



In-floor Cooling Solutions

Deliver the Right Amount of Airflow to the Right Place

Tate's DirectAire™ Panel angles airflow to provide effective containment and achieve an exceptional 93% Total Air Capture. The SmartAire™ Variable-Air-Volume Damper with rack-mounted temperature probes delivers cooling as it's needed, helping to cut cooling costs by 40%. And because it's an in-floor system, you get maximum cooling without taking up valuable equipment space. All of these features work together to cool an impressive 20kW per rack or can be boosted even further up to 28.5 kW/rack when equipped with the PowerAire™ Fan Assisted Module.

Best of all, these In-floor Cooling Solutions ideal for retrofit and new construction, easily integrating into your existing raised floor system.

And that's really cool.



DirectAire Key Performance Characteristics

- Directional Air Flow achieves a 93% TAC
- Easily cools high density racks
- Nearly eliminates bypass airflow from the panel
- Cools over 20kW per rack
- 68% open area delivers 2600 CFM @ .1" H₂O
- Over 40% annual fan energy savings
- 2500 lb Design Load

SmartAire Key Performance Characteristics

- Efficiently manage variable loads
- Supply cooling only as needed
- Zero maintenance
- Quick and easy installation
- Multiple control options available
- User programmable set point
- Power disruption fail safe to fully open position

PowerAire Key Performance Characteristics

- Fail safe operations 1478 CFM when fan is off
- 0-24.8kW supportable IT load per panel/fan combination at 0.1" of H₂O
- No regularly scheduled maintenance required
- User programmable set point
- Viewable Peak Temp for walkthrough check of each rack

A new angle on cool.

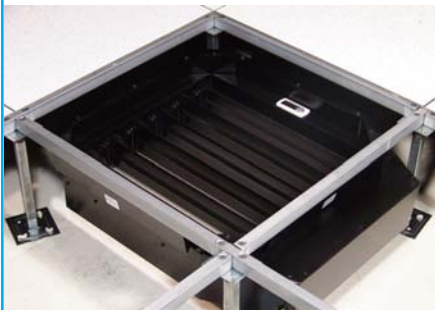
Contact us for a live demonstration of Tate's In-floor Cooling Solutions.

Dave Bessert, LEED AP
Regional Manager

Phone: 630-893-0886
Cell: 630-336-8772
dbessert@tateinc.com
www.tateinc.com/infloor

Approved for:
1 AIA CEU credit

Intended for:
Architects, Interior Designers, Project Managers and MEP Professionals



Tate Data Center Products

The continued adoption of high density equipment, virtualization and cloud computing strategies require the cooling infrastructure of a data center to be capable of adapting to high and often variable heat loads while offering superior energy efficiency. Tate's line of in-floor cooling products can nearly eliminate by-pass air and save significant energy. Using directional airflow and variable-air-volume dampers your data center can instantly react to any variation in utilization to match cooling with the heat load at the rack level. Tate also offers fan assisted airflow to eliminate hot spots or implement high-density equipment in a current raised floor facility without significant capital investment, as well as a full line of containment systems and air sealing grommets designed to reduce by-pass airflow, improve energy efficiency and increase data center capacity.



Tate's **Opposed Blade Damper** allows the user infinite airflow adjustability when it comes to airflow from any airflow panel in Tate's portfolio.

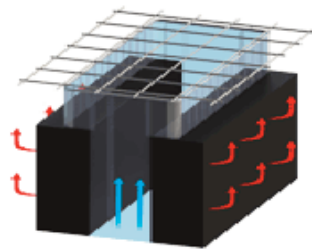


High Volume Ceiling Return Grille allows large volumes of hot exhaust air into the drop ceiling plenum enabling the hot air to exit freely minimizing mixing with the cooling air flow.

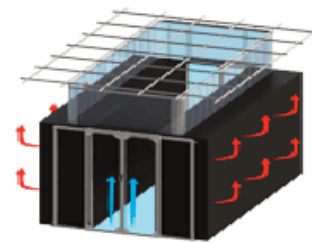


Tate has partnered with Upsite Technologies, the makers of KOLDLOK, to bring you the most advanced wire & cable penetration **Air Sealing grommet** available, assisting in the elimination of by-pass air.

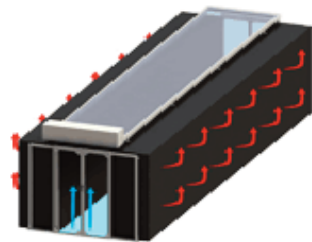
ContainAire Containment Systems



Cold Aisle Option 1: ContainAire Partitions with strip doors.



Cold Aisle Option 2: ContainAire Partitions with hinged or sliding doors.



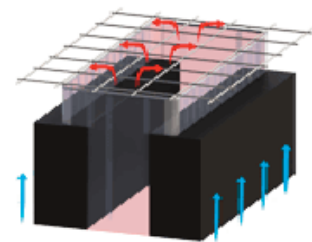
Cold Aisle Option 3: ContainAire Retracting Roof with hinged or sliding doors.



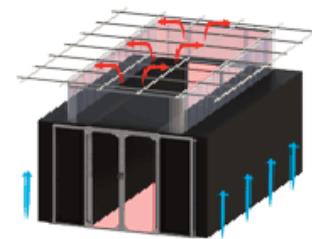
The Tate **Rack Shield** isolation system is designed to capture subfloor supply and dedicate it to the computer thermal load. The rack shield ensures that cold supply air will not spill across the raised floor.



Tate's **Modular Blanking Panels** are the best way to eliminate the migration of hot and cold air through unoccupied areas of an IT equipment rack. This innovative 27 U sheet is designed to allow easy separation of individual U's so you can customize the panel to fit the U size of any opening.



Hot Aisle Option 1: ContainAire Partitions with strip doors and ceiling return grilles.



Hot Aisle Option 2: ContainAire Partitions with hinged or sliding doors and ceiling return grilles.



The **CRAC Hood extension** is a ceiling return duct that connects the top of the CRAC unit directly to a ceiling return plenum greatly increasing cooling capacity and efficiency by capturing hot exhaust air and channeling it directly into the CRAC unit.



Tate's **In-Floor Velocity Adjustor** is designed to eliminate low pressure in the subfloor supply by controlling airflow velocity. The Velocity Adjustor installs between subfloor stations.