





THE NEW YORK BLOWER COMPANY

800-208-7918 nyb.com

ACOUSTICAL CLADDING





The New York Blower Company has been building axial, centrifugal and custom designed fans since 1889. Our engineers modify existing designs to best suit each applications' specific requirements.

Cladding may be used to ensure proper safety and comfort levels of workers, or to adhere to sound restrictions. The system designer should work with one of our fan experts to determine the proper type of insulation and cladding needed for their specific application.

Visit **nyb.com** to find your local representative, or call us at **800-208-7918**.





FAN ACOUSTICS

There are several factors that can contribute to excessive noise while fans are in operation. Blade passing frequency, caused by the pressure pulsations as a blade passes a stationary object, are a major and common noise source. Air turbulence can be caused by abrupt changes in the direction of airflow, any points of resistance to current flow, or air vortices caused by rotating fan blades, and may increase sound levels. In addition, noise can be caused by individual fan components, such as bearings, drives, and motors.

SOUND ATTENUATING DEVICES

Special construction features and modifications can be used to decrease sound levels. Nyb can supply silencers, blankets or cladding for sound attenuating purposes. We manufacture our own enclosures and are able to custom fit the size of the enclosure to the installation. Sound transmission through fan housing and from the motor can be controlled with an acoustical enclosure.

FAN INSULATING AND CLADDING

Insulation can be provided for fans for acoustical and thermal protection. Acoustical cladding is used to help control the sound from inside the fan housing and ductwork to the outside environment. Thermal cladding is primarily used to control the heat transfer between the fan and ductwork, and secondarily to control sound.

THERE ARE THREE TYPES OF CLADDING WE CAN PROVIDE FOR CUSTOMERS



The first level is basic modifications to the fan exterior to allow it to be insulated in the field. Modifications may include some of the following:

- Increase in shaft length equal to the cladding thickness
- Adjustments to the fan centerline
- Increase in drive side cutout diameter
- Removable covers for areas to be accessed for maintenance
- The second level is to modify the fan design with the addition of insulation pins for the fan to be insulated in the field.
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The most robust level is full cladding of the fan. This modification involves a layer of cladding supplied and installed by nyb before the fan ships, with or without the double-wall housing. Double-wall housing preserves the look of a fan without cladding by adding in a secondary housing surrounding the layer of cladding.