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Product Information Sheet FBA/200 and FBM/200 Series Floor Terminals

PI/1/8.1/US/4

TROX FBA/200 and FBM/200 series diffusers are designed for raised access floor applications. Both models include a carpet flange and a high induction diffuser core assembly (components comprise the aesthetic and structural portions of the assembly) made of cast aluminum. The remaining components of the FBA/200 series diffuser are made of NFPA90A compliant plastic while those components on the FBM/200 models are powder coated steel, resulting in an all metallic construction.

DESIGN

Both FBA/200 and FBM/200 models incorporate a unique airflow control damper whose position can be manually adjusted by rotating the face of the diffuser core assembly, affording the occupants of the space individual airflow control. The retention basin is designed to catch and retain up to 20 fluid ounces of debris or liquid that might fall through the face of the diffuser. The diffuser core assembly is removable to allow periodic removal and cleaning of the debris basin.

APPLICATION

TROX FBA/200 and FBM/200 series diffusers are generally used in underfloor air distribution applications where the cavity beneath a raised access flooring system is pressurized and serves as a supply air plenum. The outlets are mounted in the floor tiles and generally fed directly from the plenum. They are mounted after the completion of the access floor and carpet installation. Removal of the diffusers can be accomplished without any disturbance to the access floor tiles or carpeting.

FBA-VAV diffusers (see Product Information Sheet PI/1/8/US/1) incorporate an electric actuator that automatically repositions the airflow damper in response to a signal by the thermostat or BAS (by others). Both FBA and FBM series diffusers can be furnished with plenum boxes that afford connection to ductwork from underfloor ductwork and/or fan terminal units.

PERFORMANCE

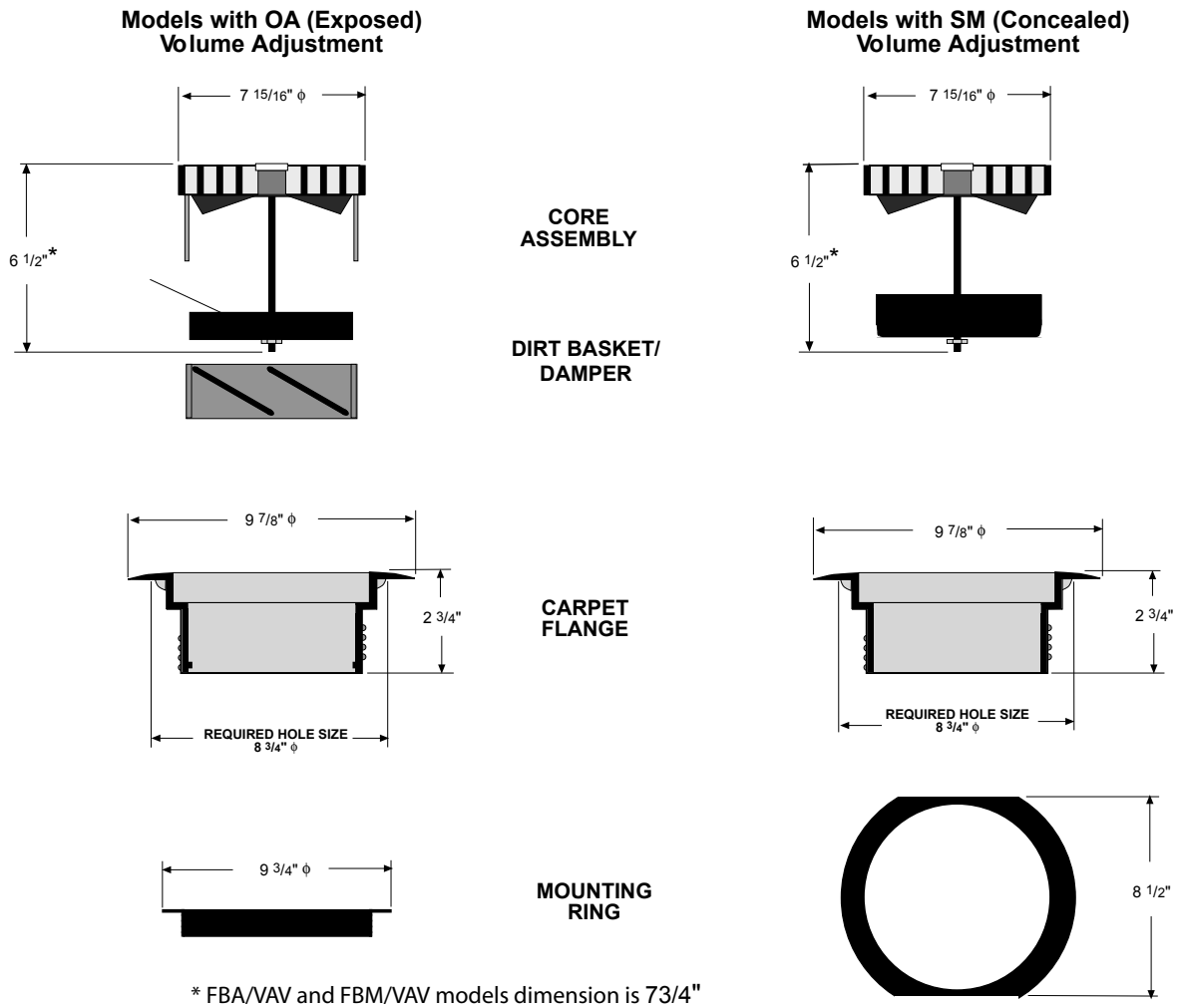
Performance for the FBA and FBM/200 series diffusers is identical to that of their FBK/200 series counterparts. See Catalog 1/8/US/3 for performance details.



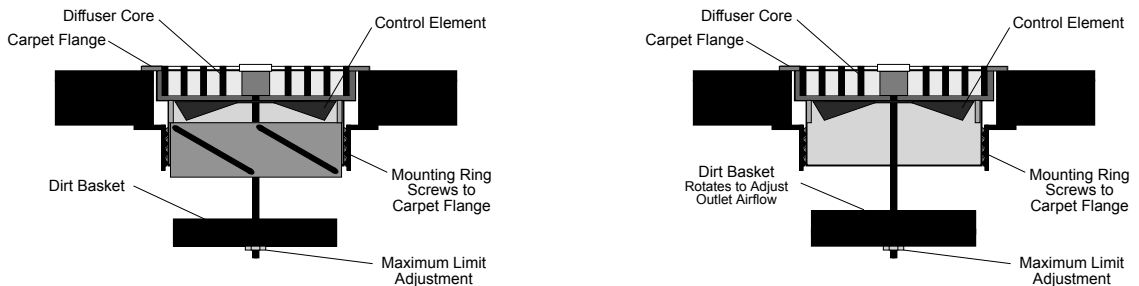
PRODUCT FEATURES

- All aluminum structural components on both the FBA and FBM series are rated for loading as high as 5,000 pounds.
- FBM series diffusers are of all metallic construction. The remaining (concealed and non-structural) components on FBA series diffusers are made from NFPA90A compliant plastic.
- Patented damper affords easy airflow adjustment by the space occupants resulting in optimal space thermal comfort.
- Retention basin catches and holds up to 20 fluid ounces of spills or debris that might pass through the diffuser face.
- Automatically controlled versions (FBA-VAV/200 and FBM-VAV/200) are also available.

Dimensional and Installation Information FBA/200 and FBM/200 Series Floor Diffusers



DIFFUSER INSTALLATION



NOTE: Diffuser Requires an $8 \frac{3}{4}''$ Diameter Hole for Mounting

A. General

Contractor shall furnish and install TROX FBA/200 (or FBM/200) floor diffusers as indicated on plans and schedules. Diffusers shall incorporate a removable core section consisting of a series of concentric rings supported by inclined air deflection vanes to distribute air in a cyclonic “swirl” discharge pattern.

B. Materials/Finish:

FBA diffusers shall consist of an aluminum carpet flange and core. All concealed (non-structural) components shall be NFPA90A compliant plastic. Finish of exposed components shall be a) brushed aluminum or b) flat black with brushed aluminum concentric rings.

FBA diffusers shall consist of an aluminum carpet flange and core. All concealed components shall be made of steel and are powder coated flat black. Finish of exposed components shall be a) brushed aluminum or b) flat black with brushed aluminum concentric rings.

C. Diffuser Features

1. Occupant Airflow Adjustment:

Assembly shall provide for occupant adjustment of the outlet airflow rate without removal of the diffuser face or other components. Adjustment shall be accomplished by rotation of the diffuser face. Adjustment through the full airflow range shall require no less than a 30 degree rotation. and be accomplished by hand without use of tools or other mechanical devices. A damper position indicator shall be inscribed on the diffuser face.

2. Balancing Provisions:

The outlet shall allow field adjustment of a maximum airflow setting. Adjustment of such shall not affect the ability of the occupant to adjust the outlet airflow, except to limit its maximum airflow availability.

3. Liquid and Solid Debris Retention

A dirt and liquid catch basin shall be furnished to facilitate removal of dust, spills, or other objects that penetrate the outlet face. This basin must be capable of capturing and retaining at least 20 fluid ounces of liquid spillage.

D. Air Diffusion Performance:

Outlet airflow rates shall be limited to that which results in a terminal velocity no greater than 50 fpm when measured four (4) feet directly above the diffuser face (with a temperature differential of 12°F between room and supply air).

E. Installation:

Installation requires that a mounting hole (8.75 diameter) in the access floor tile be provided by others. The carpet ring shall support the diffuser core while preventing fraying of the carpet edges, providing a minimum ½” overlap of the carpet surface adjacent to the opening. A threaded mounting ring shall be spun onto the carpet flange to rigidly mount the assembly to the access flooring system. Diffuser mounting shall be performed upon completed installation of the raised floor and carpet tiles and its removal shall not necessitate the removal of any carpet or floor tiles.

F. Structural Capacity:

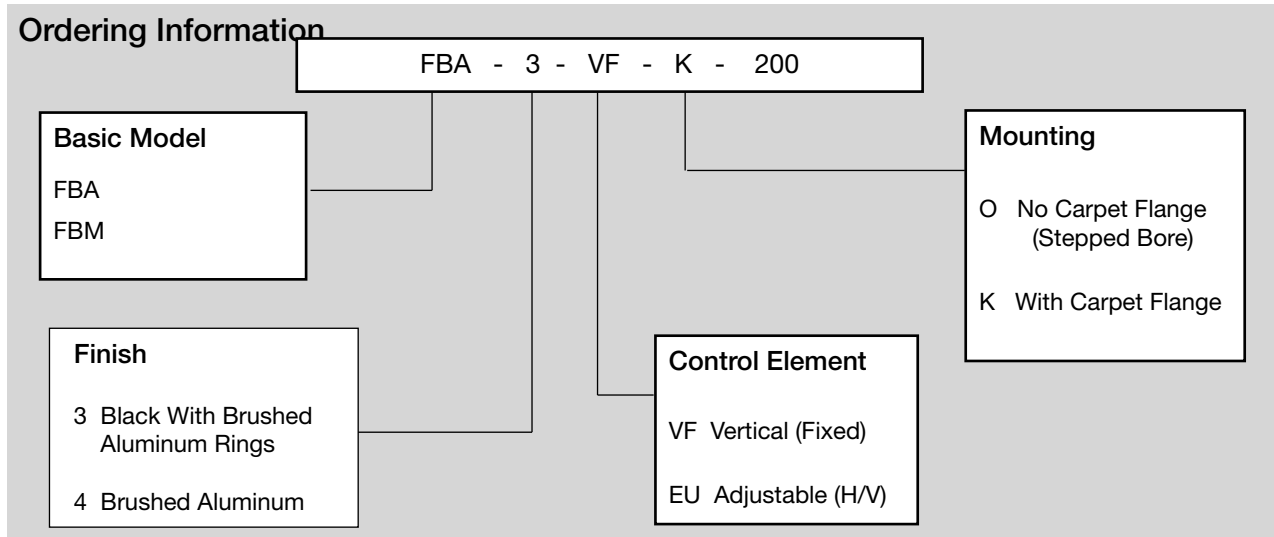
The diffusers shall be capable of supporting a load of 5,000 pounds applied evenly across a 1 square inch area located at the center of the diffuser face.

G. Compliance with Specification:

The diffuser specifications and requirements contained herein supercede and transcend any other mention or description of floor supply diffusers offered in other sections of the building plans and/or specification.

Ordering • Other TROX UFAD Products

Ordering Information



Other Underfloor Products from TROX USA

FBK/200 series diffusers

- Constructed of NFPA90A compliant plastic
- Nominal 8" diameter diffuser, delivers up to 100 CFM in plenum applications, 150 CFM when ducted or supplied by a fan terminal.
- Easy (manual) adjustment of outlet airflow rate by occupant
- FBK-VAV/200 variant provides automatic reset of airflow rate on a signal from the space thermostat or BAS (by others).

FBA & FBK/150 series diffusers

- See catalog 1/8/US/4 for further information. Accessory Plenum
- Available in heavy duty aluminum or plastic construction
- Nominal 6" diameter diffuser, delivers up to 50 CFM in plenum applications, 75 CFM when ducted or supplied by a fan terminal.
- Manual adjustment of outlet airflow rate by occupant.
- See publication PI/1/9/US/4 for further information.

Accessory Plenum Boxes for FBK, FBA and FBM floor diffusers

- Designed for connection to flexible or rigid duct.
- Available with thermostatically controlled actuators for VAV applications.

Fan terminals for UFAD systems

- Contact TROX USA for further information.
- Seven different models for almost any UFAD application.
- Four sizes provide capacities up to 1800 CFM each.
- All models and sizes are specifically designed to fit within the structure of a low height raised access flooring system.
- See publication TB111203 for further information on these terminals.

TROX FB series Floor diffusers can also be used in under seat applications such as those found in theatres and performing arts facilities. Contact TROX USA for information regarding the applications.