

DATA CENTER  
SOLUTIONS

UPCOM  
The Faster. The Better.

# FIBER OPTIC DUCTING SOLUTIONS

# UPCOM

The Faster. The Better.

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Founded in 2003, UPCOM Telekomunikasyon offers cutting-edge products and services in the fields of telecommunication infrastructure and data center by producing in line with the expectations and needs of its customers.

With more than 20 years of experience, UPCOM Telekomunikasyon has become one of the important suppliers of Europe in terms of capacity, technology and innovation by continuously investing in production, technology, R&D and people.

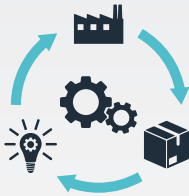
UPCOM Telekomunikasyon produces high performance fiber optic cables, fiber optic cable assemblies, data center infrastructure products and structured cabling solutions in its two factories located in Turkiye.

UPCOM also has a ministry-approved research and development center since 2017.



## 20+ Years' Experience

With more than 200 employees and 2 factories, we have achieved several significant projects in telecommunication fiber optic infrastructure.



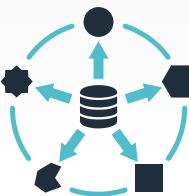
## World Class Production

With systematic and scientific methods, we always focus on reaching the highest quality in our fiber optic cable production and assembly lines.



## Connecting Continents

An advantageous shipping location, at the intersection of Asia, Europe and the Middle-East.



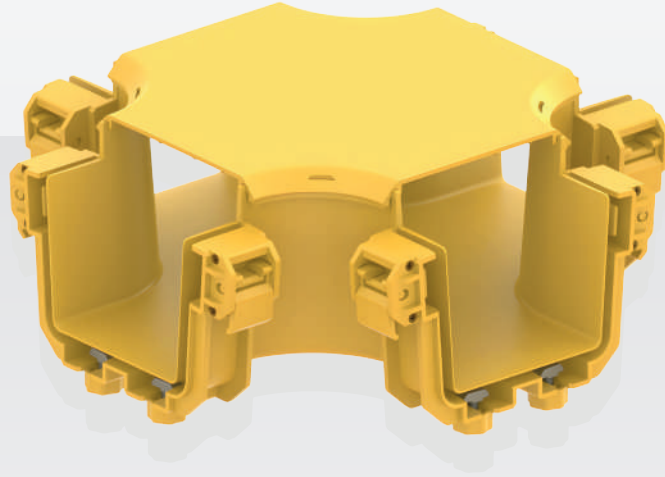
## Innovative Solutions

We are passionate about responding to customer demand and keeping pace with the ever-evolving telecommunication and fiber optic technologies.

**UPCOM**

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# FIBER OPTIC DUCTING SOLUTIONS

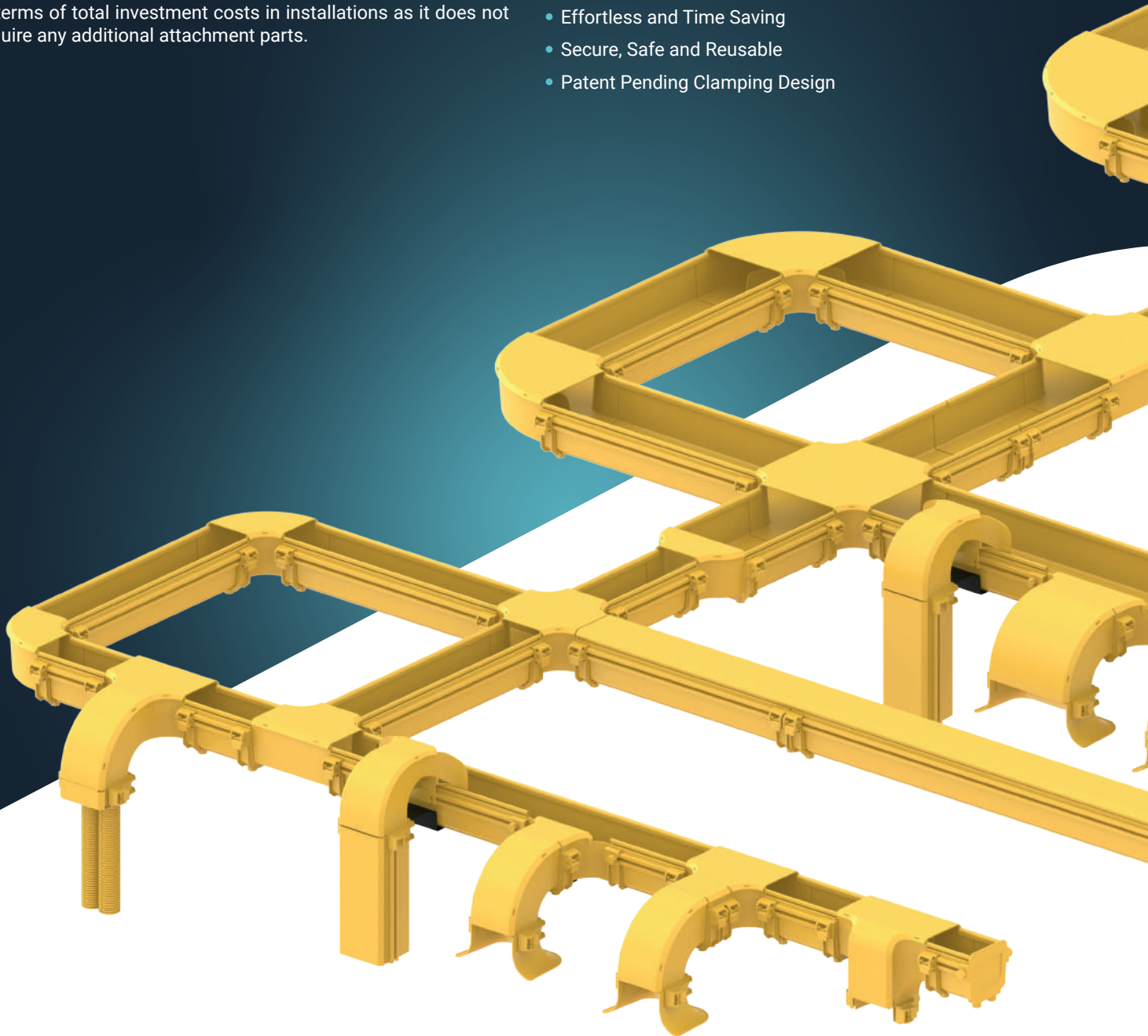
## Data Center Fiber Ducting System

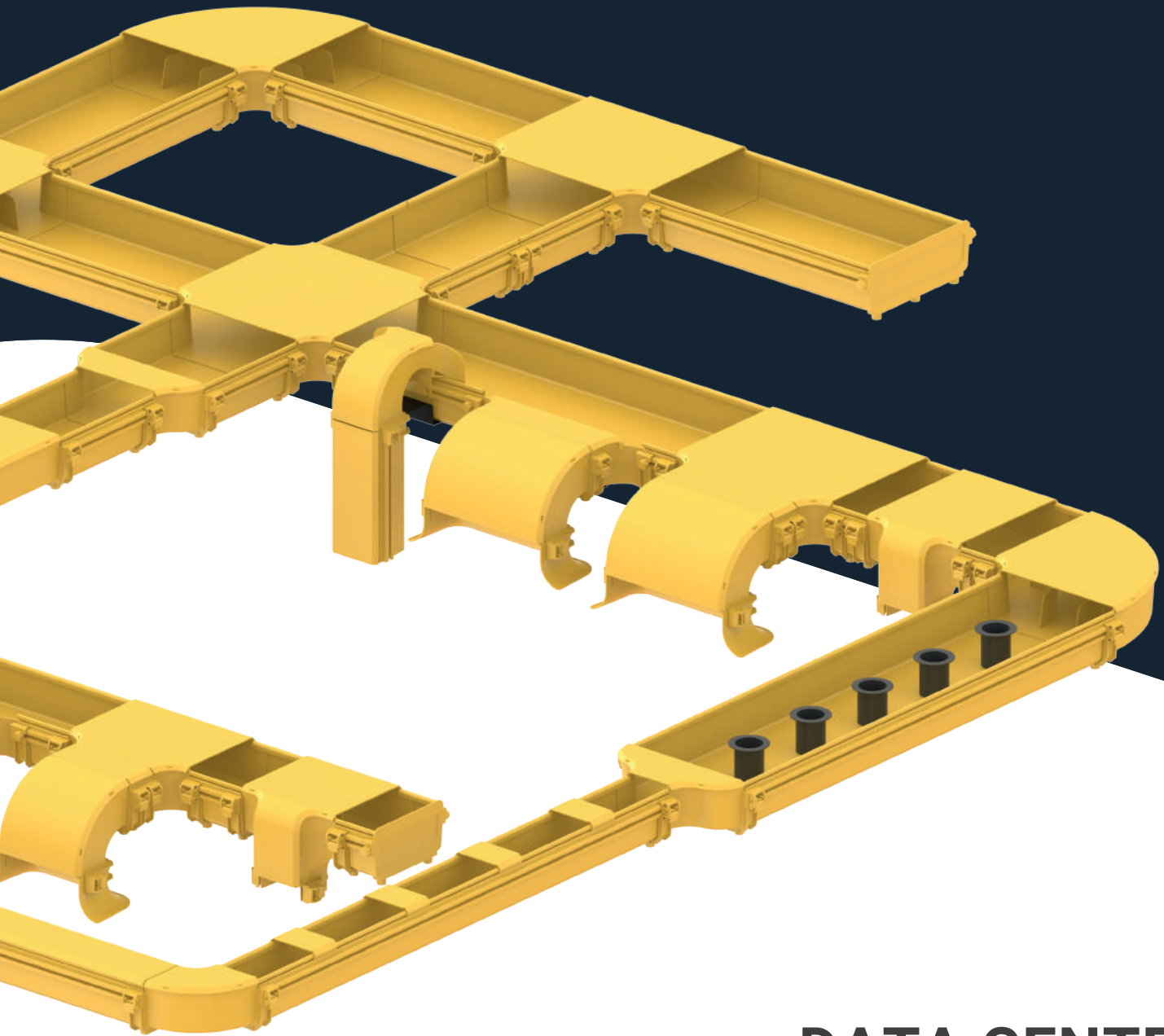
The entire FDS System installation and component connections have a special design that does not require drilling and grooving. This innovative and tool-free assembly method allows safe, fast and easy installation of all channels and accessories used in the system without the need for additional parts.

There is no need for additional attachments for the connection of duct structures with accessories. The attachment structure integrated into the accessories provides a significant advantage in terms of total investment costs in installations as it does not require any additional attachment parts.

### Unique Toolless Connection System Integrated Into The Entire Structure

- No Drilling And No Punching
- No Need Additional Joiners
- No Need Any Tools
- Effortless and Time Saving
- Secure, Safe and Reusable
- Patent Pending Clamping Design

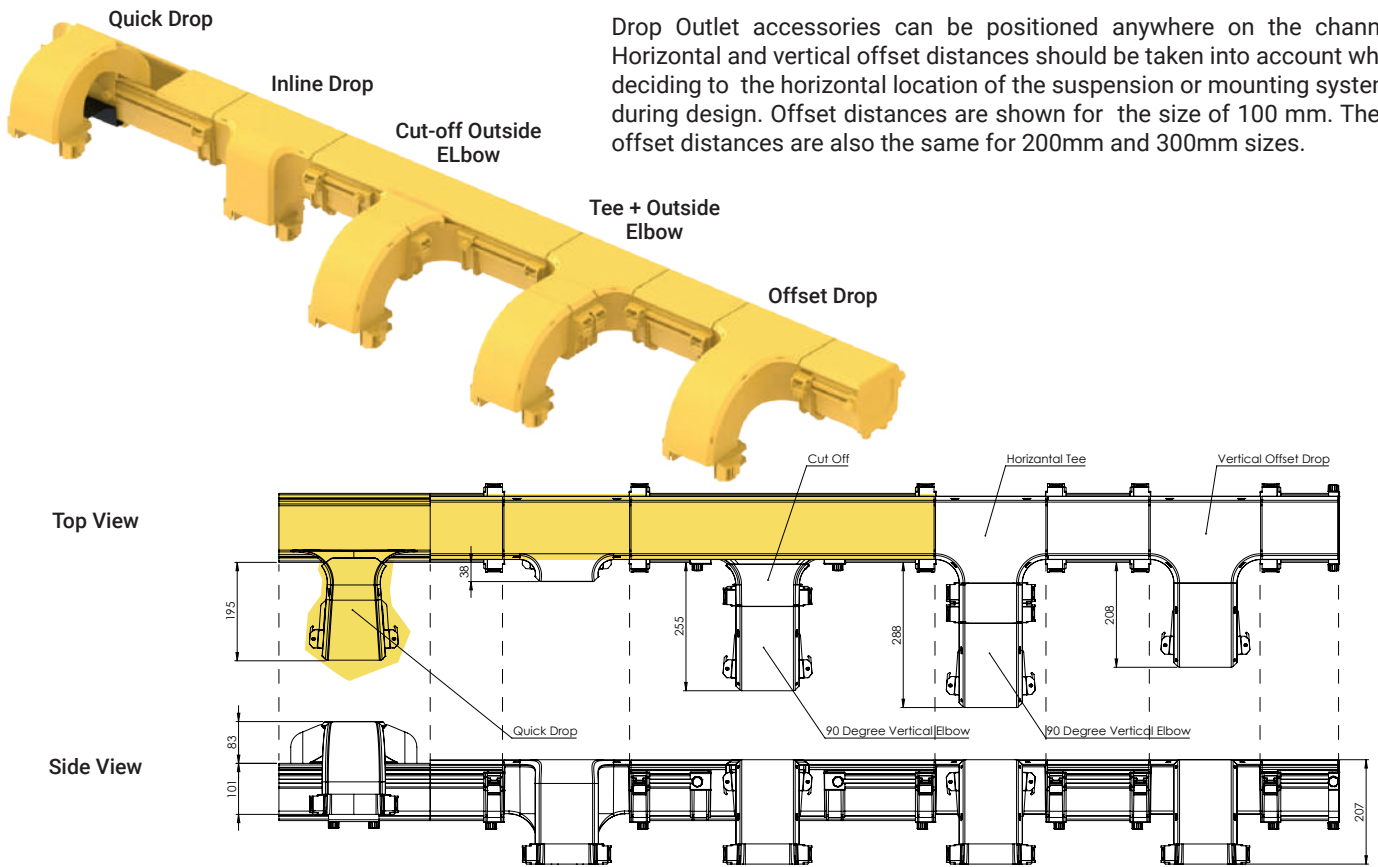




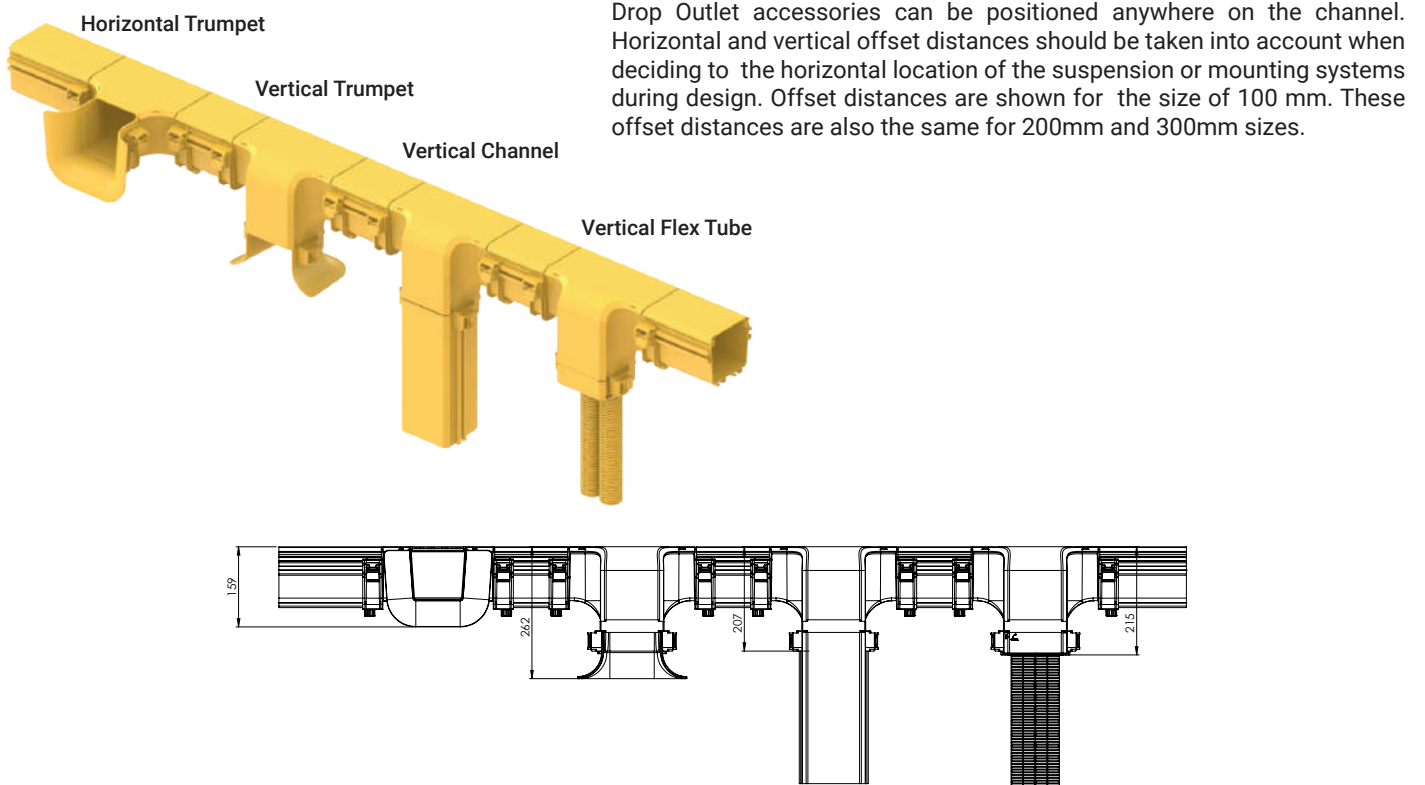
**DATA CENTER  
TOOL-LESS FIBER  
DUCTING SYSTEM**

## Useful Application Notes

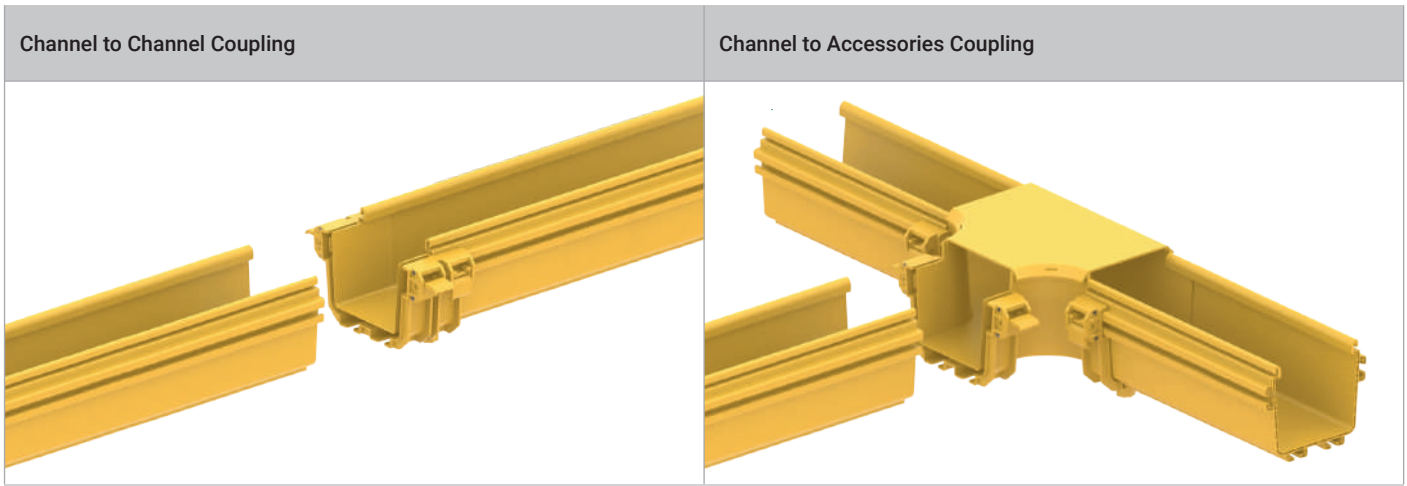
### Off-Set Dimensions for Downspout Outlet Frames



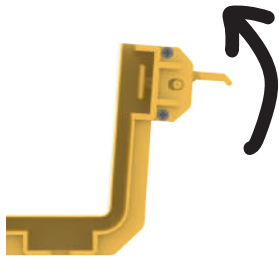
### Downspout Options for Cable Dropping from Channels to Cabinets



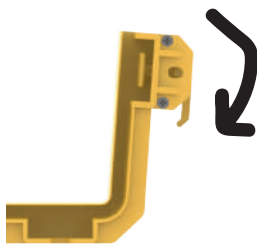
## Vertical Offset Drop Connection



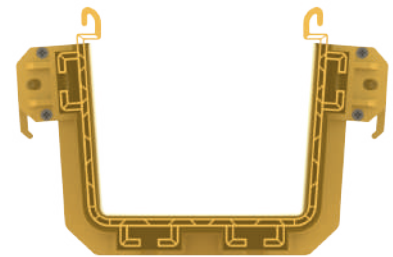
Junction Coupler Unlocked



Junction Coupler Locked



Fitting Assembly



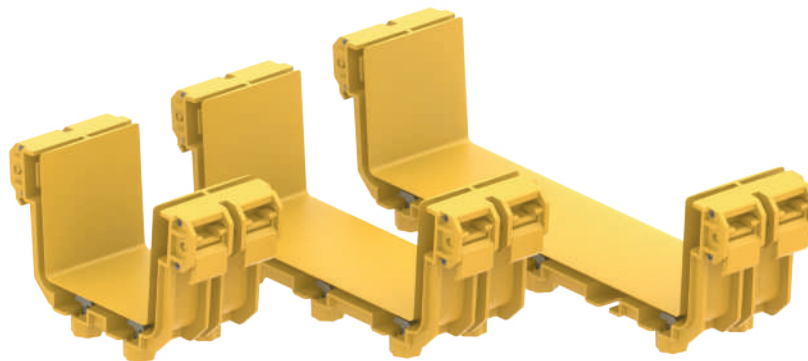
## Data Center Fiber Ducting System

The entire FDS System installation and component connections have a special design that does not require drilling and grooving. This innovative and tool-free assembly method allows safe, fast and easy installation of all channels and accessories used in the system without the need for additional parts.

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## Selecting The Ducting Channel Size

Fiber raceway systems are available in three sizes. It's crucial to choose a size that accommodates future expansion and additions to the ducting system. Too often, cable systems are undersized in an attempt to reduce installation costs. However, in today's data-driven world, this approach is a false economy. It is far more cost-effective in the long run to plan for future growth and over-specify capacity, rather than just meeting current needs.

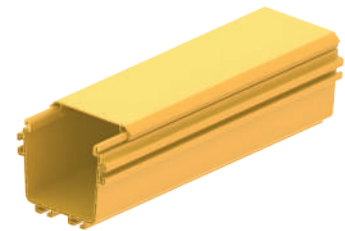
Duct Size (Metric/Inch)	100x100mm / 4x4"		200x100mm / 8x4"		300x100mm / 12x4"	
	Capacity(ea)	Weight(kg)	Capacity(ea)	Weight(kg)	Capacity(ea)	Weight(kg)
Patch cord/3.0mm (%100)	1065	15.91	2100	31.37	3128	46.73
Patch cord/3.0mm (%70)	743	11.10	1477	22.07	2206	32.96
Patch cord/3.0mm (%50)	534	7.98	1068	15.96	1598	23.87
Patch cord/2.0mm (%100)	2491	18.38	4996	36.87	7292	53.81
Patch cord/2.0mm (%70)	1733	12.79	3435	25.35	5135	37.90
Patch cord/2.0mm (%50)	1207	8.91	2409	17.78	3609	26.63
Patch cord/1.6mm (%100)	6393	34.52	7650	41.31	11397	61.54
Patch cord/1.6mm (%70)	5174	27.94	5308	28.66	7930	42.82
Patch cord/1.6mm (%50)	4385	23.68	3769	20.35	5642	30.47

\*\*\* The recommended capacities listed above will help prevent cable crushing and resulting damage.

\*\*\* Initial fill should be no more than 50% of capacity to accommodate future growth.

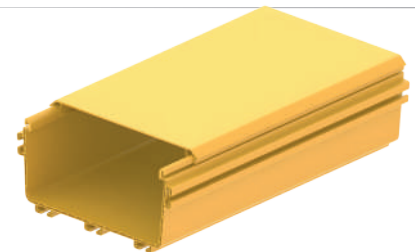
### 100x100mm (4x4") Channels

Description	Order Code	
	Yellow	Black
FDS_100mm Straight Solid Channel Body_1.8m	ME11001-11	ME11001-12
FDS_100mm Straight Solid Channel Cover_1.8m	ME11001-21	ME11001-22



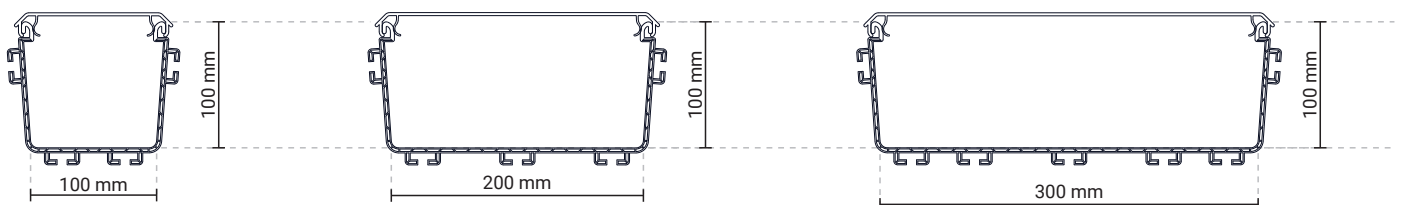
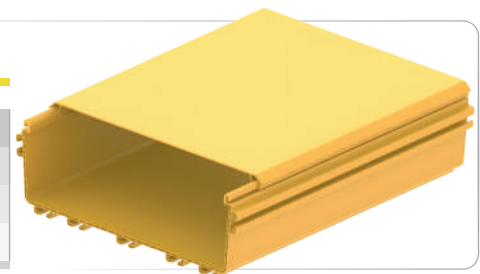
### 200x100mm (4x4") Channels

Description	Order Code	
	Yellow	Black
FDS_200mm Straight Solid Channel Body_1.8m	ME12001-11	ME12001-12
FDS_200mm Straight Solid Channel Cover_1.8m	ME12001-21	ME12001-22



### 300x100mm (4x4") Channels

Description	Order Code	
	Yellow	Black
FDS_300mm Straight Solid Channel Body_1.8m	ME13001-11	ME13001-12
FDS_300mm Straight Solid Channel Cover_1.8m	ME13001-21	ME13001-22



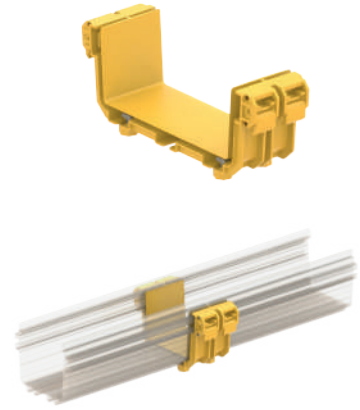


## Key Products and Guidelines for Component Assembly

### Channel to Channel Assembly

To assemble straight raceway sections that are longer than 1.8 meters (the length of one straight channel), individual straight channels can be joined together using a channel splice fitting. Just position the end of each channel half way into the channel fitting, making them meet in the middle. Then, drill the channels through the splice fitting holes and fasten both sides using M6 mushroom head bolts and nuts.

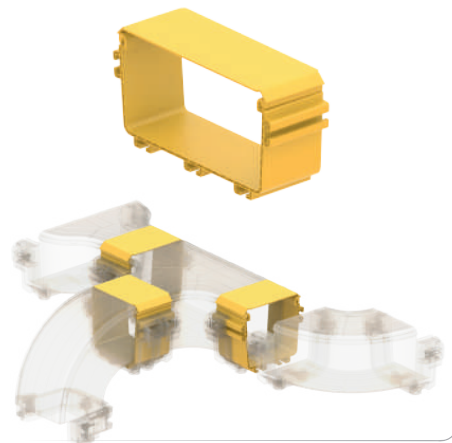
Description	Order Code	
	Yellow	Black
FDS_100mm Channel to Channel Coupler	ME11002-01	ME11002-02
FDS_200mm Channel to Channel Coupler	ME12002-01	ME12002-02
FDS_300mm Channel to Channel Coupler	ME13002-01	ME13002-02



### Accessory to Accessory Assembly

To assemble two curved fittings together easily, a special splice fitting is designed to fit within the female receptacle part on each curved fitting. Simply place the splice fitting into the curved fitting's receptacle. Using M6 mushroom head bolts and nuts, attach the two components together, then position the second curved fitting over the splice fitting and fasten it in the same way.

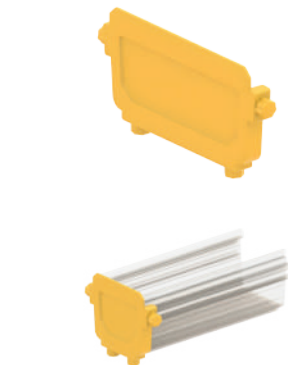
Description	Order Code	
	Yellow	Black
FDS_100mm Accessory to Accessory Coupler	ME11004-01	ME11004-02
FDS_200mm Accessory to Accessory Coupler	ME12004-01	ME12004-02
FDS_200mm Accessory to Accessory Coupler	ME13004-01	ME13004-02



### End Cap Assembly to Channel

End caps are used to close the ends of the channels, either permanently or temporarily, to prevent them from staying open. The installation of the end caps at the open ends of the channels is done using the knurled quick knob with t-bolt sets.

Description	Order Code	
	Yellow	Black
FDS_100mm Channel End Cap	ME11003-01	ME11003-02
FDS_200mm Channel End Cap	ME12003-01	ME12003-02
FDS_300mm Channel End Cap	ME13003-01	ME13003-02



### Quick Knobs for T-Slotted Profile Assemblies

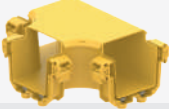
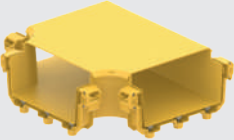
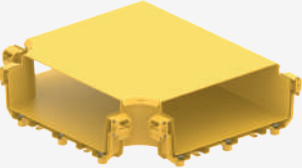
The Knurled Quick Knob with T-Bolt is designed for easy and secure connection of channels and assemblies. Its ergonomic knurled surface allows for quick manual tightening, ensuring a stable and reliable connection without the need for additional tools. Ideal for both permanent and temporary installations, it provides a convenient solution for fastening components in various applications.

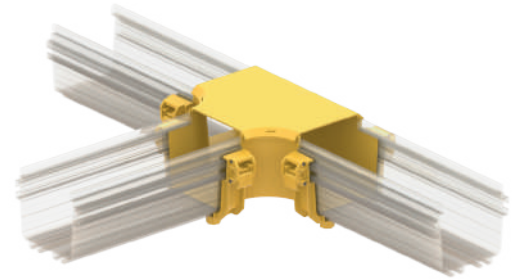
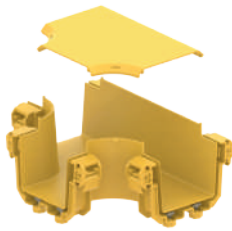
Description	Order Code	
	Yellow	Black
FDS_Knurled Quick Knob with T-Bolt, Kit of 1	ME20001-11	ME20001-12
FDS_Knurled Quick Knob with T-Bolt, Kit of 10	ME20001-21	ME20001-22






## Main Line Connections

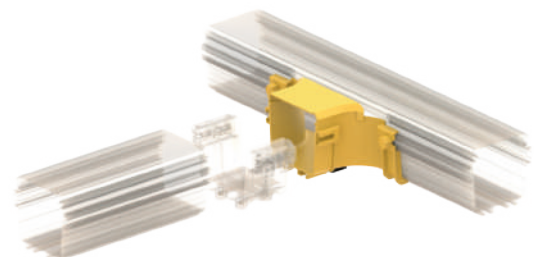
### Horizontal "TE" Connection

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm Horizontal "TE" Connection Body	ME11005-11	ME11005-12
	FDS_100mm Horizontal "TE" Connection Cover	ME11005-21	ME11005-22
	FDS_200mm Horizontal "TE" Connection Body	ME12005-11	ME12005-12
	FDS_200mm Horizontal "TE" Connection Cover	ME12005-21	ME12005-22
	FDS_300mm Horizontal "TE" Connection Body	ME13005-11	ME13005-12
	FDS_300mm Horizontal "TE" Connection Cover	ME13005-21	ME13005-22




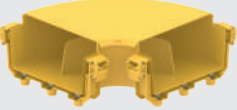

### Side Cut-Off Connection

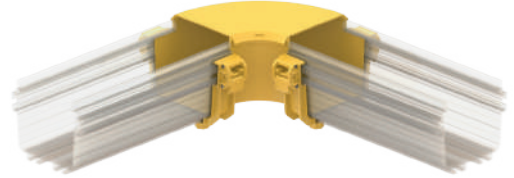
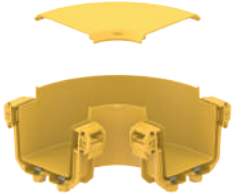
Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm Horizontal Cut-Off Connection Body	ME11006-11	ME11006-12
	FDS_100mm Horizontal Cut-Off Connection Cover	ME11006-21	ME11006-22
	FDS_200mm Horizontal Cut-Off Connection Body	ME12006-11	ME12006-12
	FDS_200mm Horizontal Cut-Off Connection Cover	ME12006-21	ME12006-22
	FDS_300mm Horizontal Cut-Off Connection Body	ME13006-11	ME13006-12
	FDS_300mm Horizontal Cut-Off Connection Cover	ME13006-21	ME13006-22




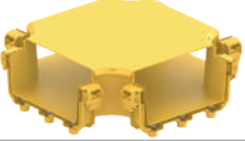
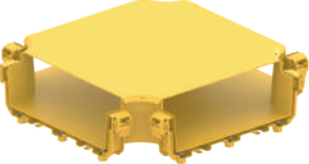
## Main Line Connections

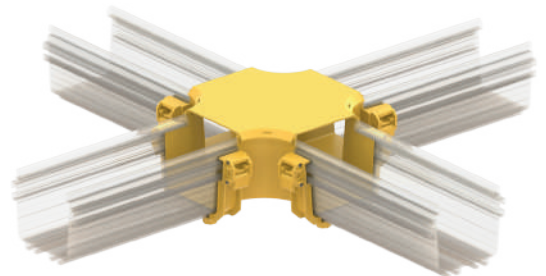
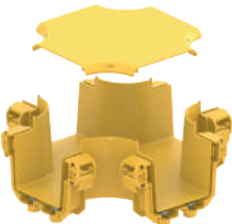
### 90° Horizontal Elbow Connection

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm 90° Horizontal Elbow Connection Body	ME11007-11	ME11007-12
	FDS_100mm 90° Horizontal Elbow Connection Cover	ME11007-21	ME11007-22
	FDS_200mm 90° Horizontal Elbow Connection Body	ME12007-11	ME12007-12
	FDS_200mm 90° Horizontal Elbow Connection Cover	ME12007-21	ME12007-22
	FDS_300mm 90° Horizontal Elbow Connection Body	ME13007-11	ME13007-12
	FDS_300mm 90° Horizontal Elbow Connection Cover	ME13007-21	ME13007-22





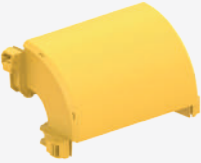
### 4-Way Cross Connection

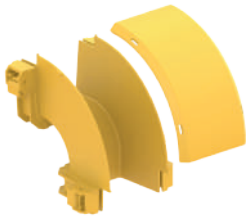
Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm 4-Way Cross Connection Body	ME11008-11	ME11008-12
	FDS_100mm 4-Way Cross Connection Cover	ME11008-21	ME11008-22
	FDS_200mm 4-Way Cross Connection Body	ME12008-11	ME12008-12
	FDS_200mm 4-Way Cross Connection Cover	ME12008-21	ME12008-22
	FDS_300mm 4-Way Cross Connection Body	ME13008-11	ME13008-12
	FDS_300mm 4-Way Cross Connection Cover	ME13008-21	ME13008-22



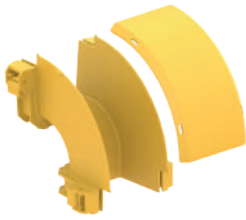

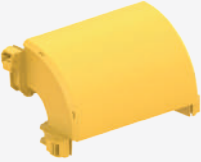
## Elbow Junctions

### 90° Vertical Outside Elbow

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm 90° Vertical Outside Elbow Body	ME11009-11	ME11009-12
	FDS_100mm 90° Vertical Outside Elbow Cover	ME10909-21	ME10909-22
	FDS_200mm 90° Vertical Outside Elbow Body	ME12009-11	ME12009-12
	FDS_200mm 90° Vertical Outside Elbow Cover	ME12009-21	ME12009-22
	FDS_300mm 90° Vertical Outside Elbow Body	ME13009-11	ME13009-12
	FDS_300mm 90° Vertical Outside Elbow Cover	ME13009-21	ME13009-22



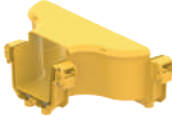


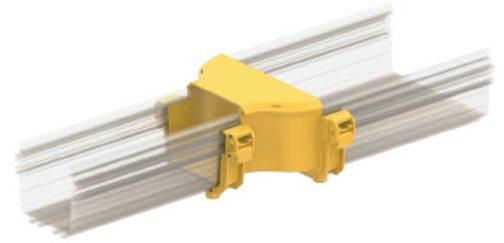
### 90° Vertical Inside Elbow

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm 90° Vertical Inside Elbow Body	ME11010-11	ME11010-12
	FDS_100mm 90° Vertical Inside Elbow Cover	ME11010-21	ME11010-22
	FDS_200mm 90° Vertical Inside Elbow Body	ME12010-11	ME12010-12
	FDS_200mm 90° Vertical Inside Elbow Cover	ME12010-21	ME12010-22
	FDS_300mm 90° Vertical Inside Elbow Body	ME13010-11	ME13010-12
	FDS_300mm 90° Vertical Inside Elbow Cover	ME13010-21	ME13010-22




## Line Reducers

### Horizontal Line Reducer

Product Design	Description	Order Code	
		Yellow	Black
	FDS_200/100mm Line Reducer Body FDS_200/100mm Line Reducer Cover	ME11011-11 ME11011-21	ME11011-12 ME11011-22
	FDS_300/200mm Line Reducer Body FDS_300/200mm Line Reducer Cover	ME12011-11 ME12011-21	ME12011-12 ME12011-22
	FDS_300/100mm Line Reducer Body FDS_300/100mm Line Reducer Cover	ME13011-11 ME13011-21	ME13011-12 ME13011-22



### Vertical Quick Drop

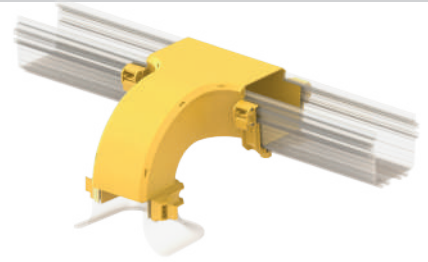
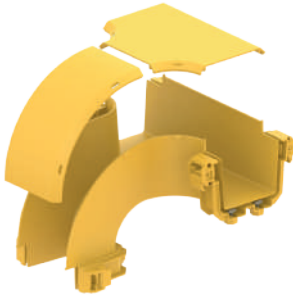
Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm_Vertical Quick Drop(Body+Cover)	ME11012-01	ME11012-02
	FDS_100mm_Vertical Quick Drop Body	ME11012-11	ME11012-12
	FDS_100mm_Vertical Quick Drop Cover	ME11012-21	ME11012-22



## Drop Connections

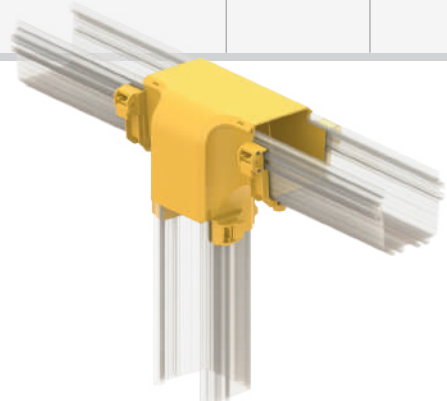
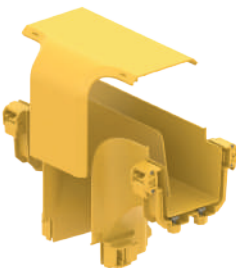
### Vertical Offset Drop Connection

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm Vertical Offset Drop (Body + Cover)	ME11013-01	ME11013-02
	FDS_100mm Vertical Offset Drop Body	ME11013-11	ME11013-12
	FDS_100mm Vertical Offset Drop Cover Set	ME11013-21	ME11013-22



### Vertical Line Drop Connection

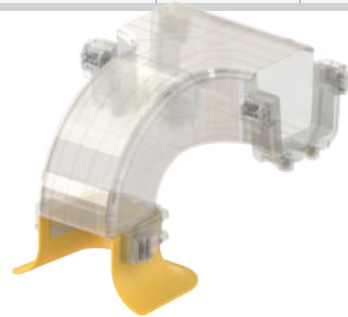
Product Design	Description	Order Code	
		Yellow	Black
	FDS_100/100mm Vertical Line Drop Body	ME11014-11	ME11014-12
	FDS_100/100mm Vertical Line Drop Cover	ME11014-21	ME11014-22
	FDS_200/100mm Vertical Line Drop Body	ME11015-11	ME11015-12
	FDS_200/100mm Vertical Line Drop Cover	ME11015-21	ME11015-22
	FDS_300/100mm Vertical Line Drop Body	ME11016-11	ME11016-12
	FDS_300/100mm Vertical Line Drop Cover	ME11016-21	ME11016-22





## Drop Connection Accessories

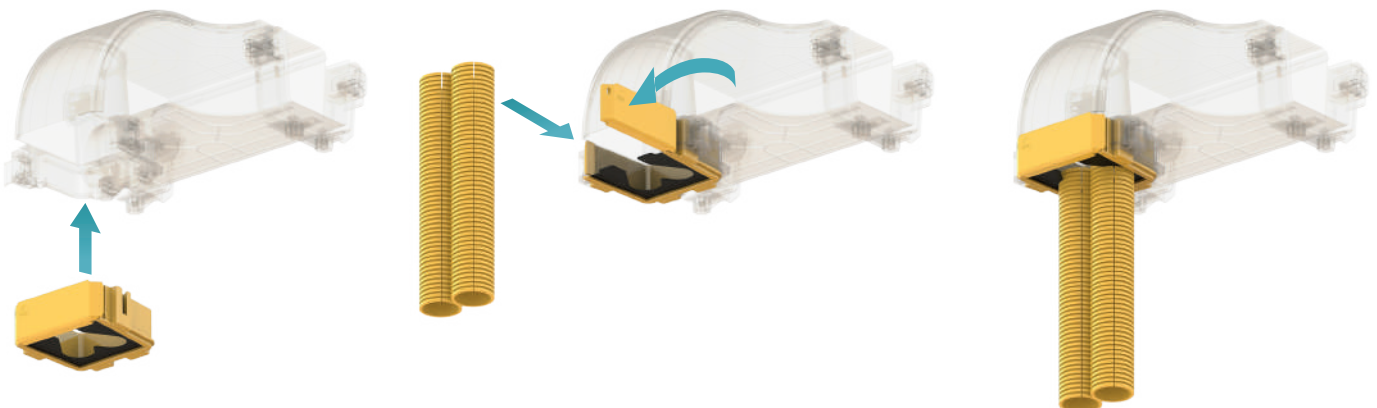
### Outlet Bend Radius Trumpet

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm Outlet Bend Radius Trumpet	ME11017-01	ME11017-02
	FDS_200mm Outlet Bend Radius Trumpet	ME12017-01	ME12017-02
	FDS_300mm Outlet Bend Radius Trumpet	ME13017-01	ME13017-02






### Outlet Flex Tube Adapter

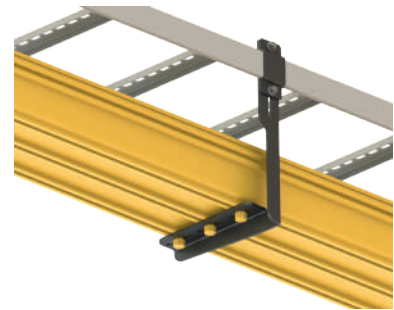
Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm/1x48mm Outlet Flex Tube Adapter	ME11018-01	ME11018-02
	FDS_100mm/2x36mm Outlet Flex Tube Adapter" data-bbox="163 653 233 698"/>	ME11019-01	ME11019-02






## Main Line Connections

### "L" Shaped Pathway Ladder Connection Plate

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm "L" Shaped Pathway Ladder Connection Plate		
	FDS_200mm "L" Shaped Pathway Ladder Connection Plate		
	FDS_300mm "L" Shaped Pathway Ladder Connection Plate		



### Double Rod Suspension Plate

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm Center Mounting Bracket		
	FDS_200mm Center Mounting Bracket		
	FDS_300mm Center Mounting Bracket		





## Main Line Connections

### Single Rod Suspension Plate

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm Single Rod Suspension Plate		
	FDS_200mm Single Rod Suspension Plate		
	FDS_300mm Single Rod Suspension Plate		






### Double Rod Suspension Plate

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm Double Rod Suspension Plate		
	FDS_200mm Double Rod Suspension Plate		
	FDS_300mm Double Rod Suspension Plate		



## Main Line Connections

### Accessory to Accessory Assembly

Product Design	Description	Order Code	
		Yellow	Black
	FDS_100mm Accessory to Accessory Coupler_YE	ME11004-01	ME11004-02
	FDS_200mm Accessory to Accessory Coupler_YE	ME12004-01	ME12004-02
	FDS_300mm Accessory to Accessory Coupler_YE	ME13004-01	ME13004-02

