LEGRAND
FIBER RACEWAY
CABLE TRAY FOR DATACENTERS
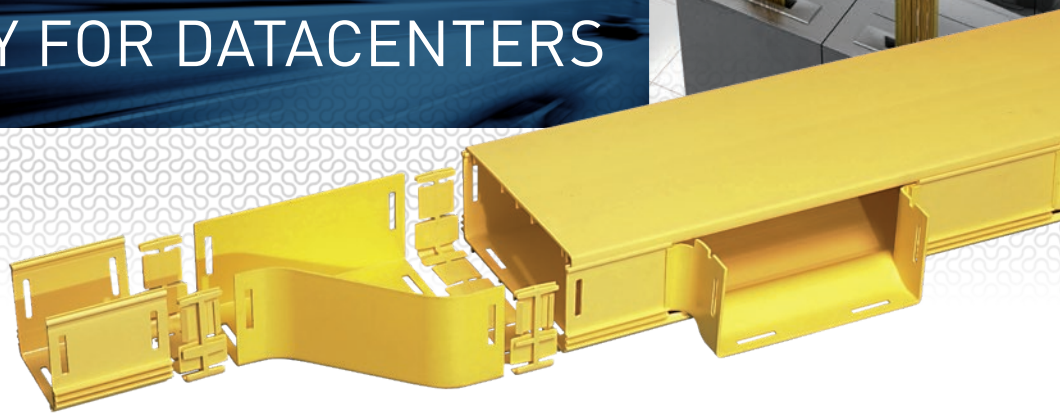
LEGRAND, INTEGRATED DATACENTER SOLUTIONS

Legrand is a global specialist in building-related (IT) infrastructure. In the Benelux Legrand mainly focuses on non-residential buildings, machinery and panel construction as well as the industrial sector for energy distribution, communications networks and building automation. With Legrand, customers benefit from having a single point of contact for their entire project.
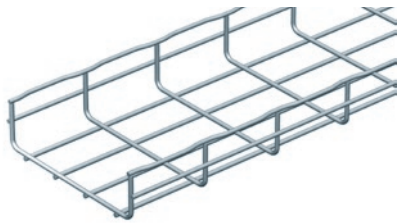
CABLOFIL

- Compliance with the permitted bending radiuses for copper and optical fiber data transmission cables, with:
  - the Cablofil range
  - a wide range of accessories for server racks and HD racks
- Protection of the cables when they are installed or replaced with:
  - Cablofil cable trays and their patented T-joint system
  - the automatic cable fixing system on LCS[3] patch panels without cable ties
- Compliance of the hot and cold air flows with the ranges of short (<1m) LCS[3] cords and the vertical fixing system for the panels at the rear of the server racks.
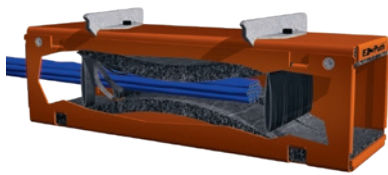
EZ-PATH

EZ-Path is a firestop wall device for routing cables. The device closes if there is a fire. With this system cable routing can be adjusted at any time without losing its firestop qualities.

RARITAN

Raritan's PDU offer comprises 230V and 415V models, in hundreds of different configurations, including per socket monitoring that help to improve power usage effectiveness of datacenters. Remote and 'at-the-rack' data collection of current (amps), voltage, power (kVA, kW), and energy consumption (kWh)

ZUCCHINI BUSBAR MR DC (160-1000A)

Energy distribution solutions in the computer room:
- The MR busbar range solution, with tap-off outlets, can be used to connect and disconnect tap-off boxes supplying a PDU while energized.

FIBER RACEWAY

- Low smoke Zero Halogen, self-extinguishing. Avoiding risk of harming staff and transmission equipment.
- UL94-V-0 rated (50 mm UL94-V-1)
- ROHS Compliant
- UL2024A Standard rated

The Granulate Noryl used for Fiber Raceway is fully recyclable (Cradle to cradle). Very important issue for future datacenters.

P31 CABLETRAY

- Conform IEC 61537 & UL (for CPC tray)
- Fire integrity 4102-12 & NPR 2576:2016
- Material: -Sendzimir NEN EN 10346
             -Hotdip Galvanised NEN EN 1461
             -Sendzimir Ral 9010
- Available in any RAL colour on request
- Blind, perforated and heavy embossed for 400 & 600mm
- Width: 75mm to 600mm
- Height: 25,60,75 & 100mm
- Length: 3 mtr (Other lengths up to 6 mtr available on request)
- Support distance up to 3 m.
- Complete range of accessories
- BIM available

GLO-4 LIGHT AND MEDIUM DUTY LADDER

- Conform IEC 61537
- Material: - Sendzimir NEN EN 10346
             - Hotdip Galvanised ENEN EN 1461
             - Available in any RAL colour.
- Light duty and medium duty rungs available
- Rung distance 100, 200 & 300mm
- Width: 200mm to 600mm (specials available)
- Height: 60mm and 100mm
- Length: 3 & 6 mtr
- Support distance up to 3 mtr.
- Complete range of accessories

PLANET WHATTOHM
TYPE ST, BSI & HV

- Material: PVC & PC-ABS Halogen free
- Colour RAL 7030, Afnor 2525, Blue
- Conform EN50085 Part 2&3
- Width: 15mm to 150mm
- Height: 25mm to 100mm
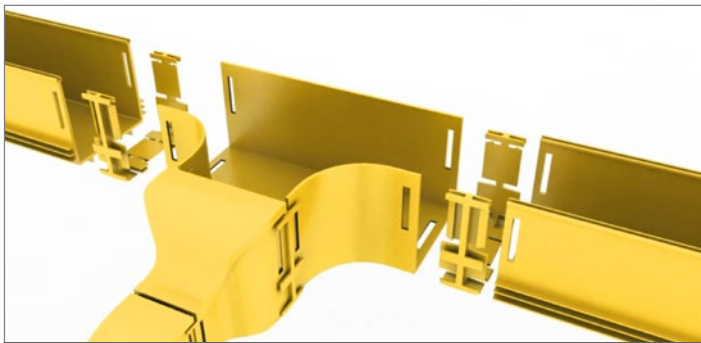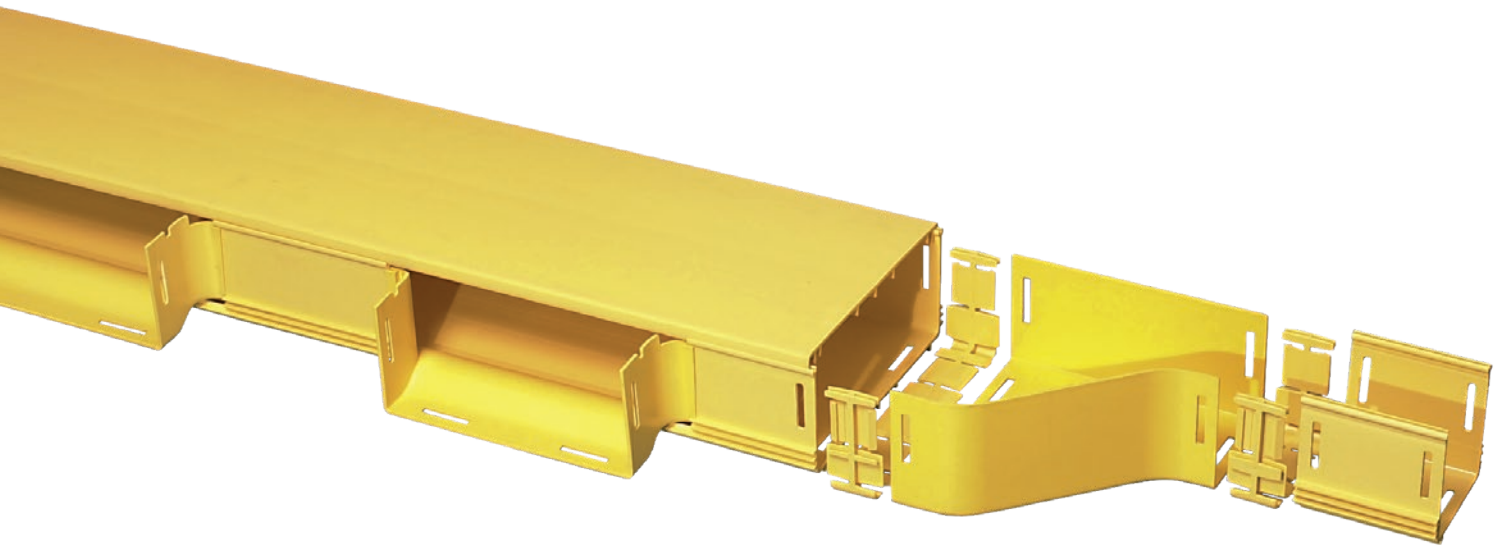- Complete range of accessories and tools
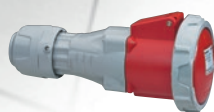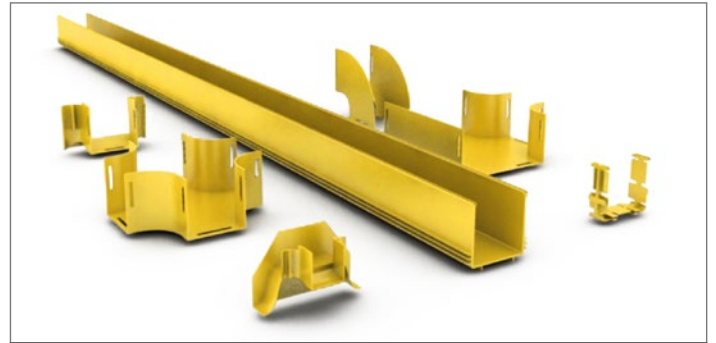
P17 TEMPRA PRO

- IP 44 and IP 66/67/69
- LS 16 to 125 A and ZLS to 32 A
- Polarity: 2P, 2P+A, 3P+A, 3P+N+A
- frequency: 50/60 Hz
- IK 09

legrand

SIX IMPORTANT SALES ARGUMENTS

AT A GLANCE FOR USING FIBER RACEWAY

EASY INSTALLATION

7 BASIC ELEMENTS

1. CABLE MANAGEMENT SYSTEM

With the strong growing demand of fibers, fiber cords need to be segregated from copper services and routed in an enclosed duct raceway system, fulfilling following demands:

- bright distinctive duct color: Yellow (=standard), orange and black
- protection against compression
- protection against bend radius
- available sizes 50 mm, 100 mm, 220 mm, 300 mm and 600 mm

2. MEETS FOLLOWING IMPORTANT STANDARDS:

- Low smoke Zero Halogen, self-extinguishing. Avoiding risk of harming staff and transmission equipment.
- UL94-V-0 (50 mm UL94-V-1) rated
- ROHS Compliant
- UL2024A Standard rated

3. EASY & TIME SAVING INSTALLATION

Pre-slotted duct and accessories simply snap together with slotted or slotless joiners, express outlets, break out kits.

4. ZERO DOWN TIME

Fiber Raceway can easily be changed or extended without the need to remove the existing fiber or shut down.

5. FULLY RECYCLABLE

The granulate Noryl used for Fiber Raceway is fully recyclable (Cradle to cradle). Very important issue for future datacenters.

6. 10 YEAR WARRANTY

All products are manufactured to the highest quality standards ISO 9001, complying with the stringent requirements of UL2024A and ROHS, and carry a 10 year warrenty.
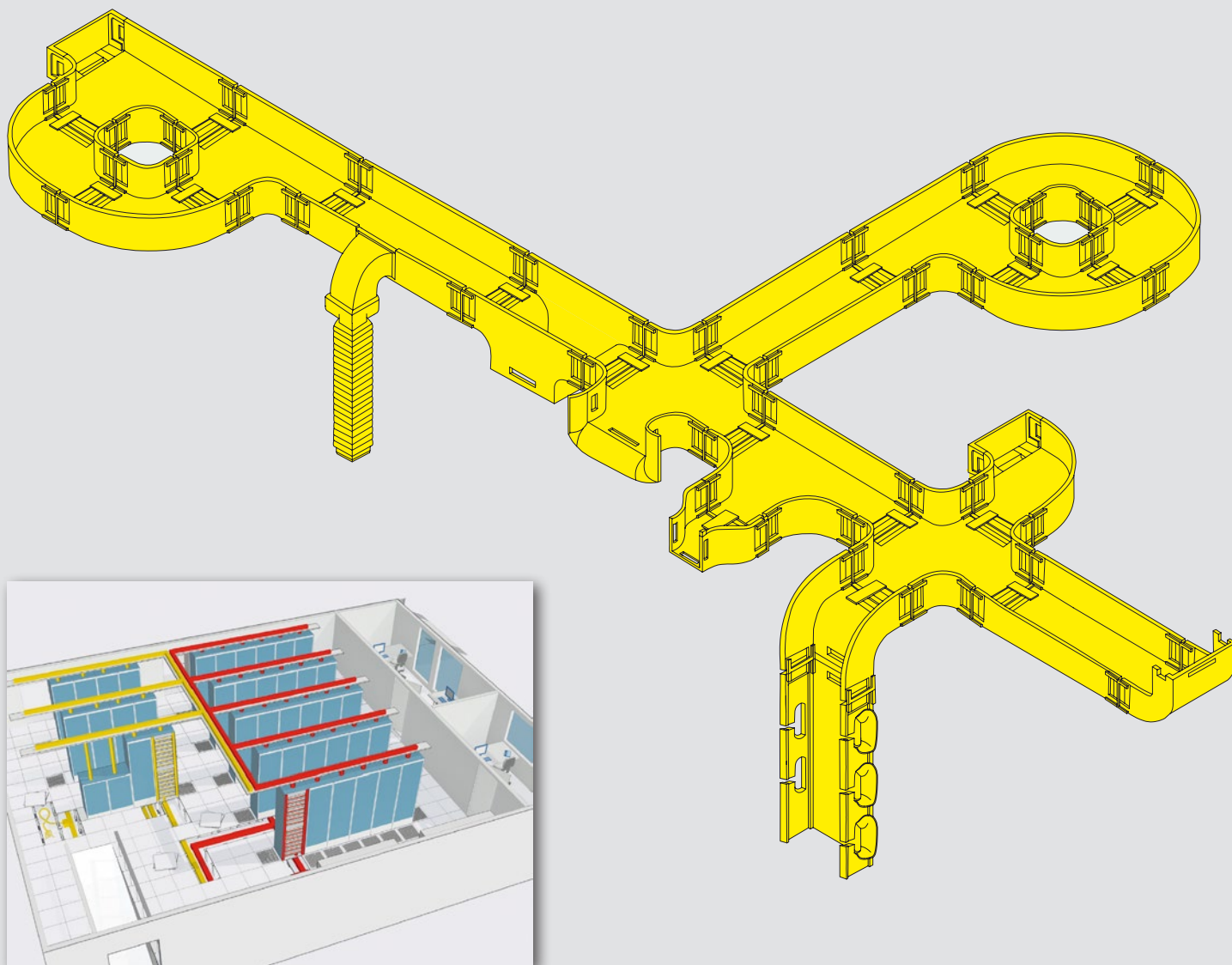
Program

Duct size (mm)	50x50			100x100			220x100			300x100			600x100		
Optical cable size (mm)	3	2-2.4	1.6-2	3	2-2.4	1.6-2	3	2-2.4	1.6-2	3	2-2.4	1.6-2	3	2-2.4	1.6-2
Straight duct	120	155	265	500	700	1200	1100	1500	2500	1500	2100	3600	3000	4200	7200
Over-the-top outlet	100	120	200	300	400	700									
Duct with ramp-off				300	400	700	720	1000	1700						
Vertical tee-straight-through				500	700	1200	300	400	700						
Vertical tee-downsprout-drop				500	700	1200	500	700	1200						

Convuluted tubing	Split 200mm Ø			Split 38mm Ø			Split 50mm Ø			50x50 square		
Optical cable size (mm)	3	2-2.4	1.6-2	3	2-2.4	1.6-2	3	2-2.4	1.6-2	3	2-2.4	1.6-2
Tubing capacity	10	12	20	24	30	50	60	80	135	120	155	265

Capacity

The capacity listed above are recommended to ensure no damages will occur to the cords due to crushing. This is not the number of optical fiber cords that Fiber Raceway will accommodate if completely filled.

Selecting the Ducting - Raceway size

Fiber Raceway is available in six sizes. It is most important to select a size that allows for expansion and future additions to the ducting system.

All too often cable systems are underspecified in order to reduce installation costs. In this world of the ever increasing need for the storage and processing of data it is false economy to just specify for existing needs. It is ultimately most cost effective to provide for the future and over specify when it comes to capacity.

Legrand Fiber Raceway

		Fiber Raceway					
		Solid Duct	**Solid Duct with Cover**	**Slotted joiners**	**Slotting Tool**		
		Length 2000mm	Length 2000mm	Tool Required	Hand operated	Food operated	
	50x50 🟡	TC1279-81	TC1279-81XA	TC1279-73	TC1279-118	-	
	100x100 🟡	TC1279-23	TC1279-23ASN	TC1279-27	TC1279-51	TC1279-500KIT	
	220x100 🟡	TC1279-21	TC1279-21ASN	TC1279-25			
	300x100 🟡	TC1279-275	TC1279-275A	TC1279-320KIT			
	600x100 🟡	TC1279-406	-	-	-	-	
Fixing with joiners		1x	1x				

		Fiber Raceway					
		Vertical elbow up (incl. cover)			**Vertical elbow down (incl. cover)**		
		30°	45°	90°	30°	45°	90°
	50x50 🟡	-	TC1279-143-45A	TC1279-143A	TC1279-87-30A	TC1279-87-45A	TC1279-87A
	100x100 🟡	TC1279-113-30A	TC1279-113-45A	TC1279-113A	TC1279-111-30A	TC1279-111-45A	TC1279-111A
	220x100 🟡	TC1279-125-30A	TC1279-125-45A	TC1279-125A	TC1279-123-30A	TC1279-123-45A	TC1279-123A
	300x100 🟡	-	TC1279-283A	TC1279-298KIT	-	TC1279-285A	TC1279-193A
	600x100 🟡	-	-	-	-	-	-
Fixing with joiners		1x	1x	1x	1x	1x	1x

Note: Colors 🟡 standard, 🟠 & ⚫ available on request

Ducting joiner options

The Fiber Raceway system has 2 option methods for joining the components together, slotted joiners or slotless joiners.

Slotted joiners require the ducting components to have slots on the ends so that it can be properly joined by clicking into place. A slotting tool will be required.

Slotted joiners	Slotting Tool		Saw kit
Tool Required	Hand operated	Food operated	Mitre Box

Slotless joiners require no additional tooling or for slots to be made on the side of the duct. They only require a screwdriver for installation to tighten the joiner into place.

Slotless Joiners	Saw kit	
No slotting Tool Required	Mitre Box	Screwdriver

Note: For straight ducting Fiber Raceway that has been cut to lengtht, new slots need to be made with a suitable size slotting tool.

Fiber Raceway						
Slotless Joiners	**Saw kit**	**Horizontal Elbow (incl. cover)**				
No slotting Tool Required	Mitre Box	30°	45°	90°		
-	TC1279-118-07	TC1279-77-30A	TC1279-77-45A	TC1279-77A	**50x50**	●
TC1279-248A		TC1279-47A	TC1279-31-45A	TC1279-31A	**100x100**	●
TC1279-250A	TC1279-MITRE	TC1279-45A	TC1279-29-45A	TC1279-29A	**220x100**	●
TC1279-287A		-	TC1279-304A	TC1279-387A	**300x100**	●
TC1279-410A	-	-	TC1279-414	TC1279-411A	**600x100**	●
No slotting Tools Required		1x	1x	1x	**Fixing with joiners**	

Fiber Raceway						
Horizontal tee	**Vertical tee**	**Crosses**	**Transforming crosses**	**End cap**		
Incl. cover	Incl. cover	Incl. cover	Incl. cover	Slotted	Slotless	
TC1279-75A	TC1279-145A	TC1279-139A	-	TC1279-127	-	**50x50** ●
TC1279-03A	TC1279-63A	TC1279-71A	TC1279-65A (100x100 to 220x100)	TC1279-57	TC1279-251	**100x100** ●
TC1279-01A	TC1279-11A	TC1279-61A	TC1279-331A (220x100 to 300x100)	TC1279-56	TC1279-252	**220x100** ●
TC1279-279A	TC1279-277A	TC1279-300A	TC1279-396A (300x100 to 100x100)	-	TC1279-288	**300x100** ●
TC1279-412	-	TC1279-416	-	TC1279-435	-	**600x100** ●
2x	2x	2x	2x note: different width	1x		**Fixing with joiners**

Note: TC1279-277A is a vertical 220mm drop-off module in a 300mm horizontal duct

Legrand Fiber Raceway

Fiber Drop-off Solutions and Tubes

		Reducers incl. Cover	Reducers incl. Cover		Duct end Support Bracket
			Left hand	Right Hand	
50x50 🟡		TC1279-91A (50x50 - 100x100)			TC1279-127F
100x100 🟡			TC1279-07A (100 -220x100mm)	TC1279-05A (100x100m -220x100)	TC1279-57D
220x100 🟡		–			-
300x100 🟡		TC1279-281A (300-220x100)	–	–	-
600x100 🟡		TC1279-408 (300-600x100)	-	-	-
Fixing with joiners		1x	1x	1x	-

Fiber Drop-off Solutions and Tubes

		Fiber Drop -off Solutions		High Capacity duct outlets	
		See conduit 50mm	See square conduit		incl. Convoluted Tube
50x50 🟡		TC1279-41KIT	TC1279-89KIT	-	-
100x100 🟡				TC1279-452A	TC1279-452KIT
220x100 🟡				TC1279-454A	TC1279-454KIT
300x100 🟡				-	-
600x100 🟡		-	-	-	-
Fixing with joiners		-	-	1x	-

Brand Adaptors

		ADC/CommScope			
		ADC 4" -100x100	ADC 6" 100-100 LH	ADC 6" 100-100 RH	ADC 6" 220-100 LH
50x50 🟡		-	-	-	-
100x100 🟡		TC1279-109KIT	TC1279-473KIT	TC1279-472KIT	-
220x100 🟡		-	-	-	TC1279-149KIT
300x100 🟡		-	-	-	
600x100 🟡		-	-	-	-

Note: Colors 🟡 standard, 🟠 & ⚫ available on request

Fiber Drop-off Solutions and Tubes

Over The Top Outlet			Trompet Outlet		
50x50 Down	100x100 Down	100x100 Horizontal			
			TC1279-93A	**50x50**	●
			TC1279-218A	**100x100**	●
TC1279-531ASL	TC1279-307ASL	TC1279-290ASL	TC1279-330A	**220x100**	●
			TC1279-379A	**300x100**	●
			-	**600x100**	●
-	-	-	1x	**Fixing with joiners**	

Fiber Drop-off Solutions and Tubes

Cut Out Jig	Tubing				
	Conduit 50mm	Square 50x50 (L: 350mm)	Square openable (L: 350mm)		
				50x50	●
				100x100	●
TC1279-483A	TC1279-26Y (1 m) TC1279-53Y (2 m)	TC1279-85YEL	TC1279-85KIT	**220x100**	●
				300x100	●
				600x100	●
-	Use with: TC1279-41KIT	Use with: TC1279-89KIT	Use with: TC1279-89KIT	**-**	

Brand Adaptors

ADC/CommScope		Panduit			
ADC 6" 220-100 RH	ADC 12" 300-100	6" - 220x100 LH	6" - 220x100 RH		
-	-	-	-	**50x50**	●
-	-	-	-	**100x100**	●
TC1279-150KIT	-	TC1279-487KIT	TC1279-486KIT	**220x100**	●
	TC1279-327KIT	-	-	**300x100**	●
-	-	-	-	**600x100**	●

Tubing

Fiber Raceway tubing is used for feeding entering or exiting fibers from the ducting raceway into equipment racks. They are convoluted or ribbed to allow adjustment if drops cannot be positioned exactly over or under equipment. Some are available with removable covers, or split for ease of cable installation.

Legrand Fiber Raceway

	Suspension brackets				
	Cabinet suspension kits	Ceiling suspension kits			Universal Mounting Hardware
	Raised mounting kit	C-Clamb	Ladder Rack Mounting KIT	Ceiling Suspension Bracket	Duct Mounting Brackets
50x50	TC1279-129KIT	347279	-	-	CLIP2-50
100x100	TC1279-14A	347280	TC1279-155KIT	TC1279-107KITA	TC1279-16MH
220x100	TC1279-13A	347283	TC1279-155KIT	TC1279-106KITA	TC1279-15MH
300x100	TC1279-297BKIT	347283	TC1279-370KIT	TC1279-297AKIT	TC1279-297MH
600x100	-	-	-	-	TC1279-438A

Mounting solutions

Ceiling suspension brackets

TC1279-107KITA
Consists of:
1 x Duct Mounting bracket 100mm
1 x Straight bracket
2 x Threaded rod 12mm x 400mm
8 x Nuts
1 x Bolt 12mm x 13mm
9 x Washers

TC1279-106KITA
Consists of:
1 x Duct Mounting bracket 220mm
1 x Straight bracket
2 x Threaded rod 12mm x 400mm
8 x Nuts
1 x Bolt 12mm x 13mm
9 x Washers

TC1279-297AKIT
Consists of:
1 x Duct mounting bracket 300mm
2 x ½" UNC Threaded Rods, 1m long
8 x ½" hex. Nuts
8 washers

Raised mounting kits

This mounting kit is used for supporting 50 mm duct above or below cabinets or iron work

TC1279-129KIT
Consists of:
1 x Mounting Plate 50mm
1x 2 part Hook & Loop adhesive
1 x Treaded rod 12mm x 400mm
4 x Nuts and 4 x Washers

TC1279-14A
Consists of:
1 x Duct mounting bracket 100mm
1 x Threaded rod 12mm x 400mm
3 x Nuts and 3 x Washers
1 x Protective tube

TC1279-13A
Consists of:
1 x Duct mounting bracket 220mm
1 x Threaded rod 12mm x 400mm
3 x Nuts and 3 x Washers
1 x Protective tube

TC1279-297BKIT
Consists of:
1 x Duct mounting bracket 300mm
2 x Straight bracket
2 x Threaded rod 5/8" UNC x 300mm
8 x Nuts 5/8" and 2 x Nuts 1/2"
2 x Bolts 1/2" x 13mm and 12 x Washers

Ladder rack and Unistrut mounting kits

TC1279-155KIT
Consists of:
1 x Bracket
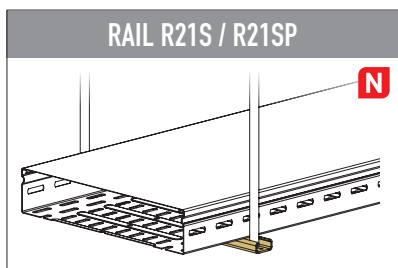1 x Clamp Bracket
2 x Washers, Nuts & Bolts

Used with 100, 220, 300mm
Duct mounting kits

TC1279-370KIT
Consists of:
Large Ladder rack mount Kit.
Suitable to be used with 100, 200, 300mm Duct mounting kits

Legrand Fiber Raceway

RAIL R21S / R21SP

N

Ref.nr.	**Threaded rod suspensions**
SEND	**Rail R21S 41x21x1,5**
	Trapeze suspension M10/M12
	Perforating distance 15mm
	Lenght
348042	200 mm
348043	300 mm
348044	400 mm
348045	500 mm
348046	600 mm
348047	700 mm
348040	1000 mm
348041	2000 mm
342180	3000 mm
	Rail R21SP 41x21x2
	Trapeze suspension M10/M12
	Perforating distance 15mm
348049	3000 mm

**Rail strut**

343610	3000 mm	Profile R41SP 41x41x 1,5
343930	3000 mm	Profile R41SP 41x41x 2.0
345200	3000 mm	Profile R41S 41x41x 2.5
345260	6000 mm	Profile R41S 41x41x 2.5
343770	3000 mm	Profile R41DP 41x82x2,5

Protection End cap

348576	Profile R21S/R21SP
348577	R41S/R41SP

Profile Cover

SC952	3000 mm
	Profile Cover for 41mm rail
SC953	3000 mm
	Profile Cover for 21mm rail

Treaded rod

		Lenght	Max. load
8234206	M6	3000 mm	2000 N
8234008	M8	1000 mm	3000 N
8234108	M8	2000 mm	3000 N
8234208	M8	3000 mm	3000 N
8234000	M10	1000 mm	5800 N
8234100	M10	2000 mm	5800 N
8234200	M10	3000 mm	5800 N

Extension / Rod coupler

8234508	M8 x 30	Max. load 3000 N
8234500	M10 x 30	Max. load 3000 N
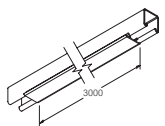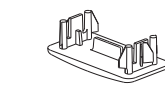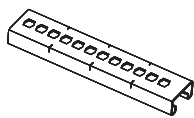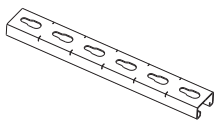
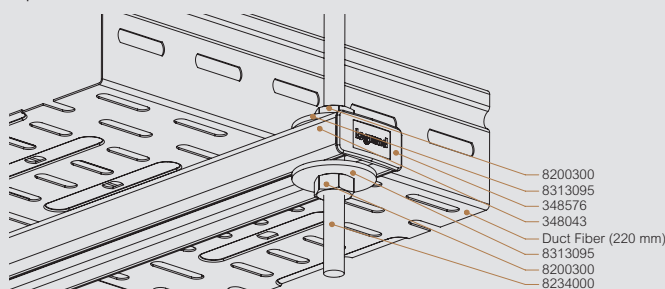| Ref.nr.	**Threaded rod suspensions**
	Flathead bolt
8200100	M6 x 10
8713071	M8 x 16
	Flange Nut
8200200	M6
CM801211	M8
CM801221	M10
	Hexagon nut
8019908	M6
8313060	M8
8200300	M10
	Washer
8200800	M6 (6,4 x 18 x 1,6 mm)
	M6 (6,6 x 22 x 2 mm)
8313029	M8 (8,4 x 20 x 1,5 mm)
8313030	M8 (8,4 x 25 x 2 mm)
8200400	M10 (10,5 x 21 x 2 mm)
8313090	M10 (10,5 x 30 x 2,5 mm)
8313095	M10 (10,5 x 40 x 2,5 mm)

Mounting instruction rail RS1S

Option 1: Profile top ⊓

8200100
8200200
348031

348576
Duct Fiber (220 mm)
348043
8313095
8313060
8234008

Option 2: Profile down ⊔

8200300
8313095
348576
348043
Duct Fiber (220 mm)
8313095
8200300
8234000
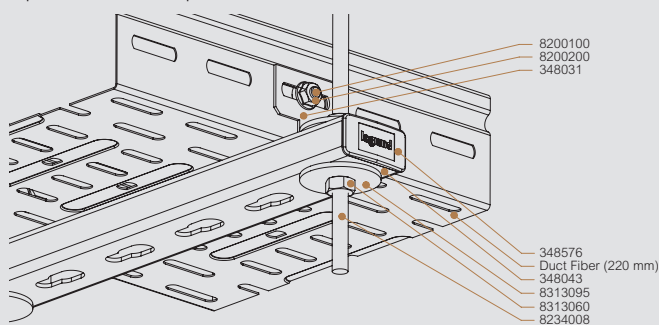
Legrand Fiber Raceway

Ref.nr.	**Threaded rod suspensions**
SEND	**C-Bracket / Ceiling support 600N** Height 156mm Fiber Raceway outside width = Width + 2cm Width
347279	75 mm
347280	100 mm
347281	150 mm (for Fiber Raceway 100mm)
347282	200 mm
347283	300 mm (for Fiber Raceway 220mm)
347284	400 mm (for Fiber Raceway 300mm)
	CB Console 800-2000N Height 72-137mm In combination with R21S/R41S(P) Use 1x M8*16mm Flatheadbolt/nut and washer
350800	50 mm
350810	100 mm
350820	150 mm
350830	200 mm
350840	300 mm
350850	400 mm
350860	500 mm
350870	600 mm
	Channel nut E41 To be used for mounting on R21 en R41 type C-Profile
801941	M6
801951	M8
801961	M10
801971	M12
	Universal ceiling support
8232000	1500N
	Ceiling support straight
8232100	2500N
	Flangeclamp 1500N
8232400	Flange thickness 3-7mm
8232500	Flange thickness 7-13mm
8232600	Flange thickness 13-20mm
	Adjustable headplate for R21S (not R21SP)
348030	6000N

Adjustable headplate for R21S (not R21SP)

Profile	Installation sloping ceiling Adjustable from -30° to +30°	Installation straight ceiling
R21S	✔	✔
R21SP	-	-
R41S	✔	✔
U60	✔	✔

■ Channel nut E41
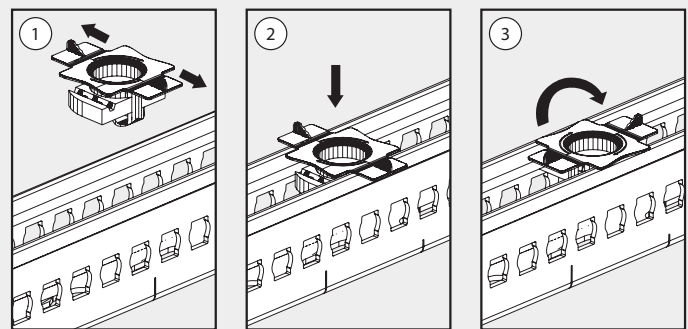
For our full range please see main catalogue (Legrand Netherlands) page 502

PFR41S
CM595380

PFN41S
CM595360

Bracket, Single Channel Gussetted

SB702(S)

Fixing clamp	Fixing clamp	Fixing clamp
CM559023/SC853S	FL2[3]	SC855(S)

Legrand Fiber Raceway

TOOLING COMPONENTS
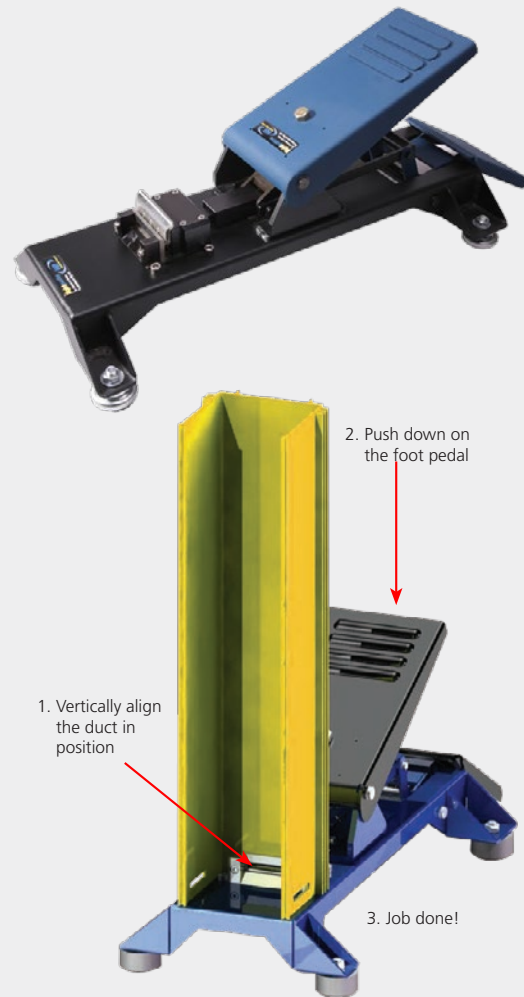
Foot operated slotter - TC1279-500KIT

The foot operated duct slotting tool is a means of making duct end slots, easily, accurately and quickly in less than 1 minute to slot one end of a duct. By using a foot operated system a small effort is required to exert the large force necessary to make a slot. Both hands are free to hold the duct. The jaws are made of hardened carbon steel, for a long service life. To operate, place duct side or end, within the tools cutting guides, hold duct down flush with top face of tool, and press foot operatede lever, until a slot is made. Release the slotting punch, using the foot operated release pedal. Remove and reposition duct for next slot. The slotting tool cuts a slot in the duct end to suit a standard joiner (part no's. TC1279-25, TC1279-27 and TC1279-320KIT): available separately. The kit includes one foot operated slotting tool and a metal tool box, for storage and transport, c/w a foam insert.
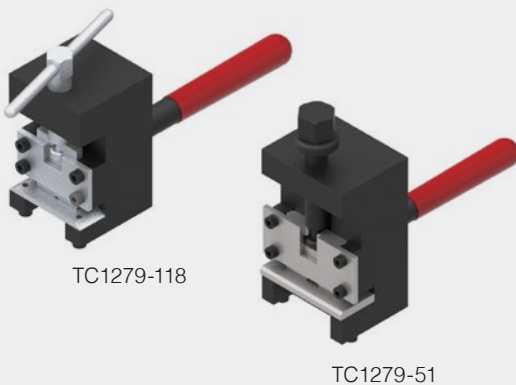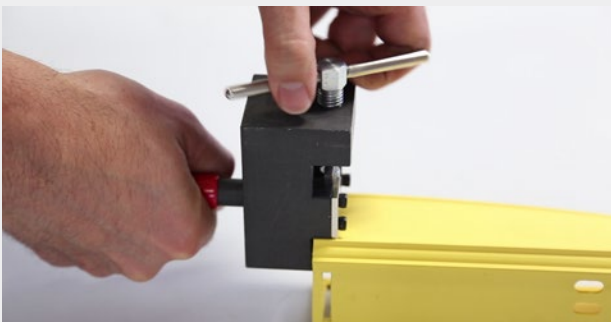
Features
- Makes duct end slots, easily, accurately, simply, quickly and repeatably
- Tool made from materials to ensure a long, reliable, service life
- Tool has a lifting handle
- Metal tool box, for storage and transport, c/w foam insert, included

Slots the following duct sizes

Duct size	Part No.
100mm x 100mm	TC1279-23
220mm x 100mm	TC1279-21
300mm x 100mm	TC1279-275

2. Push down on the foot pedal

1. Vertically align the duct in position

3. Job done!

Hand operated slotter - TC1279-118 & TC1279-51

TC1279-118

TC1279-51

The slotting tool is used to make a small slot in the bottom and both sides at the end/s of duct. This process is a simple mechanical means of preparing a shortened length duct for connection to another standard part: e.g. elbow, cross connector, tees, adaptor assembly, duct end or drop offs, etc.

Part No.	Description
TC1279-51	for 220mm x 100mm, 300mm x 100mm, 100mm x 100mm
TC1279-118	for 50mm duct

Lilegrand