Vertical Exhaust Duct (VED)

for NetShelter® SX

The Vertical Exhaust Duct (VED) System is a low cost easy to install solution that mounts to the top rear of NetShelter enclosures to capture and return hot exhaust air to perimeter cooling systems. Capable of supporting heat loads from 2 to 20+ kW per enclosure (see chart on page 2).

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Kit Includes:

- > Vertical Exhaust Duct
- > Enclosure roof with large rear opening
- > Sealing kit for rear door gaps
- > Rack Base Air Isolation panels for blocking airflow under the enclosure
- > Rear door solid panels

2 ranges of adjustability:

20 – 33"/ 33 – 60", add 8.5" if using optional Cable Extension



VERTICAL EXHAUST DUCT

- > Easily adjustable vertical exhaust duct available in two widths and two heights
- > Includes mounting locations for NetBotz® Temp/Hum (AP9335T/TH) and Smoke (NBES0307) Sensors and a masked area for grounding the duct
- > Baying system to maintain alignment
- > Recommended for use with 1200-mm deep enclosures, compatible with all NetShelter SX sizes



OVERHEAD CABLE EXTENSION (OPTIONAL)

- Integrated large brush strip pass-through holes allows cables to be routed overhead to troughs and partitions without interfering with valuable U-space
- Install toolless cable managers (AR8621) inside the cable extension box to bundle cables and keep them clear of the duct airflow path



CABLE ACCESS ROOF

- Shallower depth roof provided with the kit enables unobstructed airflow path to the duct
- > Five additional cable entry slots
- > Toolless mounting of overhead cable trough system



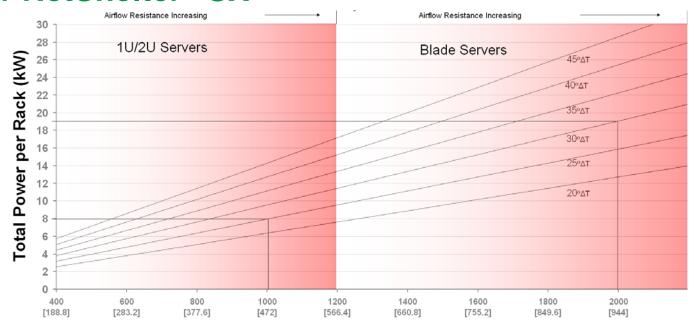
ENCLOSURE, DUCT, AND FLOOR SEAL KIT

- > Converts standard NetShelter into a vertical exhaust enclosure
- > Keep rear perforated doors sealed with easy to install magnetic panels
- > Seal rear door openings and top duct to ceiling connection with rubber gaskets
- > Rack base air isolation panels block hot equipment exhaust from passing under the enclosure



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Airflow of Total Equipment in Enclosure (cfm) [L/s]

*Calculations based on the use of a 1200-mm NetShelter SX Enclosure

Benefits

- > Contains hot air and improves CRAC efficiency through higher return temperatures
- > Reduces dependence on strategic floor tile placement
- > Allows for maximum efficiency when used with air economizer systems such as Schneider Electric's **EcoBreeze**™

Concerns

- > Balancing air flow in plenum to ensure even pressures at each duct
- > Variable density enclosures in same row may reduce lower density efficiency
- > Cable congestion in the rear of the enclosure can inhibit airflow

Vertical Exhaust Duct (VED) Kit	APC SKU Number	Recommended Enclosure SKU
VED, 600mm Wide, Short Range (20-33.5")	AR7751	AR3300, AR3307
VED, 600mm Wide, Tall Range (33.5 - 60")	AR7752	AR3300, AR3307
VED, 750mm Wide, Short Range (20 - 33.5")	AR7753	AR3350, AR3357
VED, 750mm Wide, Tall Range (33.5 - 60")	AR7754	AR3350, AR3357
Cable Management Accessories		•
Overhead Cable Extension for VED, 600mm Wide	AR7755	AR3300, AR3307
Overhead Cable Extension for VED, 750mm Wide	AR7756	AR3350, AR3357
Toolless Hook and Loop Cable Managers, Qty 10	AR8621	
Airflow Management Accessories	•	
1U Toolless Snap-in Blanking Panel, Qty 10/200pk	AR8136BLK/AR8136BLK200	
Air Recirculation Prevention Kit	AR7708	
Integral Raised Floor Grommet, Qty 10	AR7720	
Surface Mount Raised Floor Grommet, Qty 10	AR7730	
Extended Raised Floor Grommet, 24" length, Qty 10	AR7740	
Environmental Sensors	•	
APC Temperature\Temp Hum Sensor	AP9335T/TH	
Smoke Sensor	NBES0307	

