

# Optical Fibre Ducting - Raceway

Solutions, Products & Accessories

# About Warren and Brown Technologies

---

**WBT has proudly remained wholly Australian-owned and operated for over 100 years, creating hundreds of jobs and world-leading solutions in local design, manufacturing, and technology.**

Our Maidstone facility in Melbourne spans over 48,000 sqm of office, manufacturing, R&D, and warehouse space, with additional operations across Australia and a growing global presence. As a global leader in optical fibre and copper communications equipment, as well as torque setting tools for automotive and industrial applications, we continue to drive innovation and growth.

With the recent agreement to join forces with **Prysmian**, a global leader in cabling solutions and a key driver of energy transition and digital transformation, we are poised to further solidify our market leadership in connectivity, ensuring a seamless transition while maintaining our unwavering commitment to customers and suppliers.







## Contents

|                        |    |
|------------------------|----|
| Straight Duct          | 6  |
| Joiners                | 7  |
| Tees, Elbows & Crosses | 8  |
| Breakouts              | 10 |
| Express Outlets        | 12 |
| Drop-off solutions     | 13 |
| Reducers               | 16 |
| Fibre Storage Loops    | 17 |
| End Caps               | 18 |
| Tubing                 | 19 |
| Adaptors               | 20 |
| Retainer Clips         | 20 |
| Mounting Solutions     | 21 |
| Tooling Components     | 25 |

# WBT YellowDuct: The Ultimate Fibre Optic Ducting Raceway System

Optical fibre patch cords are crucial for transmitting vast amounts of critical data in communications networks.

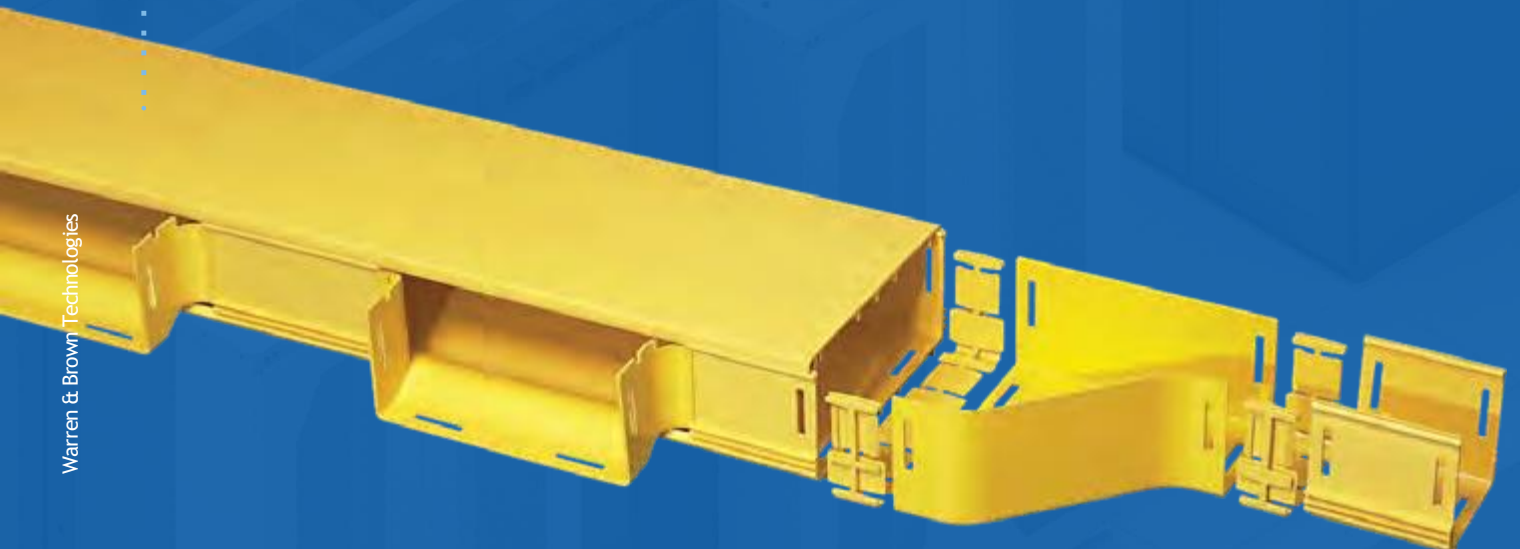
To maintain network reliability, these delicate cables—ranging from 1.6mm to 3mm in diameter—must be safeguarded from heavy electrical and copper data cabling. Traditional routing methods, such as cable trays and baskets, can damage fibre cords and compromise bend radii, leading to costly network downtime. An optical fibre ducting raceway, like YellowDuct, prevents these issues and ensures the safety and integrity of your network.

WBT's YellowDuct system stands out with its pre-slotted, fully recyclable components and unique slotless joiners that require no additional tools for installation. This innovative design simplifies deployment while providing precise protection and management for fibre optic cables. Combining cutting-edge technology with unparalleled functionality, YellowDuct enhances both sustainability and infrastructure efficiency.

Our dual joiner option are a key differentiator in the industry. Each component is pre-slotted for effortless assembly and exceptional precision, offering a level of innovation and convenience that sets WBT apart from competitors.

WBT Ducting Raceway items, conform to the following standards and requirements:

- 100% HALOGEN FREE
- ISO 9001 Certified Quality Management System by BSI
- Fire retardant plastic, Halogen Free, for 100, 220 and 300mm ducting the rating is UL94V-0, for 30 and 50mm ducting the rating is UL94V-1
- UL2024A standard
- EEU - ROHS requirements
- GR-63 Core Earthquake test compliance



# Which ducting raceway suit your needs?

The ducting system is available in two colours and six sizes, with options for either solid or slotted walls to accommodate fibre exits.

Selecting the appropriate size is crucial for allowing for future expansion and additions. Our latest addition, the 600 x 100 ducting raceway system, offers maximum capacity, accommodating up to 7,500 2mm patch cords at a 50% fill rate. The raceway system is fully customisable, ensuring it can be tailored to meet the specific needs of your facility.

The capacities listed below are based on half full duct capacity (50%) and are recommended to ensure no damage occurs to the cords due to crushing. This is not the total number of optical fibre cords that can be accommodated if completely filled.

With over 400 individual components and mounting hardware readily available in local stock and at selected locations across Europe and Asia, our product range is constantly expanding. Proudly made in Australia, we ensure quick order turnaround times—days, not months.

Our future-proof ducting raceway solution is backed by a dedicated local R&D team, advanced network design capabilities, and ongoing product support and training.

## Capacities

BASED ON 2MMØ CORD

| DUCT SIZE                       | 50 X 50<br>2" X 2" | 100 X 50<br>4" X 2" | 100 X 100<br>4" X 4" | 220 X 100<br>8" X 4" | 300 X 100<br>12" X 4" | 600 X 100<br>24" X 4" |
|---------------------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|-----------------------|
| Straight ducting raceway        | 280                | 560                 | 1110                 | 2450                 | 3340                  | 6680                  |
| Ducting raceway with ramp-off   |                    |                     | 670                  | 1470                 |                       |                       |
| Vertical tee - straight through |                    |                     | 1110                 | 980                  |                       |                       |
| Vertical tee downspout - drop   |                    |                     | 1110                 | 110                  |                       |                       |
| Over the top outlet             |                    |                     | 670                  |                      |                       |                       |

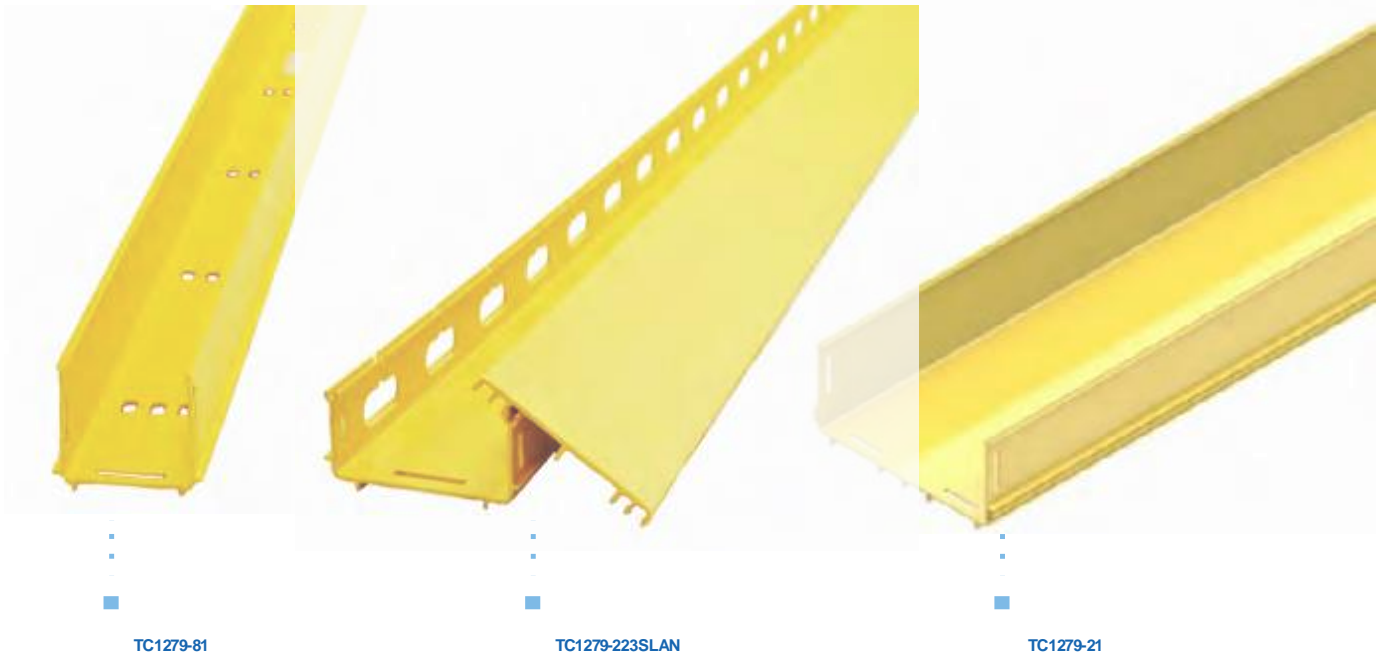
| CONVOLUTED TUBING     | Split20mmdia. | 38mmdia. | 50mmdia. | 75mmdia. | 50x50square |
|-----------------------|---------------|----------|----------|----------|-------------|
| OPTICAL CABLE SIZE/MM | 2             | 2        | 2        | 2        | 2           |
| TUBING CAPACITY       | 22            | 125      | 220      | 360      | 280         |

Note: Calculations are based on half full duct capacity - 50%

# Straight Duct

WBT YellowDuct straight duct lengths are available in six sizes with or without covers. Slotted duct / raceway is available in some sizes for vertical drops or applications inside equipment racks to allow cords to exit through the side of the duct. Some sizes are available with hinged covers (hinges included in pack), or clip on covers.

All duct sizes come in 2m (6' 7") lengths, and are slotted at each end for simply snapping together with an appropriate joiner. Most other ducting raceway brands are only available in 6 foot lengths - 10% shorter than YellowDuct.



| SIZE (MM)<br>SIZE (INCHES)  | 50 X 50<br>2" X 2" | 100 X 50<br>4" X 2" | 100 X 100<br>4" X 4" | 220 X 100<br>8" X 4" | 300 X 100<br>12" X 4" | 600 X 100<br>24" X 4" |
|-----------------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|-----------------------|
| Solid duct                  | TC1279-81          | TC1279-223          | TC1279-23            | TC1279-21            | TC1279-275            | TC1279-406            |
| Solid duct & cover          | TC1279-81XA        | TC1279-223ASN       | TC1279-23ASN         | TC1279-21ASN         | TC1279-275A           | TC1279-406A           |
| Solid duct & hinged cover   | TC1279-81A         | TC1279-223A         | TC1279-23A           | TC1279-21A           | N/A                   | N/A                   |
| Slotted duct (side exit)    | TC1279-81SL        | TC1279-223SL        | TC1279-23SL          | N/A                  | N/A                   | N/A                   |
| Slotted duct & cover        | TC1279-81SLXA      | TC1279-223SLASN     | TC1279-23SLASN       | N/A                  | N/A                   | N/A                   |
| Slotted duct & hinged cover | TC1279-81SLA       | TC1279-223SLXA      | TC1279-23SLA         | N/A                  | N/A                   | N/A                   |



# Joiners

WBT YellowDuct slotted joiners are used to snap together system components and straight ducting raceway. They simply snap into the slots in the end of each piece to be joined.

Alternatively, "Slotless" joiners are available in sizes from 100mm x 50mm upwards and will join the ducting raceway components with or without joining slots.

Note: For a straight ducting raceway that has been cut to length, new slots need to be made with a suitable size slotting tool when using slotted joiners. (refer to page 33).

All components (tees, elbows, etc) come preslotted to aid speedy installation.

**NOTE:** You only need to add slots to duct lengths that have been shortened.

■ Slotted type



■ TC1279-27

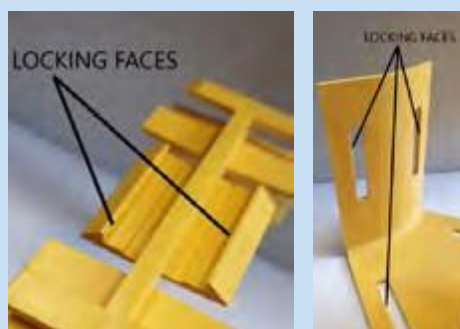
■ Slotless type



■ TC1279-248A

## SLOTTED JOINERS EXPLAINED

The WB Joiner works on a simple principle of two faces locking together that effectively work better the more load is applied to the matching faces. Below are pictures of the joiner and duct item showing the matching positive locking faces.



Note: a minimum of 3 positive locks are used on each joiner to ensure positive connection on sidewalls and lower section of duct lengths and components.



Picture left shows the joiner in place, note the face of the joiner and duct item are firmly held together giving the positive lock.

As you can see, both faces are square and engaged together while the joiner is in place, also worth noting that this joiner is easily removed by inserting a simple flat blade screwdriver behind the joiner edge and twisting the joiners face out of the component slot. Joiners can be re-used multiple times as neither the joiner or duct components suffer any damage during the install or removal process.

## BENEFITS OF SLOTTED JOINERS

- Strong positive face to face locking
- Easy removal with flat blade screwdriver
- All duct lengths and components are supplied pre slotted, ready to be joined together.
- Super fast installation time
- Re-use joiners many times
- Simple easy to fit method, just click into place.
- Space saving, slotted joiners are slim line not bulky like slotless or competitor joiners.

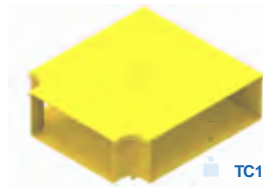
| SIZE (MM)                | 50 X 50   | 100 X 50    | 100 X 100   | 220 X 100   | 300 X 100   | 600 X 100   |
|--------------------------|-----------|-------------|-------------|-------------|-------------|-------------|
| SIZE (INCHES)            | 2" X 2"   | 4" X 2"     | 4" X 4"     | 8" X 4"     | 12" X 4"    | 24" X 4"    |
| Joiners (requires slots) | TC1279-73 | TC1279-226  | TC1279-27   | TC1279-25   | TC1279-320  | N/A         |
| Slotless joiners         | N/A       | TC1279-459A | TC1279-248A | TC1279-250A | TC1279-287A | TC1279-410A |

# Tees, Elbows & Crosses

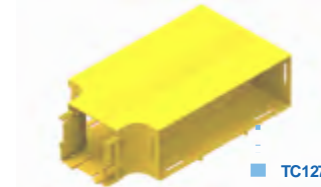
## Horizontal tees

WBT YellowDuct horizontal tees may be used to branch off the main route or provide a method of breaking into horizontal duct. They are available with or without covers.

*Note: Horizontal tees can also be used as a means of drop off.*



TC1279-316A

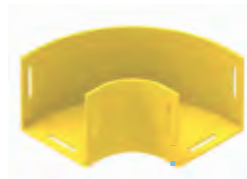


TC1279-398A

| SIZE (MM)<br>SIZE (INCHES)                | 50 X 50<br>2" X 2" | 100 X 50<br>4" X 2"                       | 100 X 100<br>4" X 4" | 220 X 100<br>8" X 4" | 300 X 100<br>12" X 4" | 600 X 100<br>24" X 4" |
|---|--------------------|---|----------------------|----------------------|-----------------------|-----------------------|
| Horizontal tee                            | TC1279-75          | TC1279-224                                | TC1279-03            | TC1279-01            | TC1279-279            | TC1279-412            |
| Horizontal tee & cover                    | TC1279-75A         | TC1279-224A                               | TC1279-03A           | TC1279-01A           | TC1279-279A           | TC1279-412A           |
| 300mm - 220mm duct horizontal tee & cover | TC1279-316A        | 220mm - 100mm duct horizontal tee & cover |                      |                      | TC1279-09A            | N/A                   |
| 300mm - 100mm duct horizontal tee & cover | TC1279-398A        | 100mm - 220mm duct horizontal tee & cover |                      |                      | TC1279-393A           | N/A                   |

## Horizontal elbows

WBT YellowDuct horizontal elbows are used to change the direction of horizontal routes. They are available with or without covers.



TC1279-269



TC1279-29A

| SIZE (MM)<br>SIZE (INCHES) | 50 X 50<br>2" X 2" | 100 X 50<br>4" X 2" | 100 X 100<br>4" X 4" | 220 X 100<br>8" X 4" | 300 X 100<br>12" X 4" | 600 X 100<br>24" X 4" |
|----------------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|-----------------------|
| 30° elbow                  | TC1279-77-30       | N/A                 | TC1279-47            | TC1279-45            | N/A                   | N/A                   |
| 30° elbow & cover          | TC1279-77-30A      | N/A                 | TC1279-47A           | TC1279-45A           | N/A                   | N/A                   |
| 45° elbow                  | TC1279-77-45       | N/A                 | TC1279-31-45         | TC1279-29-45         | TC1279-304            | TC1279-414            |
| 45° elbow & cover          | TC1279-77-45A      | N/A                 | TC1279-31-45A        | TC1279-29-45A        | TC1279-304A           | TC1279-414A           |
| 90° elbow                  | TC1279-77          | TC1279-269          | TC1279-31            | TC1279-29            | TC1279-387            | TC1279-411KIT         |
| 90° elbow & cover          | TC1279-77A         | TC1279-269A         | TC1279-31A           | TC1279-29A           | TC1279-387A           | TC1279-411A           |

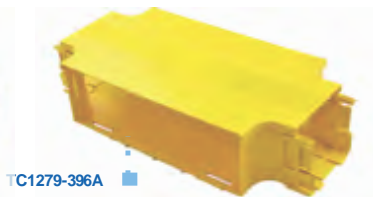
## Horizontal crosses

WBT YellowDuct horizontal crosses can be used to provide a cross intersection in straight duct.

Reduction crosses join horizontal duct of different sizes.



TC1279-396



TC1279-396A

| SIZE (MM)<br>SIZE (INCHES) | 50 X 50<br>2" X 2"     | 100 X 50<br>4" X 2" | 100 X 100<br>4" X 4"   | 220 X 100<br>8" X 4" | 300 X 100<br>12" X 4" | 600 X 100<br>24" X 4" |
|----------------------------|------------------------|---------------------|------------------------|----------------------|-----------------------|-----------------------|
| Horizontal cross           | TC1279-139             | TC1279-234          | TC1279-71              | TC1279-61            | TC1279-300            | TC1279-416            |
| Horizontal cross & cover   | TC1279-139A            | TC1279-234A         | TC1279-71A             | TC1279-61A           | TC1279-300A           | TC1279-416A           |
| Reduction cross            | 220 x 100 to 100 x 100 | TC1279-65           | 220 x 100 to 300 x 100 |                      | TC1279-331            |                       |
| Reduction cross & cover    | 220 x 100 to 100 x 100 | TC1279-65A          | 220 x 100 to 300 x 100 |                      | TC1279-331A           |                       |
| Reduction cross            | 300 X 100 to 100 x 100 | TC1279-396          |                        |                      |                       |                       |
| Reduction cross & cover    | 300 X 100 to 100 x 100 | TC1279-396A         |                        |                      |                       |                       |

## Handy Hint

You can use breakouts in place of crosses to achieve the same result. (See page 15)



## Vertical tees (downspouts) - intrasuite assemblies

WBT YellowDuct vertical tees can be used to drop cables vertically from horizontal routes into frames or cabinets. Retrofit tees provide open access and are used where cables are already in place. They are available with or without covers.

*Can also be used as drop-offs.*



| SIZE (MM)<br>SIZE (INCHES) | 50 X 50<br>2" X 2" | 100 X 50<br>4" X 2" | 100 X 100<br>4" X 4" | 220 X 100<br>8" X 4" | 300 X 100<br>12" X 4" | 600 X 100<br>24" X 4" |
|----------------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|-----------------------|
| 50 x 50mm drop             | TC1279-145         | N/A                 | N/A                  | N/A                  | N/A                   | N/A                   |
| 50 x 50mm drop & cover     | TC1279-145A        | N/A                 | N/A                  | N/A                  | N/A                   | N/A                   |
| 50 x 50mm drop retro       | TC1279-145R        | N/A                 | N/A                  | N/A                  | N/A                   | N/A                   |
| 100 x 50mm drop            | N/A                | TC1279-228          | N/A                  | N/A                  | N/A                   | N/A                   |
| 100 x 50mm drop & cover    | N/A                | TC1279-228A         | N/A                  | N/A                  | N/A                   | N/A                   |
| 100 x 100mm drop           | N/A                | N/A                 | TC1279-63            | TC1279-11            | N/A                   | N/A                   |
| 100 x 100mm drop & cover   | N/A                | N/A                 | TC1279-63A           | TC1279-11A           | N/A                   | N/A                   |
| 100 x 100mm drop retro     | N/A                | N/A                 | TC1279-63R           | TC1279-11R           | N/A                   | N/A                   |
| 220 x 100mm drop           | N/A                | N/A                 | N/A                  | N/A                  | TC1279-277            | N/A                   |
| 220 x 100mm drop & cover   | N/A                | N/A                 | N/A                  | TC1279-329A          | TC1279-277A           | N/A                   |

## Vertical elbows

WBT YellowDuct vertical elbows are used to connect horizontal routes at different height, or to allow the fibre path to be raised or lowered to avoid obstacles. Retrofit versions are used where there is existing fibre. They are available with or without covers.



| SIZE (MM)<br>SIZE (INCHES) | 50 X 50<br>2" X 2" | 100 X 50<br>4" X 2" | 100 X 100<br>4" X 4" | 220 X 100<br>8" X 4" | 300 X 100<br>12" X 4" | 600 X 100<br>24" X 4" |
|----------------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|-----------------------|
| 30° down                   | TC1279-87-30       | N/A                 | TC1279-111-30        | TC1279-123-30        | N/A                   | N/A                   |
| 30° down & cover           | TC1279-87-30A      | N/A                 | TC1279-111-30A       | TC1279-123-30A       | N/A                   | N/A                   |
| 30° down retrofit          | N/A                | N/A                 | TC1279-111-30R       | TC1279-123-30R       | N/A                   | N/A                   |
| 30° up                     | N/A                | N/A                 | TC1279-113-30        | TC1279-125-30        | N/A                   | N/A                   |
| 30° up & cover             | N/A                | N/A                 | TC1279-113-30A       | TC1279-125-30A       | N/A                   | N/A                   |
| 30° up retrofit            | N/A                | N/A                 | TC1279-113-30R       | TC1279-125-30R       | N/A                   | N/A                   |
| 45° down                   | TC1279-87-45       | N/A                 | TC1279-111-45        | TC1279-123-45        | TC1279-285            | N/A                   |
| 45° down & cover           | TC1279-87-45A      | N/A                 | TC1279-111-45A       | TC1279-123-45A       | TC1279-285A           | N/A                   |
| 45° down retrofit          | N/A                | N/A                 | TC1279-111-45R       | TC1279-123-45R       | N/A                   | N/A                   |
| 45° up                     | TC1279-143-45      | N/A                 | TC1279-113-45        | TC1279-125-45        | TC1279-283            | N/A                   |
| 45° up & cover             | TC1279-143-45A     | N/A                 | TC1279-113-45A       | TC1279-125-45A       | TC1279-283A           | TC1279-437A           |
| 45° up retrofit            | TC1279-143-45R     | N/A                 | TC1279-113-45R       | TC1279-125-45R       | N/A                   | N/A                   |
| 90° down                   | TC1279-87          | TC1279-236          | TC1279-111           | TC1279-123           | TC1279-193            | TC1279-425KIT         |
| 90° down & cover           | TC1279-87A         | TC1279-236A         | TC1279-111A          | TC1279-123A          | TC1279-193A           | TC1279-425A           |
| 90° down retrofit          | TC1279-87R         | TC1279-236R         | TC1279-111R          | TC1279-123R          | N/A                   | N/A                   |
| 90° up                     | TC1279-143         | TC1279-246          | TC1279-113           | TC1279-125           | TC1279-298A           | TC1279-427KIT         |
| 90° up & cover             | TC1279-143A        | TC1279-246A         | TC1279-113A          | TC1279-125A          | TC1279-298KIT         | TC1279-427A           |
| 90° up retrofit            | TC1279-143R        | TC1279-246R         | TC1279-113R          | TC1279-125R          | N/A                   | N/A                   |
| 90° up & down enclosed     | N/A                | N/A                 | TC1279-39A           | TC1279-37A           | N/A                   | N/A                   |

# Breakouts

## Trumpet outlet

The break out assembly is used to provide a safe, exit for optical fibre cord/s to equipment, at any point in a ducting length. It is normally used to provide a break out in existing duct systems, and clips straight into a cut out in the duct wall. When used as described, the break out assembly provides a curved outlet; to which any standard part can be fitted using a joiner. A lid is supplied.

*Note: Tools for producing cut outs are shown on pages 34-35*

### OUTLET TRUMPET

TC1279-93A 50 x 50mm  
TC1279-218A 100 x 100mm  
TC1279-330A 100 x 220mm  
TC1279-379A 100 x 300mm



### Handy Hint

You can reverse this breakout to use it as a trumpet if required

## High capacity duct outlets

These duct outlet kits provide the ideal solution for high capacity optical fibre cords. Duct outlets can be placed anywhere along the duct and minimal time and effort is required to install these outlet components. This solution allows for quick installation, as less cuts are required and is also stronger, as the ribs of duct are not cut.

- Simply clips onto the top of a straight duct length
- Straight duct components ordered separately



### TC1279-452A

High capacity outlet, 100mm x 100mm (4" x 4") 90°

- Provides a 90° down bend (and break-out facility) at any point in a 100mm, 220mm or 300mm duct system.



- Can accept any standard 100mm x 100mm duct item using a joiner.

### Kit includes:

- TC1279-452 (90° down body)
- TC1279-453 (90° down Lid)

### TC1279-454A

High capacity outlet, 220mm x 100mm (8" x 4") 90°

- Provides a 90° down bend (and break-out facility) at any point in a 100mm, 220mm or 300mm duct system.
- Can accept any standard 220mm x 100mm duct item using a joiner.
- Use template 483A for cutout



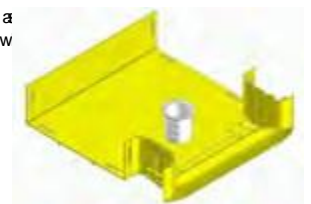
### Includes:

- TC1279-454 (90° down body)
- TC1279-455 (90° down Lid)

### TC1279-279IT

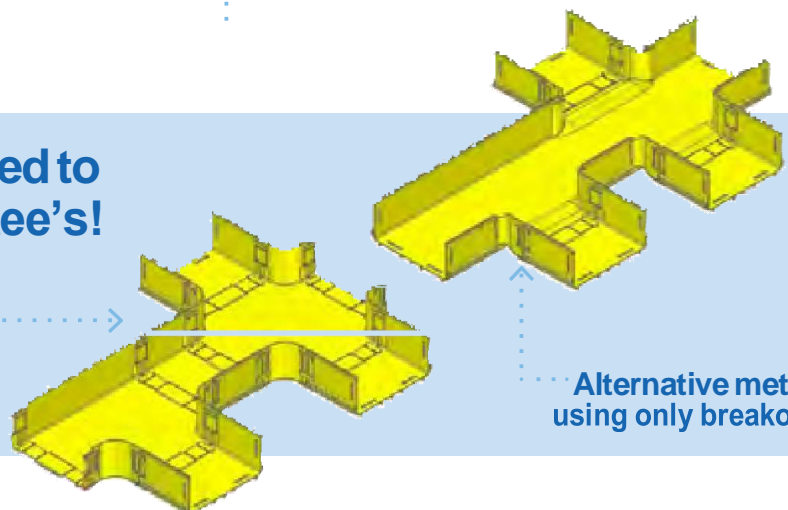
This specialised tee piece can be utilised as a breakout/dropout option for applications where separator/island is required

- 300x100mm



Breakouts can be used to produce crosses or tee's!

Traditional method using a cross or tee



Alternative method using only breakouts



#### TC1279-452KIT

High capacity outlet kit, single, 100mm x 100mm (4" x 4") 90°

- Provides a 90° down bend tube in a 100mm, 220mm or 300mm duct system.
- The 75mm ID/88 mm OD tube can carry either: 360 x 2mm cords; 210 x 2.4mm cords; or 160 x 3mm dia cords maximum.
- Use template 483A for cutout

#### Kit includes:

- 1x TC1279-452A
- 1 x 2m long convoluted tube TC1279-458
- 1 x TC1279-456 convoluted tube outlet



#### TC1279-454KIT

High capacity outlet kit, dual, 220mm x 100mm (8" x 4") 90°

- Provides a 90° down bend for two large size convoluted tubes in a 100mm, 220mm or 300mm duct system.
- Each 75m ID tube can carry up to 360 x 2mm cords.
- Use template 483A for cutout

#### Kit includes:

- 1x TC1279-454A
- 2 x 2m long convoluted tubes TC1279-458
- 1 x TC1279-457 dual convoluted tube outlet

## Other duct drop-off components



#### TC1279-212KIT

Radius guide (pack of 10) to suit 30mm, 50mm, 100mm slotted duct



#### RAMP UP

TC1279-42 small ramp up  
TC1279-294 large ramp up

*\*used in conjunction with various dropouts (See pages 18-19)*

## Miscellaneous items



#### TC1279-156 Universal radius guide

This guide is a simple means of providing a 30mm radius guide that eliminates fibre stress through bending.



#### TC1279-72KIT Pigtail radius guide kit

The pigtail radius guide provides a 90° bend, but the guides are interlocking so that many can be joined to form U turns, circles & spirals as required (10 per kit).



#### TC1279-570KIT Duct cable separator kit for 100mm, 220mm and 300mm duct

The duct cable separator kit is installed longitudinally along the length of a duct run, to provide a separator or divider in the duct. The item is used to create separate compartments for different cords or cables.



# Express Outlets

## Express top outlet (clip on) drop-off kits 100 x 100mm exit

100 x 100mm express top outlet drop-off solutions are suitable for 100 x 50mm, 100 x 100mm, 220 x 100mm, 300 x 100mm and 600 x 100mm straight duct lengths. These style outlets simply clip onto the top of the ducting raceway, providing an express outlet (drop) along a length of ducting. No slotting, bolting or cutting is required for installing these components onto the straight duct length.

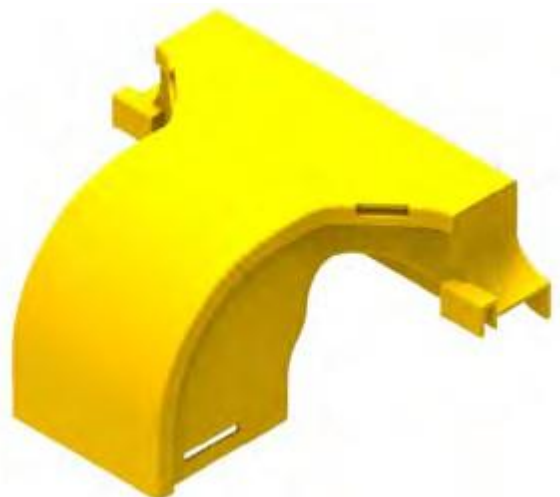
- Simply clips onto the top of a straight duct length
- Straight duct components ordered separately



### TC1279-531A

Express top outlet drop-off to 50mm x 50mm ducting raceway, horizontal

- This drop can fit between 300-400 x 2mm cables.
- Fits on any duct 100mm x 50mm or larger



### TC1279-307A

Express top outlet drop-off to 100mm x 100mm ducting raceway, vertical

- This drop can fit between 300-400 x 2mm cables.
- Fits on any duct 100mm x 50mm or larger



# Drop-off solutions

These components provide different methods of allowing fibres to enter or leave the fibre optic ducting raceway. They can be purchased as kits or as individual items.

## Side spill out kit

This drop-off assembly can be installed anywhere along the length of a 100mm high duct to allow up to 80 x 2mm optical fibre cords to leave the duct horizontally or vertically (if installed on the floor of the straight duct). Use cut out tool / hole saw TC1279-604KIT with a drill to make a cut into the ducting.



**TC1279-602A**  
Duct side spill out, straight outlet to convoluted tubing



**TC1279-609A**  
Duct side spill out, 90°, up / down / left / right to convoluted tubing



*Note: Convoluted tube TC1279-53Y or TC1279-53B suits these drop offs (See page 24)*

## Side drop-off kits - 50 x 50mm exit

50mm (2") duct drop-off solutions are suitable for 50 x 50mm, 100 x 50mm, 100 x 100mm, 220 x 100mm, 300 x 100mm and 600 x 100mm straight duct lengths.

- Use tool TC1279-50KIT to make cut-out in side of duct (or template 483A)
- Round convoluted tube, square convoluted tube and straight duct components ordered separately



**TC1279-41KIT**  
50mm (2") side drop-off (outlet) to 50mm dia. round convoluted tube

- Can fit approx. 80 x 2mm cables
- Also includes duct ramp



**TC1279-41A**  
50mm (2") side drop-off (outlet only)  
• Can fit approx. 80 x 2mm cables



**TC1279-89KIT**  
Side drop-off to 50mm (2") square convoluted tube (TC1279 - 85YEL)  
• Can fit approx. 100-150 x 2mm cables  
• Also includes duct ramp





#### TC1279-89A

Side drop-off (outlet) to 50mm square only

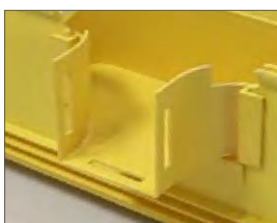
- Can fit approx. 100-150 x 2mm cables.
- Fits square tube TC1279 - 85YEL.



#### TC1279-93KIT

Side drop-off kit to 50mm ducting raceway

- Can fit between 100-150 x 2mm cables
- Full kit for vertical drop (includes duct outlet, duct ramp, joiner and vertical elbow)
- Straight duct lengths ordered separately



#### TC1279-93A

Side drop-off outlet to 50mm ducting raceway

- Can fit between 100-150 x 2mm cables
- Straight duct lengths, duct ramp, joiner and elbow ordered separately



## Side drop off kits - 100 x 50mm exit

100 x 50mm duct drop-off solutions are suitable for 50 x 50mm, 100 x 50mm, 100 x 100mm, 220 x 100mm and 300 x 100mm straight duct lengths.

- Use tool TC1279-231KIT to make cut-out in side of duct.
- Straight duct components ordered separately

*\* Down elbow not included in kit. Ordered separately - TC1279-236A*



#### TC1279-232KIT

Side drop-off to 100mm x 50mm ducting raceway

- Can fit approx. 250-300 x 2mm cables
- Also includes duct ramp (TC1279-294)

#### TC1279-232A

Side drop-off (outlet only) to 100mm x 50mm ducting raceway

- Can fit between 250-300 x 2mm cables





## Side drop-off kits - 100 x 100mm exit

100 x 100mm duct drop-off solutions are suitable for 100 x 50mm, 100 x 100mm, 220 x 100mm and 300 x 100mm straight duct lengths.

- Use tool TC1279-231 to make cut-out in side of duct or template TC1279-483A).
- Straight duct components ordered separately



**TC1279-111KIT**  
Side drop-off to 100mm x 100mm  
ducting raceway

- This drop can fit between 500-600 x 2mm cables.
- Use tool TC1279-231 to make cut-out in side of duct.



### TC1279-218A

Side drop-off (outlet only) to 100mm x 100mm ducting raceway

- This outlet can fit between 500-600 x 2mm cables.
- Use tool TC1279-231KIT or template 483A to make cut-out in side of duct.



# Reducers

WBT YellowDuct reducers allow different size ducts to be joined together. They are available with or without covers.

TC1279-07A



| MAIN SIZE (MM)<br>REDUCTION SIZE (MM) | 100 X 50<br>50 X 50 | 100 X 100<br>50 X 50 | 100 X 100<br>100 X 50 | 220 X 100<br>100 X 100 | 300 X 100<br>220 X 100 | 600 X 100<br>300 X 100 |
|---------------------------------------|---------------------|----------------------|-----------------------|------------------------|------------------------|------------------------|
| Reducer                               | TC1279-238          | TC1279-91            | TC1279-240            | N/A                    | TC1279-281             | TC1279-408             |
| Reducer & cover                       | TC1279-238A         | TC1279-91A           | TC1279-240A           | N/A                    | TC1279-281A            | TC1279-408A            |
| Reducer right hand                    | N/A                 | N/A                  | N/A                   | TC1279-05              | N/A                    | N/A                    |
| Reducer right hand & cover            | N/A                 | N/A                  | N/A                   | TC1279-05A             | N/A                    | N/A                    |
| Reducer left hand                     | N/A                 | N/A                  | N/A                   | TC1279-07              | N/A                    | N/A                    |
| Reducer left hand & cover             | N/A                 | N/A                  | N/A                   | TC1279-07A             | N/A                    | N/A                    |



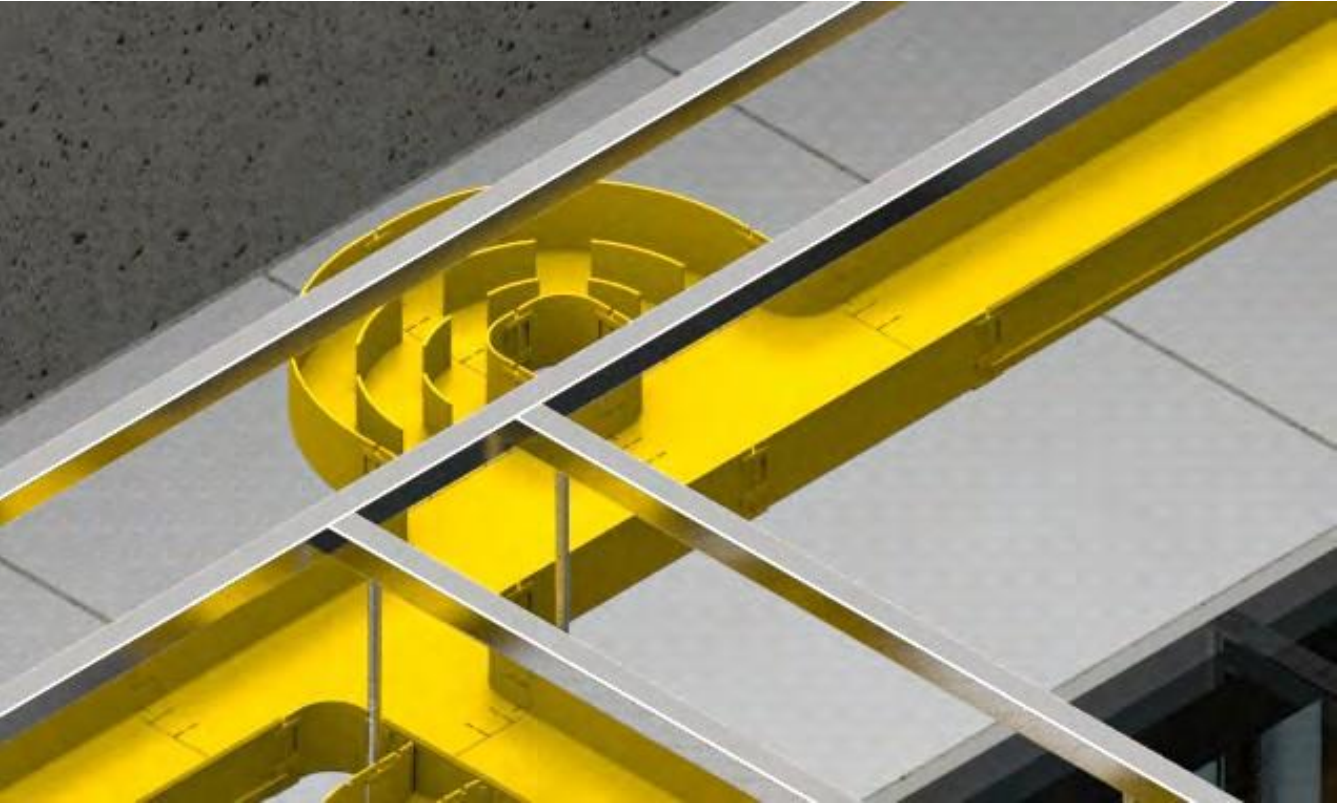
# Fibre Storage Loops

## Fibre storage loops

WBT YellowDuct fibre storage loops are used to safely store excess optical fibre cable lengths and can be placed in any horizontal route or inside cabinets. They are available in inline or offset versions.



| SIZE (MM)     | 50 X 50       | 100 X 50      | 100 X 100     | 220 X 100     | 300 X 100     |
|---------------|---------------|---------------|---------------|---------------|---------------|
| SIZE (INCHES) | 2" X 2"       | 4" X 2"       | 4" X 4"       | 8" X 4"       | 12" X 4"      |
| Inline        | TC1279-209KIT | TC1279-186KIT | TC1279-208KIT | TC1279-207KIT | TC1279-485KIT |
| Offset        | TC1279-178KIT | TC1279-195KIT | TC1279-192KIT | TC1279-191KIT | TC1279-315KIT |





# End caps

## End caps

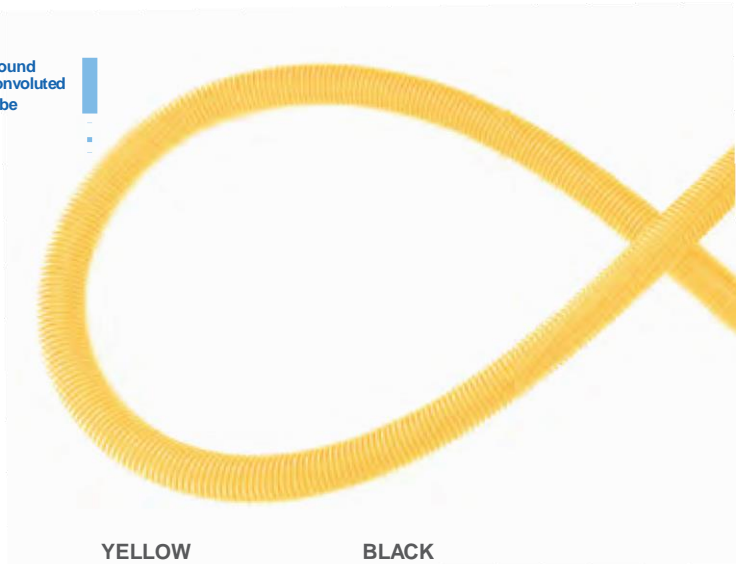
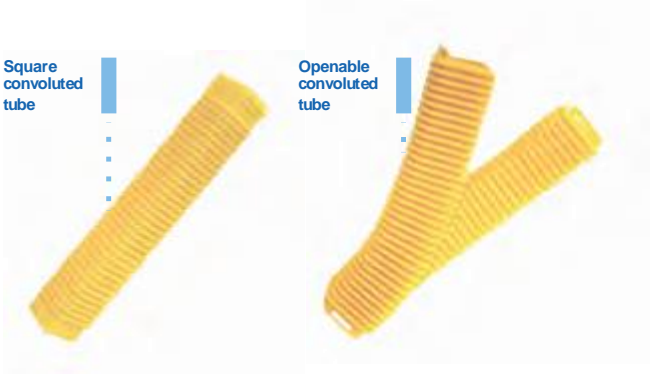
WBT YellowDuct end caps are used to close off the end of a horizontal or vertical route of duct. However, some end caps can be used as drop out options incorporating various tube diameters to feed the fibre to racks. Some are sealed, others have knock outs or spigots for convoluted tubing or fibre feedout.



| SIZE (MM)<br>SIZE (INCHES)             | 50 X 50<br>2" X 2" | 100 X 50<br>4" X 2" | 100 X 100<br>4" X 4" | 220 X 100<br>8" X 4" | 300 X 100<br>12" X 4" | 600 X 100<br>24" X 4" |
|--|--------------------|---------------------|----------------------|----------------------|-----------------------|-----------------------|
| Sealed                                 | N/A                | TC1279-227          | TC1279-57            | TC1279-56            | N/A                   | N/A                   |
| Sealed (for use with slotless joiners) | N/A                | N/A                 | TC1279-251           | TC1279-252           | TC1279-288            | TC1279-435            |
| 2 x 20mm dia knockouts                 | TC1279-127         | N/A                 | N/A                  | N/A                  | N/A                   | N/A                   |
| 1 x 38mm dia knockout                  | TC1279-127B        | N/A                 | N/A                  | N/A                  | N/A                   | N/A                   |
| 1 x 38mm cutout                        | TC1279-127C        | N/A                 | N/A                  | N/A                  | N/A                   | N/A                   |
| Tube outlet for 50mm tube              | TC1279-127D        | N/A                 | N/A                  | N/A                  | N/A                   | N/A                   |
| 2 x 32mm dia knockouts                 | N/A                | N/A                 | TC1279-57B           | N/A                  | N/A                   | N/A                   |
| 2 x 46mm dia holes                     | N/A                | N/A                 | TC1279-57C           | N/A                  | N/A                   | N/A                   |
| End support bracket                    | TC1279-127F        | N/A                 | TC1279-57D           | N/A                  | N/A                   | N/A                   |
| 88mm tube outlet                       | N/A                | N/A                 | TC1279-456           | N/A                  | N/A                   | N/A                   |
| Dual 88mm tube outlets                 | N/A                | N/A                 | N/A                  | TC1279-457           | N/A                   | N/A                   |

# Tubing

WBT YellowDuct tubing is used for feeding entering or exiting optical fibres 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.

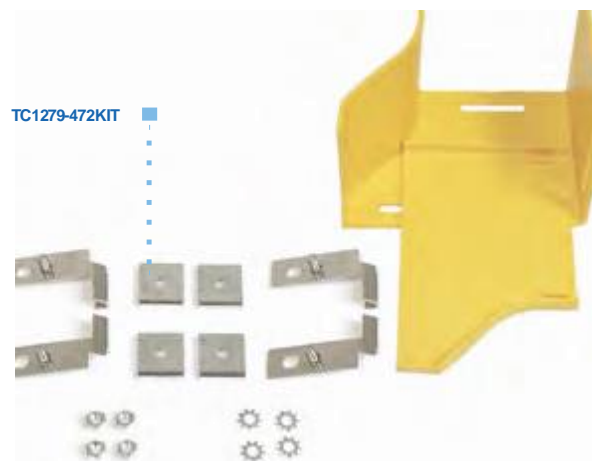


| DESCRIPTION  | YELLOW        | BLACK        |
|--|---------------|--------------|
| Convoluted tube 50mm dia (1 meter length)  | TC1279-26Y    | TC1279-26    |
| Convoluted tube 50mm dia (2 meter length)  | TC1279-53Y    | TC1279-53    |
| Convoluted tube 25mm dia (2 meter length)  | N/A           | TC1279-54 *  |
| Convoluted tube 38mm dia (2 meter length)  | N/A           | TC1279-68    |
| Convoluted tube 50mm square (350mm length)   | TC1279-85YEL  | TC1279-85BLK |
| Openable convoluted tube with cover 50mm square (350mm length)   | TC1279-85KIT  | N/A          |
| Convoluted tube 30mm square (350mm length)   | TC1279-88     | N/A          |
| Convoluted tube split 20mm dia (2 meter length)  | N/A           | TC1279-100 * |
| Convoluted tube split with cover 50mm dia (1 meter length)   | N/A           | TC1279-350   |
| Convoluted tube, flexible, 75mm ID/88mm OD x 2 metres long   | TC1279-458    | N/A          |
| Convoluted tube, flexible, 75mm ID/88mm OD x 1 metres long   | TC1279-458-1  | N/A          |
| Convoluted tube, flexible, 65mm ID/83mm OD x 2 metres long   | TC1279-471    | N/A          |
| Convoluted tube, flexible, 65mm ID/83mm OD x 1 metres long   | TC1279-471-1  | N/A          |
| Convoluted tube, flexible, 75mm ID/88mm OD x 1.15 metres long  | TC1279-479    | N/A          |
| Convoluted tube 63mm ID/ 65mm OD x 1.1 metres, c/w two joiners to connect to 75mm ID/88mm OD convoluted tube | TC1279-480A   | N/A          |
| Convoluted tubing adaptor kit, 75mm ID/ 88mm OD to 44mm ID/ 50mm OD tubing                                   | TC1279-494KIT | N/A          |

\*Grey

# Adaptors

WBT YellowDuct adaptors are used to connect parts from other products to the YellowDuct ducting raceway. Most other ducting brands can be slotted with a WBT slotting tool to suit one of our slotted joiners.



## DESCRIPTION

Adaptor kit 100 x 100 YellowDuct to Commscope 4"

Adaptor kit left hand YellowDuct 220 x 100mm to Commscope 6"

Adaptor kit right hand YellowDuct 220 x 100mm to Commscope 6"

Adaptor kit 100mm vertical YellowDuct to Commscope 4", 6" or 12"

Adaptor kit YellowDuct 300 x 100mm to Commscope 12"

Adaptor kit right hand YellowDuct 100 x 100mm to Commscope 6"

Adaptor kit left hand YellowDuct 100 x 100mm to Commscope 6"

Adaptor kit right hand YellowDuct 220 x 100mm to Panduit 6"

Adaptor kit left hand YellowDuct 220 x 100mm to Panduit 6"

Adaptor kit YellowDuct 300 x 100mm to 12" x 4" Panduit duct

Adaptor kit 100mm YellowDuct to 4" Panduit duct

## PART NO.

TC1279-109KIT

TC1279-149KIT

TC1279-150KIT

TC1279-307SLKIT

TC1279-327KIT

TC1279-472KIT

TC1279-473KIT

TC1279-486KIT

TC1279-487KIT

TC1279-492KIT

TC1279-173KIT

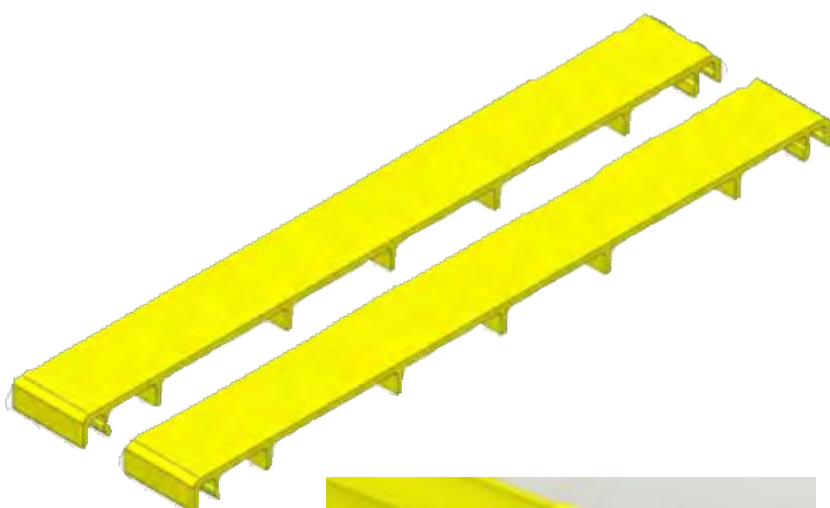
# Retainer Clips

These clips provide additional support near the express drops where covers have not been used.

Kit contains 10 pieces

## Suits:

- 100 x 100mm TC1279-24SKIT (20 Pairs)
- 220 x 100mm TC1279-22SKIT (20 Pairs)
- 300 x 100mm TC1279-276SKIT (20 Pairs)
- 600 x 100mm TC1279-407SKIT (20 Pairs)





# Mounting solutions

**WBT YellowDuct mounting hardware is used to support the ducting raceway from different structures.**

Although the most common components are shown here, many other components that have been developed for specific applications or customer requests are also available. Mounting systems are also available for retro-fitting to existing installations. Custom components can also be manufactured to your specifications. Please contact your WBT sales office or distributor for assistance.

We probably already have a mounting solution that meets your requirement.

## Metal mounting kits steel work or wall mounting

Provides vertical & horizontal mounting flexibility to steel-work or walls.



**TC1279-438A**

600mm x 100mm duct mounting bracket assembly



**TC1279-103KIT**

100mm duct support mounting bracket kit



**TC1279-104KIT**

100mm duct wall mounting bracket

The wall mounting bracket is used to attach 100mm plastic duct to any existing structure.



**TC1279-133KIT**

220mm duct wall mounting bracket kit

The wall mounting bracket is used to attach 220mm plastic duct to any existing structure.

*Note: Version for 100mm duct is TC1279-104KIT.*



**TC1279-161KIT**

50, 100mm wall mounting extension kit

This flexible mounting kit is used to provide a means of attaching 30mm, 50mm and 100mm duct to any existing structure.

*Note: Individual duct "C" type brackets are required in addition to this kit (see mounting hardware).*



**TC1279-183KIT**

Mounting bracket kit, heavy duty, wall & strut

This kit has two vertical slots suited to wall or Unistrut™ mounting and provides a single long slot to accept duct mounting brackets up to 220mm size.

*Note: Individual duct "C" type brackets are required in addition to this kit (see mounting hardware).*



**TC1279-168KIT**  
Horizontal mounting kit, 50mm

This mounting kit is a simple adjustable means of mounting 50mm duct in a vertical or horizontal plane. It can be used to mount duct in equipment racks and as vertical risers, etc. It includes heavy duty, adhesive backed hook & loop tape, to ensure flexible mounting without movement.



**TC1279-130KIT**  
Mounting bracket kit for 50mm duct

This kit is a simple and adjustable means of attaching or mounting either 50mm or 30mm duct, in either a vertical or horizontal plane.



**TC1279-78KIT**  
Mounting bracket kit for 50mm duct  
This is simply a bracket, that can be fixed to the duct and any existing building.



**TC1279-303A**  
Side mounting bracket, heavy duty  
This side mounting bracket is used to install & secure 100mm, 220mm, 300mm duct to existing threaded rods.  
*Note: Used in conjunction with "C" type mounting hardware.*



**TC1279-102**  
Wall mounting bracket



**TC1279-126KIT**  
Wall mounting bracket kit, horizontal



**TC1279-DCUM-10**  
Duct Clamp Universal for 600MM  
(pack of 10 clamps)

## Mounting hardware duct "C" type brackets

This assembly consists of a standard (50mm, 100mm, 220mm, 300 mm) duct support bracket. This assembly is used where the duct is directly mounted to flat brackets with 13mm (1/2" clearance) dia holes.

| SIZE  | PART NO.    |
|-------|-------------|
| 50mm  | TC1279-147A |
| 100mm | TC1279-16A  |
| 220mm | TC1279-15A  |
| 300mm | TC1279-297A |

TC1279-147A



## Suspension kits

These suspension mounting bracket kits are used to attach either 300mm, 220mm or 100mm plastic duct to existing steelwork, from above.

Note: All metal brackets are either nickel plated or black powdercoat paint.



**TC1279-297KIT**

300mm heavy duty suspension duct mounting kit



**TC1279-106KITA**

220mm duct suspension bracket kit  
(including 12mm threaded rod)

**TC1279-106KITB**

220mm duct suspension bracket kit  
(including 16mm threaded rod)



**TC1279-297AKIT**

300mm x 100mm duct system, mounting bracket  
kit, suspension type, 1/2" with threaded rod

**TC1279-297BKIT**

300 x 100mm duct system, mounting bracket kit,  
suspension type, 5/8" with threaded rod



**TC1279-107KITA**

100mm duct suspension bracket kit  
(including 12mm threaded rod)

**TC1279-107KITB**

100mm duct suspension bracket kit  
(including 16mm threaded rod)



**TC1279-106KIT**

220mm duct suspension bracket kit



**TC1279-107KIT**

100mm duct suspension bracket kit

## Underfloor mounting kits

**TC1279-274**

Under floor mounting bracket



**TC1279-197KIT**

Vertical strut mounting kit

This clamp is a means of attaching either a 220mm or 100mm duct system to (up to) 30mm (1") diameter tube or 25mm (1") square tubes in an under floor system.

Note: Used in conjunction with "C" type mounting hardware.







## Ladder rack mounting



### TC1279-370KIT

100, 220, 300mm Ladder rack mount kit, large

This clamp is a means of attaching either 100mm, 220mm or 300mm duct systems to 1" and 2" ladder racks.

*Note: Heavy duty. Used in conjunction with "C" type mounting hardware.*



### TC1279-154KIT

Ladder rack mount assembly, 50mm duct

These clamps are a means of fixing either 30mm and 50mm duct systems to 1.5" and 2" ladder racks.

*Note: Used in conjunction with "C" type mounting hardware.*

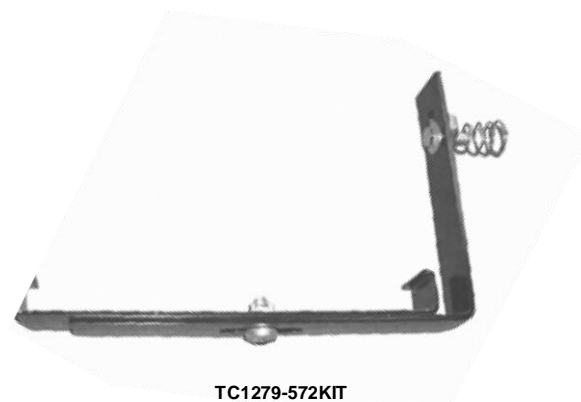


### TC1279-155KIT

Ladder rack mount kit, 100mm and 220mm duct

These clamps are a means of fixing either 100mm, 220mm duct systems to 1.5" and 2" ladder racks.

*Note: Used in conjunction with "C" type mounting hardware.*



### TC1279-572KIT

Support bracket, 220mm x 100mm duct

This supporting bracket set, enables a 220mm x 100mm duct system to be installed in the aisle, below the overhead super structure, in front of the racks to be serviced.



## "C" Rail mounting kits

These kits are attached to the rail by two screws. Multiple holes provide vertical adjustment in 21mm increments.

- Simple clamp system adapts to "C" rail
- Suits 100mm, 220mm or 300mm duct systems
- Includes: nuts, screws and washers



**TC1279-155AKIT**  
"C" rail mounting kit, 100mm duct  
*Note: Includes 100mm duct bracket.*



**TC1279-155BKIT**  
"C" rail mounting kit, 220mm duct  
*Note: Includes 220mm duct bracket.*



**TC1279-155CKIT**  
"C" rail mounting kit, 300mm duct  
*Note: Includes 300mm duct bracket.*

## Raised mounting kits



**TC1279-13A**  
Mounting bracket assembly,  
220mm duct with M12 threaded rod  
The mounting bracket provides an  
adjustable mounting mechanism for  
the 220mm plastic ducting system.



**TC1279-14A**  
Mounting bracket assembly,  
100mm duct with M12 threaded rod  
The mounting bracket provides an  
adjustable mounting mechanism for  
the 100mm plastic ducting system.



**TC1279-129KIT**  
Mounting plate kit, 50mm duct  
Is used for quick and easy attaching  
to 30mm & 50mm duct.

# Tooling components

## Ducting slotting tool - foot operated

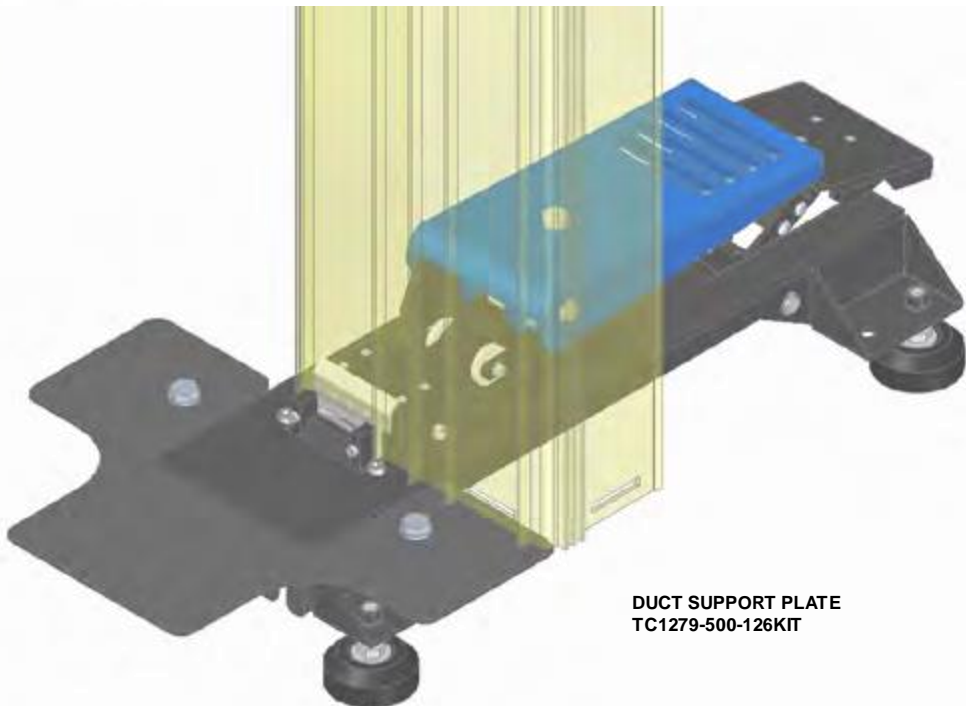
Features & benefits:

- Ducting can be easily aligned and positioned on slotting jig
- Fast and easy to use slotting mechanism which slots in seconds
- Compact, easy to transport unit which only weighs 8kg
- Steady and robust platform
- Ergonomically designed, no stress or heavy manual operation required as it only requires leg power
- Conforms to OH&S standards
- Repeatedly produces accurate slots
- Slots an end of duct in less than 30 seconds

*Note: Ideal for large installations.*

| DUCT SIZE (MM) | DUCT SIZE (INCHES) | PART NO.   |
|----------------|--------------------|------------|
| 100mm x 100mm  | 4" x 4"            | TC1279-23  |
| 220mm x 100mm  | 8" x 4"            | TC1279-21  |
| 300mm x 100mm  | 12" x 4"           | TC1279-275 |

| PART NO.          | DESCRIPTION  |
|-------------------|--|
| TC1279-500KIT     | Foot operated duct slotting tool (with tool box)     |
| TC1279-500-13     | Tool box - suit foot slotter (Plastic tool box only) |
| TC1279-500-126KIT | Duct support plate                                   |



DUCT SUPPORT PLATE  
TC1279-500-126KIT



## Ducting hydraulic hand held slotting tool

The handheld hydraulic duct slotting tool is a revolutionary design that takes the stress and effort out of slotting duct. Take advantage of this new method of safely and easily slotting ducting, which will improve the efficiency of your installations and save you and your customer time and money.

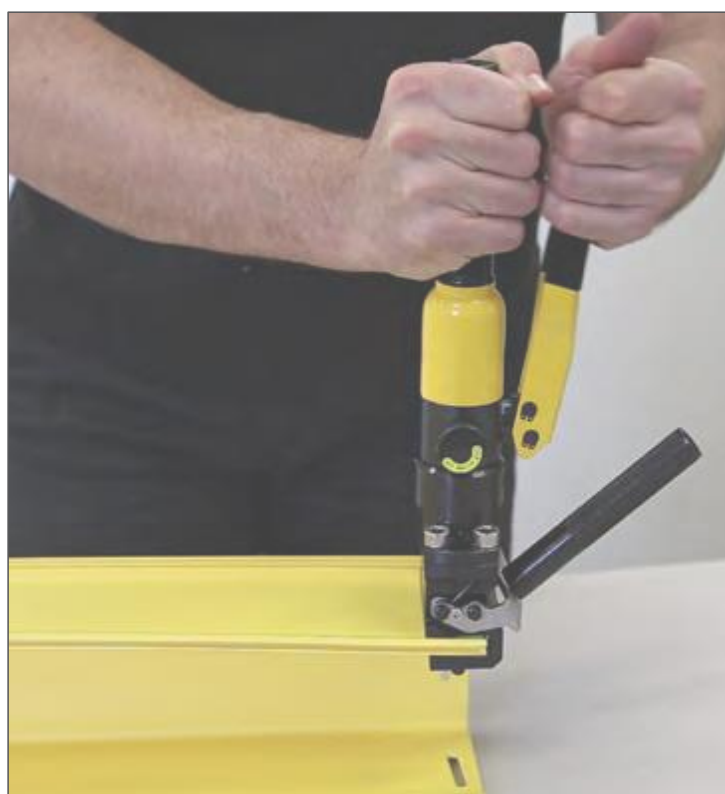
| DUCT SIZE (MM) | DUCT SIZE (INCHES) | PART NO.   |
|----------------|--------------------|------------|
| 100mm x 100mm  | 4" x 4"            | TC1279-23  |
| 220mm x 100mm  | 8" x 4"            | TC1279-21  |
| 300mm x 100mm  | 12" x 4"           | TC1279-275 |

| PART NO.       | DESCRIPTION                                 |
|----------------|---|
| TC1279-501     | 100mm hand hydraulic tool                   |
| TC1279-501-13S | 100mm hand hydraulic tool head              |
| TC1279-501KIT  | 100mm hand hydraulic tool kit with tool box |



### Features & benefits:

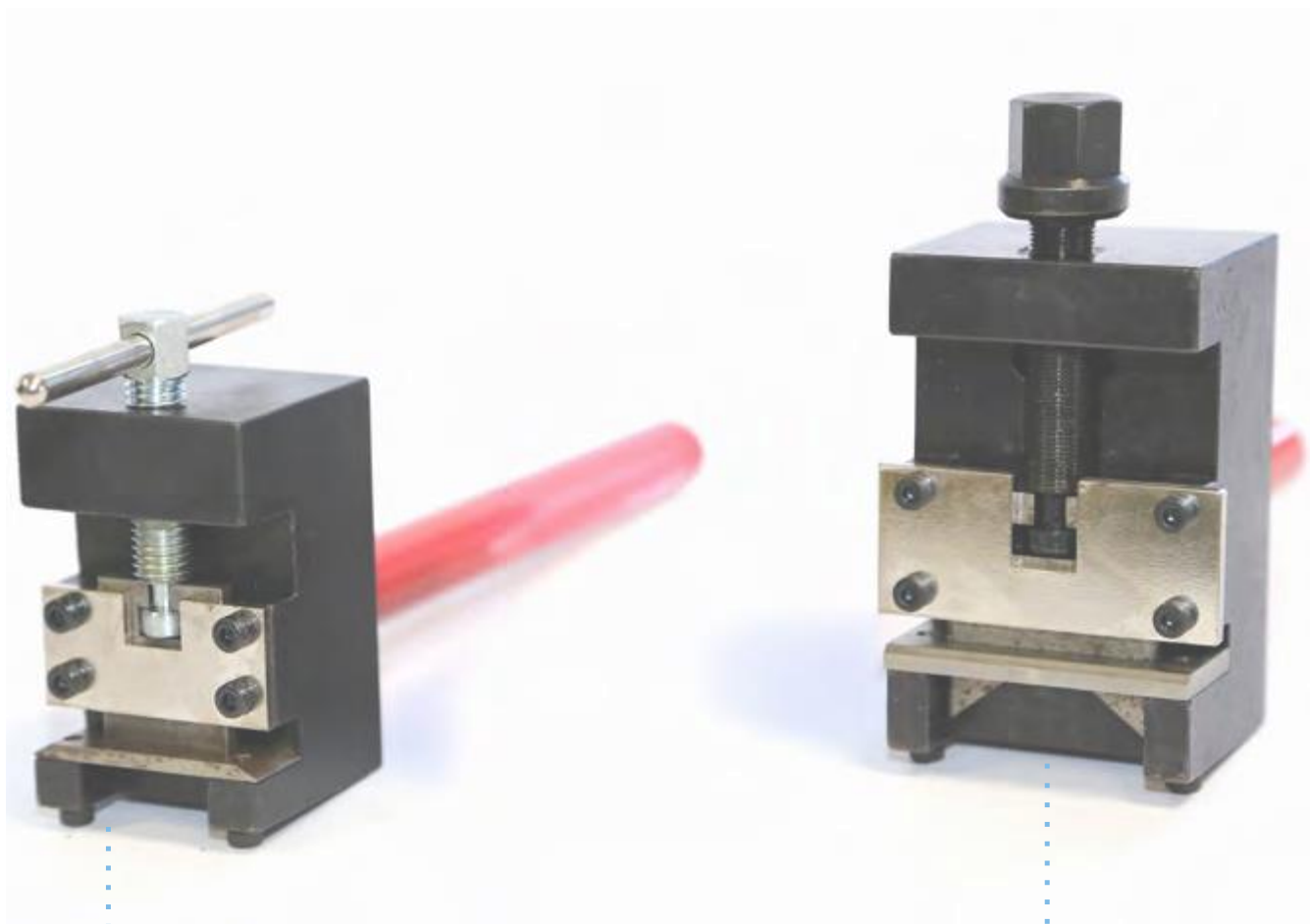
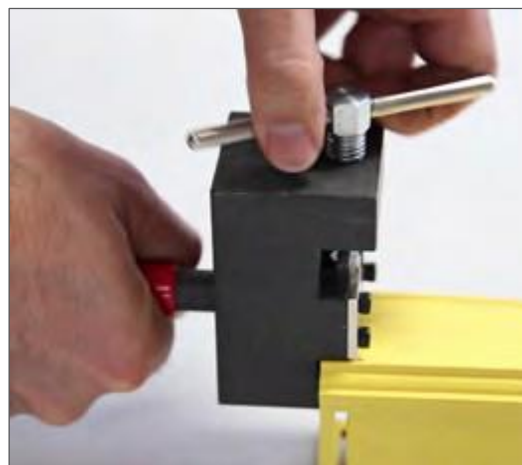
- No need to exert excessive force since the unit is hydraulic powered
- Safe & easy to use
- Ergonomically designed
- Compact design which is easy to transport and doesn't require excess storage space.
- Saves you time by slotting duct quickly
- Allows you to slot an end of duct in less than 1 minute
- Lightweight, only 2kg
- Repeatedly produces accurate slots
- Slots a variety of duct sizes from 100mm x 50mm up to 300mm x 100mm



## Side slotting tool

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.

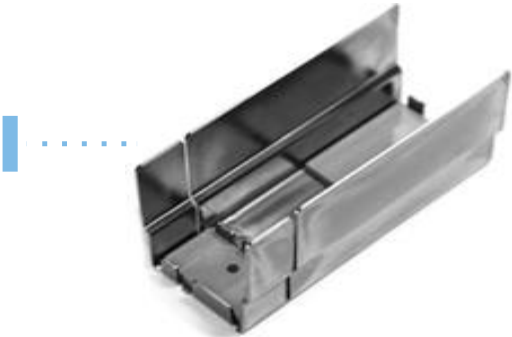
| PART NO.   | DESCRIPTION   |
|------------|---|
| TC1279-230 | for 100mm x 50mm duct (side slots only)   |
| TC1279-51  | for 100mm x 50mm duct (base slots only),<br>for 220mm x 100mm, 300mm x 100mm, 100mm x 100mm |
| TC1279-118 | for 50mm duct   |



## Mitre kits

Mitre boxes are used to provide a means of producing an accurate and straight cut on ducting, essential for correct alignment of the slotting tools and joiners

TC1279-118-07  
Mitre box duct,  
50mm



TC1279-MITRE  
Mitre box duct 300mm,  
220mm, 100mm



TC1279-483A  
Cut out jig, for drop-offs  
and break out guides  
- suitable for all ducts  
from 50mm to 600mm



## Duct spill out tool

This kit is used to cut the 60mm hole in the side and bottom of the duct to accommodate drop-outs (TC1279-602A, TC1279-609A)

*Note: If optic fibre cords already in duct, use TC1279-50-3 to protect the cords.*



TC1279-604KIT  
Duct spill out and  
installation template



## Miscellaneous items

100X060  
Panel saw (jack)



TC1279-50-3  
Fibre spreader  
and protector



97X01  
Wrench, ratchet  
1/2" drive

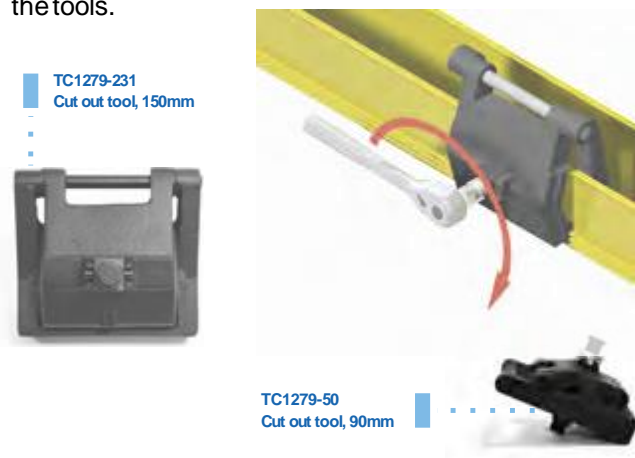


62X001  
Socket



## Cut out tools

Cut out tools are used to cut notches in the side of the duct to accommodate drop-outs. They are supplied with a fibre spreader to protect previously installed fibres when using the tools.



## Duct tool kits



| DESCRIPTION    | PART NO.      | + MORE DETAILS                             | TC1279-140KIT<br>50MM<br>SLOTTING KIT | TC1279-118KIT<br>50MM SLOT &<br>MITRE KIT | TC1279-51A<br>100, 220MM<br>SLOT TOOL &<br>WRENCH KIT | TC1279-51KIT<br>100, 220,<br>300MM CUT<br>& SLOT KIT | TC1279-50KIT<br>100, 220MM<br>CUT & SLOT KIT | TC1279-TKIT<br>COMBINATION<br>KIT | TC1279-231KIT<br>100, 220, 300MM<br>CUT OUT TOOL KIT |
|----------------|---------------|--|---------------------------------------|---|---|--|--|-----------------------------------|--|
| Mitre kits     | TC1279-118-07 | 50mm duct                                  | YES                                   | YES                                       |   |  |  | YES                               |  |
|                | TC1279-MITRE  | 100/220/300mm duct                         |                                       |   |   | YES  |  | YES                               |  |
| Tool box       | 60X013        |  |                                       |   | YES   |  |  |                                   |  |
|                | 60X016        |  | YES                                   | YES                                       |   |  |  |                                   |  |
|                | 60X003        |  |                                       |   |   | YES  |  | YES                               |  |
|                | 60X002        |  |                                       |   |   |  |  |                                   | YES  |
|                | TC1279-118    | for 50mm                                   | YES                                   | YES                                       |   |  |  | YES                               |  |
|                | TC1279-51     | for 100x50mm (base<br>only), 100/220/300mm |                                       |   | YES   | YES  |  | YES                               |  |
|                | TC1279-230    | for 100x50mm (sides)                       |                                       |   |   |  |  | YES                               |  |
| Cut out tool   | TC1279-50     | 90mm cut                                   |                                       |   |   |  | YES  | YES                               |  |
|                | TC1279-231    | 150mm cut                                  |                                       |   |   |  |  |                                   | YES  |
| Wrench ratchet | 97X01         | small                                      |                                       |   | YES   | YES  | YES  | YES                               |  |
|                | 97X02         | large, 375mm handle                        |                                       |   |   |  |  |                                   | YES  |
| Socket         | 62X001        |  |                                       |   | YES   | YES  | YES  | YES                               | YES  |
| Fibre spreader | TC1279-50-3   |  |                                       |   |   |  | YES  | YES                               | YES  |
| Grease stick   | 70X003        |  | YES                                   | YES                                       | YES   | YES  | YES  | YES                               | YES  |
| Panel saw      | 100X060       |  |                                       |   |   | YES  |  | YES                               |  |