

WaveTrax®

Ordering Guide

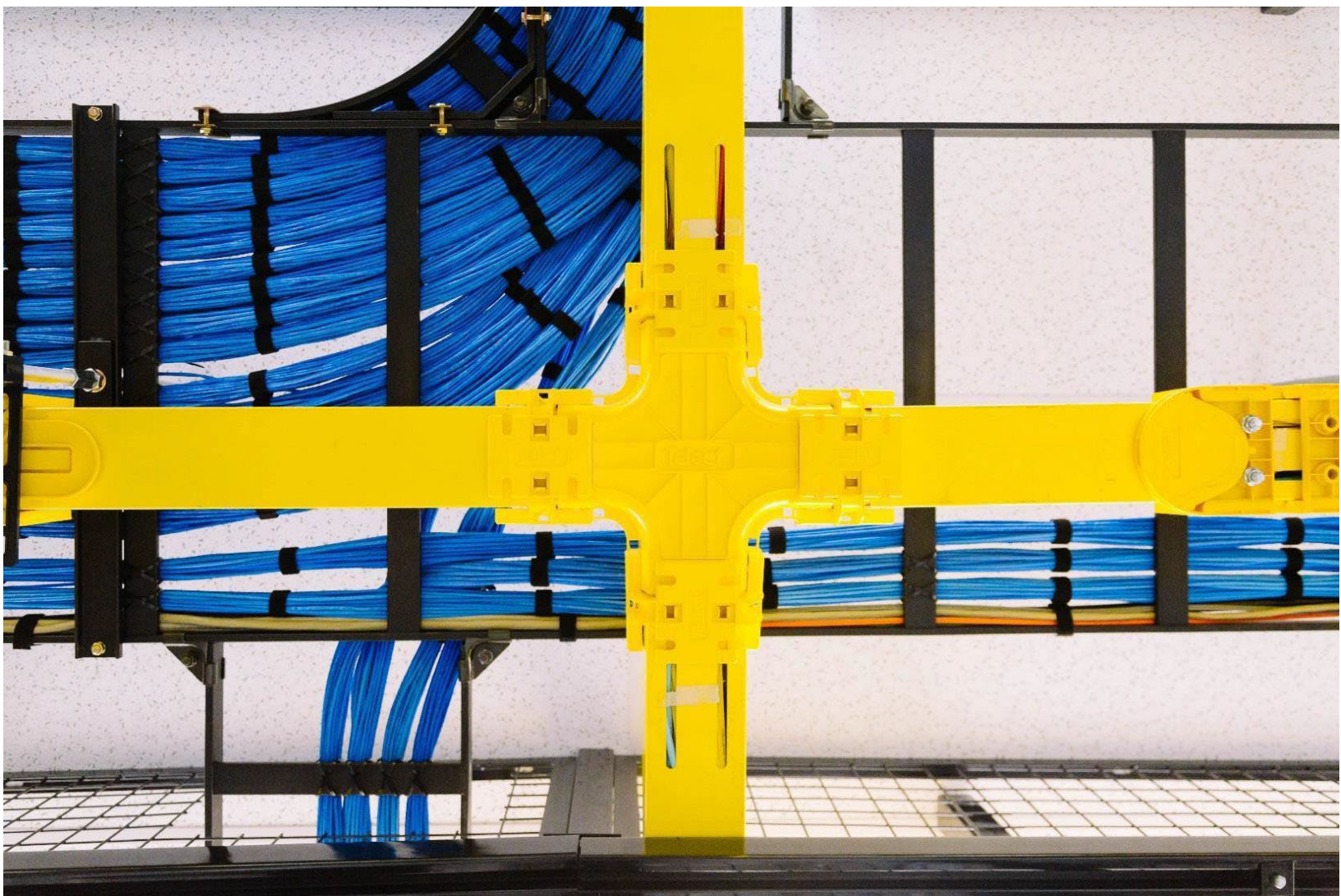


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Section 1: Overview

WaveTrax by Amphenol Network Solutions is an overhead fiber cable management system designed for rapid assembly and installation. The WaveTrax raceway solution is designed to manage, route and protect fiber cables horizontally and vertically throughout an entire network. Its architecture is simple, seamless and flexible, enabling complete configurability of the cable-management solution.

The WaveTrax cable raceway solution reduces your total cost of ownership by saving contracted time on installation and retrofits. Installers interviewed by Amphenol Network Solutions reveal that WaveTrax reduces time and cost on installations by 50 percent and on retrofits by 60 percent.

Supported by our renowned customer service, WaveTrax has a full line of components, including troughs, off-ramps, couplers, articulating links and accessories.



1.1 Key Benefits

- Full line of simple, intuitive components, including troughs, elbows, cross and T fittings, off-ramps and articulating links; all in various standard sizes
- Uncomplicated configuration and support
- Lowers total cost of ownership: competitive pricing, easier to install, more configurable and adaptable than the competition
- Custom-configured solutions designed by Amphenol Network Solutions' engineers
- Snap-together system that requires few tools
- Directional fittings meet most network configurations
- Other system adapters allow improvements to installed raceway systems
- Most components available in two-inch, four-inch, six-inch and 12-inch sizes

1.2 Custom-Configured Solutions

Amphenol Network Solutions understands every network facility is different and so is each cable-management solution. Our engineering team is available to develop a WaveTrax solution that's custom designed for an individual central office or data center.

Included in the cost of a WaveTrax buildout, Amphenol Network Solutions provides the service to any size of application, from small cell huts to large COs.

Network technicians send our engineers their required configuration and we respond with drawings of an overhead layout and a full inventory of the materials required.

1.3 Components

Troughs

The WaveTrax trough is rigid and durable. It comes in standard six-foot lengths and can be easily cut to fit your network application.



Coupler

The FastLock coupler rigidly and smoothly connects multiple components together. Its snap on design makes connections quick and easy, reducing installation time.



Cablelinks

Snap-together links articulate to 22.5 degrees, allowing a right-angle turn in only four links. Cablelinks are ideal for negotiating horizontal and vertical runs in tight areas and around obstacles.



Express T

The Express T interchange transitions to a new horizontal run anywhere on an existing trough.



Express Off-Ramp

The Express Off-Ramp gives you a modular exit on the side of an existing 2-, 4-, 6-, 12-, or 24-inch trough run. No cutting or notching required.



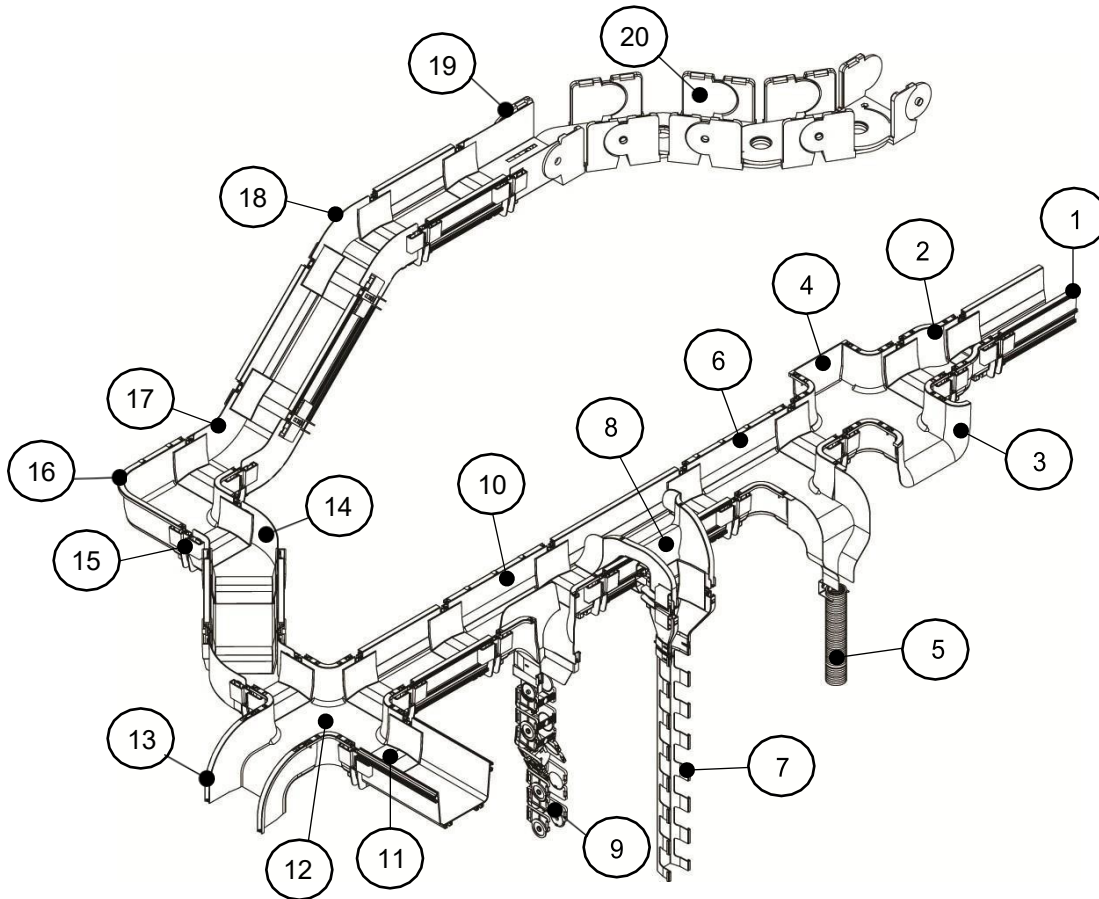
Section 2: Part Callouts

The following diagram shows the components available in the WaveTrax system. Any one system will not typically use every component. This example shows a six-inch-wide system; WaveTrax is available in 2-inch, 4-inch, 6-inch, 12-inch, and 24-inch widths, along with reducers to transition to smaller troughs.

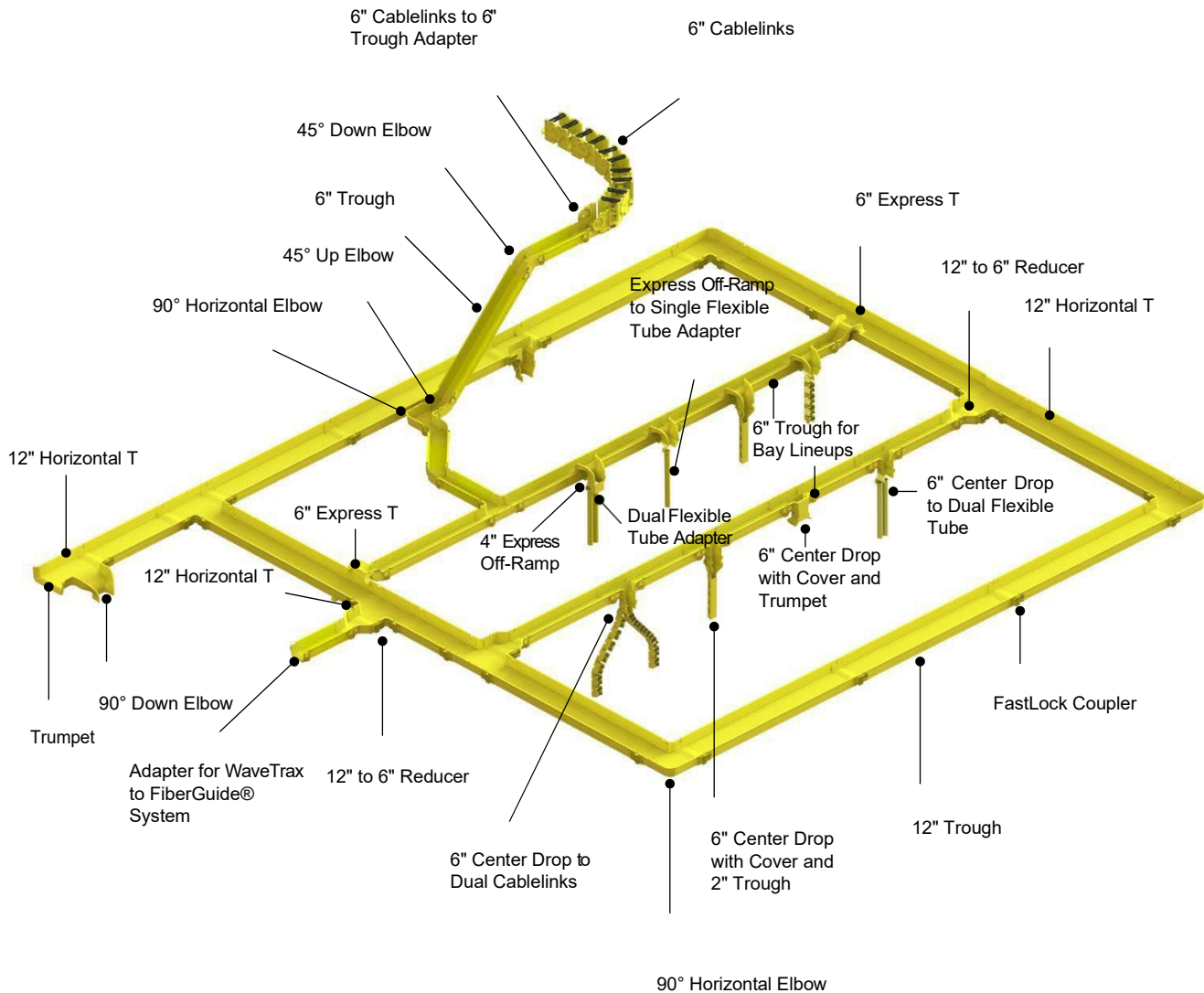
Cablelinks articulating troughs are available in two-inch, four-inch and six-inch widths. All components are four inches high, except for two-inch widths, which are two inches high.

Parts List

- | | |
|-----------------------|--------------------------------|
| 1. Six-Foot Trough | 11. Competitive System Adapter |
| 2. Reducer | 12. Intersection |
| 3. Trumpet Attachment | 13. Drop Attachment |
| 4. End Cap | 14. 45° Elbow |
| 5. Flexible Tube | 15. Coupling Kit |
| 6. T-Transition | 16. L-Transition |
| 7. Slotted Duct | 17. Upsweep |
| 8. Express Off-Ramp | 18. Downsweep |
| 9. Cablelinks (2") | 19. Cablelinks Adapter |
| 10. Center Drop | 20. Cablelinks |



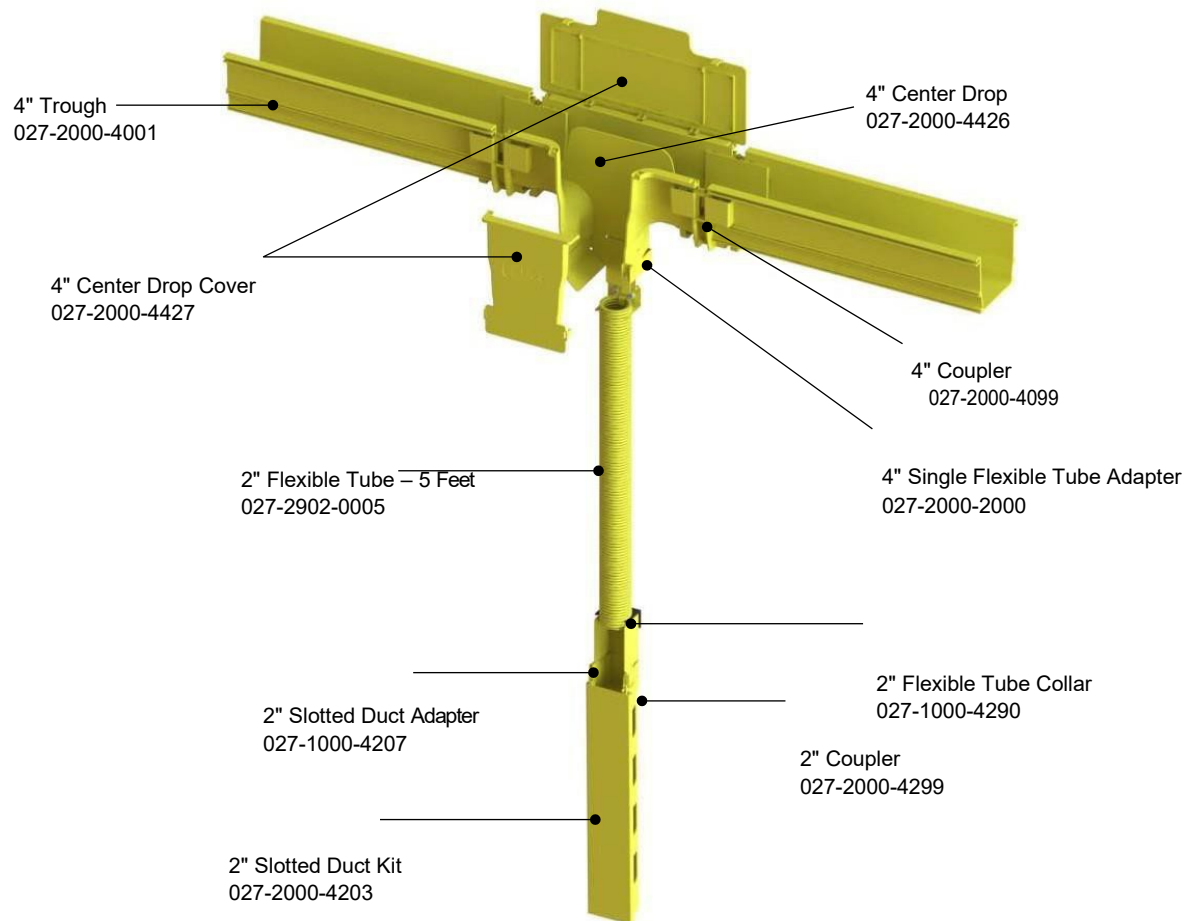
2.1 WaveTrax System



FiberGuide® is a registered trademark of CommScope Technologies LLC.
FiberRunner® is a registered trademark of Panduit Corp.

2.2 Vertical Fiber Management Solutions

4" Center Drop to Single Flexible Tube to Slotted Duct



Section 3: Straight Sections

WaveTrax trough is the primary carrier of your fiber-optic cable. Troughs come in six-foot lengths and can support up to 175 lbs. (79.5 kg) of fiber per section. Each section can be cut to size and should be supported by a bracket at the coupler you attach at either end. You can also add mid-span support using a sliding bracket on a standard bracket. WaveTrax trough covers can be added for more protection of your fiber optic cable. Trough covers require no hardware to attach to the trough and have a hinge for ease of access.

Part Numbers

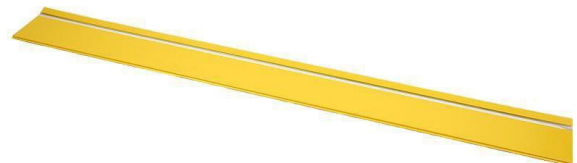
Troughs

Part	Description
027-2000-4206	2" W x 2" H Trough
027-2000-4001	4" W x 4" H Trough
027-2000-6401	6" W x 4" H Trough
027-2000-12406	12" W x 4" H Trough - 6' length
027-2000-124010	12"W x 4"H Trough – 10' length
027-2000-12SLK	12"W x 4" H Trough with Spools
027-2000-24406	24" W x 4" H Trough – 6' length
027-2000-244010	24"W x 4" H Trough – 10' length



Trough Covers

Part	Description
027-2000-4202	2" Trough Width
027-2000-4002	4" Trough Width
027-2000-6402	6" Trough Width
027-2000-12402	12" Trough Width



Trough Accessories

Part	Description
027-2000-1101	Trough Notching Tool*

* Required for new builds if you do not currently have a trough notching tool



Section 4: Transitional Sections

WaveTrax transitions are any part that adds to the path of a trough. These parts include T-transitions, L-transitions, intersections and interchanges. With multiple transition options, WaveTrax allows fiber to maneuver specifically to your fiber and network needs. All transitions attach to a trough with a FastLock Coupler. Every transition has two locking pins and teeth that allow the FastLock Coupler to snap on quickly and securely.

If you have a system in place other than WaveTrax, we have Express T, Express Off-Ramp, and adapters that can connect any other system to our WaveTrax system

Part Numbers

Horizontal T

Part	Description
027-2000-4210	2" Trough Width
027-2000-4010	4" Trough Width
027-2000-6410	6" Trough Width
027-2000-12410	12" Trough Width
027-2000-12410-S	12" Trough Width, with Spool
027-2000-24410	24" Trough Width
027-2000-24112	24" Trough Width, 12" Exits



Horizontal T Cover

Part	Description
027-2000-4211	2" Width
027-2000-4011	4" Width
027-2000-6411	6" Width
027-2000-12411	12" Width



Horizontal Intersection

Part	Description
027-2000-4230	2" Width
027-2000-4030	4" Width
027-2000-6430	6" Width
027-2000-12430	12" Width
027-2000-12452	12" Width with 6" Exits
027-2000-24430	24" Width
027-2000-24212	24" Width with 12" Exits



Horizontal Intersection Cover

Part	Description
027-2000-4231	2" Width
027-2000-4031	4" Width
027-2000-6431	6" Width
027-2000-12431	12" Width



90-Degree Horizontal Elbow

Part	Description
027-2000-4224	2" Width
027-2000-4024	4" Width
027-2000-6424	6" Width
027-2000-12424	12" Width



90-Degree Horizontal Elbow Cover

Part	Description
027-2000-4225	2" Width
027-2000-4025	4" Width
027-2000-6425	6" Width
027-2000-12425	12" Width



FastLock Coupler

Part	Description
027-2000-4299	2" Width
027-2000-4099	4" Width
027-2000-6499	6" Width
027-2000-12499	12" Width
027-2000-24499	24" Width



FastLock Coupler for CommScope's FiberGuide® Fiber Management System

Part	Description
027-1000-4279	2" WaveTrax Trough to FiberGuide Trough Adapter
027-2000-4007	4" WaveTrax Trough to FiberGuide Trough Adapter
027-2000-6407	6" WaveTrax Trough to FiberGuide Trough Adapter
027-C2000-12007	12" WaveTrax Trough to FiberGuide Trough Adapter
027-C2000-24407	24" WaveTrax Trough to FiberGuide Trough Adapter



Adapter for Panduit's FiberRunner® Fiber Management System

Part	Description
027-C1000-4008	4" WaveTrax Trough to FiberRunner Trough Adapter
027-C1000-6008	6" WaveTrax Trough to FiberRunner Trough Adapter
027-C1000-12407	12" WaveTrax Trough to FiberRunner Trough Adapter
027-C2000-24007	24" WaveTrax Trough to FiberRunner Trough Adapter



Reducers

Part	Description
027-2000-4050	4" to 2" Width
027-2000-6450	6" to 4" Width
027-2000-12450	12" to 6" Width
027-2000-24450	24" to 12" Width



Reducer Covers

Part	Description
027-2000-4051	4" to 2" Width
027-2000-6451	6" to 4" Width
027-2000-12451	12" to 6" Width



Reducer Kit

Part	Description
027-2000-4052	4" to 2" Width



45-Degree Horizontal Elbow

Part	Description
027-1000-4289	2" Width
027-1000-4489	4" Width
027-1000-6489	6" Width
027-1000-12489	12" Width
027-2000-24424	24" Width



45-Degree Up Elbow

Part	Description
027-1000-4287	2" Width
027-1000-4487	4" Width
027-1000-6487	6" Width
027-1000-12487	12" Width



45-Degree Down Elbow

Part	Description
027-1000-4288	2" Width
027-1000-4488	4" Width
027-1000-6488	6" Width
027-1000-12488	12" Width



45-Degree Down Elbow Cover

Part	Description
027-1000-6483	6" Width



90-Degree Up Elbow

Part	Description
027-1000-4273	2" Width
027-1000-4473	4" Width
027-1000-6473	6" Width
027-1000-12473	12" Width



90-Degree Up Elbow Cover

Part	Description
027-1000-4474	4" Width
027-1000-6474	6" Width



90-Degree Down Elbow

Part	Description
027-2000-4277	2" Width
027-2000-4077	4" Width
027-2000-6477	6" Width
027-2000-12477	12" to 6" Width



90-Degree Down Elbow Cover

Part	Description
027-2000-4278	2" Width
027-2000-4078	4" Width
027-2000-6478	6" Width
027-2000-12478	12" to 6" Width



End Cap

Part	Description
027-2000-4208	2" Width
027-2000-4008	4" Width
027-2000-6408	6" Width
027-2000-12408	12" Width
027-2000-24408	24" Width



NOTE: 2" end cap fits directly onto trough. 4", 6" and 12" end cap requires the below adapter. 4", 6" and 12" end caps will attach directly to a reducer, T-transition, L-transition or intersection.

End Cap Connector

Part	Description
Not required	2" Width
027-2000-4009	4" Width
027-2000-6409	6" Width
027-2000-12409	12" Width



NOTE: End cap connector can be used to attach a trumpet or a 90-degree drop to a piece of trough.

End Cap Connector Kits for Trough

Part	Description
Not required	2" Width
027-2000-4006	4" Width
027-2000-6404	6" Width
027-2000-12407	12" Width



NOTE: Each kit contains an End Cap, End Cap Connector and a FastLock Coupling Kit

Section 5: Drop Sections

Amphenol Network Solutions' drop sections create a vertical exit point on horizontal fiber runs into network equipment. As fiber runs horizontally through a trough, the drop sections allow fiber to go vertical. Each drop section protects cable bend radius and fiber as it drops into equipment. Drop sections provide direct access to the bay while minimizing the number of components needed to transition from horizontal to vertical.

Part Numbers

Center Drop

Part	Description
027-1000-4227	2" Width
027-2000-4426	4" Width
027-2000-6426	6" to 4" Width
027-1000-12427	12" to 4" Width
027-1000-12426	12" to 6" Width



Center Drop Cover

Part	Description
027-2000-4427	4" Width
027-2000-6427	6" Width
027-1000-12428	12" Width



Trumpet

Part Number	Description
027-2000-4275	2" Width
027-2000-4075	4" Width
027-2000-6475	6" Width
027-2000-12475	12" Width
027-2000-24475	24" Width



Flexible Tubing

Part	Description
027-2902-0005	5 Feet Drop
027-2902-0010	10 Feet Drop
027-2902-0015	15 Feet Drop
027-2902-0020	20 Feet Drop
027-2902-0100	100 Feet Drop



2" Flexible Tube Adapter

Part	Description
027-1000-4290	Single Tube Drop



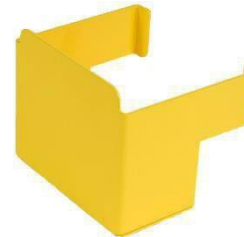
4" Flexible Tube Adapter

Part	Description
027-2000-2000	Single Tube Drop
027-2000-4016	Dual Tube Drop



4" Flexible Tube Adapter Cover

Part	Description
027-2000-4018	4" Drop Width Cover



Slotted Duct

Part	Description
027-2000-4204	2" Width
027-2000-4403	4" Width



NOTE: Both 2" and 4" slotted duct come with the hardware, including two couplers, needed to mount to a rack.

Drop Kit with Off-Ramp and FlexTrax

Part	Description
027-3000-4203F	Drop Kit with 2" Off-Ramp & 3' FlexTrax
027-3000-4206F	Drop Kit with 2" Off-Ramp & 6' FlexTrax
027-3000-4003F	Drop Kit with 4" Off-Ramp & 3' FlexTrax
027-3000-4006F	Drop Kit with 4" Off-Ramp & 3' FlexTrax

Section 6: WaveTrax Express

Simplify your overhead cable management with the quick and easy connection of the Amphenol Network Solutions WaveTrax Express. As demands for fiber continue to grow, WaveTrax Express offers accelerated network growth by reducing installation times for new builds and expansion. All WaveTrax Express parts attach to 4-inch, 6-inch, 12-inch, and 24-inch trough.

If you have an installed competitor cable management system, WaveTrax Express compatible brackets install to existing CommScope FiberGuide® system and Panduit® layouts.

Part Numbers

Express Off-Ramp with Express Bracket

Part	Description	
027-2000-4262	2" Drop	For 4" and 6" trough
027-2000-4062	4" Drop	For 4" and 6" trough
027-2000-12262	2" Drop	12" trough only
027-2000-12462	4" Drop	12" trough only
027-2000-24062	4" Drop	12" and 24" trough
027-2000-24122	12" Drop	12" and 24" trough



Express Off-Ramp for CommScope's FiberGuide® Fiber Management System or Panduit's FiberRunner® Trough

Part Number	Description	
027-C0406-4262	2" Drop	For 4" and 6" trough
027-C0406-4062	4" Drop	For 4" and 6" trough
027-C0012-4062	4" Drop	12" trough only
027-C1224-24122	12" Drop	For 12" Panduit FiberRunner® trough and 12" & 24" CommScope FiberGuide® 12" & 24" trough



12" Drop

Express Off-Ramp Cover

Part	Description
027-2000-4263	2" Cover
027-1000-4066	4" Cover



Express T

Part	Width	Description
027-2000-6412	6"	4", 6" or 12" WaveTrax
027-C0406-6412		4" or 6" FiberGuide® system or FiberRunner®
027-C0012-6412		12" FiberGuide® system or FiberRunner®
027-2000-12412	12"	4", 6" or 12" WaveTrax
027-C0012-12412		12" FiberGuide® system or FiberRunner®



6" Express T



12" Express T

Express T Cover

Part	Description
027-2000-6413	6" Cover
027-2000-12413	12" Cover



6" Express T Cover



12" Express T Cover

Section 7: Cablelinks

Cablelinks is a flexible, snap-together solution to navigate fiber runs down to network equipment. Cablelinks can be articulated on all three axes while maintaining proper bend radius of fiber. Cablelinks is easy to install with no tools required. Use the Amphenol Network Solutions Cablelinks to maneuver through tight areas and guide fiber to active equipment.

Part Numbers

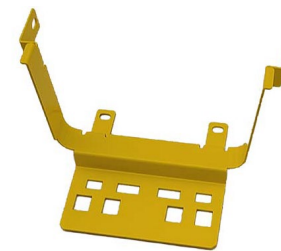
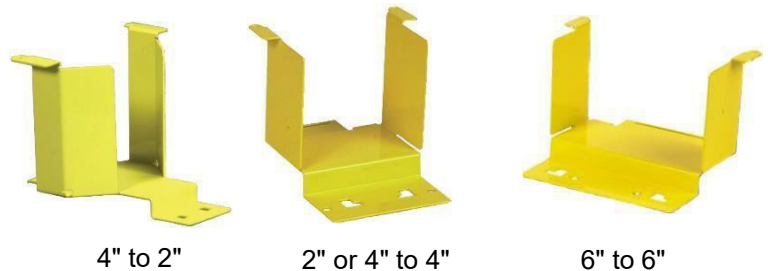
Cablelinks

Part	Description
027-0000-4200	2": 3 links per foot
027-0000-4000	4": 1.5 links per foot
027-0000-6400	6": 1.33 links per foot



WaveTrax Adapter to Cablelinks

Part	Description
027-2000-4215	4" to 2" Cablelinks
027-2000-4015	4" or Dual 2" Cablelinks to 4" WaveTrax
027-2000-6415	6" or Dual 2" Cablelinks to 6" WaveTrax
027-C1000-6007	6" Adapter, connects FiberGuide® system trough to one 4" Cablelinks or two 2" Cablelinks



027-C1000-6007

Cablelinks to WaveTrax Trough Adapter

Part	Description
027-1000-4207	2" Width
027-2000-4090	4" Width
027-1000-6490	6" Width



Section 8: Mounting Brackets

Amphenol Network Solutions uses several different types of brackets to provide secure mounting for any configuration. It is recommended you support WaveTrax trough a minimum of every 3-4 feet and at every coupler. Support WaveTrax Express interchanges at the coupler that connects the trough. With Cablelinks modules, it is recommended to support two-inch and four-inch Cablelinks every three feet and six-inch Cablelinks every two feet.

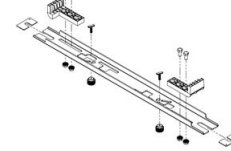
Part Numbers

Support Bracket for $\frac{5}{8}$ " Threaded Rod

Parts	Description
027-1000-4251	2" Width
027-1000-4051	4" & 6" Width
027-1000-12405	12" Width
027-1000-24581	24" Width



027-1000-4051



027-1000-24581

Variable Support Kit

Parts	Description
027-1000-24412	24" Variable Support Kit for 12" Exits
027-1000-24124	24" Variable Support Kit for 24" Exits



027-1000-24412

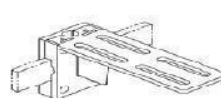


027-1000-24124

Universal Support Bracket

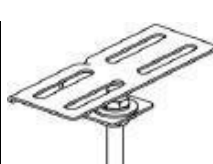
Part	Description
027-2000-4205	2" Width
027-1000-4004	4-6" Width

NOTE: Mounts to a threaded rod, ladder rack or vertical surface. Supports 2" channel at adjustable heights. Up to 1-1/2" ladder rack side wall.



Center Support Bracket

Part	Description
027-1000-4252	2" Width
027-1000-4052	4" & 6" Width
027-1000-1250	12" Width



C-Bracket

Part	Description
027-1000-4253	2" Width
027-1000-4053	4" & 6" Width
027-1000-1253	12" Width



Adjustable Bracket

Part	Description
027-1000-4216	2" Trough
027-2000-4212	BRKT: Mid-span, 2"
027-1000-4211	2" Cablelinks Only
027-1000-4117	4" Cablelinks Only



Cable Rack Bracket

Part	Description
027-1000-4260	2" Width
027-1000-4062	4" & 6" Width



Trough Support Clamp (Mighty Clamp)

Part	Description
027-2000-4260	2" Width
027-2000-4060	4", 6" & 12" Width



NOTE: All our support brackets come with a trough support clamp and the cable rack bracket will need to be purchased separately.

5/8" Threaded Rod Kit

Part	Description
027-1000-4002	18"
027-1000-4001	40"



NOTE: Fits on a ladder rack with included clamshell bracket.

Clamshell Bracket Kit

Part	Description
027-1000-4103	Clamshell Bracket

* No threaded rod

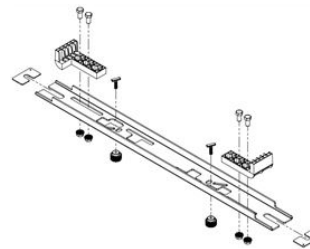


Mounting Bracket Hardware Kits

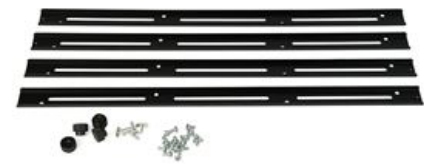
Part	Description
027-1000-1026	T-Bolt Kit, 10pcs
027-1000-1025	Split Nut Kit, 10pcs, 1/2"
027-1000-1058	Split Nut Kit, 10pcs, 5/8"

24" Trough - Mounting Hardware

Parts	Description
027-1000-24581	Trough Support Bracket for 5/8" threaded rod
027-1000-24124	24" Variable Support Kit for 24" Exits



027-1000-24581



027-1000-24124

Section 9: Application Standards

Standard	Description
UL 2024	Standard for Cable Routing Assemblies and Communications Raceways
NEBS GR-63-CORE	Network Equipment Building Systems (NEBS)

Section 10: FlexTrax®

Amphenol Network Solutions introduces one of the most innovative and imaginative cable management solutions in the world! With easy assembly and installation, the 2" FlexTrax® is a flexible cable manager that enables quick access to cables for rapid changes in complex routing applications. The track design enables high visibility to cable management capacity and measures 2" x 2" x 1ft.

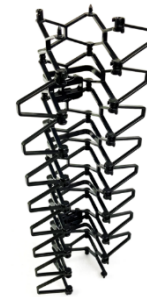
Part Numbers

FlexTrax®

Part Number	Description
FLX2-1FT	2" FlexTrax 1' Section with Clips. Two pre-attached mounting clips have a hole for a screw, or can snap into the C-clamp

Accessories

Part Number	Description
FLX2-END-CLAMP	2" FlexTrax End Clamp For use with thin flat surfaces
FLX2-C-CLAMP	2" FlexTrax C-Clamp Attaches to mounting clip on FLX2-1FT
FLX2-LATCH-10	2" FlexTrax Latch (10 pack) Use one Latch per 1FT section or as needed
FLX2-BRKT-KIT-10	2" FlexTrax L-Bracket Hardware Kit (10 pack) Standard vertical spacing is every 10RU
FLX2-EXIT-2	2" FlexTrax Exit (2 Pack) Recommended for extra protection at the end of a section or cut section
FLX2-DROP	2" FlexTrax Wire Basket Drop Kit – 1 Drop 1 drop kit includes drop attachment, 2 FlexTrax Exits, and 1 FlexTrax End Clamp.
FLX2-4DROP	2" FlexTrax Wire Basket Drop Kit – 4 Drops 4 drop kit includes drop attachment, 4 FlexTrax Exits, and 5 zip ties
FLX2-VCM-6FT	2" FlexTrax 6' Vertical Cable Manager



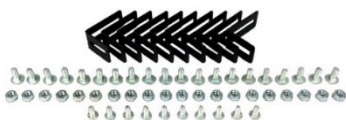
FLX2-END-CLAMP



FLX2-C-CLAMP



FLX2-LATCH-10



FLX2-BRKT-KIT-10



FLX2-EXIT-2



FLX2-DROP



FLX2-4DROP

