



THE NEW YORK BLOWER COMPANY  
7660 Quincy Street  
Willowbrook, IL 60527-5530

Visit us on the Web: <http://www.nyb.com>  
Phone: (800) 208-7918 Email: [nyb@nyb.com](mailto:nyb@nyb.com)

**GUIDE SPEC**  
**GS-675**  
**June 2007**

## **SPECIFYING BELT DRIVE VANEAXIAL FANS**

### **GENERAL**

The fans shall be size \_\_\_\_\_ Vaneaxial as designed and manufactured by The New York Blower Company. Fan wheels shall utilize cast aluminum, airfoil blades in all sizes. Unless other-wise directed, fans shall be in compliance with the layout shown on the drawings.

### **PERFORMANCE**

Fan ratings shall be based on tests made in accordance with AMCA Standard 210 and licensed to bear the AMCA Certified Ratings Seal for Air Performance. Fans not licensed to bear the AMCA Seal for performance shall be tested, at supplier's expense, in an accredited AMCA laboratory. (Option: Only AMCA certified fans will be accepted.) Fan brake horsepower shall be equal to or less than \_\_\_\_\_ BHP at \_\_\_\_\_ inches static pressure and \_\_\_\_\_ CFM at \_\_\_\_\_ density.

### **SOUND**

Fan manufacturers shall provide sound power level ratings for fans tested and rated in accordance with AMCA Standards 300 and 301. Tests shall be performed in an accredited AMCA laboratory. Sound power ratings shall be in decibels (reference  $10^{-12}$  watts) in eight octave bands. Sound power levels will be corrected for installation by the specifying engineer...dBA levels only are not acceptable.

### **CONSTRUCTION**

Fan housings are to be heavy gauge, continuously welded construction. Housings with lock seams or partially welded construction are not acceptable. Aerodynamically designed straightening vanes are to be integral to the fan housing.

### **BEARINGS**

Bearings are to be heavy duty, grease lubricated, precision anti-friction ball or spherical roller, self-aligning design. Bearings shall be designed for a minimum L-10 life of 80,000 when rated at the fan's maximum cataloged operating speed.

### **SHAFT**

Shafts are to be ASTM A-108 steel, grade 1040/1045, precision turned, ground and polished. Grade 1018 steel is not acceptable. The shaft's first critical speed shall be at least 130% of the fan's maximum operating speed. The drive end of the fan shaft shall be counter-sunk for tachometer readings.

### **PAINT**

All fan surfaces are to be thoroughly prepared prior to painting using a combination of washing and hand and power tool cleaning as required. After cleaning, all surfaces (except wheel) are to be coated with an industrial grade alkyd enamel. Surfaces of bolted components not accessible after assembly shall be coated and allowed to dry prior to final assembly. Primer only will not be accepted.

### **BALANCE AND RUN TEST**

All fan wheels shall be precision balanced prior to assembly. Fans complete with motors and drives shall receive a final test balance at the specified operating speed.

### **ACCESSORIES**

Accessories shall be provided as called for in the plans and specifications.

Standard accessories include:

- External Bearing Lubrication Fittings
- Inlet Flange
- Outlet Flange
- Vane Section

Required accessories include:

- Mounting Arrangement – Floor, Roof, Vertical, Duct, Suspended
- Access Door
- Drain
- Drain Plug
- Inlet Vane Damper
- Easy Access Construction
- Outlet Guard
- Inlet Bell with Guard
- Belt Guard
- Silencer
- Extended Inlet Guard
- Heat Fan Construction - 121°F. to 200°F.
- Shaft Seal - Ceramic Felt - Buna-N - Viton® - Teflon®
- Companion Flange
- Stack Hood
- Curb Cap
- Weather Cover
- Vibration Isolation - Spring - Rubber-In-Shear
- V-Belt Drives - Variable Speed - Constant Speed
- Spark Resistant Construction - AMCA B - AMCA C

### **FINAL INSPECTION**

All fans shall receive a final inspection by a qualified inspector prior to shipment. Inspection to include: fan description and accessories, balance, welding, dimensions, bearings, duct and base connection points, paint finish and overall workmanship.

® Registered Trademark of The New York Blower Company

Teflon and Viton are registered trademarks of DuPont and DuPont Dow Elastomers respectively.