



# Directional Perforated Panel

## Taking Airflow in a New Direction

Tate's Directional Perf Panel uses patent-pending technology to angle air towards equipment, achieving an impressive 93% Total Air Capture (TAC) rate. This means 93% of the airflow delivered through the airflow panel is entering the face of the server rack, providing more capacity and energy efficiency than any other perforated airflow panel on the market. Standard perf panels only achieve 30%-50% TAC, allowing the Directional Perf to double a traditional perf's cooling capacity.

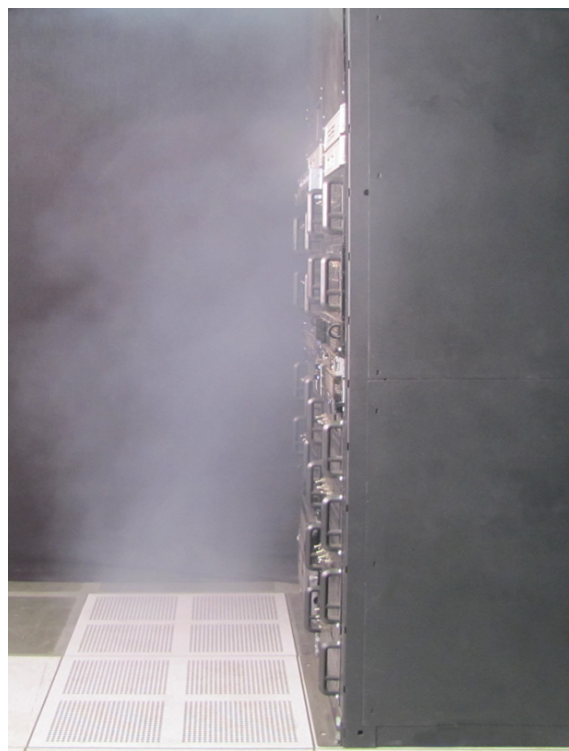
Tate's Directional Perforated panel is the ideal solution for effectively supplying airflow into new or retrofit data centers. For more information on Tate's Directional Perf panel please contact **Tate** at 800-231-7788 or visit [www.tateinc.com/products/directional\\_perfs.aspx](http://www.tateinc.com/products/directional_perfs.aspx)

## The Directional Perf has over 50% more Cooling Capacity!

**Directional Perf**



**Standard Perf**



The smoke test images show the directional airflow path to the face of the server rack with a Directional Perf panel vs the vertical airflow path with a standard perf panel.

### KEY PERFORMANCE CHARACTERISTICS

- 25% open area delivers 765CFM @ .1" H<sub>2</sub>O when installed without a damper.
- Directional air flow achieves a 93% total air capture.
- Cools over 8kW per rack.
- Reduces capital expenditures on cooling infrastructure by 40%.
- Over 40% annual fan energy savings
- Easily integrates into an existing 24inch raised floor system.



CFM & Cooling Capacity						
	Directional Perf		Standard Perf		GrateAire	
Static Pressure (Pa)	CFM w/No Damper	kW/Rack	CFM w/No Damper	kW/Rack	CFM w/No Damper	kW/Rack
.02	357	2.6	332	1.3	916	3.6
.04	496	3.7	476	1.9	1320	5.2
.06	602	4.4	584	2.3	1608	6.4
.08	689	5.1	666	2.6	1860	7.4
0.1	765	5.6	746	3.0	2096	8.3

The charts above show the amount of CFM and corresponding kW/rack at varying static pressure. The Directional Perf cools significantly more kW/rack at each degree of static pressure when compared with a standard perf panel.

### Increase Energy Efficiency and Maximize Cooling Capacity

The Directional Perf has been designed to meet the cooling requirements typically associated with high air volume grate panels whilst still supplying the same air volume as a standard perforated panel. With the ability to cool twice the capacity of a standard panel, directional perfs can improve a facilities overall cooling capacity allowing for the addition of IT equipment without the capital investments on infrastructure.

### Eliminate Waste and Improve Data Centre Financial Performance

With a 93% TAC, wasteful by-pass airflow is virtually eliminated. The precise delivery of air to the face of the rack reduces by-pass air allowing new facilities to in-turn reduce the number of CRAH units.

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