

**MODEL "PBW"**

## WHISPER AIR™ SERIES PLENUM BOX

**GENERAL SPECIFICATIONS AND DESCRIPTION**

Furnish Gaylord Whisper Air™ Series Plenum Box Model "PBW-\_\_\_\_\_" as shown on the plans and in accordance with the following specifications:

**GENERAL:** The plenum box distributes low velocity make-up air down, immediately in front of the ventilator and shall be capable of delivering up to 150 CFM per lineal ft. of air at a low velocity.

The plenum box shall be designed to fit in front of the ventilator, either flush with the ceiling or dropped down in front of the ventilator. Plenum Box shall be 8" high by the length of the ventilator, as detailed on the drawings.

**CAPTURE AND CONTAINMENT:** Properly introduced make-up air into the kitchen space is a key factor in the capture and containment performance of the exhaust ventilator.

Make-up air introduced improperly, such as through 4-way diffusers located near the ventilator, or registers with high velocity discharge, typically results in cross drafts causing smoke loss into the kitchen.

As a general rule, make-up air should be delivered into the space at a low velocity, an average of 80 FPM or less, to allow the ventilator to pull the air to itself. Any method of introducing make-up air that is forced to the ventilator typically results in smoke loss.

The use of engineered plenum boxes, also referred to as perforated perimeter supply, is an ideal method of introducing make-up air as it assures the correct air volume, the proper discharge velocity at the proper distance from the ventilator.

The plenum box is usually preferred over a front face discharge design as it allows ventilators to be located close to walls, soffit walls, other ventilators or any other obstruction that would interfere with discharged air.

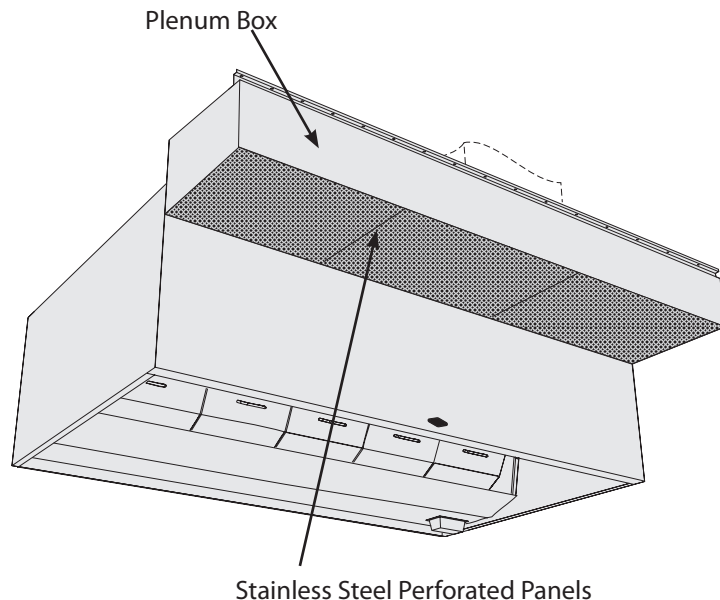
**CONSTRUCTION:** Plenum Box shall be of all stainless steel construction, not less than 20 gauge. All exposed surfaces shall be a number 4 finish. The box shall have bottom discharge through removable stainless steel perforated panels and shall include internal baffling to provide even air distribution along the entire length of the unit. One or more flanged duct collars shall be provided as shown on the plans. The box shall have two full length mounting brackets with 5/8" holes on 12" centers to accommodate hanging from the overhead.

**INSULATION:** Insulation is necessary to prevent condensation from forming on the exposed surfaces of the box. It is recommended when the sides of the Plenum Box are exposed and with the following conditions:

- 1) The make-up air is cooled
- 2) the make-up air is not heated and outside temperatures are cool.

Matte faced is the standard insulation. Foil faced is required in some jurisdictions to meet indoor air quality requirements. Consult local jurisdictions.

- Option 1 MFI:* The plenum box shall include ½" matte faced insulation on all solid interior surfaces.
- Option 2 FBI:* The plenum box shall include ½" foil backed insulation on all solid interior sides.

**APPLICATION**

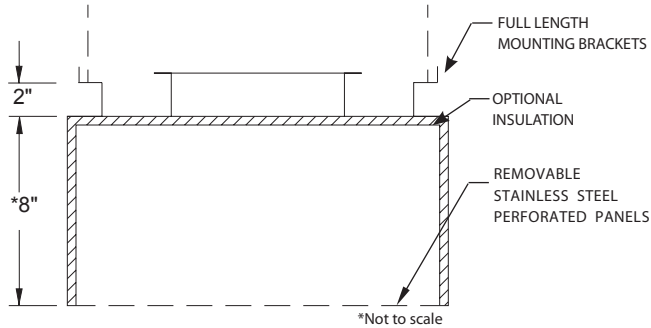
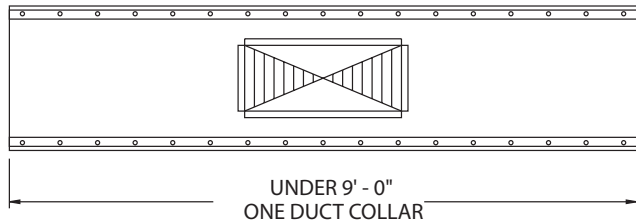
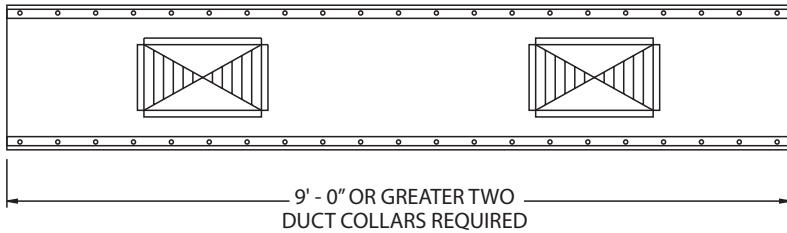
Plenum boxes are located immediately in front of the ventilator, at a minimum of 18" above the lower front edge.

On back to back cooking island applications a plenum box would be located on both sides and in some situations on all four sides.

On single island applications a plenum box would typically be located on both sides.

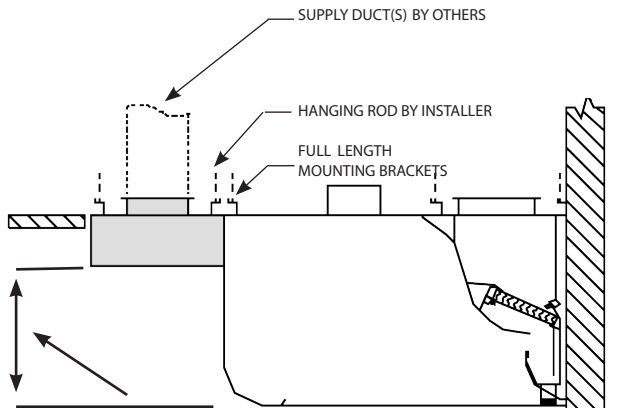
**DESIGN FEATURES**

- Whisper Air™ low velocity supply air
- 20 gauge stainless steel for exposed surfaces
- Air Volume - Delivers up to 150 CFM per lineal/ft

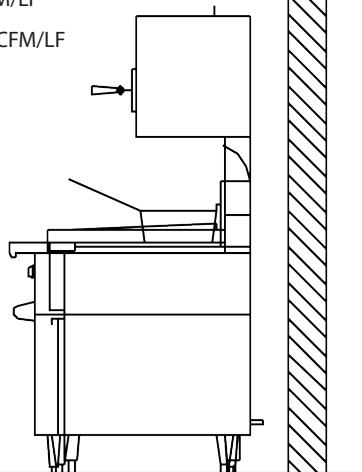


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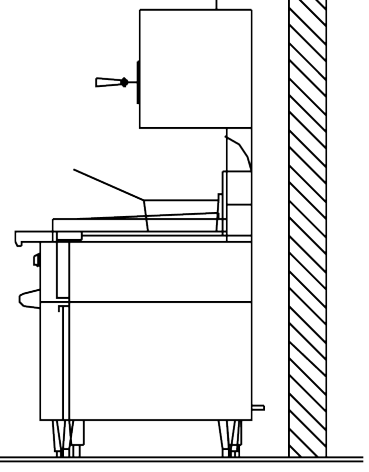
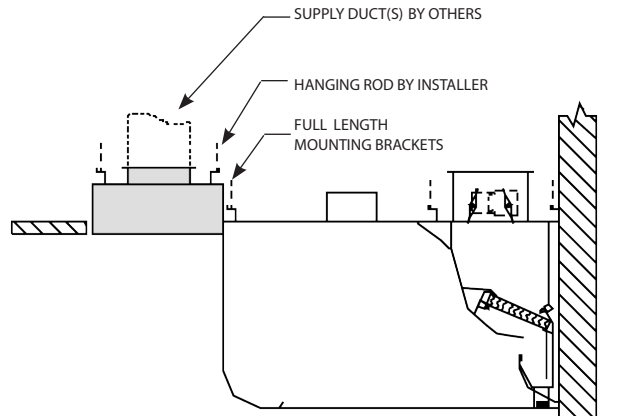
OPTIONAL INSULATION  
ENTER MFI OR FBI



18" MIN. FOR UP TO 150 CFM/LF  
24" MIN. FROM 150 TO 275 CFM/LF



**DROP DOWN INSTALLATION**



**FLUSH TO CEILING INSTALLATION**