



Patented QEI
 USA Patent No. 7048499
 China (P.R.) Patent No. CN1294361C
 Mexico Patent No. 243465

UL/cUL 705 Power Ventilators
 E40001 - QEI-VII
 UL/cUL 762 Power Ventilators for Restaurant Exhaust
 Appliances - MH11745 - QEI-I/II
 UL/cUL Power Ventilators for Smoke Control Systems
 MH17511 - QEI-VII, QEID



Model QEI-I/II are AMCA Licensed for Sound and Air Performance

Model QEI-I/II Belt Drive

Mixed flow fans are for use in commercial and industrial applications that demand quiet, efficient and reliable air movement. Typical applications include office buildings, concert halls, libraries, parking garages, educational facilities and dormitories. Models can be used in exhaust, supply, and return-air; clean or contaminated air ventilation installations with continuous airstream temperatures up to 200°F. Units may be ceiling hung or floor mounted.

Quick Build Performance

QEI-I/II capacities range from 500 to 50,000 cfm and up to 7.5 in. wg of static pressure.

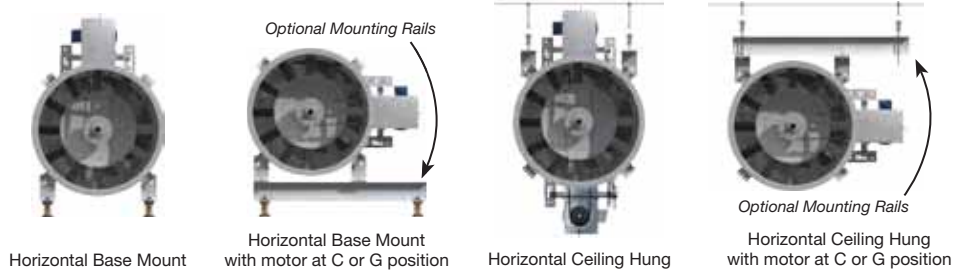
Standard Construction	
Housing - continuously welded, steel	Minimum bearing life of L ₁₀ 80,000 hours (Average life - L ₅₀ 400,000 hours)
Impeller - mixed flow with steel blades	
Straightening vanes	Universal mounting system (sizes 9 - 27)
Access door - bolted	Final assembly vibration analysis
Slip-fit collar for duct connection	Extended lube lines - nylon
Belt guard	Permatector™ protective powder coating
Options and Accessories	
Totally enclosed belt guard	Mounting rails - horizontal and all vertical applications
Motor cover	
Guards - inlet, outlet	Decorative or protective powder coating
Flanges - inlet, outlet	UL/cUL Listed Power Ventilators
Isolators - base, hanging	UL/cUL Listed Power Ventilators for Restaurant Exhaust Appliances
Belt tube	
NEMA rated disconnect switch	UL/cUL Listed Power Ventilators for Smoke Control Systems
Copper lube lines	

Best Available Program

10 Days

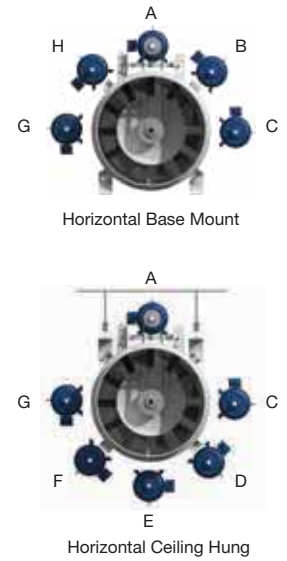
Universal Mounting (Sizes 9-27)

Universal QEI fans can be mounted vertically (ceiling hung or base mount) for either upward or downward airflow. Optional mounting rails are suggested for any vertical installation. One configuration for base mounting or ceiling hung applications. Allows for field rotation of motor position.



Motor Positions

determined from the discharge end



Horizontal Mounting (Sizes 30-40)

Available in horizontal and vertical configurations. Horizontal applications allow for field rotation of motor position.

Vertical Mounting (Sizes 9-40)

Vertical mounting configurations, upblast or downblast, are provided with heavy-duty steel brackets welded to both ends. These brackets permit either floor or ceiling mounting on the same unit. Optional mounting rails are suggested for any vertical installation for sizes 9-27.



Mixed Flow - QE-I/II

The mixed flow fan is a quiet, highly efficient alternative for inline ventilation. The unique axial/centrifugal hybrid impeller design captures the highly efficient “straight-through” airflow of vane axials and the lower sound levels of tubular centrifugal fans to provide an energy efficient product that won’t be a distraction in your ventilation system.

Flexible Universal Mounting System allows for field rotation of motor location.

Permatector™ coating is an industrial grade, electrostatic powder paint. Provides a durable, long lasting finish for interior or exterior applications.

Integral, spun inlet cone provides even airflow into the impeller in ducted or non-ducted applications and helps to reduce system effects associated with uneven duct velocity profiles.

Mixed flow impellers are designed with single-thickness, cambered blades to maximize free area and efficiency. Tight wheel to cone tolerances further improve the mechanical efficiency.

All motors are mounted on adjustable pivot bases for easy adjustments.

Sealed belt guard protects personnel and minimizes air leakage around motor shaft.

Extended collar on inlet and outlet allow for quick and easy slip-fit duct connections to ductwork or plenum wall.

Flexible Sleeve

Fan

Duct

Aerodynamically designed straightening vanes improve performance by converting kinetic energy of swirling air into useful static pressure.

Cast, flange-mounted bearings are air-handling quality and use concentric bore locking systems for smooth operation. Bearings are selected for a minimum L₁₀ life in excess of 80,000 hours at the maximum fan class RPM. (Average life - L₅₀ 400,000 hours)

Airflow Profiles



Centrifugal Fan: Two 90° deflections, before airflow exits the fan.



Axial Fan: Straight-through, nearly linear airflow.



Mixed Flow QEI Fan: Slight airflow deflection from straight-through.

Lower Sound Power, Better Sound Quality

The sound quality of the QEI is as beneficial to low sound design as is the reduced overall sound power. The sound chart compares units of similar outer tube diameters at an operating point of 20,000 cfm with 1.5 inches wg of static pressure (Ps). Tubular centrifugals (green) have dominant tones in the 63 Hz through 250 Hz octave bands, while vane axials (red) have more mid to high frequency sound. The QEI does not have a dominant tone. A bystander would hear a more bland sound that is quieter than a tubular centrifugal or vane axial.

