

Introduction: TAD Series

The Total Air Diffuser (TAD) is a patented radial flow diffuser designed for critical spaces with stringent ventilation requirements. It features a non-aspirating, forced displacement, radial design. Air flows from the TAD diffuser in a radial pattern, displacing large volumes of air out and away from the diffuser. This forced displacement of air prevents entrainment of room air which may be contaminated with pollutants. The TAD is an excellent choice for clean air environment applications. With proper application, the TAD provides superior draft reduction for high air change rate environments such as animal rooms, laboratories, and hospitals. The TAD's aluminum and stainless steel construction option makes the TAD diffuser an excellent choice for corrosive environments. The Krueger Technology Center is well equipped for TAD performance demonstrations. Virtually any application can be modeled in this facility.

MODELS

TAD	- Radial Face Critical Room Supply Diffuser; Aluminum Construction
TADSS	- Radial Face Critical Room Supply Diffuser; Stainless Steel Construction
TADHF	- Radial Face Critical Room Supply Diffuser with HEPA Filter Brackets and Backpan; Aluminum Construction
TADSSHF	- Radial Face Critical Room Supply Diffuser with HEPA Filter Brackets and Backpan; Stainless Steel Construction
TAD BACKPAN	- Backpan for Models TAD and TADSS Series of Radial Face Critical Room Supply Diffusers; Available with Aluminum, Stainless Steel, or Cold Rolled Steel Construction
TADFILTER	- HEPA Filter for TADHF and TADSSHF

FEATURES

- Air Patterns: 90° (1-way) or 180° (2-way).
- TAD Backpan greatly reduces sensitivity to inlet conditions.
- High volume, draft free.

OPTIONS

- Surface mounting frames.
- 12"x48", 24"x24", and 24"x48" panel sizes.

FINISHES

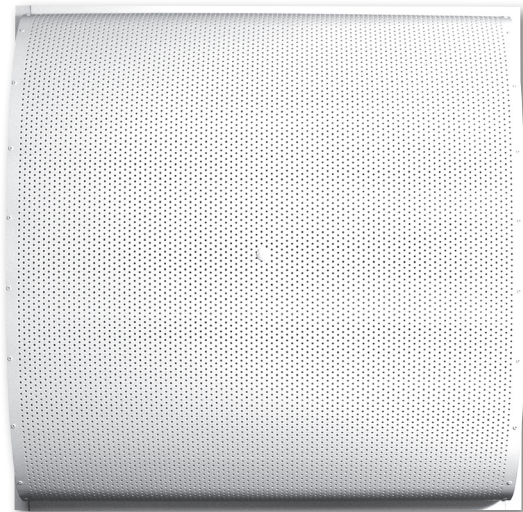
- Standard finish is #44 British White.
- Optional finishes available.

RELATED DEFINITIONS*

Air Changes: A method of expressing the amount of air going into or out of a building or room in terms of the number of building volumes or room volumes exchanged.

Diffusion: Distribution of air within a space by an outlet discharging supply air in a spreading pattern.

Entrainment: The induced flow from room air by the primary air from an outlet, creating a mixed air path (also known as secondary air motion).



TAD (Face View)



TAD (Isometric View)

Induction: The process of drawing room air into the projected air stream due to the velocity of the projected air stream (also known as aspiration).

Pressure Loss: Indication of how much total pressure is required to move air through a diffuser.

Total Pressure: Velocity pressure plus static pressure.

* Definitions taken from *Air Diffusion Dynamics Theory Design and Application* © by Ralph G. Nevins, Ph.D.