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**GUIDE SPEC  
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## **SPECIFYING SQUARE FANS WITH BACKWARD CURVED WHEEL**

### **GENERAL**

The fans shall be Model \_\_\_\_\_ single-width, single-inlet in Arrangement 4, capable of operating over the entire range in accordance with the equipment schedule and as defined in AMCA Standard 99-2408, as designed and manufactured by The New York Blower Company. Fan wheels shall utilize non overloading backward curved blades in all models. Flat, single-thickness blades are not acceptable. Unless otherwise 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.) Fans shall have a sharply rising pressure characteristic extending throughout the operating range to assure quiet and stable operation from wide open to closed off. 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. Flanged outlet is included as standard. Housing inlet cones shall be aerodynamically designed and spun providing a minimum separation of air flow.

### **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 are to be coated with a polyester powder coating. Primer only will not be accepted.

### **BALANCE AND RUN TEST**

All fan wheels shall be dynamically balanced on precision balancers. Prior to shipment, completed fans shall receive a final test balance at the specified operating speed.

### **ACCESSORIES**

Accessories shall be provided as in the plans and specifications. Required accessories include:

- Cleanout Door - Quick Opening, Flush Bolted
- Spark-Resistant Construction - AMCA B - AMCA C
- Drain
- Drain Plug
- Integral Outlet Damper
- Outlet Companion Flange
- Shaft Hole Closure, Teflon®
- Flanged Inlet
- Inlet Companion Flange
- Inlet Vane Damper - Internal, External
- Safety Equipment - Inlet Guard, Outlet Guard

### **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, duct and base connection points, paint finish and overall workmanship.

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