designed to be better.™

![L legrand®]

Data Communications

125 Eugene O'Neill Drive
New London, CT 06320
800.934.5432
www.legrand.us

570 Applewood Crescent
Vaughan, Ontario L4K 4B4
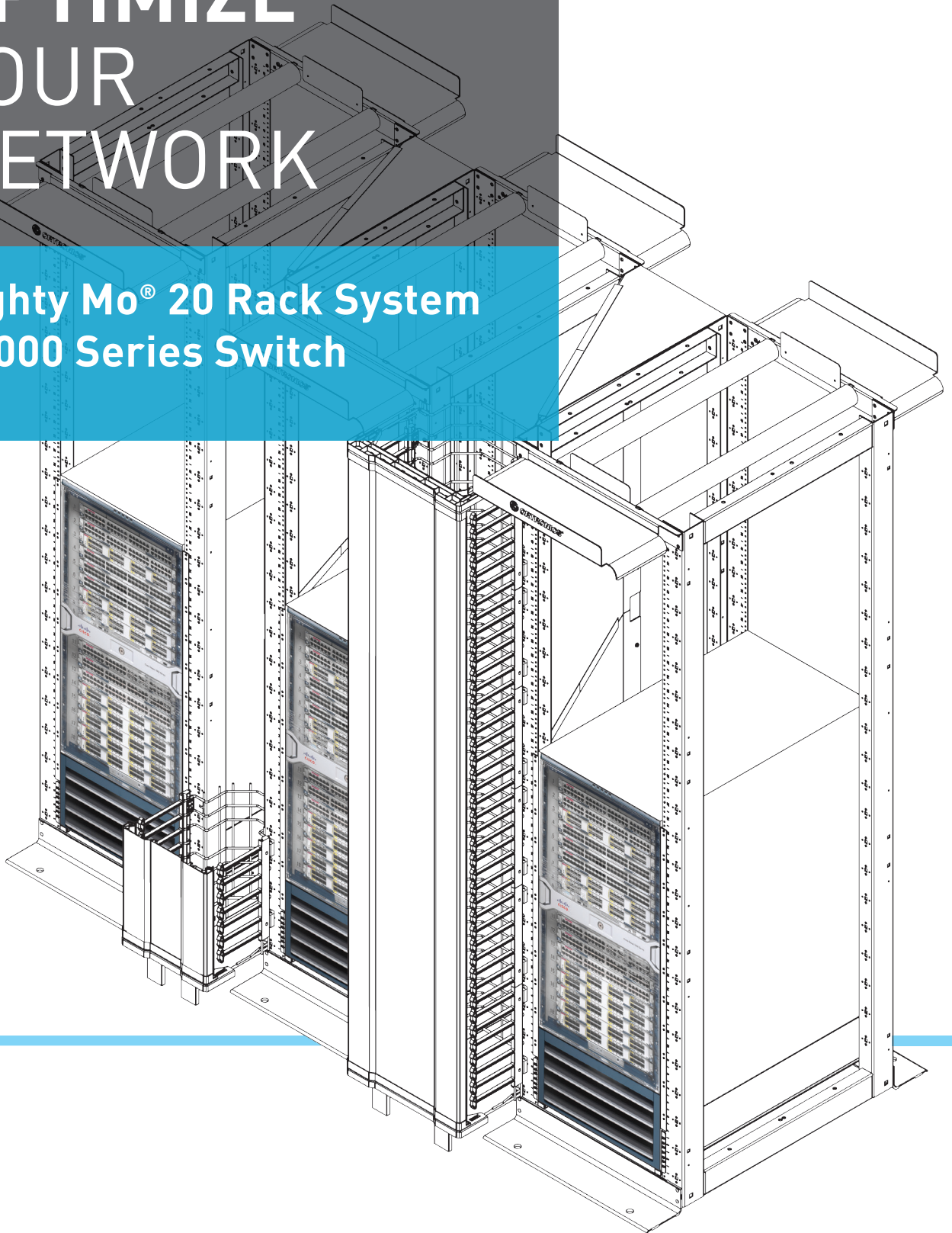905.738.9195
www.legrand.ca

Follow Us

ORTRONICS®

OPTIMIZE
YOUR
NETWORK

Mighty Mo® 20 Rack System + 7000 Series Switch

designed to be better.™

L1 legrand®

MAXIMIZE THE EFFICIENCY OF YOUR NETWORK

THE MIGHTY MO® 20 ADVANCED CABLE MANAGEMENT SYSTEM HAS BEEN DESIGNED TO MAXIMIZE THE BENEFITS THAT THE CISCO NEXUS SERIES SWITCHES PROVIDE TO THE NETWORK

With the industry's best rack and cable management design, the Mighty Mo 20 is ideal for satisfying the performance, flexibility, and density requirements that a robust network demands to support new applications and technologies. The passive cooling capabilities and features of the Mighty Mo 20 Rack and Cable Management System have been designed to optimize the power and cooling efficiency that the Nexus Series switches deliver. This installation guide details how the components and accessories of the Mighty Mo 20 Rack Solution support the Nexus 7000 Series Switch.

THE CISCO NEXUS 7000 SERIES SWITCHES WERE DESIGNED AROUND THREE PRINCIPLES:

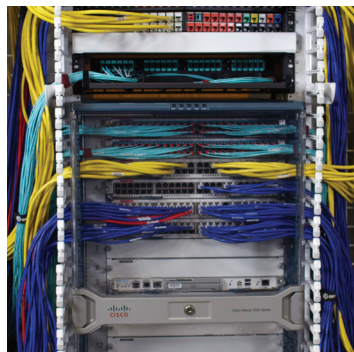**INFRASTRUCTURE SCALABILITY**
using virtualization, power and cooling efficiency, density, and performance to support efficient data center infrastructure growth.

OPERATIONAL CONTINUITY
integrated hardware, software, and management design to support zero downtime environments.

TRANSPORT FLEXIBILITY
engineering foresight to enable the adoption of new technologies in an incremental, cost-effective manner.

BENEFITS OF THE MIGHTY MO 20 RACK AND CABLE MANAGEMENT SOLUTION FOR THE CISCO NEXUS 7000 SERIES SWITCH

PERFORMANCE AND PROTECTION

- Ample space for the Nexus 7018 Switch 18-slot chassis using:
  - Mighty Mo® 20 4-post rack or channel rack (45 RU)
- Static capacity to support the weight of the fully configured Nexus 7018 Switch as well as patch panels and other equipment
  - Mighty Mo 20 racks static weight capacity: 2000 lbs.
- To ensure maximum network performance, Mighty Mo cable management systems protect patch cords, cables and equipment ports from damage by:
  - Maintaining proper bend radius requirements
  - Reducing tension on plugs and jacks
  - Protecting network equipment ports
  - Supporting large cable bundles within the rack

CABLE MANAGEMENT

- Support for up to 1640 Cat 6 ports (The Nexus 7018 is capable of handling as many as 768 Gigabit Ethernet ports)
- Vertical managers provide ample capacity for a minimum of 62 Category 6a patch cords per rack unit on a single side of the equipment
- For ease of cable routing and increase capacity from the switch, Legrand® recommends using the vertical manager fingers and omitting the Cisco optional cable management fingers
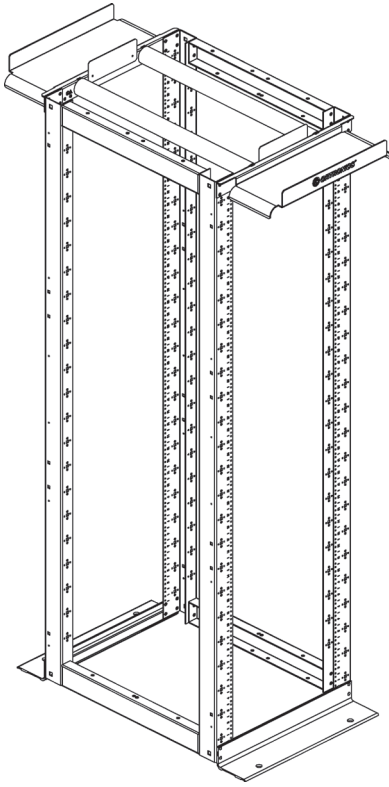
AIRFLOW

- The Mighty Mo 20 4-post rack is ideal for maintaining cold-aisle/hot aisle airflow, whether your network equipment is front-to-back, or side venting
- Side rails work with an innovative baffle system that redirects airflow from side venting equipment from the cold aisle to the hot aisle to maintain maximum airflow
- This passive cooling system can help eliminate the extra heat generated by and power required for typical switch fans
- Mighty Mo 20 channel racks are fully perforated with a patented hex pattern to allow for side to side cooling
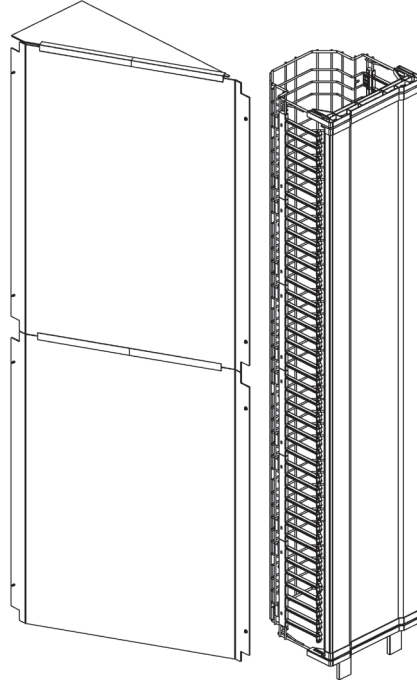
POWER

- Full size Power Distribution Units (PDUs) are mountable on Mighty Mo wide back rails, with the switch already mounted, to bring additional power to your equipment rack
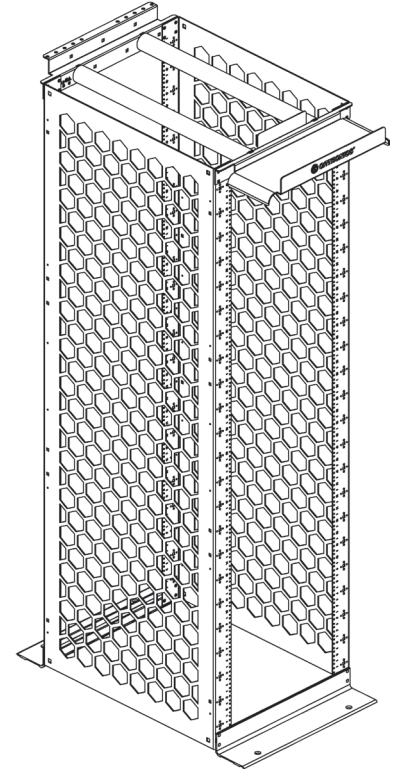
PARTS TO ASSEMBLE

Mighty Mo® 20 Fixed Four-Post, aluminum frame, supplied with 50 #12-24 cage nuts and screws, 45 RU, 7'H.

Airflow Baffles, for use with 7' Mighty Mo 20 server rack and 12" wide Mighty Mo 20 cage. Vertical Manager, with door, 12.25" x 15" x 7', 45 RU.

Mighty Mo 20 Aluminum Frame Channel Rack with perforated side walls #12-24 tapped holes, 45 RU, 7'H.
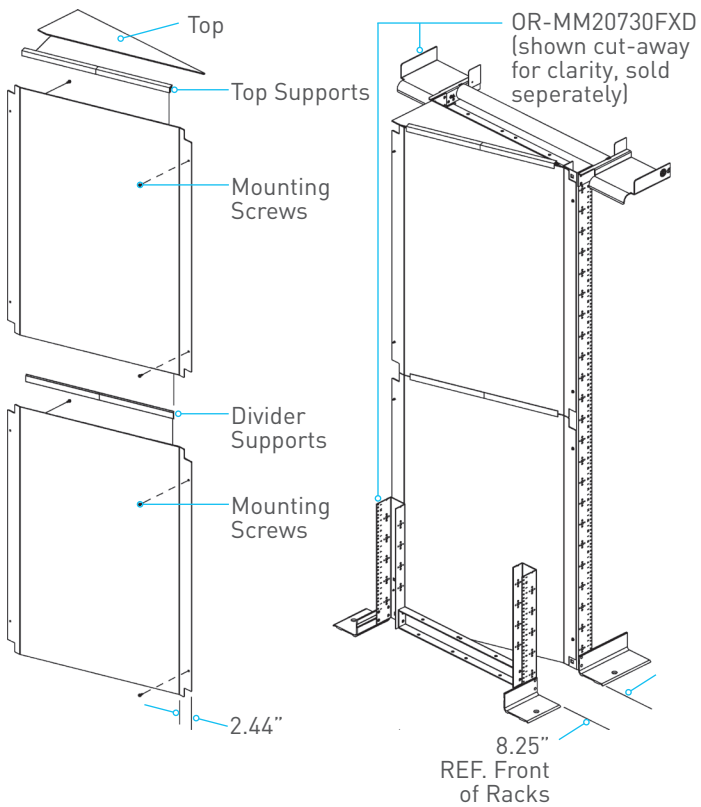
REQUIRED MIGHTY MO CONFIGURATIONS

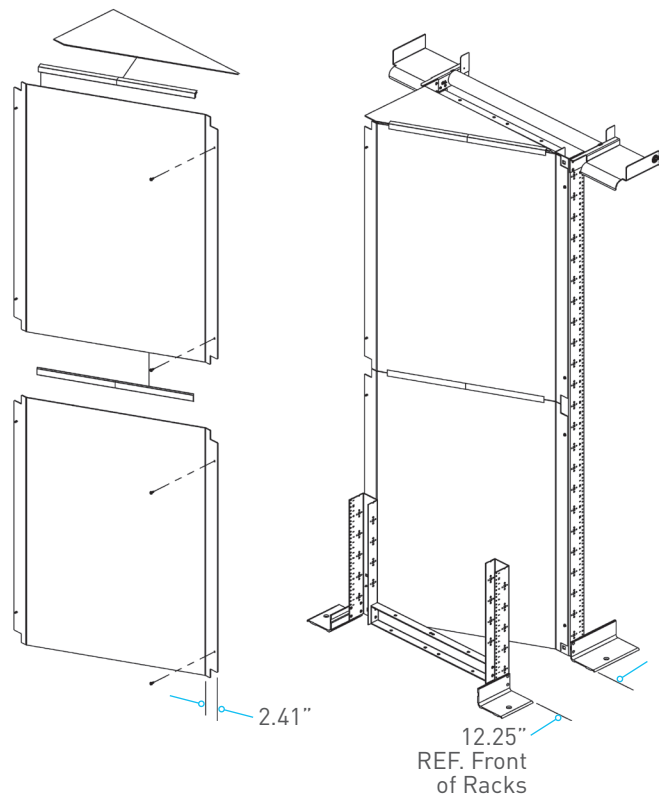| NEXUS 7000 SERIES		VERTICAL MANAGER 12"W	VERTICAL MANAGER 16"W	ANGLED AIRFLOW BAFFLES 12"W	ANGLED AIRFLOW BAFFLES 16"W	BAFFLE RAIL
7004	Channel Rack (OR-MM20724-X)	OR-MM20VMD712-X	OR-MM20VMD716-X	OR-MM20ABL72412-X	OR-MM20ABL72416-X	–
	Fixed 4-Post Rack (OR-MM20730FXD38-X)	OR-MM20VMD712-X	OR-MM20VMD716-X	OR-MM20ABL72412-X	OR-MM20ABL72416-X	OR-MM207FXDABR-X
7009	Channel Rack (OR-MM20724-X)	OR-MM20VMD712-X	OR-MM20VMD716-X	OR-MM20ABL72412-X	OR-MM20ABL72416-X	–
	Fixed 4-Post Rack (OR-MM20730FXD38-X)	OR-MM20VMD712-X	OR-MM20VMD716-X	OR-MM20ABL72412-X	OR-MM20ABL72416-X	OR-MM207FXDABR-X
7018	Channel Rack (OR-MM20730-X)	OR-MM20VMD712-X	OR-MM20VMD716-X	OR-MM20ABL73012-X	OR-MM20ABL73016-X	–
	Fixed 4-Post Rack (OR-MM20730FXD38-X)	OR-MM20VMD712-X	OR-MM20VMD716-X	OR-MM20ABL73012-X	OR-MM20ABL73016-X	–

Notes: For assembly instructions for the OR-MM20730FXD38-X rack see OR-71601843 supplied with the rack. Also available in an 8' version. For technical support, call 877.599.5393.

MIGHTY MO 20 AIRFLOW BAFFLES

12"W VERTICAL CAGE VERSION (OR-MM20ABL73012)

Top

Top Supports

OR-MM20730FXD
(shown cut-away
for clarity, sold
seperately)

Mounting
Screws

Divider
Supports

Mounting
Screws

2.44"

8.25"
REF. Front
of Racks

16"W VERTICAL CAGE VERSION (OR-MM20ABL73016)
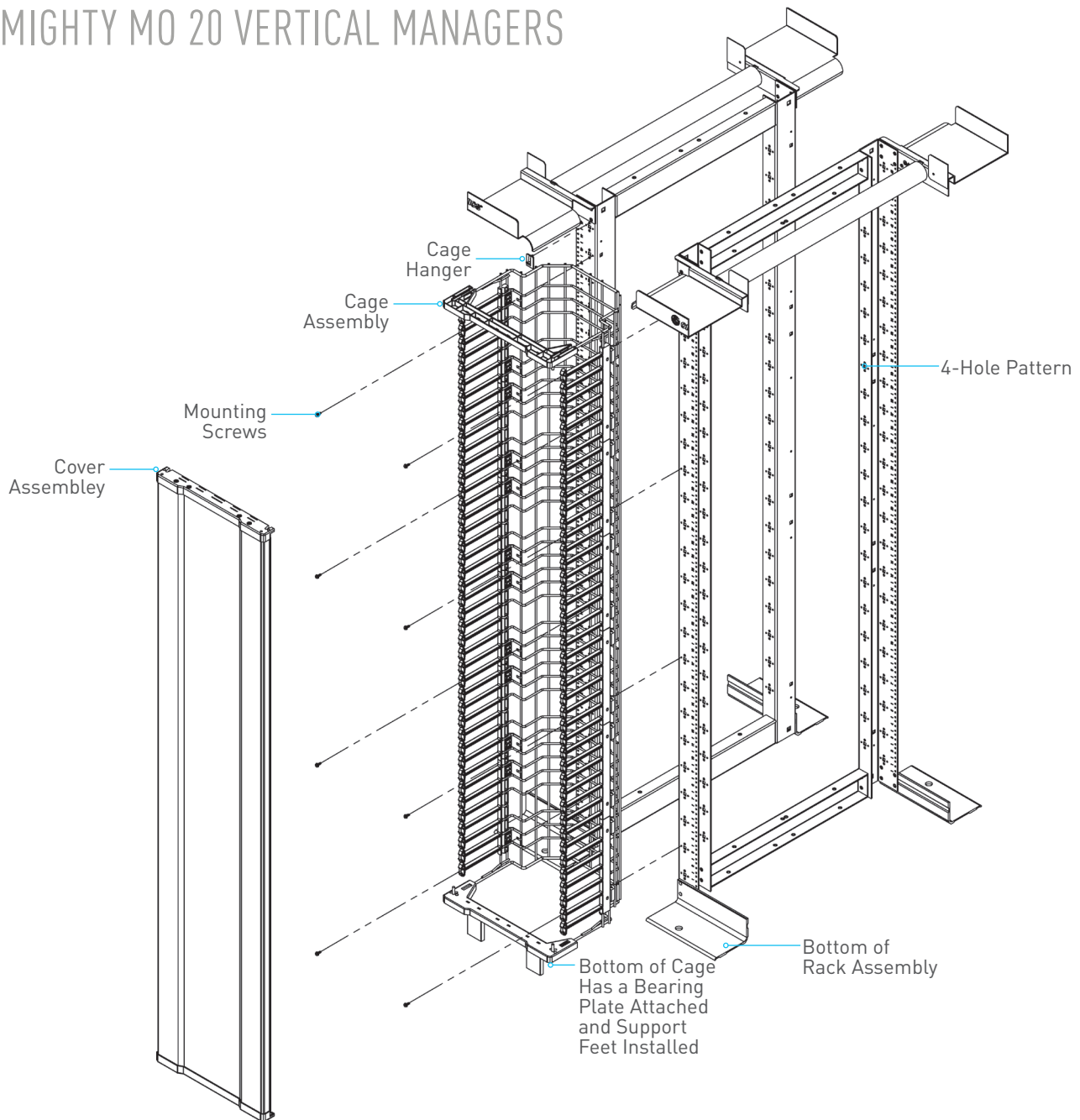
2.41"

12.25"
REF. Front
of Racks

Mighty Mo 20 airflow baffles mount between racks and direct intake and exhaust air on side flow network equipment from cold aisle to hot aisle.

Each kit includes: (2) baffles, (8) thread forming screws.

NOTE: Large flange of baffle mounts to the right front of the rack.

MIGHTY MO 20 VERTICAL MANAGERS

Cage
Hanger

Cage
Assembly

Mounting
Screws

Cover
Assembley

4-Hole Pattern

Bottom of
Rack Assembly

Bottom of Cage
Has a Bearing
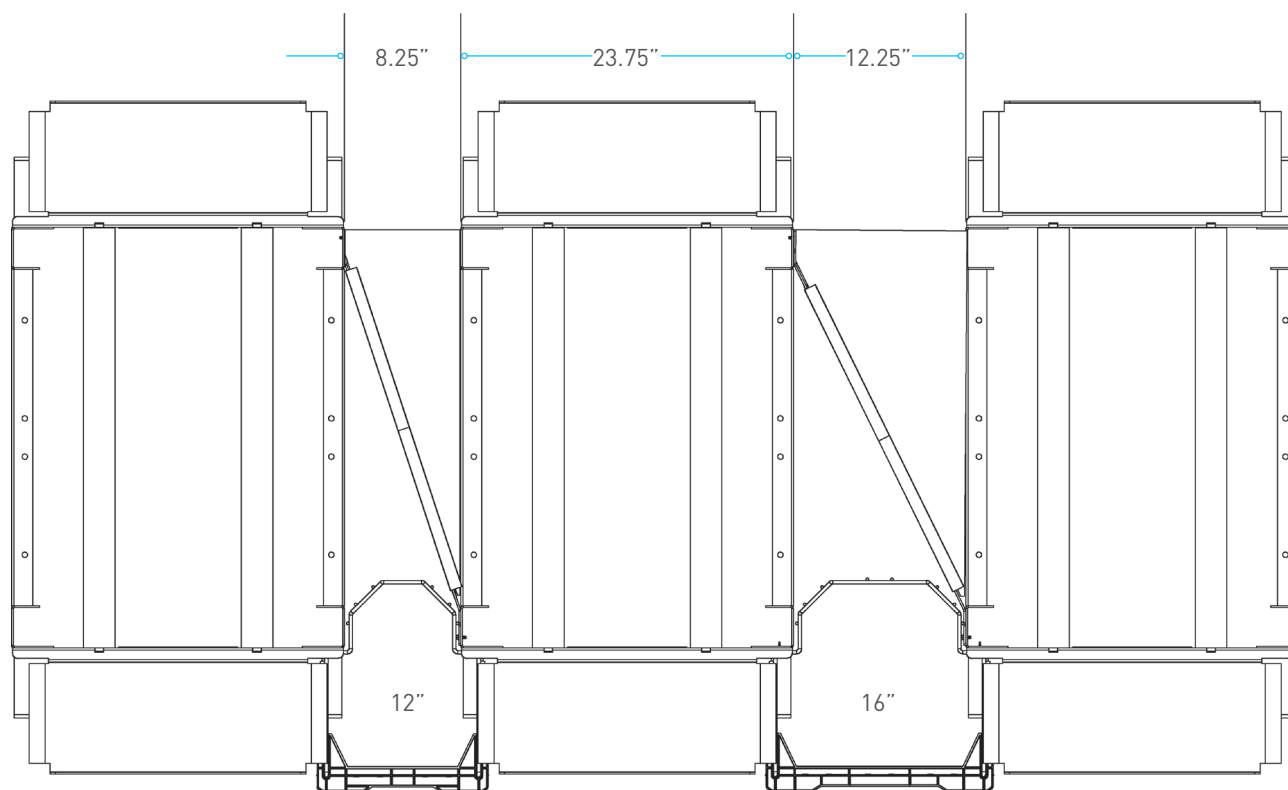Plate Attached
and Support
Feet Installed

Cage design promotes efficient routing of patch cords between racks. Hinged doors allow easy access during moves, adds, and changes. 16"W cage creates a 12.25" gap between racks. 12"W cage creates a 8.25" gap between racks for front-to-back routing of equipment cables and patch cords. Both are supplied with four spools and (12) bend-limiting clips.

INSTALLATION INSTRUCTIONS

1. Install cage hanger brackets into the top 4-hole pattern on both right and left uprights.

2. Locate cage onto hanger brackets using the top wire of cage.

3. Secure cage to uprights using mounting hardware, (6) screws per side/upright (8' cage uses (7) per side/upright).

4. Install cover one side at a time by using slam latch feature.

MIGHTY MO 20 VERTICAL MANAGERS
CABLE FILL CAPACITIES

CABLE FILL CAPACITIES FOR MIGHTY MO CABLE MANAGEMENT PRODUCTS

PART NO.	DESCRIPTION	USABLE AREA (SQ. IN)	CABLE O.D. (IN)	RECOMMENDED CABLE FILL (40%)			MAXIMUM CABLE FILL (60%)		
				CAT 5E 0.215	CAT 6 0.230	CAT 6A 0.290	CAT 5E 0.215	CAT 6 0.230	CAT 6A 0.290
OR-MM20VMD712	MM20 vertical cable management with door, 12" x 15" x 7'	112		1344	1120	784	1904	1680	1120
OR-MM20VDM716	MM20 vertical cable management with door, 16" x 15" x 7'	164		1968	1640	1148	2788	2460	1640