

Granular Airflow Control

The Multi-zone Opposed Blade Damper, when installed beneath a DirectAire directional airflow grate, significantly reduces bypass air and enables the airflow delivery to be balanced based on the specific load in a 14U section of the rack. The damper allows data center operators to individually adjust airflow to three zones within the rack (top, middle and bottom) without removing the DirectAire panel, ensuring fast and accurate balancing to the fixed IT load.

When the Multi-zone Opposed Blade Damper is fully open, it restricts airflow by just 10 percent, which represents a dramatic airflow improvement over traditional manual slide dampers. The damper's drop-in design allows for easy installation by decoupling the damper from the panel. This means that standard, undamped directional airflow panels can be ordered as needed, with separate opposed blade dampers purchased so they can be added whenever and wherever necessary.

Reduce Bypass When Blanking Panels Are Not Used

The Multi-zone Opposed Blade Damper can also be used when blanking panels cannot, to shut off or dampen airflow to different sections of the rack where large portions are left empty. This is especially important in data centers where co-location operators are unable to install blanking panels in their customers' racks, or IT managers are unable to keep blanking panels installed in their own racks. Zoned dampening can allow IT managers to optimize the airflow quantity far more accurately.

Well Balanced Airflow Saves Energy

Another advantage to the data center operator is an increase in potential available critical power. The reduction in airflow volume as a result of using DirectAire's directional airflow and closing off airflow to unused sections of racks reduces the energy usage for cooling at the CRAC unit level. This can enable increased efficiency of the data center proportional to the deployment of the technology.



Adjust airflow without removing the DirectAire panel

Features & Benefits

- Reduces cooling energy and improve PUE.
- Provides the most granular airflow control available in Data Centers.
- Provides nearly double the airflow at 100% open than comparable slide dampers.
- Easily adjustable from above without panel removal when used with DirectAire.
- For use with full or partial loaded racks.
- Multi-zone dampers are for use with DirectAire only.

For more information on Tate's Multi-Zone Opposed Blade Damper for Panels with directional airflow, please contact Tate's Technical Hotline at **800-231-7788** or e-mail technical@tateinc.com

Multi-Zone Opposed Blade Damper



The smoke test images below show the individual zones of the Multi-zone Opposed Blade Damper operating in combination with the DirectAire Directional Airflow Panel to target delivery of airflow to the rack specifically where it is needed.



Bottom 14U Zone Open



Middle 14U Zone Open



Top 14U Zone Open