)	650	1409 .06 4.4	859 .07 3.1											
	700	1517 .08 5.1	1039 .09 3.8											
	750	1625 .10 5.8	1198 .12 4.6											
	800	1734 .12 6.5	1347 .14 5.3											
	850	1842 .14 7.3	1488 .17 6.1	888 .16 5.2										
	900	1950 .17 8.0	1619 .19 6.9	1135 .20 5.8										
P1 (1/2)	950	2059 .20 8.8	1748 .22 7.7	1327 .23 6.6										
	1000	2167 .23 9.6	1875 .26 8.5	1504 .27 7.4	587 .20 6.9									
R1 (3/4)	1050	2276 .27 10.3	2000 .30 9.3	1661 .32 8.3	1148 .30 7.5									
	1100	2384 .31 11.2	2124 .34 10.1	1812 .36 9.1	1380 .36 8.2									
	1150	2492 .35 12.1	2246 .39 11.0	1959 .41 10.0	1577 .41 9.1	569 .28 8.8								
	1200	2601 .40 12.9	2366 .44 11.9	2099 .46 11.0	1756 .47 10.1	1241 .44 9.5								
S1 (1)	1250	2709 .45 13.8	2484 .49 12.9	2230 .52 11.9	1924 .54 11.0	1505 .52 10.3								
	1300	2817 .51 14.7	2601 .55 13.8	2360 .58 12.9	2077 .60 12.0	1719 .60 11.3	969 .48 11.0							
	1350	2926 .57 15.7	2717 .61 14.8	2488 .64 14.0	2227 .67 13.1	1900 .67 12.3	1444 .64 11.7							
	1400	3034 .64 16.8	2833 .68 15.8	2615 .71 15.0	2375 .74 14.2	2078 .75 13.4	1693 .73 12.6							
T1 (1 1/4)	1450	3142 .71 17.9	2948 .75 16.9	2741 .79 16.0	2520 .82 15.3	2242 .84 14.5	1909 .83 13.7	1386 .76 13.5						
	1500	3251 .78 19.0	3062 .83 18.0	2866 .87 17.1	2651 .90 16.4	2395 .92 15.6	2091 .92 14.9	1705 .89 14.3						
	1550	3359 .86 20	3177 .91 19.2	2989 .95 18.3	2781 .99 17.5	2545 1.01 16.7	2269 1.02 16.0	1927 1.00 15.3	1386 .90 15.2					
	1600	3467 .95 21	3291 1.00 20	3112 1.04 19.5	2911 1.08 18.7	2693 1.11 18.0	2442 1.12 17.2	2134 1.12 16.4	1727 1.06 16.0					
V1 (2)	1650	3576 1.04 22	3404 1.09 22	3234 1.14 21	3039 1.18 19.8	2840 1.21 19.2	2595 1.23 18.4	2315 1.23 17.7	1975 1.20 17.0	1360 1.05 17.1				
	1700	3684 1.14 24	3518 1.19 23	3353 1.24 22	3166 1.28 21	2976 1.32 20	2747 1.34 19.5	2493 1.35 18.8	2194 1.33 18.1	1776 1.26 17.9				
	1750	3793 1.24 25	3631 1.30 24	3471 1.35 23	3292 1.39 22	3108 1.43 21	2897 1.46 21	2666 1.47 19.9	2384 1.46 19.3	2049 1.43 18.8	1440 1.25 19.0			
	1800	3901 1.35 26	3743 1.41 25	3588 1.46 24	3417 1.50 23	3238 1.55 22	3044 1.58 22	2820 1.60 21	2564 1.60 20	2270 1.58 20	1862 1.49 19.8			
	1850	4009 1.47 27	3856 1.52 26	3705 1.58 25	3542 1.63 24	3367 1.67 24	3190 1.71 23	2972 1.73 22	2741 1.74 22	2473 1.72 21	2146 1.68 21	1639 1.53 21		
	1900	4118 1.59 28	3968 1.65 27	3821 1.70 26	3665 1.75 26	3496 1.80 25	3326 1.84 24	3122 1.86 23	2910 1.88 23	2654 1.87 22	2367 1.85 22	1981 1.76 22	780 1.18 22	
	1950	4226 1.72 29	4080 1.78 28	3937 1.84 28	3788 1.89 27	3623 1.94 26	3457 1.98 25	3271 2.01 25	3064 2.03 24	2833 2.03 23	2578 2.02 23	2262 1.97 23	1786 1.81 23	
	1975	4280 1.79 30	4136 1.85 29	3995 1.90 28	3850 1.96 27	3686 2.01 27	3523 2.05 26	3344 2.09 25	3140 2.10 25	2921 2.11 24	2669 2.10 24	2373 2.06 23	1957 1.9/ 23	

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

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

# QIBK 18

## BELT DRIVE



### 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

### PERFORMANCE DATA

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.												
K1 (1/6)	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
M1 (1/3)		550	2043 .10 6.1	1316 .12 4.2										
		600	2229 .13 7.0	1596 .15 5.1										
		650	2414 .17 7.9	1850 .20 6.1										
		700	2600 .21 9.0	2090 .24 7.1	1272 .23 6.5									
P1 (1/2)		750	2786 .26 10.2	2320 .30 8.1	1680 .30 7.3									
		800	2972 .32 11.5	2536 .36 9.3	1988 .37 8.4									
		850	3157 .38 12.8	2749 .42 10.6	2266 .44 9.5	1474 .40 9.1								
		900	3343 .45 14.2	2958 .50 12.0	2522 .52 10.7	1915 .51 9.9								
R1 (3/4)		950	3529 .53 15.5	3165 .58 13.3	2766 .61 11.8	2264 .61 11.1	1269 .48 10.9							
		1000	3714 .62 16.9	3370 .67 14.7	3004 .71 13.0	2548 .72 12.3	1903 .68 11.8							
		1050	3900 .72 18.4	3573 .77 16.2	3235 .82 14.3	2824 .83 13.5	2294 .81 12.8	1183 .63 12.8						
		1100	4086 .82 19.7	3775 .89 17.5	3452 .93 15.6	3078 .95 14.7	2632 .95 14.0	1933 .87 13.7						
S1 (1)		1150	4272 .94 21	3975 1.01 18.8	3666 1.05 17.0	3322 1.08 15.9	2916 1.09 15.2	2380 1.05 14.7	1292 .83 14.7					
		1175	4364 1.00 21	4075 1.07 19.4	3773 1.12 17.7	3442 1.15 16.6	3055 1.16 15.9	2573 1.13 15.3	1770 1.01 15.2					
		1200	4457 1.07 22	4173 1.14 20	3878 1.19 18.4	3562 1.23 17.2	3193 1.24 16.6	2764 1.22 15.9	2060 1.11 15.8					
		1225	4550 1.14 23	4272 1.21 21	3984 1.26 19.1	3680 1.30 17.8	3329 1.32 17.2	2915 1.31 16.6	2333 1.25 16.3					
T1 (1-1/2)		1250	4643 1.21 23	4370 1.28 21	4088 1.34 19.7	3798 1.38 18.5	3455 1.40 17.9	3058 1.40 17.4	2531 1.33 16.9	1548 1.11 16.9				
		1275	4736 1.28 24	4468 1.36 22	4193 1.41 20	3914 1.46 19.2	3578 1.48 18.6	3200 1.48 18.1	2725 1.44 17.5	1980 1.30 17.5				
		1300	4829 1.36 24	4566 1.44 23	4297 1.49 21	4023 1.54 19.9	3701 1.57 19.3	3340 1.57 18.8	2917 1.55 18.2	2269 1.43 18.1				
		1325	4922 1.44 25	4664 1.52 24	4400 1.58 22	4132 1.63 21	3822 1.66 20	3478 1.67 19.4	3095 1.66 18.9	2535 1.58 18.6	1419 1.24 18.6			
V1 (2)		1350	5014 1.52 26	4762 1.60 24	4503 1.67 23	4240 1.72 21	3942 1.75 21	3615 1.77 20	3240 1.76 19.6	2732 1.68 19.2	1920 1.43 19.2			
		1375	5107 1.61 27	4859 1.69 25	4606 1.76 24	4347 1.81 22	4062 1.85 21	3750 1.87 21	3382 1.86 20	2927 1.80 19.8	2256 1.64 19.8			
		1400	5200 1.70 28	4956 1.78 26	4708 1.85 24	4454 1.90 23	4181 1.95 22	3875 1.97 22	3524 1.96 21	3119 1.93 21	2543 1.81 20	1329 1.44 20		
		1425	5293 1.79 29	5053 1.87 27	4810 1.95 25	4561 2.00 24	4299 2.05 23	3998 2.07 22	3663 2.07 22	3309 2.05 21	2777 1.97 21	1903 1.62 21		
W1 (3)		1450	5386 1.88 29	5150 1.97 28	4912 2.05 26	4667 2.10 25	4416 2.15 24	4121 2.18 23	3802 2.19 22	3452 2.18 22	2974 2.09 22	2295 1.90 22		
		1475	5479 1.98 30	5247 2.07 29	5013 2.15 27	4772 2.21 26	4532 2.26 25	4242 2.29 24	3939 2.30 24	3596 2.29 23	3168 2.23 23	2584 2.09 23	1377 1.67 23	
		1500	5572 2.09 31	5343 2.18 29	5114 2.26 28	4878 2.32 26	4641 2.37 26	4363 2.40 25	4075 2.42 24	3737 2.42 24	3360 2.37 23	2855 2.29 23	1996 1.87 23	
		1525	5664 2.19 32	5440 2.28 30	5215 2.37 29	4982 2.43 27	4750 2.49 26	4483 2.52 26	4202 2.54 25	3878 2.54 25	3545 2.53 24	3053 2.41 24	2379 2.23 24	
		1550	5757 2.30 33	5536 2.40 31	5316 2.48 30	5087 2.54 28	4858 2.60 27	4602 2.64 27	4326 2.67 26	4017 2.67 26	3690 2.66 25	3248 2.57 25	2669 2.41 25	1543 1.99 25
		1575	5850 2.41 34	5633 2.51 32	5416 2.60 31	5191 2.66 29	4965 2.72 28	4721 2.77 28	4448 2.79 27	4155 2.80 26	3833 2.79 26	3442 2.73 25	2954 2.61 25	2097 2.19 25

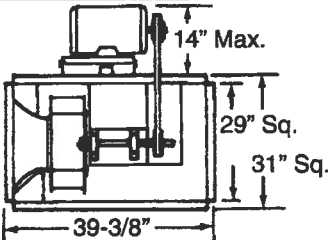
Performance shown is for installation type A - free inlet, free outlet.  
Power rating (BHP) does not include drive losses.  
Performance ratings do not include the effects of appurtenances in the airstream.

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

# QIBK 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) =  $.171 \times \text{CFM}$

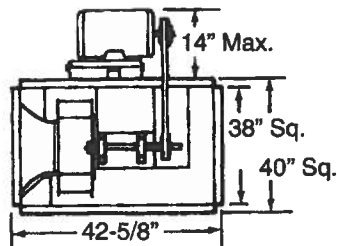
Tip Speed =  $5.76 \times \text{RPM}$

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	
M1 (1/3)	400	2184 .08 3.7												
	450	2457 .11 4.7	1213 .11 4.3											
P1 (1/2)	500	2730 .15 5.7	1750 .17 5.5											
	550	3003 .21 6.8	2182 .23 6.6											
R1 (3/4) S1 (1)	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										
T1 (1-1/2)	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									
V1 (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								
W1 (3)	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					
	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 24	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 shown is for installation type A - free inlet, free outlet.  
 Power rating (BHP) does not include drive losses.  
 Performance ratings do not include the effects of appurtenances in the airstream

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

# QIBK 24 BELT DRIVE



## 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

## PERFORMANCE DATA

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.													
M1 (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		
P1	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 1/4)	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										
	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										
V1 (2)	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									
	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 15.3	2177 1.14								
W1 (3)	825	7737 1.69 25	7165 1.75 22	6540 1.80 19.4	5773 1.81 17.9	4853 1.74 16.3	3431 1.55								
	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								
	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							
X1 (5)	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 2.65 28	7886 2.71 26	7326 2.76 24	6633 2.77 22	5884 2.22 22	4866 2.51 21	3155 2.15 20						
	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						
Y1 (7 1/4)	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					
	1075	10082 3.75 38	9642 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 24				
	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				
	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			
	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		

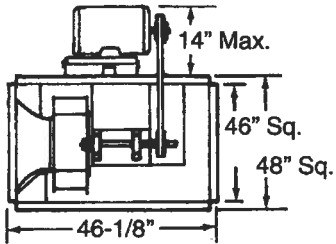
Performance shown is for installation type A - free inlet, free outlet.  
Power rating (BHP) does not include drive losses.  
Performance ratings do not include the effects of appurtenances in the airstream.

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

# QIBK 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) =  $.068 \times \text{CFM}$

Tip Speed =  $8.12 \times \text{RPM}$

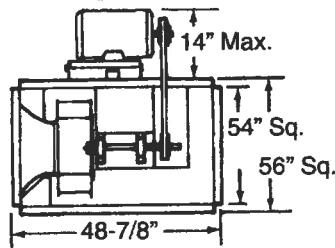
RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.												
PI (1/2)	RPM	.000	.250	.500	.750	1.000	1.250	1.500	1.750	2.000	2.250	2.500	2.750	
		CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	CFM BHP SONES	
R1 (3/4)	275	4901 .15 5.8												
	300	5346 .19 6.9												
	325	5792 .24 8.2	2818 .25 6.1											
	350	6237 .30 9.6	3933 .34 6.4											
	375	6683 .37 11.1	4729 .43 7.2											
	400	7128 .45 11.9	5413 .52 8.3											
	425	7574 .54 12.7	5973 .62 9.4											
	450	8019 .64 13.6	6520 .74 10.4	3525 .62 9.9										
	475	8465 .75 14.4	7057 .86 11.5	4694 .82 10.4										
	500	8910 .88 15.3	7583 .99 12.5	5725 1.00 11.0										
S1 (1)	525	9356 1.01 16.4	8102 1.14 13.6	6521 1.17 11.8	2324 .74 12.6									
	550	9801 1.16 17.9	8615 1.29 15.2	7295 1.35 13.1	4262 1.13 13.2									
	575	10247 1.33 19.5	9122 1.47 16.7	7866 1.54 14.4	5449 1.44 13.9									
	600	10692 1.51 21	9625 1.65 18.3	8424 1.75 15.9	6548 1.66 14.7									
	625	11138 1.71 23	10123 1.86 20	8973 1.97 17.4	7418 1.96 15.7	4375 1.59 16.3								
	650	11583 1.92 25	10618 2.08 22	9515 2.22 19.2	8206 2.22 17.2	5636 1.98 17.0								
	675	12029 2.15 27	11103 2.31 24	10049 2.47 21	8971 2.50 18.7	6782 2.37 17.8	2618 1.47 18.4							
	700	12474 2.40 29	11582 2.57 26	10576 2.73 23	9539 2.78 20	7866 2.75 18.7	4960 2.25 19.3							
	725	12920 2.67 32	12058 2.84 28	11097 3.01 25	10098 3.09 22	8671 3.07 20	6219 2.73 20							
	750	13365 2.95 34	12532 3.13 30	11613 3.31 27	10651 3.41 24	9458 3.41 22	7376 3.23 21	4123 2.67 22						
T1 (1 1/4)	775	13811 3.26 35	13005 3.44 32	12126 3.62 29	11198 3.76 26	10230 3.78 24	8471 3.58 22	5891 3.12 23						
	800	14256 3.58 37	13475 3.77 33	12634 3.96 30	11738 4.13 27	10827 4.16 25	9357 4.11 23	7088 3.73 23	3281 2.52 25					
	825	14702 3.93 38	13944 4.13 34	13139 4.32 31	12271 4.51 29	11389 4.55 27	10151 4.53 25	8231 4.32 24	5686 3.65 25					
	850	15147 4.30 39	14412 4.50 36	13641 4.70 33	12799 4.90 30	11946 4.97 28	10931 4.98 26	9324 4.73 25	6985 4.29 26					
	875	15593 4.69 40	14879 4.90 37	14140 5.10 34	13322 5.30 32	12496 5.42 30	11663 5.44 28	10206 5.38 27	8168 5.02 26	5568 4.19 28				
	900	16038 5.10 41	15344 5.32 38	14636 5.53 36	13841 5.74 33	13041 5.89 31	12231 5.92 29	11002 5.88 28	9280 5.67 27	7050 4.97 28				
	925	16484 5.54 42	15808 5.76 40	15130 5.98 37	14356 6.19 35	13580 6.38 33	12792 6.41 31	11784 6.41 29	10368 6.15 28	8243 5.78 29	5630 4.82 31			
	950	16929 6.00 44	16271 6.23 41	15614 6.45 39	14868 6.67 36	14114 6.89 34	13348 6.94 32	12555 6.98 31	11181 6.89 30	9389 6.57 30	7255 5.77 31			
	975	17375 6.49 45	16734 6.71 43	16093 6.95 40	15376 7.18 38	14642 7.40 36	13899 7.49 34	13151 7.53 32	11975 7.48 31	10482 7.07 31	8454 6.67 31	5931 5.65 33		
	1000	17820 7.00 47	17195 7.24 44	16571 7.48 42	15882 7.71 39	15166 7.94 37	14445 8.08 35	13716 8.11 34	12756 8.10 33	11541 8.02 32	9619 7.59 32	7577 6.71 33	3720 4.66 35	

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

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

# QIBK 36

## BELT DRIVE



### 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

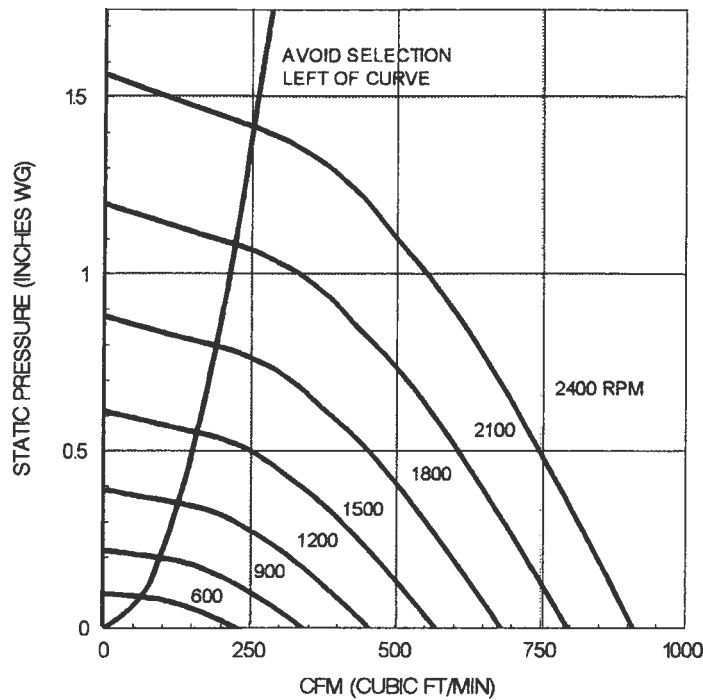
### PERFORMANCE DATA

RPM Range - Motor HP		STATIC PRESSURE, INCHES W. G.											
R1 (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	7215 .31 12.1	2686 .24 6.4										
	270	7792 .39 13.2	4591 .38 7.2										
	290	8369 .48 14.2	5777 .51 8.1										
T1 (1¼)	310	8947 .59 15.4	6854 .64 9.7	3733 .49 8.9									
	330	9524 .71 16.6	7592 .77 11.4	5581 .69 9.8									
	350	10101 .85 17.8	8291 .91 13.1	6784 .88 10.8	3299 .58 10.8								
V1 (2)	370	10678 1.00 19.0	8992 1.08 14.9	7880 1.07 12.3	5610 .91 11.8								
	390	11255 1.18 20	9682 1.25 16.6	8800 1.27 14.1	6989 1.18 12.7	3495 .77 12.7							
	410	11833 1.37 22	10363 1.45 18.4	9502 1.47 15.9	8164 1.44 13.7	5899 1.25 13.7							
W1 (3)	430	12410 1.58 23	11035 1.67 19.9	10201 1.70 17.6	9247 1.69 15.5	7448 1.55 14.8	4236 1.11 14.8						
	450	12987 1.81 24	11699 1.91 21	10903 1.94 19.4	10149 1.95 17.3	8649 1.87 15.9	6550 1.66 15.9						
	470	13564 2.06 26	12358 2.16 23	11596 2.20 21	10852 2.22 19.2	9760 2.19 17.3	8095 2.02 17.0						
X1 (5)	490	14141 2.33 27	13011 2.45 24	12280 2.48 23	11548 2.51 21	10829 2.51 19.2	9300 2.40 18.1	3932 1.56 18.1					
	510	14719 2.63 28	13659 2.75 26	12956 2.79 25	12254 2.82 23	11591 2.84 21	10428 2.79 19.4	6530 2.28 19.2					
	530	15296 2.95 30	14303 3.08 28	13627 3.12 26	12951 3.16 25	12291 3.18 23	11504 3.17 21	8564 2.86 20					
Y1 (7¼)	550	15873 3.30 31	14925 3.44 29	14291 3.48 28	13640 3.52 27	12988 3.55 25	12390 3.56 23	9791 3.29 22	4716 2.28 22				
	570	16450 3.67 33	15536 3.82 31	14951 3.86 30	14322 3.90 29	13693 3.94 27	13095 3.96 25	10987 3.80 23	7278 3.17 23				
	590	17027 4.07 34	16144 4.22 32	15605 4.28 31	14998 4.32 30	14391 4.36 29	13791 4.39 27	12101 4.32 24	9374 3.79 24				
C1 (10)	610	17605 4.50 36	16750 4.66 34	16256 4.72 33	15668 4.76 32	15081 4.80 31	14493 4.84 29	13178 4.83 26	10648 4.45 25	6266 3.26 25			
	630	18182 4.96 37	17355 5.12 35	16902 5.19 35	16334 5.23 34	15765 5.27 33	15196 5.32 31	14126 5.35 28	11852 5.08 27	8608 4.43 27			
	650	18759 5.44 39	17957 5.61 37	17546 5.69 36	16994 5.73 35	16443 5.78 35	15892 5.82 33	14833 5.88 30	13003 5.74 28	10544 5.29 28	5466 3.72 28		
	670	19336 5.96 40	18558 6.13 39	18169 6.22 38	17651 6.27 37	17116 6.31 36	16581 6.36 35	15533 6.43 32	14090 6.36 30	11772 5.92 29	8101 5.00 29		
	680	19625 6.23 41	18858 6.41 40	18475 6.49 39	17978 6.55 38	17451 6.59 37	16924 6.64 36	15880 6.72 33	14626 6.68 31	12377 6.29 30	9249 5.56 30		
	690	19913 6.51 42	19158 6.69 40	18780 6.78 40	18304 6.84 39	17784 6.88 38	17265 6.93 37	16226 7.02 34	15158 7.01 32	12975 6.67 30	10272 5.82 30	4861 4.04 30	
	700	20202 6.80 43	19457 6.98 41	19085 7.07 40	18629 7.13 40	18117 7.18 39	17605 7.23 38	16581 7.32 35	15638 7.35 33	13568 7.05 31	11259 6.58 31	6597 4.64 31	
	710	20491 7.09 44	19757 7.28 42	19390 7.37 41	18953 7.44 41	18448 7.48 40	17944 7.53 39	16934 7.63 36	15994 7.66 34	14132 7.48 32	11878 6.98 32	7935 5.69 32	
	720	20779 7.40 44	20055 7.58 43	19693 7.67 42	19276 7.75 41	18779 7.80 41	18281 7.85 40	17286 7.95 37	16348 7.99 35	14679 7.84 33	12491 7.29 32	9091 6.36 32	
	730	21068 7.71 45	20354 7.90 44	19997 7.99 43	19599 8.07 42	19108 8.12 42	18617 8.17 41	17636 8.27 39	16699 8.32 36	15222 8.21 34	13098 7.73 33	10201 6.97 33	4548 4.44 33
	740	21356 8.03 46	20652 8.22 45	20300 8.32 44	19921 8.40 43	19437 8.45 43	18953 8.50 42	17984 8.60 40	17050 8.67 37	15760 8.59 35	13699 8.17 34	11221 7.27 34	6636 5.29 34
	750	21645 8.36 47	20950 8.55 46	20603 8.65 45	20242 8.74 44	19764 8.79 43	19287 8.84 43	18331 8.94 41	17398 9.02 38	16294 8.98 36	14295 8.61 35	12140 8.12 35	8058 6.56 35

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

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

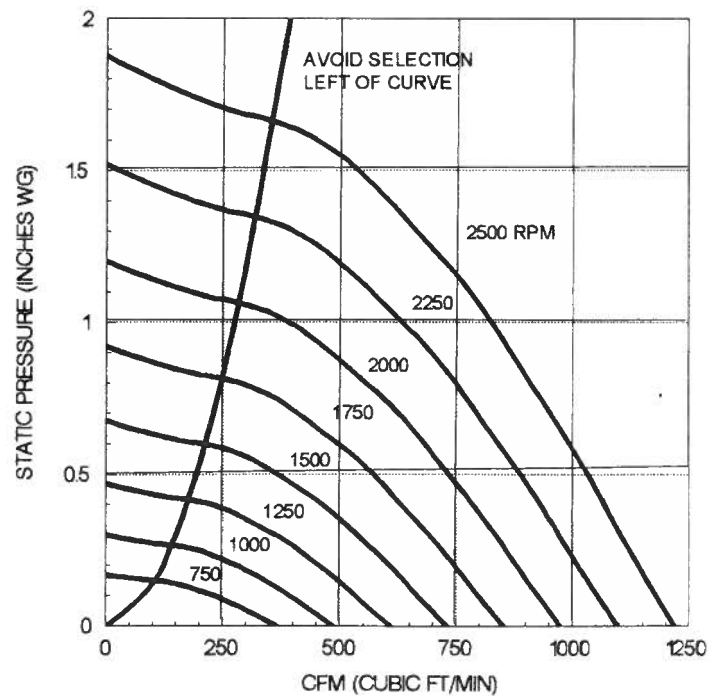
**QIBK 06**  
**AIR PERFORMANCE**



**QIBK 06**  
**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
600	.000	36	36	39	38	39	36	33	30
1000	.000	50	52	51	52	50	50	47	43
	.125	51	52	50	51	48	48	43	37
1400	.000	59	62	61	61	58	58	56	52
	.375	64	64	60	59	57	56	52	46
1800	.000	65	70	68	66	65	63	62	59
	.375	69	70	68	65	64	61	60	55
	.750	73	71	69	65	64	62	60	54
2100	.000	70	75	73	70	70	66	66	63
	.500	74	74	73	69	68	65	64	59
	1.000	78	76	74	69	68	65	64	58
2300	.000	72	77	76	72	72	68	69	65
	.500	75	77	76	71	71	67	67	62
	1.000	79	79	77	71	71	67	67	61
2500	.000	73	79	78	75	74	70	70	68
	.500	76	80	78	74	73	69	69	65
	1.000	79	81	79	74	73	69	69	64
	1.500	82	82	80	74	73	69	69	64

**QIBK 08**  
**AIR PERFORMANCE**



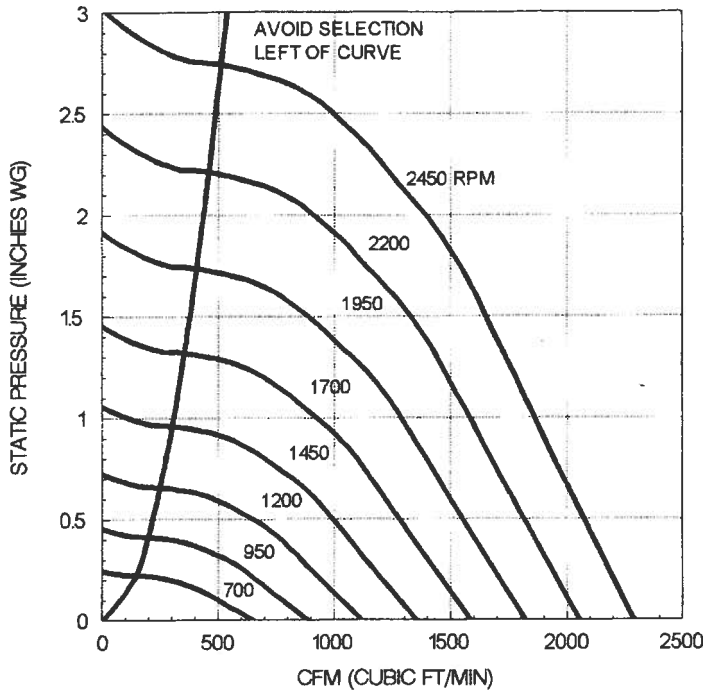
**QIBK 08**  
**SOUND PERFORMANCE**

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS							
		OCTAVE BANDS							
		1	2	3	4	5	6	7	8
650	.000	39	41	43	40	40	39	37	34
1050	.000	50	55	54	55	50	51	48	46
	.250	53	56	52	53	50	49	45	40
1450	.000	59	64	64	63	60	58	57	54
	.500	60	65	62	61	58	57	54	49
1800	.000	66	70	70	68	66	62	62	60
	.500	64	71	70	67	65	62	61	57
	.750	65	70	70	66	65	62	60	55
2100	.000	70	74	75	72	71	66	66	64
	.500	68	75	75	71	70	65	65	62
	1.000	69	74	76	70	69	65	65	60
2300	.000	72	76	77	75	74	68	68	66
	.750	70	77	78	73	72	67	67	64
	1.250	71	76	78	72	71	67	67	62
2500	.000	73	78	80	77	76	71	70	68
	.500	72	79	80	76	75	70	70	67
	1.000	71	79	81	76	74	70	69	66
	1.500	72	78	81	75	73	70	69	64

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.



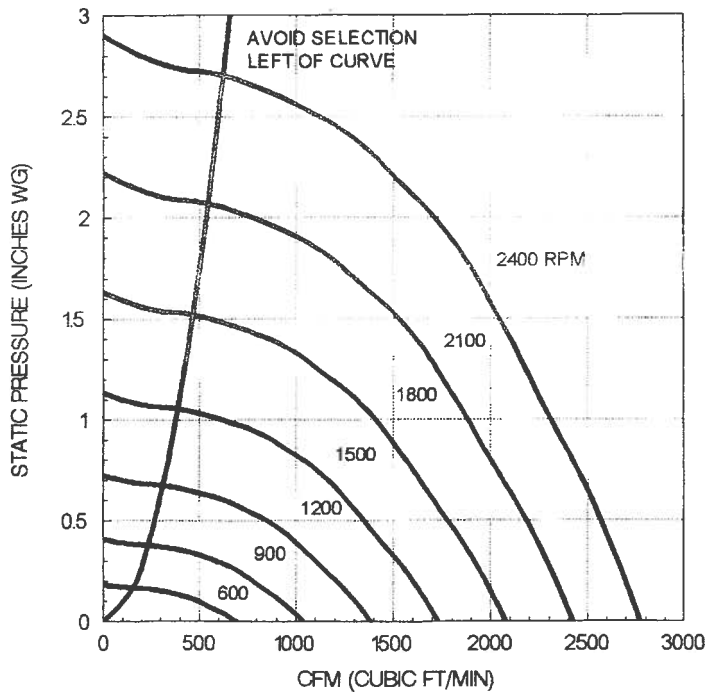
## QIBK 10 AIR PERFORMANCE



## QIBK 10 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	49	51	46	56	44	35	25	57
	.000	64	63	63	61	60	63	52	42	67
1050	.500	69	65	59	57	53	53	49	42	60
	.000	62	67	70	67	68	70	63	52	74
1400	.375	65	67	69	65	63	63	58	51	69
	.750	67	69	68	64	61	61	57	51	68
1750	.000	71	71	76	74	71	76	71	60	80
	.625	72	72	75	72	67	68	65	58	75
	1.250	74	75	75	71	66	66	64	58	74
2100	.000	77	75	80	80	73	81	77	67	85
	.500	77	76	80	79	72	76	74	65	82
	1.000	78	77	79	78	71	72	70	64	80
	2.000	80	80	80	77	70	70	70	63	79
2450	.000	79	81	83	84	78	82	81	73	88
	.500	79	82	83	83	77	79	79	71	86
	1.000	80	82	83	83	76	76	76	69	84
	2.000	79	84	84	82	75	74	73	68	83
	2.500	80	85	84	82	75	73	73	68	83

## QIBK 12 AIR PERFORMANCE

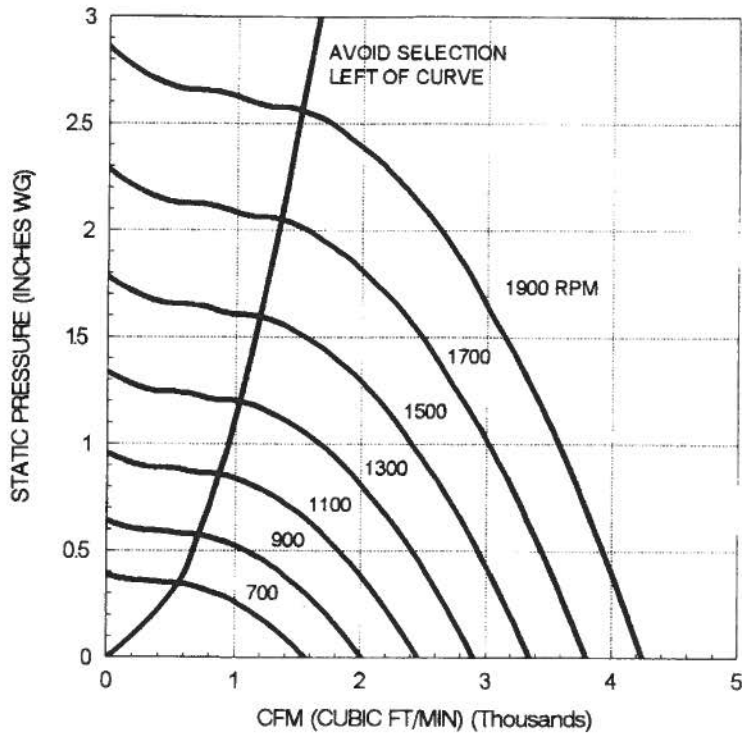


## QIBK 12 SOUND PERFORMANCE

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	51	53	52	49	57	43	37	30	58
	.000	67	67	67	64	63	64	53	46	69
1000	.375	70	65	62	58	54	52	47	42	61
	.000	68	72	73	70	68	71	66	53	76
1400	.375	67	70	70	67	65	66	61	51	72
	.750	69	71	70	65	63	62	58	51	69
1750	.000	75	77	79	77	72	75	75	62	81
	.750	74	76	76	74	69	70	68	59	77
	1.250	76	78	77	72	67	67	64	58	75
2100	.000	81	81	84	83	76	78	82	69	86
	.500	80	81	82	81	74	76	78	67	84
	1.000	79	81	81	80	73	74	74	65	82
	2.000	82	83	82	78	71	71	69	64	80
2450	.000	83	86	87	87	81	81	84	76	90
	.500	82	86	86	86	80	79	82	74	88
	1.000	81	86	86	85	79	78	79	72	87
	2.000	81	87	86	83	77	75	75	69	85
	2.750	84	88	87	83	76	74	73	68	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>Wj</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

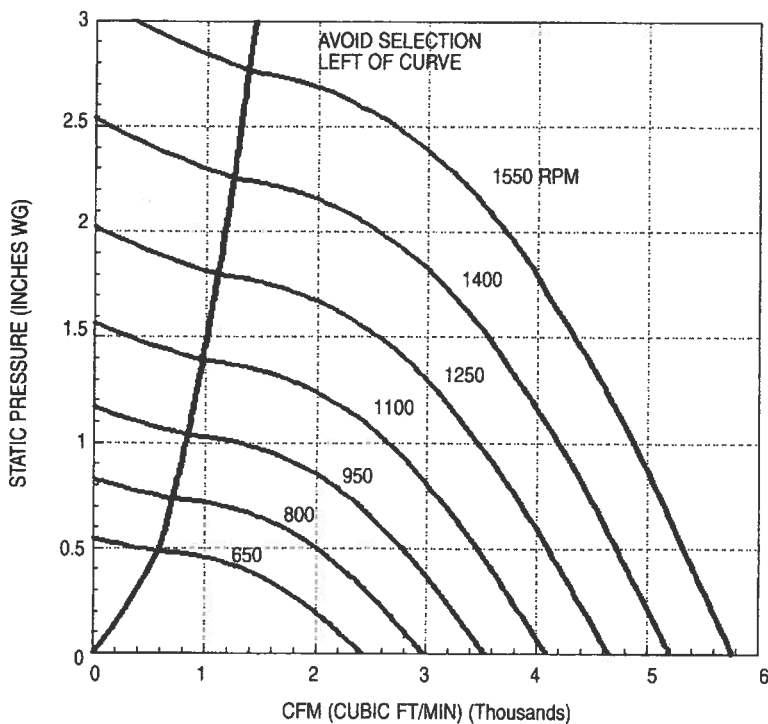
## QIBK 15 AIR PERFORMANCE



## QIBK 15 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
550	.000	53	53	55	55	51	44	37	56
	.500	65	63	61	56	56	53	48	61
850	.000	77	74	73	72	72	67	60	76
	.500	76	74	73	70	67	63	57	72
	.750	75	73	71	67	64	62	57	70
1150	.000	85	81	79	78	77	75	68	82
	1.000	83	81	79	75	71	69	64	78
	1.500	83	80	77	73	68	67	63	76
1450	.000	91	87	84	82	81	81	74	87
	1.000	89	87	85	82	78	76	70	84
	1.500	89	87	84	80	75	74	70	83
	2.000	89	86	82	79	73	72	69	81
1750	.000	93	91	87	85	84	83	77	89
	1.000	91	90	88	85	82	80	74	88
	2.000	91	90	87	83	78	76	72	85
	2.500	91	90	86	82	76	75	72	84
	2.750	91	90	86	82	76	75	72	84

## QIBK 18 AIR PERFORMANCE

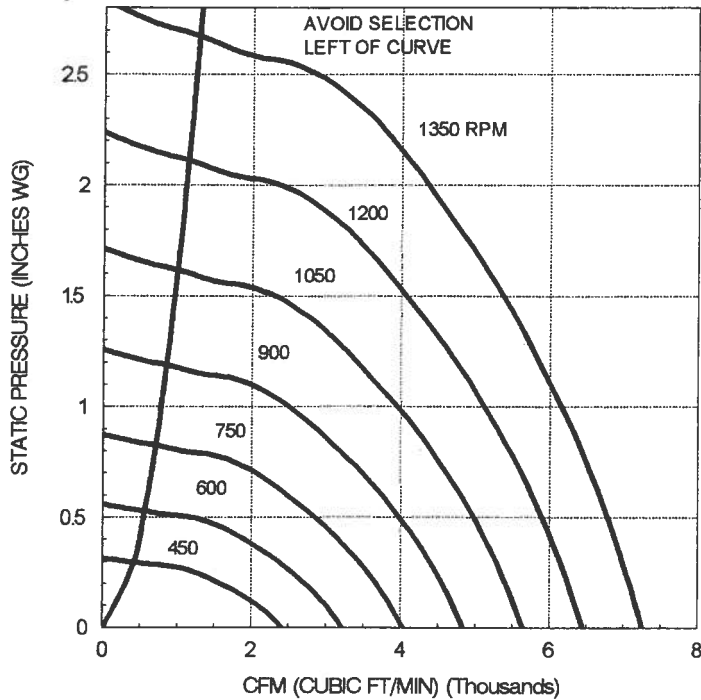


## QIBK 18 SOUND PERFORMANCE

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS							
		OCTAVE BANDS							
		1	2	3	4	5	6	7	8 LWA
550	.000	64	60	60	57	64	58	47	66
	.625	67	70	65	63	61	60	54	66
750	.000	73	81	74	72	70	75	67	79
	.500	73	78	72	71	67	68	63	74
	1.000	72	77	71	69	65	66	62	73
950	.000	75	84	80	78	73	80	74	83
	.750	76	82	78	76	71	72	69	79
	1.250	76	80	77	75	70	71	68	78
1150	.000	77	87	87	82	78	81	79	87
	1.000	79	85	85	80	76	75	73	83
	1.500	79	84	84	79	75	74	72	86
	2.000	78	84	84	79	75	74	72	82
1350	.000	79	89	92	84	81	82	83	90
	1.000	80	88	90	83	80	78	77	87
	1.750	80	87	88	82	78	76	75	86
	2.000	80	86	88	81	78	76	75	85
	2.500	80	86	88	81	78	76	75	85

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.

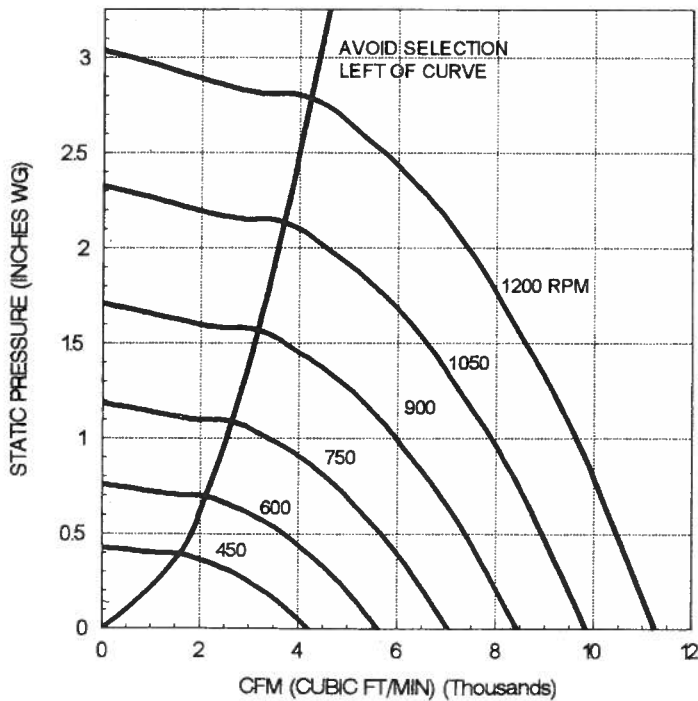
**QIBK 21**  
**AIR PERFORMANCE**



**QIBK 21**  
**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	
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	
900	.750	78	76	72	68	67	64	57	50	73	
	.000	78	79	78	73	70	71	68	60	78	
1075	.500	78	80	77	73	70	72	65	57	78	
	1.000	81	81	77	72	70	70	64	56	77	
1250	.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	
	.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	

**QIBK 24**  
**AIR PERFORMANCE**

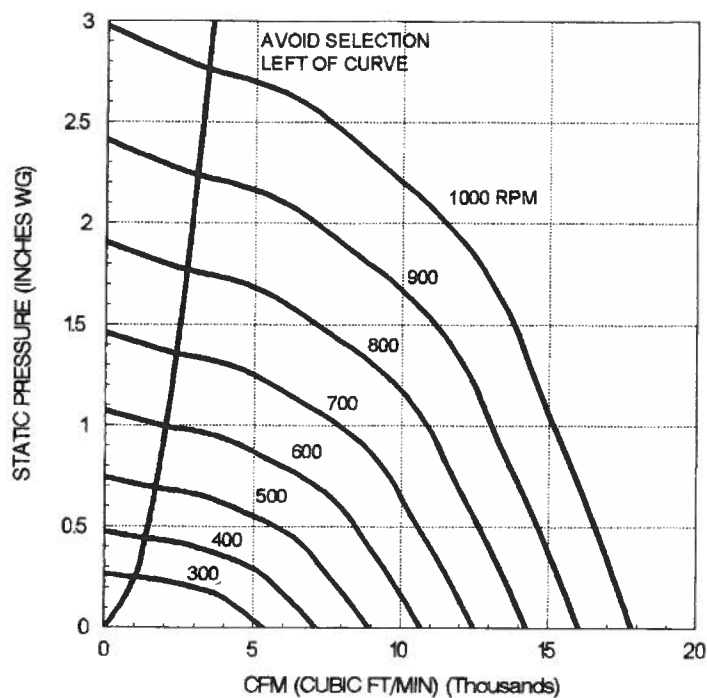


**QIBK 24**  
**SOUND PERFORMANCE**

RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS									
		OCTAVE BANDS									
		1	2	3	4	5	6	7	8	LWA	
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	
800	.500	79	79	74	70	69	69	62	54	75	
	.750	79	77	72	68	68	67	62	55	74	
925	.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	
	1.500	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>W</sub> sound power levels for installation Type A free inlet, free outlet. Ratings do not include the effects of duct end correction.

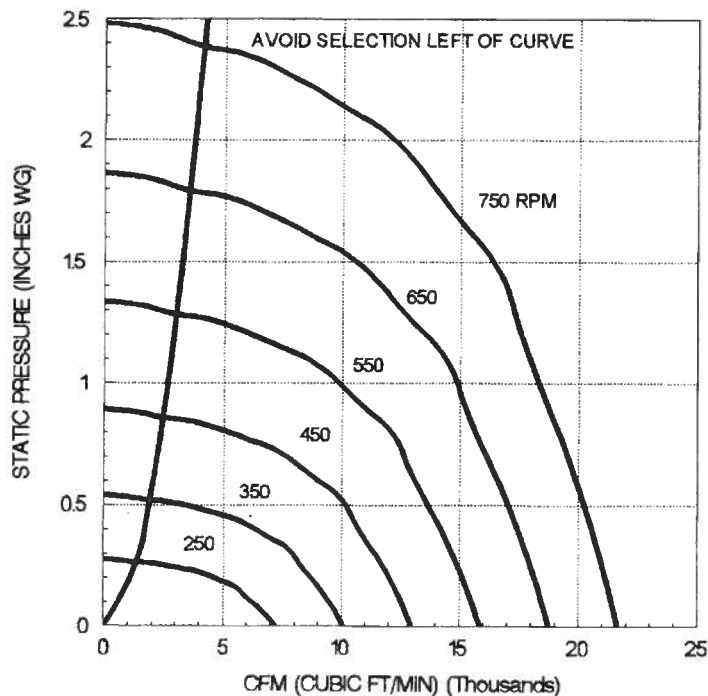
## QIBK 30 AIR PERFORMANCE



## QIBK 30 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	
275	.000	59	58	58	63	63	52	46	41	65
375	.000	67	67	64	65	76	62	56	50	76
	.375	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

## QIBK 36 AIR PERFORMANCE



## QIBK 36 SOUND PERFORMANCE

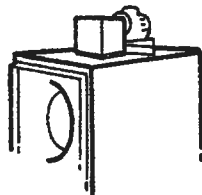
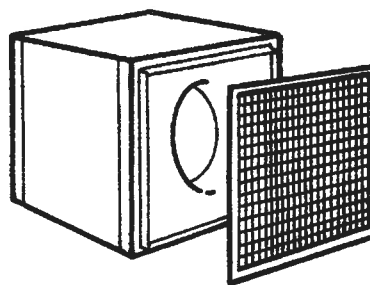
RPM	SP INCH W.G.	SOUND POWER RE 10 <sup>-12</sup> WATTS								
		OCTAVE BANDS								LWA
		1	2	3	4	5	6	7	8	
250	.000	66	66	64	63	61	61	64	68	71
330	.000	73	74	71	70	68	66	69	73	76
	.375	69	69	65	64	64	64	62	60	70
410	.000	80	79	77	75	73	71	73	76	81
	.375	78	76	73	71	70	70	69	69	77
	.625	77	74	71	69	69	69	68	65	75
470	.000	84	82	81	78	77	75	75	79	84
	.375	83	81	78	75	74	73	73	74	81
	.750	81	78	75	72	72	72	71	69	78
530	.000	88	85	84	81	80	78	77	81	86
	.500	87	83	82	78	77	76	76	76	84
	.750	86	82	80	75	75	74	74	73	82
	1.000	86	81	79	75	74	74	74	72	81
590	.000	91	88	87	83	82	80	79	82	89
	.500	91	87	85	81	80	79	78	80	87
	.750	90	85	84	79	79	77	77	77	85
	1.000	89	84	82	77	77	76	77	75	84
	1.250	89	84	82	77	77	76	77	74	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.

## ACCESSORIES

### 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.

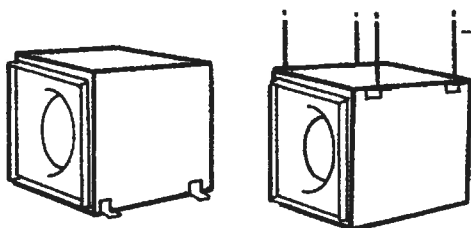
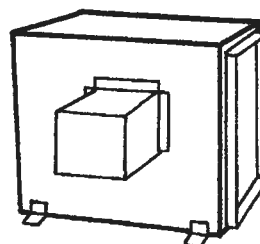


### BELT GUARD

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 21-36).

Floor mounting isolators are the rubber-in-shear type for all sizes.



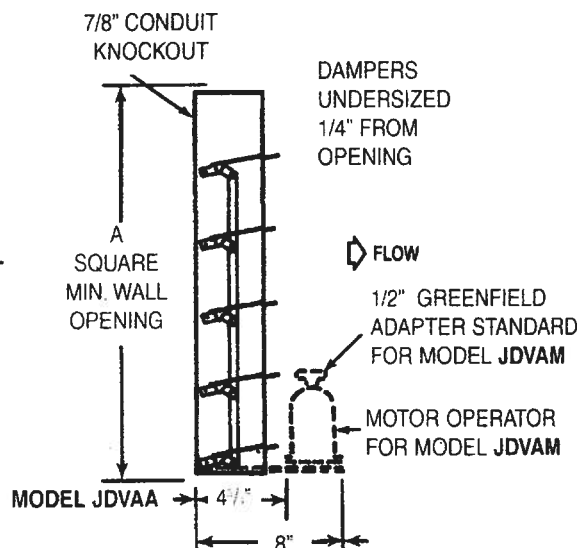
### INSULATED HOUSING

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

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



## FINISHES

### ACID RESISTANT COATING

Carnes Acid Resistant Coating consists of a two component catalyst based, modified epoxy polyamid finish over an electrocoat or other primer. It is a universal corrosion resistant finish for roof ventilation applications where acids, alkalies, salts or solvents are mixed with exhaust air from laboratory hoods, industrial processes, battery rooms and other applications.

### PRIME COAT

Carnes Prime Coat finish is electrocoated on small sizes and sprayed on large sizes. The prime coat provides a base for field painting to match background paint colors.

### HERESITE

Air Dry Heresite is widely used as a coating for a variety of applications. This finish is an air dry phenolic which has a good resistance to high concentrations of most organic and inorganic acids and has excellent solvent resistance.

### AIR DRY ENAMEL

Air Dry Enamel is available as a finish for color-to-match applications. This finish consists of a prime coat and a top coat of a specified color.

## ELECTRICAL ACCESSORIES

### Electronic Speed Controls (for use with PSC, or SHP motors only)

- 3 AMP Speed Control . . . Model JXUA
- 6 AMP Speed Control . . . Model JXVA
- 10 AMP Speed Control . . . Model JXWA

### High-Low-Off Switch (for remote mountings)

- 1 or 3 Phase to 1 HP for 2-Speed,  
2 Winding Motor . . . . . Model JXRA
- 1 Phase to 1/2 HP for 2-Speed,  
2 Winding Motor . . . . . Model JXSA
- 3 Phase to 2 HP for 2-Speed,  
2 Winding Motor . . . . . Model JXTA

### Safety Disconnects (furnished and mounted as standard except on explosion proof motors)

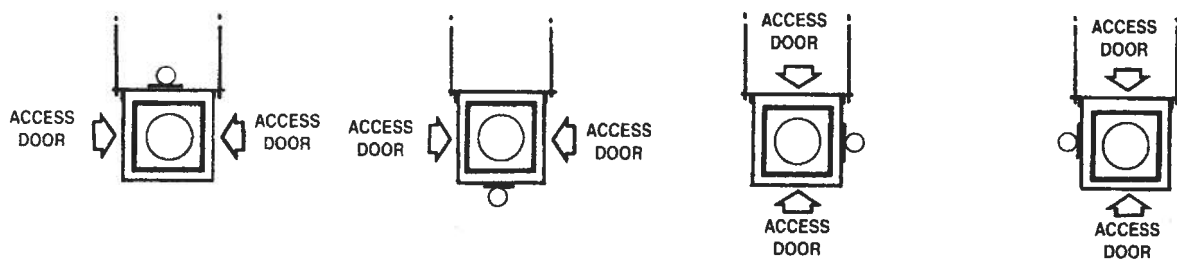
- 2 Pole, 1 Phase . . . . . Model JXLA
- 3 Pole, 3 Phase . . . . . Model JXMA
- 3 Pole, 3 Phase, NEMA 1 . . . . . Model JXNA
- 2 Pole, 1 Phase, Explosion Proof,  
NEMA 7 & 9 . . . . . Model JXKA
- 3 Pole, 3 Phase, Explosion Proof,  
NEMA 7 & 9 . . . . . Model JXJA

## MISCELLANEOUS

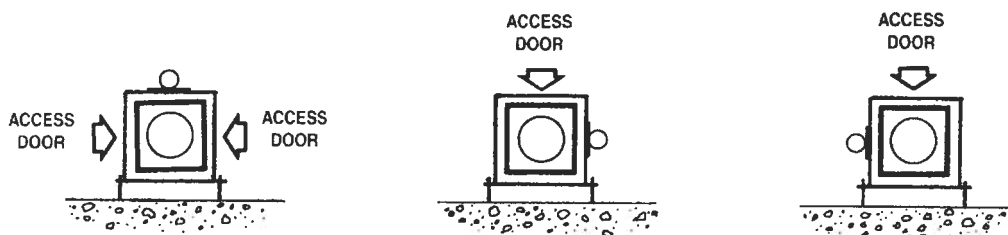
Inline duct fan options include aluminum housings, spark-resistant wheels, special type motors (two-speed--one winding or two winding, high efficiency, totally-enclosed and explosion proof), hinged access panels, extended lube lines, special finishes and other special features.

# MOUNTING OPTIONS

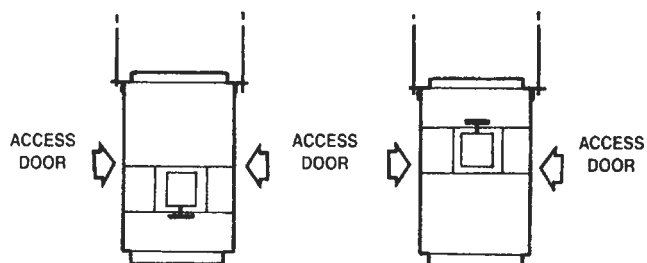
## HORIZONTAL CEILING SUSPENDED



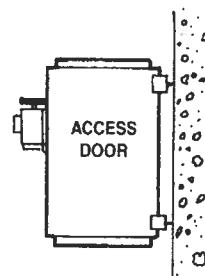
## FLOOR MOUNTED



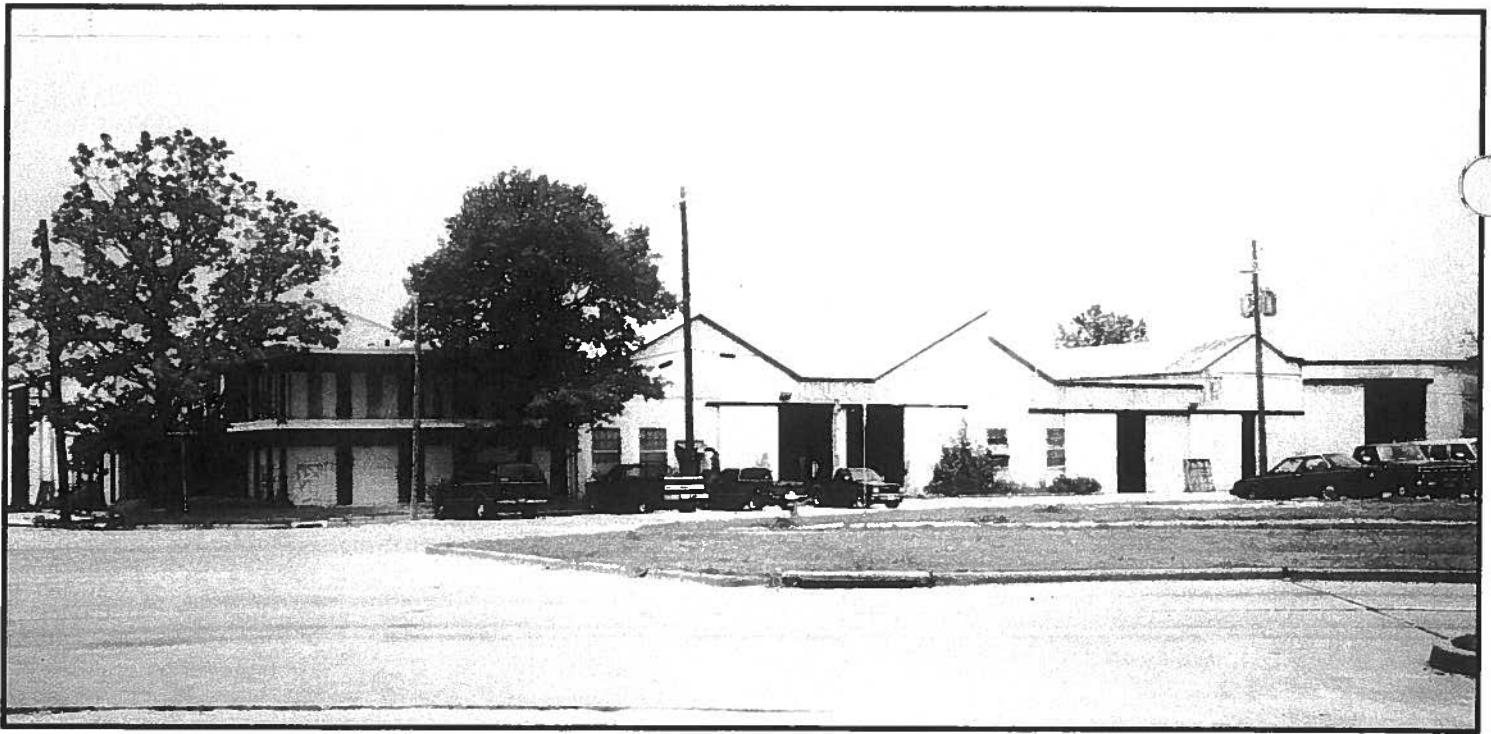
## VERTICAL CEILING SUSPENDED



## WALL MOUNTED







*The Quietaire Corporation is located in the heart of Houston's industrial area. The plant is convenient to freeways, railroad and steamship facilities.*

Located in Houston, Texas, Quietaire is a manufacturer of quality ventilation equipment with 60 years of experience in ventilation and manufacturing. Quietaire knows the importance of quality performance and customer service. Manufacturing facilities are continually being improved as

modern technology and ingenuity demands. Modern computer assisted machinery and automated tooling assure close tolerances so that finished products operate as they are designed.

## Warranty

**Warranty and Disclaimer:** Quietaire Corporation extends this limited warranty to the original buyer and warrants that products manufactured by Quietaire shall be free from original defects in workmanship and materials for one year from date of shipment, provided same have been properly stored, installed service, maintained and operated. This warranty shall not apply to products which have been altered or repaired in any way so as to effect its performance, without Quietaire's express authorization, or altered or reliability, nor which have been improperly installed or subjected to misuse, negligence, or accident, or incorrectly used in combination with other substances. The Buyer assumes all risks and liability for results of; use of the products. Warranties on purchased parts, such as electric motor and controls are limited to the terms of warranty extended by our supplier.

**Limitation Of Remedy And Damages:** All claims under this warranty must be made in writing and delivered to Quietaire Corporation 505 North Hutcheson, Houston, Texas 77003 within 15 days after discovery of the defect and prior to the expiration of one year from the date of shipment by Quietaire of the product claimed defective, and Buyer shall be barred from any remedy if Buyer fails to make such claim within such period.

Within 30 days after receipt of a timely claim, Quietaire shall have the option either to inspect the product while in Buyer's possession or to request Buyer to return the product to Quietaire at Buyer's expense for inspection by Quietaire. Quietaire shall replace, or at its option repair, free of charge, any product it determines to be defective, and it shall ship the repaired or replacement product to Buyer F.O.B. point of shipment; provided, however, if circumstances are such as Quietaire judgment to prohibit repair or replacement to remedy the warranted defects, the buyer's sole and exclusive remedy shall be a refund to the buyer of any part of the invoice price, paid to Quietaire for the defective product or part.

Quietaire is not responsible for the cost of removal of the defective product or part, damages due to removal, or any expenses incurred in shipping the product or part to or from Quietaire plant, or the installation of the repaired or replaced product or part.

Implied warranties, when applicable, shall commence upon the same date as the express warranty provided above, and shall except for warranties of title, extend only for the duration of the express warranty provided above. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. The only remedy provided to you under an applicable implied warranty and the express warranty shall be the remedy provided under the express warranty, subject to the terms and conditions contained therein. Quietaire shall not be liable for incidental and consequential losses and damages under the express warranty, any applicable implied warranty, or claims for negligence, except to the extent that his limitation is found to be unenforceable under applicable state law. Some states do not allow exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. The warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

No employee, agent, dealer, or other person is authorized to give any warranties on behalf of Quietaire or to assume for Quietaire any other liability in connection with any of its products except in writing and signed by an officer of Quietaire.

**Technical Advice And Recommendation, Disclaimer:** Notwithstanding any past practice or dealings or any custom of the trade, sales shall not include the furnishing of technical advice or assistance or system design. Any such assistance shall be at Quietaire sole option and may be subject to additional charge.

Quietaire assumes no obligation or liability on account of any recommendations, opinions, or advice as to the choice, installation or use of products. Any such recommendations, opinions or advice are given and shall be accepted at your own risk and shall not constitute any warranty or guarantee of such products or their performance.

**For Distributor Nearest You -**

Telephone 713 228-9421

Fax 713 228-9425

**Quietaire, Corporation**  
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# Quietaire

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