

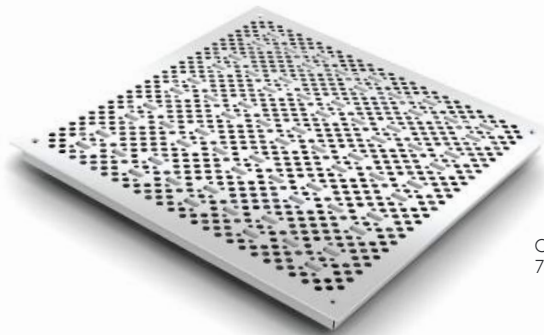
Airflow Panels & Controls

DirectPerf[®] 25%



Cool the Same Load as Vertical Plume Panels with Half the Airflow

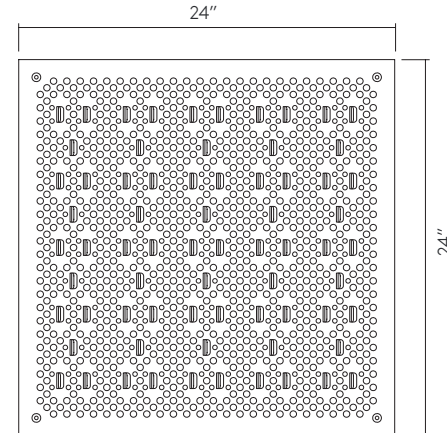
Directional Perf 25% utilizes directional airflow toward the server rack to significantly improve energy efficiency and reduce bypass air.



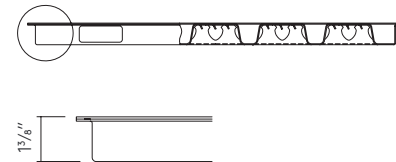
Cool up to 6 kW with 765 CFM @ .10" H2O

Profile

Top View



Side View



Key Performance Characteristics

- 25% open area delivers 765 CFM @ .1" H2O when installed without a damper
- Directional air flow achieves a 93% capture index
- Cools up to 6 kW per rack
- Can save over 40% in annual fan energy without the use of containment
- Easily integrates into an existing 24" and 60 cm raised floor systems

Load Performance Chart*

Airflow Panel	Understructure	System Weight (lbs/sqft)	Static Loads (lbs)			Rolling Loads (lbs)		Impact Load (lbs)	Capture Index* (%)	Open Area (%)
			Design Load	Safety Factor	Ultimate Load	10 Passes	10,000 Passes			
DirectPerf 25%	Bolted Stringer	6.85 (33 kg/m ²)	1250 (5.6 kN)	Min. > 2	>2500 (11.1 kN)	-	-	150 (68kg)	93	25

All tests are performed using CISCA's Recommended Test Procedures for Access Floors with the exception of Design Load.

1. System Design Load is based on permanent set $\leq 0.010"$ and is verified by loading panels in accordance with the CISCA concentrated load method but with panels installed on actual understructure instead of steel blocks. (Testing on blocks does not represent performance of an actual installation.) Ultimate, Rolling, and Impact Load tests are performed using CISCA Test Procedures.
2. Safety Factor is Ultimate Load divided by Design Load.

CFM & kW Capacity

Airflow Control	0.02" H ₂ O (5 Pa)		0.04" H ₂ O (10 Pa)		0.06" H ₂ O (15 Pa)		0.08" H ₂ O (20 Pa)		0.10" H ₂ O (25 Pa)	
	CFM (L/s)	(kW/Rack)	CFM (L/s)	(kW/Rack)	CFM (L/s)	(kW/Rack)	CFM (L/s)	(kW/Rack)	CFM (L/s)	(kW/Rack)
w/o Damper	357 (168)	2.6	496 (234)	3.7	602 (284)	4.4	689 (325)	5.1	765 (361)	5.6
w/Slide damper	260 (123)	1.9	367 (173)	2.7	447 (211)	3.3	515 (243)	3.8	574 (271)	4.2

Cooling capacity per rack is based on: CFM x Capture Index % / 126 (CFM needed to cool 1 kW @ 25° ΔT). Tests Conducted with fans operating at 100% power and dampers 100% open.



Airflow Panels & Controls

DirectPerf® 25% Airflow Controls

Slide Damper

Tate's slide damper is used to manually control airflow under a GrateAire or Perforated panel. The slide damper is mechanically attached to the panel to provide airflow control.



Manual Damper for use with GrateAire® and Perf Panels

Key Performance Characteristics

- Easily adjustable from above without panel removal
- Mechanically attached to panel for easy underfloor access

