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## CABLE-SHEATH STRIPPERS



Multifunction trigger sheath-stripper


- Trigger system: 30\% less effort.
- Self-swivelling blade: fast and easy sheath removal.
- Double safety:
- Cutting blade out = trigger locked.
- Lock back blade.
- Capacity: round PVC cable 4 to 28 mm diameter.
- Stripping zone.

872272: set of 6 spare blades ( 5 self-swivel blades and 1 knife blade).

| $=0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 872271 | 150 |



## Sheath strippers

- "Effort reducer" push button.
- Spare blade stored in the handle.
- Easily accessible adjustment knob.
- Self-swivel blade.
- 985955 straight blades.
- 985956 hooked blades

986061: Set of 5 auto-swivel blades for sheath strippers 985951-985952-985953-985954-985955-985956.

| $=0$ | Capacity $\emptyset$ maxi $[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: |
| 985951 | 16 | 65 |
| 985952 | 28 | 65 |
| 985953 | 35 | 65 |
| 985954 | 50 | 65 |
| 98955 | 28 LD | 75 |
| 985956 | $28 L C$ | 75 |



## LONGITUDINAL/HELICOIDAL CABLE-SHEATH STRIPPER

Rotary sheath and insulation stripping tool

- Tool perfectly suited to stripping sheaths over long lengths.
- 2 possibilities of use:
- Longitudinal sheath stripping.
- Helicoidal sheath stripping by simple head rotation.
- Capacity: diameter 4.5 to 29 mm .

| $\equiv 0$ | $\mathrm{~L}[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: |
| 985957 | 137 | 97 |



## MULTIFUNCTION SHEATH STRIPPERS


$\sqrt{\text { Coax and multipair cable sheath stripper }}$


- Tool facilitating sheath stripping of coax and twisted multipair (UTP and STP) cables and optical fibers.
- Capacity: diameter 11 mm .



## COAX CABLE-SHEATH STRIPPERS

$\sqrt{\text { - }}$ Sheath and insulation stripper for coaxial and twisted-pair cables


- 2 useful sides:
- Sheath stripping.
- Stripping.
- Capacity: diameter 4.8 to 7.5 mm .


| $\Rightarrow 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 985964 | 26 |

$\sqrt{\text { - Strippers for coax cables types RG.58, RG. } 59 \text { and RG. } 62}$


- Stripper pre-adjusted to strip coax cables in a single operation.
- Stripping obtained allows direct fitting of BNC connectors used in computing, video, radio-telephony.

- Compact, non adjustable without tool.
- Reversible blade cassette doubling the time of use, supplied with calibration shim.
 838.CX58L: Spare blade cassette.

| $\exists 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| $838 . C X 58$ | 75 |


－Adjustable stripping depth．
－Soft grips．
－Jaw force adjustment according to temperature conditions：indoor or outdoor working， hard or soft insulation．
－Mechanism designed for smooth， effortless wire stripping．
－Very easy blade change．


## ${ }^{-}$SWINGO ${ }^{\circledR}$ automatic stripper

－ 2 functions：cutting and stripping．
－Play take－up mechanism for smooth and easy stripping．
－Stripping capacity： 0.02 to $10 \mathrm{~mm}^{2}$（AWG： $32-8$ ）．
－Stripping length adjusted from 3 to 18 mm ．
－Built－in cutting function：
－Cutting up to： $1.5 \mathrm{~mm}^{2}$ single strand wire．
－Cutting up to： $10 \mathrm{~mm}^{2}$ multi strand wire．
－Ergonomic body in glass charged nylon．
793207：Spare jaw．
793910：Set of 2 spare pads．

| $\Rightarrow 0$ | AWG | Cut | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: |
| 793936 | $32-8$ | $10 \mathrm{~mm}^{2}$ | 136 |

## SWINGO 90 ${ }^{\boldsymbol{®}}$ automatic stripper and cutter

－ 2 functions：cutting and stripping．
－Pistol grip for the optimum position for high volume stripping and cutting．
－Stripping capacity： 0.02 to $10 \mathrm{~mm}^{2}$（AWG：32－8）．
－Stripping length adjusted from 3 to 18 mm ．
－Built－in cutting function：
－Cutting up to： $1.5 \mathrm{~mm}^{2}$ single strand wire．
－Cutting up to： $10 \mathrm{~mm}^{2}$ multi strand wire．
－Durable and lightweight for intense work，tested to over 150，000 cycles． Twice the strength of standard nylon／PA6． 793910：Set of 2 spare pads．


## FレUロ

 RFII


[^0]| $\Rightarrow 0$ | $\Delta \Delta[g]$ |
| :--- | :--- |
| 793940 | 165,5 |

ARS

## AUTOMATIC LATERAL WIRE STRIPPERS



- These strippers offer high precision stripping with a diameter suited to each conductor.
175.E: Spare blade for 986058.
175.T: Spare blade for 986059.

| $\Rightarrow 0$ | Pattern | Section $\left[\mathrm{mm}^{2}\right]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: |
| 986058 | $\emptyset: 0,6-0,8-1,0-1,2-1,6-2,0-2,5 \mathrm{~mm}^{2}$ | $1,5->4,0$ | 370 |
| 986059 | $\emptyset: 2,0-2,4-3,1-4,0 \mathrm{~mm}^{2}$ | $2,4->10,0$ | 370 |

## - High precision strippers for Teflon insulators



- High precision to cut the insulator circularly without damaging the conductor.

- Offset jaws designed to avoid marking insulators.
-AWG: 26-24-22-20-18-16.
- Die diameter: 0.55-0.65-082-1.05-1.30-1.55 mm. 165.U: Spare knife.

| $\equiv 0$ | Dimension $[\mathrm{mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: |
| 165.1 | $250 \times 75 \times 22$ | 370 |

## AUTOMATIC WIRE CUTTERS-STRIPPERS



- For single or multiple strand with automatic adjustment to wire diameter.
- 1 tool only, 1 gesture for 2 operations:
- Cutting.
- Stripping.
- Stripping capacity: 0.4 to $4 \mathrm{~mm}^{2}$
- Stripping length adjusted by button: 4 to 17 mm .
- Cutting diameter: 0.7 to 2.3 mm .
-AWG: 21-11.
162-L1: Spare knives.

| $=0$ | $\mathrm{~L}[\mathrm{~mm}]$ | AWG | Dimension $[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: |
| 985761 | 160 | $21-11$ | $290 \times 80 \times 22$ | 340 |

- Allows to cut and strip the wire on both sides for fast wiring operations.
- The wire is pre-stripped automatically at the right length.
- Stripping capacity: 0.4 to $4 \mathrm{~mm}^{2}$.
- Stripping length adjusted by button: 4 to 17 mm .
- Cutting diameter: 0.7 to 2.3 mm .
- AWG: 21-11.

162-2L1: Spare knives.

| $=0$ | $\mathrm{~L}[\mathrm{~mm}]$ | AWG | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: |
| 985762 | 160 | $21-11$ | 430 |

## $\sqrt{\text { Wire }}$ cutter and stripper

- For multistrand cutting and stripping:
- Diameter: 1.0-1.3-1.7-2.0-2.4-3.0 mm.
- Section: 0.8-1.3-2.3-3.0-4.5-7.0 mm².
- AWG: 20-18-16-14-12-10.
- 6 dies calibrated by grinding.
- End nipper.
- Return and lock spring.


| $\equiv 0$ | $L[m \mathrm{~m}]$ | $\Delta \Delta[g]$ |
| :---: | :---: | :---: |
| 163 | 150 | 115 |

## END WIRE STRIPPERS

## ${ }^{\text {E }}$ Extra-slim wire strippers

- For single and multistrand wires:
- Max diameter: 1.5 mm .
- Max section: $1.8 \mathrm{~mm}^{2}$.
- Max AWG: 14.
- Narrow knives.
- Cutting depth adjusted by end stop.
- Length: 130 mm .
- Thickness: 4 mm .
- Finish: burnished, PVC grip.

| $\equiv 0$ | $\mathrm{~L}[\mathrm{~mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: |
| 194.12 | 130 | 70 |

## Wire strippers

- For single or multiple strand wires 0.5 to $6 \mathrm{~mm}^{2}$.
- Adjustment screw with lock nut.
- Metal return screw.
- Forged pliers.
- Automatic handle opening for speed and ease of use.



## $\sqrt{\text { - }}$ Coated wire strippers

- Treated steel blades.
- Plastic stops avoiding hand fatigue.
- Finish: burnished blades.

| $\Rightarrow 0$ | $1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: |
| 173 A | 10 | 135 | 40 |



## PRE-INSULATED TERMINAL GRIMPING PLIERS

## The 3-in-1 pliers to cut, strip and crimp

## New multi-function pliers: one tool to cut, strip and crimp wire ends, insulated terminals as well as open core terminals.



Mobile crimping pliers


- For constant and accurate crimping of mechanical, electrical and electronic connectors.
- Perfectly positions the wire in the terminal. The position of the crimping dies provides excellent visibility when inserting the connector and wire.
- Die release system for easy die changing without special tooling.
- One crimper for all dies.
- Ideal for all installers or maintenance technicians who wish to lighten their toolbox and save time during intervention.
- 821461 die: $0.25-0.75 \mathrm{~mm}^{2}, 1-1.5 \mathrm{~mm}^{2}, 2.5 \mathrm{~mm}^{2}, 4 \mathrm{~mm}^{2}, 6 \mathrm{~mm}^{2}, 10 \mathrm{~mm}^{2}$
- 821462 die: $0.5-1.5 \mathrm{~mm}^{2}, 1.5-2.5 \mathrm{~mm}^{2}$, AWG 22-16, 16-14.
- 821463 die: Red and blue insulated terminals $0.25-1.5 \mathrm{~mm}^{2}$ and $1.5-2.5 \mathrm{~mm}^{2}$.
- 821469 die: $0.5-2.5 \mathrm{~mm}^{2}, ~ 4-6 \mathrm{~mm}^{2}$ AWG 22-14, 12-10.
- 821464 die : 0.5 mm Open barrel.
- 821465 die : Solar connector size 4.
- 821466 die : 0-4mm Power turned pins.
- 821467 die : Insulated heat shrink butt.

| $=0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 821416 | 500 |

Industrial Mobile Crimping Pliers Set with 4 Interchangeable Dies

- For constant and accurate crimping of mechanical, electrical and electronic connectors.
- Perfectly positions the wire in the terminal. The position of the
 crimping dies provides excellent visibility when inserting the connector and wire.
- Die release system for easy die changing without special tooling.
- One crimper for all dies.
- Ideal for all installers or maintenance technicians who wish to lighten their toolbox and save time during intervention.
- 821461 die: $0.25-0.75 \mathrm{~mm}^{2}, 1-1.5 \mathrm{~mm}^{2}, 2.5 \mathrm{~mm}^{2}, 4 \mathrm{~mm}^{2}, 6 \mathrm{~mm}^{2}, 10 \mathrm{~mm}^{2}$.
- 821462 die: 0.5-1.5 mm², 1.5-2.5 mm², AWG 22-16, 16-14.
- 821466 die: $0.14-1 \mathrm{~mm}^{2}, 1.5 \mathrm{~mm}^{2}, 2.5 \mathrm{~mm}^{2}, 4 \mathrm{~mm}^{2}$, AWG 16, 14,26-18,12.
- 821469 die: $0.5-2.5 \mathrm{~mm}^{2}, 4-6 \mathrm{~mm}^{2}$ AWG 22-14, 12-10.

| $=0$ | $\Delta \backslash[g]$ |
| :--- | :---: |
| 819832 | 850 |

$\sqrt{\text {－Electrician＇s mobile crimping pliers set }}$
－For constant and accurate crimping of mechanical，electrical and electronic connectors．
－Perfectly positions the wire in the terminal．The position of the crimping dies provides excellent visibility when inserting the connector and wire．
－Die release system for easy die changing without special tooling．
－One crimper for all dies．
－Ideal for all installers or maintenance technicians who wish to lighten their toolbox and save time during intervention．
－Comprising：
－ 1 set of crimping pliers 821416.
－ 4 dies（821461－821462－821463－821469）．
－ 1 pair of Swingo® strippers 793936.
－ 1 sheath remover 985956.
－Plastic case BP．MBOXM．
－Foam tray PM． 819810.

| $\Rightarrow 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 819810 | 1617 |

## $\sqrt{\text {－All in One electricians／Industrial mobile crimping pliers set }}$

## Including：

－Multifunction crimping pliers 821416.
－ 2 dies for pre－insulated terminals 0.5 to $6 \mathrm{~mm}^{2}$ ．
－ 2 dies for open core terminals 0.5 to $6 \mathrm{~mm}^{2}$ ．
－ 2 dies for cable terminations from 0.25 to $10 \mathrm{~mm}^{2}$ ．
－ 8214641 x die for open－barrel connectors．
－ 8214601 x die for ferrules．
－ 8214631 x die for pre－insulated connectors green－yellow．
－Selection of 20 models of pre－insulated terminals and accessories：
－Eyelets．
－Fork terminals．
－Sleeves．
－Male and female terminals．
－Plastic tray PL．721．


## Fレレロ

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C－O

[^1]| $\Rightarrow 0$ | $\Delta \Delta[g]$ |
| :--- | :--- |
| 855367 | 1.950 |



## 673838 CRIMPING PLIERS FOR INSULATED TERMINALS WITH LOCATOR



## A third hand!

Complies with NFC 63-023

- Automatically positions the terminal to guarantee a secure attachment.
- Stainless steel dies ensuring good wear resistance.
- Reverse crimping for precision and visibility.
- Left/right-hand operation.
- Soft comfortable grips.


Perfectly positions the wire in the terminal.


Holds the terminal and the wire after crimping.

$\sqrt{\text { - SERKAN }}{ }^{\ominus}$ ratchet crimping pliers for insulated terminals with locator


## NFC 63-023

- Lower fixed jaw: easy terminal fitting.
- Double crimping with die marking on the insulator.

- Stainless steel die with 3 cavities:
- Red cavity: 0.5 to $1.5 \mathrm{~mm}^{2}$.
- Blue cavity: 1.5 to $2.5 \mathrm{~mm}^{2}$.
- Yellow cavity: 4 to $6 \mathrm{~mm}^{2}$.
- Right/left handed pliers.

| $\Rightarrow 0$ | $\Delta \Delta[9]$ |
| :--- | :---: |
| 673838 | 490 |

## ${ }^{-}$Maintenance crimping pliers for pre-insulated terminals

CEI60352-2

- Double crimping for pre-insulated terminals in compliance with the standard, with holding on the conductor core and the insulator.
- Unlocking accessible at all times.
- Reversed crimping: terminal positioned on the fixed part for more effectiveness and precision.
- Stainless steel die with 3 cavities:
- Red cavity: 0.5 --> $1.5 \mathrm{~mm}^{2}$.
- Blue cavity: $1.5-->2.5 \mathrm{~mm}^{2}$.
- Yellow cavity: 4 --> $6 \mathrm{~mm}^{2}$.
- Shape allowing hand setting.
- Soft touch.

| $=0$ | $\mathrm{~L}[\mathrm{~mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: |
| 985894 | 230 | 490 |


$\sqrt{\text { - }}$ Production crimping pliers for insulated terminals

CEI60352-2

- Extended handle for 2-hand grip.
- Disengaging possible during crimping.
- Double crimping of the terminal.
- 3 cavity die:
- Red cavity: 0.5 to $1 \mathrm{~mm}^{2}$.
- Blue cavity: 1.5 to $2.5 \mathrm{~mm}^{2}$.
- Yellow cavity: 4 to $6 \mathrm{~mm}^{2}$.

$\sqrt{\text { - }}$ Crimping pliers for tubular terminals with rotating dies


NFC 20-130

- Rotating dies indexable in 6 positions:

6-10-16-25-35-50 $\mathrm{mm}^{2}$.


- The pliers can be disengaged during crimping.
- Capacity 6 to $50 \mathrm{~mm}^{2}$.

| $=0$ | $\mathrm{~L}[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{kg}]$ |
| :--- | :---: | :---: |
| 986095 | 390 | 1.185 |

Hydraulic trigger crimping pliers for tubular terminals and sleeves


NFC 20-130

- 35 kN .
- Travel adjustable from 5 to 8 mm by rotation of the notched bush reducing the number of pump strokes for smaller sections.
- Rotating head $360^{\circ}$.
- Automatic trigger with audible "click" upon crimping.
- Piston return by discharge lever.
- Supplied in box.

| $=0$ | $\Delta \Delta[\mathrm{~kg}]$ |
| :--- | :---: |
| 985913 | 2.130 |

## CRIMPING DIES

$\sqrt{\text { - Hexagonal crimping dies }}$


NFC 20-130

- For crimping pliers 985913.
- For tubular terminals and sleeves.


|  |  |  |
| :--- | :---: | :---: |
| $=0$ | Section $\left[\mathrm{mm}^{2}\right]$ | $\Delta \Delta[g]$ |
| 985914 | 6 | 64 |
| 985915 | 10 | 88 |
| 985916 | 16 | 91 |
| 985917 | 25 | 89 |
| 985918 | 35 | 85 |
| 985919 | 50 | 79 |
| 985920 | 70 | 78 |
| 985921 | 95 | 76 |
| 985922 | 120 | 61 |
| 985923 | 150 | 66 |

## - Open core connector crimping pliers

## DIN 46249

- Die with 3 cavities for open core terminals with 1.5 ; 2.5 and $6 \mathrm{~mm}^{2}$ section.
- Capacity 1.5 to $6 \mathrm{~mm}^{2}$.


| $=0$ | $\mathrm{~L}[\mathrm{~mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: |
| 985757 | 195 | 250 |

(mble

## WIRE END CRIMPING PLIERS

Wire end crimping pliers

NFC 63-023

- Stainless steel 5-cavity dies:
- 0.5 to $0.75 \mathrm{~mm}^{2}$.
- 1 to $1.5 \mathrm{~mm}^{2}$.
$-2.5 \mathrm{~mm}^{2}$.
$-4 \mathrm{~mm}^{2}$.
$-6 \mathrm{~mm}^{2}$.
- Unlocking accessible at all times.
- Reversed crimping: terminal positioned on the fixed part for more effectiveness and precision.
- Capacity 0.5 to $6 \mathrm{~mm}^{2}$.
- Shape allowing hand setting.
- Soft touch.



- Can be used for most jobs from panel board and cable assembly and connection


Serkan 360 All in one Crimper

- Ultimate crimping solution - one gun and no extra dies
- 0.14-10mm square connector - to fit all end sleeves with insulated or insulated profiles
- Tested to 50k cycles - for long life
- Crimp conforms to IEC 60999-1.
- Optimized usage for high volumes.
- Comfortable also for left handed workers.
- Maximum force 10,000 N.m.
- Low hand force needed for operation.
- Light weight ideal for heavy duty use.
- Small handle opening - ideal for smaller hands.


| $\Rightarrow 0$ | $\mathrm{~L}[\mathrm{~mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: |
| 985905 | 362 | 176 |



## WIRE END CRIMPING PLIERS


$\sqrt{\boxed{-1}}$ Production wire end crimping pliers


- Easy unlocking in case of mishandling. - Comfort grip.


| $\Rightarrow 0$ | $\mathrm{~L}[\mathrm{~mm}]$ | Capacity $[\mathrm{mm}]$ | Pattern | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: |
| 985755 | 195 | $0,5->6,0 \mathrm{~mm}^{2}$ | 5 | 250 |
| 985756 | 195 | $4,0->10,0 \mathrm{~mm}^{2}$ | 3 | 500 |
| 985896 | 255 | $10,0->25,0 \mathrm{~mm}^{2}$ | 3 | 500 |

## TRANSMISSION CONNECTORS CRIMPING PLIERS

$\sqrt{\boxed{-}}$ Phone connector crimping pliers


- Pliers supplied in a case with the 986022 die for RJ45 connectors.


| $\equiv 0$ | $\mathrm{~L}[\mathrm{~mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: |
| 985902 | 205 | 450 |

## －Coax connector crimping pliers

－For BNC connector RG58－RG59－RG62．
－Crimping die for coax connectors：
－ 5.36 － 5.46 for RG58．
－6．43－6．53 for RG59，RG 62.
－1．64－1．74 for the core．
－Safety rack guaranteeing complete crimping．

| $=0$ | $\mathrm{~L}[\mathrm{~mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: |
| 985758 | 195 | 250 |



## －Crimping dies for phone connectors

－For crimping pliers 985902.

| $\exists 0$ | $\mathrm{~d}[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: |
| 986014 | RJ11 | 50 |
| 986022 | RJ45 | 50 |

## TERMINAL SETS

## $\sqrt{\text {－General electricity }}$ set

Including：
－Crimping pliers 449B．
－Selection of 20 models of pre－insulated terminals and accessories： －Eyelets．
－Fork terminals．



## SLEEVING PLIERS



## PLASTIC CABLE-TIE PLIERS

## $\sqrt{\text { - Plastic cable-tie pliers }}$



- For all cable-ties 2.4 to 9 mm wide.
- Sturdy and easy to use, very good demultiplication.

- Long travel for a fast approach.
- Manual cable-tie tail cutting.

| $\Rightarrow 0$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: | :---: |
| $455 B$ | 17 | 190 | 100 | 310 |

$\sqrt{\text { - Automatic plastic cable-tie pliers }}$


- For cable-ties 2.2 to 4.8 mm wide and 1.6 mm thick.
- Adjustable tightening strength.

- Automatic cable-tie tail cutting.

| $=0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 986075 | 290 |

## GLUE GUN

## ${ }^{-}$Glue gun

- To glue plastic, synthetic foam, fabric, wood and laminate in the fields of construction, furniture, in assembly workshops for electrical, electronic assemblies, in the garage.
- Voltage: 110-240 V (without automatic switch).
- Maximum power: 40 W.
- Fusion temperature: $206^{\circ} \mathrm{C}$.
- Supplied in cardboard box with three versatile glue sticks.
- E.905J50: "refractory" glue: sticks.
- E.906J100: "all-purpose" glue: sticks.

| $=0$ | $\mathrm{H}[\mathrm{mm}]$ | $\mathrm{I}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \mathrm{T}[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: |
| E.900B | 160 | 30 | 195 | 303 |

CABINET KEYS

Multi-cavity cross brace

- Good access, opens most doors and elements, whether in industry or in construction.
- 9 cavities in a light, compact and very handy tool.
- 4 square cavities: $5,6,7-8,9-10 \mathrm{~mm}(\mathrm{~A})$.
- 3 triangular cavities: $7,8-9,10-11 \mathrm{~mm}$ (B).
- 1 slotted cylindrical cavity: 3-5 mm (C).
-1 round cavity with flat: 6 mm (D).
- 1 bit with 2 screwing cavities Phillips® PH 2 (E) and slotted head 7 mm (F), linked with the wrench by a removable chain with bit adapter.

| $=0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 838305 | 210 |



- 4 cavities:
- 2 square cavities: 6, $8 \mathrm{~mm}(\mathrm{~A})$.
-1 triangular cavity: 9 mm (B).
-1 slotted cylindrical cavity: 5-14 mm (C).
- 1 bit with 2 screwing cavities Phillips® PH 2 (D) and slotted head $7 \mathrm{~mm}(\mathrm{E})$.


| $=0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 985548 | 75 |

## ${ }^{-}$Four-way wrench for cabinets

- Toll supplied with 6-point adaptor for $1 / 4^{\prime \prime}-6.35 \mathrm{~mm}$ drive bits.


## NYLON RODS




- Supplied with:
-1 flexible guiding head.
- 1 pulling eye.
- Breakage load: 120 kN .
- Diameter: 4 mm.

| $\equiv 0$ | $\mathrm{~d}[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{m}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: |
| $\mathbf{6 2 9 7 3 1}$ | 4 | 10 | 168 |
| $\mathbf{6 2 9 7 5 7}$ | 4 | 20 | 313 |

$\sqrt{\text { - Nylon rod }} 20 \mathrm{~m}+$ needle holder casing


- Supplied with:
- 1 flexible guiding head.
- 1 pulling eye.
- Breakage load: 120 kN .
- For poorly clogged and medium curved ducts.
- For distance below 20 m .

| $\Rightarrow 0$ | $d[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{m}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: |
| 669273 | 4 | 20 | 554 |



NYLON RODS



- For a rod 10 to 40 m long.
- Housing for accessories and repair kit.

| $\Rightarrow 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 629765 | 267 |

- Supplied in a needle holder casing with:
-1 flexible guiding head.
- 1 pulling eye.
- 1 repair set.
- Breakage load: 120 kN .

| $=0$ | $d[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{m}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: |
| 629853 | 3 | 30 | 585 |
| 629861 | 3 | 40 | 684 |

## ACCESSORIES



- Ideal for long ducts.
- High traction power.
- Breakage load: 200 kN.
- Rod length: 50 m .

| $\equiv 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 629773 | 95 |

- Diameter 6 mm.
- Supplied with:
- 1 flexible guiding head.
- 1 slide wheel with swage.
- 1 snap hook.

| $=0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 629896 | 200 |

0



FLUロ RFid

[ 510 ml

6


## ACCESSORIES

- To be sprayed on the cable before pulling it.
- 2 bits.
- Facilitates pulling.
- Supplied in 1-litre bottle.

| $=0$ | $\Delta \Delta[\mathrm{~kg}]$ |
| :--- | :---: |
| 629984 | 1.1 |

## CONSUMABLES FOR NYLON AND GLASS FIBRE RODS

$\sqrt{\text { - Flexible guiding head for nylon and glass fiber rods }}$

- Female part: M4 threading.


| $\neq 0$ | $\Delta \backslash[g]$ |
| :--- | :---: |
| 629781 | 9 |



## ACCESSORIES FOR NYLON STEEL RODS

## - Tropic-proof steel reel

- Fast guiding and winding of the the rod.
- Ideal for long rods.
- Storage of nylon steel rods up to 150 m .
- Axis on ball bearing.
- Withstands heat and humidity.

| $\Rightarrow 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 629909 | 5900 |



## HOLE PUNGHES FOR ISO HOLE SIZES

## HOLE PUNCH

FOR ISO HOLE SIZES

- 3 section ISO splitting punch.
- Spread: ISO 12 to ISO 63.
- Blanks split into three, thus preventing the actuating screw from jamming.
- Cutting-point geometry ensures longer life.
- Available with or without a thrust-bearing screw.

1 - For ordinary steel ST37

- Max. sheet thickness: 2 mm .
- Pilot hole: - Screw $\emptyset+\min 0.2 \mathrm{~mm}$.


HOLE PUNCH
FOR PG HOLE SIZES

- Spread: PG7 to PG48.


## 2 - For ordinary steel ST37

- 3-point punch.
- Circular blank automatically drops out after punching with a couple more turns of the wrench.
- Max. thickness:
- 2 mm with screw $\emptyset 9.5 \mathrm{~mm}$.
-3 mm with screw $\emptyset 19 \mathrm{~mm}$.
- Pilot hole:
- Screw $\emptyset$ + min 0.2 mm.


FACOM HOLE PUNCHES CAN BE OPERATED IN THE FOLLOWING WAY:


With a wrench
For hole punches fitted with a thrust-bearing screw.

DIMENSIONS (mm):

| IS012 | IS016 | IS020 | IS025 | IS032 | IS040 | IS050 | ISO63 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12.5 | 16.5 |  | 20.5 | 25.5 | 32.5 |  | 40.5 | 50.5 | 63.5 |
| PG7 | PG9 | PG11 | PG13 | PG16 | PG21 | PG29 | PG36 | PG42 | PG78 |
| 12.7 | 15.2 | 18.6 | 20.4 | 22.5 | 28.3 | 37 | 47 | 54 | 60 |

## ISO EN 50262 REQUIREMENTS

- This international standard specifies the electrical functions and performance of cable entries.
- It stipulates that only ISO metric threads are to be used for cable glands since September ' 99.
- The use of PG threads will still be allowed for the maintenance of existing equipment despite no longer being covered by any national or international standard.
Remember to apply lubricant to the screw/pin for optimum operation of the punch.


## CUSTOM SIZE KNOCKOUT PUNCH

Please consult us for your specific punch size or shape requirements.


HOLE PUNCHES FOR ISO SIZES

Punches for PG size holes with
actuating screw actuating screw


## Punches for ISO size holes with actuating screw



- For circular cut out in metal sheet and plastic.
- Operated with a wrench or ratchet/socket set.
- Fast, clean and burr-free cut out.
- For all diameters PG 7 to PG 48.
- Parts greased for better use.
- TIP: the round cut falls much easier when applying 2 or 3 additional turns with the tightening wrench after cutting out.
- Supplied with punc, die, and ball stop screw.

Table caption:
$-\mathrm{d}=\mathrm{PG}$ diameter/mm.

- d1 = drilling diameter $/ \mathrm{mm}$.
- Screw = dimension on flat (mm)/ operating screw.
$-E=$ max/thickness steel/soft.

| $=0$ | $\mathrm{~d}[\mathrm{~mm}]$ | $\mathrm{d} 1[\mathrm{~mm}]$ | $\mathrm{E}[\mathrm{mm}]$ | $P G$ | $P G$ | Screw Size $[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 985968 | 12,7 | 11 | 2 | 7 | 7 | 17 | 108 |
| 985969 | 15,2 | 11 | 2 | 9 | 9 | 17 | 114 |
| 985972 | 18,6 | 11 | 2 | 11 | 11 | 17 | 120 |
| 985974 | 20,4 | 11 | 2 | 13 | 13 | 17 | 120 |
| 985978 | 22,5 | 11 | 2 | 16 | 16 | 17 | 128 |
| 985984 | 28,3 | 11 | 3 | 21 | 21 | 17 | 130 |
| 985995 | 37,0 | 11 | 3 | 29 | 29 | 27 | 140 |

- For circular cut out in metal sheet and plastic.
- Operated with a wrench or ratchet/socket set.
- Fast, clean and burr-free cut out.
- For all IS0 diameters from M12 to M63.
- Parts greased for better use.
- PRODUCT PLUS: the round is slit into three parts and falls automatically
at the end of the cutting operation.
- Supplied with punch, die, and ball stop screw.

Table caption:

- d = ISO diameter/mm.
- d1 = drilling diameter/mm.
- Screw $=$ dimension on flat $(\mathrm{mm}) /$ operating screw.
$-E=$ max/thickness steel/soft.

| $\equiv 0$ | $\mathrm{~d}[\mathrm{~mm}]$ | $\mathrm{d} 1[\mathrm{~mm}]$ | $\mathrm{E}[\mathrm{mm}]$ | ISO | Screw Size $[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{6 9 3 7 1 6}$ | 12,5 | 11 | 2 | M12 | 17 | 55 |
| 697590 | 16,2 | 11 | 2 | M16 | 17 | 122 |
| 693695 | 20,4 | 11 | 2 | M20 | 17 | 148 |
| 697602 | 25,4 | 11 | 2 | M25 | 17 | 183 |
| 697611 | 32,5 | 22 | 2 | M32 | 27 | 436 |
| 697645 | 40,5 | 22 | 2 | M40 | 27 | 576 |
| 697637 | 50,5 | 22 | 2 | M50 | 27 | 816 |
| 697653 | 63,5 | 22 | 2 | M63 | 27 | 754 |

## ACCESSORIES



- For cylindrical high accuracy drilling in all diameters.
- Does not require a tapping hole.
- Cylindrical shank with 3 flats for proper drive, avoiding micro locking
- Marking of different diameters.
- 678014: Special PG cable gland.
- Panel drilling capacity up to 4 mm thickness.
- Shank diameter 10 mm ..

| $\equiv 0$ | $d$ mini - maxi $[\mathrm{mm}]$ | $\mathrm{d} 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: |
| $\mathbf{6 7 8 0 0 6}$ | $6,5-8,5-10,5-12,5-16,5-20,5-$ | 10 | 96 | 310 |



- For cylindrical high accuracy drilling in all diameters.
- Does not require a tapping hole.
- Cylindrical shank with 3 flats for proper drive, avoiding micro locking.
- Marking of different diameters.
- 678014: Special PG cable gland
- Panel drilling capacity up to 4 mm thickness.
- Shank diameter 10 mm .

| $\Rightarrow 0$ | $d$ mini - maxi $[\mathrm{mm}]$ | $d 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \mathbb{L}[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: |
| 678014 | $6,0-9,0-12,5-15,2-18,6-20,4-$ |  |  |  |
| $22,5-26,0-28,3-30,5-34,0-37,0$ | 10 | 100 | 300 |  |



- Drill bit diameter 11 mm for tapping hole.

| $\Rightarrow 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 986051 | 310 |

## $\sqrt{\text { a }}$ Lubricating paste



- To lubricate the screws and drive axes.

| $=0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| 986107 | 150 |




TESTERS


- Allows current measurements without contact.
- Compatible with most multimeters.
- Automatic zero point adjustment, perfectly suited to FACOM multimeters 711, 711A, 714 and 714A.
- AC / DC measurement: 0 to 600 A .
- Frequency response: $50 \mathrm{~Hz}-60 \mathrm{~Hz}$.
- 600 V CAT III.

| $=0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| $720 . P 1500$ | 450 |



- Multimeter for

mobile maintenance.
- Current measurement without contact, withstands difficult environments.
- DC / AC voltmeter: 0 to 600 V - DC / AC ammeter: 0 to 400 A .
- Ohmmeter: 0 to 40 MO.
- Continuity test with buzzer.
- Diode test.
- Temperature measurement with K thermocouple.
- 600 V CAT III.

| $\Rightarrow 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| $712 A$ | 510 |

## THE RICHT TESTER FOR YOUR NEEDS

## Simple

- Automatic calibration: easy to use, no risk of error.
- Wide screen providing clear, detailed readings.

- Meets safety standard requirements.
- Contact-free measurement with the testing tips.

Operational

- Shock-proof coating: resistant to industrial environments.
- Cable storage: saves time.

$\sqrt{\text { - Multimeter }}$

- Maintenance muiltimeter.
- Ideal for repairing electronic or electromechanical assemblies and for teaching.
- DC / AC voltmeter: 0 to 600 V .
- DC / AC ammeter: 0 to 10 A .
- Ohmmeter: 0 to 40 MO.
- Capacimeter: 0 to $100 \mu \mathrm{~F}$.
- Frequencymeter: 0 to 100 KHZ .
- Cyclic ratio: 5\% to 99 \%.
- Diode test.
- Continuity test with buzzer.
- 600 V CAT III.

| $\equiv 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| $711 A$ | 803 |



## －DAT VAT safety tester

NF EN 601010－600 V，IEC 612 43－3
－Indispensible for construction and repairing in industrial environments．
－The VAT test allows to check the lack of voltage on a circuit before starting the work．
－Auto test．
－Hazardous voltage detection．
－Phase detector．
－Continuity test with buzzer．
－Differential circuit breaker test： 30 mA ．
－Phase rotation indicator．
－ 600 V CAT III．


## THERMOMETER


－Infrared thermometer with laser aiming．
－Connector for measuring with＂K＂thermocouples．
－Adjustable emissivity．
－Infrared measurement range：$-60^{\circ} \mathrm{C}$ to $+600^{\circ} \mathrm{C}$ ．
－D／S ratio：11／1．
－Mode：differential，minimum，maximum，average，alarm．

|  |  |
| :--- | :---: |
| 0 | $\Delta \Delta[g]$ |
| DX．T100 | 328 |


| $=0$ | For | $\Delta \Delta[g]$ |
| :--- | :---: | :---: |
| DX．12－08 | Bracelet probe | 20 |
| DX．12－11 | Standard needle probe | 95 |
| DX．12－15 | Extension | 117 |
| DX．12－17 | Surface contact probe | 105 |
| DX．12R | Air probe | 45 |



4

## PLIERS

## NEW 1,000 VOLTS INSULATED PLIERS

## Increased durability: longer life performance <br> 



## Insulation tests

Tools to EN 60900 specifications 1-Immersion test 2-Penetration test
3-Insulation adhesion test 4-Impact test 5-Non-flammability test


## Information

- Compliance with European standard EN 60900.
- For working on live components up to 1,000 volt AC.
- Each and every tool is tested to 10,000 volts for 10 seconds at the end of the manufacturing cycle.
- Our production site is accredited and certified to produce insulated tools.


## Safety


increase contact with the plier aiding both grip and comfort.

Soft grip

- For improved comfort.

- Prevent damage to insulation from:
- Heat (-20 to $+70^{\circ} \mathrm{C}$ working temperature)
- Chemicals
- Cuts or perforations.
- Check insulation is sound before using a tool.
- Wear insulating gloves and eye protection.

192A.VE - 1,000 Volt insulated high-performance diagonal cutters
NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900


- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.

- New head design to increase durability and cutting capacity
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of: - 192A.16VE : $2.0 \mathrm{~mm} 210 \mathrm{~kg} / \mathrm{mm}^{2}$ - 192A.18VE : $2.2 \mathrm{~mm} 205 \mathrm{~kg} / \mathrm{mm}^{2}$
- High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents.
- Positive return spring
- Tether ready
(Tether point adds 10 mm to nominal length)
- Varnish finish to help prevent rusting.

| $\Rightarrow 0$ | $B[m m]$ | $C[m m]$ | $E[m m]$ | $L[m m]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 192A.16VE | 24,0 | 18,0 | 10,0 | 160 | 200 |
| 192A.18VE | 26,0 | 20,0 | 11,0 | 180 | 260 |

## $\sqrt{ }{ }^{-391}$ A.VE - 1,000 volt insulated electricians diagonal cutters

NF ISO 5749, IS0 5749, DIN ISO 5749, ASME B107.500

- Snipe nose for confined space (electrical cabinets, wiring).
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of: - 391A.14VE: $1.4 \mathrm{~mm} 225 \mathrm{~kg} / \mathrm{mm}^{2}$
- 391A.16VE: $1.6 \mathrm{~mm} 220 \mathrm{~kg} / \mathrm{mm}^{2}$
- High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability chrome-molybdenum-vanadium steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents.

- Positive return spring
- Tether ready
(Tether point adds 10 mm to nominal length)
- Chrome finish for corrosion resistance.

| $=0$ | $\mathrm{~B}[\mathrm{~mm}]$ | $\mathrm{B} 1[\mathrm{~mm}]$ | $\mathrm{C}[\mathrm{mm}]$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 391A.14VE | 21,5 | 14 | 15,5 | 9,5 | 145 | 9 | 160 |
| 391A.16VE | 19 | 15 | 21 | 10 | 165 | 9 | 190 |



4

1,000 Volt insulated high-performance end cutters


- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
- 190A.16VE: $2.0 \mathrm{~mm} 210 \mathrm{~kg} / \mathrm{mm}^{2}$
- 190A.20VE: $2.5 \mathrm{~mm} 200 \mathrm{~kg} / \mathrm{mm}^{2}$
- High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents.
- Positive return spring
- Tether ready tether point
(Tether point adds 10 mm to nominal length)
- Chrome finish for corrosion resistance.

| $\equiv 0$ | $\mathrm{~A}[\mathrm{~mm}]$ | $\mathrm{B}[\mathrm{mm}]$ | $\mathrm{C}[\mathrm{mm}]$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1 9 0 A . 1 6 V E}$ | 6,5 | 28 | 6,5 | 11,5 | 160 | 200 |



NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- Slim, fine serrated noses.
- Lateral wire cutter for copper and hard steel wire.
- 185A.20VE: straight nose. Approved by VDE.
- 195A.20VE: $40^{\circ}$ angled nose.
- Removable return spring.
- Ergonomic anti-slip grips.
- Finish: polished, varnished.

| $=0$ | $\mathrm{~B}[\mathrm{~mm}]$ | $\mathrm{C}[\mathrm{mm}]$ | $\mathrm{d}[\mathrm{mm}]$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 185A.20VE | 18 | 75 | 2,9 | 3,6 | 200 | 192 |
| 195A.20VE | 18 | 69 | 2,9 | 3,6 | 200 | 192 |



## PLIERS

## - 193A-195A.VE - 1,000 Volt insulated short half-round nose pliers



NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- Narrow, finely serrated tips with side cutting edges.
- 193A.VE: straight nose.
- 195A.VE: $40^{\circ}$ angled nose.
- Cutting edges for copper and hard steel wire to a maximum specification of $1.6 \mathrm{~mm} 160 \mathrm{~kg} / \mathrm{mm}^{2}$.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Bi-Material ergonomic grips resistant to chemical agents featuring:
- Positive return spring
- Tether ready (Tether point adds 10 mm to nominal length)
- Varnish finish to help prevent rusting.

| $\Rightarrow 0$ | $\mathrm{~B}[\mathrm{~mm}]$ | $\mathrm{C}[\mathrm{mm}]$ | $\mathrm{d}[\mathrm{mm}]$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 193A.16VE | 17 | 50 | 2,5 | 3 | 160 | 177 |
| 195A.16VE | 17 | 50 | 2,5 | 3 | 160 | 177 |

## High-capacity 1,000 Volt insulated multigrip pliers



NF ISO 8976, NF EN 60900, ISO 8976, EN 60900, DIN ISO 8976, DIN EN 60900, ASME B107.500


- Capacity: 44 mm.
- Ideal for confined spaces: long reach thin noses.
- Double heat-treated tips: high wear resistance, hardness 60/62 HRc.
- 180.VE: varnish finish, 1,000 V insulated grips designed for electrical safety to EN 60900 and VDE certified for working on or near live components.

$\sqrt{\text { - 187A.VE - 1,000 Volt insulated combination pliers }}$


NF ISO 5746, ISO 5746, DIN ISO 5746, ASME B107.500, NF EN 60900, EN 60900, DIN EN 60900

- For your safety, all pliers are tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- Serrated flat and oval pipe/cable gripping surfaces combined with a high perfomance cutting edges.
- Cutting edges designed to cleanly cut all types of wire: soft wires and modern materials to a maximum piano wire specification of:
- 187A.16VE : $1.8 \mathrm{~mm} 215 \mathrm{~kg} / \mathrm{mm}^{2}$
- 187A.18VE : $2.0 \mathrm{~mm} 210 \mathrm{~kg} / \mathrm{mm}^{2}$
- High mechanical advantage due to off-set rivet and cutting edge geometry reducing effort.
- High durability Carbon alloy steel, with induction hardened cutting edges.
- Mono-Material ergonomic grips maintining accessibililty benefits of classic dip grips, resistant to workshop chemical agents
- Varnish finish to help prevent rusting.

| $\Rightarrow 0$ | $\mathrm{~B}[\mathrm{~mm}]$ | $\mathrm{C}[\mathrm{mm}]$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 187A.16VE | 21 | 34 | 9,5 | 165 | 195 |
| 187A.18VE | 23 | 36 | 10,0 | 185 | 225 |

## $\sqrt{-188 A . V E-1,000 ~ V o l t ~ i n s u l a t e d ~ f l a t ~ n o s e ~ p l i e r s ~}$

NF ISO 5745，ISO 5745，DIN ISO 5745，ASME B107．500，NF EN 60900， EN 60900，DIN EN 60900
－For your safety，all pliers are tested individually at 10,000 volts for 10 seconds，at the end of the manufacturing cycle．
－Narrow flat shaped and finely serrated nose for a firm grip and accessibility
－High durability Carbon alloy steel．
－Bi－Material ergonomic grips resistant to chemical agents featuring：
－Positive return spring
－Tether ready
（Tether point adds 10 mm to nominal length）
－Varnish finish to help prevent rusting．

|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| $=0$ | $B[m m]$ | $E[m m$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\Delta \Delta[g]$ |
| 188A．16VE | 46 | 4 | 168 | 6,5 | 140 |
| 188A．20VE | 75 | 4 | 200 | 6,5 | 200 |



$\longrightarrow$


## 1，000 Volt insulated round nose pliers

NF ISO 5745，ISO 5745，DIN ISO 5745，ASME B107．500，NF EN 60900， EN 60900，DIN EN 60900
－For your safety，all pliers are tested individually at 10,000 volts for 10 seconds，at the end of the manufacturing cycle．
－For shaping loops，bends or rings．
－Finely serrated jaws for a positive grip．
－Diameter of each nose at the end： 2 mm ．
－High durability Carbon alloy steel．
－Bi－Material ergonomic grips resistant to chemical agents featuring：
－Positive return spring
－Tether ready tether point
（Tether point adds 10 mm to nominal length）
－Varnish finish to help prevent rusting．

| $\Rightarrow 0$ | $C[m m]$ | $d[m m]$ | $E[m m]$ | $L[m m]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 189A．17VE | 41 | 2 | 4 | 170 | 135 |



## 1，000 Volt insulated strippers

## NF EN 60900，EN 60900，DIN EN 60900

－For your safety，all pliers are tested individually at 10,000 volts for 10 seconds，at the end of the manufacturing cycle．
－For multiple or single strand wires $0.5-->6 \mathrm{~mm}^{2}$ ．
－Adjustment screw with lock nut．
－Metal return screw．
－Ergonomic anti－slip grips．
－Finish：polished，varnished．

| $=0$ | $B[m m]$ | $E[m m]$ | $L[m m]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: |
| 194A．17VE | 17 | 8,5 | 170 | 185 |




0





## SCREWDRIVERS

AT.VE - PROTWIST® 1,000 Volt insulated screwdrivers for slotted-head screws


NF ISO 2380-1, NF ISO 2380-2, NF EN 60900, ISO 2380-1, ISO 2380-2, EN 60900, DIN ISO 2380-1, DIN ISO 2380-2, DIN EN 60900, ASME B107.600

- For your safety, each screwdriver is tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
- 1,000 Volt sheathed round blade.
- Milled blade: --> 5.5 mm included.
- Fillet blade: 6.5 --> 12 mm .
- Bi-material grip resists to impacts, abrasion, and chemicals.
- New chemical resistant handle with "power" channel for higher torque transfer.
- New softer handle material for improved comfort.

| $=0$ | A [mm $]$ | $\mathrm{d}[\mathrm{mm}]$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\mathrm{L} 2[\mathrm{~mm}]$ | $\mathrm{L} 3[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AT2X75VE | 2,0 | 19 | 0,4 | 170 | 40 | 95 | 18 | 23 |
| AT2.5X50VE | 2,5 | 25 | 0,4 | 153 | 50 | 103 | 18 | 30 |
| AT2.5x75VE | 2,5 | 25 | 0,4 | 178 | 75 | 103 | 18 | 32 |
| AT3X75VE | 3,0 | 25 | 0,5 | 178 | 75 | 103 | 18 | 38 |
| AT3X100VE | 3,0 | 25 | 0,5 | 202 | 100 | 103 | 18 | 39 |
| AT3.5x75VE | 3,5 | 25 | 0,6 | 179 | 75 | 104 | 18 | 42 |
| AT3.5x100VE | 3,5 | 25 | 0,6 | 204 | 100 | 104 | 18 | 44 |
| AT4X100VE | 4,0 | 30 | 0,8 | 210 | 100 | 110 | 18 | 48 |
| AT4X150VE | 4,0 | 30 | 0,8 | 260 | 150 | 110 | 18 | 53 |
| AT5.5x125VE | 5,5 | 30 | 1,0 | 235 | 125 | 110 | 18 | 88 |
| AT5.5x150VE | 5,5 | 30 | 1,0 | 260 | 150 | 110 | 18 | 92 |
| AT5.5x200VE | 5,5 | 30 | 1,0 | 310 | 200 | 110 | 18 | 106 |
| AT6.5x150VE | 6,5 | 36 | 1,2 | 270 | 150 | 120 | 18 | 120 |
| AT6.5x200VE | 6,5 | 36 | 1,2 | 320 | 200 | 120 | 18 | 170 |
| AT8X150VE | 8,0 | 40 | 1,2 | 275 | 150 | 125 | 18 | 160 |
| AT8X200VE | 8,0 | 40 | 1,2 | 325 | 200 | 125 | 18 | 180 |
| AT10X200VE | 10,0 | 40 | 1,6 | 325 | 200 | 125 | 18 | 240 |
| AT12X250VE | 12,0 | 40 | 2,0 | 375 | 250 | 125 | 18 | 360 |

ATP.VE - PROTWIST® 1,000 Volt insulated screwdrivers for Phillips ${ }^{\circledR}$ head screws


NF ISO 8764-1, NF ISO 8764-2, NF EN 60900, ISO 8764-1, ISO 8764-2, EN 60900, DIN ISO 8764-1, DIN ISO 8764-2, DIN EN 60900, ASME B107.600

- For your safety, each screwdriver is tested individually at 10,000 volts for 10 seconds, at the end of the manufacturing cycle.
-1,000 Volt sheathed round blade.
- Bi-material grip resists to impacts, abrasion, and chemicals.
- New chemical resistant handle with "power" channel for higher torque transfer.
- New softer handle material for improved comfort.

| 0 | Phillips [No] | $\mathrm{d}[\mathrm{mm}]$ | $\mathrm{d} 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\mathrm{L} 2[\mathrm{~mm}]$ | $\mathrm{L} 3[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ATP0X75VE | PH0 | 25 | 3,0 | 179 | 75 | 104 | 18 | 46 |
| ATP1X100VE | PH1 | 30 | 4,5 | 210 | 100 | 110 | 18 | 77 |
| ATP2X125VE | PH2 | 36 | 6,0 | 215 | 125 | 120 | 18 | 127 |
| ATP3X150VE | PH3 | 40 | 8,0 | 275 | 150 | 125 | 18 | 195 |
| ATP4X200VE | PH4 | 40 | 10,0 | 375 | 200 | 125 | 18 | 278 |

EARS

ATD．VE－PROTWIST® 1，000 Volt insulated screwdrivers for Pozidriv ${ }^{\otimes}$ head screws


NF ISO 8764－1，NF ISO 8764－2，NF EN 60900，ISO 8764－1，ISO 8764－2，EN 60900，DIN ISO 8764－1，DIN ISO 8764－2，DIN EN 60900，ASME B107．600
－For your safety，each screwdriver is tested individually at 10，000 volts for 10 seconds，at the end of the manufacturing cycle．
－ 1,000 Volt sheathed round blade．
－Bi－material grip resists to impacts，abrasion，and chemicals．

| $\equiv 0$ | Pozidriv［ No ］ | d［mm］ | 1 ［mm］ | ［［mm］ | L1［mm］ | L2［mm］ | L3［mm］ | $\Delta \Delta[g]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ATDOX75VE | PZO | 25 | 3，0 | 179 | 75 | 104 | 18 | 46 |
| ATD1X100VE | PZ1 | 30 | 4，5 | 209 | 100 | 109 | 18 | 77 |
| ATD2X125VE | PZ2 | 36 | 6，0 | 245 | 125 | 120 | 18 | 127 |
| ATD3X150VE | PZ3 | 40 | 8，0 | 275 | 150 | 125 | 18 | 195 |



| $=0$ | Qty | $\Delta \Delta[g]$ |
| :--- | :---: | :---: |
| ATD．J5VE | $3.5 \mathrm{~mm}, 4 \mathrm{~mm}, 5.5 \mathrm{~mm}, \mathrm{PZ1}, \mathrm{PZ2}$ | 430 |
| ATD．J8VE | $2.5 \mathrm{~mm}, 3 \mathrm{~mm}, 3.5 \mathrm{~mm}, 4 \mathrm{~mm}, 5.5 \mathrm{~mm}, 6.5 \mathrm{~m}$, PZ1，PZ2 | 650 |
| ATP．J5VE | $3.5 \mathrm{~mm}, 4 \mathrm{~mm}, 5.5 \mathrm{~mm}$, PH1，PH2 | 430 |

safety，each screwdriver is tested individually at 10，000 volts for 10 seconds，at the end of the manufacturing cycle．
－Supplied in a box．



## FACOM VSE - A GOMPREHENSIVE RANGE OF 1,000 VOLT INSULATED TOOLS

## For use on live components!



## "CERTIFIED" SAFETY <br> Correct use of insulated tools

ALWAYS wear insulating gloves and eye protection. Check insulation is sound before using a tool.

- Never use a tool with cracked, cut or damaged insulation in any way.
- Discard tools if their insulation looks unsafe.
- Don't alter the insulation.
- Don't let other people use your insulated tools.
- Always use the correct tool.
- Check that the tool bears standard and approval markings.

- Read safety recommendations and keep the instructions.
These products come with safety recommendations.
- Beware of electrical hazards.
- Prevent damage to insulation from :
- Heat (-20 to $70^{\circ} \mathrm{C}$ working temperature),
- Cuts or perforations.,
- Chemicals.Visually check the insulation before use.
- Wear insulating gloves and eye protection.
-2-colour insulation :
- Orange = safe.
- Yellow = STOP.



FACOM VSE 1，000 VOLTS ${ }^{\circledR}$


Tools built for electrical safety to European standard EN 60900. For working on live components up to 1，000 Volt AC and 1，500 Volt DC．

| SAFETY <br> COLOUR－ <br> CODING | $\left\rangle \begin{array}{l}\text { ORANGE：} \\ 1,000 \text { Volt protection．}\end{array}\right.$ |
| :--- | :--- |
|  | $\left\rangle \begin{array}{l}\text { YELLOW VISIBLE：} \\ \text { STOP and change tool．}\end{array}\right.$ |

## SAFETY <br> COLOUR－ CODING


$\longrightarrow$

| $=0$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{H}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $200 \mathrm{~kg} / \mathrm{mm}^{2}[\emptyset \mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 192．14AVSE | 30 | 30 | 145 | 70 | 1,4 | 210 |
| 192．16AVSE | 35 | 35 | 165 | 75 | 1,6 | 270 |
| 192．18AVSE | 40 | 40 | 185 | 75 | 1,8 | 370 |



## - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated diagonal cutting pliers for copper



NF ISO 5749, ISO 5749, DIN ISO 5749, ASME B107.500

- Embedded meshing model.
- CU cutting diameter: 3.5 mm .
- Insulation with "safety" colour coding.
- Finish: burnished head.

| $\equiv 0$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\mathrm{Cu}-\emptyset \max \left[\mathrm{mm}^{2}\right]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 391.16AVSE | 35 | 165 | 70 | 3,5 | 270 |

- VSE series $\mathbf{1 , 0 0 0}$ Volt insulated end nippers for hard wire

NF ISO 5748, NF EN 60900, ISO 5748, EN 60900, DIN ISO 5748, DIN EN 60900, ASME B107.500


- Tempered cutting edges for hardness above 60 HRc.
- Cutting diameter/200 kg/mm2: 1.6 mm .
- Insulation with "safety" colour coding.
- Finish: burnished head.

| $\equiv 0$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $200 \mathrm{~kg} / \mathrm{mm}^{2}[\emptyset \mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 190.16AVSE | 77 | 165 | 35 | 1,6 | 250 |

## COMBINATION PLIERS

187.AVSE - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated combination pliers


NF ISO 5746, NF EN 60900, ISO 5746, EN 60900,
DIN ISO 5746, DIN EN 60900, ASME B107.500

- Tempered pliers for general strength.
- Second treatment on cutting edge for cutting edge hardness above 60 HRc.
- Insulation with "safety" colour coding.
- Finish: burnished head.


| $\equiv 0$ | $\begin{gathered} E \\ {[\mathrm{~mm}]} \end{gathered}$ | $\underset{[\mathrm{mm}]}{\mathrm{L}}$ | $\begin{gathered} \mathrm{L} 1 \\ {[\mathrm{~mm}]} \end{gathered}$ | $140 \mathrm{~kg} / \mathrm{mm}^{2}$ [ $\varnothing \mathrm{mm}$ ] | $200 \mathrm{~kg} / \mathrm{mm}^{2}$ [ $\emptyset \mathrm{mm}$ ] | $\mathrm{Cu}-\emptyset \max$ [ $\mathrm{mm}^{2}$ ] | $\Delta \Delta[g]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 187.16AVSE | 35 | 165 | 65 | 2,0 | 1,6 | 3,3 | 265 |
| 187.18AVSE | 35 | 185 | 70 | 1,8 | 1,8 | 3,7 | 320 |
| 187.20AVSE | 40 | 205 | 70 | 2,0 | 2,0 | 4,0 | 410 |

## GRIP PLIERS

## $\sqrt{\text { - }}$ vSE series $\mathbf{1 , 0 0 0}$ Volt insulated flat nose pliers



NF ISO 5746, NF EN 60900, ISO 5746, EN 60900, DIN ISO 5746, DIN EN 60900, ASME B107.500


- Serrated nose tips.
- Insulation with "safety" colour coding.
- Finish: burnished head.


| $\Rightarrow 0$ | $\mathrm{~B}[\mathrm{~mm}]$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{E} 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 188.16AVSE | 50 | 37 | 7 | 165 | 60 | 170 |

$\sqrt{\text { - VSE series }} \mathbf{1 , 0 0 0}$ Volt insulated semi-round nose pliers

NF ISO 5745, ISO 5745, DIN ISO 5745, ASME B107.500

- Model with wire cutter.
- Serrated inner side of jaws facilitating grip.
- Insulation with "safety" colour coding.
- Finish: burnished head.

| $=0$ | $\mathrm{~A}[\mathrm{~mm}]$ | $\mathrm{E}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $140 \mathrm{~kg} / \mathrm{mm}^{2}[\emptyset \mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 193.16AVSE | 50 | 32 | 170 | 70 | 1,6 | 180 |




40


- Max diameter: 2.5 mm .
- Insulation with "safety" colour coding.
 for all types of wires.
- Insulation with "safety" colour coding.
- Finish: burnished head.




## WIRE STRIPPERS

$\sqrt{\text { - VSE series }} \mathbf{1 , 0 0 0}$ Volt insulated strippers

- Strips all current wires in electrical installations.

|  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
| $=0$ | $E[m m]$ | $E 1[m \mathrm{~m}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| 194.17AVSE | 8 | 8 | 170 | 200 |

- Finish: burnished head.






## CABLE CUTTER



NF EN 60900, EN 60900, DIN EN 60900

- Particularly efficient for limited size.

- Forged safety stops.
- Insulation with "safety" colour coding.
- Finish: burnished head.

| $\equiv 0$ | B [mm] | B1 [mm] | E [mm] | E1 [mm] | L [mm] | L1 [mm] | $\mathrm{Cu}-\emptyset \max \left[\mathrm{mm}^{2}\right]$ | $\Delta \Delta[g]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 412.10AVSE | 25 | 35 | 10 | 35 | 195 | 80 | 8 | 390 |
| 412.14AVSE | 30 | 35 | 13 | 35 | 230 | 80 | 14 | 510 |
| 412.150AVSE | 60 | 70 | 16 | 70 | 450 | 155 | 32 | 220 |

- 414.AVSE - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated ratchet cable cutter


NF EN 60900, EN 60900, DIN EN 60900

- One-hand cutting.
- No distortion of the cable cut.
- Tempered forged steel blade.
- Insulation with "safety" colour coding.
414.45AVSE
- Cutting dimension: 45 mm .
- Max cutting cross-section copper $300 \mathrm{~mm}^{2}$ and alu. $400 \mathrm{~mm}^{2}$.
- Copper sector cable: 3x70.
- Alu sector cable: $4 \times 70$.
414.52AVSE

- Cutting dimension: 52 mm .
- Max cutting cross-section copper $400 \mathrm{~mm}^{2}$.
- Max cutting cross-section HVA: $240 \mathrm{~mm}^{2}$.
- LV sector cable: $3^{*} 150+70$ or $3 * 240+95$.

| 0 | $B[m m]$ | $E[m m]$ | $L[m m]$ | $\Delta \Delta[\mathrm{kg}]$ |
| :--- | :---: | :---: | :---: | :---: |
| 414.45 AVSE | 135 | 42 | 260 | 1.0 |
| 414.52AVSE | 140 | 37 | 280 | 1.0 |

## HACKSAW FRAME

## $\sqrt{\text { - }}$ SE series $\mathbf{1 , 0 0 0}$ Volt insulated hacksaw frame



NF E 73-073, NF EN 60900, EN 60900, DIN 6473, DIN EN 60900

- Hacksaw frame for 300 mm blade.
- 2 blade positions.
- Tension by wing nut.
- Supplied with one bimetal blade.
- Dimensions: $470 \times 130 \times 20 \mathrm{~mm}$.

| $\Rightarrow 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| $602 . A V S E$ | 590 |

## KNIFE

$\sqrt{\text {－VSE series } \mathbf{1 , 0 0 0} \text { Volt insulated knife }}$

NF EN 60900，EN 60900，DIN EN 60900
－Model with thick，angled，flat end blade．
－Soft bi－material handle．
－Storage case．
－Active blade length： 60 mm ．
－Max dimensions： $185 \times 52 \times 25 \mathrm{~mm}$ ．


## OPEN－END WRENCHES

46．AVSE－VSE series $\mathbf{1 , 0 0 0}$ Volt insulated open end wrenches

NF ISO 4229，NF EN 60900，ISO 4229，EN 60900， DIN 3114，DIN EN 60900
－Insulation with＂safety＂colour coding．

$=30$

| $\equiv 0$ | A［mm］ | B［mm］ | E［mm］ | L［mm］ | L1［mm］ | $\Delta \triangle[g]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 55．8AVSE | 8 | 16 | 8 | 150 | 16 | 50 |
| 55．9AVSE | 9 | 17 | 9 | 151 | 17 | 55 |
| 55．10AVSE | 10 | 19 | 9 | 157 | 17 | 60 |
| 55．11AVSE | 11 | 20 | 10 | 160 | 19 | 70 |
| 55．12AVSE | 12 | 21 | 11 | 165 | 20 | 100 |
| 55．13AVSE | 13 | 23 | 12 | 165 | 20 | 105 |
| 55．14AVSE | 14 | 25 | 12 | 180 | 21 | 120 |
| 55．15AVSE | 15 | 26 | 12 | 183 | 21 | 130 |
| 55．16AVSE | 16 | 27 | 13 | 195 | 26 | 160 |
| 55．17AVSE | 17 | 30 | 14 | 198 | 27 | 180 |
| 55．18AVSE | 18 | 30 | 14 | 215 | 27 | 200 |
| 55．19AVSE | 19 | 32 | 14 | 215 | 27 | 205 |
| 55．21AVSE | 21 | 35 | 16 | 245 | 31 | 300 |



NF EN 60900，EN 60900，DIN EN 60900
－OGV® profile ring．
－Insulation with＂safety＂colour coding．


## ADJUSTABLE WRENCHES

113.AVSE - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated adjustable wrenches


NF ISO 6787, NF EN 60900, ISO 6787, EN 60900,
DIN EN 60900, ASME B107.100


- Models with finger stop.
- Worm: left-hand rotation.
- Insulation with "safety" colour coding.
- Finish: burnished.


| $=0$ | $\mathrm{~A}[\mathrm{~mm}]$ | $\mathrm{B}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: | :---: |
| 113.8TAVSE | 27 | 24 | 210 | 385 |
| 13.10TAVSE | 30 | 29 | 260 | 655 |
| 113.12TAVSE | 34 | 34 | 310 | 950 |
| 113.15TAVSE | 44 | 44 | 385 | 1900 |

## OFFSET KEYS

- 83.AVSE - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated keys


NF ISO 2936, NF EN 60900, ISO 2936, EN 60900, DIN ISO 2936, DIN EN 60900

- Key made in allied steel treated for strength above specifications of standards.
- Insulation with "safety" colour coding.


| =0 | $\mathrm{d}[\mathrm{mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\mathrm{L2}[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 83.3AVSE | 3 | 125 | 85 | 12 | 20 |
| 83.4AVSE | 4 | 125 | 85 | 12 | 30 |
| 83.5AASE | 5 | 125 | 85 | 12 | 50 |
| 83.6ALSE | 6 | 125 | 85 | 12 | 70 |
| 83.8AVSE | 8 | 125 | 85 | 12 | 110 |
| 83.10AVSE | 10 | 125 | 85 | 12 | 150 |
| 83.12AVSE | 12 | 125 | 85 | 12 | 210 |

## BOX WRENCHES

- 94T-TL.AVSE - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated box wrenches

NF EN 60900, EN 60900, DIN EN 60900

- 94T.AVSE: box wrenches length 135 mm .
- 94TL.AVSE: box wrenches length 300 mm .


|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| =0 | $\mathrm{d}[\mathrm{mm}]$ | $\mathrm{d} 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| 94T.6AVSE | 6 | 13 | 135 | 115 | 150 |
| 94T.8AVSE | 8 | 15 | 135 | 115 | 160 |
| 94T.10AVSE | 10 | 19 | 135 | 115 | 185 |
| 94T.11AVVE | 11 | 23 | 135 | 115 | 185 |
| 94T.12AASE | 12 | 24 | 135 | 115 | 210 |
| 94T.13ASE | 13 | 25 | 135 | 115 | 225 |
| 94T.14AVSE | 14 | 26 | 135 | 115 | 240 |
| 94TL.10AVSE | 10 | 21 | 300 | 205 | 420 |
| 94TL.13AVSE | 13 | 25 | 300 | 205 | 520 |
| 94TL.16AVSE | 16 | 30 | 300 | 205 | 800 |
| 94TL.17AVSE | 17 | 30 | 300 | 205 | 840 |
| 94TL.19AVSE | 19 | 33 | 300 | 205 | 910 |

## SOCKETS 1／4＂

## FACOM VSE 1，000 VOLT INSULATED RATCHETS AND SOCKETS

## A comprehensive range of tools for working on live components

（1）Comprehensive range of accessories： extensions， T handles，etc．
（2）Variety of socket lengths．
（3）Square drives： $1 / 2^{\prime \prime}, 3 / 8^{\prime \prime}, 1 / 4^{\prime \prime}$ for overcoming accessibility problems．

$\sqrt{\text {－R．AVSE }}$－VSE series $\mathbf{1 , 0 0 0}$ Volt insulated 6－point $1 / 4$＂sockets

NF ISO 2725－1，NF ISO 1711－1，NF EN EN 60900，ISO 2725－1，ISO 1711－1，EN 60900，DIN 3124，DIN EN 60900， ASME B107．5
－Manual use sockets．
－Drive bit 1／4＂－ 6.35 mm ．


| $=0$ | $\mathrm{~A}[\mathrm{~mm}]$ | $\mathrm{d}[\mathrm{mm}]$ | $\mathrm{d} 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| R．6AVSE | 6 | 22 | 16 | 22 | 10 |
| R．7AVSE | 7 | 22 | 17 | 22 | 16 |
| R．8AVSE | 8 | 22 | 17 | 22 | 16 |
| R．10AVSE | 10 | 22 | 18 | 22 | 20 |
| R．12AVSE | 12 | 22 | 22 | 22 | 30 |

## ${ }^{-}$RT．AVSE－VSE series $\mathbf{1 , 0 0 0}$ Volt insulated 6－point 1／4＂bit sockets



NF EN 60900，EN 60900，DIN EN 60900
－Manual use sockets．
－Drive bit $1 / 4^{\prime \prime}-6.35 \mathrm{~mm}$ ．


## RATCHETS AND ACCESSORIES 1／4＂

NF ISO 3315，NF EN 60900，ISO 3315，EN 60900，DIN 3122， DIN EN 60900，ASME B107．10
－Drive bit 1／4＂－ 6.35 mm ．
－Sockets and accessories held by spring ball（9 N）．
－Insulation grip with＂safety＂colour coding．
－Dimensions： $125 \times 45 \times 35 \mathrm{~mm}$ ．

| $\exists 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| R．151AVSE | 140 |

$\sqrt{\text { - VSE series }} \mathbf{1 , 0 0 0}$ Volt insulated $1 / 4^{\prime \prime}$ extension


NF ISO 3316, NF EN 60900, ISO 3316, EN 60900, DIN 3123,
DIN EN 60900, ASME B107.10


- Drive bit $1 / 4^{\prime \prime}-6.35 \mathrm{~mm}$.

| $\Rightarrow 0$ | $\mathrm{~d}[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \mathrm{T}[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: |
| R.210AVSE | 16,6 | 116 | 65 |

$\sqrt{\text { - Set of } 10 \text { VSE series } \mathbf{1 , 0 0 0} \text { Volt insulated tools }}$


- Including:
-5 sockets $6,7,8,10,12 \mathrm{~mm}$.
- 3 6-point bit sockets 4, 5, 6 mm .
- 1 ratchet R. 151 AVSE.
- 1 extension R.210AVSE.
- Case dimensions: $322 \times 136 \times 53 \mathrm{~mm}$.

SOCKETS 3/8"

| $\equiv 0$ | $H[m m]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: |
| R.400AVSE | 53 | 322 | 650 |



## LONG REACH SOCKETS 3/8"



- J.LAVSE - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated long 12-point $3 / \mathbf{" 1}^{\prime \prime}$ sockets


NF ISO 2725-1, NF ISO 1711-1, NF EN 60900,
ISO 2725-1, ISO 1711-1, EN 60900, DIN 3124, DIN EN 60900, ASME B107.5

- Manual use sockets.
- Drive bit $3 / 8^{\prime \prime}-9.53 \mathrm{~mm}$.
- $0 \mathrm{GV} ®$ profile.

|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 0 | $\mathrm{~A}[\mathrm{~mm}]$ | $d[\mathrm{~mm}]$ | $d 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[g]$ |
| J.8LAVSE | 8 | 18 | 19 | 63 | 66 |
| J.13LAVSE | 13 | 18 | 23 | 63 | 75 |
| J.14LAVSE | 14 | 18 | 23 | 63 | 98 |
| J.16LAVSE | 16 | 18 | 25 | 69 | 147 |
| J.17LAVSE | 17 | 18 | 27 | 76 | 147 |
| J.11LAVSE | 18 | 18 | 28 | 76 | 157 |
| J.19LAVSE | 19 | 18 | 29 | 76 | 166 |

NF ISO 2725-1, NF ISO 1711-1, NF EN 60900,


ISO 2725-1, ISO 1711-1, EN 60900, DIN 3124, DIN EN 60900, ASME B107.5

- Manual use sockets.
- Drive bit 3/8" - 9.53 mm .
- 0 GV® profile.

|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 0 | [mm $]$ | $d[\mathrm{~mm}]$ | $d 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| J.8AVSE | 8 | 18 | 17 | 43 | 30 |
| J.10AVSE | 10 | 18 | 18 | 43 | 34 |
| J.11AVSE | 11 | 18 | 20 | 43 | 35 |
| J.12AVSE | 12 | 18 | 21 | 46 | 35 |
| J.13AVSE | 13 | 18 | 22 | 46 | 45 |
| J.14AVSE | 14 | 18 | 23 | 46 | 45 |
| J.15AVSE | 15 | 18 | 25 | 46 | 45 |
| J.16AVSE | 16 | 18 | 25 | 46 | 45 |
| J.17AVSE | 17 | 18 | 27 | 46 | 48 |
| J.18AVSE | 18 | 18 | 27 | 46 | 66 |

## BIT SOCKETS 3／8＂

$\sqrt{\text { ■ JT．AVSE－VSE series } 1,000 ~ V o l t ~ i n s u l a t e d ~ m a l e ~ 6-p o i n t ~ 3 / 8 " ~ b i t ~ s o c k e t s ~}$

NF EN 60900，EN 60900，DIN EN 60900
－Manual use sockets．
－Drive bit 3／8＂－ 9.53 mm ．


RATCHETS AND ACCESSORIES 3／8＂

■ VSE series 1,000 Volt insulated $3 / \mathbf{8}^{\prime \prime}$ ratchet


| $=0$ | $\mathrm{~A}[\mathrm{~mm}]$ | $d[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| JT．4AVSE | 4 | 18 | 66 | 10 | 43 |
| JT．5AVSE | 5 | 18 | 66 | 10 | 43 |
| JT．8AVSE | 8 | 18 | 66 | 10 | 56 |

NF ISO 3315，NF EN 60900，ISO 3315，EN 60900，DIN 3122， DIN EN 60900，ASME B107．10
－Drive bit 3／8＂－ 9.53 mm ．
－Sockets and accessories held by spring ball set（16 N）．
－Insulation grip with＂safety＂colour coding．
－Dimensions： $180 \times 50 \times 48 \mathrm{~mm}$ ．


| $\equiv 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| J．151AVSE | 250 |

$\sqrt{\text { E VSE series } 1,000 ~ V o l t ~ i n s u l a t e d ~} 3 / 8^{\prime \prime}$ handle

NF EN 60900，EN 60900，DIN EN 60900，ASME B107．10
－Handle with drive bit $3 / 8^{\prime \prime}-9.53 \mathrm{~mm}$ ．
－Sockets and accessories held by spring ball set（16 N）．
－Insulation grip with＂safety＂colour coding．
－Dimensions： $205 \times 165 \times 35 \mathrm{~mm}$ ．


| $=0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| J．121AVSE | 380 |

I.AVSE - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated $3 / \mathbf{8 " ~}^{\text {" }}$ extensions


NF ISO 3316, NF EN 60900, ISO 3316, EN 60900, DIN 3123, DIN EN 60900, ASME B107.10

- Drive bit $3 / 8^{\prime \prime}$ - 9.53 mm .


| $=0$ | $d[m m]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: |
| J.210AVSE | 17 | 150 | 150 |
| J.215AVSE | 17 | 260 | 290 |



- Including:
- 6 12-point sockets $8,10,11,12,13,14$ mm.
- 1 ratchet J.151AVSE.
- 2 extensions J. 210 AVSE, J. 215 AVSE.
- Dimensions: $390 \times 160 \times 68 \mathrm{~mm}$.

| $=0$ | $H[m m]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{kg}]$ |
| :--- | :---: | :---: | :---: |
| J .400 AVSE | 68 | 390 | 1.7 |

## SOCKET SETS AND ACCESSORIES 3/8"

$\sqrt{\text { - Set of } 17 \text { VSE series } 1,000 \text { Volt insulated tools }}$


- Including:
- 9 12-point sockets $8,10,11,12,13,14,15,17,19 \mathrm{~mm}$.
- 5 6-point bit sockets 4, 5, 6, 7, 8 mm .
- 1 ratchet J.151AVSE.
- 1 handle J.121AVSE.
- 1 extension J.210AVSE.
- Dimensions: $345 \times 280 \times 65 \mathrm{~mm}$.

|  | $H[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{kg}]$ |
| :--- | :---: | :---: | :---: |
| $J .401$ AVSE | 65 | 345 | 2.3 |

## SOCKETS 1/2"



NF ISO 2725-1, NF ISO 1711-1, NF EN EN 60900, ISO 2725-1,


ISO 1711-1, EN 60900, DIN 3124, DIN EN 60900, ASME B107.5

- Manual use sockets.
- Drive bit $1 / 2^{\prime \prime}$ - 12.7 mm .
- 0 GV® profile.

| $=0$ | $A[\mathrm{~mm}]$ | $d[\mathrm{~mm}]$ | $d 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[g]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| S.8AVSE | 8 | 22 | 17 | 52 | 70 |
| S.9AVSE | 9 | 22 | 18 | 52 | 70 |
| S.10AVSE | 10 | 22 | 19 | 52 | 75 |
| S.11AVSE | 11 | 22 | 20 | 52 | 75 |
| S.12AVSE | 12 | 22 | 22 | 52 | 75 |
| S.13AVSE | 13 | 22 | 23 | 52 | 75 |
| S.14AVSE | 14 | 22 | 24 | 52 | 80 |
| S.17AVSE | 17 | 22 | 28 | 52 | 90 |
| S.19AVSE | 19 | 22 | 32 | 52 | 95 |
| S.21AVSE | 21 | 22 | 33 | 52 | 130 |
| S.22AVSE | 22 | 22 | 34 | 52 | 145 |

## LONG REACH SOCKETS 1/2"

$\sqrt{\text { © S.LAVSE - VSE series } 1,000 ~ V o l t ~ i n s u l a t e d ~ l o n g ~ 12-p o i n t ~ 1 / 2 " ~ s o c k e t s ~}$
NF ISO 2725-1, NF ISO 1711-1, NF EN EN 60900,
ISO 2725-1, ISO 1711-1, EN 60900, DIN 3124,
DIN EN 60900, ASME B107.5

- Manual use sockets.
- Drive bit $1 / 2^{\prime \prime}$ - 12.7 mm.


## 三t FACOM <br> S.13L A VSE

- 0 GV® profile.

| $\equiv 0$ | $\mathrm{~A}[\mathrm{~mm}]$ | $\mathrm{d}[\mathrm{mm}]$ | $\mathrm{d} 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| S.12LAVSE | 12 | 22 | 22 | 77 | 125 |
| S.13LAVSE | 13 | 22 | 23 | 77 | 135 |
| S.14LAVSE | 14 | 22 | 24 | 77 | 135 |
| S.16LAVSE | 16 | 22 | 27 | 77 | 150 |
| S.17LAVSE | 17 | 22 | 28 | 77 | 161 |
| S.18LAVSE | 18 | 22 | 29 | 77 | 167 |
| S.19LAVSE | 19 | 22 | 32 | 77 | 180 |



## BIT SOCKETS 1/2"

- ST.AVSE - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated male 6-point 1/2" bit sockets


## NF EN 60900, EN 60900, DIN EN 60900

- Manual use sockets.
- Drive bit $1 / 2^{\prime \prime}$ - 12.7 mm .

| $=0$ | $d[\mathrm{~mm}]$ | $d 1[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\mathrm{L} 1[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| ST.8AVSE | 8 | 22 | 70 | 10 | 90 |
| ST.10AVSE | 10 | 22 | 70 | 12 | 90 |
| ST.12AVSE | 12 | 22 | 92 | 12 | 145 |
| ST.14AVSE | 14 | 22 | 92 | 17 | 150 |
| ST.17AVSE | 17 | 22 | 92 | 19 | 175 |




RATCHETS AND ACCESSORIES 1/2"

- VSE series $\mathbf{1 , 0 0 0}$ Volt insulated 1/2" ratchet

NF ISO 3315, NF EN 60900, ISO 3315, EN 60900, DIN 3122, DIN EN 60900, ASME B107.10

- Drive bit 1/2" - 12.7 mm .
- Sockets and accessories held by spring ball set ( 38 N ).
- Insulation grip with "safety" colour coding.
- Dimensions: $265 \times 55 \times 70 \mathrm{~mm}$.


| $\exists 0$ | $\Delta \Delta[g]$ |
| :--- | :---: |
| S.151AVSE | 580 |

## - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated $1 / \mathbf{2 " ~}^{\text {" }}$ handle

## NF EN 60900, EN 60900, DIN EN 60900

- Handle with drive bit $1 / 2^{\prime \prime}-12.7 \mathrm{~mm}$.
- Sockets and accessories held by spring ball set ( 38 N ).
- Insulation grip with "safety" colour coding.
- Dimensions: $210 \times 165 \times 25 \mathrm{~mm}$.
 $\Delta[g]$
=0
S.121AVSE


## $\sqrt{\text { ■ S.AVSE }}$ - VSE series $\mathbf{1 , 0 0 0}$ Volt insulated $1 / \mathbf{2 " ~}^{\prime \prime}$ extensions



NF ISO 3316, NF EN 60900, ISO 3316, EN 60900, DIN 3123,
DIN EN 60900, ASME B107.10

- Drive bit $1 / 2^{\prime \prime}-12.7 \mathrm{~mm}$.


| $=0$ | $d[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: | :---: |
| S.210AVSE | 22 | 145 | 250 |
| S.215AVSE | 22 | 265 | 470 |

## SOCKET SETS AND ACCESSORIES 1/2"

$\sqrt{\text { I }}$ Set of 12 VSE series 1,000 Volt insulated tools

NF EN 60900, EN 60900, DIN EN 60900


- Including:
- 9 12-point sockets $8,9,10,11,12,13,14,17,19 \mathrm{~mm}$.
- 1 ratchet S.151AVSE.
- Extensions S.210AVSE and S.215AVSE .
- Dimensions: $390 \times 160 \times 68 \mathrm{~mm}$.

| $\equiv 0$ | $H[m m]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{kg}]$ |
| :--- | :---: | :---: | :---: |
| S.400AVSE | 68 | 390 | 2.5 |

$\sqrt{\text { - Set of }} 17$ series $\mathbf{1 , 0 0 0}$ Volt insulated tools


NF EN 60900, EN 60900, DIN EN 60900

- Including:

- 9 12-point sockets $8,9,10,11,12,13,14,17,19 \mathrm{~mm}$.
- 5 bit sockets $8,10,12,14,17 \mathrm{~mm}$.
- 1 ratchet S.151AVSE.
- Handle S.121AVSE.
- S.210AVSE Extension
- Dimensions: $345 \times 280 \times 65 \mathrm{~mm}$.

| $=0$ | $H[\mathrm{~mm}]$ | $\mathrm{L}[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{kg}]$ |
| :--- | :---: | :---: | :---: |
| $\mathbf{S . 4 0 1 A V S E}$ | 65 | 345 | 3.4 |

## TORQUE WRENCH

－VSE series $\mathbf{1 , 0 0 0}$ Volt insulated torque wrench

NF EN ISO 6789，NF EN 60900，ISO 6789，EN 60900， DIN EN ISO 6789，DIN EN 60900
－Safe precision．
－Adjustment system locking ring．
－Wrench compliant with the ISO EN 6789 standard for torque control．
－Accuracy＋or－ $4 \%$ for 5，000 cycles min．
－Automatic trigger and reset．
－Re－calibratable wrench：typical procedure for torque wrenches．
－Drive bit 3／8＂．
－Capacity 10 to 50 N．m．
－One－way wrench．
－Wrench compliant with the EN 60900 standard for insulated tools．
－Protection up to 1,000 Volt AC and 1500 Volt direct．
－Wrench checked at dielectric test per unit on the manufacturing line．
－Wrench supplied with inspection report．


| $\equiv 0$ | $\mathrm{~L}[\mathrm{~mm}]$ | $\Delta \Delta[\mathrm{kg}]$ |
| :--- | :---: | :---: |
| $\mathrm{J} .306-50$ VSE | 380 | 1.3 |



## BC．VSE－SAFETY OVERGLOVES

## BC．VSE－Safety overgloves

## NF EN 60903，EN 60903，DIN EN 60903

－Silicon coated leather gloves protecting from mechanical risks．
－Used to protect latex insulated gloves．
－Physical and mechanical grade as per standard EN 388：2，1，2， 1.
－Abrasion： 2.
－Cuts： 1.
－Tears： 2.
－Perforation： 1.

| $=0$ | Size $[\mathrm{mm}]$ | $\Delta \Delta[\mathrm{g}]$ |
| :--- | :---: | :---: |
| BC．109VSE | $9(\mathrm{~B})$ | 160 |
| BC．110VSE | $10(\mathrm{C})$ | 160 |



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INSULATED PLIERS

NF C 18-421

- Rubber mat for insulation by cladding grounds.
- Thickness: 3.2 mm .
- Hardness: 60 DIDC.
- Dimensions:
- BC.20VSE: $1 \times 0,6 \mathrm{~m}$.
- BC.21VSE: $1 \times 1 \mathrm{~m}$.

| $\equiv 0$ | $L \times 1[\mathrm{~m}]$ | $\Delta \Delta[\mathrm{kg}]$ |
| :--- | :---: | :---: |
| BC.20VSE | $1 \times 0,6$ | 2.5 |
| BC.21VSE | $1 \times 1,0$ | 4.2 |



INSULATED TOOL SETS

2180B.VSE -10 -piece set of $\mathbf{1 , 0 0 0}$ Volt insulated tools


- Basic set for shop electrical maintenance.
- Supplied in leather bag BV. 100.
- Dimensions: $350 \times 120 \times 120 \mathrm{~mm}$.

Weight: 2.025 kg .


| $\equiv 0$ | Qtys | Set Description |
| :---: | :---: | :---: |
| 1820.AVSE | 1 | 1,000 Volt insulated knife |
| 187.18AVSE | 1 | 1,000 Volt insulated combination pliers |
| 189.17AVSE | 1 | 1,000 Volt insulated round nose pliers |
| 194.17AVSE | 1 | 1,000 Volt insulated strippers |
| 391.16AVSE | 1 | 1,000 Volt insulated diagonal cutters for copper |
| AT4X100VE | 1 | 1,000 Volt insulated screwdriver for slotted heads $4 \times 100 \mathrm{~mm}$ |
| AT5.5x150VE | 1 | 1,000 Volt slotted head screwdrivers $5.5 \times 150 \mathrm{~mm}$ |
| ATP1X100VE | 1 | 1,000 Volt screwdrivers for Phillips® PH 1 head |
| BC.90VSE | 1 | Low temperature insulating gloves S 9 |
| BV. 100 | 1 | Compact leather bag |

EARS
Eobacam
.
$\sqrt{\text { - 2185C.VSE - 19-piece set of } 1,000}$ Volt insulated tools

- In chest with modular storage.
- This general purpose selection includes 19 basic tools
in a plastic box.
- Volume available for additional tools.
- Dimensions: $524 \times 320 \times 214 \mathrm{~mm}$.

Weight: 9.300 kg .



| $\equiv 0$ | Qtys | Set Description |
| :---: | :---: | :---: |
| 1820.AVSE | 1 | 1,000 Volt insulated knife |
| 187.18AVSE | 1 | 1,000 Volt insulated combination pliers |
| 188.16AVSE | 1 | 1,000 Volt insulated flat nose pliers |
| 192.16AVSE | 1 | 1,000 Volt insulated cutters for hard wire |
| 194.17AVSE | 1 | 1,000 Volt insulated strippers |
| 391.16AVSE | 1 | 1,000 Volt insulated diagonal cutters for copper |
| 412.14AVSE | 1 | 1,000 Volt insulated copper/alu cable cutter 14 mm |
| AT4X100VE | 1 | 1,000 Volt insulated screwdriver for slotted heads $4 \times 100 \mathrm{~mm}$ |
| AT5.5x150VE | 1 | 1,000 Volt slotted head screwdrivers $5.5 \times 150 \mathrm{~mm}$ |
| AT6.5x150VE | 1 | 1,000 Volt slotted head screwdrivers $6.5 \times 150 \mathrm{~mm}$ |
| AT8X150VE | 1 | 1,000 Volt insulated screwdriver for slotted heads $8 \times 150 \mathrm{~mm}$ |
| ATP1X100VE | 1 | 1,000 Volt screwdrivers for Phillips® PH 1 head |
| ATP2X125VE | 1 | 1,000 Volt screwdrivers for Phillips® PH 2 head |
| AV.HT1C | 1 | Voltsage tester screwdriver 90 to 480 Volts |
| BC.109VSE | 1 | Safety overgloves S9 |
| BC.90VSE | 1 | Low temperature insulating gloves S 9 |
| DELA.401.00 | 1 | Plastic folding rule (2 m) |
| R.400AVSE | 1 | 1/4" 1,000 Volt insulated tool set |
| BP.P26 | 1 | PRO BOX tool box-26" model - 56 cm |



- 2187C.VSE - 32-piece set of 1,000 Volt insulated tools
- For electrical equipment installers.
- Supplied in leather wallet BV.7A.
- Dimensions: $445 \times 330 \times 185 \mathrm{~mm}$.

Weight: 8.500 kg .


| $\equiv 0$ | Qtys | Set Description |
| :---: | :---: | :---: |
| 113.10TAVSE | 1 | 1,000 Volt insulated adjustable wrench 30 mm |
| 187.18AVSE | 1 | 1,000 Volt insulated combination pliers |
| 188.16AVSE | 1 | 1,000 Volt insulated flat nose pliers |
| 189.17AVSE | 1 | 1,000 Volt insulated round nose pliers |
| 194.17AVSE | 1 | 1,000 Volt insulated strippers |
| 391.16AVSE | 1 | 1,000 Volt insulated copper diagonal cutters |
| 412.14AVSE | 1 | 1,000 Volt copper/alu cable cutter 14 mm |
| 46.10AVSE | 1 | 1,000 Volt insulated open-end wrench 10 mm |
| 46.11AVSE | 1 | 1,000 Volt insulated open-end wrench 11 mm |
| 46.12AVSE | 1 | 1,000 Volt insulated open-end wrench 12 mm |
| 46.13AVSE | 1 | 1,000 Volt insulated open-end wrench 13 mm |
| 46.14AVSE | 1 | 1,000 Volt insulated open-end wrench 14 mm |
| 46.17AVSE | 1 | 1,000 Volt insulated open-end wrench 17 mm |
| 46.19AVSE | 1 | 1,000 Volt insulated open-end wrench 19 mm |
| 46.8AVSE | 1 | 1,000 Volt insulated open-end wrench 8 mm |
| 701B | 1 | Multifunction tester |


| $\pm 0$ | Qtys | Set Description |
| :---: | :---: | :---: |
| 83.3AVSE | 1 | 1,000 Volt insulated keys 3 mm |
| 83.4AVSE | 1 | 1,000 Volt insulated keys 4 mm |
| 83.6AVSE | 1 | 1,000 Volt insulated keys 6 mm |
| AT3.5x100VE | 1 | 1,000 Volt insulated slotted head screwdrivers $3.5 \times 100 \mathrm{~mm}$ |
| AT4X100VE | 1 | 1,000 Volt insulated screwdriver for slotted heads $4 \times 100 \mathrm{~mm}$ |
| AT5.5x150VE | 1 | 1,000 Volt slotted head screwdrivers $5.5 \times 150 \mathrm{~mm}$ |
| AT6.5x150VE | 1 | 1,000 Volt slotted head screwdrivers $6.5 \times 150 \mathrm{~mm}$ |
| AT8X150VE | 1 | 1,000 Volt insulated screwdriver for slotted heads $8 \times 150 \mathrm{~mm}$ |
| ATP0X75VE | 1 | 1,000 Volt screwdrivers for Phillips® PH 0 head |
| ATP1X100VE | 1 | 1,000 Volt screwdrivers for Phillips® PH 1 head |
| ATP2X125VE | 1 | 1,000 Volt screwdrivers for Phillips® PH 0 head |
| AV.HTIC | 1 | Voltage tester screwdriver 90 to 480 Volts |
| BC.109VSE | 1 | Safety overgloves S9 |
| BC.90VSE | 1 | Low temperature insulating gloves $\$ 9$ |
| BV.7A | 1 | Leather fold-down front case |
| R.400AVSE | 1 | 10 -piece $1 / 4$ " insulated tool set |

－2184C．VSE－41－piece set of 1，000 Volt insulated tools
－For electrical equipment shops，worksites．
－Supplied in leather case BV．5A．
－Dimensions： $425 \times 215 \times 320 \mathrm{~mm}$ ．
Weight： 14.130 kg ．

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| $\equiv 0$ | Qtys | Set Description |
| :---: | :---: | :---: |
| 1820．AVSE | 1 | 1，000 Volt insulated knife |
| 187．18AVSE | 1 | 1，000 Volt insulated combination pliers |
| 188．16AVSE | 1 | 1，000 Volt insulated flat nose pliers |
| 189．17AVSE | 1 | 1，000 Volt insulated round nose pliers |
| 190．16AVSE | 1 | 1，000 Volt insulated cutters for hard wire |
| 192．16AVSE | 1 | 1，000 Volt insulated cutters for hard wire |
| 194．17AVSE | 1 | 1，000 Volt insulated strippers |
| 195．20AVSE | 1 | 1，000 Volt insulated long half－round nose pliers |
| 391．16AVSE | 1 | 1，000 Volt insulated copper diagonal cutters 14 mm |
| 412．14AVSE | 1 | 1，000 Volt insulated copper－alu cable cutter 14 mm |
| 414．45AVSE | 1 | 1，000 Volt insulated ratchet cable cutter 45 mm |
| 46．10AVSE | 1 | 1，000 Volt insulated open－end wrench 10 mm |
| 46．12AVSE | 1 | 1，000 Volt insulated open－end wrench 12 mm |
| 46．13AVSE | 1 | 1，000 Volt insulated open－end wrench 13 mm |
| 46．14AVSE | 1 | 1，000 Volt insulated open－end wrench 14 mm |
| 46．17AVSE | 1 | 1，000 Volt insulated open－end wrench 17 mm |
| 46．19AVSE | 1 | 1，000 Volt insulated open－end wrench 19 mm |
| 46．21AVSE | 1 | 1，000 Volt insulated open－end wrench 21 mm |
| 701B | 1 | Multifunction tester |
| 83．3AVSE | 1 | 1，000 Volt insulated keys 3 mm |


| $\equiv 0$ | Qtys | Set Description |
| :---: | :---: | :---: |
| 83．4AVSE | 1 | 1，000 Volt insulated keys 4 mm |
| 83．6AVSE |  | 1，000 Volt insulated keys 6 mm |
| 94T．10AVSE | 1 | 1，000 Volt insulated box wrench 10 mm |
| 94T．13AVSE | 1 | 1,000 Volt insulated box wrench 13 mm |
| 94T．8AVSE | 1 | 1，000 Volt insulated box wrench 8 mm |
| AT10X200VE | 1 | 1,000 Volt insulated slotted head screwdrivers $10 \times 200 \mathrm{~mm}$ |
| AT3．5x100VE | 1 | 1，000 Volt insulated slotted head screwdrivers $3.5 \times 100 \mathrm{~mm}$ |
| AT4X100VE | 1 | 1,000 Volt insulated screwdriver for slotted heads $4 \times 100 \mathrm{~mm}$ |
| AT5．5x150VE | 1 | 1，000 Volt slotted head screwdrivers $5.5 \times 150 \mathrm{~mm}$ |
| AT6．5×150VE | 1 | 1，000 Volt slotted head screwdrivers $6.5 \times 150 \mathrm{~mm}$ |
| AT8X150VE | 1 | 1，000 Volt insulated screwdriver for slotted heads $8 \times 150 \mathrm{~mm}$ |
| ATD1X100VE | 1 | 1，000 Volt screwdrivers for Pozidriv® PZ 1 head |
| ATD2X125VE | 1 | 1，000 Volt screwdrivers for Pozidriv® PZ 2 head |
| ATP1X100VE | 1 | 1，000 Volt screwdrivers for Phillips® PH 1 head |
| ATP2X125VE | 1 | 1，000 Volt screwdrivers for Phillips® PH 0 head |
| BC．20VSE | 1 | Insulating mat 1 mx 0.6 m |
| BC．90VSE | 1 | Low temperature insulating gloves S 9 |
| BV．5A | 1 | Leather drawer case |
| DELA．401．00 | 1 | Synthetic folding rule 2 m |


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