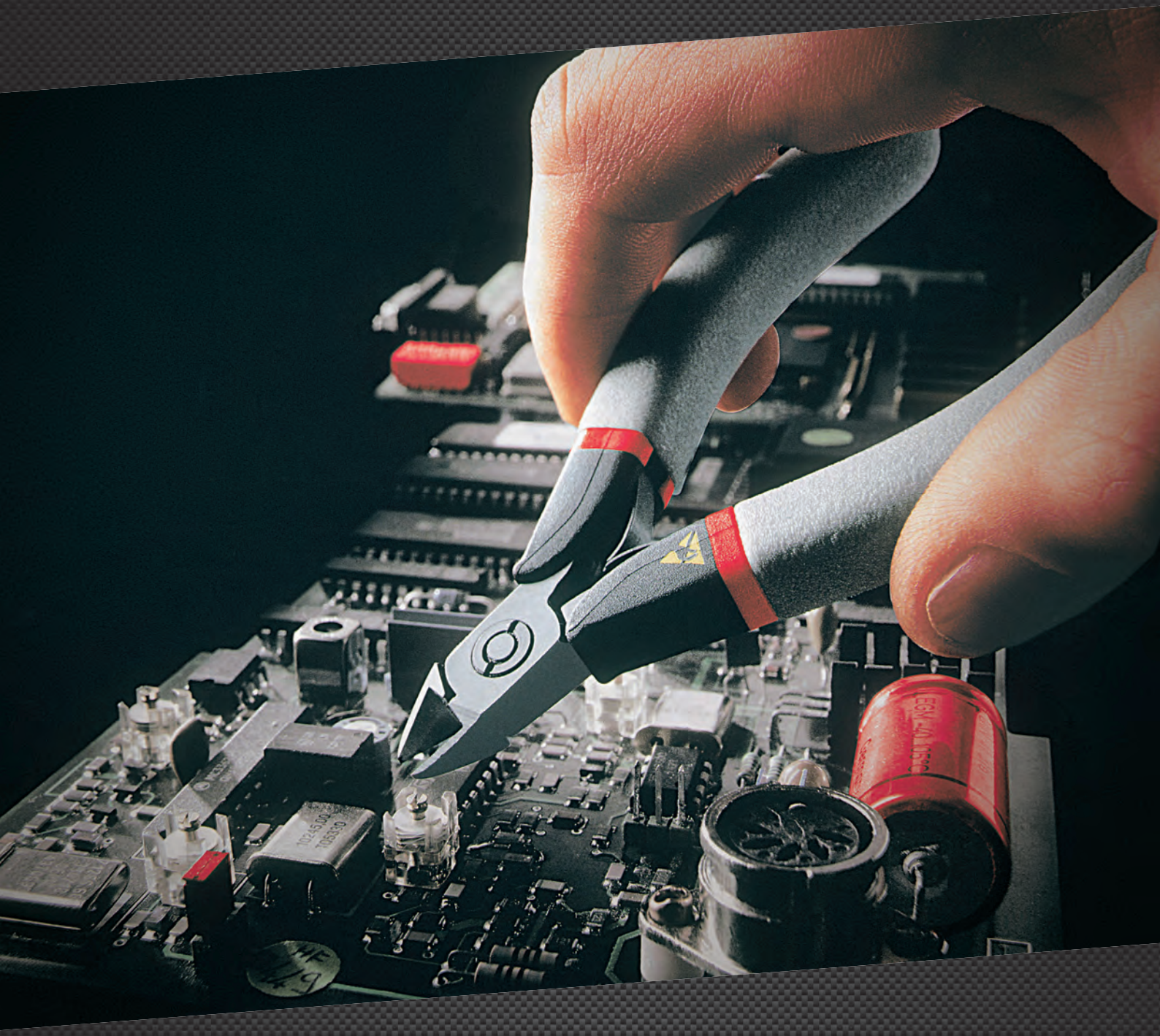


ELECTRONICS

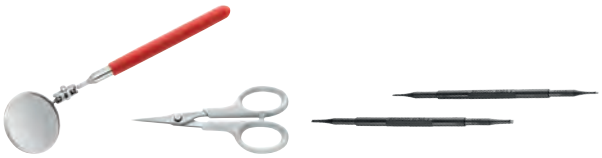
ELECTRONIC PLIERS 978

ELECTRONIC PLIERS ANTISTATIC SERIES 987

MICRO-TECH® SCREWDRIVERS 993

TWEEZERS 1001

SPECIAL MICRO-TECH® PLIERS 1005



VARIOUS TOOLS 1005

SOLDERING 1013

MICRO-TECH®CHOOSING MICRO-PLIERS

1 Materials to cut

TYPE OF MATERIALS	WIRES	Mechanical strength in N/mm²	HARDNESS (Hrc)
Copper, Nickel, Aluminium	Soft	220	-
Iron nail or wire, pin	Semi-soft	800	22
Iron spring, cable, hard steel wire or nail	Hard	1675	50
Steel spring	Piano wire	2200	59

2 Dimension and type of wire or component to cut (diameter or thickness)

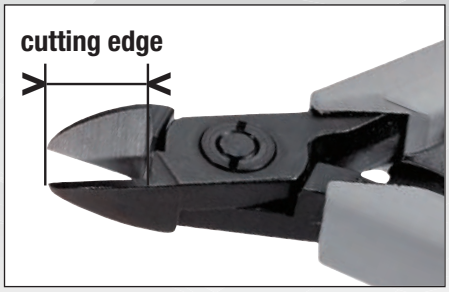
- Cross-section, thickness.
- Semi-soft: copper/Alu alloy.
- Hard wire: soft steel (30Hrc).
- Piano wire: steel spring (50Hrc).

3 Access:

- Bullet, pointed, angled, end nose for components.
- Flat half round nose.

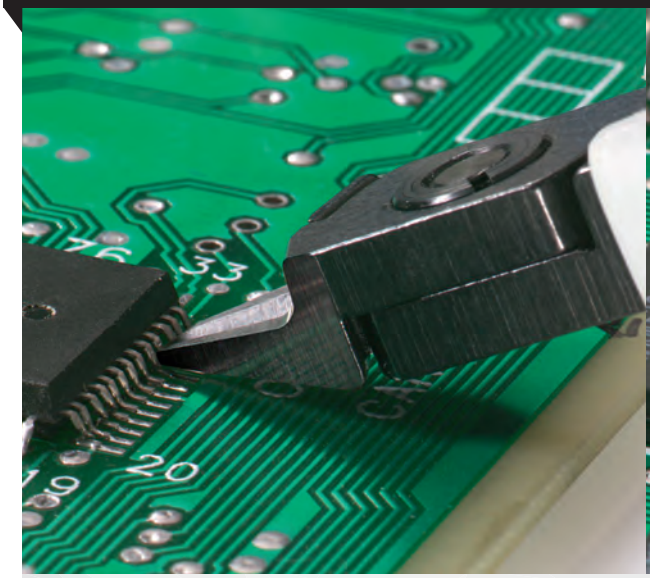
4 Cutting edge design and type of cut

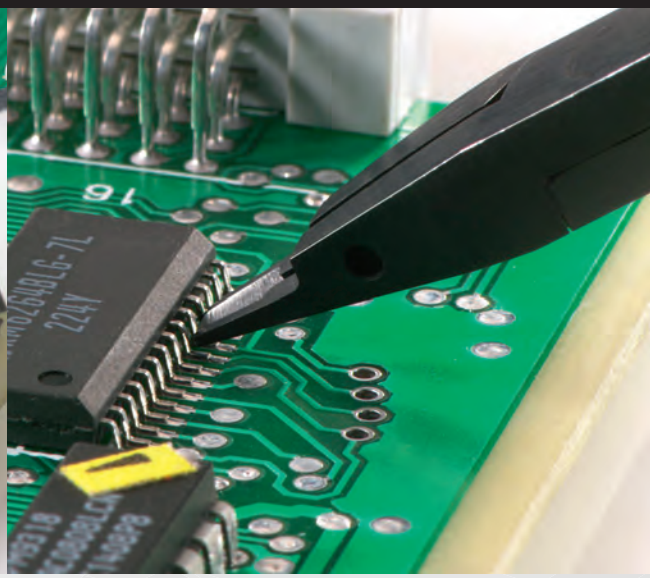
- Axial cut: cutting edges are treated to achieve maximum strength and precision cutting of a wide range of materials, from piano wire to copper.
- Semi-flush cut: suitable for semi-hard wire.
- Flush cut: the most precise shape in terms of cut, but also the most fragile, designed to cut soft materials such as copper.

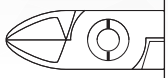
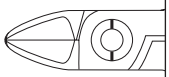
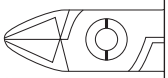
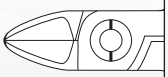
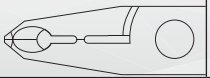


CUTTING EDGES	PATTERN	FEATURES	WIRE TYPE		OPERATION	APPLICATION
AXIAL CUT		Cutting edges are treated to achieve maximum strength and precision cutting of a wide range of materials, from piano wire to copper.	Cu	●	– Production work – Day-to-day use – Maintenance – Hard materials	– Customer service (hi-fi) – Machine-tools – Automotive – Domestic appliances
			CuNi alloy	●		
			Mild steel 30 HRC	●		
			Hard steel 50 HRC Piano wire	●		
SEMI-FLUSH CUT		Micro-chamfered cutting edges ensure high cutting capacity with clean finish. Precision is maintained throughout a long service life even in intensive use. Suitable for semi-hard wire.	Cu	●	– Clean cut in intensive use – Wiring – Batch electronics – Semi-hard materials	– Computers – Telephone exchanges – Video and laser – Micro-Tech® (hi-fi, labs)
			CuNi alloy	●		
			Mild steel 30 HRC	●		
			Hard steel 50 HRC Piano wire	-		
FLUSH CUT		This range is designed to give a through-cut without crushing the wire. Clean-cut ends allow reliable soldering, without damage to electronic components from arcing. Suitable for soft wire only.	Cu	●	– High-frequency apparatus – High precision equipment – Cut-back before soldering – Electrostatically sensitive components	– Defence – Aerospace – Aviation – Laboratory
			CuNi alloy	●		
			Mild steel 30 HRC	-		
			Hard steel 50 HRC Piano wire	-		

MICRO-TECH®CHOOSING MICRO-PLIERS





NOSE DESIGN		Ø Cu WIRE (mm) 0 0.5 1 1.5 2	Ø MAX Fe WIRE 30 HRc	Ø MAX PIANO WIRE
Bullet nose: for strength 	405.8MT-405.8E 405.MT-405.E 405.10 MT-405.10E 405.12MT-405.12E 405.E 405.10 RMT-405.10RE	0.2 —> 1.0 0.3 —> 1.3 0.3 —> 1.4 0.4 —> 2.0 0.3 —> 1.1 0.3 —> 1.2	0.5 0.7 0.8 1.0 0.7 0.8	0.8 0.4 0.5 0.6
Bullet nose: for strength 	406.8-MT-406.8E 406.MT-406.E 435.MT-435.E 415.MT-415.E 406.RMT	0.1 —> 1.0 0.1 —> 1.3 0.1 —> 1.3 0.3 —> 2.0 0.1 —> 1.1	0.7 1.0 0.7 0.7	-
Pointed nose: for control 	416.MT-416.E 416.PMT-416.PE 416.12 MT-416.12E 416.RMT	0.1 —> 1.0 0.1 —> 0.8 0.3 —> 1.6 0.1 —> 0.9	0.5 0.4 0.7 0.5	
Bullet nose: for strength 	407.8 MT-407.8E 407.MT-407.E 425.MT-425.E 426.MT-426.E	0.1 —> 0.8 0.1 —> 1.3 0.1 —> 1.3 0.1 —> 1.2	-	-
Pointed nose: for control	417.PMT-417.PE	0.1 —> 0.8		
Angled nose for accuracy 	427.MT-427.E 429.MT-429.E	0.2> 0.6 0.2 —> 1.0		
End nose for reach	418.MT	0.1 -> 0.6		

DIAGONAL CUTTING PLIERS

BULLET NOSE PLIERS

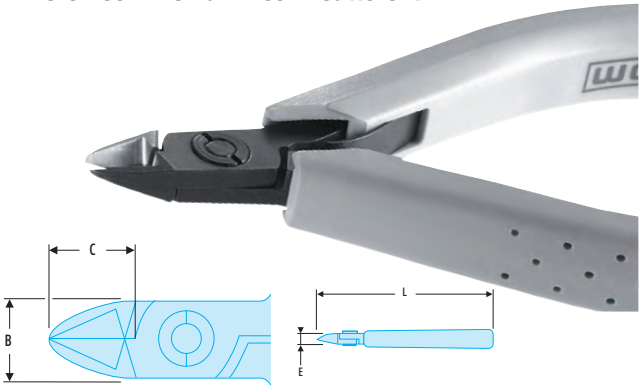
- Are stronger than other profiles.
- Have a high cutting capacity and durability that are useful in a wide variety of applications.

AXIAL CUT
Applications, all materials.

SEMI-FLUSH CUT
Clean, long-life cut in semi-hard materials.

FLUSH CUT
Smooth cut for sound soldered connections.

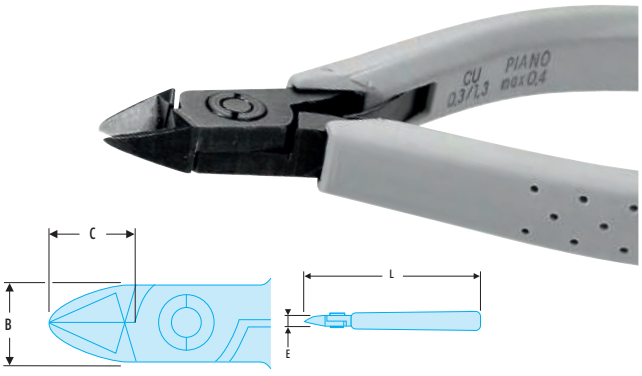
Micro-Tech® "small mesh" cutters: thin



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- These small mesh pliers are ideal for small electronic components.

	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
405.8MT	8,5	9	6	110		0,2 - 1	0,5	60
406.8MT	8,5	9	6	110		0,1 - 1	-	60
407.8MT	8,5	9	6	110		0,1 - 1	-	60

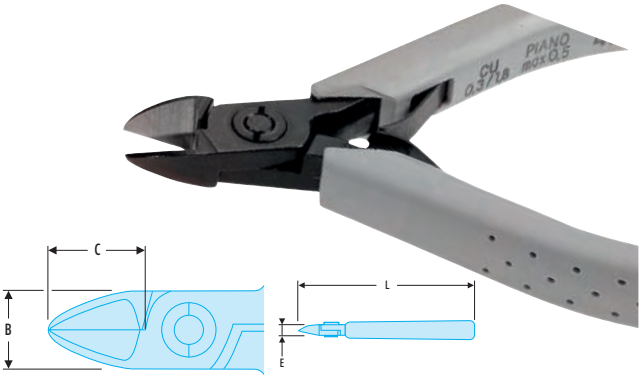
Micro-Tech® "compact" cutters: handling



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- These pliers combine cutting performance with accessibility thanks to their new slim diagonal shape.
- Fall prevention models avoid wire ejection. The 405.MT pliers allow to cut piano wire up to 0.4 mm.

	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	Piano Diameter [mm]	Offcut retainer	ΔΔ [g]
405.MT	10,5	9,5	7	110		0,3 - 1,3	0,7	0,4	-	60
406.MT	10,5	9,5	7	110		0,1 - 1,3	0,7	-	-	60
406.RMT	10,5	9,5	7	110		0,1 - 1,1	0,6	-	•	60
407.MT	10,5	9,5	7	110		0,1 - 1,3	-	-	-	60

Micro-Tech® "rugged" cutters: versatility



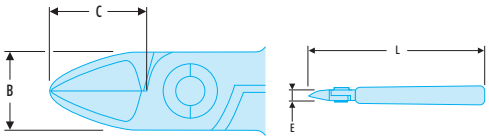
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- These pliers allow neat cutting of multiple materials: from copper wire to piano wire up to 0.5 mm.
- Fall prevention models avoid wire ejection.

	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	Piano Diameter [mm]	Offcut retainer	ΔΔ [g]
405.10MT	10,5	11,5	7	110		0,3 - 1,4	0,8	0,5	-	60
405.10RMT	10,5	11,5	7	110		0,3 - 1,2	0,7	0,5	•	60

Micro-Tech® "long" cutters: access

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These pliers allow to go further; up to + 1.5 to 2 mm compared with standard pliers.
- Fall prevention models avoid wire ejection.

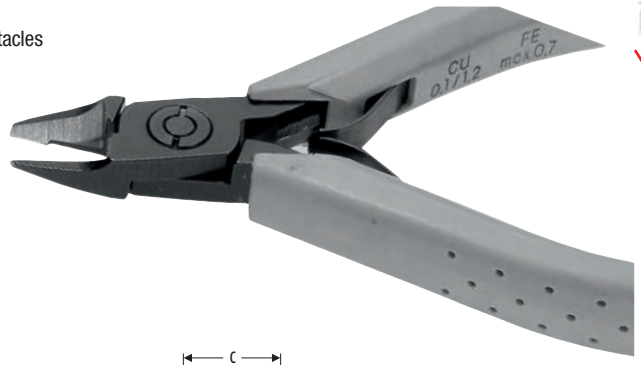


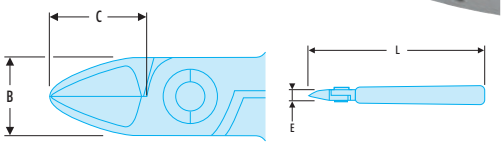
	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
435.MT	10,5	13	7	110		0,1 - 1,3	0,7	60
425.MT	10,5	13	7	110		0,1 - 1,3	-	60

Micro-Tech® "long thin" cutters with clearance

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These pliers allow to cut behind components and pass under obstacles (coils, resistors...).



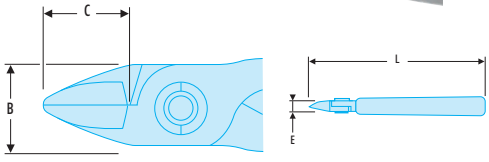


	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
426.MT	10,5	13	7	110	5,5		0,1 - 1,2	-	60

Micro-Tech® "high capacity" cutters: power

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

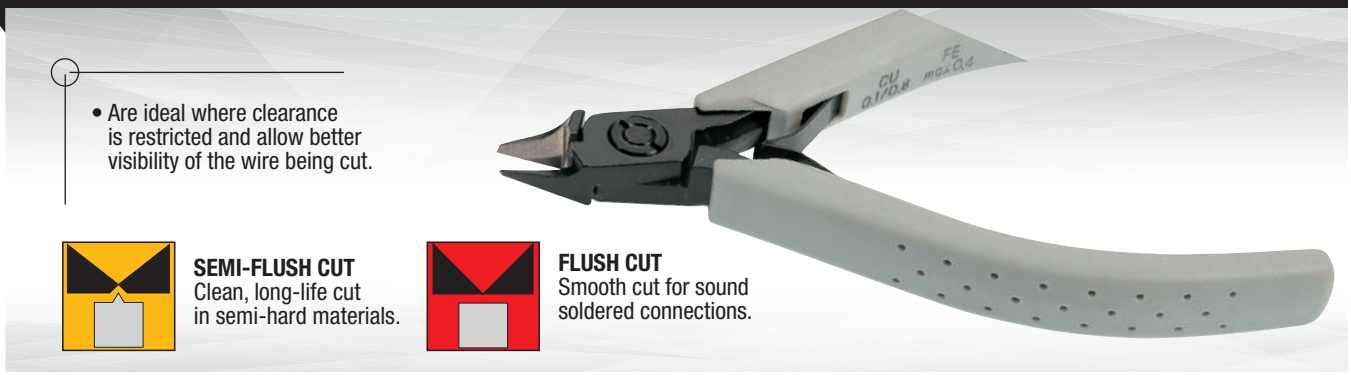
- These pliers are suited to major efforts and repetitive work over a broad range of materials.
- Fall prevention models avoid wire ejection.



	B [mm]	C [mm]	E [mm]	L [m]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	Piano Diameter [mm]	ΔΔ [g]
405.12MT	16	16	8	125	125		0,4 - 2,0	1,0	0,8	95
415.MT	16	16	8	125	125		0,3 - 2,0	0,9	-	95

SLIM NOSE CUTTING PLIERS

POINTED-NOSE PLIERS

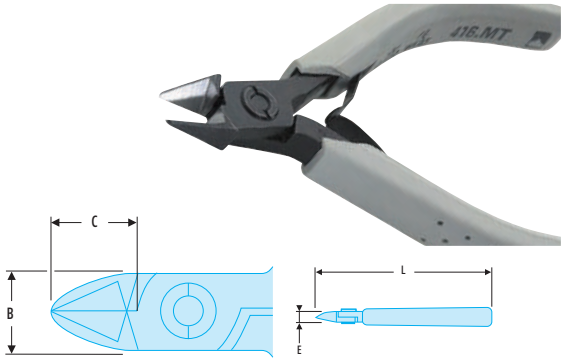


- Are ideal where clearance is restricted and allow better visibility of the wire being cut.

SEMI-FLUSH CUT
Clean, long-life cut in semi-hard materials.

FLUSH CUT
Smooth cut for sound soldered connections.

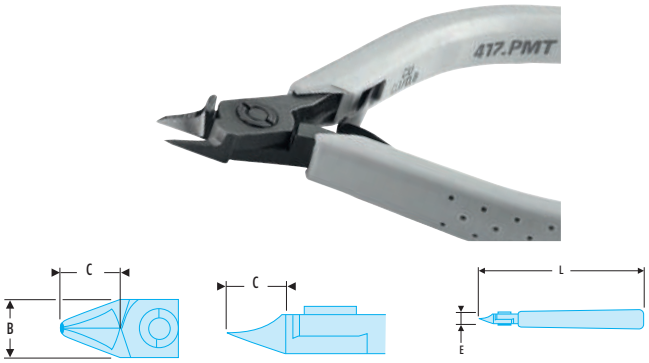
Micro-Tech® "machined" cutters



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- Compact noses for difficult access.
- Fall prevention models avoid wire ejection.

	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	Offcut retainer	ΔΔ [g]
416.MT	10,5	10,5	7	110		0,1 - 1,0	0,5	-	60
416.RMT	10,5	10,5	7	110		0,1 - 0,9	0,5	•	60

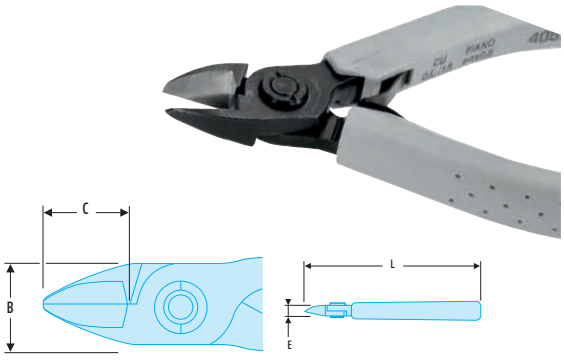
Micro-Tech® "thin nose tip" cutters: handling



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- These pliers pass under all obstacles of the PCB and provide better visibility.

	B [mm]	C [mm]	C1 [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
416.PMT	10,5	10,5	9,5	7	110		0,1 - 0,8	0,4	60
417.PMT	10,5	10,5	9,5	7	110		0,1 - 0,8	-	60

Micro-Tech® "high capacity machined" cutters



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- Broadly dimensioned for large series work.
- Semi-flush cutting.

	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
416.12MT	16	16	8	125	0,3 -1,6	0,7	95

ANGLED NOSE CUTTING PLIERS

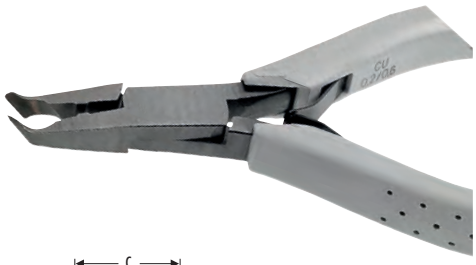
ANGLED-NOSE CUTTING PLIERS

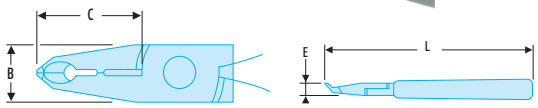
- Ideal for use on printed circuits, electronic modules and hybrid circuits.
- Designed for cutting right up against the board in the smallest of spaces.
- Flush cutting edges.

FLUSH CUT
Smooth cut for sound soldered connections.

Micro-Tech® 30° nose cutters

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- Cutting edges angled at 30° with rear clearance.
- Cut: flush.

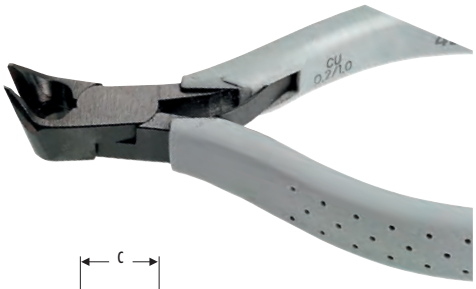


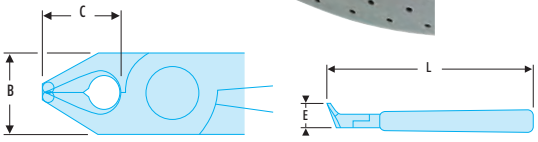


	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	ΔΔ [g]
427.MT	11	23	7	120	0,2 - 0,6	65

Micro-Tech® 70° nose cutters

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- Model with wide cutting edges angled at 70° broadly cleared.
- Cut: flush.



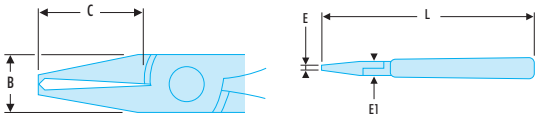


	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	ΔΔ [g]
429.MT	11,5	12	7	110	0,2 - 1,0	60

"END-TIP" CUTTING PLIERS

Micro-Tech® "tip" cutters

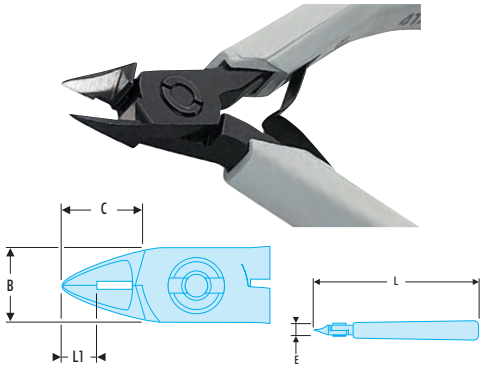
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- Long and narrow nose for vertical access cut.
- Cut: flush.



	B [mm]	C [mm]	E [mm]	L [mm]	Cu - Ni Ø [mm]	ΔΔ [g]
418.MT	10,5	21	2,7	120	0,1 - 0,6	75

CUTTING PLIERS FOR DIP-CMS COMPONENTS

Micro-Tech® diagonal cutter for DIP - CMS components



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- These pliers provide access between two legs of "DIP" components with a 0.65 mm gap. As they are extremely thin, these pliers can be used only for this function.
- Cut: flush.

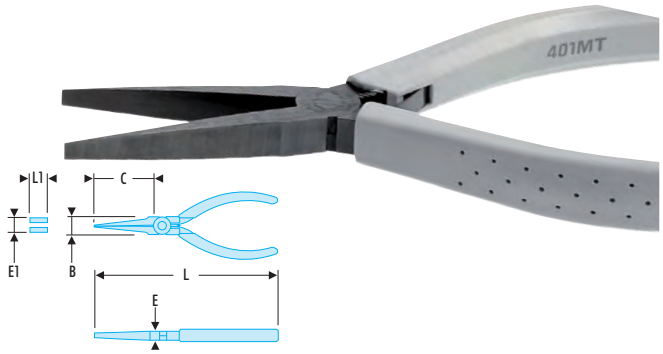
	B [mm]	C [mm]	E [mm]	L [m]	L [mm]	L1 [mm]	Cu - Ni Ø [mm]	⚖ [g]
417.SPMT	10,5	10,5	7	110	110	6,5	0,1 - 0,6	60

FLAT-NOSE PLIERS

- These pliers serve all professional needs in laboratory, production and maintenance applications.
- The rectangular-section jaws are smooth with contoured inside edges to avoid damage to components.
- Matt black non-reflective finish.
- Leaf spring.

FLAT NOSE GRIPPING PLIERS

Micro-Tech® extra-long nose gripper pliers

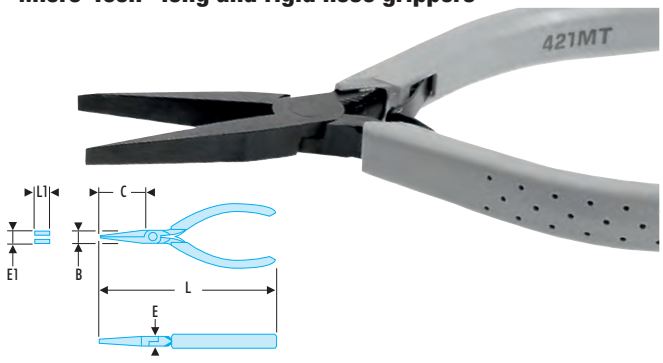


NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- For powerful loads.

	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	⚖ [g]
401.MT	14	48	8	1	160	5	80

Micro-Tech® long and rigid nose grippers

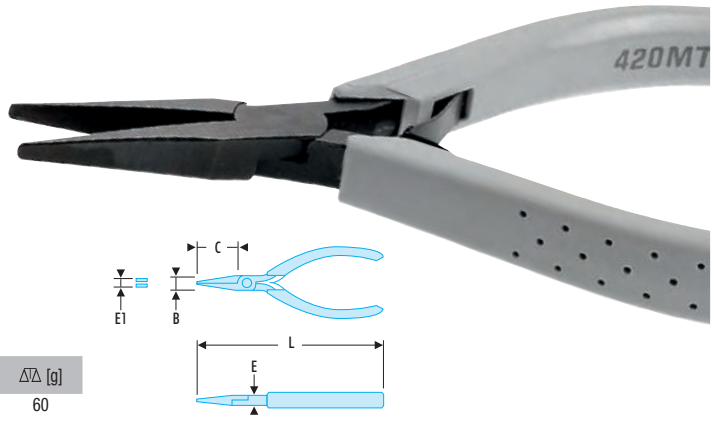


NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	L1 [mm]	⚖ [g]
421.MT	11	33	7	1	130	5	70

Micro-Tech® shaping gripper pliers

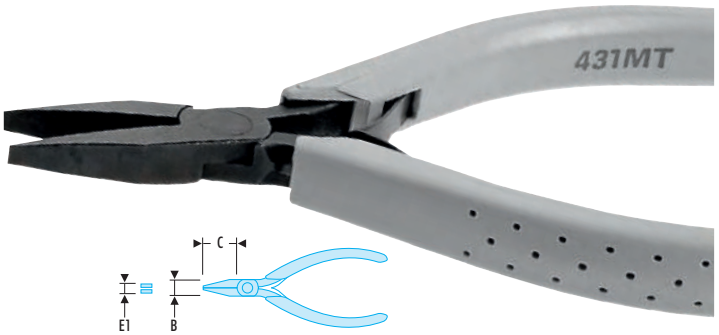
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500
• Very thin nose.

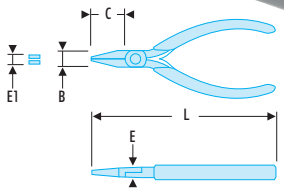


	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
420.MT	9	21	7	1	125	60

Micro-Tech® short nose gripper pliers

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500
• Narrow mesh, for high precision work.

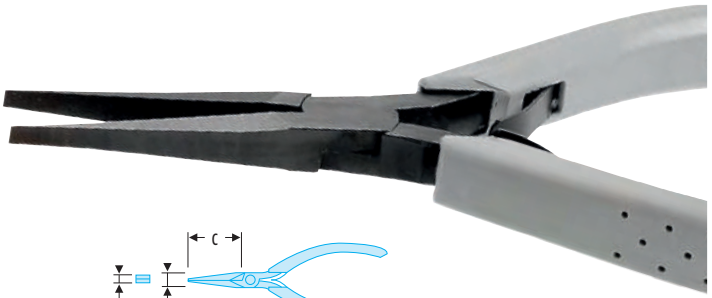


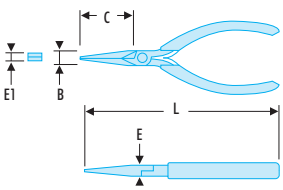


	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
431.MT	9	20	6	1	135	55

Micro-Tech® thin nose grippers

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500
• Narrow mesh, for high precision work.





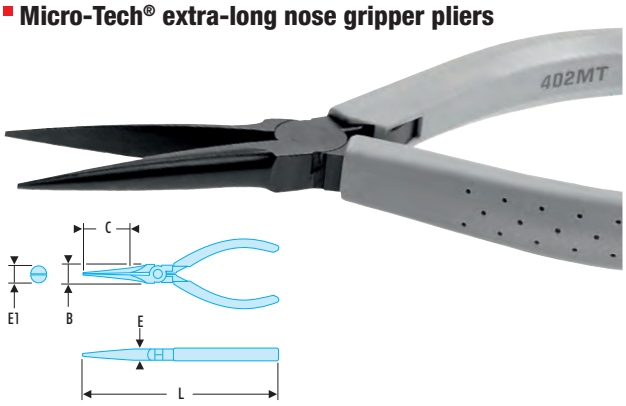
	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
431.LMT	9	35	6	1	135	80

HALF-ROUND NOSE GRIPPING PLIERS

HALF-ROUND NOSE PLIERS

- These pliers serve all professional needs in laboratory, production and maintenance applications.
- The half-round jaws are smooth with contoured inside edges to avoid damage to components.
- Matt black non-reflective finish.
- Leaf spring for easy opening.

Micro-Tech® extra-long nose gripper pliers

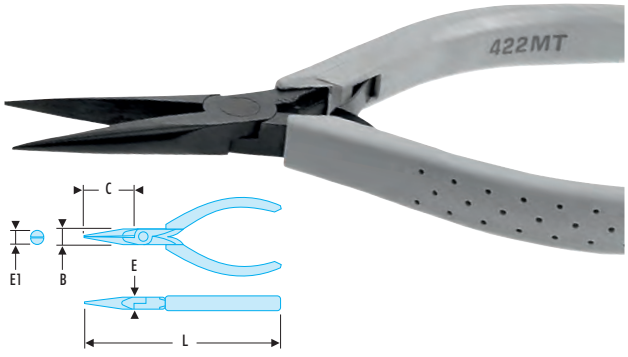


NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- For powerful loads.

	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
402.MT	14	48	8	1,5	160	76

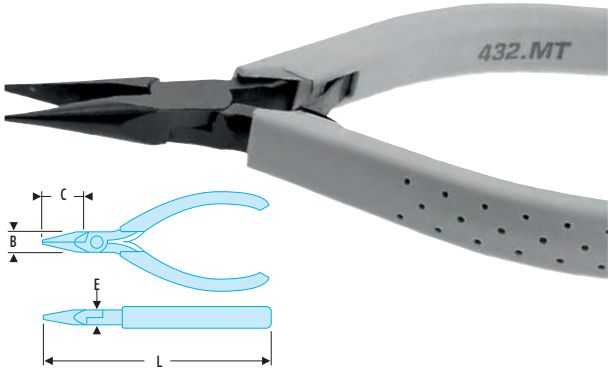
Micro-Tech® long and rigid nose grippers



NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	ΔΔ [g]
422.MT	11	44	7	3,8	130	70

Micro-Tech® short nose gripper pliers



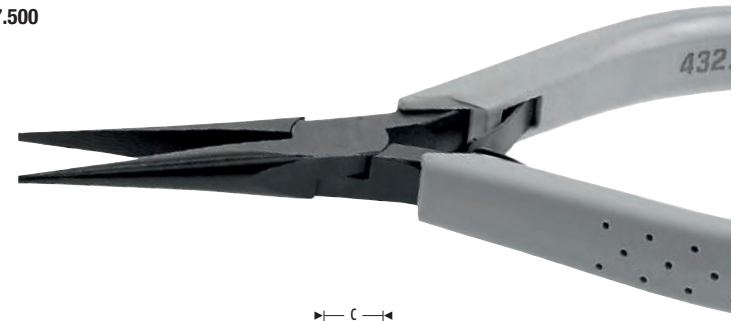
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

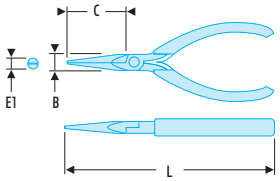
- Fine mesh.

	B [mm]	C [mm]	E [mm]	L [m]	L [mm]	ΔΔ [g]
432.MT	9	26	6	120	120	55

Micro-Tech® thin nose grippers

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500
• Fine mesh, for high precision work.

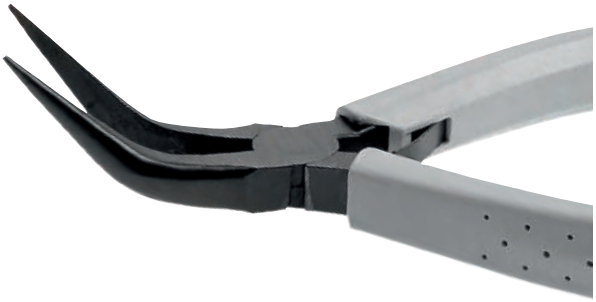


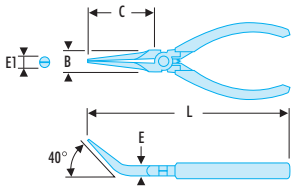


	B [mm]	C [mm]	E1 [mm]	L [mm]	⚖ [g]
432.LMT	9	35	1,6	140	65

Micro-Tech® extra-long angled nose grippers

ASME B107.500
• For powerful loads.

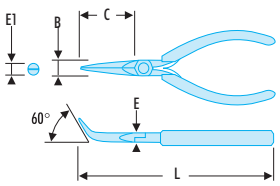




	B [mm]	C [mm]	L [mm]	⚖ [g]
403.MT	14	45	155	75

Micro-Tech® 60° angled rigid nose grippers

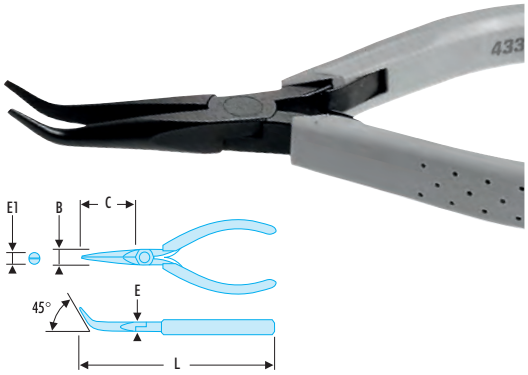
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500



	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	⚖ [g]
423.MT	11	25	7	1,4	125	70

HALF-ROUND NOSE GRIPPING PLIERS

Micro-Tech® 45° angled thin nose grippers



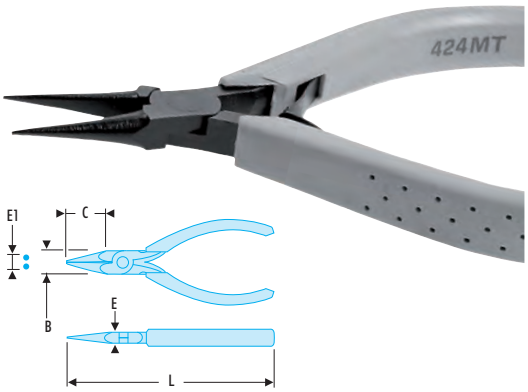
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Thin angled for betles accessibility and control.

	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	⚖ [g]
433.LMT	9	35	6	1,6	135	75

ROUND NOSE PLIERS

Micro-Tech® short and rigid nose grippers



NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	⚖ [g]
424.MT	11	22	7	2	120	55

PLIERS SET

Micro-Tech® 6-pliers set

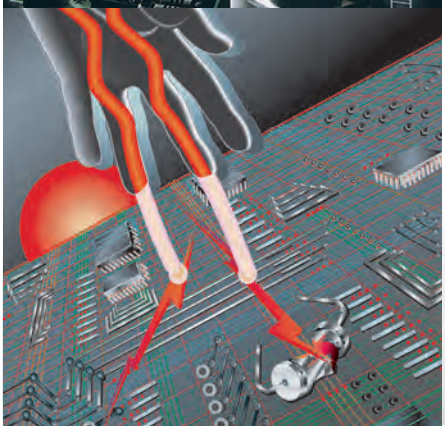
Contains:

- 405.MT - 405.12MT - 406.MT - 406.8MT - 402.MT - 433.LMT.
- Heat-formed tray PL.612.

	l [mm]	L [mm]	⚖ [g]
MOD.MT1	175	418	650

DIAGONAL CUTTING PLIERS

ANTI-STATIC SERIES ELECTRONIC PLIERS



A danger for electronic components!

As they become smaller and more sophisticated, electronic circuits are increasingly at risk from static electricity - especially when the charge can build up to several thousand volts.

Controlling electrostatic build-up (ESD) makes economic sense.

While the cost of a faulty component at acceptance-test stage is relatively small, it starts to increase once the component has reached the board, and escalates markedly once a fault involves sending back a complete unit. But the most important benefit in controlling static electricity is customer satisfaction. FACOM solves the problem with an antistatic range to EN 61340-5-1 & 2. For safe work on printed circuits, all tools and equipment used should be interlinked and effectively connected to earth. Measurements and tests on antistatic screwdrivers and electronics pliers have been carried out in laboratories approved by the electrical industry.

SAFETY FIRST

Never use antistatic tools when working on live components.

ESD BULLET-NOSE CUTTING PLIERS

- Are stronger than other profiles.
- Have a high cutting capacity and durability that are useful in a wide variety of applications.

AXIAL CUT
All applications, all materials.

SEMI-FLUSH CUT
Clean, long-life cut in semi-hard materials.

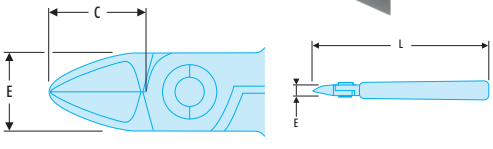
FLUSH CUT
Smooth cut for sound soldered connections.

ESD "small mesh" cutters: thin

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

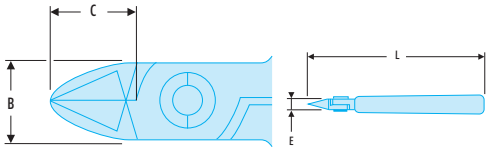
- Protection of electronic components from risks of electrostatic discharge (ESD).
- These small mesh pliers are ideal for small components.
- The flush cutting model was extended to optimise access.

	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	⚖ [g]
405.8E	8,5	9	6	110		0,2 - 1	0,5	55
406.8E	8,5	9	6	110		0,1 - 1	-	55
407.8E	8,5	9	6	110		0,1 - 1	-	55



ELECTRONIC PLIERS ANTISTATIC SERIES

ESD "compact" cutters: handling

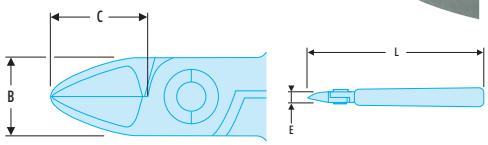


NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers combine cutting performance with handling thanks to their new slim diagonal shape.
- The 405.MT pliers allow to cut piano wire up to 0.4 mm.

	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	Piano Diameter [mm]	ΔΔ [g]
405.E	10,5	9,5	7	110		0,3 - 1,3	0,7	0,4	65
406.E	10,5	9,5	7	110		0,1 - 1,3	0,7	-	65
407.E	10,5	9,5	7	110		0,1 - 1,3	-	-	65

ESD "rugged" cutters: versatility

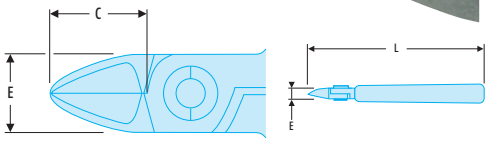


NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers allow neat cutting of multiple materials: from copper wire to piano wire up to 0.5 mm.
- Fall prevention models avoid wire ejection.

	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	Piano Diameter [mm]	Offcut retainer	ΔΔ [g]
405.10E	10,5	11,5	7	110		0,3 - 1,4	0,8	0,5	-	65
405.10RE	10,5	11,5	7	110		0,3 - 1,2	0,7	0,5	•	65

ESD "extended" cutters: access

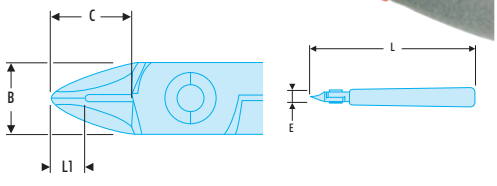


NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers allow to go further; up to + 1.5 to 2 mm compared with standard pliers.
- Fall prevention models avoid wire ejection.

	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	Offcut retainer	ΔΔ [g]
425.E	10,5	13	7	110		0,1 - 1,3	-	-	65
435.E	10,5	13	7	110		0,1 - 1,3	0,7	-	65
435.RE	10,5	13	7	110		0,1 - 1,2	0,7	•	65

ESD "long thin" cutters with clearance



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

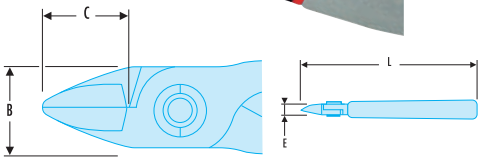
- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers allow to cut behind components and pass under obstacles (coils, resistors...).

	B [mm]	C [mm]	E [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	ΔΔ [g]
426.E	10,5	13	7	5,5		0,1 - 1,2	-	65

ESD "high capacity" cutters:

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers are suited to major efforts and repetitive work over a broad range of materials.
- Fall prevention models avoid wire ejection.



	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	[g]
405.12E	16	16	8	130		0,4 - 2,0	1,0	105
415.E	16	16	8	130		0,3 - 2,0	1,0	105

ESD POINTED-NOSE PLIERS

- Are ideal where clearance is restricted and allow better visibility of the wire being cut.

SEMI-FLUSH CUT
Clean, long-life cut in semi-hard materials.

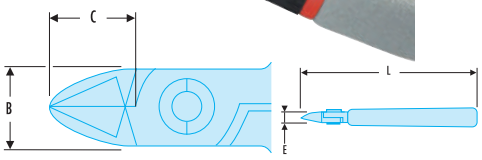
FLUSH CUT
Smooth cut for sound soldered connections.

SLIM NOSE CUTTING PLIERS

ESD "tip" cutters

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Compact noses for difficult access.

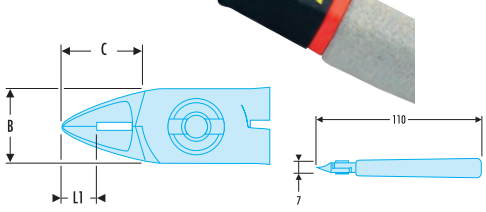


	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	[g]
416.E	10,5	10,5	7	110		0,1 - 1,0	0,5	65

ESD thin nose "machined" cutters: handling

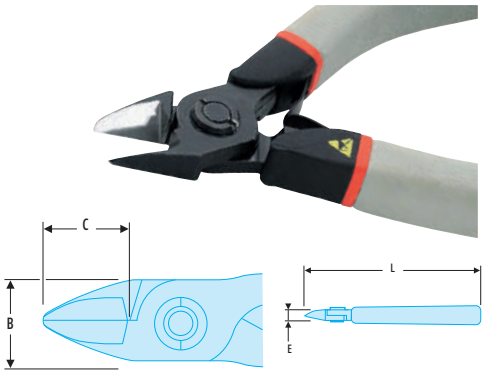
NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers pass under all obstacles of the PCB and provide better visibility.



	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	[g]
416.PE	10,5	10,5	7	110	6,5		0,1 - 0,8	0,4	65
417.PE	10,5	10,5	7	110	6,5		0,1 - 0,8	-	65

ESD "high capacity machined" cutters



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- Protection of electronic components from risks of electrostatic discharge (ESD).
- Broadly dimensioned for large series work.

	B [mm]	C [mm]	E [mm]	L [mm]	Cut	Cu - Ni Ø [mm]	Fe 30 HRc diam. [mm]	[g]
416.12E	16	16	8	130		0,3 - 1,6	0,7	105

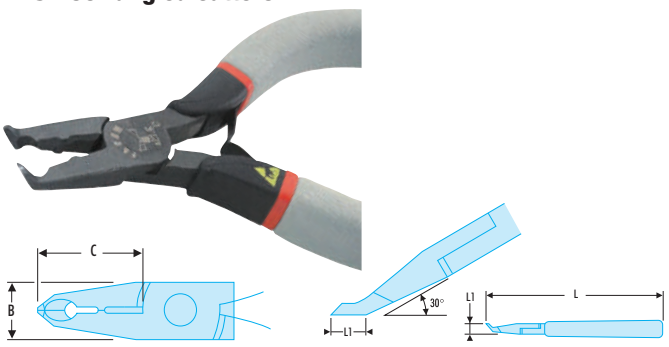
ESD ANGLED-NOSE PLIERS

- Ideal for use on printed circuits, electronic modules and hybrid circuits.
- Designed for cutting right up against the board in the minutest spaces.
- Flush cutting edges.

FLUSH CUT
Smooth cut for sound soldered connections.

ANGLED NOSE CUTTING PLIERS

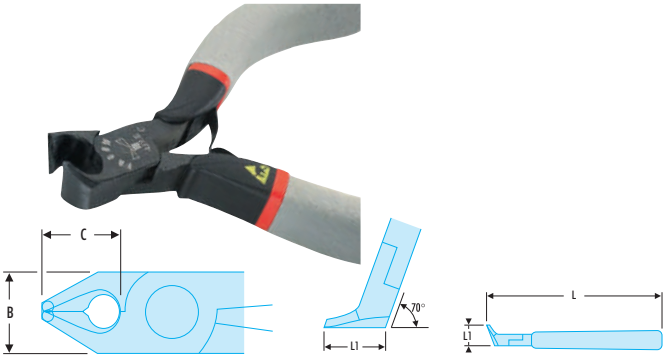
ESD 30° angled cutters



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- Protection of electronic components from risks of electrostatic discharge (ESD).
- Cutting edges angled at 30° with rear clearance.

	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	[g]
427.E	11	23	7	120	6		0,2 - 0,6	65

ESD 70° "angled" cutters



NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500
- Protection of electronic components from risks of electrostatic discharge (ESD).
- Cutting edges angled at 70° with rear clearance.

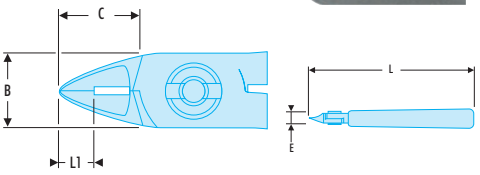
	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	[g]
429.E	11,5	12	7	110	12		0,2 - 1,0	66

CUTTING PLIERS FOR DIP-CMS COMPONENTS

ESD diagonal cutters for DIP-CMS components

NF ISO 9654, ISO 9654, DIN ISO 9654, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- These pliers provide access between two legs of "DIP" components with a 0.65 mm gap. Due to their shape, these pliers can be used only in this configuration.



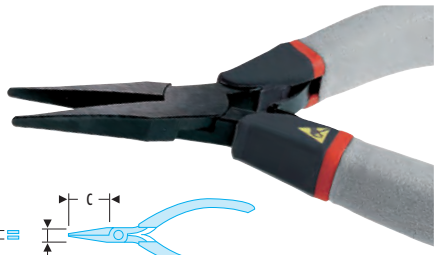
	B [mm]	C [mm]	E [mm]	L [mm]	L1 [mm]	Cut	Cu - Ni Ø [mm]	⚖ [g]
417.SPE	10,5	10,5	7	110	6,5		0,1 - 0,7	60

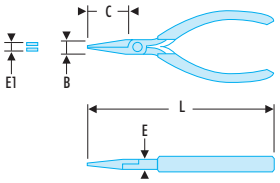
GRIPPING PLIERS

ESD flat nose shaping cutters

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Very thin nose.



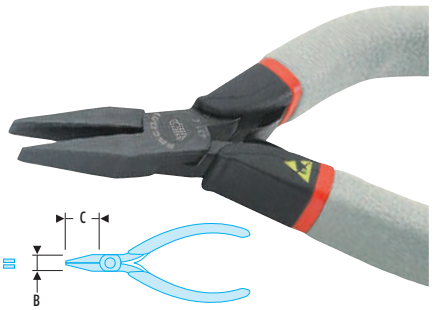


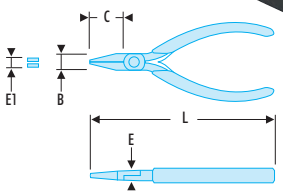
	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	⚖ [g]
420.E	9	21	7	1	125	65

ESD short flat nose cutters

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Narrow head, for high precision work.



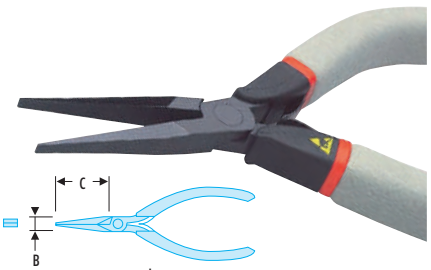


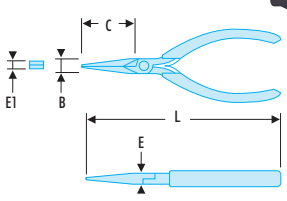
	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	⚖ [g]
431.E	9	20	6	1	135	75

ESD thin flat-nose pliers

NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

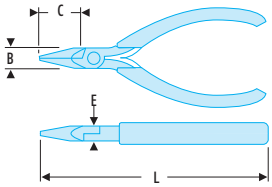
- Protection of electronic components from risks of electrostatic discharge (ESD).
- Narrow head, for high precision work.





	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	⚖ [g]
431.LE	9	35	6	1	135	75

ESD half-round nose cutters

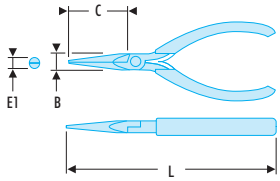


NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Fine mesh.

	B [mm]	C [mm]	E [mm]	L [mm]	⚖ [g]
432.E	9	26	6	120	70

ESD half-round thin nose cutters

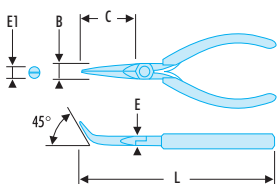


NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- Narrow mesh, for high precision work.

	B [mm]	C [mm]	E1 [mm]	L [mm]	⚖ [g]
432.LE	9	35	1,6	140	70

ESD half-round angled nose cutters



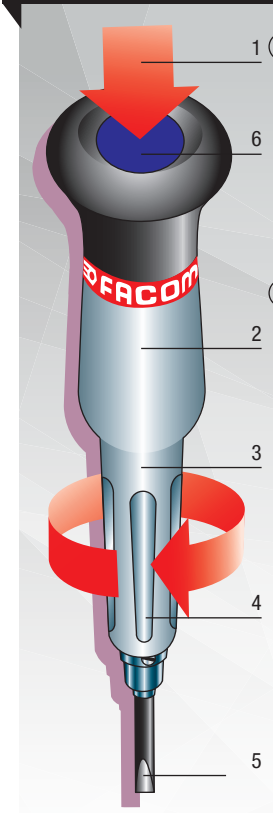
NF ISO 9655, ISO 9655, DIN ISO 9655, ASME B107.500

- Protection of electronic components from risks of electrostatic discharge (ESD).
- 45° angled nose.
- Narrow mesh, for high precision work.

	B [mm]	C [mm]	E [mm]	E1 [mm]	L [mm]	⚖ [g]
433.LE	9	35	6	1,6	135	70

SCREWDRIVERS

MICRO-TECH® SCREWDRIVERS



1 Efficient
- The screwdriver end is designed to provide an effective pressure area in each of the three micro-engineering screwdriver positions. This end also rotates to optimise the turning motion.

2 - 3 Powerful and accurate
- The body comprises a gripping surface designed for optimum torque transmission with handling accuracy. The handle is shaped so fingers can naturally grip the specially designed handle for total tool control.

4 Quick and easy to use
- The ribbed cone provides maximum grip for fast pre-tightening. Blade clearance gives a clear view of the job in hand.

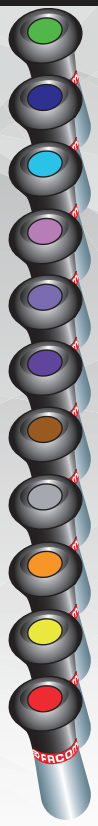
5 A large choice of blades
- A selection of over 50 high-precision steel or ceramic fixed or replaceable blades.

6 Easy identification
- Colour-coded by size for instant selection of the correct tool.

Finger-tip grip area

Watch makers grip area

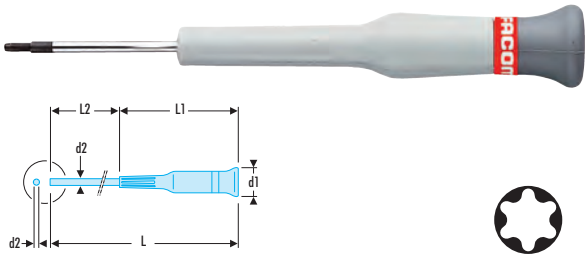
Full palm grip area



AEX - Micro-Tech® screwdriver for Torx® screws

- Chromed blade, hardened tip.

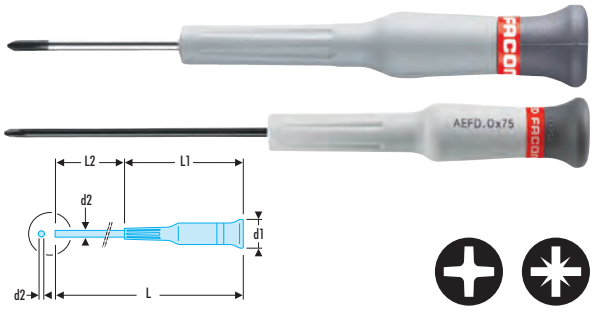
	d1 x L1 [mm]	d2 x L2 [mm]	L [mm]	Torx [No]	Colour	⚖ [g]
AEX.5X35	17 x 82	2,0 x 35	117	T5	Green	13
AEX.6X35	17 x 82	2,0 x 35	117	T6	Indigo	13
AEX.7X35	17 x 82	2,5 x 35	117	T7	Blue	13
AEX.8X75	21 x 93	2,5 x 75	168	T8	Pink	31
AEX.9X75	21 x 93	3,0 x 75	168	T9	Purple	33
AEX.10X75	21 x 93	3,0 x 75	168	T10	Plum	32
AEX.15X75	21 x 93	3,5 x 75	168	T15	Brown	35
AEX.20X75	21 x 93	4,0 x 75	168	T20	Grey	41



AEFP - AEFD Micro-Tech® screwdriver for Phillips® and Pozidriv® screws

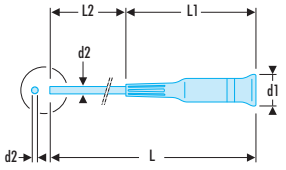
- AEFP presentation: chromed blade, hardened tip.
- AEFD presentation: hardened blade.

	d1 x L1 [mm]	d2 x L2 [mm]	L [mm]	Phillips [No]	Pozidriv [No]	Colour	⚖ [g]
AEFP.000X35	17 x 82	2 x 35	117	PH.000	-	Pink	11
AEFP.00X35	17 x 82	2,5 x 35	117	PH.00	-	Purple	12
AEFP.00X75	17 x 82	2,5 x 75	157	PH.00	-	Purple	15
AEFP.0X35	17 x 82	3,0 x 35	117	PH.0	-	Plum	13
AEFP.0X75	21 x 93	3,0 x 75	168	PH.0	-	Plum	32
AEFP.1X75	21 x 93	4,0 x 75	168	PH.1	-	Brown	37
AEFD.0X35	17 x 82	3,0 x 35	117	-	PZ.0	Orange	13
AEFD.0X75	21 x 93	3,0 x 75	168	-	PZ.0	Orange	32
AEFD.1X75	21 x 93	4,0 x 75	168	-	PZ.1	Brown	37



SCREWDRIVERS

AEF - Micro-Tech® screwdriver for slotted head screws



- Swivel head.
- Chromed blade, hardened tip.

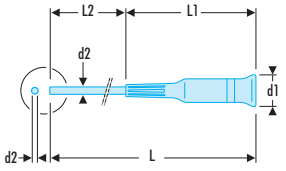
ref.	d1 x L1 [mm]	d2 x L2 [mm]	L [mm]	Colour	ΔΔ [g]
AEF.1,5X35	17 x 82	1,5 x 35	117	Yellow	12
AEF.1,8X35	17 x 82	1,8 x 35	117	Green	13
AEF.2X35	17 x 82	2,0 x 35	117	Indigo	13
AEF.2X75	17 x 82	2,0 x 75	157	Indigo	14
AEF.2,5X35	17 x 82	2,5 x 35	117	Blue	13
AEF.2,5X75	17 x 82	2,5 x 75	157	Blue	14
AEF.3X75	21 x 93	3,0 x 75	168	Pink	21
AEF.3,5X75	21 x 93	3,5 x 75	168	Purple	25
AEF.4X75	21 x 93	4,0 x 75	168	Plum	26

84E - Micro-Tech® screwdriver for male hex screws

- Hardened blade.

ref.	L [mm]	Colour	Hex Size [mm]	ΔΔ [g]
84E.0,9X35	117	Red	0,9	14
84E.1,3X35	117	Orange	1,3	15
84E.1,5X35	117	Yellow	1,5	15
84E.1,5X75	157	Yellow	1,5	15
84E.2X75	168	Green	2,0	30
84E.2,5X75	168	Indigo	2,5	32

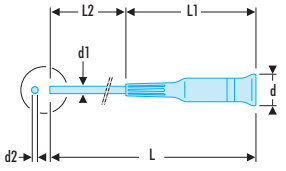
AEF - AEP - Micro-Tech® replaceable blade screwdriver



- Swivel head.
- Chromed blade, hardened tip.

ref.	d1 x L1 [mm]	d2 x L2 [mm]	L [mm]	Colour	ΔΔ [g]
AEF.1X35	17 x 82	1,0 x 35	117	Red	11
AEF.1,2X35	17 x 82	1,2 x 35	117	Orange	11

Micro-Tech® bit holder screwdriver for hex screws 4 mm

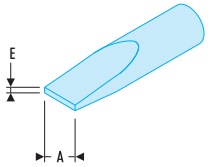


- For bits series 0 - 4 mm drive.
- Hardened blade.

ref.	A [mm]	d [mm]	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	ΔΔ [g]
AEM.M	4	21	6	167	93	72	50

BITS SERIES 0 - 4 MM DRIVE

ES.0 - Screwing bits series 0-drive 4 mm for slotted head screws



NF ISO 2351-1, NF ISO 1173, ISO 2351-1, ISO 1173, DIN ISO 2351-1

	E [mm]	E x l [mm]	L [mm]	A fente [No]	ΔΔ [g]
ES.002	0,4	0,4 x 2,0	28	2,0	3
ES.002,5	0,4	0,4 x 2,5	28	2,5	3
ES.003	0,5	0,5 x 3,0	28	3,0	3
ES.004	0,5	0,5 x 4,0	28	4,0	3
ES.004,5	0,6	0,6 x 4,5	28	4,5	3

EP.0 - Screwing bits series 0-drive 4 mm for Phillips® screws

NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

	L [mm]	Phillips [No]	ΔΔ [g]
EP.0X2	28	PH.00	3
EP.000	28	PH.0	3

EP.0 - Screwing bits series 0-drive 4 mm for Pozidriv® screws

NF ISO 2351-2, NF ISO 1173, ISO 2351-2, ISO 1173, DIN ISO 2351-2

	L [mm]	Pozidriv [No]	ΔΔ [g]
ED.0X2	28	PZ.00	3
ED.000	28	PZ.0	3
ED.001	28	PZ.1	3

EH.0 - Screwing bits series 0-drive 4 mm for hollow hex screws

NF ISO 2351-3, NF ISO 1173, ISO 2351-3, ISO 1173, DIN ISO 2351-3

	L [mm]	Hex Size [mm]	ΔΔ [g]
EH.000,9	28	0,9	3
EH.001,3	28	1,3	3
EH.001,5	28	1,5	3
EH.002	28	2,0	3
EH.002,5	28	2,5	3

ETS.0 - Screwing bits series 0-drive 4 mm for hollow hex spherical head screws

NF ISO 1173, ISO 1173

• The spherical head allows to screw with an angle up to 30°.

	L [mm]	Hex Size [mm]	ΔΔ [g]
ETS.001,5	28	1,5	3
ETS.002	28	2,0	3
ETS.002,5	28	2,5	3

EX.0 - Screwing bits series 0-drive 4 mm for Torx® screws

NF ISO 1173, ISO 1173

	L [mm]	Torx [No]	ΔΔ [g]
EX.006	28	T6	2
EX.007	28	T7	2
EX.008	28	T8	2
EX.010	28	T10	2

Socket holder drive

- Bit to use 1/4" "radio" series sockets with the screwdriver series A.300MT and A.340MT.
- Hex drive 4 mm.

	L [mm]	⚖ [g]
ECR.0	22	7

Micro-Tech® 12-piece screwdriver set

Contains:
- 5 slotted head screwdrivers: AEF.1x35 - AEF.1.2x35 - AEF.1.5x35 - AEF.2x35 - AEF.2.5x35.
- 2 Phillips® screwdrivers: AEFP.00x35 - AEFP.0x35.
- 3 hex screwdrivers: 84E.0.9x35 - 84E.1.3x35 - 84E.1.5x35.
- 2 Torx® screwdrivers: AEX.6x35 - AEX.7x35.

	L [mm]	⚖ [g]
MT.RS2	285	420

Micro-Tech® 5-piece screwdriver set slotted head - Phillips®

Contains:
- 4 slotted head screwdrivers: AEF.1.5x35 - AEF.1.8x35 - AEF.2x35 - AEF.2.5x35.
- 1 Phillips® screwdriver: AEFP.00x35.
- Case dimensions: L.178 x W.91 x H.25.

	l [mm]	L [mm]	⚖ [g]
AEF.J1	91	178	170

Micro-Tech® 8-piece screwdriver set slotted head - Phillips®

Contains:
- 5 slotted head screwdrivers: AEF.2x75 - AEF.2.5x75 - AEF.3x75 - AEF.3.5x75 - AEF.4x75.
- 3 Phillips® screwdrivers: AEFP.00x75 - AEFP.0x75 - AEFP.1x75.
- Case dimensions: L.205 x W.130 x H.31 mm.

	l [mm]	L [mm]	⚖ [g]
AEF.J3	130	205	384

Micro-Tech® 5-piece screwdriver set slotted head - Pozidriv®

Contains:
- 3 slotted head screwdrivers: AEF.2x75 - AEF.2.5x75 - AEF.3x75.
- 2 Pozidriv® screwdrivers: AEFD.0x75 - AEFD.1x75.
- Case dimensions: L.183 x W.109 x H.32 mm.

	l [mm]	L [mm]	Dimension [mm]	ΔΔ [g]
AEF.J5	109	183	255 x 180 x 30	230

Micro-Tech® 8-piece screwdriver set slotted head - Phillips® - Pozidriv®

Contains:
- 5 slotted head screwdrivers: AEF.2x75 - AEF.2.5x75 - AEF.3x75 - AEF.3.5x75 - AEF.4x75.
- 1 Phillips® screwdriver: AEFP.00x75.
- 2 Pozidriv® screwdrivers: AEFD.0x75 - AEFD.1x75.
- Case dimensions: L.215 x W.130 x H.31 mm.

	l [mm]	L [mm]	ΔΔ [g]
AEF.J6	130	215	385

Micro-Tech® 5-piece screwdriver set Phillips®

Contains:
- 5 Phillips® screwdrivers: AEFP.00x35 - AEFP.00x75 - AEFP.0x35 - AEFP.0x75 - AEFP.1x75.
- Case dimensions: L.183 x W.109 x H.32 mm.

	l [mm]	L [mm]	ΔΔ [g]
AEFP.J1	109	183	267

Micro-Tech® 5-piece screwdriver slotted head

Contains:
- 5 slotted head screwdrivers: AEF2x75 - AEF2.5x75 - AEF3x75 - AEF3.5x75 - AEF4x75.
- Case dimensions: L.183 x W.109 x H.32 mm.

	l [mm]	L [mm]	ΔΔ [g]
AEF.J2	109	183	237

MICRO-TECH® SCREWDRIVER KITS

Micro-Tech® 8-piece 8 piece replacable blade screwdriver set head - Phillips®

Comprising:
- 6 slotted head screwdrivers: AE.1x35 - AE.1.2x35 - AE.1.5x35 - AE.1.8x35 - AE.2x35 - AE.2.5x35.
- 2 Phillips® screwdrivers: AEP.000x35 - AEP.00x35.
- Case dimensions: L.205x W.130 x H.31 mm.

	l [mm]	L [mm]	[g]
AE.J1	130	205	270

Micro-Tech® 5-piece screwdriver set Torx®

Comprising:
- 5 Torx® screwdrivers: AEX.6x35 - AEX.7x35 - AEX.8x75 - AEX.9x75 - AEX.10x75.
- Case dimensions: L.183x W.109 x H.32 mm.

	l [mm]	L [mm]	[g]
AEX.J1	109	183	280

Micro-Tech® 8-piece screwdriver set Torx®

Comprising:
- 8 Torx® screwdrivers: AEX.5x35 - AEX.6x35 - AEX.7x35 - AEX.8x75 - AEX.9x75 - AEX.10x75 - AEX.15x75 - AEX.20x75.
- Case dimensions: L.205 x W.130 x H.31 mm.

	l [mm]	L [mm]	[g]
AEX.J2	130	205	335

5-piece set of hex screwdrivers

Comprising:
- 5 hex screwdrivers: 84E.0.9x35 - 84E.1.3x35 - 84E.1.5x35 - 84E.2x75 - 84E.2.5x75.
- Case dimensions: L.183 x W.109 x H.32 mm.

	l [mm]	L [mm]	[g]
84E.J1	109	183	250

MICRO-TECH® KIT

10-piece Micro-Tech® set of short combination wrenches

Comprising:
- 10 combination wrenches series 39:
  3.2 - 4 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 mm.
- Case dimensions: L. 123 x W.95 x H.28 mm.

	A [mm]	⚖ [g]
39.JE10	3,2 - 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11	266

Micro-Tech® 11-tool set

Comprising:
- 5 slotted head screwdrivers: AE.1.2 x 35 - AEF.1.5 x 35 - AEF.1.8 x 35 - AEF. 2 x 35 - AEF.2.5 x 35.
- 3 Phillips® screwdrivers: AEFP.000 x 35 - AEFP.00 x 35 - AEFP.0 x 35.
- 1 pair of tweezers: 140A.
- 2 pair of pliers: 405.10 MT - 432 LMT.
- Case dimensions: L.285 x W.138 x H.26 mm.

	l [mm]	L [mm]	⚖ [g]
MT.J3	138	285	726

Micro-Tech® 16-tool set

Comprising:
- 6 slotted head screwdrivers: AE.1 x 35 - AE.1.2 x 35 - AEF.1.5 x 35 - AEF.1.8 x 35 - AEF.2 x 35 - AEF.2.5 x 35.
- 2 Phillips® screwdrivers: AEP.000 x 35 - AEFP.00 x 35.
- 3 hex screwdrivers: 84E.0.9 x 35 - 84E.1.3 x 35 - 84E.1.5 x 35 .
- 2 pairs of pliers 405.10MT- 432LMT.
- 1 pair of scissors 841.MT.
- 1 cutter 845.1.
- 1 pair of tweezers 140AA.
- Case dimensions: L.366 x W.180 x H.66 mm.

	l [mm]	L [mm]	⚖ [kg]
MT.J1	180	366	1.1

Micro-Tech® 16-tool set - screwdriver + bits

Comprising:
- 1 bit holder screwdriver AEM.M.
- 5 bits series 0 for slotted head screws: ES.002 - ES.002.5 - ES.003 - ES.004 - ES.004.5.
- 2 bits series 0 for Phillips®: EP.0x2 - EP.000.
- 2 bits series 0 for Pozidriv®: ED.0x2 - ED.000.
- 3 bits series 0 hex: EH.001.5 - EH.002 - EH.002.5.
- 3 bits series 0 hex spherical head: ETS.001.5 - EH.002 - EH.002.5.
- Case dimensions: 183 x 109 x 32 mm.

	l [mm]	L [mm]	⚖ [g]
AEM.J1	109	183	237

Micro-Tech® 26-tool set - socket holder + bits + sockets

Comprising:
- 1 bit holder screwdriver AEM.M.
- 5 bits series 0 for slotted head screw: ES.002 - ES.002.5 - ES.003 - ES.004 - ES.004.5.
- 2 bits series 0 for Phillips®: EP.0x2 - EP.000.
- 2 bits series 0 for Pozidriv®: ED.0x2 - ED.000.
- 3 bits series 0 hex: EH.001.5 - EH.002 - EH.002.5.
- 3 bits series 0 hex spherical head: ETS.001.5 - EH.002 - EH.002.5.
- 4 bits series 0 for Torx: EX.006 - EX.007 - EX. 008 - EX.010.
- 1 socket holder ECR.0.
- 5 1/4" sockets: R.3.2 - 4 - 5 - 5.5 - 7 mm.
- Case dimensions: 205 x 130 x 31 mm.

	l [mm]	L [mm]	⚖ [g]
AEM.J2	130	205	340

WATCHMAKER SCREWDRIVER SETS

5-piece watchmaker screwdriver set for slotted head screws

Comprising:
- 5 screwdrivers for slotted head screws: 0.8 x 13 - 1 x 16 - 1.2 x 17 - 1.6 x 19 - 2.5 x 21 mm.
- Presentation: chromed, hardened blade.
- In plastic case.

	⚖ [g]
HB.1B	130

6-piece watchmaker screwdriver set for Phillips® - hex screw

Comprising:
- 3 hex screwdrivers: 1.5 - 2 - 2.5 mm.
- 3 Phillips® screwdrivers: PH N°00 - 0 - 1.
- Presentation: chromed, hardened blade.
- In plastic case.

	⚖ [g]
HB.2B	200

9-piece watchmaker screwdriver set for slotted head screws

Comprising:
- 9 slotted head screwdrivers: 0.6x11 - 0.8x11 - 1x12 - 1.2x12 - 1.4x12 - 1.6x15 - 2x15 - 2.5 x 15.5 - 3x15.5 mm.
- Replaceable blades.
- Supplied on carrousel with blade reserve.

	⚖ [g]
HB.4	340

STANDARD SERIES

140 - Tweezers anti-magnetic or anti-reflection straight models

- Smooth pointed nose.
- 140.AA: satin polished presentation. Anti-magnetic stainless steel material.
- 140.AAW13: anti-reflection black presentation. Carbon steel material.

	L [mm]	Finish	⚖ [g]
140.AA	125	Satin polished	17
140.AAW13	130	Anti-reflection black	16

Tweezers straight model - narrow nose

- Smooth narrow and pointed nose.
- Stainless steel.
- Presentation: fine polished.

	L [mm]	⚖ [g]
148	130	15

Tweezers straight model - fine grooved nose

- Long, thin, groove tip nose with guide.
- Stainless steel.
- Presentation: fine polished.

	L [mm]	⚖ [g]
149	155	18

Tweezers straight model - strong grooved nose

- Long, strong, groove tip nose with guide.
- Stainless steel.
- Presentation: fine polished.

	L [mm]	⚖ [g]
150	165	22

Tweezers model angled at 40°

- Long, strong, groove tip nose with guide.
- Stainless steel.
- Presentation: fine polished.

	L [mm]	⚖ [g]
151	155	22

Tweezers model angled at 45°

- Thin, grooved nose with guide.
- Stainless steel.
- Presentation: fine polished.

	L [mm]	⚖ [g]
152	150	19

Tweezers straight model - cross nose

- Grooved, crossed, self-locking nose.
- Stainless steel.
- Presentation: fine polished.

	L [mm]	[g]
153	150	23

Tweezers straight model - power nose

- Power, rigid, grooved nose for wiring.
- Stainless steel.
- Presentation: fine polished.

	L [mm]	[g]
154	155	30

PVC SHEATH SERIES

PVC sheath tweezers straight model

	L [mm]	[g]
149.Y	155	25

PVC sheath tweezers model angled at 45°

	L [mm]	[g]
152.Y	150	25

PVC sheath tweezers model for picking components - straight shank

- Diameter 2.5 to 4 mm, in the axis of the tweezers.

	L [mm]	[g]
146.1Y	140	25

PVC sheath tweezers model for picking components - perpendicular shank

- Diameter 2.5 to 4 mm, perpendicular to the tweezers axis.

	L [mm]	[g]
146.2Y	140	25

HIGH PRECISION SERIES

Tweezers "high precision" straight very pointy model

- Extra-flexible, smooth very pointed nose.

	L [mm]	⚖ [g]
141.11	110	13

"High precision" tweezers straight model

- Extra-flexible, smooth very pointed nose.

	L [mm]	⚖ [g]
141.12	130	14

"High precision" tweezers straight model - cleared nose

- Extra-flexible, smooth very pointed nose.

	L [mm]	⚖ [g]
142.1	112	13

"High precision" tweezers 15° angled model - cleared nose

- Extra-flexible, smooth very pointed nose.

	L [mm]	⚖ [g]
142.2	117	15

"High precision" tweezers curved straight model

- Extra-flexible, smooth very pointed nose.

	L [mm]	⚖ [g]
143	114	14

Tweezers "high precision" straight model - very slim nose

- Fine rounded, smooth nose.

	L [mm]	⚖ [g]
144	120	17

Tweezers "high precision" straight model - wide flat nose

- Smooth nose.
- Nose width: 7 mm.

	L [mm]	⚖ [g]
145	123	14

"High precision" tweezers straight power model

- Thin grooved nose.

	L [mm]	⚖ [g]
156	110	15

SPECIAL TWEEZERS

Plastic tweezers straight model - sterilizable

- Material: polypropylene, sterilizable 180 °C max.

	L [mm]	⚖ [g]
150.P1	125	6

150.P - Plastic tweezers straight models - anti-static

- Material: glass fiber reinforced (20%) anti-static polyamide.
- Anti-magnetic.
- Resistant to acid.
- Resistant to temperatures up to 200 °C.
- Precision, smooth nose.
  - 150.P10: wide straight nose.
  - 150.P11: thin angled nose.

	L [mm]	⚖ [g]
150.P10	120	5
150.P11	120	5

Tweezers cutting model for extra-thin wires

- Carbon alloy steel for perfect cutting edges.
- Very high precision cut.
- Presentation: fine polished.
- Nose tip width: 10 mm.

	L [mm]	⚖ [g]
139	110	27

SETS OF TWEEZERS

Set of 7 tweezers

- The set is presented in plastic case.

	L [mm]	Set contents	Dimension [mm]	⚖ [g]
147.J7	205	140.AA - 141.14 - 142.1 - 142.2 - 143 - 144 - 145	205 x 130 x 31	335

SPECIAL MICRO-TECH® PLIERS

CIRCLIP® PLIERS

Set for inside and outside circlips®

Contains:
- 1 outside circlips plier 467.PMT.
- 1 inside circlips plier 469.PMT.

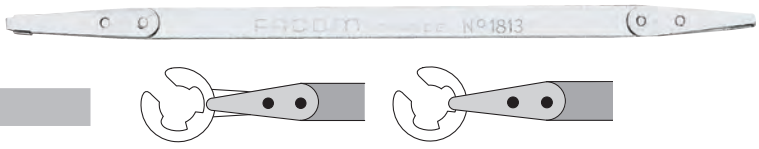
These pliers include a spring-assisted opening and a screw-stop adjustment to avoid deforming the circlips and ensure precise fitting or removal.
- 6 sets of straight and angled tips.
- 1 key.
- Chrome polished. PVC sheathed branches.
- Supplied in plastic case: 285 x 142 x 46 mm.

	l [mm]	L [mm]	⚖ [g]
470.MT	142	285	600

TRUARC® PLIERS

Tool for Truarc® rings

- For fitting and removing Truarc rings, maximum diameter 6 mm, in difficult access locations.



	L [mm]	⚖ [g]
1813	170	19

VARIOUS TOOLS

SCISSORS

"Stubby" scissors

- For high precision cutting.
- Left/right hand model.
- Chrome polish, PVC sheathed branches.

	L [mm]	⚖ [g]
841.MT	155	10

CUTTER

Interchangeable-blade safety knife

- For precise and neat cutting.
- Blades perfectly held.
- 2 types of blades.
- Length: 150 mm.
- Knife supplied with 10 L1-type blades.
- Spare blades:
  - 845.L1: Set of 10 straight thin blades.
  - 845.L2: Set of 10 offset blades.

	L [mm]	⚖ [g]
845.1	150	15

HACKSAW FRAME

Micro-Tech® hacksaw frame

- Ideal for light duty work on plastic, wood or metal.
- Ergonomic grip handle for comfort.
- Light weight for intensive use.
- Zamak lacqueced for longer life.
- Supplied with a 150 mm blade.

	L [mm]	⚖ [g]
607.MT	262	140

Saw blades

- Set of 5 blades 12 teeth/cm

	⚖ [g]
608.L12	14

VARIOUS TOOLS

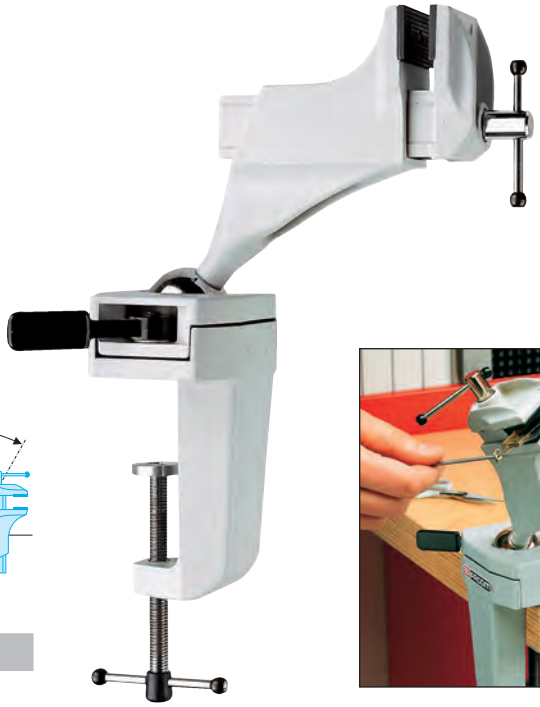
Clamp tool-holder

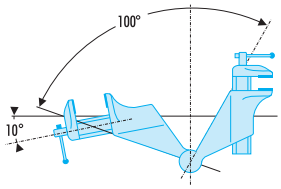
- Each end has a double clamp and a chuck.
- Can be fitted with any cylindrical tool diameter 0.5 to 3.5 mm.

	L [mm]	⚖ [g]
1817	110	35

Micro-Tech® swivel-base vice

- Designed for a comfortable work position ensuring high precision.
- Instant locking lever on swivel base.
- Fastener for firm fastening on a support of 80 mm thick max.
- Jaws in glued plastic, width: 50 mm.
- Max opening: 70 mm.
- Max depth: 38 mm.





	⚖ [kg]
1150.MT	1.4

Pen oil can

- For precise greasing, drop by drop, by pressing the button.
- Level visible.
- Protection cap.
- Metal fastener for clipping in the pocket.
- Spread: 5 cm³.

	⚖ [g]
372	20

Spring hook

- With pusher hook and traction hook.
- Presentation: chromed, sheathed.

	L [mm]	⚖ [g]
835A	200	13

Separator

- With a fork and tip diameter 0.5 mm.
- Presentation: chromed, sheathed.

	L [mm]	⚖ [g]
835.1	210	15

Pen light

- 1 3W LED.
- 110 lumens.
- 2 304 lux at 0,5 m.
- Running time 3,5 hours.
- Protection rating: IP65.
- Supplied with: 2 AAA batteries, shop and protection pouch.

	⚖ [g]
779.PBT	58

1830 - Brushes

1830.1

1830.3

1830.4

- For cleaning, removing dust.
  1830.1: Extra-soft silk brush.
  1830.3: Etching brush: nylon outside, metallic wires at the centre.
  1830.4: Soft nylon brush.

	L [mm]	L1 [mm]	⚖ [g]
1830.1	190	-	17
1830.3	190	50	35
1830.4	230	100	30

Set of 2 tuning screwdrivers for slotted head screws

- Screwdriver dimensions:
  - HT.2x2.4: 2 and 2.4 mm.
  - HT.3x4: 3 and 4 mm.
- Screwdrivers available per unit.
- Supplied in roll.

	⚖ [g]
HT.3	26

Mechanical retriever with 4 claws

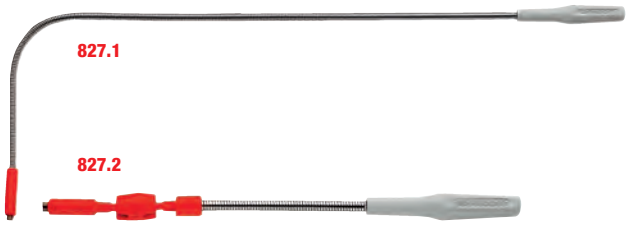
- To recover small flat parts with max diameter 30 mm.
- Presentation: nickel-plated.

	⚖ [g]
826.0	20

827 - Extra-thin flexible magnetic retrievers

- 827.1: flexible and long model head diameter 7 mm.
- 827.2: ball joint model head diameter 8 mm.
- Max lifted weight: 120 g.

	L [mm]	ΔΔ [g]
827.1	530	80
827.2	210	26



Flexible magnetic retriever

- Magnet diameter: 12 mm.
- Max lifted weight: 850 g.

	L [mm]	ΔΔ [g]
827.M	570	220

Flexible magnetic retriever - high power

- Powerful magnet (3 kg).
- Magnetic flux conductor prevents sticking to sides.
- Length 560 mm, adjustable stiffness.
- Magnet diameter: 12 mm.

	L [mm]	ΔΔ [g]
827B	560	130

"Luminous" flexible magnetic retriever

- Magnet diameter: 15 mm.
- Max lifted weight: 1.2 kg.
- LR1 battery.

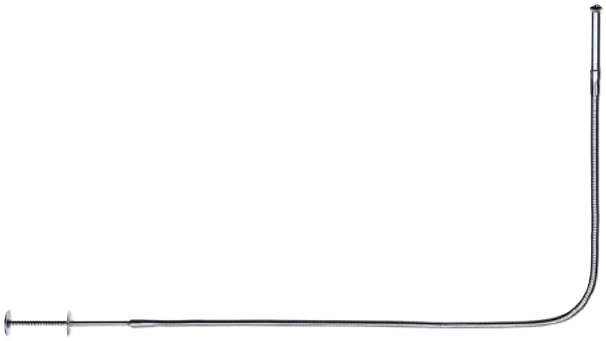
	L [mm]	ΔΔ [g]
828	590	220

Flexible mechanical retriever 460 mm

- Max nose opening diameter: 29 mm.

	L [mm]	ΔΔ [g]
828.1	460	200

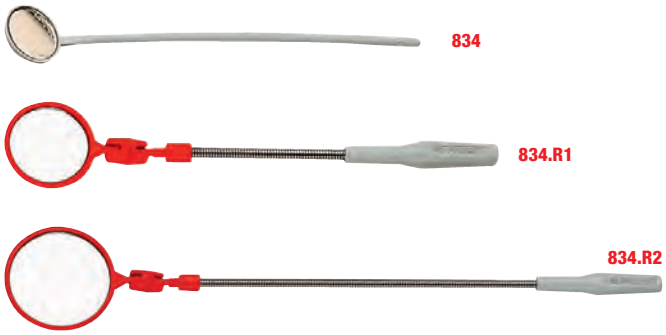
Flexible mechanical retriever 1000 mm



- Max nose opening diameter: 29 mm.

	L [mm]	⚖ [g]
826.2	1000	400

834 - Inspection mirrors



- Mirror crimped on plastic.
  - 834: one-piece rigid.
  - 834.R1: jointed and flexible.
  - 834.R2: jointed and flexible.

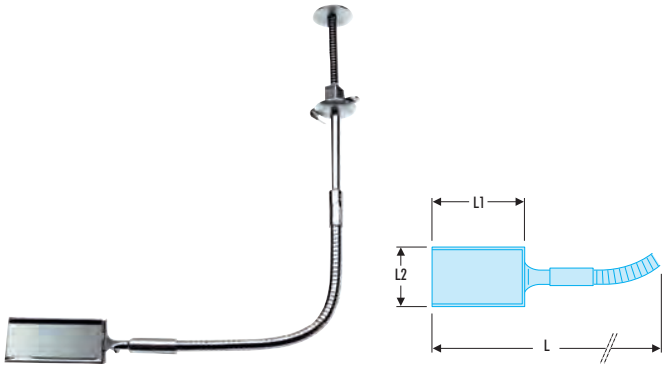
	d [mm]	L [mm]	⚖ [g]
834	24	175	4
834.R1	36	210	13
834.R2	55	360	40

Inspection mirror

- Mirror in scratch resistant glass, available as spare parts.
- Metallic strapping around the glass for better protection.
- Join easily adjustable, or even locked, by screw.
- Solvent resistant plastic handle: Skydroll, gasoil…
- Max length 850 mm.
- Mirror diameter 55 mm.
  - 834B.RT01: Spare mirror.

	⚖ [g]
834B.RT	80

Flexible orientable mirror



- The mirror is turned by pressing the button on the handle.

	L [mm]	L1 (mm)	L2 [mm]	[g]
829	495	70	45	225

834A.R - Flexible mirrors

- Flexible mirror adapting to all types of parts.
- Hinged head for enhanced visibility in cluttered locations.

	d [mm]	L [mm]	ΔΔ [g]
834A.R	70x45	308	44

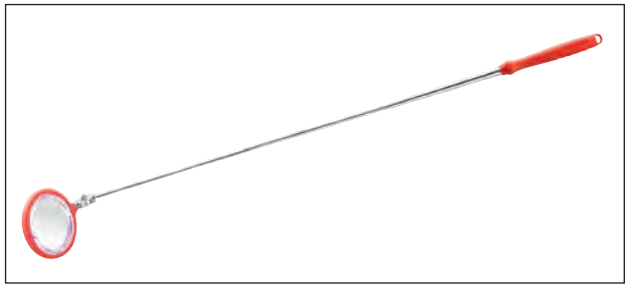
834B.RTI - Telescopic mirrors

- Mirror with LED back lighting for better visibility in dark areas.
- Scratch resistant glass.
- Molded plastic rim around the glass to protect parts and ensure mirror durability.
- Joint easily adjustable, and lockable by screw.
- Ergonomic plastic handle resistant to solvents: Skydroll, diesel fuel, etc.
- Max length 850 mm.

	d [mm]	L [mm]	ΔΔ [g]
834B.RTI	55	955	78
834B.RTIS	33	935	68
834B.RTIR	70x54	970	88

Telescopic mirror with magnifying effect

- Mirror with magnifying effect.
- Scratch resistant glass.
- Molded plastic rim around the glass to protect parts worked on and ensure mirror durability.
- Joint easily adjustable, and lockable by screw.
- Ergonomic plastic handle resistant to solvents: Skydroll, diesel fuel, etc.
- Max length 850 mm.



	ΔΔ [g]
834B.RTIM	78

VARIOUS TOOLS

Black mini wire-holder

- Insulated model with 2 claws, flexible tube diameter 3 mm.

	L [mm]	⚖ [g]
1802A.N	130	10

Red mini wire-holder

- Insulated model with 2 claws, flexible tube diameter 3 mm.

	L [mm]	⚖ [g]
1802A.R	130	10

Black contact tip

- Insulated model, brass tip and socket diameter 4 mm for 1804B chord.
- Supplied with protection cap.

	⚖ [g]
1803A.N	15

Red contact tip

- Insulated model, brass tip and socket diameter 4 mm for 1804B chord.
- Supplied with protection cap.

	⚖ [g]
1803A.R	15

Black connection cable

- Very flexible insulated model with retractable protection.
- 2 connectors diameter 4 mm for contact tip and mini-wire-holder.
- Length: 2.1 m.

	L [m]	⚖ [g]
1804B.N	2.1	50

Red connection cable

- Very flexible insulated model with retractable protection.
- 2 connectors diameter 4 mm for contact tip and mini-wire-holder.

	L [m]	⚖ [g]
1804B.R	2.1	50

THERMOREGULATED SOLDERING UNITS

Anti-static digital welder 68 watts

- Ultra fast heating time: 9 s.
- Automatic standby mode for less power consumption and automatic power off.
- Super compact station.
- Temperature calibration possible for higher accuracy. Reduction of temperature of the display and that of the soldering iron tip.
- Setpoint temperature: 360 °C / 680 °F.
- Temperature range: 150 to 450 °C, 300 to 842 °F.
- Stability: + or – 2°c.
- Power: 68 W.
- Supply voltage: 220 - 240 V ~ 50/60 Hz 110 - 120 V ~ 50/60 Hz.
- Dimensions (L x H x D): 145 mm x 80 mm x 103 mm.
- Soldering iron 1003B.68E:
  Dimensions: L x handle ø / 175 mm x 12 mm.
  Cable length: 950mm.
  Weight: 30 g (without cable).
- Holder:
  Dimensions (L x H x D): 140 mm x 80 mm x 80 mm.
  Weight: 200 g.
  Spare iron tips 1003B.68E:
  - 1003B.P1: thin pen tip (0.4mm).
  - 1003B.P2: large pen tip (1.0mm).
  - 1003B.P3: screwdriver tip (1.6mm).

	L [mm]	⚖ [kg]
1003B.E	145	1.0

Soldering iron stand

- Stores a soldering iron type Facom 1230 or equivalent immediately after welding work. It can be transported safely in a maintenance case. The insulating part does not contain any asbestos.
- 180 x diameter 35 mm.

	⚖ [g]
BV.21-10	210

Electronic soldering iron

- Power: 68 W.
- Supply voltage: 220 - 240 V ~ 50/60 Hz 110 - 120 V ~ 50/60 Hz.
- Dimensions: L x handle ø / 175 mm x 12 mm.
- Cable length: 950mm.

	⚖ [g]
1003B.68E	136

ELECTRONIC IRONS

Electronic soldering

- More ergonomic grip
- Uses less power / more energy efficient
- Faster heating time / consistent temperature and recovers quickly between usages
- More suited for electronic applications
- No change to quality, durability and better temperature results expected by the professional user
- Power supply 230V
- Range from 15W to 40W.
- 1.5M cable length. PVC 2 conductor cable (2x 0.75)
- Supplied with iron stand.
  Spare tips:
  - Pointy tip 1230.15-35P2
  Supply with standard tip & black stand.

	Range [W]	⚖ [g]
1230B.15	15	219
1230B.20	20	219
1230B.25	25	219

Bi-watt 20-40 electronic soldering

- More ergonomic grip
- Uses less power / more energy efficient
- Faster heating time / consistent temperature and recovers quickly between usages
- More suited for electronic applications
- New higher max temperature at 440
- No change to quality, durability and better temperature results expected by the professional user
- Power supply 230V
- 1.5M cable length. PVC 2 conductor cable (2x 0.75)
- Supplied with iron stand.

	⚖ [g]
1116C.BW	219

Instant-heat 100 W - 230 V soldering iron

- Double insulation.
- Ready to run (5 s) once the trigger pressed.
- When the trigger is released, the tip cools down instantly.
- Useful for punctual and intermittent work, handy in maintenance case.
- Lighting device effective and well protected.
- Supplied with 3 stainless steel tips for power 40, 70 and 100 W, a tightening key, a coil of tin and a 1 pot of etching paste in a polystyrene case.
- PVC 2-conductor cable (2 x 0.75 mm²). Length: 1.25 m.
- Connector with 2 poles.
- Spare tip: 848.100P2

	L [mm]	⚖ [g]
848B.100	270	1000

HIGH POWER SOLDERING IRONS

947A - High power irons - 230 V

- Power range from 50 to 400 W.
- Supplied with an angled tip.
- Very high yield with excellent robustness.
- Shape designed for difficult access.
- Shiny copper tips.
- Stainless steel heating body tube.
- These irons meet the requirements of the EN 60335 - 2 - 45 standard.

	Ø Peak [mm]	L [mm]	Peak	Rating [W]	Peak temp ± 10% [°]	ΔΔ [g]
947.50	6	266	947.50P1	50	390	290
947.80	8	295	947.80P1	80	400	330
947A.100	10	300	947.100P1	100	420	440
947A.200	15	315	947.200P1	200	450	675
947A.300	20	320	947.300P1	300	470	960
947A.400	20	320	947.300P1	400	500	960

SOLDERING ACCESSORIES

839 - Desoldering pumps

- Double gasket: one provides cleaning, allowing the other to guarantee perfect sealing.
- Sets of 5 spare tips:
- 839.E1J5: standard, white.
- 839.EJ5: thin, black, antistatic.

	L [mm]	Contents	ΔΔ [g]
839A	190	Plastic wallet	75
839A.0	165	Plastic wallet	36
839A.1	200	Plastic wallet	78
839A.7	195	Plastic wallet	78

Desoldering braid

- This braid provides remarkable absorbing qualities. It avoids thermal shock for delicate components.
- Width: 1.6 mm.
- Length: 1.6 m.

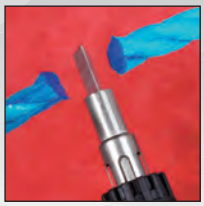
	Width l [mm]	L [mm]	ΔΔ [g]
1130.1	1.6	1600	15

GAS SOLDERING IRON

GAS SOLDERING IRON

One tool - four functions






1 Soldering (Electronics, etc.).
2 Hot fitting (Heat-shrinkable tubing, etc.).
3 Blowtorch
4 Hot-cutting (Plastic, rubber, etc.).

- Rechargeable butane gas burner.
- Integral ignition system (Piezo-electric system).
- Adjustable power setting.
- Safe: The cap on the end of the nozzle keeps the gas control valve closed.

Gas soldering iron

- Tip temperature: 250°C ~ 550°.
- Blow torch: 1100°C.
- Max temperature: 1300°C.
- Piezo-electric ignition.
- Fuel content 10 ml.
- Operating time (per recharge) 55 min. For half-filling.
- Heating time 40 sec.
- Power: 24 Watts.
- Dimensions:
  - Cap included: 198 mm.
  - Length: With tip: 189 mm.
  - With heat blower: 181 mm.
- Rechargeable with butane gas (iron supplied empty).
- 4 soldering tips: 1075.HS.
- 1 solder wire reel: 1075.HD.

	⚖ [g]
1075.H	278