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GUIDE SPEC
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SPECIFYING SURGE LIMITING PRESSURE BLOWERS

GENERAL

The fans shall be size _____ single-width single-inlet as designed and manufactured by The New York Blower Company. Fan wheels shall be high-pressure open shroud radial designed for optimum efficiency and stability. 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 in an accredited AMCA laboratory. Fans shall have a smooth pressure characteristic extending throughout the operating range to assure quiet, 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 on the outside of fan housing. Housings with lock seams or partially welded construction are not acceptable. Housings are to be reinforced with rigid bracing to increase structural integrity and prevent vibration. Housings shall feature aerodynamically designed outlet transitions providing a minimum separation of airflow. Wheels shall utilize taper lock hubs for easy wheel removal.

BEARINGS

Bearings on Arrangement 1 and 8 are selected per job based on the site performance requirements. Bearings are typically grease lubricated, anti-friction, self-aligning pillow block design utilizing an adapter mount concentric locking collars for optimum shaft to bearing fit.. Bearings shall be selected for a minimum L - 10 life of 40,000 (200,000 L-50 life) at the fan's maximum cataloged operating speed.

SHAFT

Shafts are precision turned, ground and polished. The shaft's first critical speed shall be at least 125% of the fan's designed operating speed. The drive end of the shaft shall be counter-sunk for tachometer readings. Grade 1018 steel is not acceptable. The shaft's first critical speed shall be at least 125% 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. After cleaning, all surfaces are to be coated with an industrial grade alkyd enamel. Surfaces of 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 wheels are precision balanced prior to assembly. Fans with motors and drives mounted by nyb are final-balanced at the specified running speed.

ACCESSORIES

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

Required accessories include:

- Wheels - Steel
- Cleanout Door - Flush Bolted
- Drain
- Drain Plug
- Low Leakage Construction
- Flexible Connector - Complete with Companion Flange - Sleeve and Clamps Only - Companion Flange Only
- Shaft seals - nyb's standard design. Ceramic Felt standard for arrangements 1 & 8. Optional lip and purge seals are available as adders.
- Silencer - Flanged - Venturi with Wire Guard - Plain Pipe - Support Leg
- Inlet - Flanged - Plain Pipe - Venturi with Wire Guard
- Cladding (Attenuation)
- Stainless Steel Construction
- Heat-Fan Construction
- Belt Guard with Tachometer Opening and Plug
- Shaft and Bearing Guard with Extended Bearing Lubrication Fittings
- Coupling Guard
- Flanged Inlet Guard
- Unitary Base
- Isolation Bases - Spring - Rubber-In-Shear
- Drive - Constant V-Belt
- Coupling

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.

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