16. Electricity

Cable sheath strippers 624

Pivoting blade sheath strippers ... 624
Straight/helical blade sheath strippers ... 624
Multi-function sheath strippers ... 625
Coaxial cable sheath strippers ... 625

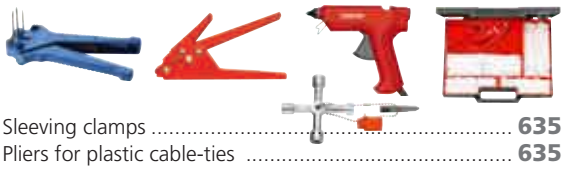
Wire strippers 626

Automatic wire strippers ... 626
Small cross-section wire strippers ... 626
Automatic side-entry wire strippers ... 627
Automatic cutting strippers ... 627
End strippers ... 628

Crimping pliers 629

Crimping pliers for insulated terminals ... 629
Crimping pliers for tubular terminals and sleeves ... 631
Hexagonal crimping dies ... 632
Crimping pliers for open-barrel connectors ... 632
Crimping pliers for cable terminals ... 632
Crimping pliers for data transmission connectors ... 633
Sets of terminals ... 634

Cabling tools 635



Sleeving clamps ... 635
Pliers for plastic cable-ties ... 635
Plastic cable-ties ... 635
Tie sets ... 636
Bonding gun ... 636
Four-way wrench for cabinets ... 636

Wire-pullers and accessories 637

Nylon fish tapes ... 637
Glass fibre fish tapes ... 637
Accessories for nylon and glass fibre fish tapes ... 638
Consumables for nylon and glass fibre fish tapes ... 639
Accessories for nylon-coated steel fish tapes ... 639
Consumables for nylon-coated steel fish tapes ... 640
Wire reel stands ... 641

Hole punches and accessories 642

Standard circular punches for PG size holes ... 643
Standard circular punches for ISO size holes ... 643
Standard circular punches for stainless steel sheet ... 644
Hydraulic hole punch equipment ... 645
Hole punch accessories ... 647
Hole punch sets and accessories ... 648

Physical measurement 650

Testers ... 650

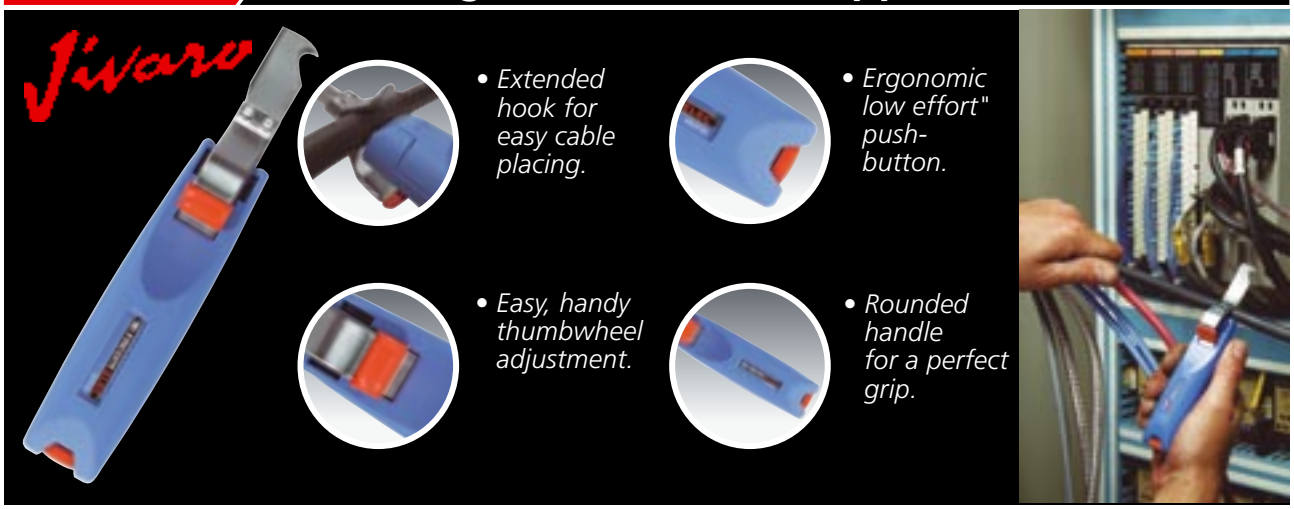
1000 V insulated tools 653

Pliers ... 654
1000 V insulated cable cutters ... 657
Insulated hacksaw frame ... 657
Insulated knife ... 658
Wrenches ... 659
Keys ... 659
Cross braces ... 659
Pipe wrenches ... 660
Insulated screwdrivers ... 661
1/2" sockets ... 662
1/2" ratchets and accessories ... 663
1/2" socket set ... 663
3/8" sockets ... 664
3/8" ratchets and accessories ... 664
3/8" socket and accessory set ... 665
1/4" sockets ... 665
1/4" ratchets and accessories ... 666
1/4" socket and accessory set ... 666
Gloves ... 667
Safety glasses and goggles ... 667
Insulating mats ... 668
Insulating pliers ... 668
Insulated tool sets ... 668

706 Section 17 soldering

Pivoting blade sheath strippers

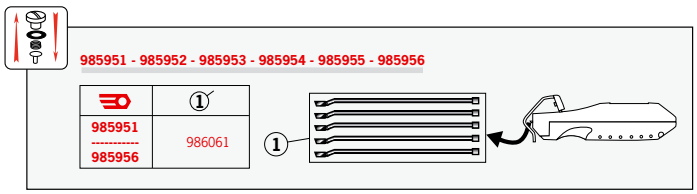
Pivoting blade sheath stripper

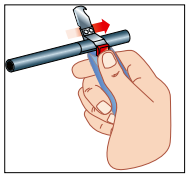


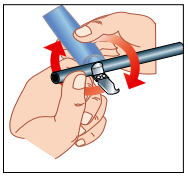
Sheath strippers

- Ergonomic "low-effort" push-button.
- Spare blade included in the body.
- Easily accessible thumbwheel adjustment.
- Self-pivoting blade.
- 985955 straight blade.
- 985956 hooked blade.

	Capacity ⦿ ❄ Ø mm	ΔΔ g
985951	16	65
985952	28	65
985953	35	65
985954	50	65
985955	28 LD	75
985956	28 LC	75







Straight/helical sheath strippers

Rotary sheath and insulation stripping tool

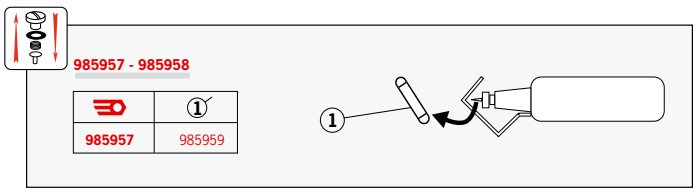
985957

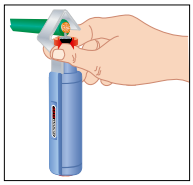
- Perfect for stripping long lengths.
- 2 stripping options :

- Straight-line stripping.
- Helical stripping by simply rotating the head.

- Capacity : 4.5 to 29 mm - L : 137 mm.

	Capacity ⦿ ❄ Ø mm	L mm	ΔΔ g
985957	4,5 à 29	137	97



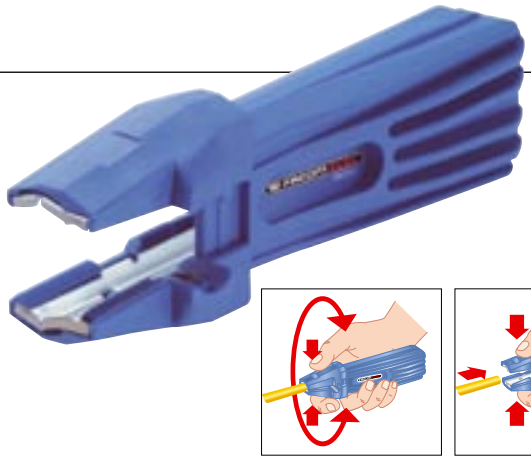


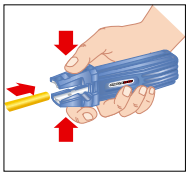
Multi-function sheath strippers

Multi-function sheath stripper

985962

• A tool to strip sheathing and insulation without pre-setting.
• Also suitable for stripping coaxial cables.
• Suitable for stripping cables at the bottom of recessed electrical back-boxes.
Strips sheaths Ø 4 ➤ 13 mm.
Strips wires Ø 0.5 ➤ 16 mm.
Coaxial cables 4 ➤ 8 mm.





	Ø sheath stripping mm	Ø wire stripping mm	Ø coaxial cables mm	g
985962	4 bis 13	0,5 bis 16	4 bis 8	90

Sheath and insulation stripper for coaxial and twisted-pair cables

985936

• A tool for easily stripping sheathing and insulation on coaxial, twisted pair (UTP and STP) and fibre optic cables.

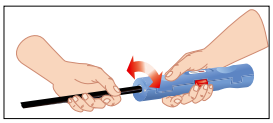
	Ø mm	g
985936	11	35

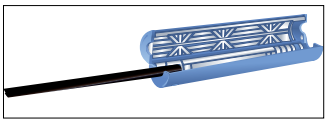
Coaxial cable sheath strippers

Coaxial cable sheath and insulation stripper

985964

• 2 sides :
A : Sheath stripping.
B : Wire stripping.



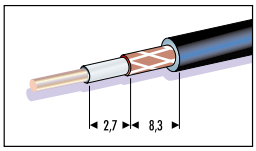


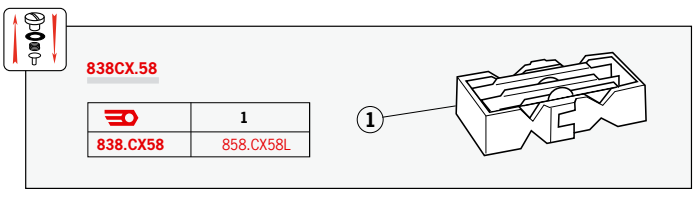
	Ø mm	g
985964	4,8 → 7,5	26

Model RG.58, RG.59 and RG.62 for coaxial cables

838.CX58

• Preset for stripping coaxial cables in one operation.
• Allows direct fitting of BNC connectors used on computer, video and radio-telephone equipment.
• Compact design and permanent setting (requires tool for adjustment).
• Set of reversible blades for double service life, complete with gauge.





Standard wire strippers

Automatic wire strippers

Automatic wire stripper

Swingo

THE ALL-PURPOSE STRIPPER !

One tool for cutting and stripping wires from 0.02 to 10 mm².

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

New

Swingo

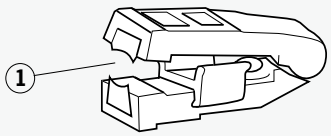
793936

- Glass-filled nylon body.
- Integral wire cutter :
- 1.5 mm² single-core wire.
- 10 mm² multi-core wire.
- Stripping length setting 3 to 18 mm.
- Stripping capacity 0.02 to 10 mm².

	Capacity mm	Cut	AWG	mm	Coupe multi	g
793936	0,02 → 10 mm²	1,5 mm²	32 - 8	3 → 18	10 mm²	136

793936

	①
793936	793207



Small cross-section wire strippers

Small cross-section wire strippers

- These tools are suitable for stripping small cross-section PVC and Teflon-coated wires.

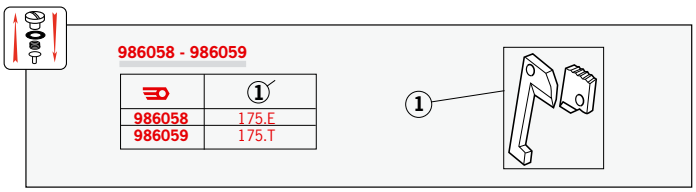
	Ø mm	AWG	g
986103	0,12 - 0,16 - 0,20 - 0,25 - 0,30 - 0,40	36 - 34 - 32 - 30 - 28 - 26	15
986104	0,25 - 0,30 - 0,40 - 0,50 - 0,60 - 0,80	30 - 28 - 26 - 24 - 22 - 20	15
986105	0,30 - 0,40 - 0,50 - 0,60 - 0,80 - 1,00	28 - 26 - 24 - 22 - 20 - 18	15

Automatic side-entry wire strippers

Automatic side-entry wire strippers

• High precision stripping, one diameter for each conductor.

	mm²	Notch Ø mm	g
986058	1,5 → 4	0,6 - 0,8 - 1 - 1,2 - 1,6 - 2 - 2,5	370
986059	2,4 → 10	2 - 2,4 - 3,1 - 4	370



High-precision Teflon insulation strippers

165.1

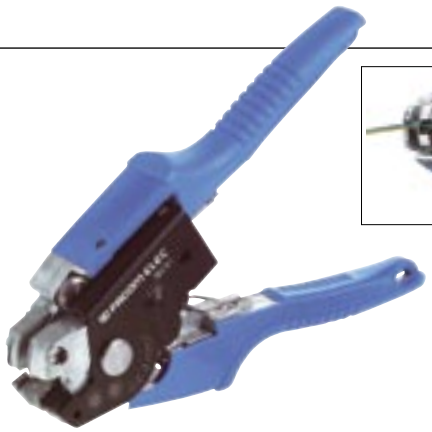
• High degree of accuracy gives a clean circular cut without damaging the core. Inset jaws are designed to protect insulation from score marks.
• AWG : 26-24-22-20-18-16.
• Notch Ø : 0.55 - 0.65 -0.82 - 1.05 - 1.30 - 1.55 mm.
■ 165.U : Spare blades.

Automatic cutting strippers

Automatic cutting stripper

985761

• Suitable for single or multi-core cables, self-setting to wire gauge.
• Stripped-length thumbwheel adjustment.
• Spare blades 162-L1.
• Cuts and strips in one go.

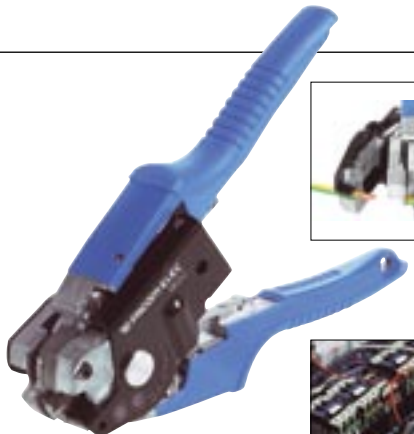


	mm²	AWG	mm	mm	L mm	g
985761	0,4 → 4	21 - 11	0,7 → 2,3	4 → 17	160	340

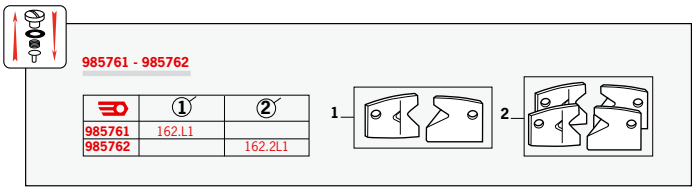
Dual automatic cutting stripper

985762

• Cuts and strips wire both sides for faster wiring.
• Wire is automatically pre-stripped to the correct length.
• Spare blades 162-2L1.



	mm²	AWG	mm	mm	L mm	g
985762	0,4 → 4	21 → 11	21 → 11	0,7 → 2,3	160	430



Wire strippers and cutters

163

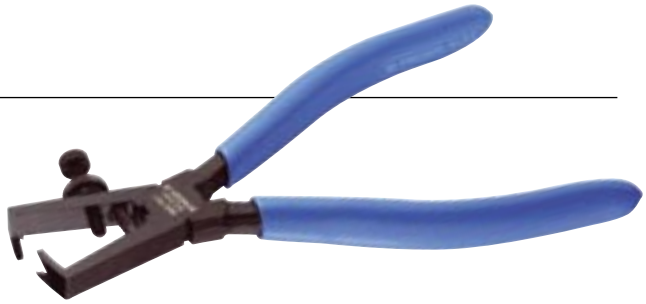
- Stripping and cutting, plus end nippers.
- For multi-core wire :
- Ø mm 3.0 - 2.4 - 2.0 - 1.7 - 1.3 - 1.0 / Cutting Ø 3 mm
- mm² : 7.0 - 4.5 - 3.0 - 2.3 - 1.3 - 0.8 / Cutting Ø 7 mm
- AWG : 10.0 - 12.0 - 14.0 - 16.0 - 18.0 - 20.0 / Cutting Ø 10 mm
- 6 precision-machined notches.
- Return spring and catch.
- Length 150 mm.

⚖ : 115 g.

End strippers

End stripper

985760

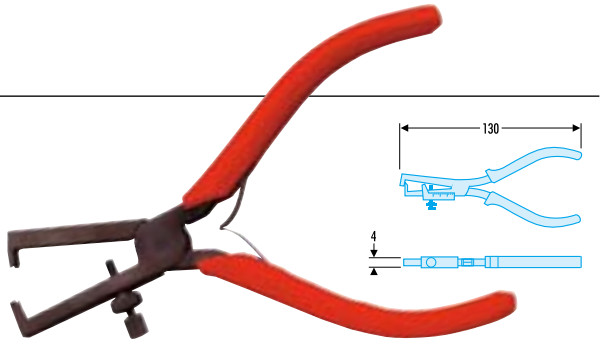


- Opening spring and adjusting screw.
- PVC grips.
- For stripping wires 0.5 to 6 mm².

	mm²	AWG	mm	g
985760	6	→ 10	7 → 18	160

Fine wire strippers

194.12

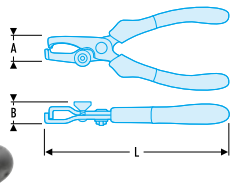


- Max. AWG 14.
- For light-gauge wire.
- Narrow blades.
- Cutting depth presetting.
- Burnished finish, PVC grips.
- Ø 1.5 mm single and multi-core wire.
- Cross section 1.8 mm².

⚖ : 70 g.

Wire stripper

194.17CPE



- For single and multi-core wires 0.5 to 6 mm².

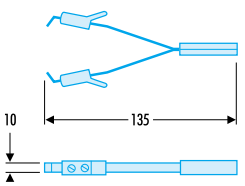
194.17 : Standard forged pliers.

- Knurled adjustment screw with locknut.
- Metal return spring.

	mm²	A mm	B mm	L mm	g
194.17CPE	0,5 - 6	17	8,5	170	185

Coated-wire strippers

173A

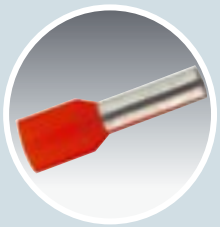


- Hardened steel. Plastic finger-pads for comfortable use.
- Burnished blades.
- 135 mm long x 10 mm wide.

⚖ : 40 g.

Crimping plier inspection service

ISO 9000 quality assurance systems require crimping equipment to be periodically checked for compliance with the standards and recommendations.
That is why Facom's laboratory offers this service.



Pliers covered by the inspection service

- *Pliers for insulated terminals to IEC 760 - 985753, 985894, 673838.*
- *Pliers for cable terminals to NFC 20130 - 985754, 985755, 985756, - 985896, 985897, 985895.*

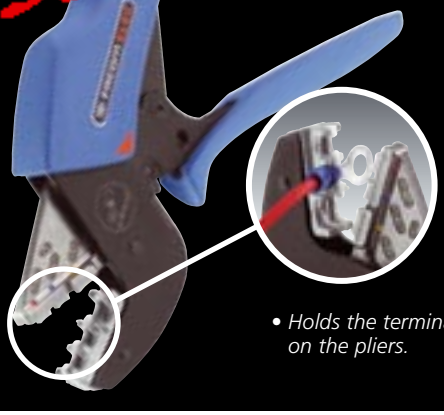
Crimping pliers for insulated terminals

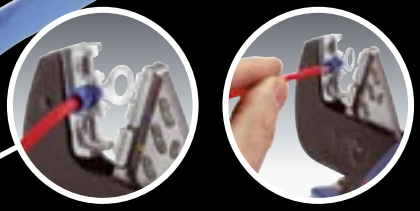
673838 Crimping pliers for insulated terminals with locator

Serkam

A THIRD HAND !

Complies with NFC 63-023





- *Holds the terminal on the pliers.*
- *Perfectly positions the wire in the terminal.*
- *Holds the terminal and the wire after crimping.*

- *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.*

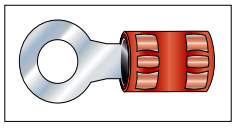
Ratchet crimping pliers for insulated terminals

673838

FIXED LOWER JAW :
- Easier terminal positioning.
- Stainless steel die.

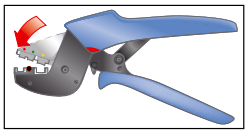
DUAL CRIMP :
- Die location on the insulation.
- Capacity 0.4 to 6 mm².
- Left/right-hand operation.

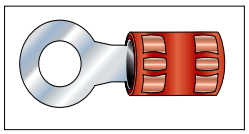
⚖ : 0.490 kg.



Maintenance crimping pliers for insulated terminals

985894





- Dual crimp on insulated terminals, to applicable standards, with grip around both conductor and insulation.
- Stainless steel die.
- Latch remains accessible.
- Good grip in the hand.
- Soft feel.
- To IEC 60352.2 / IEC 60760.
- Reverse crimping : terminal placed in the fixed part for greater efficiency and precision.

	Capacity mm²	L mm	ΔΔ g
985894	0,4 → 6	230	490

Production crimping pliers for insulated terminals

985753

- To IEC 760.
- Extended handle for two-hand use.
- Pliers can be released while crimping.
- Dual crimp.
- Comfortable grips.

	Capacity mm²	L mm	ΔΔ g
985753	0,75→ 6	255	540

Locator

986007

- Locator for use with pliers 985753 for crimping under the best conditions.

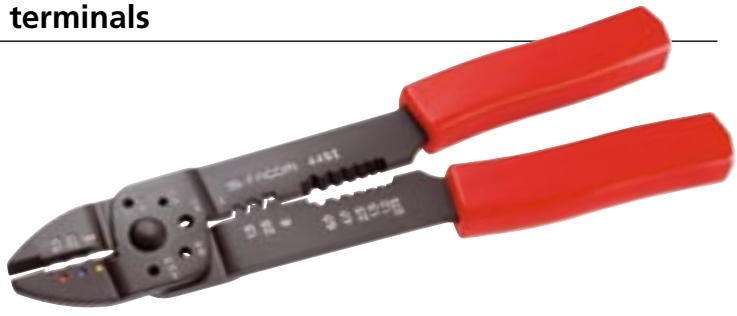
Checking gauge

986008

- For use with production crimping pliers 985753.
- Checks height of 3 crimping dies.

Standard crimping pliers for insulated terminals

4491



- Integral wire-cutter.
- Insulated terminals 1.5-2.5-6 mm².
- Bare terminals 1.5-2.5-6 mm².
- Strips wires 0.75 to 6 mm².

ΔΔ : 260 g.

Crimping pliers for tubular terminals and sleeves

Crimping pliers for tubular terminals

985966

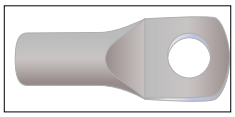
- Ratchet system with release mechanism in the event of incorrect operation.
- To NFC 20-130.
- Comfortable grips.
- Extended handle for two-hand use.

	Capacity mm²	L mm	ΔΔ g
985966	4→ 10	255	500

Crimping pliers for tubular terminals with rotating dies

986095

- Detented 6-position rotating dies 6-10-16-25-35- 50 mm².
- Tool lever can be released during crimping.
- To NFC 20-130.

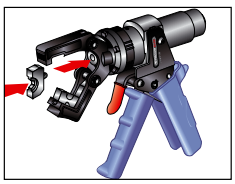


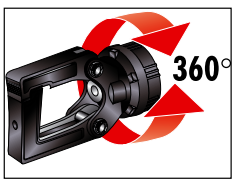
	Capacity mm²	L mm	ΔΔ g
986095	6 → 50	390	1185

Trigger-operated hydraulic crimping pliers for tubular terminals and sleeves

985913

- To NFC.20-130.
- 35 kN.
- 5 to 8 mm adjustable stroke by rotating the notched ring to reduce the number of pump strokes for small cross sections.
- 360° rotating head.
- Automatic release with audible click when crimping complete.
- Release lever returns piston to its original position.
- Supplied in a case.



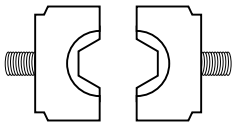


Hexagonal crimping dies

Hexagonal crimping dies

▷ Crimp conforms to NFC 20-130.
• For crimping pliers 985913.

	Die mm²	To NFC20130
985914	6	•
985915	10	•
985916	16	•
985917	25	•
985918	35	•
985919	50	•
985920	70	•
985921	95	•
985922	120	•
985923	150	•



Crimping pliers for open-barrel connectors

Crimping pliers for open-barrel connectors

985757

• 1.5 to 6 mm².

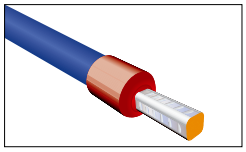
	L mm	ΔΔ g
985757	195	250

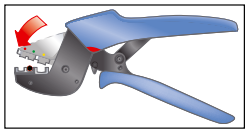
Crimping pliers for cable terminals

Maintenance crimping pliers for cable terminals

985895

• Complies with NFC 63-023.
• Stainless steel dies
• 5 patterns :
pattern no. 1 : 0.5 - 0.75 - 1 mm²
pattern no. 2 : 1.5 mm²
pattern no. 3 : 2.5 mm²
pattern no. 4 : 4 mm²
pattern no. 5 : 6 mm²
• Release catch always accessible.
• Soft feel.
• Ergonomic design for enhanced grip.
• Reverse crimping : terminal placed in the fixed jaw for greater efficiency and precision.



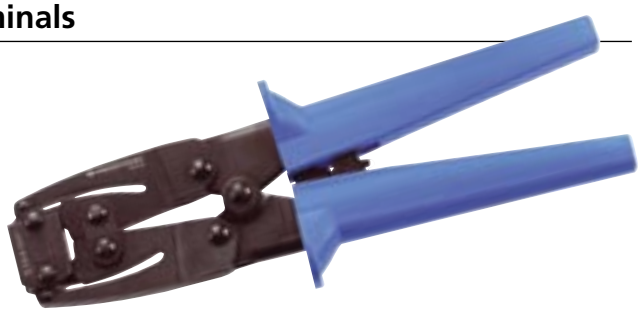


	Capacity Ø mm²	L mm	ΔΔ g
985895	0,5 → 6	230	490

Self-adjusting crimping pliers for cable terminals

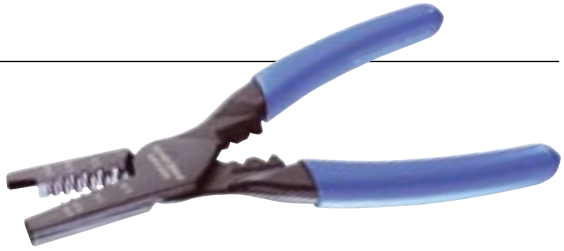
985898

• Crimps : 0.14 - 0.25 - 0.5 - 0.75 - 1 - 1.5 - 2.5 - 4 - 6 mm².
• Ratchet system guarantees a secure crimp.
• Complies with NFC 63-023.
• Easy release in the event of incorrect operation.
• Comfortable grips.



	L mm	ΔΔ g
985898	210	500

Standard crimping pliers for cable terminals



985899

• End wire-cutter.

	L mm	Capacity mm²	ΔΔ g
985899	140	0,5 à 2,5	115

Production crimping pliers for cable terminals

• Easy release in the event of incorrect operation.
• Comfortable grips.

	Capacity mm²	Number of patterns	L mm	ΔΔ g
985754	0,25 → 2,5	2	195	250
985755	0,5 → 6	5	195	250
985756	4 → 10	3	255	500
985896	10 → 25	3	255	500
985897	35 → 50	2	255	500

Crimping pliers for data transmission connectors

Crimping pliers for telephone connectors

985902

• These pliers come complete with a case and crimping die 986022 for RJ45 connectors.

	L mm	ΔΔ g
985902	205	450

Crimping dies for telephone connectors

	Ø	ΔΔ g
986014	RJ11	50
986015	RJ9 - RJ22	50
986022	RJ45	50
986026	MMJ	50

Crimping pliers for coaxial connectors

985758

BNC connectors RG58 - RG59 - RG62
• Precision die for crimping centre pin, sleeve and connector body.
• 5.36 - 5.46 for RG58.
• 6.43 - 6.53 for RG59, RG 62.
• 1.64 - 1.74 for the core.
• Safety ratchet ensures complete crimping.
• Conforms to UTE NFC 93564.

	L mm	ΔΔ g
985758	195	250

Crimping pliers for Ethernet connectors

985901

Ethernet connectors
• 2 patterns :
- 10.54 mm for the ferrule.
- 2.54 mm for the core.

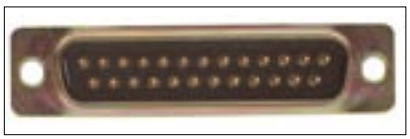
	L mm	⚖ g
985901	195	250

Crimping pliers for SUB-D connectors

985524

• Pliers with locator for increased precision during crimping.

	L mm	⚖ g
985524	195	250



Sets of terminals

"Electrical contractors" kit

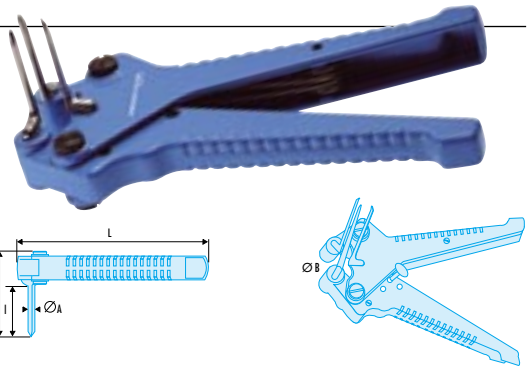
449.Z3A

• Comprising crimping pliers 704382 and a selection of 20 types of insulated terminals and accessories.
- eyes.
- forks.
- sleeves.
- male and female terminals.
⚖ : 1.85 kg.

Sleeving clamps

Sleeving clamps

	For wire Ø mm	Ø B (3 positions) mm	Ø A mm	L mm	l mm	H mm	ΔΔ g
985763	1,25 → 4,5	12 16 24	3,5	140	23	52	165
985764	1,75 → 9	13 18 24	4,5	140	30	56	165
985765	3 → 15	14 18 25	5,0	140	40	66	165
640171	10 → 28	19,5 22,5 30	10,0	150	56	82	149



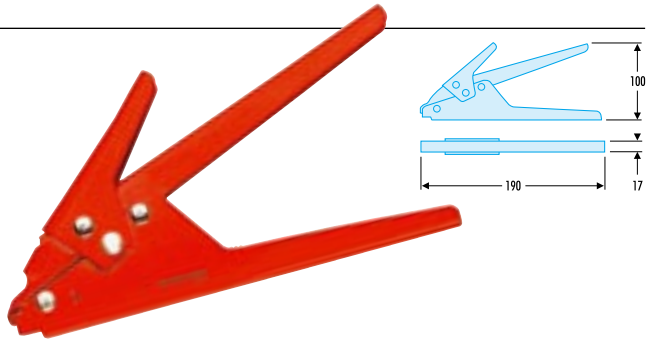
Pliers for plastic cable-ties

Pliers for plastic cable-ties

455B

- For all tie widths 2.4 to 9 mm.
- Strong, simple tools with good demultiplication.
- Long stroke for fast action.
- Tails cut separately to desired length.
- Replaceable blade and spring.

ΔΔ : 310 g.



Automatic pliers for plastic cable-ties

986075

- For cable tie widths 2.2 to 4.8 mm.

ΔΔ : 290 g.

Plastic ties

455C Plastic ties

- Self-locking head.
- High-strength.
- Two types :

- nylon 6.6 for indoor use.
- polyamide 12 for outdoor use.

455.C = Ties.
455.A = Tie.

	Ties kg max	Ties l x L mm	Ø max mm	Quantity per pack	Material	ΔΔ g
455.C1	18	2,5x100	22	250	Nylon 6.6	85
455.C2	25	3,4x145	40	250	Nylon 6.6	155
455.C3	35	4,8x185	50	100	Nylon 6.6	126
455.C11	40	9,0x183	45	50	Polyamide 12	145
455.C12	48	9,0x265	70	50	Polyamide 12	180
455.C13	48	9,0x355	95	50	Polyamide 12	235
455.A1	-	20x20x6	-	50	Nylon 6.6	26
455.A2	-	21x10x4	-	50	Nylon 6.6	48

Sets

Tie sets

Sets

• Each case contains a pair of tie fitting pliers 455.
• Dimensions : 325 x 280 x 55 mm.
■ 455.J1 Includes ties 455.C1, 455.C2, 455.A1 and 455.A2.
⚖ : 0.94 kg.
■ 455.J2 Includes ties 455.C2, 455.C3, 455.A1 and 455.A2.
⚖ : 1.01 kg.
■ 455.J3 Includes ties 455.C11 and 455.C12.
⚖ : 1.05 kg.

Bonding gun

Bonding gun

E.900A

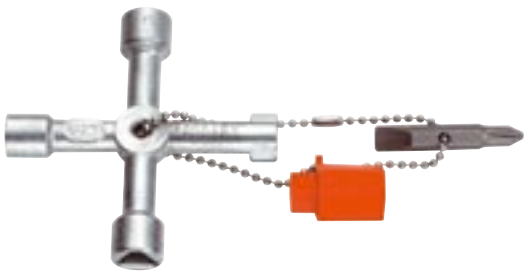
• For bonding plastics, synthetic foam, fabric, wood and laminates used in the building industry, furnishings, electrical and electronic assemblies, and garages.
• Power supply 110-240V (no switch).
• Maximum rating 45 W.
• Melt temperature : 206 °C.
• Pre-heat time : 7 to 10 min.
• Supplied in a cardboard box with three universal bonding sticks.
• Dimensions : 260 x 210 x 60 mm.
⚖ : 620 g.
■ E.905J50 : "Refractory" bonding sticks :
• Pack of 50 bonding sticks : ∅ 11.3 mm, length 90 mm.
■ E.906J100 : "Universal" bonding sticks :
• Pack of 100 bonding sticks : ∅ 11.3 mm, length 200 mm.

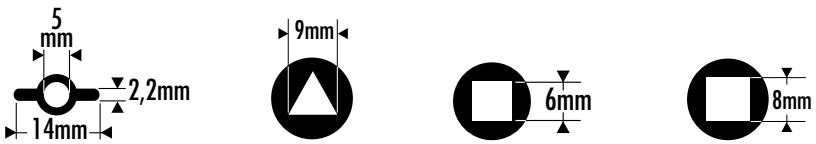
Four-way wrench for cabinets

Four-way wrench for cabinets

985548

• Supplied with a 6-point adaptor for ☐ 1/4" (6.35 mm) bits and a slotted 7 mm / Phillips® no. 2 double-ended bit.
⚖ : 75 g.





Nylon fish tapes

Fish tapes

3 TYPES OF WIRE PULLER

Nylon

• Relatively uncongested cable ducts with average bends, Distance < 20 m.
• Very high tensile strength.

Glass fibre

• Congested cable ducts with multiple bends, 20 m < distance < 40 m.
• Material has excellent dynamic properties.
• Maintains its efficiency after passing an obstacle.

Nylon-coated steel

• Long runs in highways 30 m < distance < 50 m.
• Excellent dynamic properties pushing force for tubes Ø 24 mm and over.

Nylon fish tapes

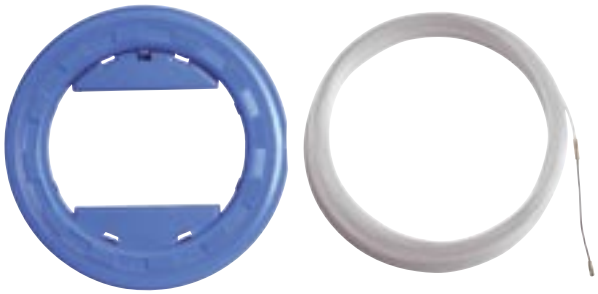
• All of our nylon fish tapes come complete with :
- a flexible fish tape leader
- a pulling eye.
• Breaking force : 120 kN.

	Description	Ø mm
629731	Fish tape 10 m long	4
629757	Fish tape 20 m long	4

Nylon fish tape 20 m long + carry case

669273

• All of our nylon fish tapes come complete with :
- a flexible fish tape leader
- a pulling eye.
• Breaking force : 120 kN.
• For use in relatively uncongested ducts with average bends. Distance < 20 m.



	L m	Ø mm
669273	20	4

Glass fibre fish tapes

Glass fibre fish tapes

• All our glass fibre fish tapes are supplied in a carry case and come complete with :
- a flexible fish tape leader
- a pulling eye.
- a repair kit.
• Breaking force : 120 kN.

	Description	Ø mm
629845	Fish tape 20 m long	3
629853	Fish tape 30 m long	3
629861	Fish tape 40 m long	3

Accessories for nylon and glass fibre fish tapes

Glass fibre fish tape repair kit

629888

- 2 threaded ends.
- 1 joint.
- 1 tube of special adhesive.

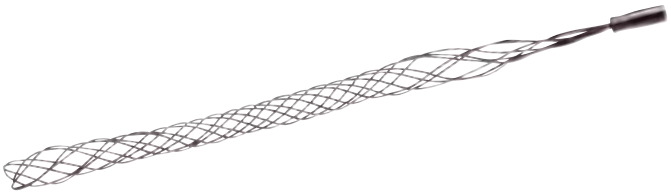
Pulling grips

629829

- Pulling grip for cable Ø 4 → 6 mm.

629837

- Pulling grip for cable Ø 6 → 12 mm.



Fish tape pulling pliers

629773

- Impact-resistant material.
- For easy pulling without damaging the fish tape or injuring the operator's hand.

Plastic reel

629992

- Ø 320 mm.
- Accessory compartment.
- For fish tapes 10, 20, 30 or 40 m long.

Lubricant

629984

- To be sprayed on cable before pulling.
- Makes pulling easier.
- 1 litre.

Consumables for nylon and glass fibre fish tapes

Flexible leader for nylon and glass fibre fish tapes

629781

• M4 female threaded section.

Glass fibre fish tape connecting sleeve

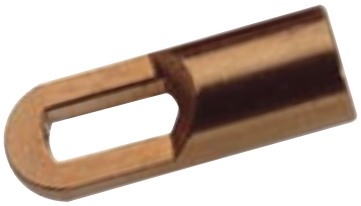
629802

• Breaking force : 100kN.

Pulling eye

629790

• Female thread.
• Breaking force : 120 kN.

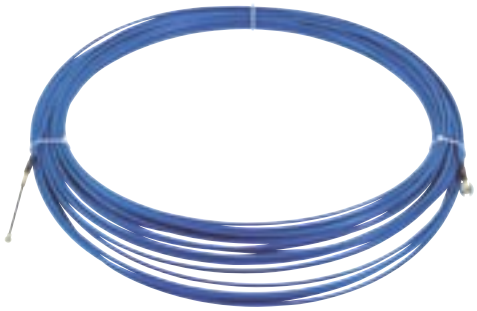


Nylon-coated steel fish tape

629896

• Supplied with :
- a flexible fish tape leader
- a guide wheel with connector
- a snap hook.

• Breaking force : 200 kN.
• High pulling capacity
• Ideal for long cable ducts.



	Description	Ø mm
629896	Fish tape 50 m long	6

Accessories for nylon-coated steel fish tapes

Pulling grips

629917

• Pulling grip for cable Ø 12 → 18 mm.

629925

• Pulling grip for cable Ø 18 → 24 mm.

Swivel joint

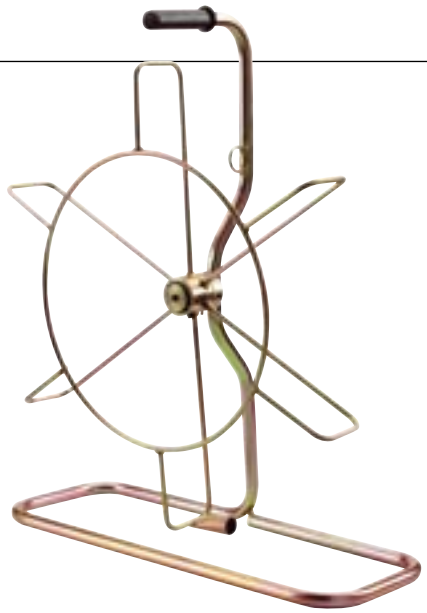
629976

• Ø 12 mm, M5 pitch.
• For connecting two nylon-coated steel fish tapes together.

Tropic-proof steel reel

629909

- Resistant to heat and humidity.
- Quickly guides and coils the fish tape.
- Ideal for long runs.
- Ball bearing shaft support.
- Stores up to 150 m of nylon-coated steel fish tape.



Lubricant

629984

- To be sprayed on cable before pulling.
- Makes pulling easier.
- 1 litre.

Flexible fish tape leader

629933

- Semi-spherical brass steel head.
- M5 female threaded section.

Consumables for nylon-coated steel fish tapes

Guide wheel

629941

- Helps the fish tape to run, particularly in cement ducts.

Connector

629950

- Breaking force : 400 kN.

Snap hook

629968

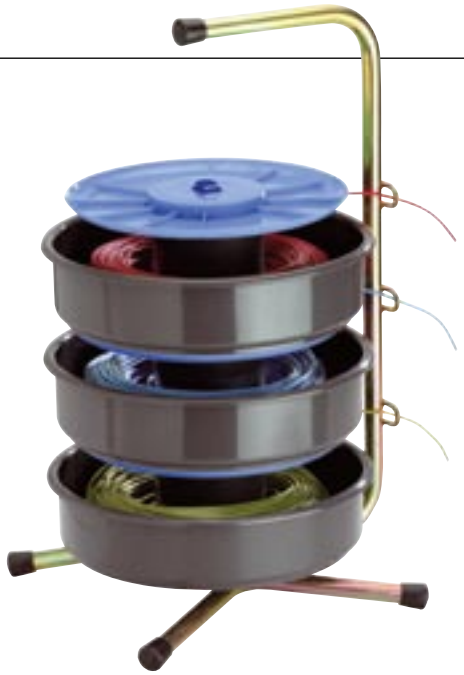
- Breaking force : 400 kN.

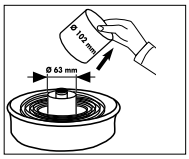
Wire reel stands

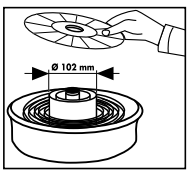
Three-reel stand

703064

- Three reel stand made of impact-resistant plastic.
- Each reel stand can be individually transported.
- Compact, lightweight stand can fit in vehicle trunk compartments.
- The wires do not become entangled and are easy to unwind.
- Quick wire selection.
- Designed to support standard 290 mm diameter reels for wire 0.5 to 4 mm².
- Cables not included.







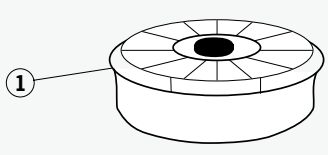
Six-reel stand

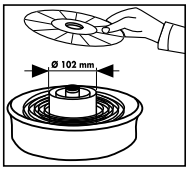
703099

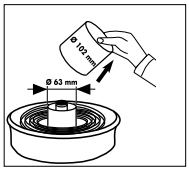
- Six reel stand.
- Each reel stand can be individually transported.
- Compact, lightweight stand can fit in vehicle trunk compartments.
- The wires do not become entangled and are easy to unwind.
- Quick wire selection.
- Designed to support standard 290 mm diameter reels for wire 0.5 to 4 mm².
- Cables not included.

703064-703099

	①
703064	640411
703099	640411







HOLE PUNCH FOR ISO HOLE SIZES

Hole punches

- 3 section ISO splitting punch.
- Capacity 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 Ø + min. 0.2 mm.

2 - FOR STAINLESS STEEL

- Max. stainless steel plate thickness :
- 2 mm with screw Ø 11.1 mm.
- 3 mm with screw Ø 19 mm.

- Pilot hole :
- Screw Ø + min. 0.2 mm.

- High alloy cutting edges for increased durability.

HOLE PUNCH FOR PG HOLE SIZES

- Capacity : PG7 to PG48.

3 - 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 Ø 9.5 mm.
- 3 mm with screw Ø 19 mm.

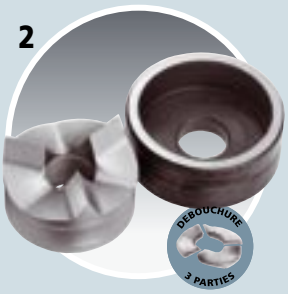
- Pilot hole :
- Screw Ø + min. 0.2 mm.

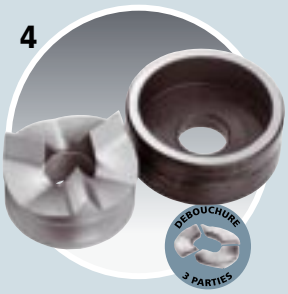
4 - FOR STAINLESS STEEL

- Max. stainless steel sheet thickness :
- 2 mm with screw Ø 9.5 mm.
- 3 mm with screw Ø 19 mm.

- Pilot hole :
- Screw Ø + min. 0.2 mm.

- High alloy cutting edges for increased durability.





FACOM HOLE PUNCHES CAN BE OPERATED IN THE FOLLOWING WAYS :

With a wrench

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

With a hydraulic driver

- For fast hole punching.

With a hydraulic pump

- For fast and effortless hole punching.

DIMENSIONS (mm) :

PG7	PG9	PG11	PG13	PG16	PG21	PG29	PG36	PG42	PG48
12.7	15.2	18.6	20.4	22.5	28.3	37	47	54	60

ISO12	ISO16	ISO20	ISO25	ISO32	ISO40	ISO50	ISO63
12.5	16.5	20.5	25.5	32.5	40.5	50.5	63.5

CUSTOM SIZE KNOCKOUT PUNCH

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

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.

Standard circular punches for stainless steel sheet

Punches for PG size holes with actuating screw

- For cutting circular holes in plastic and sheet metal.
- Operated by wrench or ratchet and socket.
- Cuts holes quickly, and cleanly.
- For all PG diameters from PG 7 to PG 48.
- Parts must be lubricated for correct operation.

RECOMMENDATION : the blank will drop more easily if you apply a couple more turns of the wrench after completing the cut.

- Supplied complete with punch, die and screw with thrust bearing.

⇉	PG	Ø PG/mm	Pilot hole Ø/mm	Width across flats (mm)/actuating screw	Max./thickness Mild/steel
985968	7	12,7	11	17	2 mm
985969	9	15,2	11	17	2 mm
985972	11	18,6	11	17	2 mm
985974	13	20,4	11	17	2 mm
985978	16	22,5	11	17	2 mm

⇉	PG	Ø PG/mm	Pilot hole Ø/mm	Width across flats (mm)/actuating screw	Max./thickness Mild/steel
985984	21	28,3	11	17	3 mm
985995	29	37,0	22	27	3 mm
986001	36	47,0	22	27	3 mm
986005	42	54,0	22	27	3 mm
986009	48	60,0	22	27	3 mm

Punches and dies for PG size holes without screw

- For cutting circular holes in plastic and sheet metal.
- Operated by hydraulic driver 643743 (single position) or 986108 (dual position) or hydraulic pump and cylinder 985944.
- Cuts holes quickly, and cleanly.
- For all PG diameters from PG 7 to PG 48.
- Parts must be lubricated for correct operation.

RECOMMENDATION : the blank will drop more easily if you apply a couple more stokes of the pump after completing the cut.

- Supplied with punch and die.

⇉	PG	Ø PG/mm	Pilot hole Ø/mm	Actuating pin	Max./thickness Mild/steel
985734	7	12,7	11	986064	2 mm
985801	9	15,2	11	986064	2 mm
985817	11	18,6	11	986064	2 mm
985818	13	20,4	11	986064	2 mm
985820	16	22,5	11	986064	2 mm

⇉	PG	Ø PG/mm	Pilot hole Ø/mm	Actuating pin	Max./thickness Mild/steel
985824	21	28,3	22	986065	3 mm
985826	29	37,0	22	986065	3 mm
985829	36	47,0	22	986065	3 mm
985836	42	54,0	22	986065	3 mm
985933	48	60,0	22	986065	3 mm

Standard circular punches for ISO size holes

Punches for ISO size holes with actuating screw

- For cutting circular holes in plastic and sheet metal.
- Operated by wrench or ratchet and socket.
- Cuts holes quickly, and cleanly.
- For all ISO diameters from M12 to M63.
- Parts must be lubricated for correct operation.

SPECIAL FEATURE : the blank is split into three parts and drops automatically at the end of the cutting operation.

- Supplied complete with punch, die and screw with thrust bearing.

⇉	ISO	Ø ISO/en mm	Pilot hole Ø/mm	Width across flats (mm)/actuating screw	Max./thickness Mild/steel
693716	M12	12,5	11	17	2 mm
697590	M16	16,2	11	17	2 mm
693695	M20	20,4	11	17	2 mm
697602	M25	25,4	11	17	2 mm
697611	M32	32,5	22	27	2 mm
697645	M40	40,5	22	27	2 mm
697637	M50	50,5	22	27	2 mm
697653	M63	63,5	22	27	2 mm

Punches and dies for ISO size holes without screw

- For cutting circular holes in plastic and sheet metal.
- Operated by hydraulic driver 643743 (single position) or 986108 (dual position) or hydraulic pump and cylinder 985944.
- Cuts holes quickly, and cleanly.
- For all ISO diameters from M12 to M63.
- Parts must be lubricated for correct operation.
- SPECIAL FEATURE : the blank is split into three parts and drops automatically at the end of the cutting operation.
- Supplied with punch and die.

	ISO	Ø ISO/en mm	Pilot hole Ø/mm	Actuating pin	Max./thic-kness Mild/steel
693708	M12	12,5	11	657539	2 mm
664499	M16	16,2	11	986064	2 mm
693687	M20	20,4	11	986064	2 mm
664510	M25	25,4	11	986064	2 mm
664536	M32	32,5	22	986064	2 mm
664501	M40	40,5	22	986065	2 mm
664528	M50	50,5	22	986065	2 mm
664544	M63	63,5	22	986065	2 mm

Standard circular punches for stainless steel sheet

PG Plus punches and dies for stainless steel sheet

- For cutting circular holes in mild and stainless steel sheet.
- New punch geometry for longer life.
- Operated by hydraulic driver 643743 (single position) or 986108 (dual position) or hydraulic pump and cylinder 985944.
- Cuts holes quickly, and cleanly.
- For all PG diameters from PG9 to PG 48.
- Parts must be lubricated for correct operation.

SPECIAL FEATURE : the blank is split into three parts and drops automatically at the end of the cutting operation.

- Supplied with punch and die.

	PG plus	Ø PG/mm	Pilot hole Ø/mm	Actua-ting pin	Max./thickness Stainless sheet
697434	9	15,2	11,5	657547	2 mm
697485	11	18,6	11,5	657547	2 mm
697493	13	20,4	11,5	657547	2 mm
697354	16	22,5	11,5	657547	2 mm
697362	21	28,3	22	986065	3 mm
697371	29	37,0	22	986065	3 mm
697389	36	47,0	22	986065	3 mm
697397	42	54,0	22	986065	3 mm
697418	48	60,0	22	986065	3 mm

ISO Plus punches and dies for stainless steel sheet

- For cutting circular holes in mild and stainless steel sheet.
- New punch geometry for longer life.
- Operated by hydraulic driver 643743 (single position) or 986108 (dual position) or hydraulic pump and cylinder 985944.
- Cuts holes quickly, and cleanly.
- For all ISO diameters from M16 to M63.
- Parts must be lubricated for correct operation.

SPECIAL FEATURE : the blank is split into three parts and drops automatically at the end of the cutting operation.

- Supplied with punch and die.

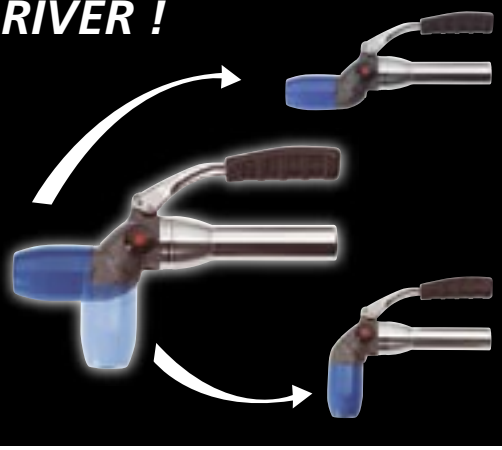
	ISO PLUS	Ø ISO/en mm	Pilot hole Ø/mm	Actuating pin	Max./thickness Stainless sheet
697469	M16	16,2	11,5	657547	2 mm
697477	M20	20,4	11,5	657547	2 mm
697506	M25	25,4	11,5	657547	2 mm
697514	M32	32,5	22	986065	3 mm
697522	M40	40,5	22	986065	3 mm
697549	M50	50,5	22	986065	3 mm
697531	M63	63,5	22	986065	3 mm

Hydraulic hole punch equipment

986108 Hydraulic punch driver

ROTATING HEAD HYDRAULIC DRIVER !

- *Two operating positions.*
- *Fast cutting, short piston stroke.*
- *Demultiplication of effort for fast, easy working.*



Dual-position hand-operated hydraulic driver and accessories

986052

- Set supplied in a plastic box, comprising :

- 986108 dual-position hand-operated hydraulic driver.
- 986110 spacer ring no. 1.
- 986111 spacer ring no .2.
- 986064 actuating pin 9.5 mm.
- 986065 actuating pin 19 mm.
- 657539 actuating pin 6 mm.
- 986051 drill bit (11 mm).

- For cutting holes 12.5 to 63 mm diameter in sheet steel.
- Cylinder force 7 kN.
- Pressure 700 bars.
- Piston stroke 20 mm.
- Pressure limiter.

⚖ : 2.45 kg.

Single-position hand-operated hydraulic driver and accessories

653255

• Set supplied in a plastic box, comprising :
- 643743 Single-position hand-operated hydraulic driver.
- 986110 spacer ring no. 1.
- 986111 spacer ring no .2.
- 986064 actuating pin 9.5 mm.
- 986065 actuating pin 19 mm.
- 657539 actuating pin 6 mm.
- 986051 drill bit (11 mm).

• For cutting holes 12.5 to 63 mm diameter in sheet steel.
• Piston stroke 20 mm.
• Cylinder force 7 kN.
⚖ : 2.35 kg.

Hand-operated hydraulic pump

985944

• Supplied in steel case complete with :
- 1 hose and a set of 4 spacer sleeves.
- Hydraulic screws 19 mm and 9.5 mm.
- Drill bit (11 mm).
- Quick connect hydraulic cylinder.

• Pressure : 700 bars.

Single-position hand-operated hydraulic driver without accessories

643743

• Driver without accessories.
• Packaged in a cardboard box.
• Piston stroke 20 mm.
• Cylinder force 7 kN.
⚖ : 2.2 kg.

Dual-position hand-operated hydraulic driver without accessories

986108

• Head pivots 180° providing two working positions :
1 - horizontal for working directly on the cabinet.
2 - turned through 90° for working on a bench.
• Driver supplied on its own without accessories.
• Packaged in a cardboard box.
• Piston stroke 20 mm.
• Cylinder force 7 kN.
• Pressure 700 bars.
• Pressure limiter.
⚖ : 2.3 Kg.

Accessories for hole punches

ISO size step drill Ø 6.5 to 40.5 mm

678006

- For precision-drilling straight bores in all materials.
- No pilot hole required.
- Parallel shank with 3 flats for positive rotation.
- Diameter identification markings.
- 678014 : PG size step drill.
- For drilling steel sheet up to 4 mm thick.
- Shank diameter 10 mm.

	Ø min - max mm	A mm	L mm	ΔΔ g
678006	6,5-8,5-10,5-12,5-16,5-20,5-25,5-29-32,5-36,5-40,5	10	96	310

PG size step drill Ø 6.5 to 40.5 mm

678014

- For precision-drilling straight bores in all materials.
- No pilot hole required.
- Parallel shank with 3 flats for positive rotation.
- Diameter identification markings.
- 678014 : PG size step drill.
- For drilling steel sheet up to 4 mm thick.
- Shank diameter 10 mm.

	Ø min - max mm	A mm	L mm	ΔΔ g
678014	6-9-12,5-15,2-18,6-20,4-22,5-26-28,3-30,5-34-37	10	100	300

11 mm diameter drill bit

986051

- Drill bit Ø 11 mm for drilling pilot holes.

Lubricating paste

986107

- For lubricating screws and drive shafts.

Pump only

985945

Hydraulic cylinder

985946

Hydraulic hose 1.8 m long

986062

Hole punch sets and accessories

Single-position hydraulic driver and PG size hole punch set

985510

• Hole punch set comprising :
- 1 single-position hydraulic driver.
- 2 drive shafts Ø 9.5 mm and Ø 19 mm.
- 2 spacers : no. 1 and no. 2.
- 1 drill bit Ø 11 mm.
- storage case.
- set of 10 circular hole punches Ø 12.7 mm to Ø 60 mm : PG 6, 7, 9, 11, 13, 16, 21, 29, 36, 42, 48.
- 1 jar of lubricating paste.

⚖ : 2.35 kg.

Single-position hydraulic driver and ISO size hole punch set

663621

• Hole punch set comprising :
- 1 single-position hydraulic driver.
- 3 drive shafts 6 - 9.5 and 19 mm.
- 2 spacers : no. 1 and no. 2.
- 1 storage case.
- 1 drill bit Ø 11 mm.
- set of 8 ISO diameter hole punches from M12 to M50 : M 12, 16, 20, 25, 32, 40, 50, 63.
- 1 jar of lubricating paste.

Hole punches and accessories

Dual-position hydraulic driver and PG size hole punch set

587110

• Hole punch set comprising :
- 1 dual-position hand-operated hydraulic driver.
- 2 drive shafts Ø 9.5 mm and Ø 19 mm.
- 2 spacers : no. 1 and no. 2.
- 1 drill bit Ø 11 mm.
- 1 storage case.
- set of 10 circular hole punches Ø 12.7 mm to Ø 60 mm : PG 7, 9, 11, 13, 16, 21, 29, 36, 42, 48.
- 1 jar of lubricating paste.

Dual-position hydraulic driver and ISO size hole punch set

658689

• Hole punch set comprising :
- 1 dual-position hydraulic driver.
- 3 drive shafts 6 - 9.5 and 19 mm.
- 2 spacers : no. 1 and no. 2.
- 1 storage case.
- 1 drill bit Ø 11 mm.
- set of 8 ISO diameter hole punches from M12 to M50 : M 12, 16, 20, 25, 32, 40, 50, 63.
- 1 jar of lubricating paste.

PG size hole punch set

661600

• Hole punch set comprising :
- 1 storage case.
- 1 drill bit Ø 11 mm.
- set of 10 PG diameter hole punches Ø 12.7 mm to Ø 60 mm : PG 7, 9, 11, 13, 16, 21, 29, 36, 42, 48.
- 1 jar of lubricating paste.
- 2 drive screws Ø 9.5 and 19 mm.

ISO size hole punch set

702571

• Hole punch set comprising :
- 1 drill bit Ø 11 mm.
- set of 8 ISO diameter hole punches from M12 to M50 : M 12, 16, 20, 25, 32, 40, 50, 63.
- 1 jar of lubricating paste.
- 3 drive screws Ø 6 - 9..5 and 19 mm.
- 1 storage case.

Testers

Multimeters and testers

THE RIGHT TESTER FOR YOUR NEEDS !

Simple and easy to read

- *A comprehensive range. Chose the model that best meets your needs.*
- *Simple, easy to read function selector for mini-mum risk of error.*
- *Wide screen providing clear, detailed readings*

Safe

- *Meets safety standard requirements*
- *Flexible safety leads.*
- *Protective cover.*
- *Simple, explicit instructions.*

Digital display multimeter

711

- Fuse-protected circuits 0.4A HRC - 600 V; 12A HRC - 600 V.
- Performs the following readings :
- DC and AC voltages 0.1 mV to 600 V.
- DC and AC current 10 µA to 10 A.
- Resistance 0.1 Ω to 40Ω.
- Frequency 0.01 Hz to 200 kHz.
- Capacitance 1 pF to 40 µF.
- Diode test.
- Continuity test.
- Screen display hold key.
- Backlit screen.
- Automatic stop.
- Bar graph.
- Double insulated ⧈ IEC 1010-1.
- Protection rating IP 50.
- Powered by two 1.5V batteries (type R6).
- Supplied complete with protective cover and batteries
- Dimensions : 177 x 64 x 42 mm

⚖ : 575 g.

Clip-on ammeter

711P.500

- Suitable for DC and AC current measurements.
- Simple to use without interrupting or disturbing the circuit.
- For use with multimeter 711 in the mV position.
- Capacity : 0.5 to 600 A.

⚖ : 535 g.

Multimeter, current clamp and thermometer

712

- Automatic detection AC/DC voltmeter.
- Ohmmeter, diode and continuity testing with audible beep.
- 400 A AC/DC current clamp, automatic detection.
- Thermometer : ambient temperature.
- Supplied in a pouch, leads and battery included.

⚖ : 660 g.

Automatic AC/DC detection

1. Stored readings, lead resistance compensation, automatic reset, display hold,
automatic selection of measuring range.
2. Min/Max key.
3. Backlit screen.

New

Combined electronic thermometer

DX.T10

- The DX.T10 can perform either non-contact temperature measurements using the infrared thermometer in conjunction with the laser pointer, or contact temperature measurements by connecting it to a type K thermocouple.

Adjustable emissivity.

⊃	Length mm	Width mm	Height mm	⚖ g
DX.T10	173	60,5	38	225

DX.12 Temperature probes

⊃	Description
DX.12-06	Flexible probe
DX.12-08	Bracelet probe
DX.12-11	Standard needle probe
DX.12R	Extension
DX.12-15	Surface contact probe
DX.12-17	Air probe

Multifunction voltage detector

SAFE AND SIMPLE TO USE !

Complies with IEC 61243-3 and the requirements of the collection of general provisions for electrical safety UTE C 18-510-1.
Check the absence or presence of voltage before starting work.
Quick testers 709 and 701A can also perform routine electrical tests.

Handy :

- *19 mm testing tip spacing (for breakers, sockets, etc.).*
- *Testing tips stored in the back of the tester.*
- *Backlit.*

Voltage tester

709

• Safety voltage detector multimeter complying with IEC 61010-1 600V cat.III and IEC 61243-3 (Voltage detectors).
- 2,000 point backlit digital display with Hold function.
- Auto-test of the 9 V battery and the complete tester, from the testing tips to the cord, the electronics, etc.
- Testing tip storage system.
- Automatic AC/DC range selection.
- Automatic ON/OFF.
- 19mm testing tip spacing (for breakers, sockets,.)
- Phase/neutral identification (with one hand !).
- External use : IP 65.
- Supplied with wrist strap
• Characteristics :
- Voltage testing : 12 to 690V AC/DC and 750V DC with warning buzzer for voltages over 50 V.
- Continuity sound test R < 2kΩ.
- Operating frequency : DC 50-60 Hz.
- Measurement of resistance up to 2 kΩ.
- Power supply : 6F22 9V battery provided.
• Dimensions (mm) : 163 x 63.6 x 40.
⚖ : 210 g.

Multi-function tester

701A

• Multi-function tester.
• Used to check the presence of voltage on a circuit before starting work, in accordance with NF EN 61010-600V cat3 and IEC 61243-3 (Voltage detectors).
• Phase/neutral identification.
• Continuity test.
• 30mA differential circuit-breaker test.
⚖ : 205 g.

Facom VSE 1,000 V insulated tools

A COMPREHENSIVE RANGE OF TOOLS FOR WORKING ON OR NEAR LIVE COMPONENTS

"Certified" safety

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°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

Basic tool
- *Facom performance and safety.*

Insulation
- *Certified and accredited Facom production site.*
- *Tested and approved products.*

"2-colour warning" insulation :
- *ORANGE = 1,000 V protection*
- *YELLOW VISIBLE = STOP and change tool.*

Generously-sized guards
- *Hand stays clear of the metal.*

Ribbing on flexible insulation
- *More secure grip.*

Hot markings
- *Permanent safety data.*
- *Traceability.*

Safety colour coding

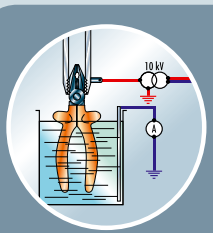
ORANGE : *1,000 V protection*

YELLOW visible : *STOP and change tool.*

Tools to EN 60900 specifications

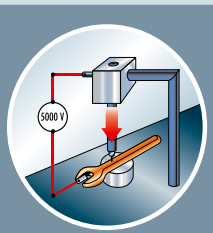
Individual production test :

- *Each and every tool is tested to 10,000V for 10 seconds at the end of the manufacturing cycle.*



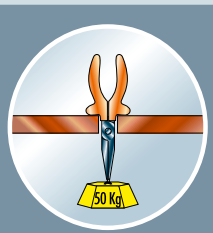
Dielectric test

- *After 24 hours immersion, the tool is wiped and tested to 10,000 V for 3 minutes between metal and sheath surface. Leakage current should not exceed specified limits.*



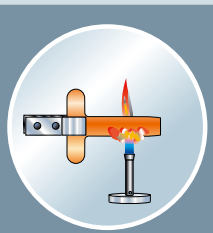
Penetration test.

- *After a penetration test on the most vulnerable part of the tool, followed by heating and cooling, no break-down or flashover should occur when 5,000 volts is applied for a period of 3 minutes.*



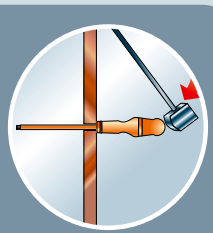
Insulation adhesion test

- *A 50 kg tear test is carried out for 3 minutes at ambient temperature on a tool heated to 70°C for 168 hours. Sheath and guard should remain bonded to the metal.*



Non-flammability test

- *After exposure to a flame for 10 seconds, flame spread over the tool should not exceed 120 mm high within the next 20 seconds.*



Impact test

- *A standard force is repeatedly applied to the handle end of a tool cooled to -25°C for 2 hours. The sheathing should not crack.*

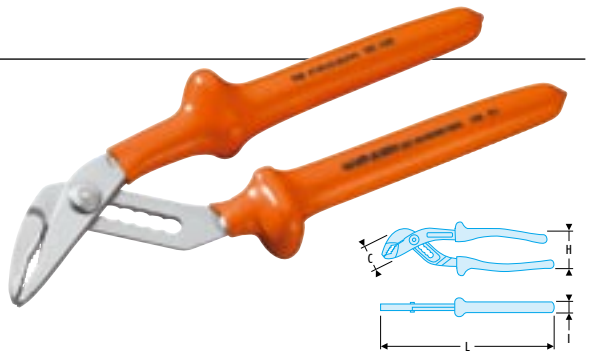
Multigrip pliers

Multigrip pliers

180.VSE

▷ ISO 8976, DIN ISO 8976, NF ISO 8976, NF EN 6090, ASME B 107.23 M.
• "2-colour warning" insulation.

	C mm	L mm	I mm	H mm	g
180.VSE	40	250	35	85	360



Cutting pliers

FACOM VSE 1000 VOLTS®

1000 VOLTS EN 60900

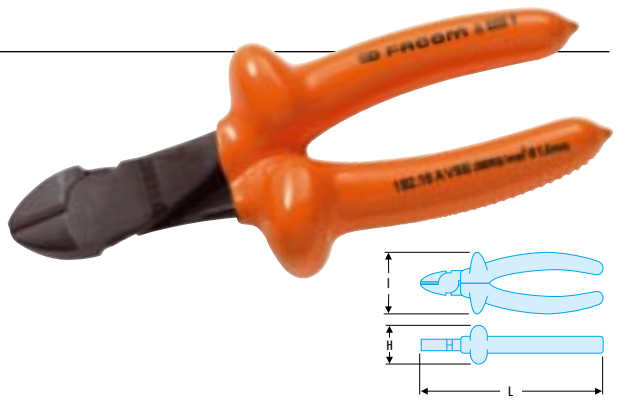
Tools built for electrical safety to European standard EN 60900. For working on live components up to 1,000V AC and 1,500V DC.

SAFETY COLOUR-CODING	
	ORANGE : 1000 volts protection
	YELLOW VISIBLE : STOP and change tool.

192.AVSE Diagonal cutters for hard wire

▷ ISO 5749, DIN 5238, DIN ISO 5749, NF ISO 5749, NF EN 6090.
• Cutting edges heat-treated to exceed 60 HRc hardness.
• "2-colour warning" insulation.
• Burnished nose.

	L mm	I mm	H mm	⌀ mm 200 kg/mm²	g
192.14AVSE	145	70	30	1,4	210
192.16AVSE	165	75	35	1,6	270
192.18AVSE	185	75	40	1,8	370

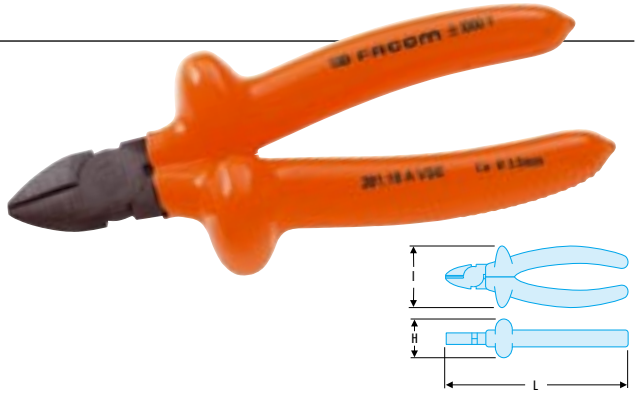


Diagonal cutters for copper wire

391.16AVSE

▷ ISO 5749, DIN 5238, DIN ISO 5749, NF ISO 5749.
• Inset joint.
• "2-colour warning" insulation.
• Burnished nose.

	L mm	I mm	H mm	⌀ mm Cu	g
391.16AVSE	165	70	35	3,5	270

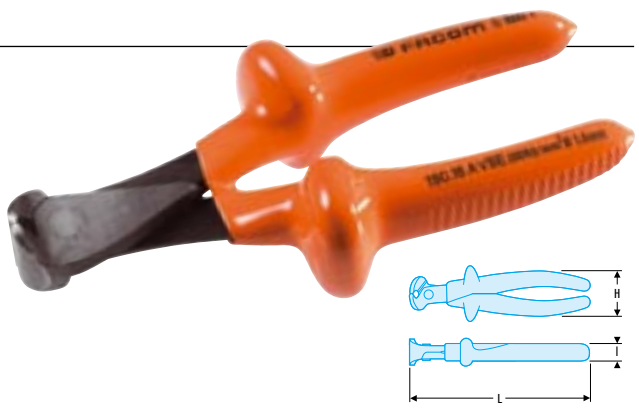


End cutters for hard wire

190.16AVSE

▷ ISO 5748, DIN 5252, NF E 73-104.
- Cutting edges heat-treated to a hardness > 60 HRc.
- "2-colour warning" insulation.
- Burnished nose.

	L mm	l mm	H mm	⌀ mm 200 kg/mm²	g
190.16AVSE	165	77	35	1,6	250

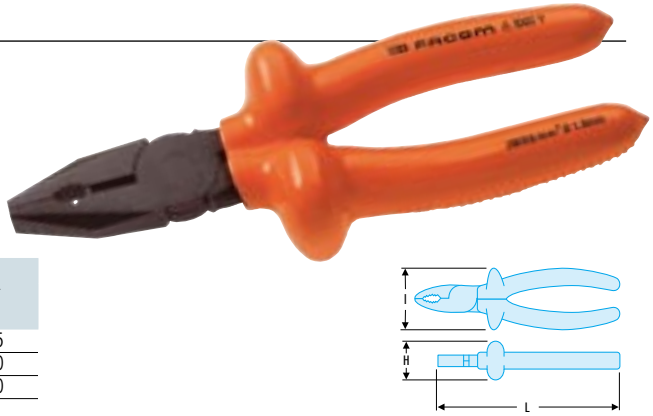


Combination pliers

Combination pliers

▷ ISO 5746, DIN 5244, NF E 73-103.
- Hardened throughout for overall strength.
- Cutting edges locally heat-treated to a hardness > 60 HRc.
- "2-colour warning" insulation.
- Burnished nose.

	L x l x H mm	Cu	⌀ mm 140 kg/mm²	200 kg/mm²	g
187.16AVSE	165 x 65 x 35	3,3	2,0	1,6	265
187.18AVSE	185 x 70 x 35	3,7	2,3	1,8	320
187.20AVSE	205 x 70 x 40	4,0	2,4	2,0	410



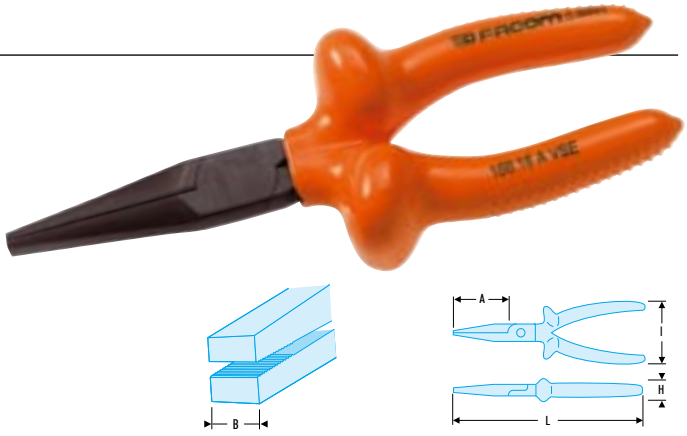
Gripping pliers

Flat-nose pliers

188.16AVSE

- Serrated tips.
- "2-colour warning" insulation.
- Burnished nose.

	A mm	B mm	L mm	l mm	H mm	g
188.16AVSE	50	7	165	60	37	170

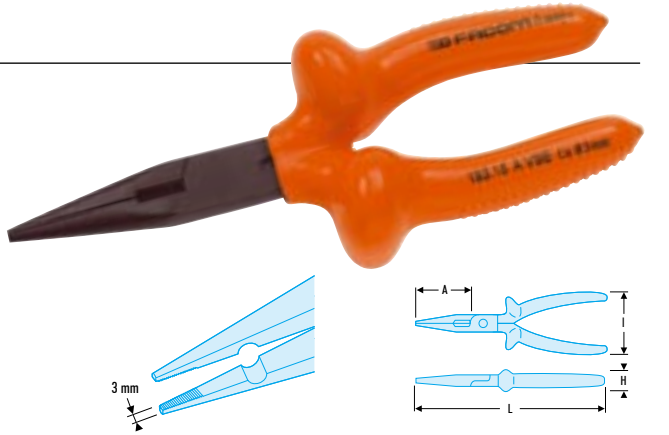


Half-round nose pliers

193.16AVSE

▷ ISO 5745, DIN ISO 5745, NF ISO 5745, NF EN 6090.
- Integral wire cutter.
- Serrated jaws for improved grip.
- "2-colour warning" insulation.
- Burnished nose.

	A mm	L x l x H mm	Cu	⌀ mm 140 kg/mm²	g
193.16AVSE	50	170 x70 x32	3	1,6	180

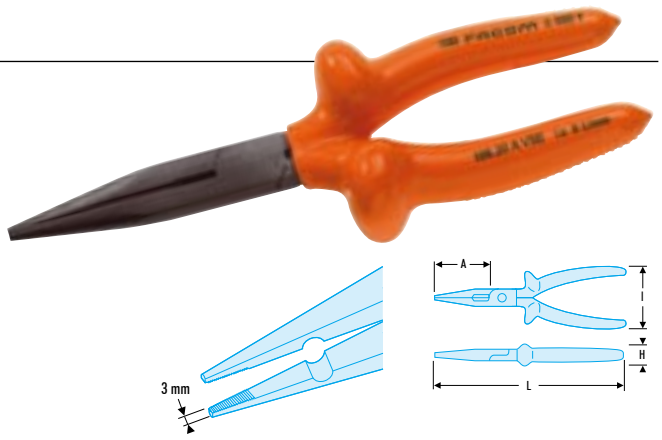


Long half-round nose pliers

185.20AVSE

- Integral wire cutter.
- "2-colour warning" insulation.
- Burnished nose.

	A	L	I	H	⋐Ø mm		⚖
	mm	mm	mm	mm	Cu	140 kg/mm²	g
185.20AVSE	69	200	65	35	3,5	2	250



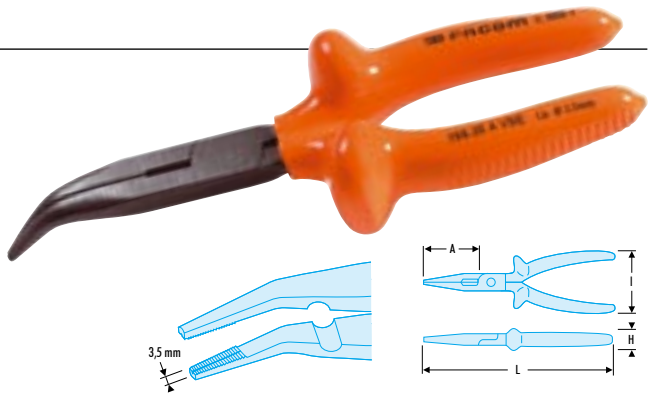
Long half-round nose pliers

195.20AVSE

▷ ISO 5745, DIN ISO 5745, NF ISO 5745, NF EN 6090.

- Integral wire cutter.
- "2-colour warning" insulation.
- Burnished nose.

	A	L	I	H	⋐Ø mm		⚖
	mm	mm	mm	mm	Cu	140 kg/mm²	g
195.20AVSE	64	200	63	32	3,5	2	250

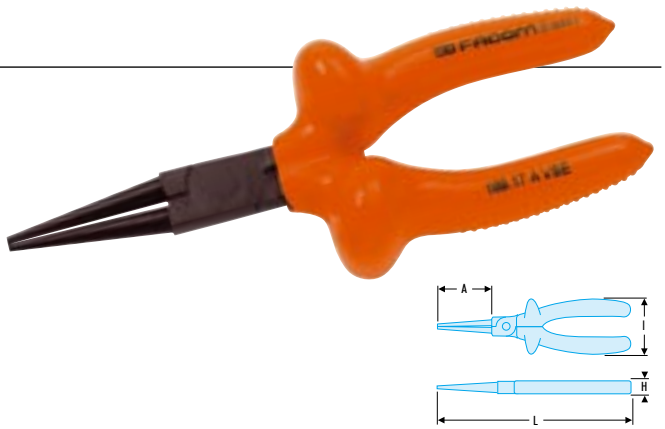


Round nose pliers

189.17AVSE

- Model with long snipe nose, serrated for shaping bends or terminals on all types of wire.
- "2-colour warning" insulation.
- Burnished nose.
- Dimensions 170 x 60 x 33 mm.

	A	L	I	H	⚖
	mm	mm	mm	mm	g
189.17AVSE	45	170	60	33	175



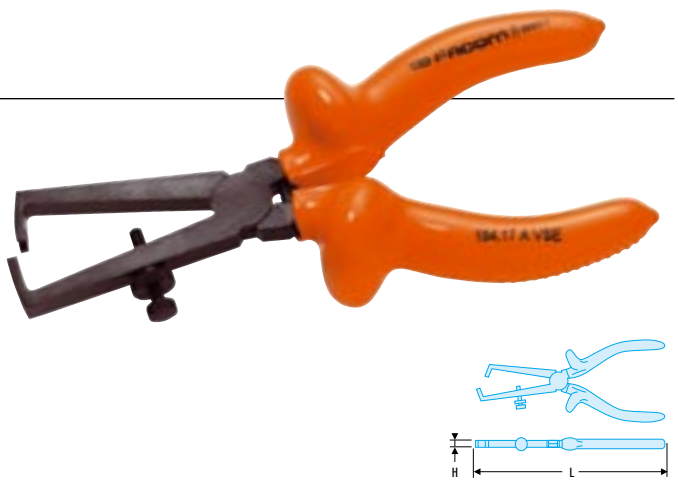
Wire strippers

Wire stripper

194.17AVSE

- Strips any wire in all common electrical systems up to max. → • Ø 2.5 mm.
- "2-colour warning" insulation.
- Burnished nose.

	H	L	⚖
	mm	mm	g
194.17AVSE	8	170	200

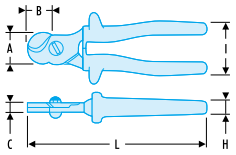


1,000 V insulated cable cutters

Copper and aluminium cable cutters

- High performance from a compact tool.
- Forged safety stops.
- "2-colour warning" insulation.
- Burnished nose.

	A mm	B mm	C mm	L mm	I mm	H mm	⋐Ø mm Cu	⍙ g
412.10AVSE	35	25	10	195	80	35	8	390
412.14AVSE	35	30	13	230	80	35	14	510
412.150AVSE	70	60	16	450	155	70	32	220



Ratchet-type cable cutters

- One-handed operation.
- No cable core distortion.
- Forged and hardened steel blade.
- "2-colour warning" insulation.

	A mm	H mm	L mm	⋐max Ø mm	⋐maxi mm² Cu ⦿	Alu ⦾	⍙ kg
414.45AVSE	135	42	260	45	300	300/4x70	400/4x95	1
414.52AVSE	140	37	280	52	400	400/3x150+1/70	240/4x120	1,05

Insulated hacksaw frame

Hacksaw frame

602.AVSE

▷ DIN 6473, NF E 73-073.

- Frame for 300 mm blade.
- 2 blade positions.
- Butterfly tensioner.
- Supplied with bimetal blade.
- Dimensions : 470 x 130 x 20 mm.

⍙ : 590 g.

Insulated knife

Knife

1820.AVSE

- Thick, angled blade with flat tip.
- Soft bi-material handle.
- Blade sheath.
- Effective blade length 60 mm.
- Max. dimensions : 185 x 52 x 25 mm.

⍙ : 90 g.

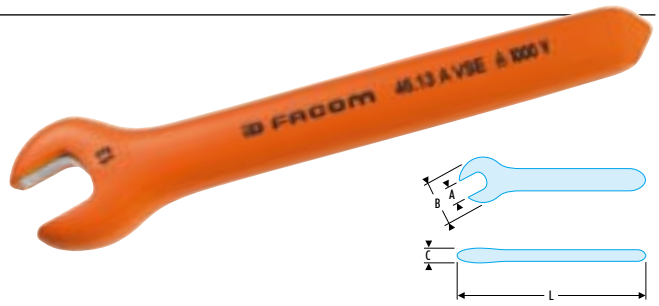
Open-end wrenches

Open-end wrenches

▷ DIN 3114, NF E 74-301.

• Based on combination wrench 40, model 46 is powerful reliable and safe :
- specific heat treatment and oil quenching achieve core hardness without brittling or distortion.
- size tolerances applied by Facom exceed standard specifications.

• "2-colour warning" insulation.



	A mm	B mm	C mm	L mm	ΔΔ g
46.8AVSE	8	22	8	105	30
46.9AVSE	9	24	9	105	35
46.10AVSE	10	25	9	105	40
46.11AVSE	11	29	10	115	50
46.12AVSE	12	30	10	125	60
46.13AVSE	13	32	11	135	70
46.14AVSE	14	34	11	145	80

	A mm	B mm	C mm	L mm	ΔΔ g
46.15AVSE	15	36	11	145	90
46.16AVSE	16	38	12	155	105
46.17AVSE	17	41	12	155	120
46.18AVSE	18	42	12	160	135
46.19AVSE	19	45	12	165	150
46.21AVSE	21	50	14	185	180

Ring wrenches

Offset ring wrenches

• OGV® ring profile.

• "2-colour warning" insulation.

	A mm	B mm	C mm	H mm	L mm	ΔΔ g
55.8AVSE	8	16	8	16	150	50
55.9AVSE	9	17	9	17	151	55
55.10AVSE	10	19	9	17	157	60
55.11AVSE	11	20	10	19	160	70
55.12AVSE	12	21	11	20	165	100
55.13AVSE	13	23	12	20	165	105
55.14AVSE	14	25	12	21	180	120

	A mm	B mm	C mm	H mm	L mm	ΔΔ g
55.15AVSE	15	26	12	21	183	130
55.16AVSE	16	27	13	26	195	160
55.17AVSE	17	30	14	27	198	180
55.18AVSE	18	30	14	27	215	200
55.19AVSE	19	32	14	27	215	205
55.21AVSE	21	35	16	31	245	300

Adjustable wrenches

Adjustable wrenches

▷ ISO 6787, DIN 3117, NF ISO 6787, ASME B 107.8 M.

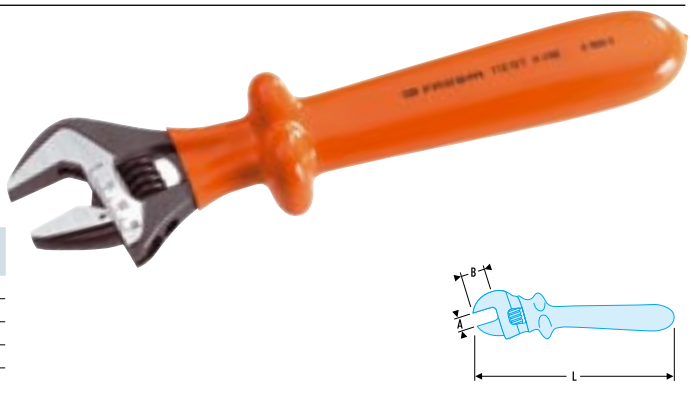
• Finger stops.

• "2-colour warning" insulation.

• Graduated head, 15° angle.

• Burnished finish.

• Thumbwheel rotates anti-clockwise.

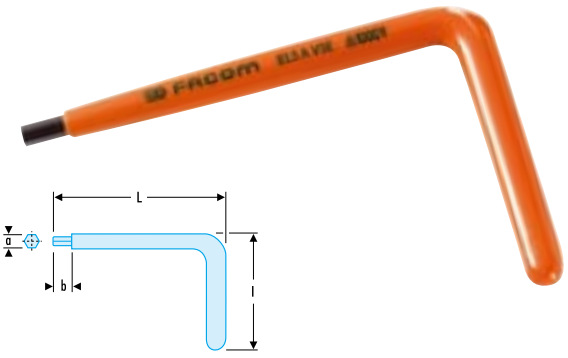


	A mm	B mm	L mm	ΔΔ g
113.8TAVSE	27	24	210	385
113.10TAVSE	30	29	260	655
113.12TAVSE	34	34	310	950
113.15TAVSE	44	44	385	1935

Hexagonal keys

Hexagonal keys

▷ ISO 2936, DIN ISO 2936, NF ISO 2936.
- Hardened alloy-steel exceeds specified strengths.
- "2-colour warning" insulation.



	a mm	b mm	l mm	L mm	⚖ g
83.3AVSE	3	12	85	125	20
83.4AVSE	4	12	85	125	30
83.5AVSE	5	12	85	125	50
83.6AVSE	6	12	85	125	70
83.8AVSE	8	12	85	125	110
83.10AVSE	10	12	85	125	150
83.12AVSE	12	12	85	125	210

Cross wrenches

Cross wrenches

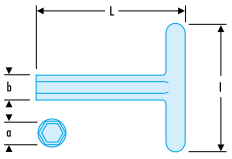
- 4 insulated 6-point sockets.
- Non-conducting core prevents continuity between ends.
- Injection-moulded single-layer resin insulation.

	L mm	⌀‡/mm	⚖ g
71.1AVSE	140	6 x 8 x 10 x 12	170
71.2AVSE	150	7 x 9 x 11 x 13	210
71.3AVSE	150	8 x 10 x 12 x 14	230

Box wrenches

Box wrenches

- 94T.AVSE : Box wrenches 135 mm long.
- 94TL.AVSE : Box wrenches 300 mm long.



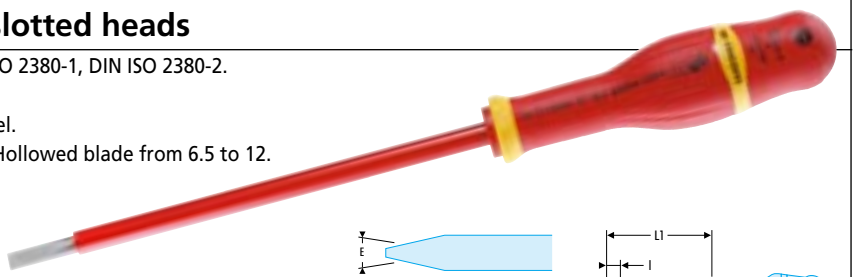
	a mm	b mm	l mm	L mm	⚖ g
94T.6AVSE	6	13	115	135	150
94T.8AVSE	8	15	115	135	160
94T.10AVSE	10	19	115	135	185
94T.11AVSE	11	23	115	135	185
94T.12AVSE	12	24	115	135	210
94T.13AVSE	13	25	115	135	225
94T.14AVSE	14	26	115	135	240
94TL.10AVSE	10	21	205	300	420
94TL.13AVSE	13	25	205	300	520
94TL.16AVSE	16	30	205	300	800
94TL.17AVSE	17	30	205	300	840
94TL.19AVSE	19	33	205	300	910

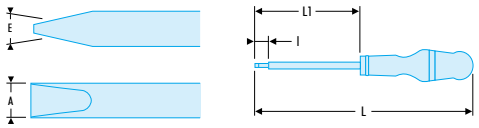
Insulated screwdrivers for slotted heads

New

A.VE screwdrivers for slotted heads

▷ NF ISO 2380-1, NF ISO 2380-2, DIN ISO 2380-1, DIN ISO 2380-2.
• 1,000 V sheathed round blade.
• Chrome-Molybdenum-Vanadium steel.
• Machined blade up to 5.5 inclusive. Hollowed blade from 6.5 to 12.





	E x A mm	l x L mm	Ø2 x L2 mm	L mm	g
A2X75VE	0,4 x 2,0	18 x 40	19 x 95	170	23
A2,5X50VE	0,4 x 2,5	18 x 50	25 x 103	153	30
A2,5X75VE	0,4 x 2,5	18 x 75	25 x 103	178	32
A3X75VE	0,5 x 3,0	18 x 75	25 x 103	178	38
A3X100VE	0,5 x 3,0	18 x 100	25 x 103	202	39
A3,5X75VE	0,6 x 3,5	18 x 75	25 x 104	179	42
A3,5X100VE	0,6 x 3,5	18 x 100	25 x 104	204	44
A4X100VE	0,8 x 4,0	18 x 100	30 x 110	210	48
A4X150VE	0,8 x 4,0	18 x 150	30 x 110	260	53
A5,5X125VE	1,0 x 5,5	18 x 125	30 x 110	235	88
A5,5X150VE	1,0 x 5,5	18 x 180	30 x 110	260	92

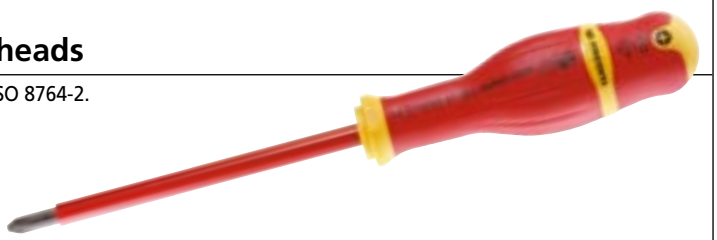
	E x A mm	l x L mm	Ø2 x L2 mm	L mm	g
A5,5X200VE	1,0 x 5,5	18 x 200	30 x 110	310	106
A6,5X150VE	1,2 x 6,5	18 x 180	36 x 120	270	120
A6,5X200VE	1,2 x 6,5	18 x 200	36 x 120	320	170
A8X150VE	1,2 x 8,0	18 x 180	40 x 125	275	160
A8X200VE	1,2 x 8,0	18 x 200	40 x 125	325	180
A10X200VE	1,6 x 10,0	18 x 200	40 x 125	325	240
A12X250VE	2,0 x 12,0	18 x 250	40 x 125	375	360

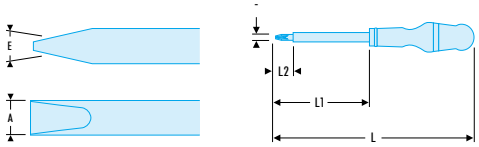
Screwdrivers for Phillips® heads

New

AP.VE screwdrivers for Phillips® heads

▷ NF ISO 8764-1, NF ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2.
• 1,000 V sheathed round blade.
• Chrome-Molybdenum-Vanadium steel.





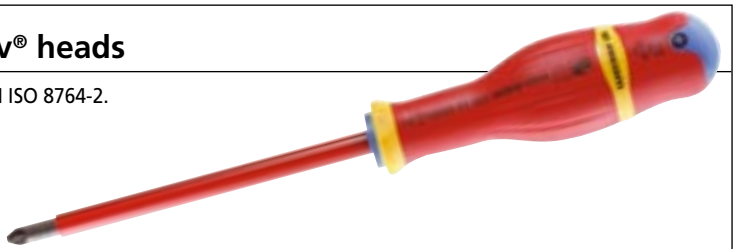
	Phillips® n°	Ø mm	l x L mm	Ø2 x L2 mm	L mm	g
AP0X75VE	PH 0	Ø3x60	18 x 75	25 x 104	179	46
AP1X100VE	PH 1	Ø4,5x75	18 x 100	30 x 110	210	77
AP2X125VE	PH 2	Ø6x100	18 x 125	36 x 120	245	127
AP3X150VE	PH 3	Ø8x150	18 x 150	40 x 125	275	195
AP4X200VE	PH 4	Ø10x200	18 x 200	40 x 125	325	278

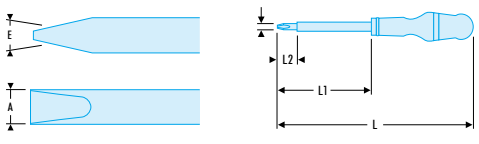
Screwdrivers for Pozidriv® heads

New

AD.VE screwdrivers for Pozidriv® heads

▷ NF ISO 8764-1, NF ISO 8764-2, DIN ISO 8764-1, DIN ISO 8764-2.
• 1,000 V sheathed round blade.
• Chrome-Molybdenum-Vanadium steel.





	Pozidriv® n°	Ø mm	l x L mm	Ø2 x L2 mm	L mm	g
AD0X75VE	PZ 0	Ø3x60	18 x 75	25 x 104	179	46
AD1X100VE	PZ 1	Ø4,5x75	18 x100	30 x 109	209	77
AD2X125VE	PZ 2	Ø6x100	18 x 125	36 x 120	245	127
AD3X150VE	PZ 3	Ø8x150	18 x 150	40 x 125	275	195

Insulated screwdriver sets

New

A.VE 1,000 V insulated screwdriver sets

	Number of screwdrivers	Contents
AD.J5VE	5	⊖ A3,5x100VE - A4x100VE - A5,5x125VE ⊕ AD1 x 100VE - AD2x125VE
AP.J5VE	5	⊖ A3,5x100VE - A4x100VE - A5,5x125VE ⊕ AP1x100VE - AP2x125VE
AD.J8VE	8	⊖ A2,5x75VE - A3x75VE - A3,5x75VE - A4x100VE - A5,5x125VE - A6,5x150VE ⊕ AD1x100VE - AD2x125VE

Borneo®

For our range of borneo® 1,000 V screwdrivers for electrical terminals.
See p. 322

1000 VOLTS EN 60900

FACOM VSE 1,000 V insulated ratchets and sockets

A COMPREHENSIVE RANGE OF TOOLS FOR WORKING ON LIVE COMPONENTS

1- *Comprehensive range of accessories extensions, Tee handles, etc.*
2- *Variety of socket lengths.*
3- *1/2", 3/8" and 1/4" square drives for overcoming accessibility problems.*

1000 VOLTS EN 60900

And complete box sets

1

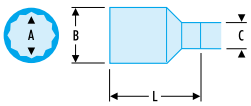
2

3

1/2" square drive 12-point sockets

1/2" square drive 12-point sockets

- For manual use.
- 1/2" (12.7 mm) square drive.



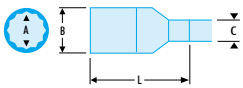
	A mm	B mm	C mm	L mm	ΔΔ g
S.8AVSE	8	17	22	52	70
S.9AVSE	9	18	22	52	70
S.10AVSE	10	19	22	52	75
S.11AVSE	11	20	22	52	75
S.12AVSE	12	22	22	52	75
S.13AVSE	13	23	22	52	75

	A mm	B mm	C mm	L mm	ΔΔ g
S.14AVSE	14	24	22	52	80
S.17AVSE	17	28	22	52	90
S.19AVSE	19	32	22	52	95
S.21AVSE	21	33	22	52	130
S.22AVSE	22	34	22	52	145

Long-reach 1/2" square drive 12-point sockets

Long-reach sockets

- For manual use.
- 1/2" (12.7 mm) square drive.
- OGV® profile.

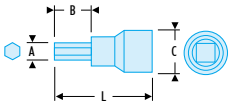


	A mm	B mm	C mm	L mm	⚖ g
S.12LAVSE	12	22	22	77	125
S.13LAVSE	13	23	22	77	135
S.14LAVSE	14	24	22	77	135
S.16LAVSE	16	27	22	77	150
S.17LAVSE	17	28	22	77	161
S.18LAVSE	18	29	22	77	167
S.19LAVSE	19	32	22	77	180

1/2" square drive hexagon bits

Hexagon bits

- For manual use.
- 1/2" (12.7 mm) square drive.



	A mm	B mm	C mm	L mm	⚖ g
ST.8AVSE	8	10	22	70	90
ST.10AVSE	10	12	22	70	90
ST.12AVSE	12	12	22	92	145
ST.14AVSE	14	17	22	92	150
ST.17AVSE	17	19	22	92	175

Ratchets and accessories ⍁ 1/2"

1/2" drive ratchet

S.151AVSE

- 1/2" (12.7 mm) square drive.
- Sockets and accessories secured by spring-ball.
- Retention force 32 to 38 N
- "2-colour warning" handle insulation.
- Dimensions 265 x 55 x 70 mm.

⚖ : 580 g.

1/2" handle

S.121AVSE

- 1/2" (12.7 mm) square drive.
- Sockets and accessories secured by spring-ball.
- Retention force 32 to 38 N.
- "2-colour warning" handle insulation.
- Dimensions 210 x 165 x 25 mm.

⚖ : 520 g.

1/2" square drive extensions

- 1/2" (12.7 mm) square drive.
- Single-colour insulation.

	mm	L mm	⚖ g
S.210AVSE	22	145	250
S.215AVSE	22	265	470

Case set of sockets

12-piece tool set

S.400AVSE

• Comprising :
- 9 sockets, 12-point, sizes 8, 9, 10, 11, 12, 13, 14, 17, 19 mm.
- 1 ratchet S.151AVSE.
- Extensions S.210AVSE and S.215AVSE.

• Dimensions 390 x 160 x 68 mm.
⚖ : 2.46 kg.

17-piece tool set

S.401AVSE

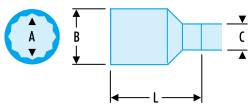
• Comprising :
- 9 sockets, 12-point, sizes 8, 9, 10, 11, 12, 13, 14, 17, 19 mm.
- 5 bits, sizes 8, 10, 12, 14, 17 mm.
- 1 ratchet S.151AVSE.
- Handle S.121AVSE.
- Extension S.210AVSE.

• Dimensions 345 x 280 x 65 mm.
⚖ : 3.43 kg.

3/8" square drive sockets

3/8" square drive 12-point sockets

▷ ISO 2725-1, DIN 3124, NF ISO 2725-1.
• For manual use.
• 3/8" (9.53 mm) square drive.
• OGV® profile.



	A mm	B mm	C mm	L mm	⚖ g
J.8AVSE	8	17	18	43	30
J.9AVSE	9	18	18	43	32
J.10AVSE	10	20	18	43	34
J.11AVSE	11	21	18	46	35
J.12AVSE	12	22	18	46	35
J.13AVSE	13	23	18	46	45

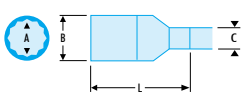
	A mm	B mm	C mm	L mm	⚖ g
J.14AVSE	14	25	18	46	45
J.15AVSE	15	25	18	46	45
J.16AVSE	16	27	18	46	45
J.17AVSE	17	27	18	46	48
J.18AVSE	18	29	18	46	66
J.19AVSE	19	31	18	50	68

Long-reach 3/8" square drive sockets

Long-reach 3/8" square drive 12-point sockets

• For manual use.
• 3/8" (9.53 mm) square drive.
• OGV® profile.

	A mm	B mm	C mm	L mm	⚖ g
J.8LAVSE	8	19	18	63	66
J.13LAVSE	13	23	18	63	75
J.14LAVSE	14	23	18	69	98
J.16LAVSE	16	25	18	76	147
J.17LAVSE	17	27	18	76	147
J.18LAVSE	18	28	18	76	157
J.19LAVSE	19	29	18	76	166

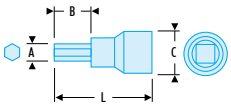


3/8" square drive hexagon bits

3/8" square drive hexagon bits

- For manual use.
- 3/8" (9.53 mm) square drive.

	A mm	B mm	C mm	L mm	⚖ g
JT.4AVSE	4	10	18	66	43
JT.5AVSE	5	10	18	66	43
JT.6AVSE	6	10	18	66	44
JT.7AVSE	7	10	18	66	48
JT.8AVSE	8	10	18	66	56
JT.10AVSE	10	10	18	66	63



Ratchets and accessories ☐ 3/8"

3/8" drive ratchet

J.151AVSE

- 3/8" (9.53 mm) square drive.
- Sockets and accessories secured by spring-ball.
- Retention force 13 to 16 N.
- "2-colour warning" handle insulation.
- Dimensions 180 x 50 x 48 mm.

⚖ : 250 g.

3/8" handle

J.121AVSE

- 3/8" (9.53 mm) square drive.
- Sockets and accessories secured by spring-ball.
- Retention force 13 to 16 N.
- "2-colour warning" handle insulation.
- Dimensions 205 x 165 x 35 mm.

⚖ : 380 g.

3/8" square drive extensions

- 3/8" (9.53 mm) square drive.
- Single-colour insulation.

	⌀ mm	L mm	⚖ g
J.210AVSE	17	150	150
J.215AVSE	17	260	290

3/8" square drive socket and accessory sets

9-piece tool set (12 point sockets)

J.400AVSE

- Comprising :

- 6 sockets (12-point), 8, 10, 11, 12, 13, 14 mm.
- 1 ratchet J.151AVSE.
- Extensions J.210AVSE and J.215AVSE.

- Dimensions 390 x 160 x 68 mm.

⚖ : 1.74 kg.

17-piece tool set

J.401AVSE

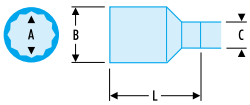
• Comprising :
- 9 sockets (12-point), sizes 8, 10, 11, 12, 13, 14, 15, 17, 19 mm.
- 5 hexagon bits, 4, 5, 6, 7, 8 mm.
- 1 ratchet J.151AVSE.
- 1 handle J.121AVSE.
- Extension J.210AVSE.

• Dimensions 345 x 280 x 65 mm.
⚖ : 2.25 kg.

1/4" square drive sockets

1/4" square drive sockets

• For manual use.
• 1/4" (6.35 mm) square drive.

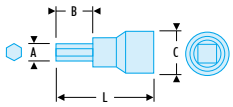


	A mm	B mm	C mm	L mm	⚖ g
R.6AVSE	6	16	22	22	10
R.7AVSE	7	17	22	22	16
R.8AVSE	8	17	22	22	16
R.10AVSE	10	18	22	22	20
R.12AVSE	12	22	22	22	30

1/4" square drive hexagon bits

Hexagon bits

• For manual use.
• 1/4" (6.35 mm) square drive.



	A mm	B mm	C mm	L mm	⚖ g
RT.4AVSE	4	11	22	37	20
RT.5AVSE	5	13	22	37	20
RT.6AVSE	6	14	22	37	20

Ratchets and accessories ☐ 1/4"

1/4" drive ratchet

R.151AVSE

• 1/4" (6.35 mm) square drive.
• Sockets and accessories secured by spring-ball.
• Retention force 6 to 9 N.
• "2-colour warning" handle insulation.
• Dimensions 125 x 45 x 35 mm.
⚖ : 140 g.

1/4" square drive extensions

R.210AVSE

- 1/4" (6.35 mm) square drive.
- Dimensions 116 x 16.6 mm.
- Single-colour insulation.

	L mm	mm	g
R.210AVSE	116	16,6	65

1/4" square drive socket and accessory sets

Tool set

R.400AVSE

- Comprising :
- 5 sockets 6, 7, 8, 10, 12 mm.
- 3 hexagon bits, 4, 5, 6 mm.
- 1 ratchet R.151AVSE.
- Extension R.210AVSE.
- Dimensions 322 x 136 x 53 mm.

⚖ : 650 g.

Insulating gloves

Insulating gloves

▷ EN 60903 - European directive EC/89/686.

- Natural latex, AZMC grade :
- R : resistant to acid, oil and ozone.
- C : resistant to very low temperatures.
- Supplied in an opaque anti-UV pouch.
- Length 360 mm.

⚖ : 150 g.

	Size	Thickness mm	Class	Power supply V
BC.80VSE	9 (B)	0,5	00	500
BC.81VSE	10 (C)	0,5	00	500
BC.90VSE	9 (B)	1	0	1000
BC.91VSE	10 (C)	1	0	1000

Overgloves

Overgloves

▷ European directive EC/89/686.

- Silicon leather giving mechanical protection.
- Worn over latex insulating gloves.
- Physical/mechanical classification 2, 1, 2, 1 to European standard EN 388.

	Size	g
BC.109VSE	9 (B)	160
BC.110VSE	10 (C)	160

Safety glasses and goggles

Why wear eye protection ?

1) To protect against projections of solid particles (spectacle type), liquids or chemicals (mask type).
2) To protect against UV radiation.

Where eye protection wherever there is a risk of exposure to particles, chemical products, fumes, splashing, dust, glass fibre, heat or metal shavings.
Protect your eyes : avoid damage.

It is recommended to wear safety goggles with side shields when operating machine tools, wood-working machinery or shredders.

Lens care

Regularly examine goggles and replace if any worn, broken or damaged parts are noted (stems, eyepieces, etc.).
Clean the lenses with warm soapy water. A microfibre cloth can be used to remove grease and dirt from the lenses without damage.

Safety glasses

BC.30VSE

▷ EN 166 - European directive EC/89/686.
• Treated against UV rays, fogging and scratching.
• Optical class 1, protection class 1.2.
• Adjustable and extendable arms.
• Soft case included.
⚖ : 75 g.

Safety goggles

BC.31VSE

▷ NF EN 166 - European directive EC/89/686.
• Protection for prescription glasses.
• Optical class 1, protection class 1.2.
• Synthetic, anti-UV clear lenses.
• Resistant to scratching and flying chips (• Soft case included.
⚖ : 70 g.

Insulating mats

Insulating mats

▷ NF C 18.420.
• Rubber mat to insulate operator from any earthing points.
• Thickness 3.2 mm.
• Hardness 60 DIDC.

	Length x width m	⚖ kg
BC.20VSE	1 x 0,6	2,5
BC.21VSE	1 x 1,0	4,2

Insulated clips

Insulated clips

BC.25VSE

- Strong resin clips for joining insulating mats.
- Integral hanging hook.
- Max. opening 40 mm.
- Length 155 mm.

⚖ : 70 g.

Insulated tool sets

9-piece tool set

2180B.VSE

- Basic set for servicing workshop electrical gear.
- Supplied in leather bag, ref. BV.100.
- Dimensions 350 x 120 x 120 mm.

⚖ : 2.025 kg.

	Quantity	Description
BC.90VSE	1	Size 9 low temperature insulating gloves
BV.100	1	Compact leather bag
189.17AVSE	1	Insulated round-nose pliers
194.17AVSE	1	Insulated wire stripper
391.16AVSE	1	Diagonal cutters for copper wire
1820.AVSE	1	1000 V insulated knife
187.18AVSE	1	1000 V insulated combination pliers
A4X100VE	1	Screwdriver
AP1X100VE	1	1000 V insulated screwdriver PH1
A5,5X150VE	1	Screwdriver

28-piece tool set

2185C.VSE

- In a chest with modular storage.
- Basic general-purpose tools supplied in a plastic chest.
- Spare capacity for additional tools.
- Dimensions 524 x 320 x 214 mm.

⚖ : 9.300 kg.

	Quantity	Description
AV.HT1B	1	Voltage tester screwdriver for low voltage 90 to 480 V
BC.109VSE	1	Pair of overgloves, size 9
BC.90VSE	1	Size 9 low temperature insulating gloves
DELA.401.00	1	Plastic folding rule (2 m)
113.10TAVSE	1	Insulated adjustable wrench 30 mm
R.400AVSE	1	10 - piece set of insulated 1/4" tools
188.16AVSE	1	1000 V insulated flat-nose pliers
192.16AVSE	1	Insulated cutters for hard wire
194.17AVSE	1	Insulated wire stripper
391.16AVSE	1	1000 V insulated diagonal cutters for copper wire
412.14AVSE	1	1000 V insulated 14 mm copper and aluminium cable cutters
1820.AVSE	1	1000 V insulated knife
187.18AVSE	1	1000 V insulated combination pliers
A5,5X150VE	1	Screwdriver
A8X150VE	1	Screwdriver
BP.10	1	Compact tool box
A6,5X150VE	1	Screwdriver
AP2X125VE	1	1000 V insulated screwdriver PH2
A4X100VE	1	Screwdriver
AP1X100VE	1	1000 V insulated screwdriver PH1

41-piece tool set

2187C.VSE

- For fitting electrical gear.
- Supplied in leather case, ref. BV 7B : 445 x 330 x 185 mm.

⚖ : 8.5 kg.

	Quantity	Description
BV.7A	1	Fold-down front leather case
BC.109VSE	1	Size 9 overgloves
BC.90VSE	1	Size 9 low temperature insulating gloves
R.400AVSE	1	10 - piece set of insulated 1/4" tools
113.10TAVSE	1	Insulated adjustable wrench 30 mm
188.16AVSE	1	Insulated flat-nose pliers
194.17AVSE	1	Insulated wire stripper
391.16AVSE	1	Insulated diagonal cutter for copper
412.14AVSE	1	1000 V and 14 mm copper and aluminium cable cutters
46.10AVSE	1	Insulated open end wrench 10 mm
83.3AVSE	3	Insulated 3-4-6 mm key
AV.HT1B	1	Voltage tester screwdriver 90 to 480 V
701A	1	Multifunction tester
BC.31VSE	1	Goggles
46.11AVSE	1	Insulated open end wrench 11 mm
46.12AVSE	1	Insulated open end wrench 12 mm
46.13AVSE	1	Insulated open end wrench 13 mm
46.14AVSE	1	Insulated open end wrench 14 mm
46.17AVSE	1	Insulated open end wrench 17 mm
46.19AVSE	1	Insulated open end wrench 19 mm
46.8AVSE	1	Insulated open end wrench 8 mm
83.4AVSE	1	Insulated 4 mm key
83.6AVSE	1	Insulated 6 mm key
187.18AVSE	1	Insulated combination pliers
APOX75VE	1	1000V insulated screwdriver PH0
AP1X100VE	1	1000V insulated screwdriver PH1

	Quantity	Description
AP2X125VE	1	1000V insulated screwdriver PH2
A3,5X100VE	1	Screwdriver
A4X100VE	1	Screwdriver
A6,5X150VE	1	Screwdriver
A5,5X150VE	1	Screwdriver
A8X150VE	1	Screwdriver
189.17AVSE	1	Insulated round-nose pliers

42-piece tool set

2184C.VSE

- For workshop or on-site electrical work.
- Supplied in leather case, ref. BV 5A.
- Dimensions 425 x 215 x 320 mm.

⚖ : 14.13 kg.

	Quantity	Description
BV.5A	1	Leather drawer case
BC.20VSE	1	Insulating mat 1 m x 0.6 m
BC.90VSE	1	Size 9 low temperature insulating gloves
180.VSE	1	Insulated multigrip pliers
188.16AVSE	1	Insulated flat-nose pliers
46.10AVSE	1	Insulated open end wrench 10 mm
195.20AVSE	1	Insulated long half-round nose pliers
192.16AVSE	1	Insulated cutter for hard wire
391.16AVSE	1	Insulated diagonal cutter for copper
412.14AVSE	1	1000 V and 14 mm copper and aluminium cable cutters
194.17AVSE	1	Insulated wire stripper
46.12AVSE	1	Insulated open end wrench 12 mm
46.13AVSE	1	Insulated open end wrench 13 mm
46.14AVSE	1	Insulated open end wrench 14 mm
46.17AVSE	1	Insulated open end wrench 17 mm
46.19AVSE	1	Insulated open end wrench 19 mm
46.21AVSE	1	Insulated open end wrench 21 mm
46.8AVSE	1	Insulated open end wrench 8 mm
189.17AVSE	1	Insulated round-nose pliers
701A	1	Multifunction tester
83.3AVSE	1	Insulated 3 mm key
83.4AVSE	1	Insulated 4 mm key
83.6AVSE	1	Insulated 6 mm key
94T.10AVSE	1	Insulated box wrench 10 mm
94T.13AVSE	1	Insulated box wrench 13 mm
94T.8AVSE	1	Insulated box wrench 8 mm
414.45AVSE	1	Insulated ratchet-type cable cutter 45 mm
1820.AVSE	1	1000 V insulated knife

	Quantity	Description
DELA.401.00	1	Synthetic folding rule 2 m
187.18AVSE	1	Insulated combination pliers
190.16AVSE	1	Insulated cutter for hard wire
A3,5X100VE	1	Screwdriver
A4X100VE	1	Screwdriver
A5,5X150VE	1	Screwdriver
A6,5X150VE	1	Screwdriver
A8X150VE	1	Screwdriver
AP1X100VE	1	1000 V insulated screwdriver PH1
AP2X125VE	1	1000 V insulated screwdriver PH2
A10X200VE	1	Screwdriver
AD1X100VE	1	1000 V insulated screwdriver PZ1
AD2X125VE	1	1000 V insulated screwdriver PZ2