

Gravity
Intake/Relief

FABRA HOOD



GRAVITY INTAKE/RELIEF

FABRA HOOD

Greenheck Fabra Hoods are designed for intake (Model FHI) or relief (Model FHR) applications with either natural gravity or positive pressure systems. The Fabra Hood design offers many important advantages not found in other gravity roof ventilators. In appearance, load bearing strength, weather resistance and dimensional flexibility, the Fabra Hood design is superior.

Appearance

The clean lines and uniform structural design of the Fabra Hood complement any building's appearance. The Fabra Hood is designed with a low profile to mount close to the roofline. The result is minimum impact on the building silhouette.

Strength and Weather Resistance

These hoods are strong enough to handle the snow loads found in even the harshest of northern climates, and they have proven their ruggedness for more than 20 years. The key to the Fabra Hood's strength and rigidity is in the design of the arched hood panels. Each panel provides its own structural support and is formed with interlocking edges. The result is a strong and rigid shell without the obstruction and performance losses of excessive internal support braces. The interlocking ribs also create tight, weather resistant joints. No caulking or caps are required to seal out rain and snow.

Performance

The rounded inner surfaces of the Fabra Hood's arched panels promote a smooth, uninterrupted flow of air to reduce pressure losses. Cataloged performance data is assured through extensive air testing of both ducted and non ducted installations with standard birdscreens in place.

Intake and relief units differ in size and performance. It is important to note that the "free area" (the opening surrounding the throat) is larger for intake hoods. This larger free area (twice the area of the throat) limits the entry of airborne debris and moisture by creating lower intake air velocities. Since relief units are not affected by velocity considerations, free area is equal to throat area. Consequently, the smaller overall dimensions of relief units result in lower cost.

Broad Range of Sizes

Model FHI (intake) and FHR (relief) are available in throat sizes ranging from a **minimum of 12" (width) x 12" (length) to a maximum of 72" wide and unlimited length**. The complete range of standard suggested throat sizes is shown in paper catalog. Other sizes are also available in increments of one inch within the limits shown.

Sizes Shipped Assembled

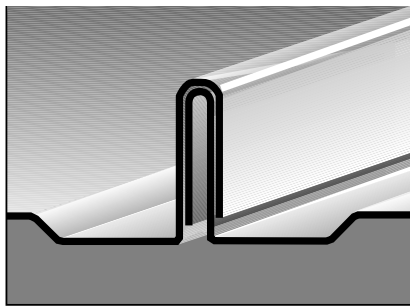
Intake Fabra Hoods with throat widths through 42" ship assembled when lengths do not exceed 84". Relief Fabra Hoods with throat widths through 48" ship assembled when lengths do not exceed 96".

Unlimited Length

With the Fabra Hood's interlocking rib design, hoods of unlimited length can be constructed on the job site. Where the appearance of a single unit is desired, roof openings of any length can be covered using a single hood. This also represents a cost savings in working with a single roof penetration. No special tools or training are required for assembly. [See page 5 for details.](#)



Construction Features



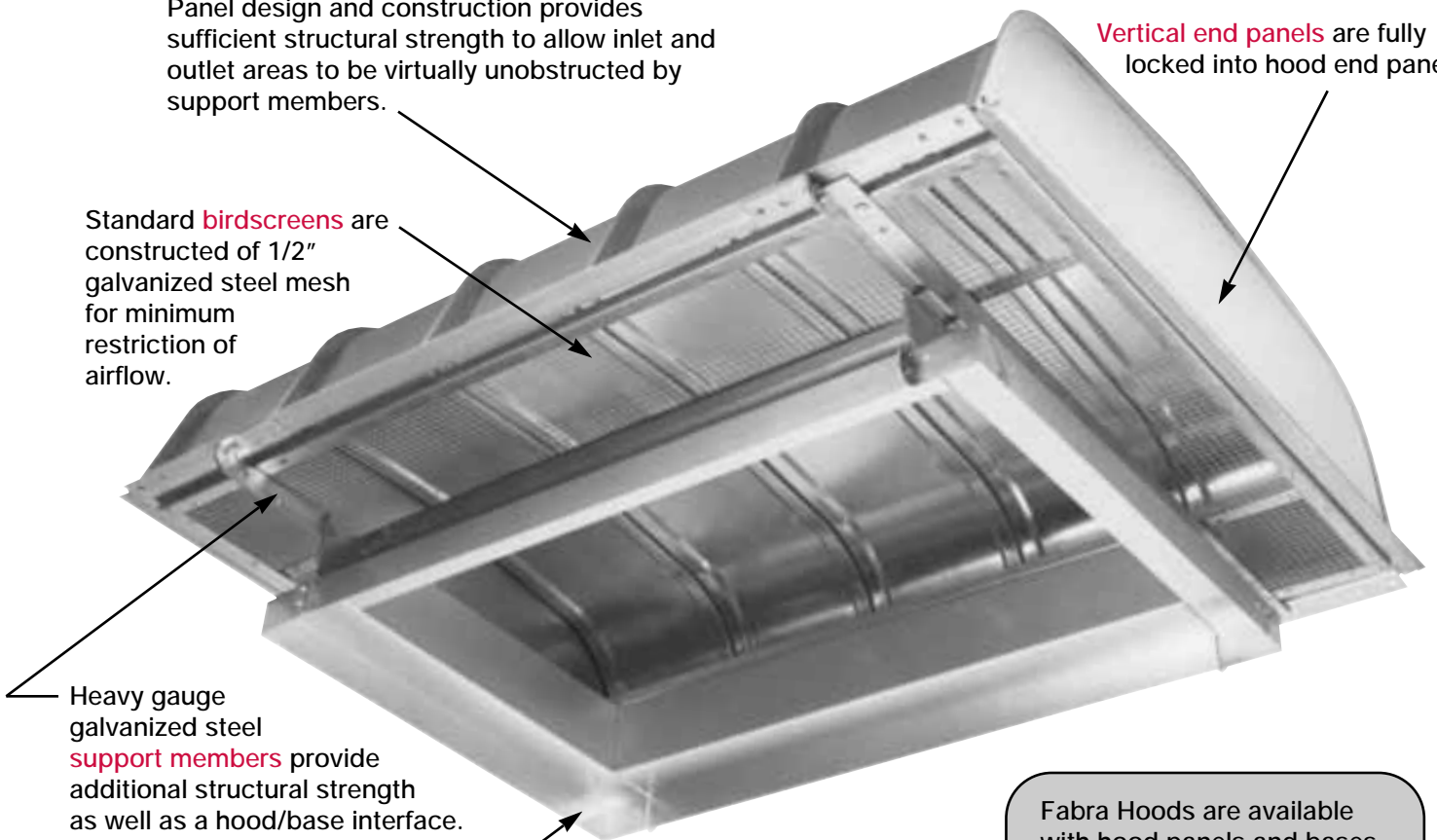
Precision Formed Locking Rib System

Strength, weather tightness and infinite length are the primary contributions of the Fabra Hood's arched, interlocking hood panels. A single precision roll forming operation creates the rib, the adjacent channel and the arch. All three features work in combination for rigidity and positive water drainage.

Hood panels are arched and precision roll formed for strength and weather tightness. Panel design and construction provides sufficient structural strength to allow inlet and outlet areas to be virtually unobstructed by support members.

Standard **birdscreens** are constructed of 1/2" galvanized steel mesh for minimum restriction of airflow.

Vertical end panels are fully locked into hood end panels.



Heavy gauge galvanized steel **support members** provide additional structural strength as well as a hood/base interface. On larger hoods truss braces are added for increased strength.

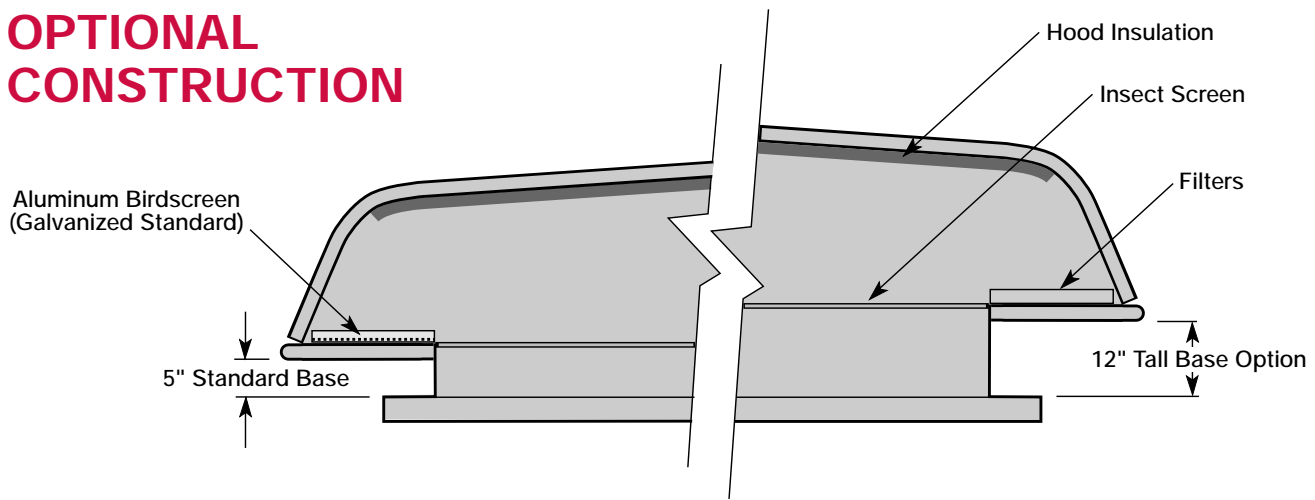
Fabra Hoods are available with hood panels and bases constructed of aluminum or galvanized steel as specified.

Standard base height is five inches. Twelve inch bases are optional. (See p. 4 for details.) Bases include prepunched mounting holes for ease of installation. The curb cap is eight inches larger than the throat size to minimize airflow restrictions. Reinforced steel hood support members are securely attached to the base and direct hood loads to the roof curb.

Accessibility

Fabra Hoods are designed for ease of access to allow inspection and maintenance of screens, filters and dampers. Removal of two bolts for each support angle permits the hood to be lifted off the base. Hinged construction (with the removal of only one of the two bolts) allows hoods to swing over and lie on the roof deck. NOTE: For safety, it is not recommended to use this hinging procedure with larger hoods, or to prop any hood part way open. Care should be taken to avoid handling the unbolted hood in strong winds, especially with larger size units.

OPTIONAL CONSTRUCTION



Twelve Inch high bases (in lieu of the standard 5") are recommended for intake applications to restrict moisture entry and for all applications where rain or snow may accumulate on the roof deck. The twelve inch base also has an advantage for larger size units in providing more clearance from the roof deck and less restriction to airflow.

Fiberglass hood insulation (either 1/2" or 1") can be factory applied to the underside of the hood to prevent condensation. Insulation is also factory applied to individual panels of large unassembled units.

Aluminum birdscreen (3/4" x 1-1/4" diamond shape) is available in lieu of standard galvanized birdscreen.

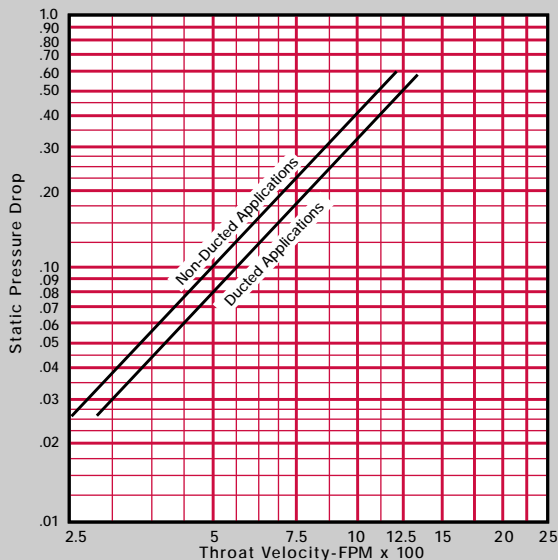
Four **tie down points**, of heavy gauge galvanized steel, are available as cable attachment points at the ends of each hood support rail. Cable tie downs prevent damage to the Fabra Hood in locations where unusually strong winds occur.

Special coatings are available for decorative or protective purposes. Units can be factory primed for field application of final finish. A **baked enamel** finish can be applied to match or complement building colors. Decorative finishes are applied to exterior surfaces only.

Greenheck's **Perma-Tector™** (a thermosetting polyester urethane) is among the protective coatings available. Others include **epoxy** (a two part polyamide resin), **tung oil phenolic** (a synthetic resin) and **Heresite** (an air dried phenolic). Protective coatings are applied to all surfaces.

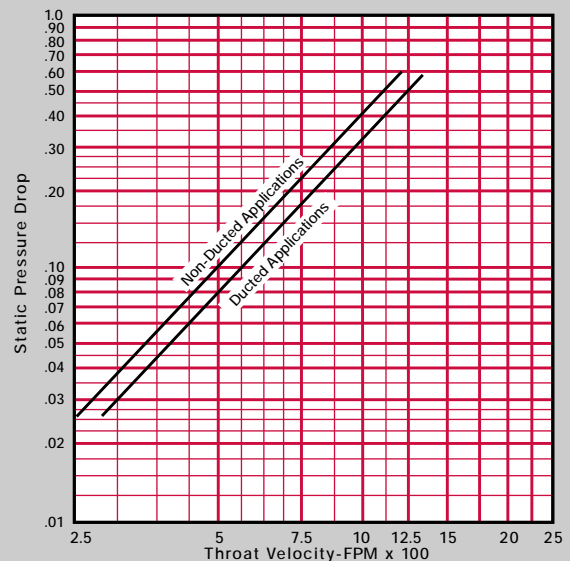
Aluminum Insect Screen

A fine mesh aluminum insect screen, tightly fitted to the top of the throat, is available to prevent the entry of insects. (This is in addition to the standard birdscreen and is available on factory assembled units only.) Use the curves on the graph below to determine the static pressure drop for units with insect screen.

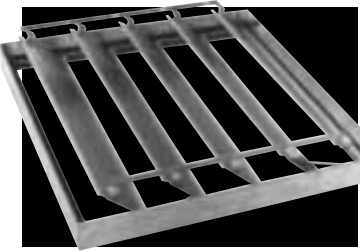


Filters

2" aluminum filters are available on factory assembled Model FHI (intake) for applications where foreign material must be removed from the airstream. Use the curves on the graph below to determine the static pressure drop for units with filters.

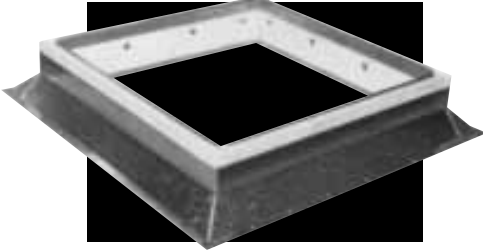


ACCESSORIES



Backdraft Dampers

Backdraft dampers are available for intake or relief and for either gravity or motorized operation (motorpack optional). Motorized dampers are recommended for all intake or low velocity relief applications. Damper sizes are the same as throat sizes.



Roof Curbs

Prefabricated roof curbs ensure compatibility between the ventilator, the curb and the roof opening. Extended bases are also available. Curb models are available to meet a wide range of applications and varying roof architecture and construction. See the Greenheck Roof Curb catalog for complete details on these products.

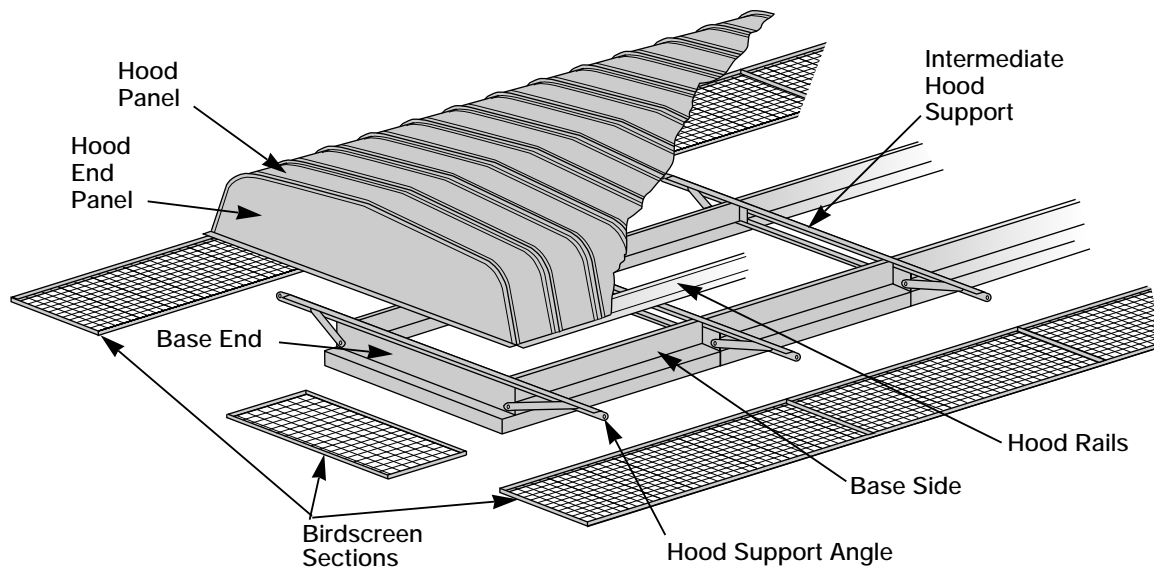
ON SITE ASSEMBLY

Flexibility is a primary feature of the Fabra Hood design. Interlocking hood panels and extendible throats allow units to be constructed to unlimited lengths. On site assembly for these larger units is not difficult, and actually offers several advantages.

Economy

For jobs with large throat sizes, assembling hoods on site reduces costs. There is a cost savings in carrying unassembled components to the roof versus the expense of cranes or other equipment involved in lifting a bulky assembled unit. The risk of damage in transporting large assembled units is also reduced when they are assembled on the roof deck.

In addition, the space saved by a compact crate of knocked down component parts reduces shipping charges and final costs over large, fully assembled units.



Ease of Assembly

Hoods of any length can be easily constructed on the job site. No special tools or training are required to assemble a Greenheck Fabra Hood.

Fabra Hoods are assembled with the following basic steps:

- Step 1** Base ends, base sides and intermediate hood supports (when required) are placed in position and bolted together.
- Step 2** Hood support angles are attached.
- Step 3** All fasteners are tightened and all inside base corners are caulked.
- Step 4** Birdscreens are attached to hood support angles.
- Step 5** Hood rails are attached to hood support angles.
- Step 6** Hood panels and end panels are assembled to hood rails.

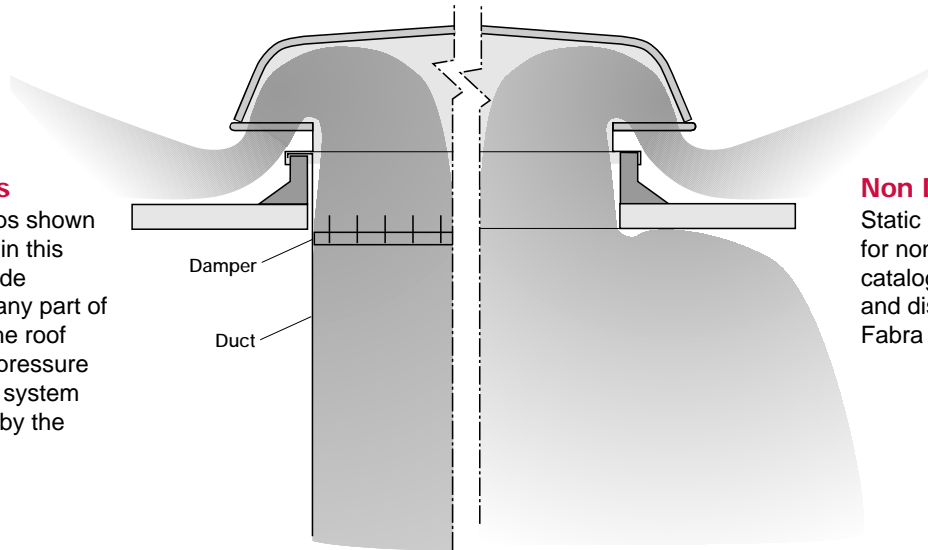
All hardware is provided with each unit, along with complete, detailed and well illustrated instructions.

System Resistance

The performance data shown on pages 6-11 includes static pressure drops for both ducted and non ducted systems. Pressure drop values as shown are lower for ducted systems than for non ducted systems. The non ducted pressure drop includes the sudden expansion at the throat for intake and sudden contraction loss at the throat for exhaust. These losses are not present when a duct is attached to the throat. In calculating total system resistance for ducted systems, it is necessary to add pressure drop values to the combined total of the other losses in the system. A damper installed in either a ducted or non ducted system will also require that an additional pressure drop value be included. Where insect screens or filters are installed, the static pressure drops shown on page 4 should be included in system resistance calculations in lieu of standard cataloged pressure drops.

Ducted Systems

Static pressure drops shown for ducted systems in this catalog do not include pressure drops for any part of the system below the roof curb. All additional pressure drops in the ducted system must be calculated by the system designer.



Non Ducted Systems

Static pressure drops shown for non ducted systems in this catalog include all entrance and discharge losses for the Fabra Hood unit.

TYPICAL SPECIFICATIONS

Gravity roof ventilators shall be constructed of heavy gauge aluminum or galvanized steel as specified. Hoods shall be constructed of precision formed, arched panels with interlocking seams. Bases shall be constructed so that the curb cap is 8" larger than the throat size. Standard base height shall be 5". Optional 12" bases shall be furnished as specified (and are recommended) for intake applications to restrict entry of moisture and for all applications where rain and snow may accumulate on the roof deck. Hood support members shall be constructed of galvanized steel and fastened so that the hood can be either removed completely from the base or hinged open. Birdscreens constructed of 1/2" galvanized steel mesh shall be mounted horizontally across the intake/discharge area of the hood. Intake units with throat widths through 42" shall ship assembled when throat lengths do not exceed 84". Relief units with throat widths through 48" shall ship assembled when throat lengths do not exceed 96". Gravity hoods shall be Fabra Hood Model FHI for intake or Model FHR for relief (as specified) as manufactured by Greenheck of Schofield, Wisconsin.

WARRANTY

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the purchase date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid.



Due to continuing research, Greenheck reserves the right to change specifications without notice.