# Telenco

# Tooling & Testing

# THE TELENCO GROUP
# A global offer for telecoms networks

Telenco "develops the networks of tomorrow, today", by designing, manufacturing, and marketing solutions standard and tailor-made for FTTH, FTTA networks, Datacentre and LAN.

Driven by the ambition to become a key player in the industry, Telenco has enriched its offer over the years and offers a vast choice of equipment for the installation and maintenance of networks, as well as certified training for qualified teams!

FTTH

FTTA

Data centre

LAN

## Engineer's Equipment

At the heart
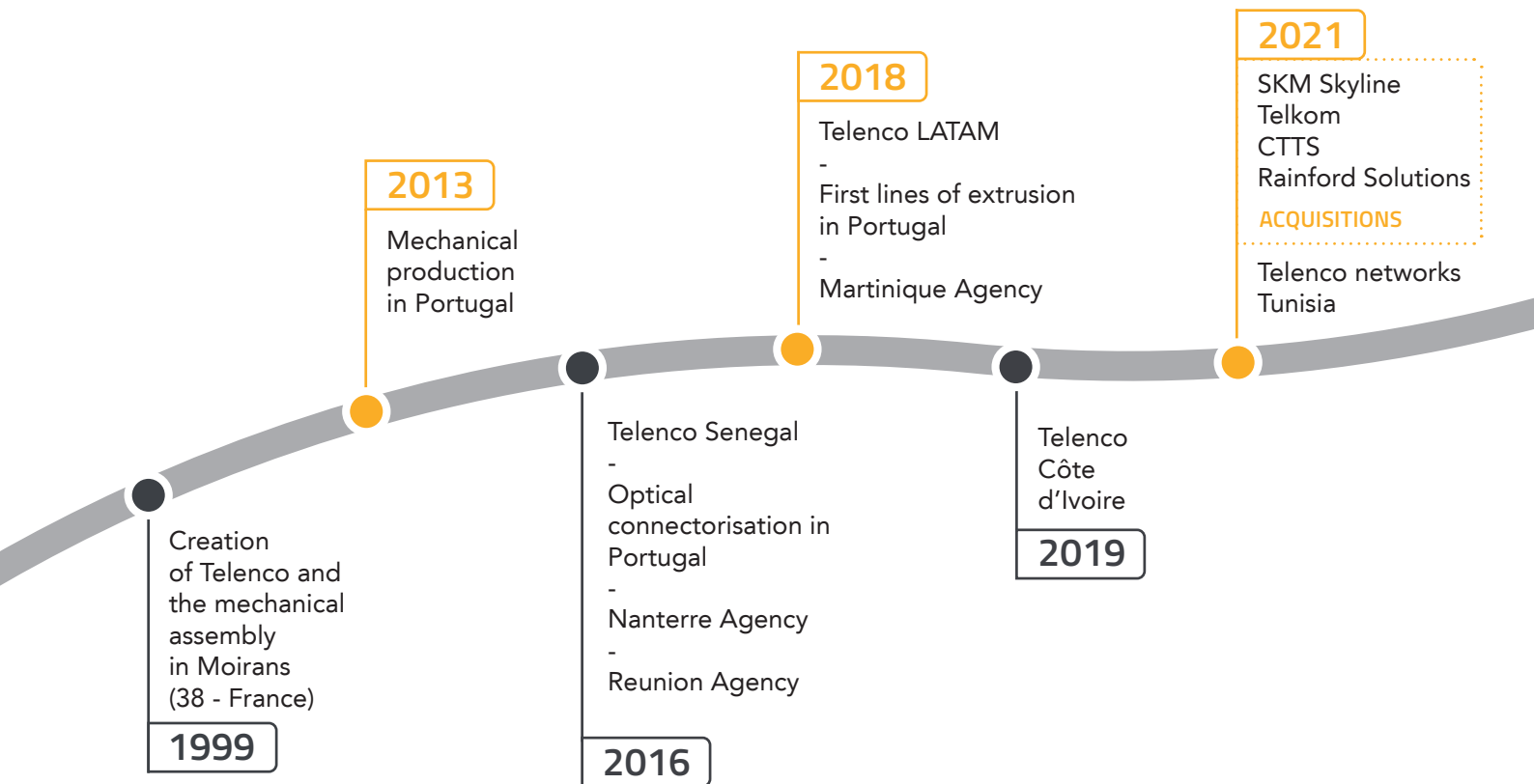of a network of experts
in telecommunications

arcep

CREDO

INCA

Fibre to the Home Council Europe

InfraNum

BREKO
Bundesverband
Breitbandkommunikation e.V

FRANCE DATACENTER

europacable
Try life without us

SYCABEL

# The Group's history

**Telenco is growing at the pace of constant customer needs and market evolution.**

With production and sales subsidiaries located in three continents, Telenco has an integrated value chain with the design, production, assembly, control and distribution of its products. The Group was thus able to convince and retain customers in more than 65 countries.

Telenco LATAM

Antilles

## ORGANIC AND EXTERNAL GROWTH

**2021**

SKM Skyline
Telkom
CTTS
Rainford Solutions

**ACQUISITIONS**

Telenco networks
Tunisia

**2018**

Telenco LATAM
-
First lines of extrusion in Portugal
-
Martinique Agency

**2013**

Mechanical production in Portugal

Telenco Senegal
-
Optical connectorisation in Portugal
-
Nanterre Agency
-
Reunion Agency

Telenco Côte d'Ivoire

**2019**

Creation of Telenco and the mechanical assembly in Moirans (38 - France)

**1999**

**2016**

Design

Qualification

Manufacturing

## Map Labels

- Rainford Solutions
- CTTS
- Telenco UK
- NGIS
- Malico
- Nanterre
- Telenco GmbH
- NGIS
- Telenco Headquarters
- TELGO Telenco Portugal
- Telenco networks Tunisie
- Telenco Senegal
- Telenco Africa
- Telenco Côte-d'Ivoire
- Réunion

## Timeline

**2023**
Malico
NGIS
ACQUISITIONS

Launch of the Telenco Store Marketplace
**2022**

## Statistics

**15 000 m$^2$**
PRODUCTION AREA

**20 000 m$^2$**
STORAGE AREA

**+65** COUNTRIES DELIVERED

## Process
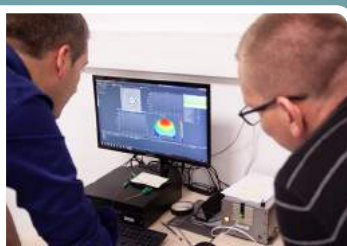
Control → Logistics → Distribution

# TELENCO

# A specialist supplier of telecommunications equipment for professionals.

Telenco is a group of companies specializing in the design, manufacture and marketing in France and abroad of long-term solutions for telecoms and connectivity infrastructures. Since 1999, the company has built its business on offering innovative solutions that meet the specific needs of each market. Telenco also supports its customers by supplying high-quality hardware and equipment tailored to their needs. The attractiveness and diversification of our offering is made possible by partnerships with our customers and suppliers, all recognized in their fields of expertise.

| Innovate | ❯ | Accompany you | ❯ | Happy to help |
|---|---|---|---|---|
| Take inspiration from our customers and their experiences to develop useful solutions. | | Advise, deliver the right product at the right time and at a good place. | | Listening to all customers' needs. |

## A dedicated team

Contacts for each stage of purchasing, from pre-sales advice to after-sales service.

## A trade counter

- Nanterre (92)
- La Possession (974)
- Saint-Joseph (972)
- Baie-Mahault (971)

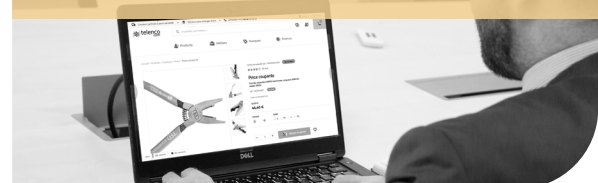## A variety of delivery options

- Businesses
- On site
- Click&Collect

## A dedicated website for engineers

+ choice
+ leading brands

**www.telenco-store.com**

GAS DETECTOR CALIBRATION


FLOCKING


CABLE CUT


KITTING


BESPOKE TOOLKITS

## SERVICES

# Personalised on demand

**Telenco meets the most specific needs by offering simple, efficient, and tailor-made services.**

Our team works on a long-term basis to improve our services and support. All the services offered by Telenco are customisable according to the needs of customers, with the aim of making their daily lives on working within the telecommunications industry easier.

# TED®

**Technical**
**E**fficient
**D**urable

## The TED® brand is the result of Telenco's commitment to improve engineer's working conditions.

By offering solutions with an unprecedented quality/price ratio on the telecommunications market, we equip engineers with equipment adapted to their needs!

PPE and
Safety

Underground
Deployment

Marking and
Identification

Test and
Measurement

## CONCEPTION & DESIGN
### 100% by Telenco

The technical and business knowledge of our product managers and the telecom expertise of our design office makes it possible to develop products that fulfil the field issues.

## CO-DEVELOPPEMENT
### with specialist manufacturers

Industrial know-how combined with the market expertise of our product managers makes it possible to create new products adapted for engineers.

# Discover the brand dedicated to technicians.

TED®

## Innovative solutions to support engineers

Launched in 2014, TED® is a brand developed by Telenco with dedicated equipment for telecom technicians. It provides daily support technical teams during implementation and maintenance operations of telecommunications networks (FTTx/LAN/DATACENTER).



> Technical



> Efficient



> Durable

TED®+

Each TED®+ product is designed with and for telecom professionals, to provide ergonomic added value that enhances the comfort and safety of every technician, while controlling costs. The genesis of many of our innovations comes from a combination of creative ideas and experience in the field.

# TELENCO

# A responsible and sustainable company

**Telenco wants to shape the future landscape of networks sustainable manner, building on its commitments and CSR initiatives.**

We strive to combine economic performance and ethical principles by favouring on the one hand the protection of the environment, and on the other hand, the human value through respectful and supportive actions.

## ENGAGE & GIVE SENSE

www.telenco.com
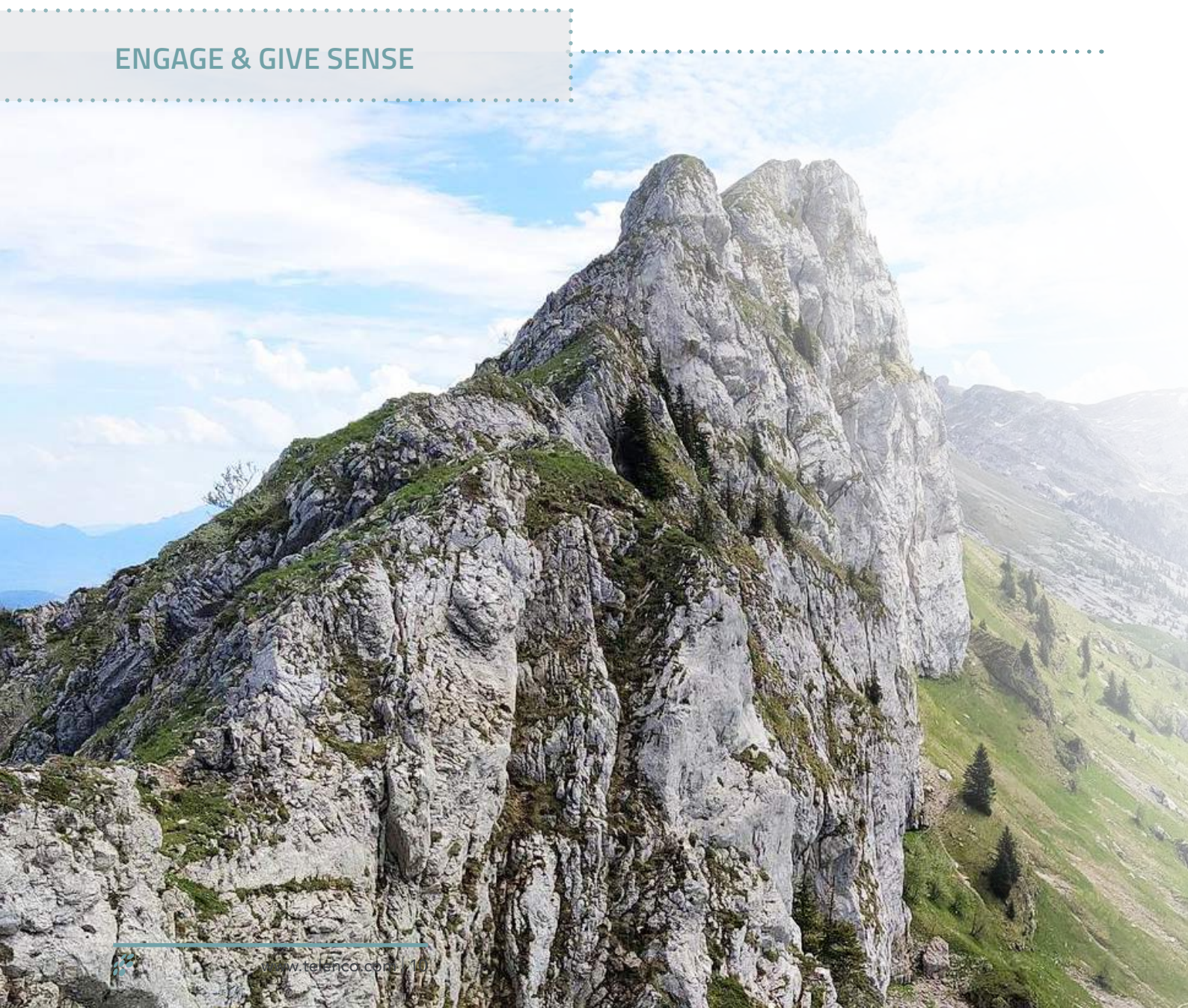
## SOCIAL & SOCIETAL

> Non-discrimination policy

> Working with ESATs and adapted companies

> Internal training plans

> Sponsorship of local associations

## ETHICS

> Anti-corruption policy

> Responsible purchasing policy

> Code of ethical conduct

## ENVIRONMENT

> Carbon footprint and SBTi commitment

> Waste reduction and recycling

> Ecoconception and analysis of the life cycle of our products

## HEALTH & SECURITY

> Well-being at work (osteopathy session, podiatry assessment...)

> Preparedness for emergency situations (OHS and Fire Safety training)

> Securing machines and ports of PPE provided by Telenco

**Discover all our CSR actions on**
**www.telenco.com**

# DISCOVER
# YOUR CATALOG
# Tooling
# & Testing

TED®

# Summary

## Tooling

## Testing

# Tooling

## Underground networks

# MANHOLE ACCESS

## Keys & cover lifter

### Expert's advice

**Solutions to access the manhole: which tool to choose?**

**RECOMMANDED TOOLS**



Hammer or lifting wrench
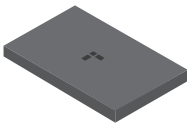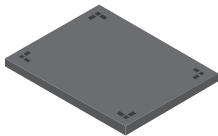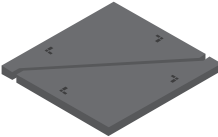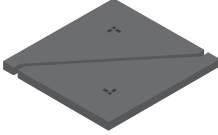


Magnetic cover lifter
1 technician



Magnetic cover lifter
2 technicians
or wheeled cover lifter



Wheeled cover lifter

| Covers type (cast iron) | | Average weight | Manhole type | Number of covers | Tool |
|---|---|---|---|---|---|
| **B125** | | <20kg | L0T | 1 | |
| | | 20 to 50kg | L1T | 1 | |
| | | | L2T | 2 | |
| | | | L3T | 3 | |
| | | | L4T | 4 | |
| | | 50 to 70kg | L5T | 5 | |
| **C250** | | 20 to 50kg | L1T | 1 | |
| | | | L2T | 2 | |
| | | | L3T | 3 | |
| | | | L4T | 4 | |
| | | 50 to 70 kg | L5T | 5 | |
| **D400 unassembled** | | Approx. 40kg | L1C | 2 | |
| | | | L2C | 4 | |
| | | | L3C | 6 | |
| | | Approx. 70kg | K1C | 2 | |
| | | | K2C | 4 | |
| | | | K3C | 6 | |
| **D400 assembled** | | 2 covers assembled between 80kg and 140kg | L1C | 2 | |
| | | | L2C | 4 | |
| | | | L3C | 6 | |
| | | | K1C | 2 | |
| | | | K2C | 4 | |
| | | | K3C | 6 | |
| Specific covers | | Assembled | | | |
| | | Concrete, pavers, painted, composite | | | |

# Magnetic manhole cover lifter

TED®'s Magnetic lifter is a must have tool to safely remove manhole cover. Dedicated to telecomunication engineers, this tool was designed to be use on a dayly basis by a solo engineer. Suitable for most of the iron cover up to 100kg. Our lifter is an asset helping the reduction of MSD (musculoskeletal disorders) linked to the repetitive handling of covers.

### Technical specifications:
+ Maximum cover weight: 100kg
+ Can be used in pairs up to 200kg

### Product benefits:
+ Reduced effort
+ Optimal working posture
+ Speed of implementation

| PN | Designation | Weight |
|----|-------------|--------|
| 09748 | Magnetic manhole cover lifter TED® | 18.9kg |

## Foldable measuring wheel

TED®

Daily tool for civil works engineers. Ideal for the precision measurement of roads, pavements up to a distance of 9999.9 meters. Compact foldable lightweight design.

### Product benefits:
+ Compact foldable design
+ Easy to carry
+ Robust gear transmission system

### Technical specifications:
+ Counter capacity: 0.1m - 9 999.9m
+ Folding kickstand
+ Folding handle

| PN | Designation | Weight |
|------|-------------|--------|
| 6776 | Foldable measuring wheel TED® | 1.72kg |

## Manhole lid hammer

TED®

The TED® manhole lid hammer can be used to unstick, lift and move telecom manholes covers. It can be used alone to lift hinged covers. Use it in pair to deal with non-hinged covers

### Product benefits:
+ ORANGE approved
+ Replaceable and interchangeable explosion-proof soles
+ 2 sole qualities available:
    - Standard/Polyamide
    - Reinforced/Cupro beryllium: extended sole life

### Technical specifications:
+ Movable inertia block in the handle
+ Hammer head with tip and hook sides
+ Hot-dip galvanized steel

| PN | Designation | Weight |
|-------|-------------|--------|
| 0336 | TED® Manual manhole lid hammer/ cupro beryllium sole | 7kg |
| 0434 | TED® Manual manhole lid hammer / polyamide sole | 6.5kg |
| 13037 | Sole for copper-beryllium cover lifter + Screw kit | 0.7kg |
| 5206 | TED® polyamide sole for manhole cover hammer + Screw kit | 0.2kg |

## Manhole cover lifting hook  TED®

Generally used in pairs to lift light manhole covers.



| PN | Designation | Weight |
|------|-------------|--------|
| 0391 | TED® Manhole cover lifting hook - 585mm | 0.6kg |

## Telescopic measuring rod  TED®

The TED® measuring rod enables precise measurements on worksite. It is also used to measure the depth of telecom chambers. Its aluminum design makes it lightweight easy to carry.



**Product benefits:**
+ Lightweight and easy to carry
+ Horizontal or vertical use, with integrated level
+ Carrying case

| PN | Extended length | Weight |
|-------|-----------------|--------|
| 19261 | 5m | 2.3kg |
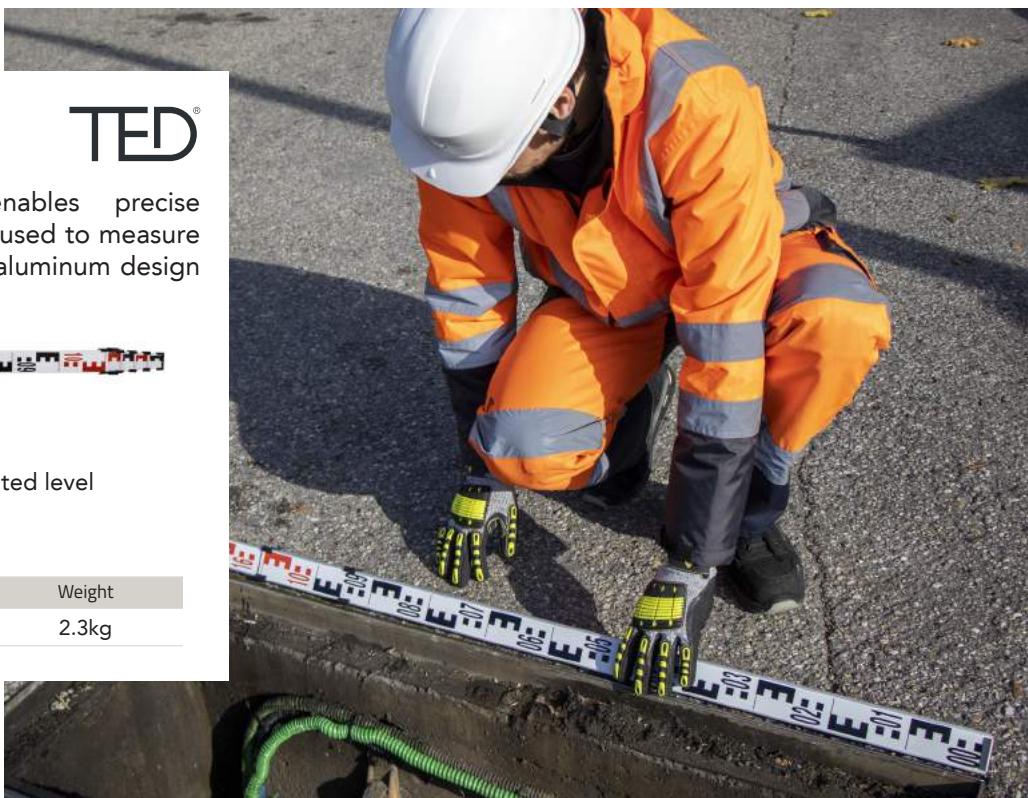
# High depth manhole access solution

## DACS double plane 8 bars

With 2 levels of 8 rungs each, this solution allows access of up to 4 meters. Made of aluminum, with replaceable anti-slip rungs, it has a long service life. Isolated level compensators are provided to adapt the device to the particularities of underground chamber bottoms. A handle for easy handling.

**Product benefits:**
+ Made for access to underground chambers
+ Non-slip rungs
+ Insulated level compensators

| PN | Number of bars | Height deployed | Weight |
|----|----------------|-----------------|--------|
| 19369 | 8 | 5.4m | 17kg |

In addition, consider the STANLEY pocket laser rangefinder to simply and quickly measure the depth of the chamber.

PN: 19412

## Road cones

Non-reflective tag

Bendable Beacon - Class 1

Reflective retro-beacon - Class 2

| PN | Class | Height | Bands | Weighted | Conditioning | Unit Weight |
|----|-------|--------|-------|----------|--------------|-------------|
| 6585 | - | 30cm | Non-reflective | - | Unit | 0.53kg |
| 2018 | - | 50cm | Non-reflective | - | Lot of 10 | 1.05kg |
| 16059 | 1 | 50cm | Reflective sleeves | - | Lot of 10 | 1.3kg |
| 16379 | 1 | 75cm | Reflective sleeves | - | Unit | 3.1kg |
| 6218 | 2 | 50cm | Reflective sleeves | - | Unit | 1.31kg |
| 16380 | 2 | 75cm | Reflective sleeves | - | Unit | 4.2 kg |
| 17415 | 1 | 50cm | Reflective sleeves | ● | Lot of 10 | 1.9kg |
| 17416 | 2 | 50cm | Reflective sleeves | ● | Lot of 10 | 1.9kg |
| 17417 | 2 | 75cm | Reflective sleeves | ● | Lot of 10 | 4.7kg |

# Aluminium manhole gateguard 1x1m TED® TED⊕

Foldable gateguard for use on worksite to secure telecom covers & chambers during work. Lightweight and easy to install. When folded, it is easy to transport and takes up little space in vehicles.

## Product benefits:
+ Very strong rivets
+ Leather tightening strap for storage and transportation

## Technical specifications:
+ Material: aluminum coated with red epoxy paint and white
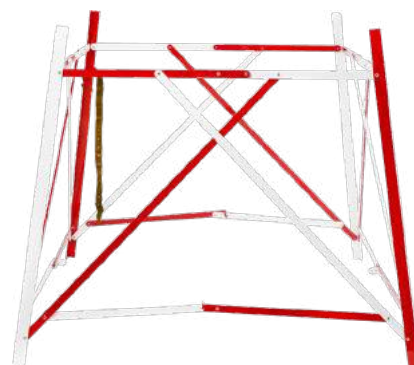
| PN | Designation | Weight |
|---|---|---|
| 0582 | Aluminium manhole gateguard TED® 1m x1m | 6.75kg |

# TED® telescopic bar for road cones

## TED®

## Technical specifications:
+ Fixing bar extendable from 1.30 to 2.15m
+ Material: ABS
+ Adapts to all types of road cones

| PN | Designation | Weight |
|---|---|---|
| 35009 | TED® telescopic bar 1.30 - 2.15m for road cones | 0.6kg |

# CABLE PULLING



# A complete range of continuous rods

**Designed by Telenco's R&D teams, with engineer's support & feedback, SAFE, SAFE NG & MAINROAD TED® Cobras are manufactured to ensure durability & long-term daily use.**

Our full continuous rod range can support an engineer dealing with most of manual underground cable pulling worksite, from the main distribution networks to the customer premise (CABLETWIST & CABLEBLITZ). Daily use means that the reparability of these products is a major challenge to ensure their durability.
In addition we developed a large range of accessories to grant more flexibility to help engineers.

Detailed specifications of our rods at **www.telenco-store.com**

# Continuous rod

## Mainroad
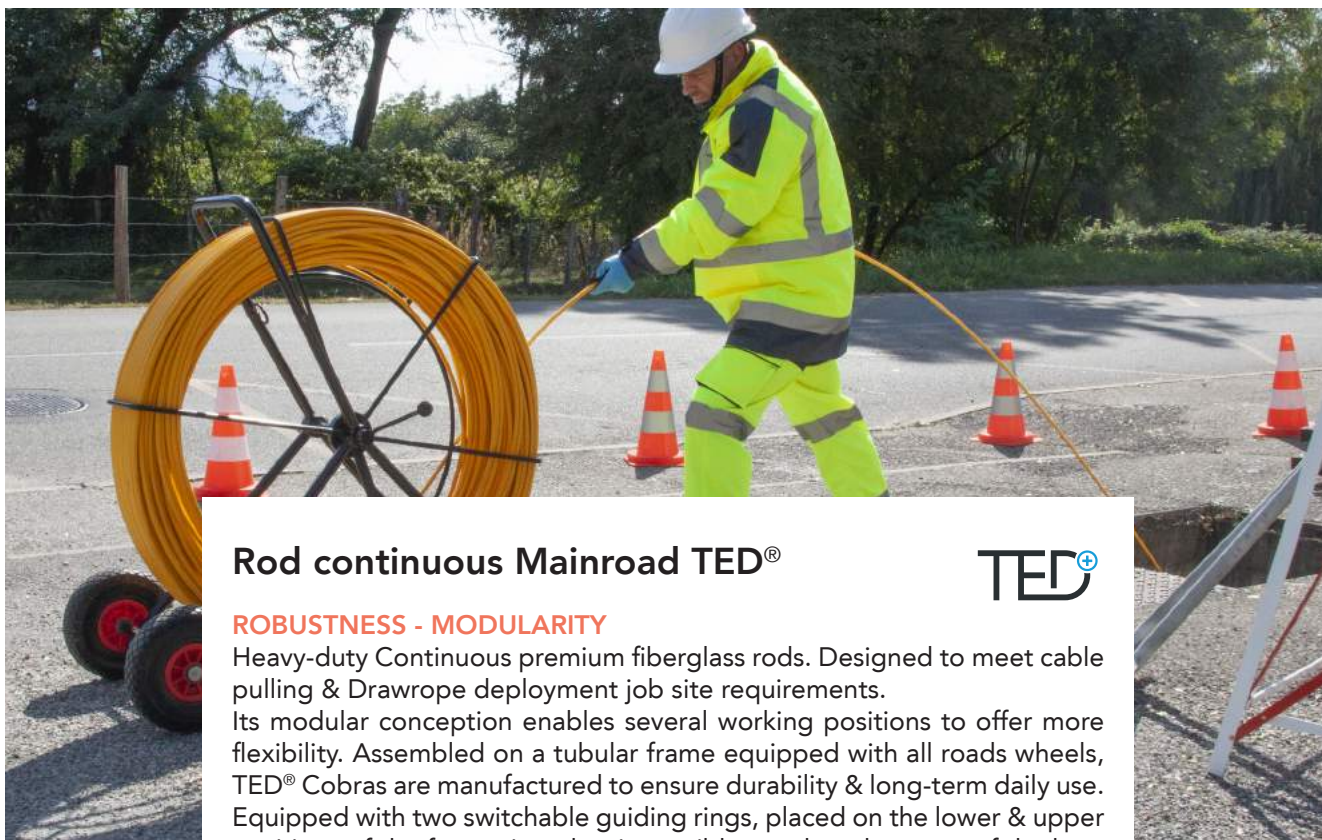


## Rod continuous Mainroad TED®

### ROBUSTNESS - MODULARITY

Heavy-duty Continuous premium fiberglass rods. Designed to meet cable pulling & Drawrope deployment job site requirements.

Its modular conception enables several working positions to offer more flexibility. Assembled on a tubular frame equipped with all roads wheels, TED® Cobras are manufactured to ensure durability & long-term daily use. Equipped with two switchable guiding rings, placed on the lower & upper positions of the frame, it makes it possible to take advantage of the best angle to access the duct.

During the re-winding, the upper position use the rod's energy to assist the re-winding process & prevent engineer's back issue. The possibility to replace the rod with a secured and quick process makes the TED®'s rods an economic & durable solution.

### Product benefits:
+ All road solid wheels
+ 4 work positions available
+ One man job rod replacement process

| PN | Diameter | Length | Weight |
|---|---|---|---|
| 91028 | 9mm | 150m | 36kg |
| 1001220 | 9mm | 200m | 40.6kg |
| 1001221 | 11mm | 150m | 44.2kg |
| 1001222 | 11mm | 200m | 52 kg |
| 1001223 | 11mm | 250m | 58.6kg |
| 91027 | 11mm | 300m | 65.2kg |
| 1001224 | 11mm | 350m | 72kg |
| 1001566 | 14mm | 100m | 50kg |
| 1001567 | 14mm | 150m | 60kg |
| 1001568 | 14mm | 200m | 70kg |

# Replacement rod without frame

## Replacement rod for Mainroad TED®

TED⁺

Replacement rod for continuous rod. Already calibrated and secured, ready-to-be installed on TED® Mainroad cage. Direct installation on the Mainroad frame with cable ties.
The rod reel is released only after being secured into the cage. This replacement system is safer than the unwinding/winding of the reel. Installation can be carry out by a solo engineer.

**Product benefits:**
+ Engineer's safety first
+ Time saving solution
+ Economic

**Technical specifications:**
+ Premium fiberglass quality

| PN | Diameter | Length | Weight |
|---|---|---|---|
| 91029 | 9mm | 150m | 14kg |
| 1001225 | 9mm | 200m | 18kg |
| 1001226 | 11mm | 150m | 19.8kg |
| 1001227 | 11mm | 200m | 26.4kg |
| 1001228 | 11mm | 250m | 33kg |
| 91030 | 11mm | 300m | 42kg |
| 1001229 | 11mm | 350m | 46.2kg |
| 1001571 | 14mm | 100m | 25kg |
| 1001572 | 14mm | 150m | 35kg |
| 1001573 | 14mm | 200m | 50kg |

# SAFE & SAFE NG Continuous rods
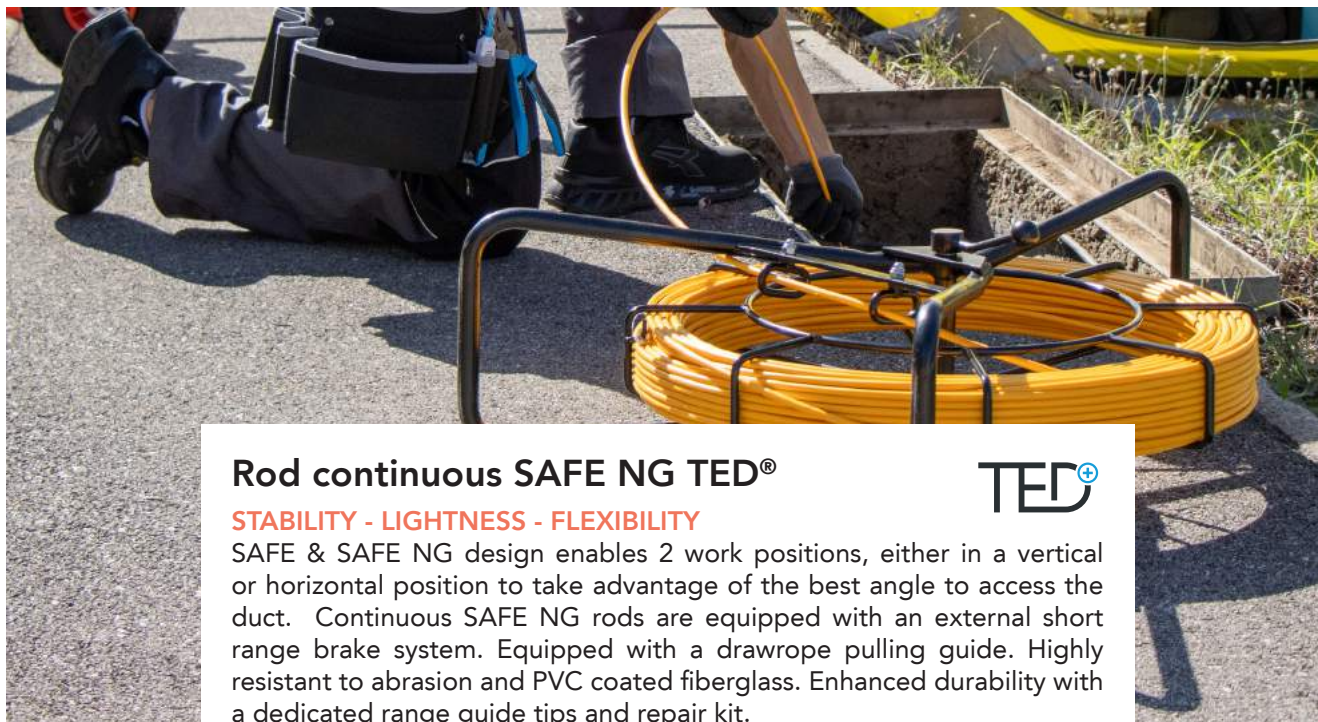


## Rod continuous SAFE NG TED®

**STABILITY - LIGHTNESS - FLEXIBILITY**

SAFE & SAFE NG design enables 2 work positions, either in a vertical or horizontal position to take advantage of the best angle to access the duct. Continuous SAFE NG rods are equipped with an external short range brake system. Equipped with a drawrope pulling guide. Highly resistant to abrasion and PVC coated fiberglass. Enhanced durability with a dedicated range guide tips and repair kit.

## Safe

The horizontal position on the 3 foots frame is particularly suitable suitable for working on unstable or slippery ground (earth, gravel, pavement...).
Available in Ø4.5mm, Safe rods also feature an automatic automatic brake system.

**Product benefits:**
+ More stable and secure horizontal working position
+ Compact, lightweight frame
+ 3 feet with gripping feet

## Safe NG

This new generation of frame offers enhanced rod durability with interchangeable guiding rings. An improved brake system to improve technician safety.
Available in Ø7mm, it's an excellent compromise between tensile strength and elasticity.

**Product benefits:**
+ Interchangeable guiding rings
+ Technician safety enhanced by ¼-turn external brake (increased reactivity)
+ Reinforced frame for enhanced stability

| PN | Diameter | Length | Weight |
|----|----------|--------|--------|
| 0807 | 4.5mm | 30m | 3.8kg |
| 0561 | 4.5mm | 60m | 4.4kg |
| 1831 | 4.5mm | 80m | 4.8kg |

| PN | Diameter | Length | Weight |
|----|----------|--------|--------|
| 1001199 | 7mm | 60m | 10.4kg |
| 1001200 | 7mm | 80m | 11.6kg |
| 1001201 | 7mm | 100m | 12.5kg |
| 1001202 | 7mm | 130m | 13kg |

## Replacement rod without frame

| PN | Diameter | Length | Weight |
|----|----------|--------|--------|
| 0809 | 4.5mm | 30m | 0.7kg |
| 0810 | 4.5mm | 60m | 1.35kg |
| 0921 | 4.5mm | 80m | 1.84kg |

## Replacement rod without frame

| PN | Diameter | Length | Weight |
|----|----------|--------|--------|
| 1001331 | 7mm | 60m | 3kg |
| 1001332 | 7mm | 80m | 4.5kg |
| 1001333 | 7mm | 100m | 5.45kg |
| 1001334 | 7mm | 130m | 6.5kg |

# SAFE & SAFE NG & Mainroad accessories

## Accessories for TED® Mainroad

TED®

| PN | Designation | Assembly | Ø Rod | Weight |
|---|---|---|---|---|
| 09294 | Rotary ball | | | 0.07kg |
| 11701 | Ø45mm nylon brush | | | 0.27kg |
| 7286 | Ø60mm nylon brush | | | 0.14kg |
| 7287 | Ø80mm nylon brush | screw-on | 9mm and 11mm | 0.16kg |
| 91486 | Mainroad guiding ring for rod | | | 0.10kg |
| 2393 | Screwable pulling head Ø25mm | | | 0.05kg |
| 10955 | Adaptor F-F (M10/M8) | | | 0.05kg |
| 09293 | Puncture resistant wheel | | | 1.00kg |
| 2406 | Rotating ball + tip kit | screw-on (supplied with end cap to pin on rod) | | 0.10kg |
| 0828 | Guide tip to pin | | 9mm | 0.07 kg |
| 91493 | Pin-on repair kit | pin-on | | 0.09kg |
| 1753 | Self-tightening repair kit | to tighten | | 0.08kg |
| 2405 | Rotating ball + tip kit | screw-on (supplied with end cap to pin on rod) | | 0.10kg |
| 0837 | Guide tip to pin | | 11mm | 0.07kg |
| 91494 | Pin-on repair kit | pin-on | | 0.09kg |
| 1754 | Self-tightening repair kit | to tighten | | 0.08kg |

Rotary ball

Nylon brush

Screwable pulling head

Mainroad guiding ring for rod

Rotating ball + tip kit

Puncture resistant wheel

Pin-on repair kit

Guide tip to pin

Self-tightening repair kit
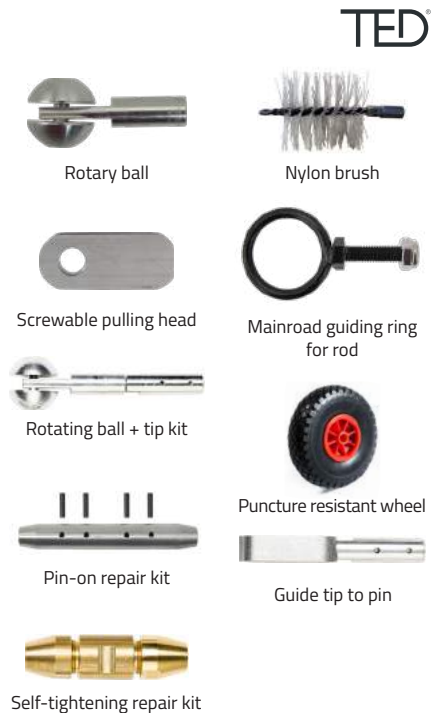
## Accessoires for TED® Safe mainroad

TED®

| PN | Designation | Assembly | Ø Rod | Weight |
|---|---|---|---|---|
| 13106 | Guiding tip set of 3: Ø 7-10-13mm to screw | to screw with M5 bit | | 0.05kg |
| 11993 | Flexible guiding tip Ø7mm to screw in M5 | screw-on | | 0.01kg |
| 1002007 | End connector M5 to pin | pin-on | | 0.01kg |
| 1002008 | Pulling eyelet guide tip M5 - Ø8mm | screw-on | | 0.01kg |
| 1436 | Pulling eyelet end tip Ø10mm | pin-on | 4.5mm | 0.01kg |
| 12568 | End connector M5 to glue - Pack of 10pcs | stick on | | 0.01kg |
| 1848 | Glue-on repair sleeve - Pack of 10 | | | 0.04kg |
| 11499 | Special glue for repair | | | 0.05kg |
| 13032 | Complete accessory kit* | - | | 0.10kg |
| 1973 | Safe dispenser Ø4.5mm | | | 3.05kg |
| 1002009 | Pulling eyelet guide tip M8 - Ø12mm | screw-on | | 0.01kg |
| 1002006 | End connector M8 to pin | | | 0.01kg |
| 2145 | Pulling eyelet end tip | pin-on | | 0.01kg |
| 91495 | Pin repair kit* | | | 0.01kg |
| 13033 | Pinning accessories kit* | | | 0.10kg |
| 12159 | Glue-on repair kit* + M12 male end | stick on | | 0.12kg |
| 1001599 | Safe TED® dispenser for fiberglass rod Ø7mm | | 7mm | 7.05kg |
| 1001207 | Guiding ring with srcews | | | 0.01kg |
| 1001208 | F-F adapter (M10/M8) for 33kHz Ø18mm M10 probe | | | 0.01kg |
| 1001209 | M-F adapter (M12/M8) for 33kHz Ø18mm M12 probe | - | | 0.01kg |
| 1001210 | M-F adapter (M5/M8) forM5F accessory mount | | | 0.01kg |

Guiding tip set of 3

Guide head + glue tip

Glue-on repair sleeve

Pulling eyelet end tip

Complete accessory kit

Female end

Pinning accessories kit

Pin repair kit

Glue repair kit

Safe dispenser

Probe adapter

# Cable grip

## Single loop cable pulling grip M5

Galvanized steel cable grip designed for manual pulling. Fitted with M5 end cap. Fits our Cablegrip (PN: 15536) and Cabletwist (PN: 16608) rods.

## Junior single loop cable blitz

Galvanized steel cable grip. Suitable for manual overhead and underground pulling.

## Single loop cable grip special for optical fiber cables

Short, small-diameter model suitable for pulling optical distribution cables.

## Single loop cable grip standard

Standard model in galvanized steel for overhead or underground cable grip.

## Kevlar® double loop cable grip

Kevlar® cable grip offering great flexibility and strength. Specially designed to reduce friction forces with cables already installed.

| | PN | Material | Single loop | Double loop | M5 tip | Breaking | Ø Cable | Length | Weight |
|---|---|---|---|---|---|---|---|---|---|
| **M5 tip** | 12276 | Galvanized steel | | | ✔ | 2kN | 4-6mm | 100mm | 0.01kg |
| | 12277 | Galvanized steel | | | ✔ | 2kN | 6-9 mm | 120mm | 0.02kg |
| | 12278 | Galvanized steel | | | ✔ | 2kN | 9-12mm | 180mm | 0.03kg |
| | 12279 | Galvanized steel | | | ✔ | 2kN | 12-15mm | 230mm | 0.04kg |
| **Junior** | 4046 | Galvanized steel | Junior | | | 2kN | 6-10mm | 120mm | 0.01kg |
| | 4732 | Galvanized steel | Junior | | | 2kN | 10-12mm | 180mm | 0.02kg |
| | 1602 | Galvanized steel | Junior | | | 2kN | 12-15mm | 230mm | 0.03kg |
| | 12566 | Galvanized steel | Junior | | | 8.1kN | 15-19mm | 280mm | 0.04kg |
| **Special FO** | 13103 | Galvanized steel | ✔ | | | 5.6kN | 6-12mm | 490mm | 0.10kg |
| | 13104 | Galvanized steel | ✔ | | | 8.4kN | 12-19mm | 490mm | 0.15kg |
| | 13105 | Galvanized steel | ✔ | | | 11.2kN | 19-25mm | 490mm | 0.20kg |
| **Standard** | 0859 | Galvanized steel | ✔ | | | 18.8kN | 10-20mm | 900mm | 0.25kg |
| | 0860 | Galvanized steel | ✔ | | | 22.6kN | 20-30mm | 900mm | 0.35kg |
| | 0861 | Galvanized steel | ✔ | | | 37kN | 30-40mm | 900mm | 0.40kg |
| | 0862 | Galvanized steel | ✔ | | | 55kN | 40-50mm | 900mm | 0.57kg |
| | 0863 | Galvanized steel | ✔ | | | 55kN | 50-65mm | 900mm | 0.63kg |
| | 0864 | Galvanized steel | ✔ | | | 73.2kN | 65-80mm | 900mm | 0.75kg |
| | 0865 | Galvanized steel | ✔ | | | 73.2kN | 80-95mm | 900mm | 0.90kg |
| | 1053 | Galvanized steel | ✔ | | | 85kN | 95-100mm | 900mm | 1.28kg |
| | 1054 | Galvanized steel | ✔ | | | 106kN | 110-130mm | 600mm | 1.39kg |
| **Kevlar** | 1601 | Kevlar | | ✔ | | 11.2kN | 10-20mm | 900mm | 0.05kg |
| | 12269 | Kevlar | | ✔ | | 16.8kN | 20-30mm | 900mm | 0.90kg |
| | 2718 | Kevlar | | ✔ | | 22.4kN | 30-40mm | 900 mm | 0.11kg |

## vLoc3-Cam probe detector

VIVAX
METROTECH

The 3-Cam probe finder allows you to quickly and accurately locate the position of a probe. An intuitive interface guides the user to the probe using a directional arrow. When the detector passes over the probe, it provides an immediate view of the probe and displays its depth in real time.

The vLoc3-Cam has a dedicated screen for searching for probes on multiple frequencies. It is compatible with all probes and cameras on the market.

The vLoc3-Cam can also locate 50Hz and radio signals in passive mode (without a transmitter). In active mode, it is compatible with all 33kHz transmitters.

PN: 19404

### Product benefits:
+ Hyper-intuitive probe search:
    - Directional arrow guides you to the probe
    - Special screen for viewing and isolating phantom signals
    - Probe visualization on screen, the probe turns red-green when the detector is plumb
+ High-visibility color display

### Technical specifications:
+ Frequencies:
    - Probe mode: 512Hz, 640Hz, 8.192kHz, 33kHz and 83kHz
    - Power: 50Hz
    - Radio: 10kHz-22.7kHz bandwidth
+ Detection down to 4m
+ Accuracy: ± 3% of depth
+ Large 10cm screen

| PN | Designation | Power supply | Weight |
|---|---|---|---|
| 19404 | vLoc3-Cam probe detector pack + carrying case | 6 AA batteries | 3.6kg |
| 18442 | vLoc3-Cam sensor (Batteries) | 6 AA batteries | 2.1kg |
| 19175 | Li-Ion battery with charger for vLoc3 detector | - | 0.54kg |
| 18443 | Carrying bag for vLoc3 detector | - | 1.5kg |

# Probes and accessories

## 33kHz locating microprobe

PN: 20275

PN: 19177

Retractable precision micro-probe with flexible head, to locate blockage points in small ducts & micro ducts. M5 female connector.

**Microprobe v6:**
+ Ø6.4mm
+ Length: 84mm
+ Max. detection detection depth: 2.3m
+ Supplied with 2 BR535 batteries

**Microprobe v9:**
+ Ø9mm
+ Length: 138mm
+ Max. detection detection depth: 5.7m
+ Supplied with 2 BR535 batteries

## 33kHz Ø18.5mm probe

PN: 4033

Robust screw-in probe to locate blockages ducts & micro ducts (breakage, plugs, etc.). M10 male end. Can be fitted to rods using an adapter (Female/Female). Adapter depends on rod design.

**Technical specifications:**
+ Ø18.5mm
+ Length: 82mm (probe only)
+ Max. detection depth: 4m
+ Supplied with 1 x 3V Lithium battery (CR-1/3N)

| PN | Designation | Microprobe Model | Compatible rods | | Mounting accessories | Weight |
|----|-------------|------------------|------|-------|----------------------|--------|
| | | | Ø | Model | | |
| 20275 | 33kHz microprobe | V6 | 3mm | Cableblitz, Cabletwist, Katiblitz | Screwing directly onto rod | 0.01kg |
| 19177 | 33kHz microprobe | V9 | 4.5mm | Safe | Screwing directly onto rod | 0.04kg |
| 1002410 | Probe + adapter kit | 18.5mm | 7mm | Safe NG | Adapter supplied for 7mm | 0.22kg |
| 19178 | Probe + adapter kit | 18.5mm | 7mm, 9mm, 11mm | Katimex | Adapter supplied | 0.22kg |
| 17360 | Probe + adapter kit | 18.5mm | 9mm, 11mm | Mainroad | Adapter supplied | 0.22kg |
| 4033 | Locating probe only | 18.5mm | 7mm, 9mm, 11mm | - | Adapter not included | 0.18kg |

# Packs for duct blockage identification

## Pack 1: Cable-Blitz micro rod + Micro probe V6 33 kHz

**Technical specifications:**
Kit contents:
+ Cable-Blitz micro rod Ø3mm x 30m
+ Micro probe V6 33kHz Ø6.4mm

| PN | Designation | UV |
|----|-------------|-----|
| 19975 | Cable-Blitz micro rod + Micro probe V6 33kHz | Unit |

## Pack 2: SAFE rod + Micro probe V9 33 kHz

**Technical specifications:**
Kit contents:
+ Safe rod Ø4.5mm x 60m
+ Micro probe V9 33kHz Ø9mm

| PN | Designation | UV |
|----|-------------|-----|
| 19975 | SAFE rod + Micro probe V9 33 kHz | Unit |

## Pack 3: SAFE rodd + Probe V18 33kHz

**Technical specifications:**
Kit contents:
+ Safe rod Ø7mm x 100m
+ Probe V18 33kHz Ø18.5mm

| PN | Designation | UV |
|----|-------------|-----|
| 19975 | SAFE rod + Probe V18 33kHz | Unit |

# Cable pulling van kits

## Small vans kit for cable pulling

Our pre-set packs are sold with white painted road cones (PN: 2018).
We can also offer them with Class 1 (PN: 16059) or Class 2 (PN: 6218) reflective strips.

### Package composition version 1:
+ x1 TED® SAFE continuous rod NG Ø7mm lg100m
+ x2 TED® aluminum gateguard
+ x2 AK5 "Works" signs
+ x2 AK3 "narrowed carriageway" work signs
+ x1 manhole lid hammers
+ x2 manhole cover lifting hook
+ x10 road cones

| PN | Designation | Weight |
|---|---|---|
| 13541 | Small van cable pulling kit V1 | 66kg |

### Package composition version 2:
+ x1 TED® SAFE continuous rod NG Ø7mm lg100m
+ x2 TED® aluminum gateguard
+ x2 AK5 "Works" signs
+ x2 AK3 "narrowed carriageway" work signs
+ x2 manhole lid hammers
+ x10 road cones

| PN | Designation | Weight |
|---|---|---|
| 16061 | Small van cable pulling kit V2 | 68kg |

## Large vans kit for cable pulling

Our van pull packs are sold with white raod cones (PN: 2018).
We can also offer them with Class 1 (PN: 16059) or Class 2 (PN: 6218) reflective strips.

### Package composition version 1:
+ x1 TED® MAINROAD continuous rod Ø11mm lg300m
+ x2 TED® aluminum gateguard
+ x2 AK5 "Works" signs
+ x2 AK3 "narrowed carriageway" work signs
+ x2 manhole lid hammers
+ x4 manhole cover lifting hook
+ x10 road cones

| PN | Designation | Weight |
|---|---|---|
| 13542 | Large vans kit for cable pulling V1 | 130kg |

### Package composition version 2:
+ x1 TED® MAINROAD continuous rod Ø11mm lg300m
+ x2 TED® aluminum gateguard
+ x2 AK5 "Works" signs
+ x2 AK3 "narrowed carriageway" work signs
+ x2 manhole lid hammers
+ x10 road cones

| PN | Designation | Weight |
|---|---|---|
| 16062 | Large vans kit for cable pulling V2 | 122kg |

# Customer premise micro rod

## Rods



## Cabletwist rod

TED Cabletwist rod is designed to facilitate the deployment of optical fiber drop cables in house ducts with several bends. Its synthetic composition makes it more flexible and particularly resistant even in the tightest bends. Its twisted monofilament structure enables to significantly reduce the coefficient of friction in the duct.

It also provides an efficient transmission of twisting movements along the length of the rod to get past any blocking points.

### Product benefits:
+ Good compromise between flexibility
+ Twisted structure for a lower friction coefficient

### Technical specifications:
+ Rod diameter: 4mm
+ Length: 30m
+ Robust carry cage



| PN | Model | Weight |
|---|---|---|
| 16608 | Cabletwist rod only | 1.2kg |
| 17386 | Cabletwist rod + pull handle | 1.25kg |
| 37004 | TED® storage pouch for Cabletwist needle accessories | 0.05kg |

## Cable-blitz FTTP micro rod duct rod

TED®

Fibreglass micro rod duct dedicated solution for last mile customer's premise drop cables deployment.

This product's main benefit: its 4mm diameter FTTP-dedicated flexible guide head that makes it an optimal solution for deployments in electric conduits, already occupied with a cable (telecom, video etc.).

The fiberglass pulling rod CABLE-BLITZ from TED® is inspired of telecom engineer's everyday challenges. Designed with a handle to be easily carried in a solid cage that protects the fiberglass rod during interventions and transport.

### Product benefits:
+ 3mm premium fibreglass
+ Dedicated for last miles in house & building deployment
+ Specific tip for occupied duct deployment

### Technical specifications:
+ Rod diameter: 3mm
+ Length: 30m up to 50m
+ Equipped with a specific FTTP 4mm flexible tip
+ Robust carry cage with built in handle

| PN | Model | Weight |
|---|---|---|
| 15536 | Cableblitz micro rod 3mm lg 30m + accessories | 1kg |
| 15924 | Cableblitz micro rod 3mm lg 30m + accessories & gripping tool | 1.05kg |
| 15037 | Cableblitz micro rod 3mm lg 30m + accessories + 30m replacement rod | 1.45kg |
| 6032 | Cableblitz 3mm 30m replacement rod | 0.5kg |

## Nylon thread puller

TED®

High flexibility 3mm nylon rod dedicated for short with a lot of bends for in house customer premise connection & multi dwelling deployment.

### Technical specifications:
+ 6mm end tip
+ Nylon rod
+ Robust carry cage with handle

| PN | Model | Length | Weight |
|---|---|---|---|
| 17464 | Nylon thread puller Ø3mm length 20m | 20m | 0.9kg |

# DUCT CUTTERS & SCORING TOOLS

## Micro duct & duct cutter

### Axial duct cutter for HDPE micro-tube 14mm max

| PN | Designation | Weight |
|---|---|---|
| 1000767 | Axial duct cutter for HDPE micro-tube 14mm max | 0.55kg |

### Axial duct cutter for HDPE micro-tube 28mm max

| PN | Designation | Weight |
|---|---|---|
| 1000768 | Axial duct cutter for HDPE micro-tube 28mm max | 0.70kg |

### Axial duct cutter for tube 64mm max

| PN | Designation | Weight |
|---|---|---|
| 1000769 | Axial duct cutter for tube 64mm max | 0.52kg |

## Micro duct & duct scoring

### 360° rotating pipe cutters Ø26 - 40mm
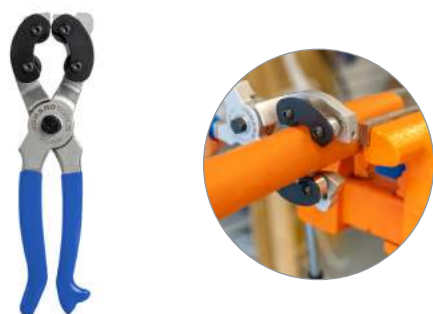
| PN | Designation | Weight |
|---|---|---|
| 1000770 1000774 | 360° rotating pipe cutters Ø26 - 40mm | 0.49kg |

### HDPE circular duct cutter 5 to 16mm

| PN | Designation | Weight |
|---|---|---|
| 1000777 | HDPE circular duct cutter 5 to 16mm (thickness from 1.5mm to 3mm) | 0.2kg |
| 1000776 | HDPE circular duct cutter 5 to 16mm (thickness from 1mm to 1.3mm) | 0.2kg |

# Micro duct & duct slitting

## Longitudinal cutting tool for micro-tube bundle

| PN | Designation | Weight |
|---|---|---|
| 1000766 | Longitudinal cutting tool for micro-tube bundle | 0.18kg |

## Longitudinal ratchet pipe cutter RCS-30

| PN | Designation | Weight |
|---|---|---|
| 1001261 | Longitudinal ratchet pipe cutter RCS-30 | 0.16kg |

## Deburrer for HDPE tubes and micro-tubes

| PN | Designation | Weight |
|---|---|---|
| 1000775 | Deburrer for HDPE tubes and micro-tubes | 0.03kg |

# CABLE BLOWING

## Blowing gun for PVC, TPC & concrete pipes

### Blowing gun for PVC, TPC & concrete pipes

Used to blow a rope into a duct. The end of the gun seals the pipe. The central or lateral part incorporates a passage for the rope, which is attached to the pulling mandrel. Coupled with a compressor, the blowing gun propels the mandrel into the pipe, ensuring the rope deployment.

| PN | Type | Dimensions* | Weight |
|------|---------|------------|--------|
| 0727 | Central | Ø22/24mm | 0.66kg |
| 0416 | Central | Ø25/28mm | 0.63kg |
| 0417 | Lateral | Ø30/33mm | 0.60kg |
| 0729 | Lateral | Ø32/40mm | 0.71kg |
| 0418 | Lateral | Ø42/45mm | 0.71kg |
| 0730 | Lateral | Ø47/50mm | 0.90kg |
| 0419 | Lateral | Ø55/60mm | 0.83kg |
| 0420 | Lateral | Ø75/80mm | 1.11kg |
| 0731 | Lateral | Ø77/80mm | 1.16kg |
| 0732 | Lateral | Ø96/100mm | 1.37kg |
| 0733 | Lateral | Ø103/110mm | 1.47kg |

*Inside/outside pipe diameter

Central blowing gun

Lateral blowing gun

### Blowing gun for PEHD ducts

| PN | Type | Dimensions* | Weight |
|-------|---------|-----------|--------|
| 6708 | Central | Ø21/25mm | 0.88kg |
| 4495 | Central | Ø25/28mm | 0.79kg |
| 13072 | Central | Ø26/32mm | 0.78kg |
| 4496 | Central | Ø27/32mm | 0.78kg |
| 5060 | Central | Ø33/40mm | 0.94kg |
| 1653 | Lateral | Ø41/50mm | 1.01kg |

*Inside/outside pipe diameter

### Blowing gun for PEHD micro ducts
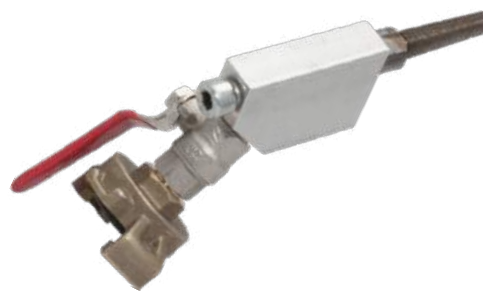
| PN | Type | Dimensions* | Inside pipe Ø acceptable | Weight |
|-------|------------------|-----------|--------------|--------|
| 13799 | Central conical | Ø8/10mm | 8 to 10mm | 0.27kg |
| 11288 | Central | Ø11/14 mm | 11mm | 0.33kg |
| 11229 | Central conical | Ø15/18mm | 13 to 18mm | 0.53kg |

*Inside/outside pipe diameter

## Pulling mandrels for PVC, TPC, & concrete pipes

The blowing mandrels are propels by compressed air into ducts. Each mandrel features a ring used to fix the rope. A calibration mandrel or a lubricant guide ball can also be fixed to this ring.

| | | | | |
|---|---|---|---|---|
| Pulling mandrel (with front & back ring) | Pulling mandrel | Ball type pulling mandrel | Leather mandrel | Ball type lubricant mandrel |

**Pulling mandrel (straight & ball type):**
+ Up to 600m blowing distance
+ Max pressure 6 bars

**Leather mandrels:**
+ Leather sides: help to limit the friction into the pipe
+ Up to 600m blowing distance

**Ball type lubricant mandrel:**
+ Their metallic structure enable to go trought duct blockage easier
+ More robust than a classic guiding ball type, they ensure a better duct cleaning & lubrication

| PN | Type | Dimensions* | Pipe type | Weight |
|---|---|---|---|---|
| 0405 | Ball type pulling mandrel | Ø25/28mm | | 0.02kg |
| 0743 | Ball type pulling mandrel | Ø30/33mm | | 0.03kg |
| 0744 | Ball type pulling mandrel | Ø42/45mm | | 0.07kg |
| 0745 | Ball type pulling mandrel | Ø55/60mm | | 0.11kg |
| 0746 | Ball type pulling mandrel | Ø75/80mm | | 0.19kg |
| 0760 | Pulling mandrel (with front & back ring) | Ø30/33mm | | 0.03kg |
| 0761 | Pulling mandrel (with front & back ring) | Ø42/45mm | PVC, TPC, concrete | 0.15kg |
| 0762 | Pulling mandrel (with front & back ring) | Ø55/60mm | | 0.22kg |
| 0763 | Pulling mandrel (with front & back ring) | Ø75/80mm | | 0.34kg |
| 0406 | Pulling mandrel | Ø30/33mm | | 0.03kg |
| 0407 | Pulling mandrel | Ø42/45mm | | 0.14kg |
| 0408 | Pulling mandrel | Ø55/60mm | | 0.16kg |
| 0409 | Pulling mandrel | Ø75/80mm | | 0.29kg |
| 11287 | Leather mandrels | Ø11/14mm | | 0.02kg |
| 10938 | Leather mandrels | Ø15/18mm | | 0.02kg |
| 1823 | Leather mandrels | Ø21/25mm | | 0.02kg |
| 4499 | Leather mandrels | Ø25/28mm | PEHD Tube | 0.03kg |
| 4500 | Leather mandrels | Ø26/32mm | | 0.04kg |
| 4501 | Leather mandrels | Ø33/40mm | | 0.04kg |
| 2442 | Leather mandrels | Ø41/50mm | | 0.13kg |
| 6355 | Ball type lubricant mandrel | Ø33/40mm | | 0.04kg |
| 5054 | Ball type lubricant mandrel | Ø42/45mm | PVC, TPC, concrete | 0.1kg |
| 11195 | Ball type lubricant mandrel | Ø55/60mm | | 0.12kg |
| 5056 | Ball type lubricant mandrel | Ø75/80mm | | 0.31kg |

*Inside/outside pipe diameter*

## Foam ball



Foam balls enables multiple applications. Mainly used to clean & lubricate ducts, they also help to identify duct blocages prior to any cable or rope blowing.

| PN | Dimensions* | Weight |
|---|---|---|
| 10170 | Ø25/28mm | 0.01kg |
| 10171 | Ø30/33mm | 0.01kg |
| 10172 | Ø33/40mm | 0.01kg |
| 10173 | Ø41/50mm | 0.02kg |
| 10174 | Ø42/45mm | 0.02kg |
| 10176 | Ø55/60 mm | 0.05kg |
| 10180 | Ø75/80mm | 0.08kg |
| 10182 | Ø96/100mm | 0.14kg |

*Inside/outside pipe diameter*

# Duct calibration

## Calibration mandrels

Calibration mandrels are used to check inside duct diameters & prevent any crush. They come along with pulling mandrels & enable a 2 in 1 solution: calibration + rope pulling at the same time.



Calibration mandrel for PVC, TPC, concrete ducts



Calibration mandrels for HDPE ducts

| PN | Dimensions* | Inside pipe Ø | Ø center disk | Pipe type | Weight |
|---|---|---|---|---|---|
| 0410 | Ø25/28mm | 25mm | 22mm | | 0.04kg |
| 0411 | Ø30/33mm | 30mm | 27mm | | 0.05kg |
| 0412 | Ø42/45mm | 41.4mm | 38mm | PVC, TPC, concrete | 0.14kg |
| 0413 | Ø55/60mm | 56mm | 50mm | | 0.16kg |
| 0414 | Ø75/80mm | 75mm | 70mm | | 0.32kg |
| 5069 | Ø27/32mm | 27mm | 24mm | | 0.05kg |
| 1042 | Ø33/40mm | 32.6mm | 28mm | PEHD Tube | 0.05kg |
| 2443 | Ø41/50mm | 40.8mm | 36mm | | 0.16kg |

*Inside/outside pipe diameter
Please refer to the recipe booklet to qualify the sizes. Consult us for other sizes.

# Cable blowing trought ocuppied pipes

## Blowing rope kit trought occupied PVC ducts

Used to blow rope into PVC ducts with cables already deployed. Max distance up to 300m, suitable for ducts of 45mm, 60mm, 80mm.

### Kit details:
+ 3 set of ocuppied duct type of pulling mandrels (45mm, 60mm, 80mm)
+ 1 blowing gun to be equipped with end connectors
+ 3 end connectors (45mm, 60mm, 80mm)
+ 1 adaptor for the 45mm end connector assembly



Blowing rope kit trought occupied PVC ducts

| PN | Designation | Weight |
|---|---|---|
| 0738 | Blowing rope kit trought occupied PVC ducts | 3.74 kg |

| PN | Designation | Dimensions* | Weight |
|---|---|---|---|
| 2518 | Blowing mandrel for ocuppied duct | Ø42/45mm | 0.08kg |
| 2519 | Blowing mandrel for ocuppied duct | Ø55/60mm | 0.16kg |
| 2520 | Blowing mandrel for ocuppied duct | Ø75/80mm | 0.20kg |
| 5216 | Blowing gun for ocuppied ducts | Ø42/45mm | 0.78kg |

*Inside/outside pipe diameter



Blowing mandrel for ocuppied duct



Blowing gun for ocuppied ducts

# Parachute blowing mandrel

2 in 1 solution to be blown in empty or ocuppied PVC pipes & HDPE ducts. In addition a swivel installed between the parachute & the rope is strongly recommanded to prevent any torsion in the duct & limit any rope jaming knots.



## Parachute blowing mandrel

TED®
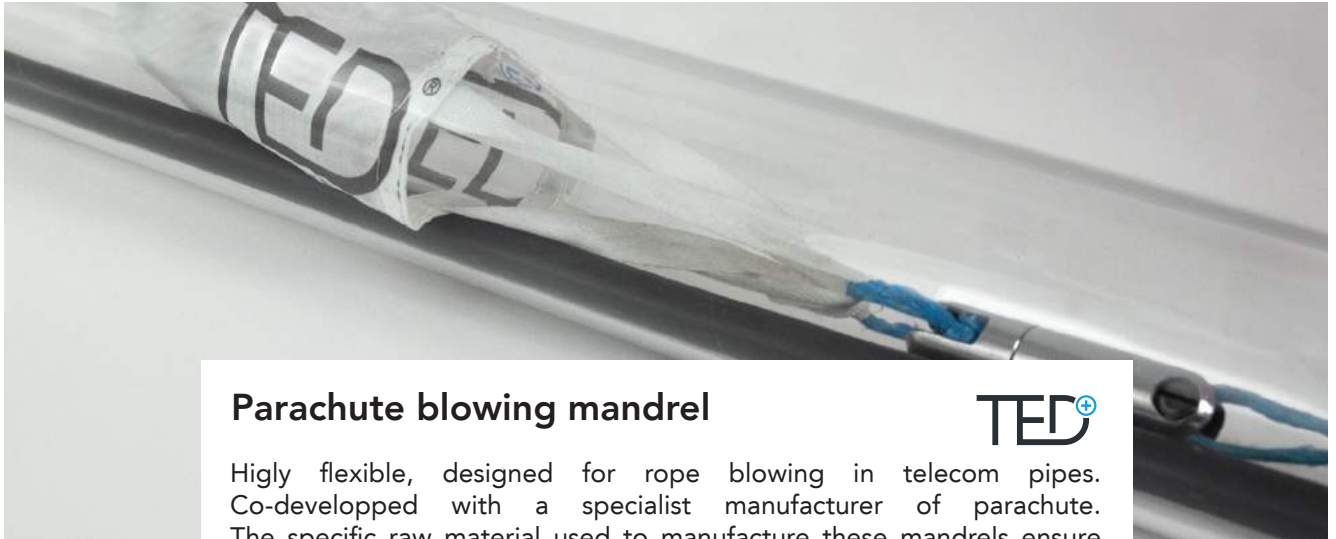
Higly flexible, designed for rope blowing in telecom pipes. Co-developped with a specialist manufacturer of parachute. The specific raw material used to manufacture these mandrels ensure a very lightweight & flexible structure to go trought any obstacle (duct crush, cable). Up to 800m blowing distance.

### Product benefits:
+ Lightweight & air blowing capacity
+ Suitable for empty or ocuppied ducts
+ Fully textile materail with none rigid component that could become a point of friction & result in a blockage
+ Wide range of use

| PN | Designation | Inside pipe Ø | U.V | Weight |
|----|-------------|---------------|-----|--------|
| 37000 | Parachute blowing mandrel TED® - Size 1 | from 20 to 60mm | Lot of 3 | 0.001kg |
| 37001 | Parachute blowing mandrel TED® - Size 2 | from 60 to 150mm | Lot of 2 | 0.002kg |

## Nylon blowing mandrel



Made with a thick nylon structure, they offer a good compromise between rigid & flexible blowing mandrels.

| PN | Designation | Weight |
|----|-------------|--------|
| 90173 | Nylon blowing mandrel 19mm | 0.01kg |
| 90174 | Nylon blowing mandrel 25mm | 0.01kg |
| 90345 | Nylon blowing mandrel 38mm | 0.02kg |
| 90175 | Nylon blowing mandrel 51mm | 0.04kg |
| 90176 | Nylon blowing mandrel 76mm | 0.05kg |
| 11239 | Nylon blowing mandrel 102mm | 0.05kg |
| 11235 | Nylon blowing mandrel 127mm | 0.06kg |
| 11240 | Nylon blowing mandrel 153mm | 0.08kg |

## Swivels

TED®



Essential to avoid any torsion of the cables and ropes while they're being deployed. Installation at the end of the mandrels, they enable to reduce the risk of rope jaming knots

| PN | Designation | Weight |
|----|-------------|--------|
| 0866 | Swivels TED® Ø16mm | 0.06kg |
| 1055 | Swivels TED® Ø18mm | 0.07kg |
| 1056 | Swivels TED® Ø26mm | 0.19kg |
| 1057 | Swivels TED® Ø30mm | 0.49kg |
| 1058 | Swivels TED® Ø36mm | 0.74kg |

# DRUM HANDLING

## Expert's advice

### How to choose the suitable solution to proceed with telecom cable unwinding

A fiber optic cable is very sensible, it's has to be handled with care to ensure the network quality & prevent any damage to the fiber. It is then ve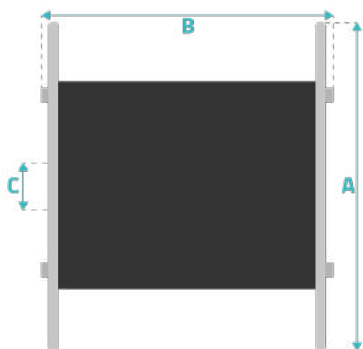ry important to choose the dedicated drum handling solution depending of the drum specification & the condition in which it will be used.

#### A WELL-SIZED SOLUTION

If it's undersized or oversized, blockage risks are high. Risks are not only a speed slow down, but it could also generate major tensions on the cable. It's then mandatory to check for each project that the drum dimensions will be compatible with the capacity of the drum roller.

- (A) Height of the drum: For the drum roller, it has to be adapted to the distance between the front & rear rollers. For drum jacks, to their lifting height.
- (B) Width of the drum: Ensures that the roller's width or the lenght of the bar is well calibrated. It is strongly recommended to keep enough margin so that the drum will not touch the sides.
- (C) The axis hole: In the case of axis unwinding, it has to be compatible with the diameter of the bar which support the drum.

#### A SOLUTION ADAPTED TO THE DRUMS QUALITY

Drum's sides can become fragile and no longer able to support the drum's weight. Solutions with "roller" will then no longer be suitable.

**Caution: Drums made with metal edge or straps are not compatible with an aluminium roller. Because of the raw material, aluminium rollers will quickly be damaged.**

#### A SOLUTION ADAPTED TO THE PURPOSE

When used in a warehouse to unwind cables regarding worksite needs, the solution is fixed in a controlled environment and installed on a flat floor. There is no major limits/risks in this configuration, then most of the solutions are suitable. Therefore, when the unwinding takes place on the worksite, conditions are way more difficult because it's not a controlled envrionment for the engineers. The floor could be uneven, loose or sloping. It also mandatory then to be able to move the solution along with worksite progress.

| Backbone, transport, distribution networks | |
|---|---|
| SOLUTION | IN INTERVENTION? |
| Cable roll-off rails | **Yes absolutely** <br> This type of roller is quite easy to install & robust. This solution will meet most of the requierments. |
| Drum jacks | **Yes if needed** <br> Particularly convinient to compensate grounds levels. Jacks has to be installed on a flat surface, then their use on worksite is not really relevant. |
| Trailer | **Recommended** <br> The trailer is ideal for worksite in mobility. The drum is secure on the trailer, to ensure engineer's safety. But, it's quite bulky & heavy, really convinient for big & heavy drums. |

| Customer connection & last mile access | |
|---|---|
| SOLUTION | IN INTERVENTION? |
| Cable drum roller | **Yes absolutely** <br> This type of roller is quite easy to install & robust. This solution will meet most of the requierments. |
| Non hydraulic jacks | **Yes if needed** <br> Vertical type of jacks enable to deal with a large range of drums. It's more suitable for indoor cable deployment because of the unwinding direction. |
| Foldable & compact drum roller | **Recommended** <br> Strongly recommanded for customer connection engineers. Hence it's super easy to carry, it enables to save a lot of time. Even if the edge of the drum are damaged, this type of roller using the main axis could still be suitable for a safe use. |

# Drum jacks

## Hydraulic & non hydraulic drum jacks

These solutions are a suitable alternative to trailers for difficult outdoor worksite to access, and even more suitable for indoor warehouse cable pre-cut. The independently height-adjustable jacks allow installation surface with different ground levels. In addition to the Drum jacks there is a set of mandatory accesories to ensure a safe use : a support bar + locking ties.

**Pair**



PN: 10372        PN: 4581 & 4583        PN: 1001179

**Pack**



PN: 19008 & 19009

| PN | Designation | UV | Weight |
|---|---|---|---|
| 10372 | Hydraulic drum jacks Ø1100 - 1600mm up to 4T | Pair | 32kg |
| 4581 | Hydraulic drum jacks Ø800 - 2200mm up to 10T | Pair | 106kg |
| 4583 | Hydraulic drum jacks Ø800 - 3200mm up to 10T | Pair | 126kg |
| 19008 | Support bar - Ø51mm Lenght 1500mm + locking ties for hydraulic jacks up to 3T | Pack | 16kg |
| 19009 | Support bar - Ø76mm Lenght 1850mm + locking ties for hydraulic jacks up to 8T | Pack | 42kg |
| 1001179 | Non hydraulic drum jacks TED® Ø1100mm - 1700mm up to 1.6T | Pair | 13.6kg |

| | PN: 10372 | PN: 4581 | PN: 4583 | PN: 1001179 |
|---|---|---|---|---|
| Permissible spindle Ø | 1100-1600mm | 800-2200mm | 800-3200mm | 1100 - 1700mm |
| Max. support bar Ø | | 76mm | | 55mm |
| Lifting capacity | 4 tons | 10 tons | 10 tons | 1.6 tons |
| Footprint | 400x200mm | 540x455mm | 540x455mm | 400x200mm |
| Height (folded) | 625mm | 1100mm | 1695mm | 635mm |
| Number of adjustment steps | 3 | 7 | 13 | - |
| Weight | 2 x 16kg | 2 x 53kg | 2 x 63kg | 2 x 13.6kg |

# Drum rollers

## Cable roll-off rails

Used in pairs, they adapt to all reel widths.
All models are equipped with a brake system for easy and safe loading and unloading.

### Steel cable roll-off rails Ø1650mm



| PN | Material | Touret | | UV | Weight |
|---|---|---|---|---|---|
| | | Ø max. | Weight max. | | |
| 3945 | Steel | 1650mm | 1500kg | Pair | 22kg |

### Cable roll-off rails Ø1200mm



| PN | Material | Touret | | UV | Weight |
|---|---|---|---|---|---|
| | | Ø max. | Weight max. | | |
| 1001177 | Alu | 1200mm | 1000kg | Pair | 16kg |

## Adjustable cable rails for drum up to Ø1.65m

TED®

TED® adjustable cable roller rail offers versatility of the drum roller. Equipped with 2 stabilisation bars to unify each roller. This configuration is really handy to keep a paralel position while the drum is positonned on the cable roller & then unwinded. Rollers are set with 3 different positions which ensure a wide range of drums.

### Product benefits:
+ No tools to adjust each roller position
+ One man job (18kg per roller, bar included)
+ Versatile: From 600mm to 1650mm drums diameter
+ Safety: Cable rollers will remain parallel & stable while the drums are loaded & unloaded.

| PN | Material | Touret Ø min.-max. | Touret Width max. | Touret Weight max. | Weight |
|---|---|---|---|---|---|
| 37003 | Steel | 600-1650mm | 1095mm | 2500kg | 36kg |

## Cable drum roller

One-piece drum roller. Sturdy, welded frames. Placed on the ground, they are immediately operational.

### Ø700mm cable drum roller

| PN | Touret Ø max. | Touret Width max. | Touret Weight max. | Weight |
|---|---|---|---|---|
| 1000851 | 700mm | 500mm | 200kg | 9.8kg |

### Ø1200mm cable drum roller

| PN | Touret Ø mini.-max. | Touret Width max. | Touret Weight max. | Weight |
|---|---|---|---|---|
| 4326 | 600-1200mm | 735mm | 1200kg | 28kg |

# Foldable drum & rope dispenser

Foldable and equipped with wheels, they facilitate reel handling on site and between sites. Suitable for handling drums with damaged flanges.

## Foldable and mobile dispenser for drum & drawrope up to Ø570mm

TED⊕

Particularly practical for deployments in moderately to sparsely populated areas (peri-urban areas and countryside). It saves time during deployments by ensuring the fluidity of the unwinding of the cable, and during travel, all without taking up space in the vehicle.

**Product benefits:**
+ Cost-efficient solution
+ Lightweight & compact
+ Adjustable handle strap

| PN | Ø max. | Width max. | Weight max. | Dimensions | Weight |
|---|---|---|---|---|---|
| | | Touret | | | |
| 1001382 | 570mm | 440mm | 45kg | 700x530x50mm | 4.2kg |

## Expert's advice

### Drum's storage

After 1st use, storage of the drum in a vertical position could either damage the flasque, and/or results un issues while unwinding the cable.

We strongly recommand to proceed with horizontal storage. This position prevent water stagnation on the flasque & unregular deformation.
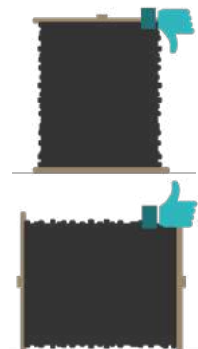
# Swivels

## Ball swivels

TED®

Ball swivels prevent twisting of the deployed elements during the pulling/unwinding phase. Mounted at the rear of the mandrels, they limit the risk of knots when pneumatically switching with the pull string.
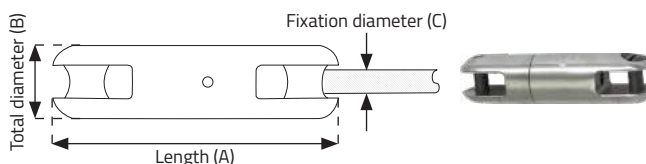


| PN | Designation | total Ø (B) | Length (A) | Ø fixation (C) | CMU* (daN) | CMR** (daN) | Weight |
|----|-------------|-------------|------------|----------------|------------|-------------|--------|
| 0866 | TED® Ball swivels Ø16mm | 16mm | 64mm | | 330 | 1 000 | 0.06kg |
| 1055 | TED® Ball swivels Ø18mm | 18mm | 60mm | 9mm | 350 | 1200 | 0.07kg |
| 1056 | TED® Ball swivels Ø26mm | 26mm | 85mm | 14mm | 750 | 2500 | 0.19kg |
| 1057 | TED® Ball swivels Ø30mm | 30mm | 140mm | 13mm | 2000 | 7200 | 0.49kg |
| 1058 | TED® Ball swivels Ø36mm | 36mm | 156mm | 16.3mm | 5000 | 12000 | 0.74kg |

* Maximum working load
**Minimum breaking load

# Shackle

## Straight shackle with bolt

Its smooth bolt facilitates passage through pipes. This shackle is ideal for connecting a pulling needle to a cable puller, for example.

**Technical specifications:**
+ CMU: 260 daN
+ CMR: 400 daN

| PN | Designation | Weight |
|----|-------------|--------|
| 12573 | Straight shackle with countersunk screw bolt Ø10mm | 0.08kg |

# Roller cable guide

## Roller cable guide

Solution to prevent friction damage on the cable prior to get into the duct. Made of galvanized steel with a polyamide roller.

**Technical specifications:**
+ Length: 330mm

| PN | Designation | Weight |
|----|-------------|--------|
| 1059 | Roller cable guide Ø25-28mm | 0.71kg |
| 1060 | Roller cable guide Ø30-33mm | 0.77kg |
| 1061 | Roller cable guide Ø42-45mm | 0.88kg |
| 1062 | Roller cable guide Ø55-60mm | 0.99kg |
| 1063 | Roller cable guide Ø75-80mm | 1.82kg |

## Expert's advice

### Cable pulling: How to avoid friction
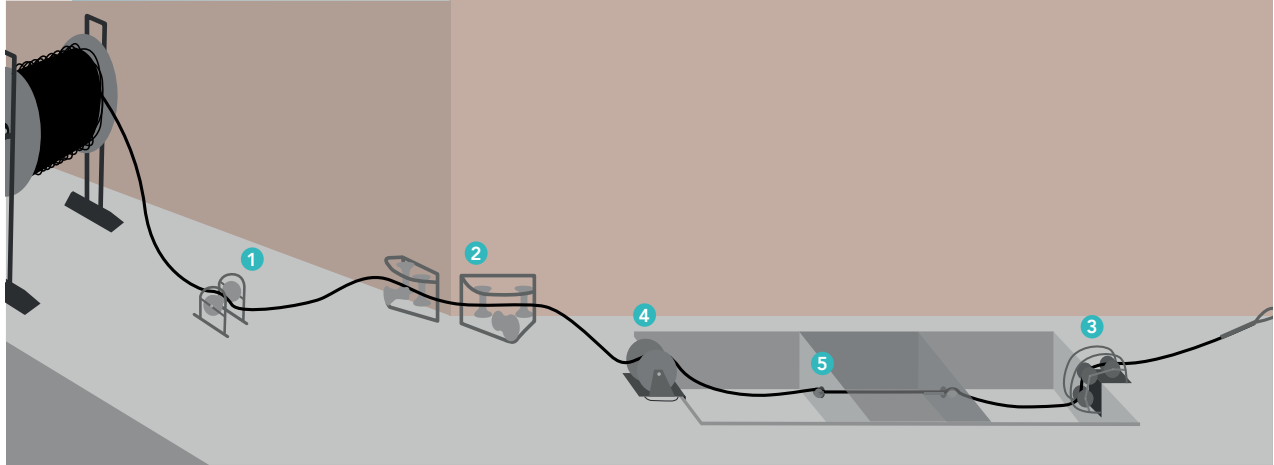


Often neglected. Cable guides are essential to limit any damage on the cable due to friction prior to be deployed in the ducts. Less friction is also a key to reduce all efforts to pull the cable.

**Straight** ① They make it easier ton unwind and advance the cable along the worksite preventing it from ground friction.

**Angles** ② they allow you to negotiate building corners (on the surface) and changes of direction (in trenches).

**3 pulleys** ③ or **steerable** ④ they prevent abrasion on the edge of the chamber or when lowering into trenches.

Finally, **cable rollers** ⑤ are essential to guide the cable into the conduit and prevent wear caused by the edge of the sheath.



# Cable rollers

### Triple cable roller

A triple cable roller equipped with 3 rollers designed to be placed at the manhole edge.



### Swiveling Edge Roller TED®

Cable laying roller fit for all installations of 80mm cables & ropes in manholes entrance. Running roller made of galvanized steel mounted on shielded ball bearing 360° pivotable. This tool ensures a non-damaging deployment of the cable outer jacket & its content (fibre, copper & aluminium strand).



### Corner cable roller

A heavy duty cable roller for pulling the heaviest cables around difficult corners. The unit consists of a heavy duty frame with two vertical and one horizontal steel rollers.



### Straight line cable roller TED®

Cable laying ground roller for all underground deployment of Ø135mm cables & ropes. This tool ensures a non-damaging deployment of the cable outer jacket & its content (fibre, copper & aluminium strand). Designed with a robust long-life galvanized steel frame.



| PN | Model | Material | Maximum cable diameter | Dimensions | Weight |
|---|---|---|---|---|---|
| 1068 | Triple cable roller | Galvanized steel | 120mm | 530 x 430 x 230mm | 11.8kg |
| 1000852 | Swiveling Edge Roller TED® | Galvanized steel | 80 mm | 300 x 245 x 150mm | 5.9kg |
| 1065 | Corner cable roller | Galvanized steel | 140 mm | 600 x 280 x 260mm | 10.4kg |
| 1000850 | Straight line cable roller TED® | Galvanized steel | 135 mm | 300 x 240 x 250mm | 3.6kg |

# Cable drum trailer

## Site uncoiler

Ideal solution for itinerant jobsites.
A range of robust trailers with finishes designed for the field: captive parts, automatic axle locking for drums, lighting on silentblocs and protected to prevent breakage when maneuvering, metal-reinforced jockey wheel as standard*.
*from 750kg model upwards

**Product benefits:**
+ Full hot-dip galvanizing
+ Suspended axle
+ Quality finishes


PN 1106


PN 6028


PN 1108


PN 3120


PN 2691

## Expert's advice

### What license do you need to tow trailer?

Towing a trailer is all a question of GVW*! The license class depends on the GVWR of the towing vehicle + trailer**.

**PTAC ≤ 3500kg**



**B license**

**PTAC >3500 kg ≤ 4250kg**



**B license + 7-hour training**

**PTAC >4250kg**



**BE license**
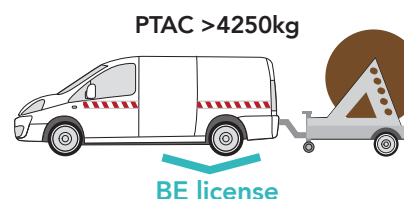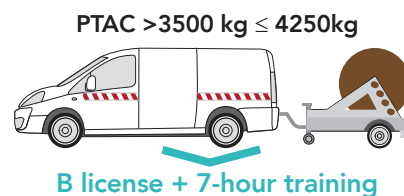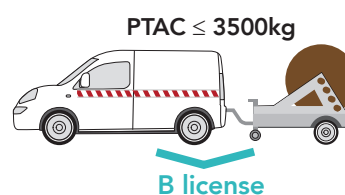
*The GVW or Gross Vehicle Weight Rating represents the total weight that a loaded road vehicle must not exceed. On the vehicle registration document, the GVW is indicated in kilograms in box F.1.
** The trailer's GVW must be less than or equal to the unladen weight of the towing vehicle.*

| | Cable drum 0T5 PN: 1106 | Cable drum 0T750 PN: 6028 | Cable drum 0T750 PN: 1108 | Cable drum 2T PN: 3120 | Cable drum 2T5 PN: 2691 |
|---|---|---|---|---|---|
| Weight | 105kg | 320kg | 380kg | 640kg | 680kg |
| PTAC | 520kg | 750kg | 1400kg | 2000kg | 2500kg |
| Useful load | 395kg | 430kg | 1020kg | 1360kg | 1820kg |
| Max. permissible drum Ø | 1.40m | 1.65m | 1.65m | 2.60m | 2.60m |
| Max. permissible drum width | 0.8m | 1.25m | 1.25m | 1.32m | 1.32m |
| Loading unloading | By tilting | Hydraulic beam | Hydraulic beam | Hydraulic beam | Hydraulic beam |
| Tiller height adjustment | Manual | Crank assistance | Crank assistance | Crank assistance | Crank assistance |
| Dimensions (overall) LxW | 1.60x2.80m | 1.95x3.50m | 1.95x3.50m | 2.09x3.50m | 2.09x3.50m |

# Tooling

## Overhead networks

# POLE BRACKET INSTALLATION

## Stainless steel band & buckles



### Stainless steel band

**Product benefits:**
+ 3 stainless steel grades available: AISI 201 / AISI 304 / AISI 430
+ Strip deburred
+ Recyclable, ergonomic dispenser

Characteristics of the different grades available:

| Grades | Symbolic designation | Resistance tensile strength (N/mm2) | Elongation at break | Complies with specifications |
|--------|---------------------|-------------------------------------|---------------------|------------------------------|
| AISI201 | X12CrMnNiN17-7-5 | 750 to 950 | 45% min | ENEDIS/ORANGE |
| AISI304 | X5CrNi18-10 | 540 to 750 | 45% min | ENEDIS/ORANGE |
| AISI430 | X6Cr17 | 450 to 600 | 20% min | - |

Stainless steel band 50m (sold in boxes of 5 rolls)

| Designation | Model | PN | PN | PN |
|-------------|-------|-----|-----|-----|
| Stainless steel band 20 x 0.7mm | SB207 | 0341 | 5729 | 0038 |
| Stainless steel band 20 x 0.4mm | SB204 | 6618 | 6582 | 0037 |
| Stainless steel band 20 x 0.4mm brown | SB204M | - | 1774 | - |
| Stainless steel band 10 x 0.7mm | SB107 | 0343 | 6661 | 0040 |
| Stainless steel band 10 x 0.4mm | SB104 | 8403 | 0349 | 0039 |

Stainless steel band 30m (Sold in boxes of 5 rolls)

| Designation | Shade Model | AISI 201 PN | AISI304 PN |
|-------------|-------------|-------------|------------|
| Stainless steel band 3/4" x 0.03" | SB207S | 0327 | 4525 |
| Stainless steel band 5/8" x 0.03" | SB167S | 1867 | 8404 |
| Stainless steel band 1/2" x 0.03" | SB137S | 8405 | 1868 |
| Stainless steel band 1/2" x 0.016" | SB134S | 4524 | 8258 |
| Stainless steel band 3/8" x 0.03" | SB107S | 1869 | 8406 |

# Banding accessories

## Standard buckles



B10    B20    B20M

Buckles for stainless steel band.

| PN | Model | Width | U.V | Weight |
|---|---|---|---|---|
| 0046 | B10 | 10mm | Bag of 100 | 0.22kg |
| 0047 | B20 | 20mm | Bag of 100 | 0.60kg |
| 1793 | B20M | 20mm | Box of 100 | 0.60kg |

*B20M: brown color for stainless steel band SB204M

## Reinforced buckles



BIB10    BIB13    BIB16    BIB20

Reinforced buckles for stainless steel band AISI304 grade.

| PN | Model | Width | U.V | Weight |
|---|---|---|---|---|
| 0027 | BIB10 | 10mm - 3/8" | Box of 100 | 0.44kg |
| 4268 | BIB13 | 1/2" | Box of 100 | 0.94kg |
| 5617 | BIB16 | 5/8" | Box of 100 | 1.19kg |
| 0045 | BIB20 | 20mm - 3/4" | Box of 100 | 1.40kg |

## Mesh



25 x 25 Mesh    25 x 25 and 25 x 60 Mesh

Fixing of insulated cable ducts to ENEDIS supports. Hot-dip galvanized steel.

| PN | Dimensions | U.V | Weight |
|---|---|---|---|
| 0217 | 25 x 25mm | Box of 100 | 1.45kg |
| 1024 | 25 x 40mm | Box of 100 | 1.70kg |
| 6807 | 25 x 60mm | Box of 100 | 2.20kg |

## Rubber protective band for steel band



10-meter roll.

| PN | Designation | U.V | Weight |
|---|---|---|---|
| 1265 | For 10mm stainless steel band | Box of 100 | 0.39kg |
| 0870 | For 20mm stainless steel band | Box of 100 | 0.63kg |

# Banding tools

## Banding tools



PN: 0030                                    PN: 0029

| PN | Designation | Weight |
|----|-------------|--------|
| 0030 | Ratchet banding tool | 1.8kg |
| 0029 | Screw type banding tool | 2.2kg |

## Steel band cutting shears



PN: 0028                                    PN: 09082

| PN | Designation | Weight |
|----|-------------|--------|
| 0028 | Steel band cutting shears | 0.42kg |
| 09082 | Steel band cutting shears flat type | 0.56kg |

## Banding tool pack

**Pack composition:**
+ 1 Ratchet or Screw type banding tool (depending on the pack)
+ 1 Steel band cutting shears
+ 1 hammer
+ 1 pair of high protection nitrile palm coated work gloves
+ 1 Storage case for tools



| PN | Designation | Weight |
|----|-------------|--------|
| 13739 | Banding tool pack ratchet type | 3kg |
| 13738 | Banding tool pack screw type | 3.3kg |
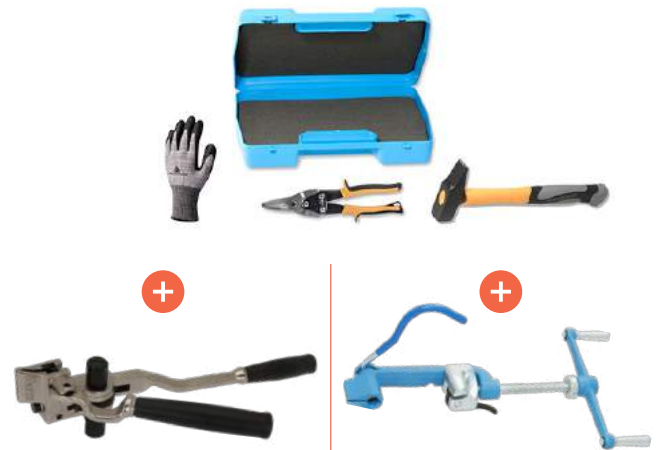
PN: 13739                                    PN: 13738

## Wooden pole probe tester



| PN | Designation | Weight |
|----|-------------|--------|
| 1555 | Wooden pole probe tester | 0.12kg |

# Poles & wall cable capping, fitting & fastening

## Cable fixing bracket on pole

BIC-E50 enables to secure the cable to the pole. Installation each 30mm with 9mm (width) cable ties design (availables in 180, 260, 360mm) depending on the cable cable diameter to fix.

| PN | Model | U.V | Weight |
|------|---------|-----|--------|
| 0386 | BIC-E50 | 100 | 0.01kg |
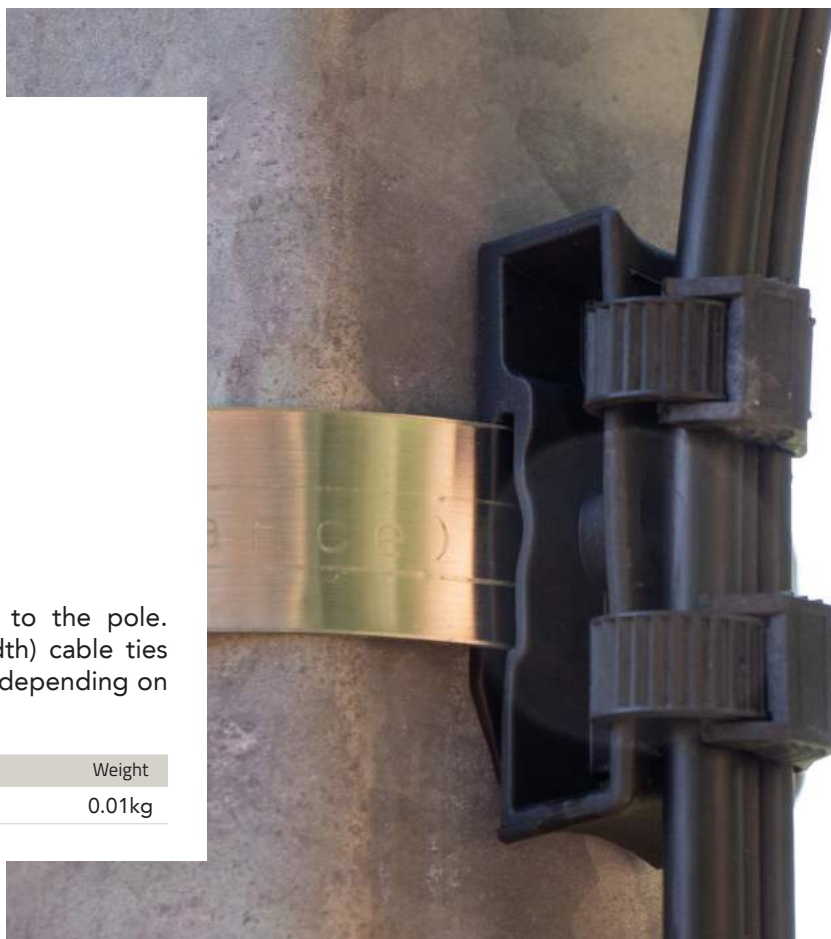
## PVC Cable capping for poles

| PN | Model | Diameter | Length | Color | | U.V | Weight |
|-------|------------|-----------|--------|---|-------|-----|--------|
| 2063 | GPC12 | 12mm | 2m | | Grey | 20 | 0.36kg |
| 2064 | GPC12l | 12mm | 2m | | Ivory | 20 | 0.36kg |
| 2615 | GPC35 | 35mm | 2.75m | | Grey | 10 | 1.03kg |
| 0053 | GPC35l | 35mm | 2.75m | | Ivory | 10 | 1.03kg |
| 0052 | GPC35M | 35mm | 2.75m | | Brown | 10 | 1.03kg |
| 2616 | GPC60 | 60mm | 2.75m | | Grey | 10 | 1.88kg |
| 0056 | GPC60l | 60mm | 2.75m | | Ivory | 10 | 1.88kg |
| 0055 | GPC60M | 60mm | 2.75m | | Brown | 10 | 1.88kg |
| 0057 | GPC90 | 90mm | 2.75m | | Grey | 5 | 2.00kg |
| 0059 | GPC390l | 90mm | 2.75m | | Ivory | 5 | 2.00kg |
| 0058 | GPC90M | 90mm | 2.75m | | Brown | 5 | 2.00kg |
| 0060 | GPC120 | 120mm | 2.75m | | Grey | 5 | 3.00kg |
| 0062 | GPC120l | 120mm | 2.75m | | Ivory | 5 | 3.00kg |
| 0061 | GPC120M | 120mm | 2.75m | | Brown | 5 | 3.00kg |
| 1556 | GPC140x50 | 140 x 50mm | 2.75m | | Grey | 5 | 3.00kg |
| 09535 | GPC140x50M | 140 x 50mm | 2.75m | | Brown | 5 | 3.00kg |

# CABLE PULLING

## Pulleys



Height pulley (**D**)

Diameter inside pulley (**C**)

Outside diameter (**B**)
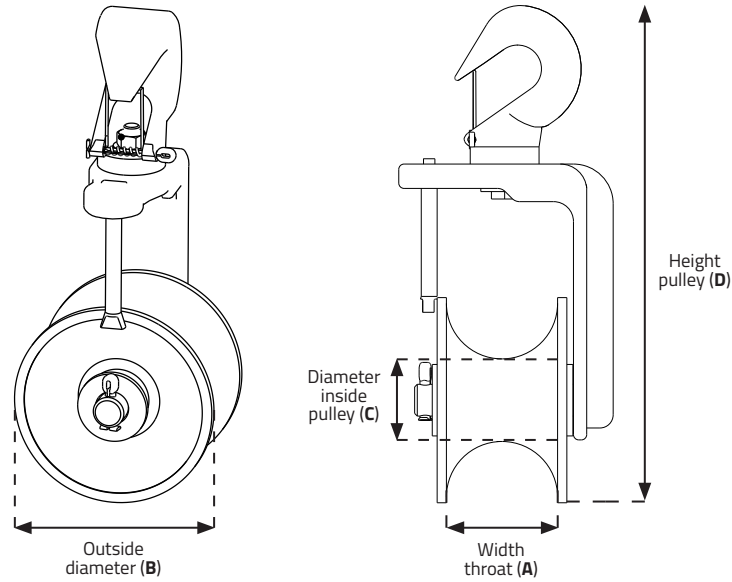
Width throat (**A**)

| | PN | Designation | CMU* (daN) | Max. range | Width throat (A) | Pulley outside diameter (B) | Pulley inside diameter (C) | Overall height (D) | Weight |
|---|---|---|---|---|---|---|---|---|---|
| | 0114 | Swivelling pulley RO150 | 150 | 70m | 42mm | 77mm | 30mm | 178mm | 0.4kg |
| | 7638 | Straight pulley RO200 | 200 | 70m | 28mm | 150mm | 90mm | 297.5mm | 0.95kg |
| | 6815 | Straight pulley RO500 | 500 | 150 m | 27mm | 247mm | 188mm | 395mm | 2kg |
| | 0115 | Straight pulley RO800 | 800 | 180 m | 62mm | 245mm | 128mm | 455mm | 3.3kg |

* Maximum payload

# POLE INSTALLATION TOOLS

## Poles jack

### Jacks

#### Hydraulic jack pole remover

| PN | Designation | Weight |
|---|---|---|
| 1226 | 10 Tons Hydraulic jack pole remover + jack pole chain | 82kg |

#### Hydraulic jack pole remover

| PN | Designation | Weight |
|---|---|---|
| 8397 | 5 Tons Hydraulic jack pole remover + jack pole chain | 32kg |

## Digging auger & Pinch point crow bar

### Digging auger

| PN | Designation | Weight |
|---|---|---|
| 1230 | Digging auger 1m + 1m extension lead | 7.62kg |
| 1231 | 1m extension lead | 2.61kg |

### Pinch point crow bar

LEBORGNE®

**Product benefits:**
+ High resistance: Forged tool for an enchanced durability
+ Ergonomics: octagonal cross-section for a better grip
+ Efficiency: diamond-sharpened tip for better ground penetration

| PN | Designation | Weight |
|---|---|---|
| 19038 | Pinch point crow bar LEBORGNE - Lenght 2m - Ø25mm | 7.7kg |

### Half-moon punner

| PN | Designation | Weight |
|---|---|---|
| 0585 | 2m half-moon punner | 9.78kg |

TED®

| PN | Designation | Weight |
|---|---|---|
| 1000511 | TED® Pinch point crow bar 1.50m lenght | 8.30kg |
| 1000512 | TED® Pinch point crow bar 2m lenght | 17kg |
| 1000513 | TED® Pinch point crow bar 2.50m lenght | 13kg |

# Tooling

## Mobile networks

# PPE

## Fall arrest solutions

### AVAO BOD FAST Harness

**Product benefits:**
+ Leg loops equipped with FAST LT buckles for quick and easy fastening and unfastening without loss of adjustment, even while wearing gloves

**Technical specifications:**
+ Fall arrest harness, suitable for work-positioning and suspension harness is designed for greater comfort in all situations. Features, ventral, lateral, sternal, dorsal, rear attachment points.
+ EN 358:2000         + EN 813:2008
+ EN 361:2002

| PN | Size | Weight |
|---|---|---|
| 13155 | T0 | 2.3kg |
| 13615 | T1 | 2.4kg |
| 14466 | T2 | 3.0kg |

### ASTRO BOD FAST Harness

**Product benefits:**
+ With an integrated CROLL L ventral rope clamp

**Technical specifications:**
+ Fall arrest harness, suitable for work-positioning and suspension harness is designed for greater comfort in all situations. Features, ventral, lateral, sternal, dorsal, rear attachment points.
+ EN 358:2000         + EN 813:2008
+ EN 361:2002         + EN 12841:2006

| PN | Size | Weight |
|---|---|---|
| 15550 | T0 | 1.9kg |
| 14414 | T1 | 1.9kg |
| 14725 | T2 | 1.9kg |

*Solutions Petzl pour le travail sur pylônes et antennes – © 2019 - Petzl Distribution - James Roh

## PETZL TOWER SOLUTIONS*

Working on an aerial requires specific skills and and the right equipment. Petzl puts all its expertise expertise to carry out your missions by providing you with the best equipment to get the job done. Demonstration with this team from EasTex Tower during a maintenance operation on a mobile networks antenna in Colorado Springs, Colorado, USA.

Solution for working on masts including a VERTEX VENT HI-VIZ helmet VERTEX VENT HI-VIZ, a harness VOLT harness, a fall arrest lanyard ABSORBICA-Y and a GRILLON HOOKa GRILLON HOOK lanyard.
www.petzl.com

Access the inaccessible®

# ANTENA HANDLING

## Winch & pulleys

### Slide for Söll rail

**Technical specifications:**
+ EN 353-1:2014+A1:201

| PN | Model | Weight |
|---|---|---|
| 14014 | Slide for Söll rail | 1kg |

### Söll VR500 fall-arrest device

**Technical specifications:**
+ EN 353-1:2014+A1:2017

| PN | Model | Weight |
|---|---|---|
| 19047 | Söll VR500 fall-arrest device | 0.9kg |

### Strap ring + energy absorber

**Technical specifications:**
+ Supplied without carabiner

| PN | Length | Weight |
|---|---|---|
| 0965 | 80cm | 0.3kg |

### ASAP'SORBER AXESS Energy absorber for ASAP & ASAP LOCK

PETZL

**Technical specifications:**
+ Materials: polyamide and polyester
+ Load capacity: 250kg
+ EN 355:2002

| PN | Length | Weight |
|---|---|---|
| 17786 | 40cm | 0.2kg |

### ASAP'SORBER Energy absorber for ASAP & ASAP LOCK

PETZL

**Technical specifications:**
+ Materials: polyamide and polyester
+ Load capacity (20cm model): 50 to 130kg
+ Load capacity (40cm model): 250kg
+ EN 355:2002

| PN | Length | Weight |
|---|---|---|
| 17788 | 20cm | 0.1kg |
| 17789 | 40cm | 0.1kg |

## Expert's advice

### The air gap

The air gap is the height required under the telecoms technician (with the use of a fall arrest system) to prevent them from colliding with an obstacle when falling. There are 2 types of air draught:

- Available air gap: this is the distance between the structure on which the telecoms engineer is working at height and the the nearest obstacle (ground, balcony, etc.).
- Required air gap: the minimum distance required that, if the telecom engineer falls, he or she will not collide against the nearest obstacle.

### Air gap calculation:
Length of the lanyard (A) + Tear of the energy absorber absorber (B) + Height of the person (C) + Safety margin imposed by the standard: 1 m (D)

Air gap

A

B

C

1m

D
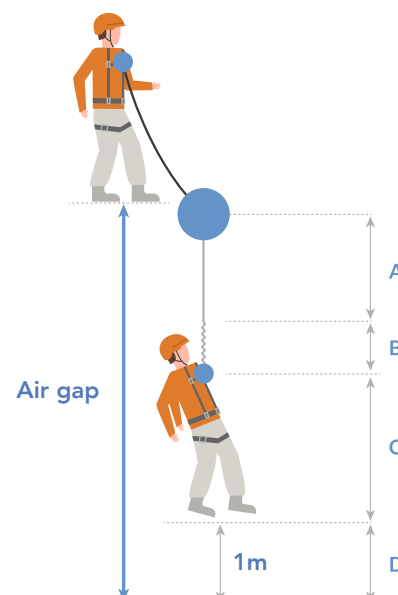
# TEST & MEASUREMENT

## Antenas alignment

### Mobile networks toolkit



**Included:**
+ 2 in 1 optical tester. to deal with VFL/OPM measurements
+ A copper tester to deal with RJ45 cables
+ All VDE tools to deal with active equipment. powered by energy

| PN | Designation | Weight |
|---|---|---|
| 1001877 | 4G/5G mobile network technician pack | 23kg |

### Winch pack and accessories by Harken including power tools



| PN | Designation | Weight |
|---|---|---|
| 1001259 | Winch pack with screwdriver and descender | 17.9kg |

### Carry pack for charge handling



| PN | Designation | Weight |
|---|---|---|
| 1001255 | Carry pack for charge handling | 6.6kg |

### 3Z RF VIAVI Antenna alignment tool including visual camera soft



| PN | Designation | Weight |
|---|---|---|
| 20004 | VIAVI 3Z RF Vision antenna aligner + camera display option | 1.9kg |

### CELaligner - Antenna alignment tool



| PN | Designation | Weight |
|---|---|---|
| 19443 | CELaligner© - Antenna inclination and elevation adjustment | 3kg |

### Electromagnetic waves detector EME Guard XS 40 GHz



| PN | Designation | Weight |
|---|---|---|
| 20004 | Radio electromagnetic field detector EME | 1kg |

### Electromagnetic waves detector EME Guard XS 6GHz



| PN | Designation | Weight |
|---|---|---|
| 18430 | Radio electromagnetic field detector EME | 1kg |

# COAX CABLES PREPARATION TOOLS

## Stripping tools

Each tool is composed of one common part (red) plus one "insert" part specific per type of cable and connector family. Please refer to below matrix to choose the dedicated combination :

### Coaxial cables & connector preparation tool from ¼" to 7/8" (CELLFLEX & SUPERFLEX)



| Model | Weight |
|---|---|
| Coaxial cables & connector preparation tool from ¼" to 7/8" (CELLFLEX & SUPERFLEX) | 0.070kg |

**Product benefits:**
+ Precision cable preparation
  - Pre-set blade position to ensure an exact and repeatable cut

### Coaxial cables & connector preparation tool from 1-1/4" to 1-5/8" (CELLFLEX & SUPERFLEX)



| Model | Weight |
|---|---|
| Coaxial cables & connector preparation tool from 1-1/4" to 1-5/8" (CELLFLEX & SUPERFLEX) | 0.070kg |

+ Intuitive tool
  - 2 in 1 cable & connector tool
+ Long-lasting cutting blades
  - Easy to clean, smooth dielectric surface improves IM performance

| PN RFS | Connector family | Cable section | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1/4" | | 1/2" | | 7/8" | | 1-1/4" | | 1-5/8" | |
| | | CELLFLEX | SUPERFLEX | CELLFLEX | SUPERFLEX | CELLFLEX | SUPERFLEX | CELLFLEX | SUPERFLEX | CELLFLEX | SUPERFLEX |
| TRIM-SET-L114-D01 | Premium | - | - | - | - | - | - | 20850 | - | - | - |
| TRIM-SET-L12-C02 | Standard | - | - | 40387 | - | - | - | - | - | - | - |
| TRIM-SET-L12-D01 | Premium | - | - | 40464 | - | - | - | - | - | - | - |
| TRIM-SET-L14-D01 | Premium | 40386 | - | - | - | - | - | - | - | - | - |
| TRIM-SET-L158-C02 | Standard | - | - | - | - | - | - | - | - | 40390 | - |
| TRIM-SET-L158-D01 | Premium | - | - | - | - | - | - | - | - | 40462 | - |
| TRIM-SET-L78-C02 | Standard | - | - | - | - | 40388 | - | - | - | - | - |
| TRIM-SET-L78-D01 | Premium | - | - | - | - | 40465 | - | - | - | - | - |
| TRIM-SET-S12-C02 | Standard | - | - | - | 40384 | - | - | - | - | - | - |
| TRIM-SET-S12-D01 | Premium | - | - | - | 40463 | - | - | - | - | - | - |



1/4" CELLFLEX cable

1/2" CELLFLEX cable

7/8" CELLFLEX cable

1.1/4" CELLFLEX cable

1.5/8" CELLFLEX cable

# Tooling

## Tools

# TOOL BAG & TOOL CASE

## Trolley, bagpacks & cross body bag



## Trolley Tool Case

**TED⊕**

### Product benefits:
+ Time-saving: all the tools have a place and are easily accessible
+ Multiple storage compartments for organisation of tools
+ Comfort: large all-terrain wheels
+ Safety: protects your back when transporting

### Technical specifications:
+ Telescopic handle
+ Storage provided for subscriber boxes
+ Large interior storage compartment with removable central divider
+ 9 exterior storage pockets



| PN | Designation | Weight |
|----|-------------|--------|
| 32079 | TED® Trolley Tool Case | 5.50kg |

Trolley sold empty, without tools

# Trolley Tool Backpack

**TED⁺**

### Product benefits:
+ Time saving: all the tools have a place and are easily accessible
+ Comfort: transforms into a trolley with a simple telescopic handle extension
+ Practicality: the removable bag allows you to easily access tools

### Technical specifications:
+ Padded straps and back
+ The main pocket can be opened at 90°
+ Removable storage
+ 2 external storage pockets

| PN | Designation | Weight |
|---|---|---|
| 32081 | TED® Trolley Backpack | 3.25kg |

Backpack sold empty, without tools

# TED® Backpack

**TED⁺**

### Product benefits:
+ Time saving: all the tools have a place and are easily accessible
+ Comfort: padded shoulder straps and handle
+ Practicality: the bottom of the bag is reinforced
+ Completely waterproof, it can be placed anywhere

### Technical specifications:
+ Two carrying handles: one soft and one reinforced
+ Padded back and shoulder straps
+ 2 large interior pockets with around ten locations
+ 1 interior pocket and 1 exterior
+ Additional storage on the sides
+ Openable flap to improve access to bag contents

| PN | Designation | Weight |
|---|---|---|
| 32080 | TED® Backpack | 2.45kg |

Backpack sold empty, without tools

## Optima tool bag

TED+

**Product benefits:**
+ Robust and light, practical and comfortable
+ Plenty of storage



| PN | Designation | Weight |
|---|---|---|
| 10841 | Optima tool bag | 3.08kg |

Tool bag sold empty, without tools



## Crossbody tool bag

TED+

**Product benefits:**
+ Adjustable shoulder strap allowing the bag to be carried shoulder or waist
+ Lightness thanks to its 100% textile composition
+ Practicality with its multiple compartments and storage pockets storage



| PN | Designation | Weight |
|---|---|---|
| 13814 | Crossbody tool bag | 0.57kg |

Tool bag sold empty, without tools

# Tool belt

TED⁺

Multi-purpose solution. With numerous storage pockets and a ring for sledgehammer and hammer. This ergonomic belt provides maximum comfort for mobile technicians.

**Product benefits:**
+ Versatile and adjustable
+ Durable
+ Comfortable and durable

| PN | Designation | Weight |
|---------|-------------|--------|
| 1001774 | Tool belt | 1.2kg |

Tool belt sold empty, without tools

# FIBER OPTIC CABLES PREPARATION TOOLS

## Riser cables

## Riser Cable Stripper

**TED⁺**

### Product benefits:
+ Lightweight, compact and easy to handle
+ Easy to use: no adjustments required and intuitive intuitive handling

| PN | Designation | Weight |
|---|---|---|
| 34001 | TED® Riser Cable Stripper | 0.06kg |
| 34002 | Spare blades for riser cable - 25 units | 0.03kg |

## Cable Slitter
## Ø5.8 - 12mm

**TED⁺**

### Product benefits:
+ Increased safety: efficient work with no visible blade blade
+ Increased productivity: fast, perfect cable preparation without risk of damaging inner modules
+ Fits in your pocket: an ideal replacement for the kabifix and electrician's knife.
+ Wide range of uses

| PN | Designation | Weight |
|---|---|---|
| 34005 | TED® Cable Slitter Ø5.8 - 12 mm | 0.15kg |
| 34006 | Spare blade kit for TED® cable slitter | 0.32kg |

## How to choose the right tools without a visible blade?

Technological advances have allowed many hand tools manufacturers to create bladeless solutions. Aiming to represent alternatives to knife, all these tools do not have necessarily the same efficiency or ergonomics. To avoid using solutions that do not correspond to standards desired by the telecoms engineer, non visible blade tool must be designed according to four criteria :



### SIMPLICITY

To replace the use of the knife and the cutter, a good tool without a visible blade must be easy to use. The simplicity can also be linked to the playful aspect of the solution which will be able to convince its users even more easily.

### EFFICIENCY

Ideally, the solution without a visible blade must allow work as effective as the knife or the cutter. The opening of optical fiber or copper telecom cables must be of quality for that the technician can act precisely.

### SPEED

In a current context where the number of worksites is not proportional to the workforce made available, the speed of execution of the telecom technician is essential. The tool without a visible blade must therefore save time considerably in business: for the training of a beginner or for an experienced technician who may have difficulty in accepting a new tool (relearning for example).

### SECURITY

Each tool without a visible blade must be designed for the engineer's safety. Ergonomic to reduce in first-time musculoskeletal disorders, the blade is hidden to, in a second time, avoid cuts even when carrying it in the trouser pocket. The engineer must never come into direct contact with the blade: incorrect manipulations are thus circumvented, leaving room for comfort and practicality of use.

Tools with no visible blade are revolutionising the working methods of telecom engineers for opening copper and fibre optic cables. Despite certain situations not being adapted to a particular tool, this type of inconvenience should not call into question many interventions that go smoothly. On the contrary, it must allow Safety services to trigger a risk analysis for the engineer with the appropriate tool as a solution.

# Fibre optics preparation

## Optical fiber cable stripper

The stripping pliers enable a circular cut of the micro sheats & loose tube. In order to easily strip the fiber without damaging it. The head is fitted with a spring that provides equal tension throughout the operation.

These pliers are suitable to perform round cuts with diameters diameters ranging from 1.2mm to 6mm. Non-adjustable. They save time and are ideal for novice for novice engineers.

These pliers are versatile. They can be used to perform round and longitudinal cuts, as well as windows on micromodules. Hence they're adjustable these pliers are more suitable for experienced engineers.



TED®



*7011*



*6931*



*17773*

| PN | Model | Weight |
|---|---|---|
| 7011 | Fiber optic stripper up to 3.2mm | 0.03kg |
| 6931 | Fiber optic stripper from 3.2mm up to 5.55mm | 0.03kg |
| 17773 | Fiber optic stripper up to 6mm | 0.03kg |
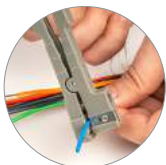
JONARD TOOLS®



| PN | Model | Weight |
|---|---|---|
| 1000773 | Adjustable fiber optic stripper from 1.2mm up to 7.5mm | 0.45kg |

# Fiber optic stripper

The optical fibre, whether in the cable or in the jumper, is protected first by a primary coating, with a tight structure on the glass, and then by several tubes or sheaths. At each stage of network organization or maintenance, appropriate stripping tools are needed to remove the various layers, without damaging the silica, in order to preserve its optical performance.

**JONARD TOOLS**

**Best Seller!**

### Technical specifications:
+ Length: 150mm

| PN | Model | Weight |
|----|-------|--------|
| 7295 | 125-250µm ergonomic | 0.13kg |

### Technical specifications:
+ Length: 130mm

| PN | Model | Weight |
|----|-------|--------|
| 4905 | 250µm | 0.13kg |

### Technical specifications:
+ Length: 150mm

| PN | Model | Weight |
|----|-------|--------|
| 4906 | Ø3mm / 900µm / 250µm / 3 positions | 0.13kg |

| PN | Model | Weight |
|----|-------|--------|
| 1000778 | Ø180 - 330µm | 0.23 kg |

| PN | Model | Weight |
|----|-------|--------|
| 1000780 | Ø600 - 1100µm | 0.23kg |

Jonard manufactures over **800** unique products and ships **98.7%** of all orders complete within 24 hours

**MADE FOR LIFE**
**GUARANTEED FOR LIFE**

**JONARD TOOLS**

Telecommunications I CATV I Fiber Optics I Home Automation I Security & Alarm I Electrical

## Premier Tool Manufacturer Since 1958
Our tools are designed and engineered with quality materials that are Made For Life®

## Distribution Cable stripper Ø2.9 - 6.8mm

**TED⁺**

### Product benefits:
+ Greater safety: no visible blade
+ Greater efficiency: quick, easy opening
+ Wide range of use

| PN | Designation | Weight |
|----|-------------|--------|
| 16650 | Distribution Cable stripper Ø2.9 - 6.8mm | 0.06kg |
| 16750 | Spare blades for distribution cable stripper Ø2.9 - 6.8mm - 2 units | 0.03kg |

# FUSION SPLICER

## Active clad alignment Optical fusion splicer Splice 1 & Cleaver Cliv 1

**TED®**

TED® Splice 1 is a 3 axis active alignment fusion splicer. Ideal for last miles customer connection. Super intuitive & easy to use, robust and efficient it's a great cost-efficient solution.

### Product benefits:
+ Splicing time: 6sec
+ Heating time: 12 s
+ Special neck strap for working at height
+ 3 years warranty
+ User friendly interface with a large LCD 4.3" screen
+ Electrodes life cycle

### Package contents:
+ TED® Splice 1 fusion splicer
+ TED® Cliv 1 Fiber cleaver
+ Robust carry case
+ 522 mAh Power supply
+ 230V AC power supply
+ One set of spare electrodes
+ Neck strap

| PN | Designation | Weight (pack) |
|----|-------------|---------------|
| 1001164 | Fusion splicer & Cleaver pack TED® - Splice 1 | 6kg |

# Core alignment



## Core alignment fusion splicer TED®

TED®

### Product benefits:
+ Low splicing loss (SM 0,01dB , MM 0,01dB)
+ Core alignment
+ 2 seconds boot & warm up
+ User friendly
+ Special neck strap for working at height
+ 3 years warranty
+ Easy-to-use interface and color touchscreen
+ Drop-proof up to 76cm
+ Electrode life: approx. 5000 arcs

### Technical specifications:
+ Save your time: 6 sec splicing time (SM AUTO)
+ 500 splices & heat cycles
+ Robust & reliable with rubber protectors
+ Large 5 inch screen full touch with tempered glass
+ x500 magnification and 180° tilting monitor
+ LED lights

| PN | Designation | Weight |
|---|---|---|
| 1002010 | Fusion splicer & cleaver pack TED® Splice core | 9.1kg |

# Cleaver TED®

## Optical fiber cleaver TED® CLIV 1

**TED®**

TED® Cliv 1 is a robust & stable fiber optic cleaver. It's auto-push back system enables a 2 step cutting solution compatible with most type of fiber. Equipped with a long life 24 positions blade up to 50 000 cuts with a high capacity fiber collector.

### Product benefits:
+ 24-position cutting blade
+ Cutting angle: 0.5
+ Long blade life up to 50 000 cuts
+ High-capacity fiber collector

| PN | Designation | Weight |
|---|---|---|
| 1001530 | Cleaver TED® CLIV 1 | 0.250kg |

## Accessories for TED® fusion splicer

| PN | Designation | Weight |
|---|---|---|
| 1001531 | Cleaver's bladeTED® Cliv 1 | 0.01kg |
| 1001532 | Pair of electrodes TED® Splice 1 | 0.01kg |
| 1001533 | Neck strap TED® Splice 1 | 0.01kg |
| 1001534 | Batterie TED® Splice 1 | 0.150kg |
| 1001535 | Power supply TED® Splice 1 | 0.100kg |
| 1001536 | Carry case TED® Splice 1 | 2kg |

## Accessories for Sumitomo fusion splicer

### Blade for cleaver FC-6R. FC-7R. FC-8R

Particularly durable, it can perform around 60,000 cuts in 24 positions (depending on use).

| PN | Designation | Weight |
|---|---|---|
| 20002 | Blade for Sumitomo cleaver FC-6R. FC-7R. FC-8R | 0.040kg |

### Electrodes for splicers T25e. 39. 55. 57. 66. 71. 72. 400S

Estimated durability up to 6000 splices (electrode life varies according to conditions of use). Sold in pairs.

| PN | Designation | Weight |
|---|---|---|
| 4278 | Electrodes for Sumitomo splicers T25e/39/55/57/66/71/72/400S Pair | 0.010kg |

## Expert's advice

### How to proceed with an optical fusion splicer?

An optical fusion splicer is a mandatory equipment for a fiber engineer. This machine enables to align fiber prior to splicing in order that light can travel from one fiber core to another with the minimum splice loss in between. To limit the splice loss, we share some advices below:

#### STEP 1: GET YOUR EQUIPMENT READY
All key tools : a fusion splicer, a fiber optic stripper, some wipes, isopropyl alcohol & splice protectors (mechanical or shrinkable). Make sure that prior you begin with the process, all your tools have carefully cleaned to limit contamination that will result in fiber loss.

#### STEP 2: SELECT THE CONVINIENT SPLICING PROGRAM
Choose the correct program regarding the type of fiber that you're dealing with (single mode, multi mode).

*Expert's advice:* We strongly recommand to choose: SM auto: single mode MM auto: multi mode.

#### STEP 3: STRIP & CLEAN THE FIBER
Strip the fiber on 3 to 4 cm lenght. Clean this stripped zone with a wipe impregnated with isopropyl alcohol up to "swipe" noise.

#### STEP 4: CLEAVE THE FIBER
Place the fiber into the fiber cleaver, on the correct position.

*Expert's advice:* Make sur that the stripped area is well position into to the fiber holder

#### STEP 5: PLACE THE FIBER INTO THE FUSION SPLICER FIBER HOLDER
Insert the fiber between the v-groove slot & the electrodes, then close the fusion splicer top cover.

*Expert's advice:* While your proceed with the fiber insertion, avoid any choc to the fiber or you will need to repeat the cleaving cycle

**Prior to set the splicing process, you have to repeat cycle 3, 4, 5 for the 2$^{nd}$ fiber.**

#### STEP 6: PROCEED WITH THE SPLICING PROCESS
To launch the process, close the top cover. If the auto launch is set the splicing will proceed imediatly.

#### STEP 7: CHECK THE SPLICE QUALITY
3 criteria are used to check the splice quality

- Image quality of the spliced fiber : Correct core alignment, no dust or air bubble
- Estimated loss calculated by the splicer
- Splice tensile strenght resistance test



#### STEP 8: INSERT THE SHRINKABLE SPLICE PROTECTOR & PROCEED WITH THE HEATING PROCESS
Prior to open the fusion splicer's cover, bring the splice protector close to the stripped aera where the splice has been done. The splice protector as to cover this whole aera. One it has been correctly insert, place it into the the heater & launch the heating process.

#### STEP 9: STORAGE OF THE SHRINKED SPLICE PROTECTOR INTO THE SPLICE TRAY
One the heating process is done, place the splice protector on the cooling plate. One T° has been cooled, place it the splice tray & proceed with the fiber storage.

# Smoovite

TED®

The Smoovite by TED® is a real innovation for telecom engineers. It is used to thread the sleeves on the fibre quickly and easily. The tank can hold up to 15 splice protection sleeves with lengths of 40 to 60mm.

Smoovite is a real-time saver. Engineering teams no longer must worry about a lack of precision caused by the cold, a vision problem or other. The Smoovite now allows you to perfectly align the splice protection sleeves to the fibre optic. This innovation also protects engineers: the manipulation between the optical fibre and the splice protection being simplified, the engineer no longer risks sinking a piece of fibre in the hand.

### Product benefits:
+ Timesaving: The conical shape allows directing quickly the optical fibre in the splice protection
+ Compact: 7cm long

### Technical specifications:
+ Capacity: 15 splice protection sleeves
+ Length of the splice protection sleeves: 40 to 60mm
+ The reservoir holds the equivalent of a cassette
+ Optimised for Ø2.4 and 2.2mm splice protection

| PN | Designation | Weight |
|----|-------------|--------|
| 34000 | Smoovite by TED® | 0.06kg |

" *Engineers on the street are pushed to do 200 to 300 splices per day, repeating the same gesture! There can quickly be a loss of time due to a lack of precision linked to a problem of sight, to the cold environment or other difficulties. The Smoovite by TED® allows to insert up to 15 splice protection sleeves in a conical tank. Thus, it is easier to align them in front of fibre optic strands requiring soldering.* "

**Gilles BOONE, electrician for 20 years, inventor of the smoovite easy to align**

# Splice protectors

## Smooves

**Product benefits:**
+ Clean, high-quality work
+ Good shrinkage control
+ Does not bubble in the oven when used according to your welder's manual

**Technical specifications:**
+ Color: Transparent
+ Minimum processing temperature: 110°C

We recommend 2.4mm smooves compatible with Corning, Commscope and Telenco®.

⭐ *Indispensable references*

| | PN | Diameter | Length | UV |
|---|---|---|---|---|
| | 5102 | 3.0mm | 61mm | Bag of 100 |
| | 6035 | 3.0mm | 45mm | Bag of 100 |
| | 7233 | 3.0mm | 40mm | Bag of 100 |
| ⭐ | 16476 | 2.4mm | 61mm | Bag of 100 |
| ⭐ | 16475 | 2.4mm | 45mm | Bag of 100 |
| ⭐ | 16499 | 2.4mm | 40mm | Bag of 100 |
| ⭐ | 18116 | 2.4mm | 20mm | Bag of 100 |
| | 16432 | 2.2 mm | 61mm | Bag of 100 |
| | 11598 | 2.2mm | 45mm | Bag of 100 |
| | 10980 | 2.0mm | 40mm | Bag of 100 |

## Tent & umbrella

# Jointers tent

**TED® by Trigano site tents are the successful result of a collaboration between Trigano and Telenco, combining over 40 years' know-how in camping tents with the expertise of a telecoms specialist.**

Tents are used by technicians to protect themselves and their equipment from rain, snow, wind and sun. The materials used in our tents have been carefully tested to guarantee ease of installation and durability.

Detailed specifications of our tents at **www.telenco-store.com**

# 2 in 1 Tent & umbrella - Orange

TED+

Flocking service available*

**Product benefits:**

+ Easy opening system
+ Cost efficient solution to protect your engineers and their valuable equipment's (OTDR, Splicing machine) from weather (rain, sun, dust)
+ Protective side cover easy to assemble & remove with a zip system
+ White polyester to provide natural light
+ Self-reflective 25mm band + high-visibilty orange colour offers additional security for the engineer's safety
+ 6 inners pockets to store and organise your tools & consumables
+ Custom flocking available to develop your corporate Identity



**Technical specifications:**

+ Dimensions: 170 x 170cm
+ Cover's Materials: polyurethane-coated Oxford polyester
+ Water penetration resistance: 3000mm
+ Lightweight 210D material's density

| PN | Designation | Weight |
|---|---|---|
| 35004 | High-visibility orange tent umbrella | 4.4kg |
| 20105 | Round weighted parasol stand, black concrete with adapter | 14kg |





## Expert's advice

### Ballast bags

Remember to include ballast bags with your tents to guarantee their stability!

# 5' pop-up worksite tent

**TED**

## Product benefits:

+ Pop-up opening system thanks to its interior fiberglass poles which enable a record-breaking time installation. For starting to enjoy the benefits of this worksite tent without further delay.
+ Access at the front side via a wide opening with zip fastening
+ Made of Oxford polyester fabric (210D PU waterproof 3000 mm) white/yellow that ensures a natural lightening
+ The 25 mm wide retro-reflective strips that separate the white fabric from the yellow one all around the tent offer it a better visibility/protection
+ Steel pegs ensure an additional fixing in case of bad weather (wind, heavy rain etc.)
+ Two steel masts offer the possibility to create an awning

## Technical specifications:

+ Tent dimensions: 190 x 190 x 200cm
+ Storage bag dimensions: Ø78 x 7cm
+ Roof, walls and rain fly: polyurethane-coated Oxford polyurethane (210D PU imper 3000mm)
+ Frame: 4 fibreglass poles Ø5mm
+ 6 tent cords / 22 steel pegs / 2 steel poles steel poles (awning)

| PN | Designation | Weight |
|-------|------------------------------|--------|
| 12129 | 5' pop-up worksite tent yellow | 6.5kg |
| 35008 | 5' pop-up worksite tent orange | 6.5kg |
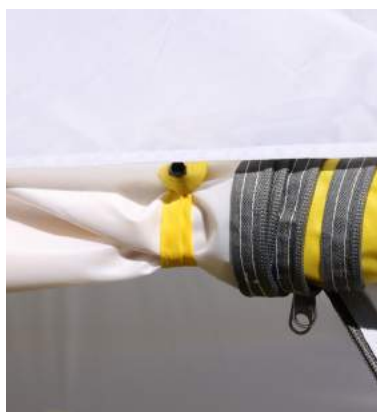


TOOLING Tools




## Expert's advice

### Ballast bags

Remember to include ballast bags with your tents to guarantee their stability!

# Optima jointers tent TED® by Trigano

**TED⊕**

## Product benefits:

+ Total protection against rain, cold, wind and sun
+ Made of robust, premium-quality materials
+ Two side vents allow better air circulation
+ Retro-reflective strips and high visibility bands allow better visibility/safety of engineers during day or night interventions
+ The tent is ready for use in seconds: quick set-up/ dismantling by one person
+ The partial rear opening of the tent makes it easy to pass through cables & closures
+ Compact carry bag vehicles storage
+ The cleaning of the tent can be carried out by washing with high pressure water
+ The skirt allows both weather protection and an additional ballast base

## Technical specifications:

+ Tent dimensions: 180 x 180 x 190cm
+ Carry bag dimensions: 140 x 27 x 27cm
+ 210D oxford top fabric with PVC coating M2* -UV treatment (UV30+)
+ Frame: 12.5mm diameter fiberglasspoles

*M2 Laminated PVC Bottom Canvas/Tarpaulin - UV Treatment



| PN | Designation | Weight |
|----|-------------|--------|
| 2010 | Optima jointers tent TED® by Trigano | 21kg |





## Expert's advice

### Ballast bags

Remember to include ballast bags with your tents to guarantee their stability!

# FIBER OPTIC DECONTAMINATION

## Dry cleaning



### TED® Ferrule Cleaning Pen

Dedicated tool for dry cleaning of optical ferrules & adaptors, connectors, pigtails, patch cord. Extendable tip to allow cleaning on already installed adaptors in patch panel.

**Product benefits:**
+ Extendable end for easy drawer access high density
+ Effective against dust and oil

**Technical specifications:**
+ Fits 2.5mm ferrules: SC/FC/ST
+ Up to 600 cleaning cycles

| PN | Model | UV |
|---|---|---|
| 34004 | 2.5mm | Unit |
| 19546 | 1.25mm | Unit |

## TED® cleaning swab

Cleaning rods can be used with isopropyl alcohol or degreasers.



PN: 30064
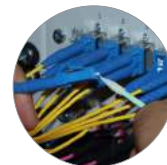
PN: 30065

| PN | Application(s) | UV | Weight |
|---|---|---|---|
| 30064 | 1.25mm ferrules (LC/MU) | 50 | 0.040kg |
| 30065 | 2.5mm ferrules (SC. ST. PC) | 50 | 0.040kg |

## Alcohol dispensers



PN: 11274

PN: 7013

| PN | Model | Weight |
|---|---|---|
| 11274 | Stainless steel pump - 120ml | 0.063kg |
| 7013 | 240ml | 0.049kg |

## Dry wipes

Non-linting dry wipes are used for all optical fiber cleaning applications.



PN: 5982

PN: 4794

PN: 4803

| PN | Model | UV | Weight |
|---|---|---|---|
| 5982 | FiberKleen™ | Box of 50 | 0.05kg |
| 4794 | CleanWipes | Box of 90 | 0.07kg |
| 4803 | KimWipes | Box of 280 | 0.16kg |

## Cable & Fiber Decontamination Kit



This kit contains everything you need to ensure complete, fast and efficient cleaning of fiber optic networks.

### Technical specifications:
**Kit contents:**
+ TED® tool bag with shoulder strap
+ 1L isopropyl alcohol bottle
+ 240ml alcohol dispenser bottle
+ Electro-Wash ES810E spray degreaser
+ Box of 280 dry wipes for FO cleaning
  Kimwipes EXL

### Product benefits:
+ Compact
+ All-inclusive package

| PN | Designation | UV |
|----|-------------|-----|
| 18397 | Cable & Fiber Decontamination Kit | Unit |

## Fusion splicer Maintenance Kit



This kit contains all you need to maintain your fusion splicer.

### Technical specifications:
**Kit contents:**
+ TED® tool bag with shoulder strap
+ 240ml alcohol dispenser bottle
+ Box of 50 TED® cleaning swabs for camera & v-groove
+ Box of 50 TED® cleaning swabs for splicer holders
+ Precision tweezers, 45° angle 155mm
+ Flat brush 25mm
+ Dusting blow bulb

### Product benefits:
+ Compact
+ All-inclusive package

| PN | Designation | UV |
|----|-------------|-----|
| 1001917 | Fusion splicer Maintenance Kit | Unit |

## MTP/MPO cleaning pen



This pen can be used to clean optical surfaces, either directly or through a connector.

### Technical specifications:
+ Suitable for MTP and MPO connectors
+ Up to 600 cleanings

### Product benefits:
+ Easy to use
+ Fast, reliable cleaning: just 1 click
+ Robust and durable

| PN | Designation | Weight |
|----|-------------|--------|
| 16439 | MTP/MPO cleaning pen | 0.12kg |

## CLEANSSETTE cleaning cassette



PN: 14226          PN: 14227

The cleaning cassette enables dry decontamination of all simplex connectors.

### Technical specifications:
+ Up to 420 cleaning cycles
+ Antistatic
+ Connections: SC, LC, FC, MU, MT, ST, MPO

### Product benefits:
+ Compact
+ Ergonomic: one-handed operation

| PN | Designation | Weight |
|----|-------------|--------|
| 14226 | Cleanssette cleaning cassette | 0.15kg |
| 14227 | Refill for CLEANSSETTE cassette | 0.05kg |

## How to clean all optical connection points?

### WHAT ARE THE DIFFERENT TYPES OF FIBER OPTIC CONTAMINATION?

Contamination of the optical fibre, regardless of its origin can lead to an active equipment system failure. A single particle, even a microscopic one.can cause a major attenuation of optical connections.
**There are different types of contamination that can affect the end of a connector:**
• Dry contamination: dust,
• Liquid contamination: mineral oils, sebum from hands, gel, resin, grease on cables...
• Contamination with alcohol residue, in particular isopropyl alcohol, which is supposed to clean the fiber, could also contaminate it if too much is used.

Several methods for optical fiber cleaning are available, but requires the correct tools to be carried out.
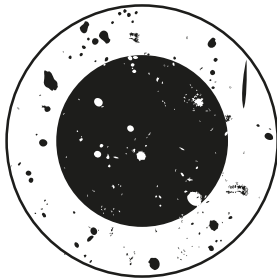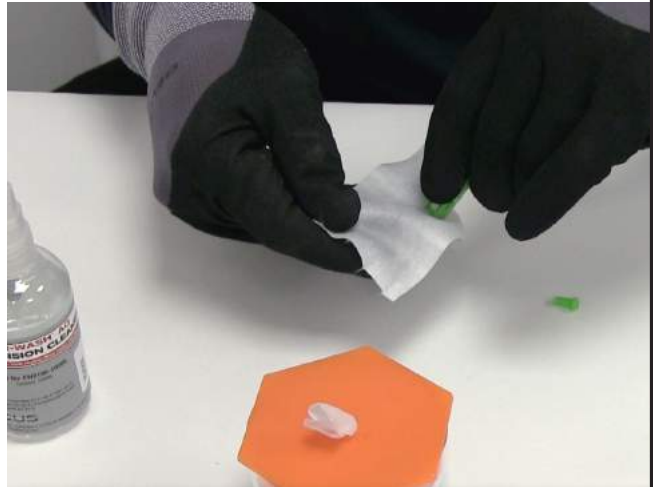
### WET & DRY CLEANING METHOD

**This combo method is an easy & efficient solution to clean optical fiber & connectcors.**

Left side image represent an optical fiber connector taken with a microscope. It's clearly saturated with dust related to it's manipulation. It has to be clean to ensure a limited loss & good signal quality.

Below, an introduction to each step of the Wet & Dry optical fiber cleaning method. We will consider a dry contamination.

| 1st step: Begin with the wet cleaning method of the otpical fiber connector | 2nd step: Insepection of the connector's ferule | 3rd step: Dry cleanning |
|---|---|---|

We strongly recommand to being with a wet cleaning solution. Few options available:

• A water based solution in order to limit the risk for telecomunication engineer's safety related to term alcohol use.
• Some ysopropil alcohol
• Use a cleaning pen adapted to the ferule type (1.25 or 2.5mm, or MPO)
• Non xxx cleaning wipes alredy imprenated with alcohol or not to use the previous suggested option.
• Telecomunication engineers will only need to impregnated the wipes and to swipe the connector in a one time action. Please, avoid multiple actions hence it could bring more dust.

2nd step is the connector's ferule inspection thanks to an optical fiber microscope. This tool will help the engineers to make sure that a maximum of dusts & auther contamination has been removed. Or if an extra cleaning cycle is required. Please clean the microscope adapter after each use to prevent more contamination.

To proceed with this last step, please use a dry cleaning pen.

• Dry connector cleaning pen has to be insert into the connector to reach the ferule. One the ferule has been reach, press the cleaning pen up to the "click" to connect the cleanning tip with the full ferule surface.

This last step will ensure that all liquids have been removed from the ferule. We strongly recommand to do a microscope check & repeat a dry cleanning cyle if its required.
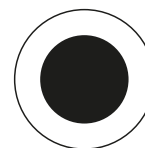
# COPPER CABLES PREPARATION TOOLS

## Toolkits

### Last mile access

#### Central bag and copper terminal line



Bag designed for copper exchanges and terminal line connections. This set of tools combines classics such as the wrapper/unwrapper with the latest innovations from TED® and KNIPEX®.

| PN | Designation | Weight |
|----|-------------|--------|
| 34010 | TED® crossbody equipped bag for last mile access | 2.73kg |

### Distribution & backbone networks

#### Copper local loop trolley



Suitcase designed for copper transmission and distribution networks. The selected tools cover a wide range of applications and are easy to transport thanks to the TED® all-terrain trolley.

| PN | Designation | Weight |
|----|-------------|--------|
| 34011 | TED® trolley bag for copper distribution & backbone networks | 26kg |

**Find out more about the composition of our toolkits on www.telenco-store.com**

## Cable cutters

### Copper cable cutters

#### Copper cable cutters



Ref: 0397

Ref: 1182 and 1183

Ref: 12361

| PN | Diameter | Length | Weight |
|----|----------|--------|--------|
| 0397 | 20mm | 230 mm | 0.43kg |
| 1182 | 32mm | 530mm | 2.22kg |
| 1183 | 42mm | 740mm | 3.8kg |
| 12361 | 60mm | 770mm | 3.24kg |

### Ratchetting copper cable cutters



Ref: 1185 and 1186                    Ref: 1184

High cutting capacity in a small footprint.

| PN | Diameter | Length | Weight |
|----|----------|--------|--------|
| 1185 | 32mm | 250mm | 0.67kg |
| 1186 | 52mm | 280mm | 0.85kg |
| 1184 | 60mm | 420mm | 3kg |

### Pintel 3 crimping plier



Separates the carrier from the cable.

| PN | Designation | Weight |
|----|-------------|--------|
| 1187 | Pintel 3 crimping plier | 0.90kg |

# Insertion & crimping tools

## Insertion tools for copper wires



| 2453 | 0398 | 0399 | 6803 | 7240 | 4086 | 4038 |

| PN | Model | Weight |
|---|---|---|
| 2453 | OSA2 | 0.06kg |
| 0398 | OSA3 | 0.06kg |
| 0399 | Polyvalent POUYET | 0.08kg |
| 6803 | Polyvalent type POUYET | 0.07kg |
| 7240 | Pour réglettes série 110 BIX | 0.10kg |
| 4086 | Pour réglettes type KRONE | 0.08kg |
| 4038 | INFRA+ | 0.12kg |

## Crimping plier for copper connectors

TED
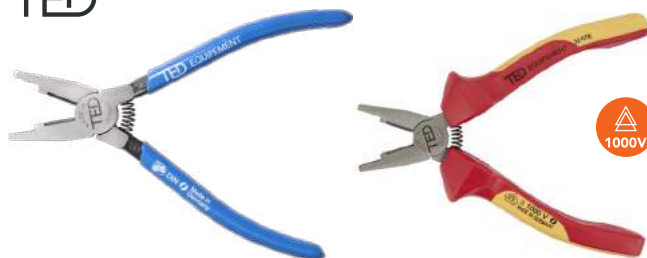


| PN: 34003 | PN: 32078 |

| PN | Designation | Weight |
|---|---|---|
| 34003 | Scotchlock plier for copper connectors TED® | 0.13kg |
| 32078 | Insulated TED® Scotchlock plier for copper connectors | 0.30kg |

## Scraper pliers



Strip the copper garter.

| PN | Designation | Weight |
|---|---|---|
| 0888 | Scraper pliers | 0.03kg |

## Wrapper / Unwrapper



| PN: 0460 | PN: 0461 | PN: 0462 |

| PN | Designation | Weight |
|---|---|---|
| 0460 | Standard wrapper 0.40-0.60mm | 0.02kg |
| 0461 | 0.50-0.60mm wrapper 2-way telescopic retractable | 0.01kg |
| 0462 | Standard retractable wrapper-unwrapper 0.50-0.60mm | 0.02kg |

## Screwdrivers

### Screwdriver set

**Product benefits:**
+ Magnetic head
+ Ergonomic handle

| PN | Model | Weight |
|---|---|---|
| 30040 | 6 screwdrivers | 0.46kg |
| 30041 | 8 screwdrivers | 0.54kg |

**Set of 6 screwdrivers:**
+ 3 flat screwdrivers: 3 - 5.5 - 6.5
+ 3 Phillips screwdrivers: PH0 - PH1 - PH2

**Set of 8 screwdrivers:**
+ 4 flat screwdrivers: 3 - 4 - 5 - 6.5
+ 2 Phillips screwdrivers: PH1 - PH2
+ 2 Pozidriv screwdrivers: PZ1 - PZ2

PN: 30040

PN: 30041

## Torx screwdrivers

**Product benefits:**
+ Bi-material handle
+ Magnetic head

| PN | Dimensions | Weight | PN | Dimensions | Weight |
|---|---|---|---|---|---|
| 30032 | T5 x 60 | 0.03kg | 30035 | T15 x 80 | 0.04kg |
| 30033 | T6 x 60 | 0.03kg | 30031 | T20 x 100 | 0.04kg |
| 30034 | T8 x 60 | 0.03kg | 30036 | T25 x 100 | 0.05kg |
| 30030 | T10 x 75 | 0.04kg | 30037 | T30 x 115 | 0.05kg |

# Flat screwdrivers



**Product benefits:**
+ Bi-material handle
+ Magnetic head

| PN | Dimensions | Weight |
|---|---|---|
| 30006 | 2.5 x 75 | 0.03kg |
| 30001 | 3 x 100 | 0.04kg |
| 30002 | 4 x 100 | 0.05kg |
| 30003 | 5 x 125 | 0.10kg |

| PN | Dimensions | Weight |
|---|---|---|
| 30007 | 6.5 x 150 | 0.15kg |
| 30005 | 8 x 150 | 0.20kg |
| 30008 | 10 x 200 | 0.25kg |



**Product benefits:**
+ Bi-material handle
+ Magnetic head
+ 1000V VDE insulated

1000V

| PN | Dimensions | Weight |
|---|---|---|
| 32051 | 2. 5x 75 | 0.04kg |
| 32073 | 3.5 x 100 | 0.06kg |
| 32074 | 4.5 x 125 | 0.07kg |
| 32075 | 5.5 x 125 | 0.09kg |
| 32054 | 6.5 x 150 | 0.11kg |
| 32055 | 8 x 175 | 0.17kg |

# Pozidriv screwdrivers



**Product benefits:**
+ Bi-material handle
+ Magnetic head

| PN | Dimensions | Weight |
|---|---|---|
| 30020 | PZ0 x 75 | 0.04kg |
| 30021 | PZ1 x 100 | 0.09kg |
| 30022 | PZ2 x 125 | 0.13kg |
| 30023 | PZ3 x 150 | 0.18kg |



**Product benefits:**
+ Bi-material handle
+ Magnetic head
+ 1000V VDE insulated

1000V

| PN | Dimensions | Weight |
|---|---|---|
| 32059 | PZ0 x 60 | 0.04kg |
| 32060 | PZ1 x 80 | 0.06kg |
| 32061 | PZ2 x 100 | 0.09kg |

# Phillips screwdrivers



**Product benefits:**
+ Bi-material handle
+ Magnetic head

| PN | Dimensions | Weight |
|---|---|---|
| 30010 | PH0 x 75 | 0.04kg |
| 30011 | PH1 x 100 | 0.09kg |
| 30012 | PH2 x 125 | 0.12kg |
| 30013 | PH3 x 150 | 0.18kg |



**Product benefits:**
+ Bi-material handle
+ Magnetic head
+ 1000V VDE insulated

1000V

| PN | Dimensions | Weight |
|---|---|---|
| 32056 | PH1 x 80 | 0.06kg |
| 32057 | PH2 x 100 | 0.09kg |
| 32058 | PH3 x 150 | 0.17kg |

# Nippers & diagonal cutters

## Ergonomic cutting pliers
TED®

### Product benefits:
+ Ergonomic: the angle between the beak and temples means you can work without straining your wrist (less risk of RSI)
+ Greater comfort: bi-material elastomer temples
+ Longer life: chrome-plated finish and induction-hardened cutting edges

| PN | Length | ⦿ | ● | Branches | Weight |
|---|---|---|---|---|---|
| 32076 | 180mm | 2.7mm | 2.3mm | Bi-material | 0.27kg |

## Side Cutting Pliers
TED®

| PN | Length | Branches | Weight |
|---|---|---|---|
| 31028 | 110mm | PVC sheathing | 0.06kg |

## Expert's advice

### Choose the right pliers to reduce Musculoskeletal Disorders

Repeated cuts are frequently a source of MSDs of the wrist. In fact, when cutting, the pliers exert pressure on the fingers. The more the support surface is restricted, the more traumatic the pressure will be for the fingers. This is why we advise you:
• To favour bi-material temples over temples with thin PVC
• To adapt the type and size of the grip to the material that needs to be cut
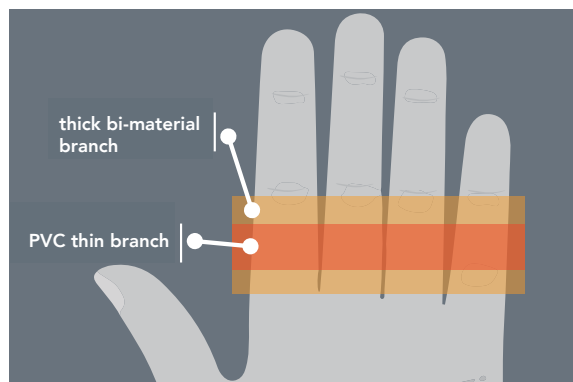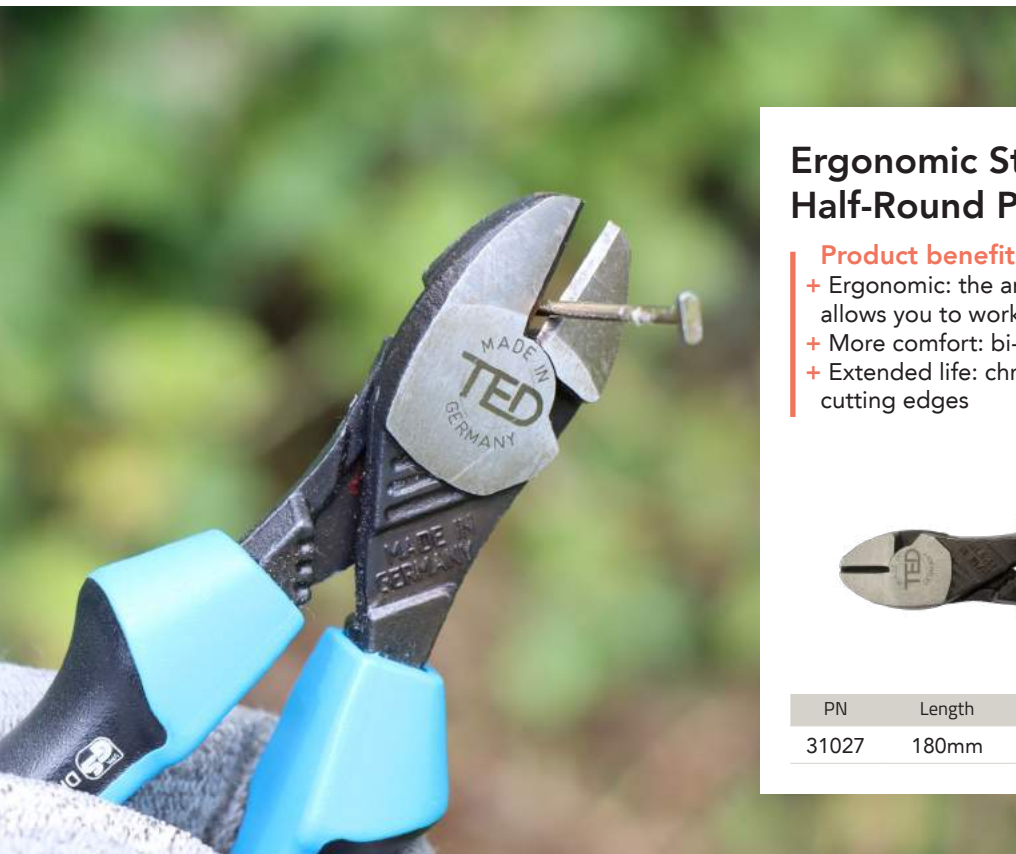
thick bi-material branch

PVC thin branch

## Ergonomic Straight Half-Round Pliers

**TED**®

**Product benefits:**
+ Ergonomic: the angle between the nose and the grip allows you to work in sparing the wrist (less risk of MSDs)
+ More comfort: bi-material elastomer temples
+ Extended life: chrome finish and induction-hardened cutting edges

| PN | Length | ⭕ | ⚫ | Branches | Weight |
|----|--------|------|------|----------|--------|
| 31027 | 180mm | 2.7mm | 2.3mm | Bi-material | 0.23kg |

# Pliers

## Ergonomic Straight Half-Round Pliers

**TED**®

**Product benefits:**
+ Ergonomic: the angle between the nose and the grip allows you to work in sparing the wrist (less risk of MSDs)
+ More comfort: bi-material elastomer temples
+ Extended life: chrome finish and induction-hardened cutting edges

| PN | Length | ⭕ | ⚫ | Branches | Weight |
|----|--------|------|------|----------|--------|
| 32077 | 200mm | 2mm | 1.4mm | Bi-material | 0.29kg |

## Water Pump Pliers with Overlapping Branches

| PN | Length | Model | Branches | Weight |
|---|---|---|---|---|
| 31033 | 240mm | Branches superimposed | PVC | 0.32kg |

## Pincers

| PN | Length | Branches | Weight |
|---|---|---|---|
| 31010 | 250mm | - | 0.39kg |

## Multi-Strip Clamp Quick Adjustment

**Product benefits:**

+ Timesaving: semi-automatic adjustment without button unlocking; open, adjust, tighten
+ Extended life: jaws hardened by induction

| PN | Length | Model | Branches | Weight |
|---|---|---|---|---|
| 31032 | 250mm | Adjustable | PVC | 0.33kg |

# Stripping pliers

## Stripping pliers with spring

| PN | Length | Branches | Weight |
|---|---|---|---|
| 31022 | 160mm | PVC | 0.15kg |

## Stripping pliers 1000V VDE

| PN | Length | Branches | Weight |
|---|---|---|---|
| 32065 | 160mm | Bi-material | 0.16kg |

# Universal pliers

## Universal pliers

TED®



| PN | Length | ◉ | ● | Branches | Weight |
|---|---|---|---|---|---|
| 31023 | 180mm | 1.8mm | - | PVC | 0.23kg |

## Universal pliers 1000V VDE

TED®



| PN | Length | ◉ | ● | Branches | Weight |
|---|---|---|---|---|---|
| 32063 | 160mm | 2mm | - | Bi-material | 0.20kg |

# Nippers

## Nippers diagonal cutting

TED®



| PN | Length | ◉ | ● | Branches | Weight |
|---|---|---|---|---|---|
| 31002 | 145mm | 1.8mm | - | PVC | 0.14kg |
| 31003 | 160mm | 2mm | - | PVC | 0.19kg |
| 31004 | 180mm | 2.5mm | - | PVC | 0.22kg |

## Nippers diagonal cutting 1000V VDE

TED®



| PN | Length | ◉ | ● | Branches | Weight |
|---|---|---|---|---|---|
| 32062 | 160mm | 2mm | - | Bi-material | 0.28kg |

# Long nose pliers

## Flat long nose pliers

TED®



Straight half-round pliers



Half-round angled pliers

| PN | Length | Type | Branches | Weight |
|---|---|---|---|---|
| 31021 | 160mm | Right | PVC | 0.11kg |
| 31031 | 200mm | Right | PVC | 0.16kg |
| 31020 | 160mm | Angled | PVC | 0.11kg |
| 31030 | 200mm | Angled | PVC | 0.16kg |

## Long nose pliers 1000V VDE

TED®



Straight half-round pliers



Half-round angled pliers

| PN | Length | Type | Branches | Weight |
|---|---|---|---|---|
| 32067 | 160mm | Right | Bi-material | 0.14kg |
| 32064 | 160mm | Angled | Bi-material | 0.20kg |

# Cable cutters

### Cu/Alu cable cutters

TED®

| PN | Length | Diameter | Weight |
|---|---|---|---|
| 31029 | 210mm | 12mm | 0.33kg |

### Angled socket wrench VDE

TED®

| PN | Length | Ø cu cable – alu | Branches | Weight |
|---|---|---|---|---|
| 32066 | 160mm | 16mm | Bi-material | 0.23kg |

# Spanner & wrenches

## Mixed spanners

### Set of mixed spanners

TED®

**Set composition:**
+ **Set of 6 wrenches:** Ø8 - 10 - 12 - 13 - 17 - 22mm
+ **Set of 16 wrenches :** Ø6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 22 - 24mm
+ **Set of 25 wrenches:** Ø6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 30 - 32mm

| PN | Designation | Weight |
|---|---|---|
| 32068 | Set of 6 chrome-plated combination wrenches Ø8 to 22mm | 1.30kg |
| 32069 | Set of 16 chrome-plated combination wrenches Ø6 to 24mm | 3.50kg |
| 32041 | Set of 25 chrome-plated combination wrenches Ø6 to 32mm | 5.20kg |

### Mixed spanner

TED®

| PN | Diameter | Weight | PN | Diameter | Weight |
|---|---|---|---|---|---|
| 32028 | 6mm | 0.02kg | 32037 | 16mm | 0.12kg |
| 32029 | 7mm | 0.02kg | 32024 | 17mm | 0.13kg |
| 32020 | 8mm | 0.02kg | 32034 | 18mm | 0.14kg |
| 32030 | 9mm | 0.02kg | 32025 | 19mm | 0.15kg |
| 32021 | 10mm | 0.04kg | 32035 | 20mm | 0.16kg |
| 32031 | 11mm | 0.05kg | 32036 | 21mm | 0.19kg |
| 32032 | 12mm | 0.06kg | 32026 | 22mm | 0.20kg |
| 32022 | 13mm | 0.07kg | 32038 | 24mm | 0.30kg |
| 32033 | 14mm | 0.10kg | 32019 | 27mm | 0.37kg |
| 32023 | 15mm | 0.11kg | 32027 | 32mm | 0.57kg |

# Various keys

## Technical plier set

TED®

| PN | Designation | Weight |
|---|---|---|
| 0950 | 4 in 1 technical plier set | 0.21kg |

## Wrench Adjustable

TED®



| PN | Length | Weight |
|---|---|---|
| 1000504 | 105mm | 0.14kg |
| 1000505 | 200mm | 0.25kg |
| 1000507 | 250mm | 0.43kg |
| 1000517 | 300mm | 0.71kg |
| 1000518 | 375mm | 1.50kg |

# Pipe wrench

The open-end pipe wrench provides in-depth access to nuts, even on long threaded rods.
The 12-sided design allows a smaller angle of recovery, so you don't get stuck when tightening or loosening.

## Set of angled socket wrench spanners

TED®



**Set composition:**
+ **Set of 5 wrenches**: Ø8 - 10 - 12 - 13 - 17mm
+ **Set of 11 wrenches** : Ø8 - 10 - 11 - 12 - 13 - 14 - 16 - 17
  - 18 - 19mm

| PN | Designation | Weight |
|---|---|---|
| 32070 | Set of 5 angled socket wrench spanners Ø8-17mm | 0.60kg |
| 3585 | Set of 10 angled socket wrenches 6x12 flats Ø8 to 19mm | 2.23kg |

## Angled socket wrench

TED®



| PN | Diameter | Weight | PN | Diameter | Weight |
|---|---|---|---|---|---|
| 32009 | 6mm | 0.09kg | 32004 | 15mm | 0.23kg |
| 32010 | 7mm | 0.09kg | 32005 | 16mm | 0.24kg |
| 32001 | 8mm | 0.09kg | 32006 | 17mm | 0.25kg |
| 32011 | 9mm | 0.09kg | 32015 | 18mm | 0.26kg |
| 32002 | 10mm | 0.09kg | 32007 | 19mm | 0.27kg |
| 32012 | 11mm | 0.13kg | 32016 | 20mm | 0.28kg |
| 32013 | 12mm | 0.16kg | 32017 | 21mm | 0.29kg |
| 32003 | 13mm | 0.18kg | 32008 | 22mm | 0.30kg |
| 32014 | 14mm | 0.20kg | | | |

# Head lamp & projectors

The concept of a headlamp, with or without a rear housing, is now a matter of course in our business. By freeing up the hands of technicians, any activity can be carried out thanks to a beam of light that is always aimed in the direction of vision. The headlamp is a factor of efficiency and safety in the workplace. That's why we're constantly expanding our range of innovative, high-quality products that make work more comfortable.
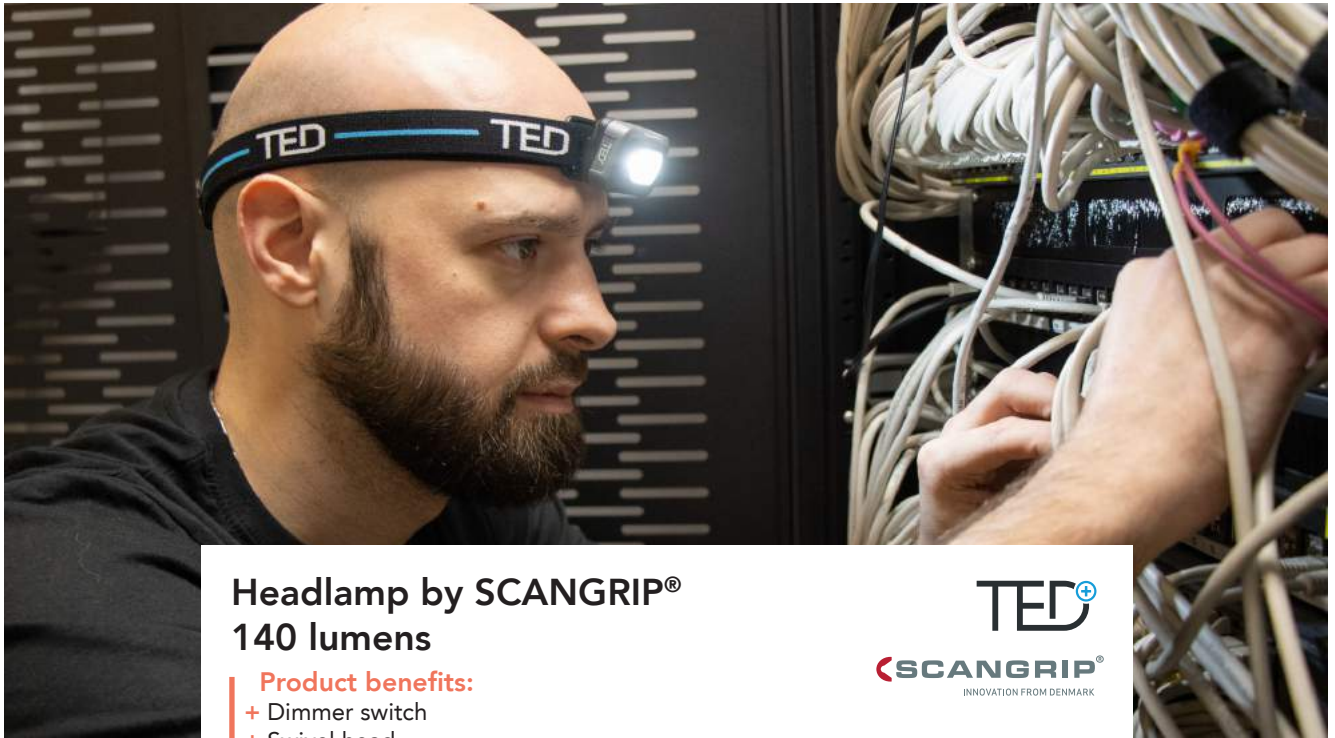


## Headlamp by SCANGRIP®
## 140 lumens

### Product benefits:
+ Dimmer switch
+ Swivel head

### Technical specifications:
+ Power: 140 lumens
+ Power supply: 2 AAA/LR03 1.5 V batteries (not included)
+ CE certified
+ Tightness: IP30

| PN | Designation | Weight |
|---|---|---|
| 35003 | TED® Headlamp by SCANGRIP® 140 lumens | 0.04kg |

## 1500 lumen compact projector with TED®



### Product benefits:
+ Magnetic mounting in and/or on a tripod
+ Spotlight with intensity control to adjust the battery life
+ Excellent value for money

### Technical specifications:
+ Output: 250 to 1500 lumens
+ Dual mounting system: magnetic and tripod for proximity and area lighting

| PN | Designation | Weight |
|---|---|---|
| 1001433 | 1500lm compact magnetic projector with dimmer switch - TED® | 0.58kg |
| 1001434 | TED® spotlight mounting accessory for 2m SCANGRIP® tripods | - |
| 1001249 | 0.9 to 2m tripod for SCANGRIP®/TED® projectors | 2.5kg |

# Sledge hammers

## Steel weight
TED®



| PN | Designation | Weight |
|---|---|---|
| 1002052 | 90cm TED® sledge hammer with fiber glass handle | 4.5kg |

## Sledge hammer
TED®



| PN | Designation | Weight |
|---|---|---|
| 1002050 | 25cm TED® mini sledge hammer with fiber glass handle | 1.5kg |

# Cold chisel

## Cold Chisel
TED®



PN: 1000782



PN: 1000805/1000804

| PN | Designation | Weight |
|---|---|---|
| 1000782 | TED® Cold Chisel - 300mm | 0.480kg |
| 1000804 | TED® Shock-absorbing Cold Chisel - 250mm | 0.550kg |
| 1000805 | TED® Shock-absorbing Cold Chisel - 300mm | 0.620kg |

## Pointed Chisel
TED®



PN: 1000783



PN: 1000806

| PN | Designation | Weight |
|---|---|---|
| 1000783 | TED® Pointed Chisel - 300mm | 0.450kg |
| 1000806 | TED® Shock-absorbing Pointed Chisel- 300mm | 0.530kg |

# Stripping pliers

## Crowbar
TED®



| PN | Designation | Weight |
|---|---|---|
| 1000514 | TED® Crowbar - 600mm | 1.3kg |
| 1000515 | TED® Crowbar - 800mm | 1.8kg |

# Heel Point Crowbar

## Heel Point Crowbar
TED®



| PN | Designation | Weight |
|---|---|---|
| 1000511 | TED® Heel Point Crowbar - 1.5m length | 8.30kg |
| 1000512 | TED® Heel Point Crowbar - 2m length | 13kg |
| 1000513 | TED® Heel Point Crowbar - 2.5m length | 17kg |

# Glue gun & glue sticks

## Professional glue gun 18-200W

TED®

This high-temperature gun (195°C) uses 11/12mm-diameter glue sticks. It's an efficient glue gun, especially for interior work. With a short heat-up time of two minutes, it's quickly ready for gluing operations on a wide range of materials, such as wood, plastic, glass and others, using glue sticks.

**Product benefits:**
+ Professional bonding
+ Precision nozzle
+ Ergonomic handle
+ Easy-to-handle trigger for consistent glue production
+ Reliable and durable

| PN | Designation | Weight |
|----|-------------|--------|
| 32071 | Professional glue gun 18-200W | 0.64kg |

## Transparent glue sticks

TED®

Versatile TED® transparent glue stick. Works with electric glue guns.

| PN | Glue stick dimensions | UV | Weight |
|----|----------------------|-----|--------|
| 0508 | Ø12mm x 20cm | Bag | 1kg |

# TOOLKITS

## Toolkits

### Fibre Splicers

Meticulously designed to meet the demands of modern telecommunication installations, ensuring reliable and efficient network connectivity. Whether you're a seasoned professional or a beginner in the field, this comprehensive kit equips you with the essential tools and equipment to achieve precise and high-quality fibre splicing results.

#### Fibre Splicer's Toolkit

TED®



| PN | Designation |
|----|-------------|
| PN | Fibre Splicer's Toolkit TED® Backpack |
| PN | Fibre Splicer's Toolkit TED® Tool Bag |
| PN | Fibre Splicer's Toolkit TED® Trolley Backpack |

#### Fibre Splicer's Toolkit Customer Connexion

TED®



| PN | Designation |
|----|-------------|
| PN | Fibre Splicer's Toolkit - Customer Connection TED® Backpack |
| PN | Fibre Splicer's Toolkit - Customer Connection TED® Trolley Backpack |
| PN | Fibre Splicer's Toolkit - Customer Connection TED® Crossbody Bag |

### Fibre Jointers

The toolkit includes various essential tools and instruments that aid in preparing, splicing, and testing fibre optic cables.

#### Fibre Jointer's Toolkit

TED®



| PN | Designation |
|----|-------------|
| PN | Fibre Jointer's Toolkit TED® Trolley Bag |
| PN | Fibre Jointer's Toolkit TED® Tool Bag |
| PN | Fibre Jointer's Toolkit TED® Backpack |
| PN | Fibre Jointer's Toolkit TED® Trolley Backpack |

### Copper Jointers

This specialised collection of tools and equipment is designed for professionals who work with copper cables.

#### Copper Jointer's Toolkit

TED®



| PN | Designation |
|----|-------------|
| PN | Copper Jointer's Toolkit TED® Trolley Bag |
| PN | Copper Jointer's Toolkit TED® Tool Bag |
| PN | Copper Jointer's Toolkit TED® Backpack |
| PN | Copper Jointer's Toolkit TED® Trolley Backpack |

# CABLE LABELING & IDENTIFICATION

## Label printers

### M210 labeller + label pack

**BRADY**

| Technical specifications:
+ Easy to use
+ QWERTY keyboard
+ Large display
+ Keyboard shortcuts
+ Print preview
+ Power supply: 6 AAA batteries (not included)

| PN | Designation | Weight |
|---|---|---|
| 20379 | Pack BRADY M210 labeller + 10 boxes B-427 38.10mm B/W transparent labels | 1.64kg |
| 20380 | Pack BRADY M210 labeller + 10 boxes B-499 19.05mm B/W labels | 1.52kg |
| 19364 | Pack BRADY M210 labeller + 10 boxes of B-499 12.70mm B/W labels | 1.02kg |
| 19365 | Pack BRADY labeller M210 + 5 boxes B-499 19.05mm B/W + 5 boxes B-427 38mm B/W-T | |

## Identify each cable or component

### M210

• **Easy to use and transport**

• **Ready-to-use cartridges**

• **Label widths from 6 to 19.05mm**

• **9 materials - 70 part numbers**

### M610

• **High-quality 300 dpi printing**

• **Connectivity: USB 2.0 and wifi (optional)**

• **Automatic label calibration with Smart Cell technology**

• **Pre-cut labels and continuous strips up to 50.8mm wide**

With the support and expertise of Brady, Telenco is able to offer complete solutions for the printing and identification of Telecom Datacom cables.

**BRADY®**     **Telenco**

# Labels

## Labels



PN: 12587



PN: 1000982

| PN | Material | Dimensions | Printer compatibility | UV | Weight |
|---|---|---|---|---|---|
| 12587 | B-499 | 19.05mm (4.88m) | BMP21/M210/M211 | Continuous roll | 0.08kg |
| 13596 | B-427 | 38.10mm (4.30m) | BMP21/M210/M211 | Continuous roll | 0.08kg |
| 14859 | B-595 | 9.53mm (6.40m) | BMP21/M210/M211 | Continuous roll | 0.07kg |
| 15090 | B-499 | 9.53mm (4.88m) | BMP21/M210/M211 | Continuous roll | 0.07kg |
| 15091 | B-499 | 12.70mm (4.88m) | BMP21/M210/M211 | Continuous roll | 0.07kg |
| 15092 | B-595 | 19.05mm (6.40m) | BMP21/M210/M211 | Continuous roll | 0.08kg |
| 16140 | B-109 | 76.20 x 19.05mm | BBP11/BBP12 | Box 1000 | 0.53kg |
| 1000980 | B-109 | 19.05 x 76.20mm | M710 | Continuous roll | 0.08kg |
| 1000982 | B-109 | 19.05 x 76.2mm | M611/M610/M710 | Box 1000 | 0.53kg |
| 1000983 | B-7598 | 73.8 x 49mm | M611/M610/M710 | Box 1000 | 0.53kg |

## Ribbons



PN: 15465



PN: 1001020

| PN | Material | Dimensions | Printer compatibility | Color | Weight |
|---|---|---|---|---|---|
| 14815 | R4300 | 50.8mm x 46m | BMP71/M710 | Black | 0.140kg |
| 15464 | R6010 | 50.8mm x 22.8m | M611/BMP61/M610 | Black | 0.100kg |
| 15465 | R4310 | 50.8mm x 22.8m | M611/BMP61/M610 | Black | 0.100kg |
| 1001016 | R4300 | 50mm x (45.72m) | M710 | Black | 0.140kg |
| 1001020 | R4400 | 50.8mm x 22.8m | M611/M610 | White | 0.100kg |
| 1001021 | R6010 | 50.8mm x 22.8m | M611/M610 | Black | 0.100kg |

# CABLE LABELING & IDENTIFICATION

## Label printers

### M210 Label printer
**BRADY**



| PN | Designation | Weight |
|---|---|---|
| 20095 | BRADY M210 labeller alone | 0.79kg |
| 20096 | BRADY M210 labeller with battery + charger + case | 2.64kg |

### M211 Label printer
**BRADY**



| PN | Designation | Weight |
|---|---|---|
| 20099 | BRADY M211 labeller alone | 0.76kg |
| 20100 | BRADY M211 labeller + external battery + charger + case | 7.4kg |

### BMP51 Label printer
**BRADY**



| PN | Designation | Weight |
|---|---|---|
| 16141 | BMP51 labeller + BradyWorkstation basic software | 1.4kg |

|  | M210 Label printer | M211 Label printer | BMP51 Label printer |
|---|---|---|---|
|  | Simple and individual | Simple and individual | Simple and simultaneous, individual and multiple advanced |
| Keyboard | ABC | No keyboard | QWERTY |
| Batteries | 6 AA batteries (not included) or rechargeable battery (not included) | lithium-ion battery, internal, non-removable | 8 AA batteries - Rechargeable battery - AC adapter |
| Print speed | 10 (mm/s) | 15,24 (mm/s) | 25.40 (mm/s) |
| Impression in stand-alone mode (Without PC connection) | Autonomous | Bluetooth smartphone | Autonomous & peripheral |
| Connectivity options | - | Bluetooth | USB, Bluetooth, Optional: Ethernet, Wi-Fi |
| Cutter | Manual cutting Straight cut With label retention | Automatic cutter With label retention | Manual cutting Between labels or at the end of the job Printing With label retention |
| Flash memory | - | - | 48 MB - Up to 25,000 labels |
| Bar code | Code 39 and 128, Datamatrix and Code QR | Code 39 and 128, others via application | Code 39 and 128, others via application |
| Dimensions (WxHxD) | 125 x 50 x 235mm | 101 x 66 x 137mm | 155 x 90 x 255mm |
| Composition | PN W5010: M210 only PN W5010-UK: Rigid case - Battery in lithium-ion - Power cable | PN W5011: M211 only PN W5011-UK: hard case - external battery - power cable - belt clip | Hard case - Lithium-ion battery USB cable - Mains adapter - Continued by Brady Workstation - Cartridge MC1-1000-422 |
| Max width (label) | 19.00mm | 19.00mm | 38.10mm |
| Max width (impression) | 16.00mm | 15.75mm | 36.00mm |
| Min width (label) | 6.40mm | 6.40mm | 6.40mm |
| Supported materials | More than 60 standard references: continuous sleeves | More than 60 standard references: continuous sleeves | More than 200 standard references: webs and labels pre-cut |
| Label colours | white, yellow | white, yellow | white, blue, yellow, black, orange, red, transparent, green |
| Screen | Monochrome LCD screen | - | Monochrome LCD screen |
| Print resolution | 203 dpi | 203 dpi | 300 dpi |
| Text size | 6-40 pt | 6-40 pt | 4-102 pt |
| Embedded symbols | 215 symbols included | Selon le logiciel utilisé | 405 symbols included |
| Guarantee | 2 years | 2 years | 2 years |

# M611 Label printer
**BRADY**



| PN | Designation | Weight |
|----|-------------|--------|
| 17367 | M611 labeller + Wifi + BradyWorkstation basic software | 1.6kg |

# M610 Label printer
**BRADY**



| PN | Designation | Weight |
|----|-------------|--------|
| 1000855 | Brady M610 Labeller with QWERTY keyboard and Bluetooth | 1.5kg |

# M710 Label printer
**BRADY**



| PN | Designation | Weight |
|----|-------------|--------|
| 1000854 | M710 labeller + BradyWorkstation basic software | 6.4kg |

| M611 Label printer | M610 Label printer | M710 Label printer |
|---|---|---|
| Multiple and linked | Multiple and linked | Simple and simultaneous, individual and multiple advanced |
| No | QWERTY | QWERTY |
| Rechargeable battery - AC adapter | Rechargeable battery Mains adapter | Rechargeable battery - AC adapter |
| 33.80 (mm/s) | 33.80 (mm/s) | 38.10 (mm/s) |
| Peripheral | Autonomous & peripheral | Autonomous & peripheral |
| Bluetooth, USB, Wifi | USB 2.0, Flash Drive, Optional: Wifi | USB |
| Automatic cutter | Manual cutting | Automatic cutter |
| - | 512 Mo - Up to 4500 labels | 200 Mo - Jusqu'à 4500 étiquettes |
| Code 39 and 128, others via software | Code 39 and 128, others via software | Code 39 and 128, others via software |
| 113 x 115 x 279mm | 107 x 106 x 328mm | 241 x 116 x 332mm |
| USB cable - AC power cable - Wrist strap - USB key with product information - Brady Workstation suite - Label roll M6-97-488 - Ink ribbon M61-R4310 Ink ribbon M61-R4310 | Rigid case – Battery - Mains adapter - USB Cable - Wrist Strap - Brady Suite Workstation - Roll of labels PTL-19-423 Ink ribbon M61-R6010 | Hard case - NiMH battery - AC adapter - USB cable - Brady Workstation Suite - Cleaning kit - Adapter for TLS2200/HandMark™ label rolls - Consumables M7-31-423; M7C-2000-595-WT; M7-R6000 |
| 50.80mm | 50.80mm | 50.80mm |
| 48.76mm | 48.76mm | 45.97mm |
| 6.40mm | 6.40mm | 6.40mm |
| More than 800 standard references: continuous sleeves, die-cut labels rolls and bulk labels, personalized labels and ribbons | More than 8000 standard references: sleeves continuous, die-cut label rolls and wholesale packaging, labels and bands personalised | Over 1,300 references: rolls of continuous labels, die-cuts and bulk packaging |
| LCD Colour touch screen | Colour touch screen | LCD Colour touch screen |
| 300 dpi | 300 dpi | 300 dpi |
| In the express labels application | 4-174 pt | 4-174 pt |
| In the express labels application | 450 symbols included | More than 500 symbols included |
| 2 years | 2 years | 2 years |
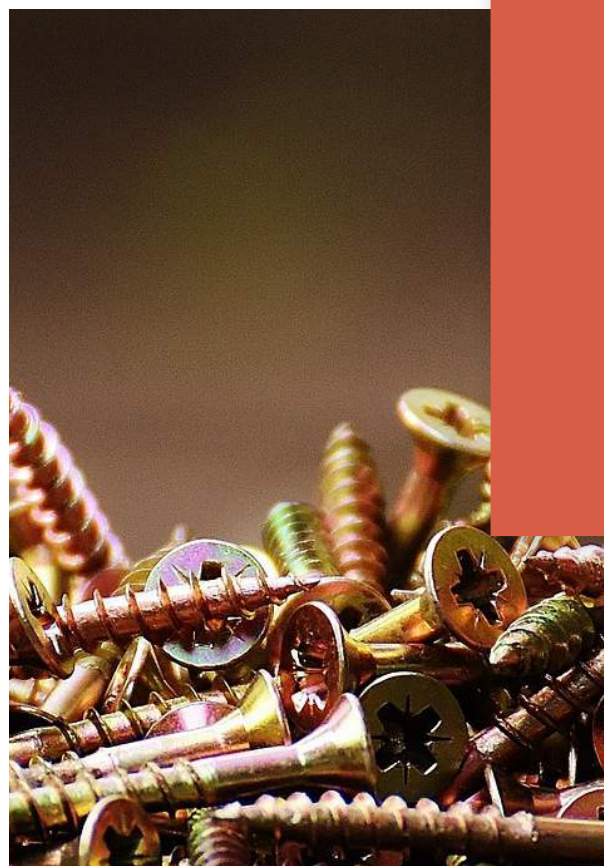
# Tooling

## Consumables

# CABLE INSTALLATION

## Glue sticks

### Transparent glue sticks

Versatile TED® transparent glue stick. Works with electric glue guns (see p.93).

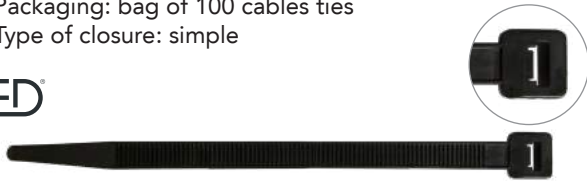| PN | Glue stick dimensions | UV | Weight |
|---|---|---|---|
| 0508 | Ø12mm x 20cm | Bag | 1kg |

## Cable ties

### A6.6 cable ties

Highly UV-resistant TED® cable ties for indoor and outdoor applications.

**Technical specifications:**
+ Packaging: bag of 100 cables ties
+ Type of closure: simple

| PN ● | Dimensions | Weight |
|---|---|---|
| 0490 | 100 x 2.5mm | 0.03kg |
| 0403 | 150 x 3.6mm | 0.08kg |
| 0404 | 190 x 4.8mm | 0.15kg |
| 6679 | 200 x 2.5mm | 0.06kg |
| 2007 | 200 x 3.6mm | 0.10kg |
| 2821 | 200 x 7.6mm | 0.28kg |
| 4468 | 250 x 7.6mm | 0.43kg |
| 0491 | 280 x 4.8mm | 0.21kg |
| 1595 | 300 x 3.6mm | 0.15kg |
| 0492 | 360 x 4.8mm | 0.26kg |
| 5214 | 360 x 7.6mm | 0.52kg |
| 2825 | 630 x 7.8mm | 1.02kg |
| 17884 | 762 x 9mm | 1.44kg |

| PN ○ | Dimensions | Weight |
|---|---|---|
| 0493 | 100 x 2.5mm | 0.03kg |
| 0494 | 150 x 3.6mm | 0.08kg |
| 0495 | 190 x 4.8mm | 0.13kg |
| 1671 | 200 x 2.5mm | 0.06kg |
| 2094 | 200 x 3.6mm | 0.1kg |
| 0496 | 280 x 4.8mm | 0.21kg |
| 1675 | 290 x 3.6mm | 0.16kg |
| 1673 | 360 x 4.8mm | 0.25kg |
| 0497 | 365 x 7.8mm | 0.52kg |

### PA6 double lock cable ties

**Technical specifications:**
+ Packaging: bag of 100 cable ties
+ Closure type: double

| PN ● | Dimensions | Weight |
|---|---|---|
| 0377 | 180 x 9mm | 0.25kg |
| 0378 | 260 x 9mm | 0.64kg |
| 0379 | 360 x 9mm | 0.51kg |

### Removable notched cable tie PA12

These removable cable ties can be used for both indoor and outdoor applications, thanks to their UV resistance.

**Technical specifications:**
+ Packaging: bag of 100 cable ties
+ Closure type: detachable notched

| PN ● | Dimensions | Diameter | Weight |
|---|---|---|---|
| 2822 | 187 x 9mm | Ø10-42m | 0.38kg |
| 2823 | 251 x 9mm | Ø20-62m | 0.48kg |
| 2824 | 344 x 9mm | Ø20-92m | 0.64kg |

# Cable clips

## Cable clip

TED® cable clip for round cables. Cable clip in UV-resistant polypropylene. Hardened steel spikes with electro-galvanized surface treatment. Salt-air resistant.

TED®

| PN ● | Diameter | UV | Weight |
|---|---|---|---|
| 1000419 | Ø3.5mm | 100 | 0.12kg |
| 1000413 | Ø4mm | 100 | 0.09kg |
| 1000414 | Ø5mm | 100 | 0.1kg |
| 1000415 | Ø6 mm | 100 | 0.1kg |
| 1000416 | Ø7mm | 100 | 0.12kg |
| 1000417 | Ø8mm | 100 | 0.13kg |
| 1000418 | Ø10mm | 100 | 0.17kg |
| 1000409 | Ø12mm | 100 | 0.13kg |
| 1000411 | Ø14mm | 50 | 0.32kg |
| 1000412 | Ø16mm | 25 | 0.32kg |

| PN ○ | Diameter | UV | Weight |
|---|---|---|---|
| 19214 | Ø3.5mm | 100 | 0.12kg |
| 0542 | Ø4mm | 100 | 0.09kg |
| 0445 | Ø5mm | 100 | 0.1kg |
| 0447 | Ø6mm | 100 | 0.1kg |
| 0449 | Ø7mm | 100 | 0.12kg |
| 0451 | Ø8mm | 100 | 0.13kg |
| 4277 | Ø10mm | 100 | 0.17kg |
| 4417 | Ø12mm | 100 | 0.13kg |
| 2372 | Ø14mm | 100 | 0.32kg |
| 7778 | Ø16mm | 100 | 0.32kg |

| PN ● | Diameter | UV | Weight |
|---|---|---|---|
| 0543 | Ø4mm | 100 | 0.09kg |
| 0444 | Ø5mm | 100 | 0.09kg |
| 0446 | Ø6mm | 100 | 0.1kg |
| 0448 | Ø7mm | 100 | 0.12kg |
| 0450 | Ø8mm | 100 | 0.13kg |
| 2376 | Ø10mm | 100 | 0.3kg |
| 2371 | Ø12mm | 100 | 0.13kg |
| 0544 | Ø14mm | 100 | 0.29kg |
| 0545 | Ø16mm | 25 | 0.32kg |
| 0546 | Ø18mm | 60 | 0.37kg |

## Wall plug cable clip

Cable holder + dowel for clean, aesthetic wall mounting of flat, round or figure-8 copper pair, fiber optic or video cables.

**Technical specifications:**
+ Polyamide material
+ UV-resistant
+ Installed every 30 cm
+ Packaging: 200-count bag

TED®

PN: 6053    PN: 0353    PN: 0350    PN: 0351

| PN ● | Model | Diameter | Weight |
|---|---|---|---|
| 13417 | Round | Ø4-5mm | 0.19kg |
| 6053 | Round | Ø5-6mm | 0.19kg |
| 1577 | Round | Ø6-7mm | 0.1kg |
| 1581 | Round | Ø8-9mm | 0.14kg |
| 1579 | Round | Ø9.8 - 10.7mm | 0.15kg |
| 0353 | Oval | Ø13x7mm | 0.23kg |

| PN ○ | Model | Diameter | Weight |
|---|---|---|---|
| 7273 | Round | Ø4-5mm | 0.19kg |
| 0350 | Round | Ø5-6mm | 0.2kg |
| 1578 | Round | Ø6-7mm | 0.1kg |
| 1582 | Round | Ø8-9mm | 0.13kg |
| 1580 | Round | Ø9.8 - 10.7mm | 0.15kg |
| 0351 | Oval | Ø13x7mm | 0.18kg |

| PN ○ | Model | Diameter | Weight |
|---|---|---|---|
| 16998 | Round | Ø6-7mm | 0.1kg |

# Wall plug for cable tie

## M7 screw-on base

TED®

For quick fastening of cables, pipes and sheaths using clamps maximum width 9mm. Fixing with a screw-in dowel or TF 5mm screws.

| PN | UV | Weight |
|---|---|---|
| 0385 | 100 | 0.16kg |

## Dowel base

TED®

For quick fastening of cables, pipes and sheaths using clamps maximum width 9mm.

**Technical specifications:**
+ UV-resistant
+ Hole diameter: 8mm

TOOLING Consumables

# CABLE PULLING

## Tapes

### Crepe paper

Thermal insulation used to wrap splices before heat-shrinking. shrinking the heat-shrink sleeves.

Technical specifications:
+ Weight: 72 g

| PN | Dimensions | Weight |
|---|---|---|
| 0371 | 7m x 70mm | 0.1kg |

### Tanned tape

It enables bundles to be shrunk onto telephone cables. It is particularly useful for making joints.

Technical specifications:
+ Material: non-adhesive PVC

| PN | Dimensions | Weight |
|---|---|---|
| 0558 | 50m x 40mm | 0.52kg |
| 0559 | 50m x 70mm | 1.36kg |

### Green anti-corrosion grease strip

Cold-applied greasy green tape without primer. external anti-corrosion protection of buried or insulated buried or insulated networks. Sealing tape for temporary protection temporary protection of cable splices.

| PN | Dimensions | Weight |
|---|---|---|
| 0556 | 10m x 50mm | 0.72kg |
| 0557 | 10m x 100mm | 1.47kg |

### Reinforced adhesive tape

**3M**

Tape used for longitudinal and transverse fiberglass reinforcement. and transverse reinforcement. Secures PVC pipes in telecom civil engineering civil engineering trenches. Bundling.

Technical specifications:
+ Material: reinforced polypropylene

| PN | Dimensions | Weight |
|---|---|---|
| 0872 | 50m x 25mm x 145µm | 0.19kg |
| 1797 | 50m x 50mm x 145µm | 0.37kg |

### SCOTCH 23T adhesive tape

**3M**

Scotch Tape 23T is an EPR (ethylene-propylene elastomer) electrical insulating tape. Self-welding, cold-applied. Suitable for low, medium and high-voltage applications.

| PN | Dimensions | Weight |
|---|---|---|
| 0857 | 7m x 25mm | 0.22kg |

### Aluminium tape

Tape consisting of a smooth aluminum foil coated with a transparent acrylic adhesive. For indoor and outdoor use.

Technical specifications:
+ Non-flammable

| PN | Dimensions | Weight |
|---|---|---|
| 0591 | 50m x 50mm | 0.22kg |

## Self-amalgamating tape

Designed for splicing and repairing a wide range of electrical cables up to 46kV. It seals polyethylene sheaths for buried and overhead telephone cables.

| PN | Dimensions | Weight |
|----|-----------|--------|
| 0431 | 10m x 25mm x 0.5mm | 0.13kg |
| 7990 | 10m x 50mm x 0.5mm | 0.38kg |

## TP tape

Outdoor use: marking, signage, fixing and repair.

**Technical specifications:**
+ Material: PVC

| PN | Dimensions | Weight |
|----|-----------|--------|
| 1928 | 33m x 48mm | 0.304kg |

## Insulating tape

This self-adhesive PVC tape is used for insulating and identifying power and telecom cables, and for shrinking cables.

**Product benefits:**
+ Excellent elongation
+ Tears easily without special tools

| PN | Dimensions | Color | UV | Weight |
|----|-----------|-------|-----|--------|
| 0488 | 10m x 15mm | | 10 | 0.3kg |
| 0432 | 20m x 19mm | ⚫ | | 0.92kg |
| 0433 | 20m x 38mm | | 1 | 0.18kg |
| 0489 | 20m x 50mm | | | 0.261kg |
| 1118 | 10m x 15mm | ⚪ | | 0.29kg |
| 1119 | 10m x 15mm | 🔵 | | 0.29kg |
| 1126 | 10m x 15mm | ⚫ | | 0.31kg |
| 1121 | 10m x 15mm | 🟡 | | 0.32kg |
| 1125 | 10m x 15mm | 🟤 | | 0.31kg |
| 1124 | 10m x 15mm | 🟠 | 10 | 0.31kg |
| 1123 | 10m x 15mm | 🔴 | | 0.29kg |
| 1843 | 25m x 19mm | 🔴 | | 0.87kg |
| 1122 | 10m x 15mm | 🟡🟢 | | 0.31kg |
| 1120 | 10m x 15mm | 🟢 | | 0.28kg |

# Ropes

**Product benefits:**
+ Rot-proof, can be left standing in sheaths
+ UV: stabilized

### PP ropes

Twine for tube and pipe routing. Versatile and economical, it is compatible with our wire guides and can be blown into pipes. Its friction-sensitive nature limits its re-use.

### Braided switch wire

Fine braided yarn with a smooth texture, available in lengths up to 2500m. Made from polyester, its elongation provides good shock absorption. It can be blown and reused for multiple runs.

### Monofilament

Extremely robust, reusable switch wire. Made from polyamide, it offers the best shock absorption and longest service life in the range. This smooth switch wire can be blown into pipes.

| PN | Model | Color | Material | Resistance | Diameter | Length | UV | Weight |
|---|---|---|---|---|---|---|---|---|
| 14235 | PP | ● | Polypropylene | 333daN | 3mm | 1350m | Coil | 10kg |
| 13279 | PP | ● | Polypropylene | 200daN | 3mm | 1000m | Coil | 5kg |
| 15078 | PP | ● | Polypropylene | 152daN | 3mm | 1450m | Coil | 5kg |
| 7814 | PP | ● | Polypropylene | 152daN | 3mm | 1450m | Coil | 5kg |
| 7815 | PP | ● | Polypropylene | 110daN | 3mm | 2000m | Coil | 5kg |
| 13268 | PP | ● | Polypropylene | 76daN | 3 mm | 2900m | Coil | 5kg |
| 0429 | Braided | ○ | Polyester | 55daN | 1.3mm | 2500m | Touret | 2.6kg |
| 2160 | Braided | ◐ | Polyester | 110daN | - | 1000m | Touret | 1.7kg |
| 0803 | Braided | ◐ | Polyester | 110daN | - | 2500m | Touret | 4.9kg |
| 2132 | Braided | ○ | Polyester | 145daN | 2.5mm | 900m | Touret | 2.7kg |
| 0804 | Braided | ◑ | Polyester | 175daN | - | 2500m | Touret | 7.9kg |
| 0805 | Monofilament | ● | Polyamide | 100daN | 1.8mm | 1000m | Touret | 4kg |
| 0806 | Monofilament | ○ | Polyamide | 230daN | 3mm | 1000m | Touret | 9.4kg |

**FOR OUR COIL TWINES.** we recommend the use of the reel for switch twine.

PN: 0560

**FOR OUR REEL STRINGS.** we recommend the use of the TED® reel.

PN: 1001382

# Lubricants

## Expert's advice

### How to choose the right lubricant and grease?

| CATEGORY | PN | DESIGNATION | PACKAGING |
|---|---|---|---|
| **1. COPPER** | 15921 | YELLOW 77 | 18.9L |
| **2. COPPER - OPTICAL FIBER** | 18267 | POLYWATER NN | 3.8L |
| | 18268 | POLYWATER NN | 19L |
| **3. OPTICAL FIBER - BLOWING** | 12045 | PRELUBE 2000 | 0.9L |
| | 12501 | PRELUBE 2000 | 3.8L |
| | 12502 | PRELUBE 2000 | 19L |
| **3. OPTICAL FIBER- SMALL OR SHORT NO-BLOW DEPLOYMENT** | 4111 | POLYWATER F | 3.8L |
| | 2695 | POLYWATER F | 19L |
| **4. OPTICAL FIBER - ELECTRICITY** | 18267 | POLYWATER NN | 3.8L |
| | 18268 | POLYWATER NN | 19L |
| **5. ELECTRICITY** | 0598 | SPECA H PULLING GREASE | 5kg |
| | 1605 | SPECA H PULLING GREASE | 25kg |
| **6. COPPER - ELECTRICITY** | 4992 | YELLOW 77 | 1L |
| **7. D3** | 4112 | POLYWATER J | 1L |
| | 7444 | POLYWATER J | 3.8L |
| | 2095 | POLYWATER J | 19L |
| | 5791 | Spray FTTx | 1L |
| | 0962 | CLR type YELLOW | 1L |

## TED® by Polywater® lubricant selection guide

| | J Polywater | | | F Polywater | | NB Polywater | Prelube 2000 | | | Prelube 5000 |
|---|---|---|---|---|---|---|---|---|---|---|
| Application | Copper print | | | Optical pulling | | Copper print | Optical Blower | | | |
| Order reference | 4112 | 7444 | 2095 | 4111 | 2695 | 7336 | 12045 | 12501 | 12502 | 12500 |
| Capacity (in liters) | 1 | 3.8 | 19 | 3.8 | 19 | 19 | 0.9 | 3.8 | 19 | 0.24 |

**Product benefits:**
+ Specific for pulling fiber optic cables

**Product benefits:**
+ Designed for carrying and blowing fiber optic cables into HDPE pipes

**Product benefits:**
+ Fire resistance

**Product benefits:**
+ Exceptional lubricating properties over time
+ Designed for carrying and blowing fiber optic cables in HDPE pipes.

## Selection guide - Lubricant

| | Polywater CLR type Yellow | Ideal Networks YELLOW 77 |
|---|---|---|
| Application | Electrical deployment | |
| Order reference | 0962 | 4992 |
| Capacity (in liters) | 1 | 1 |

**Product benefits:**
+ Adheres to biodegradable cable

**Product benefits:**
+ Specific for pulling electrical wires and cables. Used for building and site deployment
+ Chemically neutral (no damage to conduits or wire insulation)

## Selection guide - greases

| | SPECA H | |
|---|---|---|
| Application | Electrical deployment | |
| Order reference | 0598 | 1605 |
| Capacity (in liters) | 5 | 25 |

**Product benefits:**
+ Remarkable stability over time
+ Color: brown

# Pulling lubricants

## NB silicone lubricant with microbeads

**TED®**

PN: 7336

Liquid lubricant with silicone and microbeads

**Product benefits:**
+ Exceptional lubricating properties over time
+ For long-distance pulling, blowing and carrying
+ Retains its lubricating properties even in the presence of water in the pipes

| PN | UV | Weight |
|---|---|---|
| 7336 | 19L bucket | 19kg |

## F lubricant

**Polywater®**
Solutions at work.

PN: 4111          PN: 2695

Clean, slow-drying, water-based lubricating gel. Reduces tensile stress when pulling cables. Particularly suitable for D1/D2 fiber optic cable pulls.

| PN | UV | Weight |
|---|---|---|
| 4111 | Can 3.8L | 3.82kg |
| 2695 | 19L bucket | 19.502kg |

## J lubricant

**Polywater®**
Solutions at work.

PN: 4112          PN: 7444          PN: 2095

Slow-drying, water-based lubricating gel. Suitable for long-distance deployments. Non-flammable. Particularly suitable for fiber optics.

| PN | UV | Weight |
|---|---|---|
| 4112 | 1L bottle | 0.946kg |
| 7444 | 3.8L bucket | 3.96kg |
| 2095 | 19L bucket | 18.837kg |

## Prelube 2000 and Prelube 5000 lubricants

**Polywater®**
Solutions at work.

PN: 12045          PN: 12501          PN: 12502          PN: 12500

Slow-drying, water-based gel lubricant for carrying and blowing fiber-optic cables in HDPE pipes. Suitable for long-distance deployments.

| PN | UV | Weight |
|---|---|---|
| 12045 | 0.9L bottle (Prelube 2000) | 0.953kg |
| 12501 | 3.8L canister (Prelube 2000) | 3.9kg |
| 12502 | 19L bucket (Prelube 2000) | 19kg |
| 12500 | 0.24L bottle (Prelube 5000) | 0.25kg |

# PPE

## Gloves

### Leather gloves

EN 388
2.1.2.1.X

CE

**Technical specifications:**
+ Full grain cowhide leather palm
+ Back to index
+ Cowhide split back
+ American cut

| PN | Size | Weight |
|---|---|---|
| 18181 | 8 | 0.15kg |
| 14146 | 9 | 0.15kg |
| 14147 | 10 | 0.15kg |
| 15373 | 11 | 0.15kg |

### Gripper gloves

EN 388
2.1.2.1.X

CE

**Technical specifications:**
+ Polyamide / spandex
+ Nitrile coating
+ Polyurethane on palm and fingertips
+ Nitrile dots on palm

| PN | Size | Weight |
|---|---|---|
| 18212 | 8 | 0.05kg |
| 17012 | 9 | 0.05kg |
| 17013 | 10 | 0.05kg |

### Cut-resistant gloves

EN 388
4.X.4.2.D

CE

**Technical specifications:**
+ High-performance fiber
+ Polyurethane coating on palm and fingertips

| PN | Size | UV | Weight |
|---|---|---|---|
| 16984 | 7 | lot of 3 | 0.23kg |
| 15029 | 8 | lot of 3 | 0.23kg |
| 15028 | 9 | lot of 3 | 0.23kg |
| 15030 | 10 | lot of 3 | 0.23kg |
| 18211 | 11 | lot of 3 | 0.23kg |

---

## Expert's advice

### Understanding EN 388 standard

EN 388 consists of 5 to 6 notes:

- Abrasion resistance: **from 1 to 4**
- Slicing cut resistance (old notation): **from 1 to 5**
- Tear resistance: **from 1 to 4**
- Puncture resistance: **from 1 to 4**
- Cut resistance TDM (new notation): **from A to F**
- Impact resistance (optional): **P**

EN 388
3.1.2.2.X

## Choosing the right glove size

Place your right hand on the green mark between your thumb and forefinger as shown in the diagram.
Read your height on the right side of your hand.

| 06 | 07 | 08 | 09 | 10 | 11 |
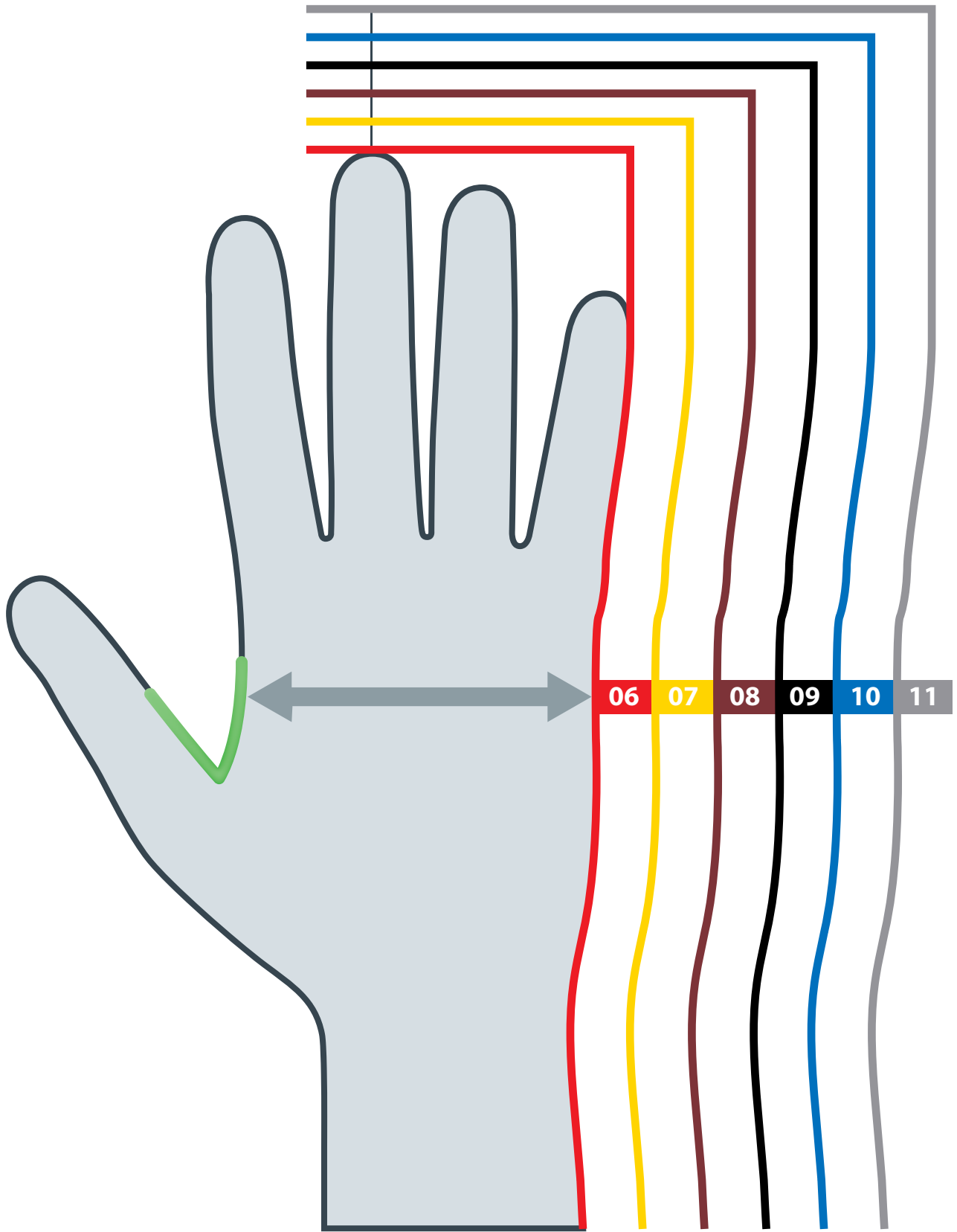
# Cleannings

## TED® white cotton hand towels

| PN | Dimensions | UV | Weight |
|---|---|---|---|
| 1000149 | 19.4 x 28cm | Lot of 2 | 1.96kg |



## Multifunctional cleaning wipes

TED® multi-purpose cleaning wipes: clean and degrease hands. Removes grease, oil, hydrocarbons, sludge, tar, dirt, putty, glue, paint, etc. They have a scrubbing side to remove stubborn dirt and a soft side for wiping and finishing.

**Product benefits:**
+ Ready-to-use and disposable
+ Soap-free
+ No rinse / no residue
+ Orange fragrance

| PN | UV | Weight |
|---|---|---|
| 4011 | Box of 80 | 0.567kg |
| 30043 | Box of 130 | 1kg |

PN: 4011                PN: 30043

# Telencostore

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# Testing

## Fiber optic networks

# ESSENTIAL TESTERS

## Visual fault locator
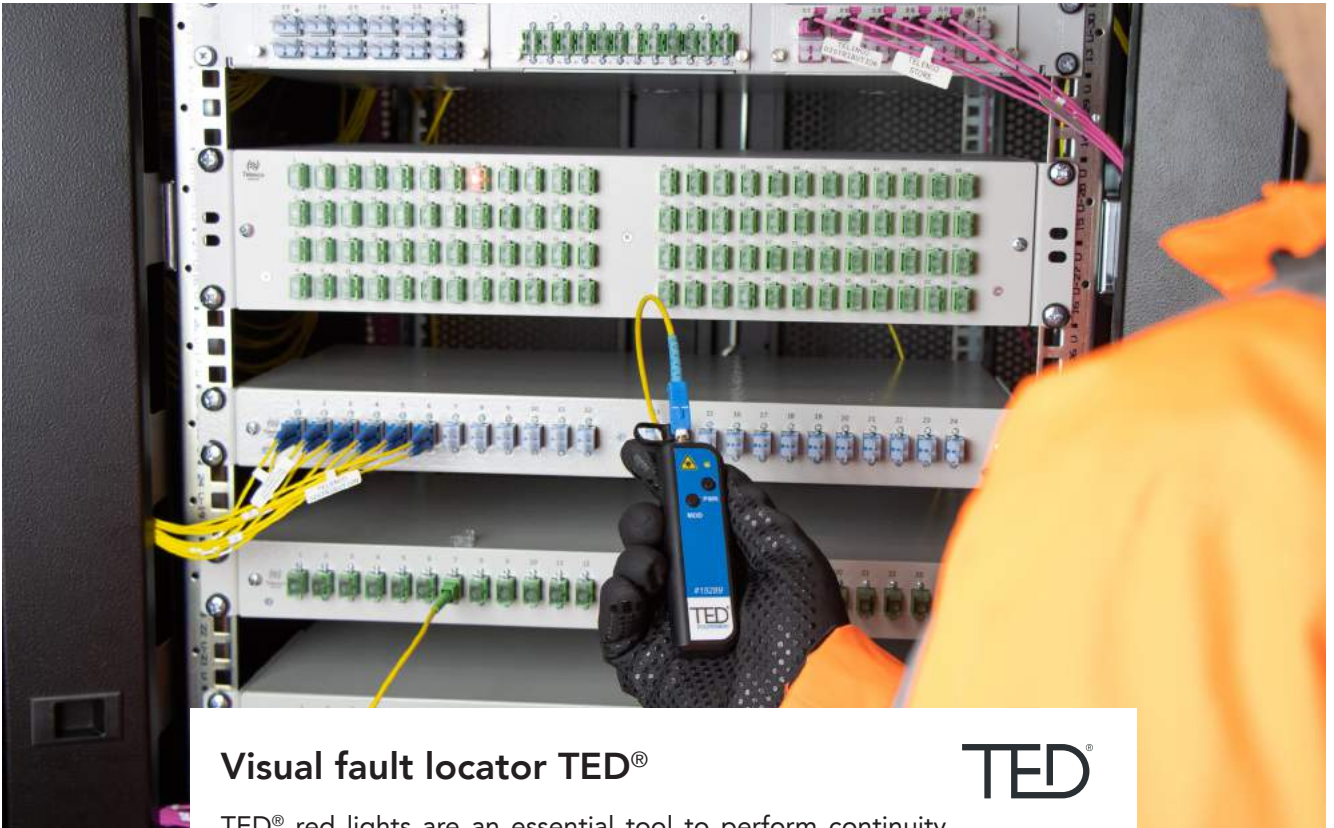


### Visual fault locator TED®

TED® red lights are an essential tool to perform continuity tests & identify visual trouble on fibre. Localization of faults such as macro-bends, broken fibre, bad splices. Covers distances up to 10km.

**Technical specifications:**
+ Wavelength: 650nm (±10nm)
+ Laser class 3B (10mw)
+ Laser class 2B (1mw)
+ Output power: 10mW
+ Range up to 10km
+ Optical connector: 2.5mm (universal)
+ Protective cover for connector

**Product benefits:**
+ Ergonomic pocket-sized design
+ Protective cover for connector

⚠ **Warning:** Class 3B Laser
- Do not stare into beam
- The wearing of protective glasses is mandatory

| PN | UV | Operating | Weight |
|---|---|---|---|
| 15289 | 10mw Visual fault locator TED® | 2 LR3 batteries | 60g |
| 13094 | Adapter for 1.25mm LC connector ferrule | - | 7g |
| 1000946 | 1mw Visual fault locator TED® | | |

| PN | Description | Pack |
|---|---|---|
| 17887 | Protective laser overglasses | Unit |

# Power meters & optical light sources



## 2 in 1 power meter & 10mw visual fault locator

The TED® Optical Power Meter is a miniature, high-precision instrument with a built-in visual fault location. It performs performance measurements of passive optical links and finds faults. This pocket format combines practicality, lightness and performance.

### Technical specifications:

| TED® 33005 | Specifications |
|---|---|
| Wavelength range (nm) | 850 ~ 1700 |
| Detector type | InGaAs |
| Measurement range (dBm) | -50~ +26 |
| Accuracy (dB) | ± 0.3 |
| Calibrated wavelength (nm) | 850. 1300. 1310. 1490. 1550. 1625 |
| Resolution (dB) | 0.05 |
| Output power (VFL) (mW) | 10 |
| Estimated range (Km) | 10 |
| Transmission frequency | CW/2Hz |
| Operating temperature (°C) | -10~+60 |
| Storage temperature (°C) | -25~+70 |
| Automatic shutdown (min) | 10 |
| Operating time (h) | 130 hours |
| Power supply | 3 batteries AAA 1.5 volts/Micro-USB |
| Weight & Dimensions | 70g (without batteries) 128 x 52 x 22 mm |

| PN | UV | Operating | Weight |
|---|---|---|---|
| 33005 | 2 in 1 power meter & 10mw visual fault locator | 3 AAA batteries | 70g |



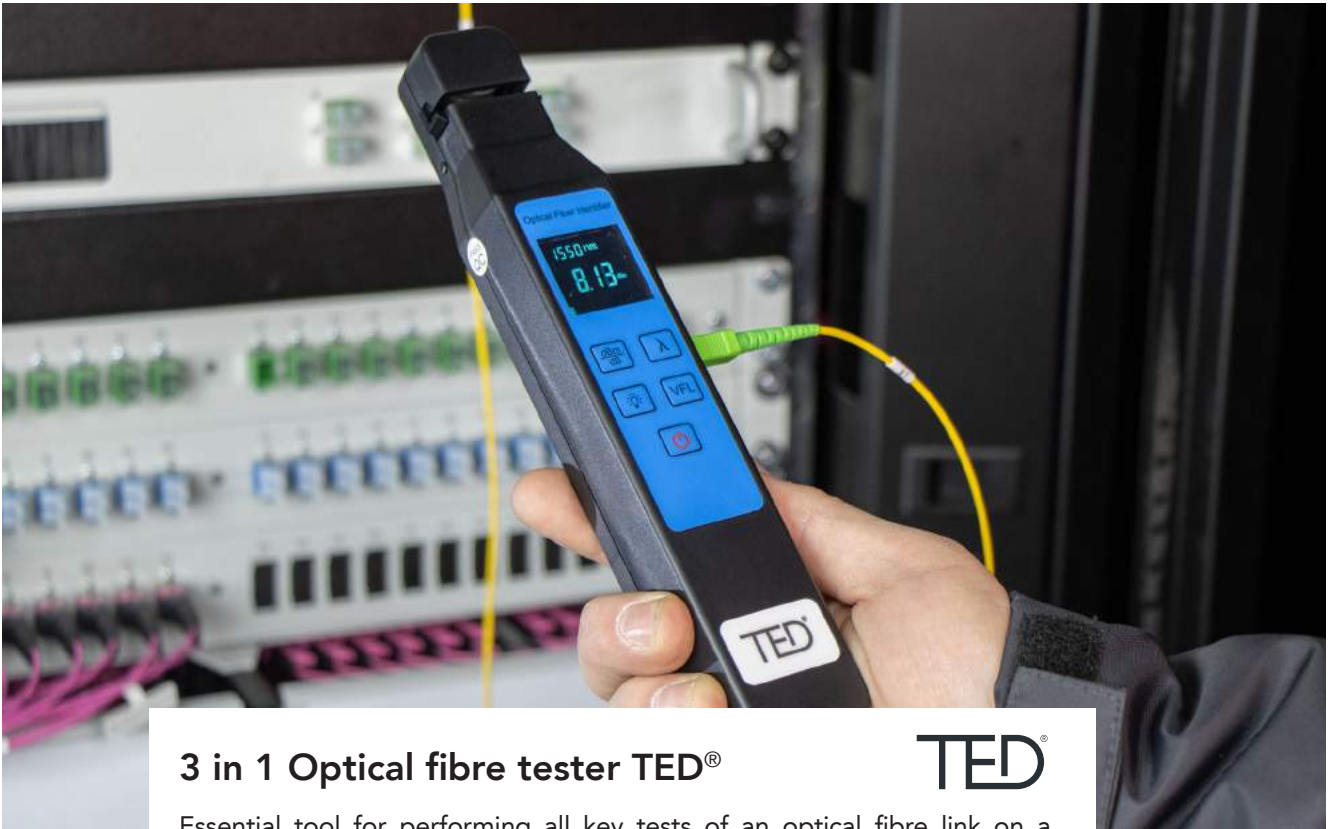**⚠ Warning:** Class 3B Laser
- Do not stare into beam
- The wearing of protective glasses is mandatory



| PN | Description | Pack |
|---|---|---|
| 17887 | Protective laser overglasses | Unit |

## 3 in 1 Optical fibre tester TED®

TED®

Essential tool for performing all key tests of an optical fibre link on a FTTx network. Traffic detection checks the possible presence of a signal on a fibre without disconnecting or disrupting the network traffic. It also indicates the direction of the signal. The visual fault locator (VFL) highlighst faults & defects of a fibre link such as bends and continuity ruptures. The optical power meter (OPM) measures the performance of optical links.

### Product overview:
+ Signal detection
  + Identification of an active fibre
  + Isolate a potential damaged fibre
  + Signal direction
  + Indication of modulation frequency
+ Visual fault locator (VFL)
  + Continuous & flash modes
  + 10 mW output power
+ Power meter module (OPM)
  + Units of measurement : dBm/dB/ µW
  + Wide wavelength range (850nm -1625nm)

### Features & Benefits:
+ 3 in 1 tool. compact and ergonomic all in one fibre tester
+ 4 adapters to support most of fibre diameters (250µm; 900µm; 2mm; 3mm
+ Universal 2.5mm connector (SC/ST/FC) for visual fault locator and power meter
+ Backlit color display
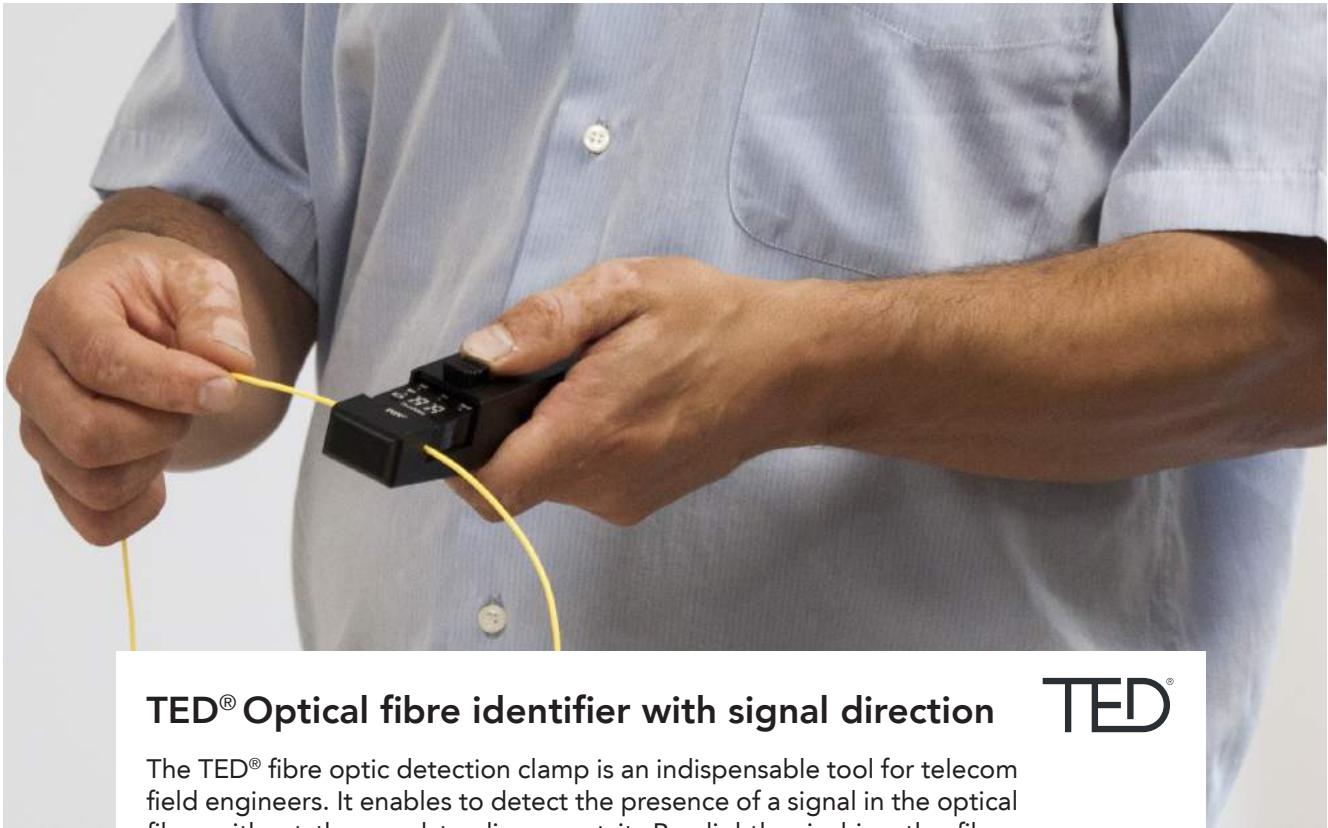+ 24 months warranty

⚠️ **Warning**: Class 3B Laser
- Do not stare into beam
- The wearing of protective glasses is mandatory

| PN | Description | Pack | Weight |
|---|---|---|---|
| 1001597 | 3 in 1 Optical fibre tester TED® | Unit | 145g |

| PN | Description | Pack |
|---|---|---|
| 17887 | Protective laser overglasses | Unit |

# Optical fiber identifier



## TED® Optical fibre identifier with signal direction

The TED® fibre optic detection clamp is an indispensable tool for telecom field engineers. It enables to detect the presence of a signal in the optical fibre without the need to disconnect it. By slightly pinching the fibre, a small part of the signal is diverted to 2 photodetectors and then measured to reveal the direction of the traffic and the relative optical power level. This operation can be performed on fibres in service.

Thanks to its adapters for 250 µm, 900 µm, 2 mm and 3 mm diameter sheaths, this tester is suitable for all applications and meets all needs:
• identify an active fibre
• isolate a problematic fibre
• evaluate the relative power level of the signal
• detect the direction of traffic
• detect a modulated signal at 270Hz. 1kHz and 2kHz

The TED® traffic detection clamp is a robust, field-proven design that comes complete with 4 adapters stored in a compartment, a light cover, 2 AAA alkaline batteries and a carrying case.

### Technical specifications:
+ Detection down to -50dBm
+ 270 Hz modulation detection. 1 and 2kHz
+ Compatible with G.652 / G.657 single-mode fiber
+ Right and left LED traffic direction indication
+ Set of 4 adapters 250 and 900µm. 2 and 3 mm included
+ Trigger for fiber retention and audible indication
+ Lightweight, robust aluminum case
+ Carrying case

| PN | UV | Operating | Weight |
|---|---|---|---|
| 33002 | Optical fibre identifier TED® | 2 LR3 batteries | 195g |
| 16254 | Set of 4 adapters | - | 40g |

# INSPECTION & CLEANING

## Inspection scopes

### FiberChek Probe Microscope

The FiberChek Probe builds on the VIAVI industry leading expertise in fiber inspection to deliver a single "all-in-one" handheld solution that every fiber technician can rely on for all of today's fiber inspection needs in a fully autonomous, handheld device. With built-in capabilities for image viewing, auto-focus, Pass/Fail analysis, storing/recalling results, the FiberChek Probe completely automates inspection workflows to ensure fast and accurate performance. Whether used as on its own or connected (WiFi, USB) to other devices, the FiberChek Probe is the essential fiber tool for every technician.

**Product overview:**

+ Integrated touch screen with real-time view of the connector
+ Automatic focus & centring
+ Clear pass/fail information
+ User-configurable threshold profiles
+ Generate report with fail/pass results

+ Compatible with FiberCheckPRO software
+ Magnification up to x200 & x400 for a detailed analysis
+ Specific adaptor on request
+ Carrycase

| PN | Description | Operating | Weight |
|---|---|---|---|
| 15925 | FiberCheck probe micros-cope with 6 adaptors | Li-Ion battery | 270g |

### Kit with 6 adapters:

Connector adapters

2.5mm PC          2.5mm APC          1.25mm PC

Adapters for feedthroughs

LC/PC          SC/PC          SC/APC
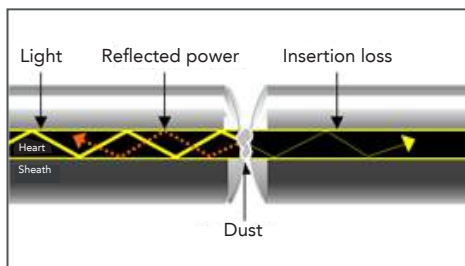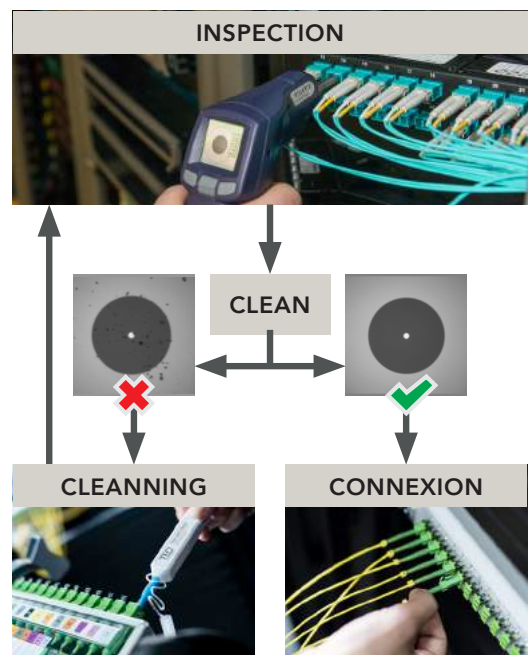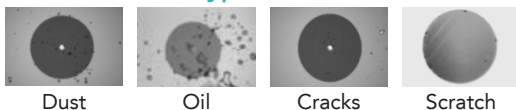
## Expert's advice

### Make your networks more reliable!

Optical ferules contamination is the main source of failure on optical networks (up to 70%).

A small dust located at the core of the fiber could generate a major insertion loss & damage the fiber.

Light     Reflected power     Insertion loss

Heart
Sheath

Dust

### Contamination type:

Dust          Oil          Cracks          Scratch

INSPECTION

CLEAN

CLEANNING          CONNEXION

## SmartPocket V2 OMK-35V2/-36V2

The VIAVI OMK-3xV2 optical test kits are a range of pocket-sized and rugged instruments for installing and maintaining single mode (SM) and multimode (MM) fiber optic networks. All test kits are equipped with an optical power meter and a dual or quad-wavelength optical light source for power level, insertion loss measurements, and continuity checks.

**Product overview:**
+ Optical light source - OLSx (single or multi mode)
+ OLP35V2 power meter
+ Large LCD screen
+ Measurement unit (dB, dBm, W)
+ Measurement range for power level

+ 2.5mm SC/ST/FC connector adaptor
+ 1.25mm LC connector adaptor
+ Long battery life
+ USB data storage & extraction
+ Carry bag

**Technical specifications:**

| Specifications | OMK-35P | OMK-36P |
|---|---|---|
| Optical source type | OLS-35 | OLS-36 |
| Wavelengths | 1310 / 1550nm | 850 / 1300nm - (50/125µm); 1310 / 1550nm |
| Power output | -7dBm (monomode) | -20dBm (multimode); -7dBm (monomode) |
| Connector type | Interchangeable SC, FC | Interchangeable SC, FC |
| Ferrule type | PC | PC |

| PN | Description | Operating | Weight |
|---|---|---|---|
| 11678 | OMK-35P | 4 LR6 batteries | 600g |
| 2099 | OMK-36P | 4 LR6 batteries | 600g |
| 12608 | Adapter for 1.25mm ferrule | - | 1g |

## SmartClass Fiber OLP-87 PON Power Meter

The OLP-87 PON Power Meter enables simultaneous power measurement of all upstream & downstream wavelengths on live B/E/G-PON networks and is also compatible with next generation PON networks (XG(S)-PON, 10G EPON & NG-PON2).

**Product overview:**
+ 3.5" colour touch screen
+ Calibrated wavelenghts 1310/1490nm
+ Clear pass/fail information
+ Measurement unit (dB, dBm, W)
+ SC/APC connector

+ Compatible with P5000i inspection probe (as option)
+ PDF report trought Smart Reporter software
+ Up to 10 000 results saved
+ USB interface
+ Carry case

**Technical specifications:**

| Specifications | OLP-87 | OLP-87 XG-PON |
|---|---|---|
| Wavelength-selective power meter | ✔ | ✔ |
| Wide range of single mode wavelenghts | ✔ | Option |
| Measurement range for power level | -50 to +13dBm | -50 to +13dBm |
| Number of calibrated wavelenghts | 1310/1490nm | 1270/1310/1490/1550/1578nm |
| G-PON compatibility | | |
| XG-PON & 10G EPON compatibility | ✘ | ✔ |
| | | ✔ |

| PN | Description | Operating | Weight |
|---|---|---|---|
| 11824 | OLP-87 | 8 LR6 batteries | 750g |
| 16251 | OPL-87 XG-PON | 8 LR6 batteries | 750g |
| 16253 | Broadband option | - | - |

# FAULT LOCATOR & IDENTIFICATION

## OTDR

### Applications SLM pour OTDR

The SLM intelligent optical software application helps technicians use an OTDR more effectively, without the need to understand or interpret OTDR results. Each event is displayed as an icon giving users a schematic view of the entire link, known as SmartLink. SLM can completely correlate to the original OTDR trace as experts desire. SLM displays OTDR results in a simple, icon-based map view (SmartLink), providing a clear diagnostic of detected issues.

**Product overview:**

+ Makes OTDR result interpretation quick and easy
+ Immediately provides a clear diagnostic when a bad link element is detected
+ Directly correlates SLM view results and OTDR traces
+ Available for all SmartOTDR, T-BERD/MTS-2000, -4000 V2, -6000A platforms

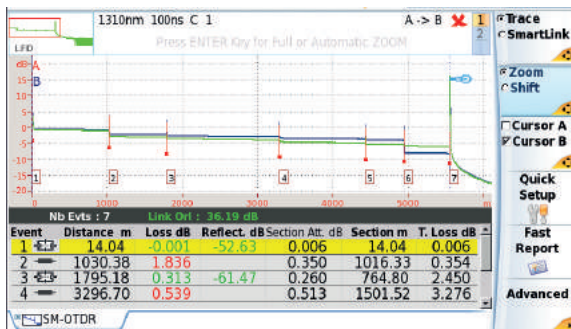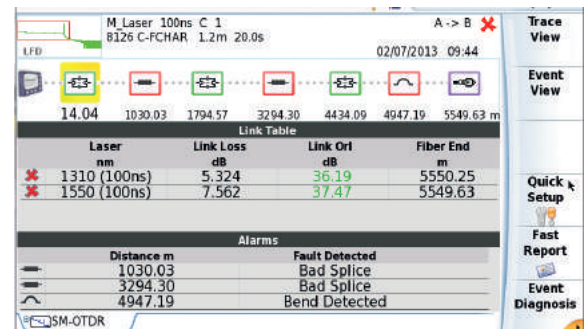| PN | Application |
|---|---|
| 15423 | FTTH-SLM |
| 16286 | FTTA -SLM |
| 16284 | CABLE -SLM |
| 16285 | ENTREPRISE -SLM |

 Connector pair
 Splice
 Bending
 Coupler


Classic view


SmartLink view

### FiberCable 2 software for OTDR results processing

FiberCable 2 is a post-processing PC Software for fast and efficient viewing, editing, analyzing, and reporting of optical fiber test data carried out on all VIAVI MTS/SmartOTDR plateforms. Fiber optic cable plant documentation allows better planning for future network upgrades and is essential during troubleshooting to help technicians find faults and fix them in a timely manner. FiberCable 2 easily generate compelling reports to record field data in a professional format. FiberCable 2 also adds the ability to generate high-fiber-count cable OTDR acceptance reports and fibercharacterization reports combining various test results in a single document (for example, OTDR, IL, ORL, PMD, and CD).

**Product overview:**

+ Improve productivity by reducing data postprocessing times from hours to minutes
+ Manage multiple OTDR traces with automated, bidirectional alignment and analysis
+ Batch-processing/macro functions automatically perform repetitive actions and save results to a series of files
+ Generate professional reports to certify the work with onboard pdf report generation system
+ Edit and analyze multiple measurement files

Automated backup of OTDR traces on PC for simplified management of trace analysis and editing of recipe books.

| PN | Application |
|---|---|
| 12481 | FiberCable 2 |

# Smart OTDR

The SmartOTDR essential handheld fiber tester is an affordable, easy-to-use device for techs at any level, with robust wireless connectivity options that increase productivity anywhere. It integrates all the essential fiber test requirements into a single device with OTDR measurement, fiber end face analysis, optical loss testing and visual fault locator.

**Technical specifications:**
+ Large 5" touch screen
+ SC/APC connector
+ Integrated optical light source
+ Up to 10 hours operating time
+ USB driver & WiFi
+ Robust & flexible carry case
+ Smart link mapper software to quickly identify the type of fault detected



OTDR without add-on module

## Technical specifications:

| Specifications | 126A | 126B | 138FA65 | 136FB |
|---|---|---|---|---|
| Wavelength | 1310 / 1550nm | 1310 / 1550nm | 1310/1550 and 1650nm filtered | 1310 / 1550 and 1625nm filtered |
| Number of optical interfaces | 1 | 1 | 2 | 2 |
| Dynamics | 37 / 35dB | 40 / 40dB | 37 / 35 / 32dB | 40 / 40 / 41dB |
| Dead zone event | 1.35m | 0.9m | 1.35m | 0.9m |
| Dead zone attenuation | 4m | 2.5 m | 4m | 2.5m |

| PN | Designation OTDR Smart | Operating | Weight |
|---|---|---|---|
| 19913 | 126A 1310 / 1550 SC/APC with SLM | Li-Po battery | 900g |
| 15424 | 126B 1310 / 1550 SC/APC with SLM | | |
| 15703 | 136FB 1310/1550 and 1625 SC APC filtered with SLM | | |
| 14887 | 138FA65 1310/1550 and 1650 SC/APC filtered with SLM | | |

💡 Tri-lambda capable OTDR ideal for maintenance on an active optical fiber.

TESTING
Fiber optic networks

# Launch leads

## Launch lead singlemode

TED®

Fiber launch leads are essential elements in the optical reflectometry measurement chain.
Their use is mandatory to validate and certify a fiber optic network. Their main functions are:
• Minimize the effect of OTDR dead zone
• Characterize input and output optical link connectors for which it is important to know the loss and reflectance values.

**Technical specifications:**
+ Light, compact & really handy
+ Pigtails secured outputs
+ 3mm reinforced pigtails
+ Easy maintenance (do it yourself possible trought the integrated inner splice tray)

| Ref | Designation | Weight |
|---|---|---|
| 13769 | Single mode G.657A2 SC/APC - SC/APC lg 500m | 670g |
| 14448 | Single mode G.657A2 SC/APC - SC/APC lg 1000m | 680g |
| 14876 | Single mode G.657A2 SC/APC - SC/APC lg 2000m | 700g |
| 12574 | Single mode G.652D SC/APC - SC/APC lg 500m | 670g |
| 13260 | Single mode G.652D SC/APC - SC/APC lg 1000m | 680g |
| 14404 | Single mode G.652D SC/APC - SC/APC lg 2000m | 700g |
| 13126 | Single mode G.652D LC/UPC - LC/UPC lg 500m | 670g |
| 14106 | Single mode G.652D LC/UPC - LC/UPC lg 1000m | 680g |
| 7334 | Single mode G.652D LC/UPC - LC/UPC 2000m | 700g |
| 14531 | Multimode OM1 FC/UPC - FC/UPC lg 500m | 670g |
| 11582 | Multimode OM1 SC/UPC - SC/UPC lg 500m | 670g |
| 12750 | Multimode OM1 ST/UPC - ST/UPC lg 500m | 670g |
| 7332 | Multimode OM2 SC/UPC - SC/UPC lg 500m | 670g |
| 2688 | Multimode OM2 LC/UPC - LC/UPC lg 500m | 670g |
| 6270 | Multimode OM2 ST/UPC - ST/UPC lg 500m | 670g |
| 11585 | Multimode OM3 SC/UPC - SC/UPC lg 500m | 670g |
| 0846 | Multimode OM3 LC/UPC - LC/UPC lg 500m | 670g |

**Technical specifications:**

| | |
|---|---|
| Fibre types | OM1, OM2, OM3, OM4, G652, G657 |
| Connections | FC, LC, MU, SC, ST |
| Angulation | PC or APC |
| Lengths multimode standard | 150m, 300m and 500m |
| Lengths standard single-mode | 500m, 1000m and 2000m |
| Pigtails length | 1.5m |
| Pigtails surgainage | Ø3mm |
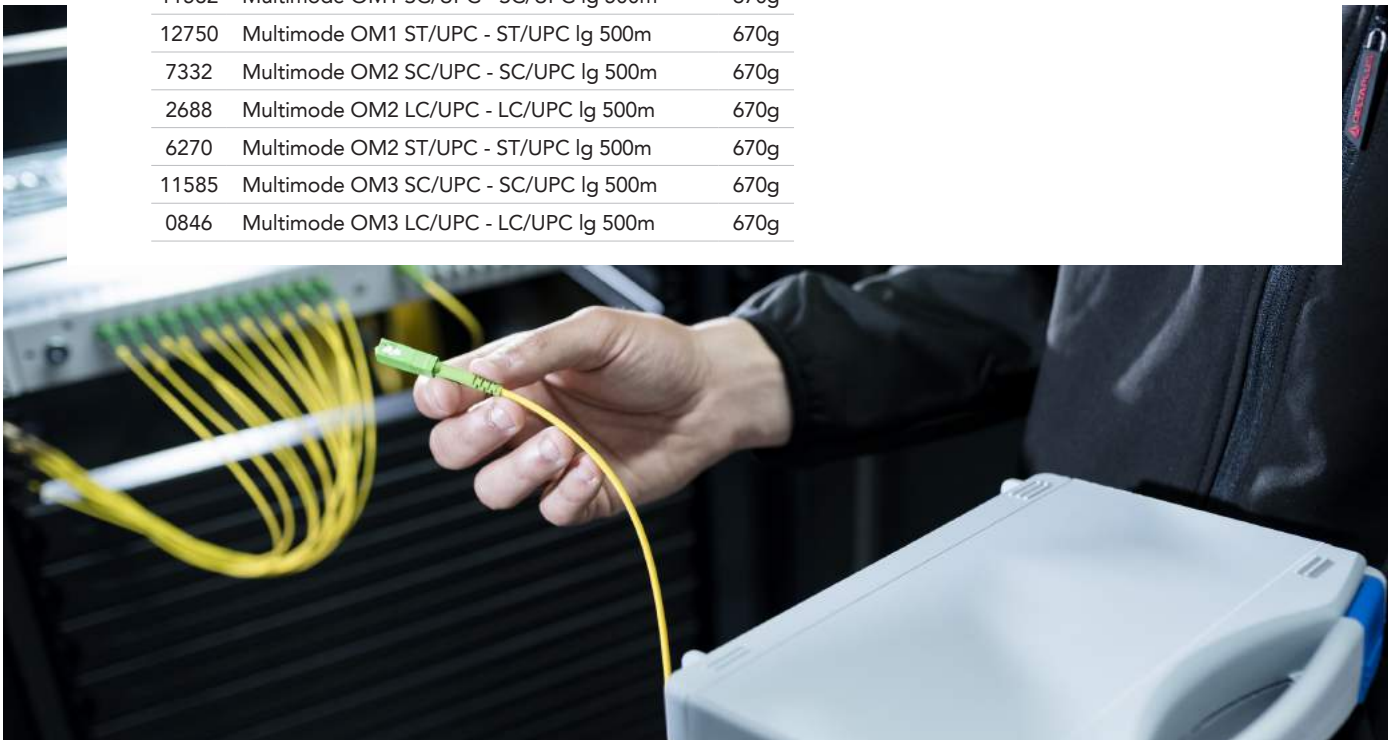
# Fault simulator

## Single mode fault simulator launch lead SC/APC

Designed to train rookie fiber engineers dealing with fiber testing. This luanch lead is a practise simulator with 4 type of typical fault networks. This tool is a must have for engineers who will be required to carry out tests and measurements on the networks

**Product overview:**
+ SC/APC connectors
+ 120m fiber link without any fault
+ 120m fiber link with a bad connector
+ 200m fiber link with a macro bend
+ 300m fiber link with 2 high loss splices

| PN | Designation | Weight |
|---|---|---|
| 13132 | Single mode fault simulator launch lead SC/APC | 880g |
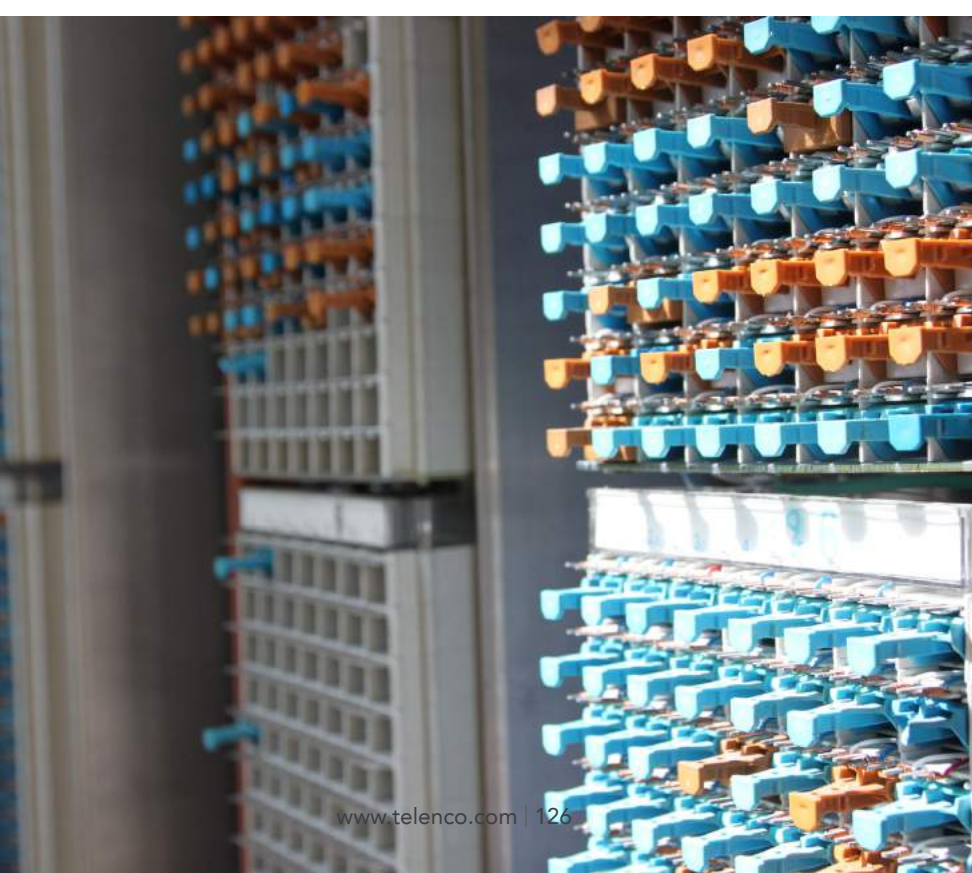
# Testing

## Cooper XDSL networks

# ESSENTIAL TESTERS

## Cable tracing



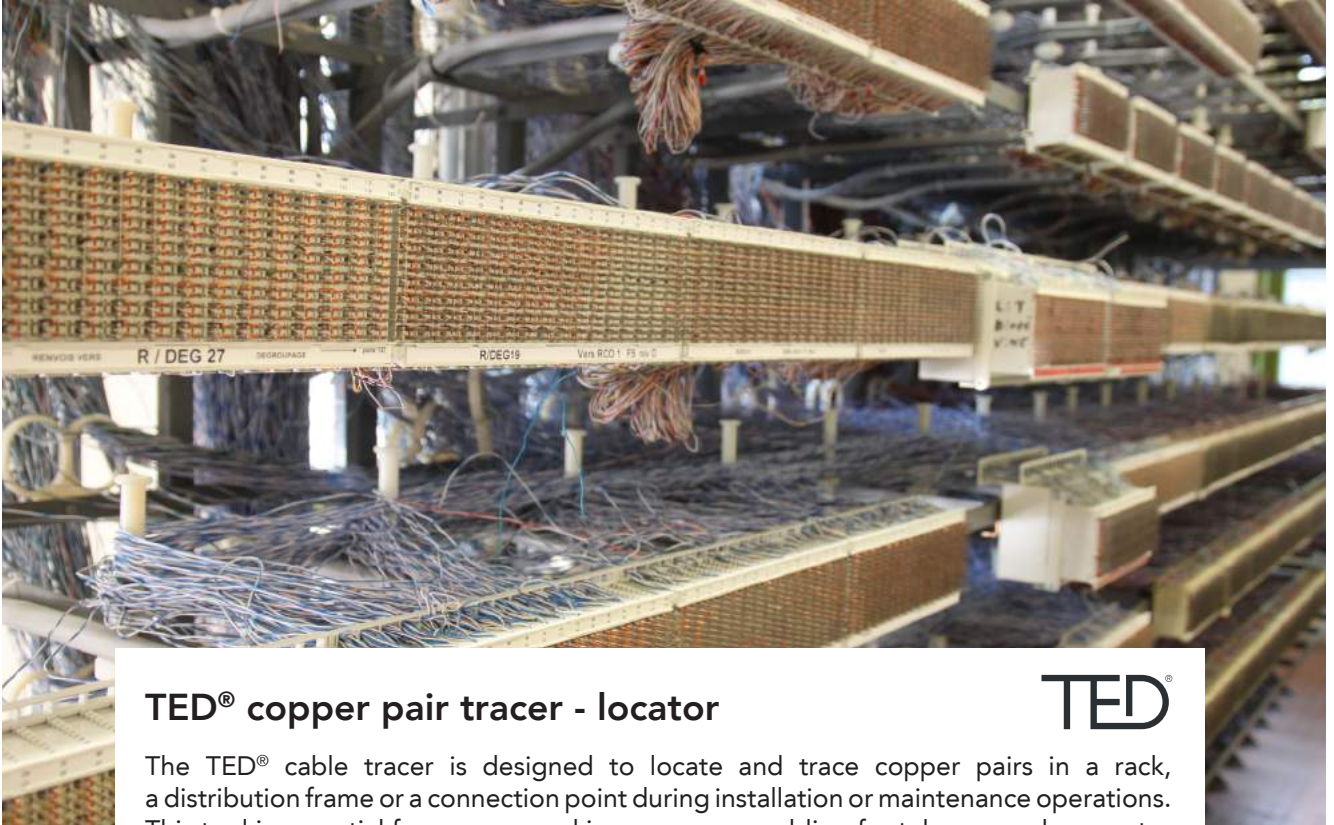## TED® copper pair tracer - locator

The TED® cable tracer is designed to locate and trace copper pairs in a rack, a distribution frame or a connection point during installation or maintenance operations. This tool is essential for anyone working on copper cabling for telecom and computer networks. In addition to detecting and tracing copper pairs, this kit allows for polarity detection, telephone line status verification, telephone line identification and continuity testing. It comes with a tone generator and an amplifier probe. The tone generator has an external 3-position switch to select the operating mode together with a 3-colour LED to indicate line polarity, continuity and voltage test. An internal switch located in the equipment allows to choose between a continuous tone or an alternative tone. The tone is audible and visible respectively through the speaker and LED on the amplifier probe. The wire on which the tone is generated is the one where the tone is loudest. The volume is adjustable for better identification of the wires and to avoid crosstalk with other wires. The volume can be turned off completely to avoid battery consumption.

### Technical specifications:
+ Volume control and jack for use with headset or handset
+ On/off and volume disable button on the amplifying probe to limit power consumption and nuisance switching
+ Insulated and resistant probe tip to avoid short circuit risks
+ Electrical protection of the generator against lines supplied up to 110V AC/DC
+ RJ11 connector and 2 alligator clips available on the generator for connection to twisted pair, RJ11 socket and coaxial cable
+ Transport bag

| PN | UV | Operating | Weight |
|----|----|-----------|--------|
| 33001 | TED® Tracer | 2 batteries 6LR61 | 250g (Generator 110g - Probe 140g) |

## Fault locator

# OneExpert

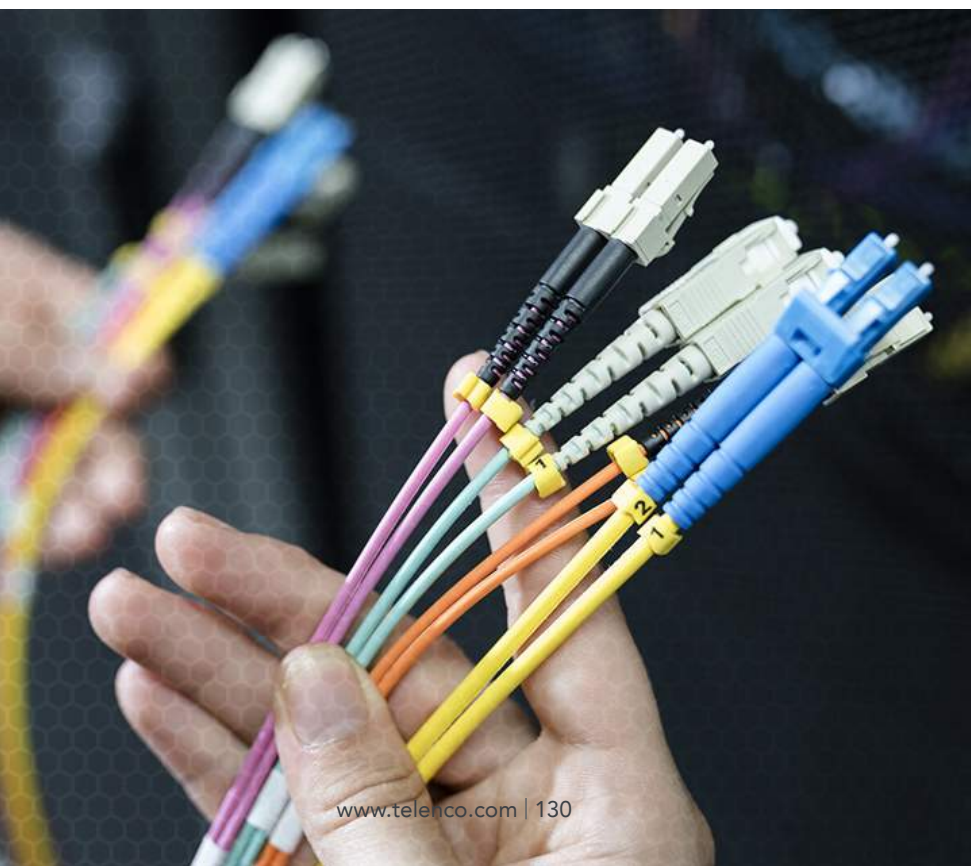## MODERNITY AND PERFORMANCE

for end-to-end copper diagnostics

- Insulation fault location (RFL)
- Double-trace echometer (TDR)
- Megohmmeter/Multimeter
- ADSL2+/VDSL2 tester
- WiFi scan and analysis
- Optimized tests for internal services
- Interference detection (PRO version)
- Crosstalk measurement (PRO version)

**www.viavisolutions.com**

VIAVI
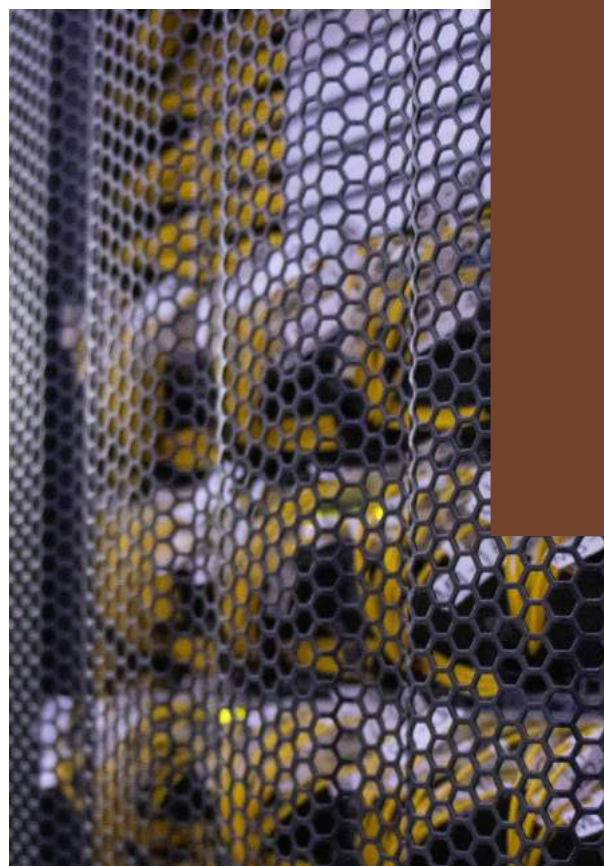
# Testing

## Datacenters & Consumables

# INSPECTION & CLEANING

## Inspection scopes

### FiberChek Sidewinder

**VIAVI**

The FiberChek Sidewinder is the industry's first "all-in-one" handheld inspection and analysis solution for multifiber connectors such as MPO. The latest addition to the award-winning VIAVI FiberChek family delivers a completely automated solution to inspect and analyze every fiber of an MPO or other multifiber connectors with industry-leading reliability and speed.

**Product overview:**
+ Equipped with an MPO adapter (more configurations available)
+ Touch screen for real time connector checking
+ Fast & accurate tests, quick processing 15sec
+ Auto focus
+ Auto analysis with visual pass/failed result notification

| PN | Designation | Operating | Weight |
|---|---|---|---|
| 16366 | FiberChek Sidewinder | Batterie Li-Ion | 550g |

# FAULT LOCATOR & IDENTIFICATION

## OTDR

### MTS-4000 V2 Platform

**VIAVI**

MTS-4000 V2 is a small, compact and handheld test platform designed for all phases of the network lifecycle, from the installation to the maintenance of Metro, Core, Access, FTTH, FTTx, HFC, Wireless, 5G, Enterprise and Data Center networks. Modular in design, the T-BERD/MTS-4000 V2 offers engineers, technicians, installers and contractors the highest performance and superior levels of scalability and upgradeability.

**Product overview:**
+ Large 9" touch screen
+ Single mode & Multimode fiber tester
+ SC/APC & MPO connectors
+ SD card data storage could be extracted trought USD driver & VIAVI cloud system
+ Robust flexible carry case
+ FiberCable & SLM as optional software

| PN | Designation | Operating | Weight |
|---|---|---|---|
| 16349 | MTS-4000 V2 Platform | Batterie Li-Ion | 1400g |

| Specifications | MA2 |
|---|---|
| Wavelength | 1310 / 1550 |
| Dynamics | 40 / 40dB |
| Event dead zone | 0.7m |
| Attenuation dead zone | 3m |

# CONSUMABLES

## Spare adaptotors & patchcords

### Straight xDSL RJ11 2m patchcord

**Technical specifications:**
+ RJ11 to RJ11 connectors
+ Reinforced connectors

| PN | Designation | Weight |
|----|-------------|--------|
| 12422 | Straight xDSL RJ11 2m patchcord | 39g |



### Straight RJ45 F/UTP Cat.6 2m patchcord

**Technical specifications:**
+ RJ45 to RJ45 connectors
+ Reinforced connectors

| PN | Designation | Weight |
|----|-------------|--------|
| 13262 | Straight RJ45 F/UTP Cat.6 2m patchcord | 200g |



### Straight xDSL RJ45/RJ11 2m patchcord

**Technical specifications:**
+ RJ45 to RJ11 connectors
+ Reinforced connectors

| PN | Designation | Weight |
|----|-------------|--------|
| 4436 | Straight xDSL RJ45/RJ11 2m patchcord | 59g |

## Custom cords

### xDSL RJ11 cable / 2 banana plugs 2m long

**Technical specifications:**
+ RJ11 connector
+ Reinforced connector
+ Flexible touch point

**Product compatibility:**
+ AuroraPresto
+ MC2+
+ Check compatibility with other ADSL testers



| PN | Designation | Weight |
|---|---|---|
| 11404 | xDSL RJ11 cable / 2 banana plugs 2m long | 69g |

### xDSL RJ45 cable / 2 banana plugs 2m long

**Technical specifications:**
+ RJ45 connector
+ Reinforced connector
+ Flexible touch point

**Product compatibility:**
+ MTT-Lite ADSL
+ SmartClass TPS



| PN | Designation | Weight |
|---|---|---|
| 10983 | xDSL RJ45 cable / 2 banana plugs 2m long | 69g |

### RJ45 cable / 8 banana plugs 2m long

**Technical specifications:**
+ RJ45 connector
+ Reinforced connector
+ Flexible touch point

**Product compatibility:**
+ UniPRO Gbis
+ Any testers which requires a RJ45 to banana plug



| PN | Designation | Weight |
|---|---|---|
| 12092 | RJ45 cable / 8 banana plugs 2m long | 241g |

## RJ45 cable / 4 SHDSL banana plugs lg 2m Type MTT Lite

**TED**®

**Technical specifications:**
+ RJ45 connector
+ Reinforced connector

**Product compatibility:**
+ MTT-Lite SHDSL bi-pair (module 14B)

| PN | Designation | Weight |
|---|---|---|
| 12091 | RJ45 cable / 4 SHDSL banana plugs lg 2m - Type MTT Lite | 155g |

## RJ45 cable / 4 banana plugs lg 2m 2M/E1 tester

**TED**®

**Technical specifications:**
+ RJ45 connector
+ Reinforced connector

**Product compatibility:**
+ All 2M/E1 transmission testers

| PN | Designation | Weight |
|---|---|---|
| 16367 | RJ45 cable / 4 banana plugs lg 2m 2M/E1 tester | 150g |

## Copper tester lead 3 banana plugs angled 2mm / 3 banana plugs 4mm lg 2m

**TED**®

**Technical specifications:**
+ Protective braid

**Product compatibility:**
+ 990DSL CopperPRO
+ HST-3000
+ OneExpert
+ SmartClass TPS
+ Tech-X-Flex
+ Check compatibility with other xDSL testers integrating copper local loop measurements

| PN | Designation | Weight |
|---|---|---|
| 13324 | Copper tester lead 3 banana plugs angled 2mm / 3 banana plugs 4mm lg 2m | 150g |

# Banana patchcord

### Straight banana patchcord 4mm



| PN | Color | Length | Weight |
|---|---|---|---|
| 0532 | ● Red | 1m | 26g |
| 0533 | ● Black | 1m | 26g |
| 0534 | ● Red | 2m | 48g |
| 0535 | ● Black | 2m | 48g |

### Straight/angled banana patchcord 4mm



| PN | Color | Length | Weight |
|---|---|---|---|
| 11080 | ● Red | 1m | 25g |
| 11082 | ● Black | 1m | 25g |
| 11242 | ● Red | 2m | 50g |
| 11241 | ● Black | 2m | 50g |

### Insulated straight/angled banana patchcord 4mm



| PN | Color | Length | Weight |
|---|---|---|---|
| 12928 | ● Red | 1m | 30g |
| 12927 | ● Black | 1m | 30g |

# Touch point patchcord

### Straight banana plug - touch point patchcord 4mm



| PN | Color | Length | Weight |
|---|---|---|---|
| 0536 | ● Red | 1m | 25g |
| 0537 | ● Black | 1m | 25g |
| 0538 | ● Red | 2m | 50g |
| 0539 | ● Black | 2m | 50g |

### Angled banana plug - touch point patchcord 4mm



| PN | Color | Length | Weight |
|---|---|---|---|
| 11245 | ● Red | 1m | 55g |
| 11244 | ● Black | 1m | 55g |
| 11246 | ● Red | 2m | 70g |
| 11243 | ● Black | 2m | 70g |

# Touch point

### Touch point 4mm



| PN | Color | Weight |
|---|---|---|
| 2804 | ● Red | 30g |
| 2803 | ● Black | 30g |

# Wire gripper & plugs

### Wire gripper with flexible crocodile plug

| PN | Color | Weight |
|---|---|---|
| 12391 | ● Red | 20g |
| 12392 | ● Black | 20g |

### Wire gripper

| PN | Color | Weight |
|---|---|---|
| 0530 | ● Red | 15g |
| 0531 | ● Black | 15g |

### Large insulated crocodile plug

| PN | Color | Packg | Weight |
|---|---|---|---|
| 13837 | ● Red | bag 10 | 5g |
| 13836 | ● Black | bag 10 | 5g |
| 13832 | ● Green | bag 10 | 5g |

### Insulated crocodile plug

| PN | Color | Packg | Weight |
|---|---|---|---|
| 5461 | ● Red | bag 10 | 20g |
| 5460 | ● Black | bag 10 | 20g |

### Reinforced crocodile plug

| PN | Color | Packg | Weight |
|---|---|---|---|
| 12308 | ● Red | bag 10 | 5g |
| 12309 | ● Black | bag 10 | 5g |

### Crocodile plug

| PN | Color | Packg | Weight |
|---|---|---|---|
| 0540 | ● Red | bag 10 | 30g |
| 0541 | ● Black | bag 10 | 30g |

# Banana plug type

### Banana plug to screw 4mm

| PN | Color | Packg | Weight |
|---|---|---|---|
| 13839 | ● Red | bag 10 | 10g |
| 13838 | ● Black | bag 10 | 10g |

### Banana plug to weld 4mm

| PN | Color | Packg | Weight |
|---|---|---|---|
| 1584 | ● Red | bag 10 | 4g |
| 1585 | ● Black | bag 10 | 4g |

### Banana plug fast connector 4 mm

| PN | Color | Packg | Weight |
|---|---|---|---|
| 2798 | ● Red | bag 10 | 320g |
| 2797 | ● Black | bag 10 | 320g |

### Banana plug adaptor 4mm to banana 2mm

| PN | Color | Packg | Weight |
|---|---|---|---|
| 6802 | ● Blue | bag 10 | 43g |

# Charger

## Universal charger 12 V / 2.5 A (Con. Ø2.5mm) with power cord

**Technical specifications:**
+ Supplied with power cord and power supply unit with voltage presence indicator

**Product compatibility:**
+ Aurora Presto
+ Aurora Sonata
+ CopperMax
+ MTT-Lite
+ SmartClass TPS
+ UniPRO Gbis
+ Check compatibility for other testers

| PN | Designation | Weight |
|---|---|---|
| 12417 | Universal charger 12 V / 2.5 A (Con. Ø2.5mm) with power cord | 400g |

## Universal charger kit for AA and AAA batteries

| PN | Designation | Weight |
|---|---|---|
| 6295 | Universal charger kit for AA and AAA batteries | 584g |

# NOTES

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