

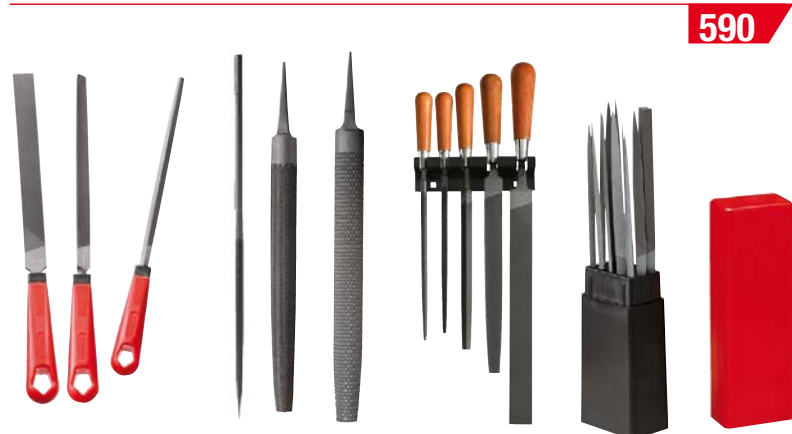


## SAWING



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## WORKSHOP DRILL BITS, TAPS AND DIES



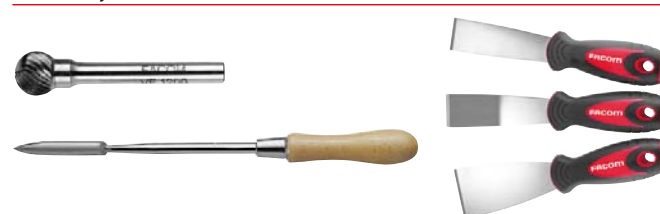
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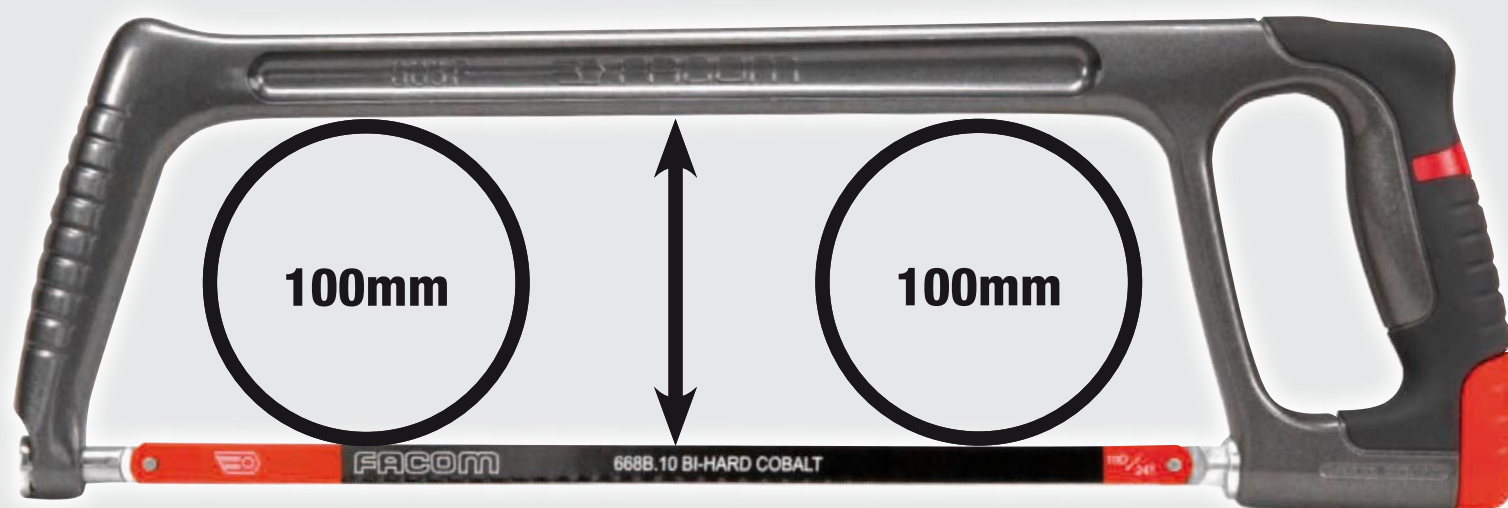
Punch kit..... 624





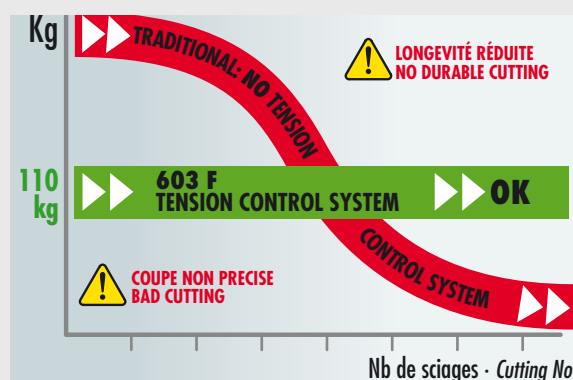
## Hacksaw frame

### HIGH PERFORMANCE HACKSAW FRAME 603F



#### OPTIMUM AND DURABLE CUT

- Constant blade tension: 110 kg controlled automatically.
- Rigid aluminium bow.
- Bi-material ergonomic handle to reduce vibrations.



#### Exact cutting

- For a perfect tension control (110 kg), turn the button till CLACK.

#### SAVE TIME

- Cutting capacity 100 mm over the full bow length.
- Ultra-fast blade changing.
- 8 cutting positions (every 45°).



360°

- 8 positions

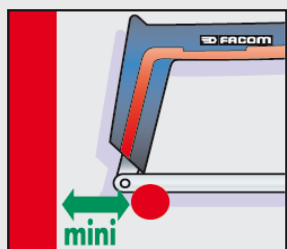


### 603F «High performance» hacksaw frame

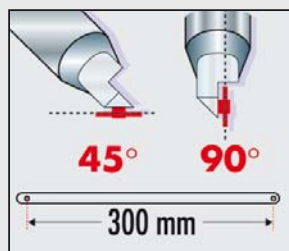


#### NF E 73-073, DIN 6473

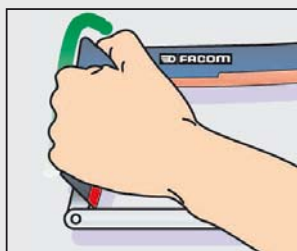
- Optimum and durable automatic blade tension control at 110 kg.
- Aluminium bow for maximum stiffness.
- Ergonomic handle for maximum cutting comfort.
- 8 blade positions.
- Ultra-fast blade changing.
- Takes 300 mm blade.
- Dimensions (L. x W.): 440 x 145 mm.
- Supplied with one blade.
- Weight: 830 g.
- Spare blades: 668B.

**"TRAVELLING" HACKSAW FRAME 601****PRACTICAL AND COMPACT**

Minimum clearance  
to start cutting.



2 blade positions  
on machined and shouldered pins.



Left-hand rest.



Compact: stored in a  
5-compartment box and  
in roller-cabinet modules.

**601 Compact hacksaw frame****NF E 73-073, DIN 6473**

- Impact-resistant steel/resin construction compact and lightweight.
- Blade tension 80 kg.
- 2 blade positions: 45° and 90°.
- Takes 300 mm blade.
- Dimensions (L. x W.): 385 x 145 mm.
- Supplied with one blade.

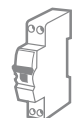
Weight: 590 g.

- Spare blades: 668B.

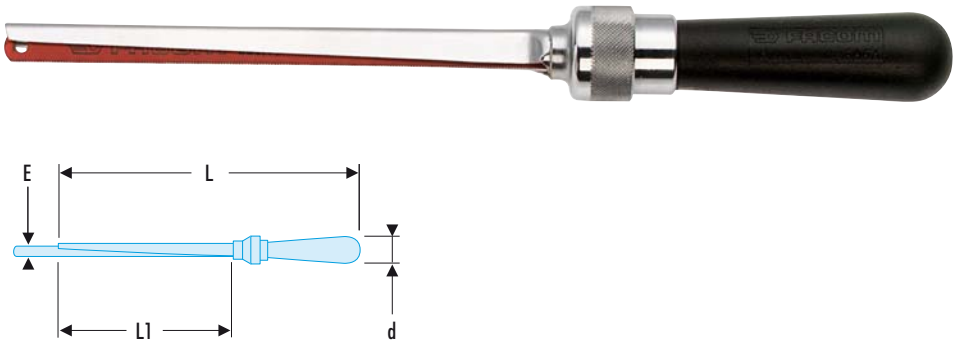
**MOD.601 Saw, tape measure and files module**

- Comprising:
  - 601: Hacksaw frame.
  - 666B.10 10: Saw blades (10 teeth per cm).
  - 234.S: Scriber.
  - 803.300M: Stainless steel 2-face rule 300 mm.
  - 893.316: Tape measure 3m.
  - 5 files with handle: PAM.B250EMA (flat bastard file) - DRD. MD250EMA (half-round, half-smooth) - CAR.MD200EMA (square file, half-smooth) - TRI.MD200EMA (triangular file, half-smooth) - RD.MD200EMA (round file, half-smooth).
  - Tray PL.335.

Weight: 2.300 kg.



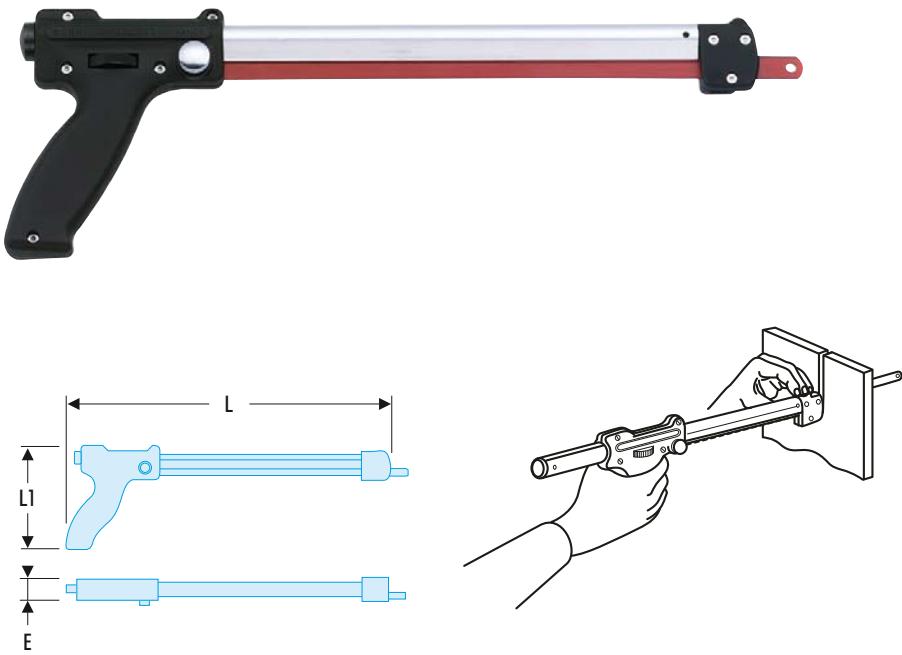
■ Straight frame with blade backing



- Blade can be set to protrude beyond the backing to allow insertion into narrow gaps.
- Takes 300 mm blade.
- Spare blades: 668B.

|  | d [mm] | E [mm] | L [mm] | L1 [mm] | ΔΔ [g] |
|-------------------------------------------------------------------------------------|--------|--------|--------|---------|--------|
| 606A                                                                                | 33     | 16     | 350    | 190     | 410    |

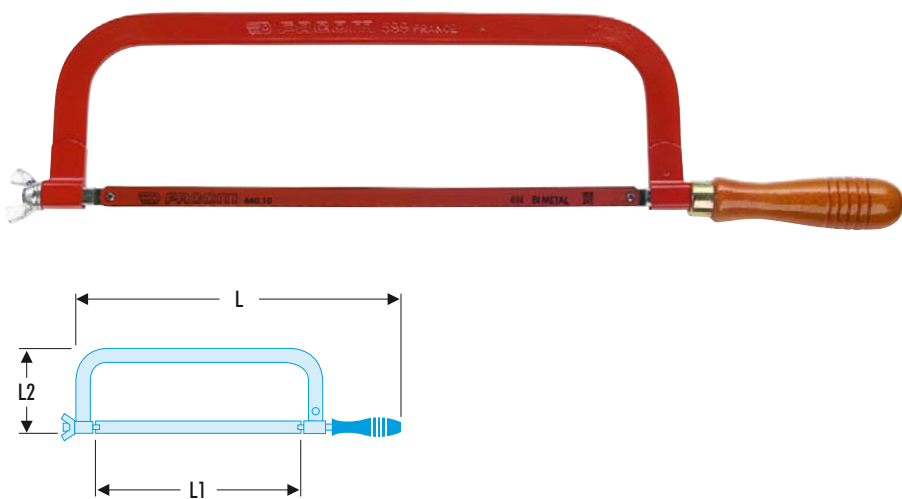
■ Revolver frame with sliding blade-guide



- Sliding guide steadies blade throughout cutting stroke.
- A thumbscrew can lock the guide to keep blade end clear.
- Takes 300 mm blade.
- Spare blades: 668B.

|  | E [mm] | L [mm] | L1 [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|--------|--------|---------|--------|
| 605.B                                                                                 | 30     | 370    | 130     | 780    |

■ Flat bow frame - adjuster fitting



- NF E 73-073, DIN 6473,
- Wood handle.
  - Takes 300 mm blade.
  - Spare blades: 668B.

|  | L [mm] | L1 [mm] | L2 [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|--------|---------|---------|--------|
| 599                                                                                   | 520    | 300     | 130     | 600    |



Hacksaw blades

NEW HACKSAW BLADES 668B



Made from cobalt steel

- Higher heat resistance, reduced teeth wear.
- Equal performance throughout blade lifecycle.
- Enhanced flexibility and neater cut.
- Suited to all materials.
- Available in 8, 10 and 12 teeth.



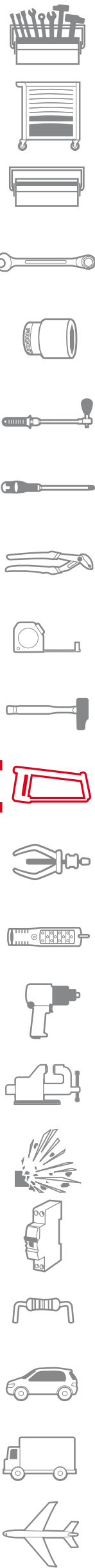
668B - Cobalt steel bimetal saw blades



NF E 73-072, ISO 2336-1, DIN 6494

- Characteristics:
  - 668B.8: for thick semi-hard steels - thickness recommended: 6 - 25 mm.
  - 668B.10: for special or alloy steels - thickness recommended: 3 - 6 mm.
  - 668B.12: for stainless steel, copper - thickness recommended: 1 - 3 mm.
- Blade in cobalt steel: higher heat resistance, reduced teeth wear.
- Equal performance throughout blade lifecycle.
- Enhanced flexibility and neater cut.
- Suited to all materials.
- Blade length 300 mm.

|         | Teeth [°] | Teeth [cm] | ΔΔ [g] |
|---------|-----------|------------|--------|
| 668B.8  | 18        | 8          | 160    |
| 668B.10 | 24        | 10         | 160    |
| 668B.12 | 32        | 12         | 160    |



FILE SELECTION GUIDE

Facom technical specifications

- Made from high carbon-content steels.
- Optimum heat treatment for each application.
  - 64 to 66 HRC for engineers files.
  - 53 to 56 HRC for rasps.
  - 65 to 67 HRC for sharpening files.

File selection guide

Four criteria apply :

1. Shape or cross-section.
2. Pattern according to material.
3. Grade according to operation.

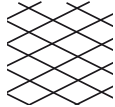
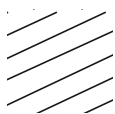
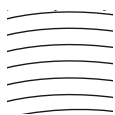
- Standard files:
  - B: Bastard cut for rough filing.
  - MD: Second cut for general purpose.
- Precision files:
  - TOA: Bastard cut for rough filing.
  - T2A: for normal smooth filing.

4. File length.

- Lengths quoted are always without tang.

| Main shapes                                                                         |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| FLAT PAM                                                                            | HALF-ROUND DRD                                                                      | ROUND RD                                                                            |
|  |  |  |
| THREE-SQUARE TRI                                                                    | SQUARE CAR                                                                          |                                                                                     |
|  |  |                                                                                     |



| Pattern selection according to material                                                       |                                                                                       | Steel | Cast Iron | Brass | Hard plastics, wood etc. | Aluminium and soft materials |
|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|-----------|-------|--------------------------|------------------------------|
| Double cut for steel and metals.                                                              |   | ●     | ●         | ●     | ●                        |                              |
| Single cut for good surface finish, sharpening saws, lathe filling and fitters' requirements. |  | ●     |           |       |                          |                              |
| Dreadnaught, for soft materials, sheet metal, etc. Leaves a smooth finish.                    |  | ●     |           | ●     | ●                        | ●                            |
| Rasp for soft materials and wood. Produces a rough surface.                                   |  |       |           |       | ●                        | ●                            |

SELECTION GUIDE: WOOD HANDLES FOR FILES AND RASPS



| Files                    | 100 mm | 125 mm | 150 mm | 200 mm | 250 mm | 300 mm |
|--------------------------|--------|--------|--------|--------|--------|--------|
| PAM: Flat hand           | MAN.3  | -      | MAN.3  | MAN.2  | MAN.1  | MAN.0  |
| DRD: Half-round          | MAN.3  | -      | MAN.3  | MAN.2  | MAN.1  | MAN.0  |
| TRI: Three-square        | MAN.4  | MAN.3  | MAN.3  | MAN.2  | MAN.1  | MAN.1  |
| RD: Round                | MAN.4  | MAN.4  | MAN.4  | MAN.3  | MAN.2  | MAN.0  |
| CAR: Square              | MAN.4  | MAN.4  | MAN.4  | MAN.3  | MAN.2  | MAN.1  |
| CT: Knife                | MAN.3  | MAN.3  | MAN.2  | MAN.2  | MAN.1  | MAN.1  |
| PIL: Pillar              | MAN.3  | -      | MAN.2  | MAN.2  | MAN.1  | -      |
| PDE: Fat warding         | MAN.3  | MAN.3  | MAN.2  | MAN.2  | MAN.1  | MAN.1  |
| BAR: Barettie            | MAN.3  | -      | MAN.2  | MAN.2  | MAN.1  | -      |
| FRC / FRO: Tapered       | -      | -      | -      | -      | -      | MAN.0  |
| TRO: Round for chainsaws | -      | -      | MAN.4  | MAN.4  | -      | -      |
| Type of rasps            | 100 mm | 125 mm | 150 mm | 200 mm | 250 mm | 300 mm |
| RAB.DRD: Half-round      | -      | -      | -      | -      | MAN.1  | MAN.0  |
| RAB.P: Flat              | -      | -      | -      | -      | MAN.1  | MAN.0  |
| RAB.RD: Round            | -      | -      | -      | -      | MAN.1  | MAN.0  |



MAN - Wood handles for files and rasps



- Varnished wood handles with nickel-plated steel ferrule.
- Supplied singly.

|       | d [mm] | L [mm] | [g] |
|-------|--------|--------|-----|
| MAN.0 | 34     | 132    | 55  |
| MAN.1 | 32     | 124    | 45  |
| MAN.2 | 28     | 110    | 40  |
| MAN.3 | 25     | 102    | 30  |
| MAN.4 | 22     | 98     | 25  |

SELECTION GUIDE: PLASTIC HANDLES FOR FILES AND RASPS



| Files                    | 100 mm | 125 mm | 150 mm | 200 mm | 250 mm | 300 mm |
|--------------------------|--------|--------|--------|--------|--------|--------|
| PAM: Flat hand           | MP.4   | -      | MP.3   | MP.2   | MP.1   | MP.0   |
| DRD: Half-round          | MP.4   | -      | MP.3   | MP.2   | MP.1   | MP.0   |
| TRI: Three-square        | -      | -      | MP.3   | MP.1   | MP.0   | MP.0   |
| RD: Round                | MP.4   | MP.4   | MP.4   | MP.3   | MP.1   | MP.0   |
| CAR: Square              | -      | -      | MP.4   | MP.3   | MP.1   | MP.0   |
| CT: Knife                | MP.4   | -      | MP.3   | MP.2   | MP.1   | -      |
| PIL: Pillar              | MP.4   | -      | MP.3   | MP.2   | MP.1   | -      |
| PDE: Fat warding         | MP.4   | -      | MP.3   | MP.2   | MP.1   | -      |
| BAR: Barette             | MP.4   | -      | MP.3   | MP.2   | MP.1   | -      |
| FRC / FRO: Tapered       | -      | -      | -      | -      | -      | MP.0   |
| TRO: Round for chainsaws | -      | -      | MP.4   | MP.4   | -      | -      |
| Type of rasps            | 100 mm | 125 mm | 150 mm | 200 mm | 250 mm | 300 mm |
| RAB.DRD: Half-round      | -      | -      | -      | -      | MP.1   | MP.0   |
| RAB.P: Flat              | -      | -      | -      | -      | MP.1   | MP.0   |
| RAB.RD: Round            | -      | -      | -      | -      | MP.1   | -      |



MP - Plastic handles for files and rasps



- Ergonomic handle in plastic resistant to workshop solvents.
- Supplied singly.

|      | d [mm] | L [mm] | [g] |
|------|--------|--------|-----|
| MP.0 | 30     | 120    | 40  |
| MP.1 | 30     | 120    | 45  |
| MP.2 | 28     | 120    | 40  |
| MP.3 | 28     | 105    | 35  |
| MP.4 | 25     | 100    | 20  |



## File sets

### STG Set of 5 files



- Set of 5 files with varnished wood handles, for general engineering and automotive applications.
- Comprising:
  - PAM.B250A: Flat bastard file.
  - DRD.MD250A: Half-round second-cut file.
  - CAR.MD200EMA: Square second-cut file.
  - TRI.MD200EMA: Triangle second-cut file.
  - RD.MD200A: Round second-cut file.
- Supplied in grey hammer-finish wall-rack CKS.35A.

Weight: 1.265 kg.

### STU Set of 9 files



- Set of 9 files and rasps for engineering and industrial maintenance.
- Comprising:
  - PAM.B250A: Flat bastard file.
  - PAM.MD200A: Flat second-cut file.
  - DRD.B250A: Half-round second cut bastard file.
  - DRD.MD200A: Half-round second-cut file.
  - RD.B250A: Round bastard file.
  - RD.MD200A: Round second-cut file.
  - CAR.MD200A: Square second-cut file.
  - TRI.MD150A: Triangle second-cut file.
  - RAB.DRDMD250A: Half-round second-cut rasp.
- Supplied in grey hammer-finish wall-rack CKS.34A.

Weight: 2.150 kg.

### CLE.BAM100A Set of 6 locksmiths files - length 100 mm



#### NFE 75-001, NFE 75-002

- Geneva pattern with wooden handle.
- Available in 3 different cuts.
  - CLE.BAM100A: Bastard cut files.
  - CLE.MDAM100A: Second cut files.
  - CLE.DAM100A: Smooth cut files.
- In plastic wallet dimensions (L. x D. x H.): 200 x 105 x 11 mm.

Weight: 205 g.

### MOD.LIM Module of 5 files 200 mm long with handle



- Comprising:
  - PAM.B200EMA: Flat bastard file.
  - DRD.MD200EMA: Half-round second-cut file.
  - CAR.MD200EMA: Square second-cut file.
  - TRI.MD200EMA: Triangle second-cut file.
  - RD.MD200EMA: Round second-cut file.
- Thermoformed module PL606.
- Finish: ergonomic handle in plastic resistant to workshop solvents.

Weight: 950 g.

■ LIM200EM.J5 Set of 5 second-cut files 200 mm long



**NFE 75-001, NFE 75-002**

- Comprising:
  - PAM.MD200EMA: Flat second-cut file.
  - DRD.MD200EMA: Half-round second-cut file.
  - CAR.MD200EMA: Square second-cut file.
  - RD.MD200EMA: Round second-cut file.
  - TRI.MD200EMA: Triangle second-cut file.
- Finish: ergonomic handle in plastic resistant to workshop solvents.

Weight: 820 g.

■ LIM250EM.J5 Set of 5 second-cut files 250 mm long



**NFE 75-001, NFE 75-002**

- Comprising:
  - PAM.MD250EMA: Flat second-cut file.
  - DRD.MD250EMA: Half-round second-cut file.
  - CAR.MD250EMA: Square second-cut file.
  - RD.MD250EMA: Round second-cut file.
  - TRI.MD250EMA: Triangle second-cut file.
- Finish: ergonomic handle in plastic resistant to workshop solvents.

Weight: 1.350 kg.

Engineers files

■ PAM.MDA - Half-round flat files



**NFE 75-001, NFE 75-002**

- Flat files with handle.
- 2 double cut squares.
- 1 single cut square.
- 1 smooth cut.
- Designed for steel, cast iron, brass, and hard plastics.

|  | E x E1 [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|-------------|--------|--------|
| PAM.MD150A                                                                            | 4 x 15      | 150    | 75     |
| PAM.MD200A                                                                            | 5 x 20      | 200    | 145    |
| PAM.MD250A                                                                            | 6 x 25      | 250    | 270    |

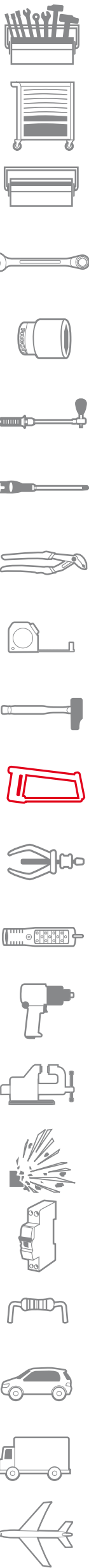
■ PAM.MDEMA - Flat half-cut files with handle



**NFE 75-001, NFE 75-002**

- Flat files with handle.
- 2 double cut squares.
- 1 single cut square.
- 1 smooth cut.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for steel, cast iron, brass, and hard plastics.

|  | E x E1 [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|-------------|--------|--------|
| PAM.MD150EMA                                                                          | 4 x 15      | 150    | 140    |
| PAM.MD200EMA                                                                          | 5 x 20      | 200    | 200    |
| PAM.MD250EMA                                                                          | 6 x 25      | 250    | 340    |



■ PAM.BA - Flat bastard files



NFE 75-001, NFE 75-002

- Flat files with handle.
- 2 double cut squares.
- 1 single cut square.
- 1 smooth cut.
- Designed for roughing steel, cast iron, brass, and hard plastics.

|  | E x E1 [mm] | L [mm] | ΔΔ [g] |
|-------------------------------------------------------------------------------------|-------------|--------|--------|
| PAM.B150A                                                                           | 4 x 15      | 150    | 60     |
| PAM.B200A                                                                           | 5 x 20      | 200    | 145    |
| PAM.B250A                                                                           | 6 x 25      | 250    | 270    |

■ PAM.BEMA - Flat bastard files with handle

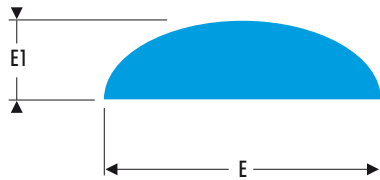


NFE 75-001, NFE 75-002

- Flat files with handle.
- 2 double cut squares.
- 1 single cut square.
- 1 smooth cut.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for roughing steel, cast iron, brass, and hard plastics.

|  | E x E1 [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|-------------|--------|--------|
| PAM.B150EMA                                                                           | 4 x 15      | 150    | 140    |
| PAM.B200EMA                                                                           | 5 x 20      | 200    | 200    |
| PAM.B250EMA                                                                           | 6 x 25      | 250    | 340    |

■ DRD.MDA - Half-round second-cut files

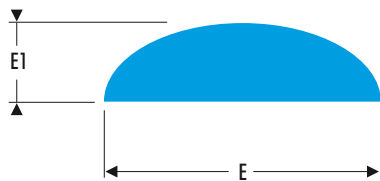


NFE 75-001, NFE 75-002

- Second-cut files with handle.
- Double second-cut squares.
- Double cut square.
- Designed for steel, cast iron, brass, and hard plastics.

|  | E x E1 [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|-------------|--------|--------|
| DRD.MD150A                                                                            | 4,5 x 16,0  | 150    | 60     |
| DRD.MD200A                                                                            | 6 x 21      | 200    | 115    |
| DRD.MD250A                                                                            | 7 x 25      | 250    | 220    |

■ DRD.MDEMA - Half-round second-cut files with handle



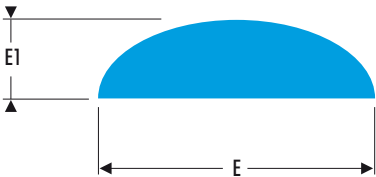
NFE 75-001, NFE 75-002

- Second-cut files with handle.
- Double second-cut squares.
- Double cut square.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for steel, cast iron, brass, and hard plastics.

|  | E x E1 [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|-------------|--------|--------|
| DRD.MD150EMA                                                                          | 4,5 x 16,0  | 150    | 100    |
| DRD.MD200EMA                                                                          | 6 x 21      | 200    | 160    |
| DRD.MD250EMA                                                                          | 7 x 25      | 250    | 280    |



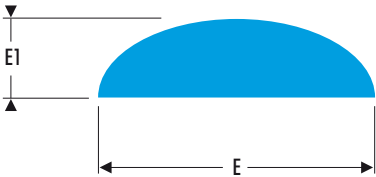
DRD.BA - Half-round bastard files



- NFE 75-001, NFE 75-002
- Second-cut files with handle.
  - Double second-cut squares.
  - Double cut square.
  - Designed for roughing steel, cast iron, brass, and hard plastics.

|           | E x E1 [mm] | L [mm] | ΔΔ [g] |
|-----------|-------------|--------|--------|
| DRD.B150A | 4,5 x 16,0  | 150    | 60     |
| DRD.B200A | 6 x 21      | 200    | 115    |
| DRD.B250A | 7 x 25      | 250    | 220    |

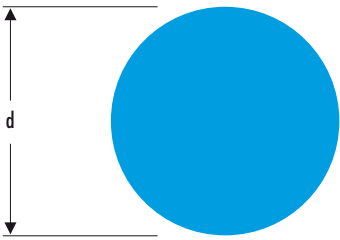
DRD.BEMA - Half-round bastard files with handle



- NFE 75-001, NFE 75-002
- Second-cut files with handle.
  - Double second-cut squares.
  - Double cut square.
  - Ergonomic handle in plastic resistant to workshop solvents.
  - Designed for roughing steel, cast iron, brass, and hard plastics.

|             | E x E1 [mm] | L [mm] | ΔΔ [g] |
|-------------|-------------|--------|--------|
| DRD.B150EMA | 4,5 x 16,0  | 150    | 100    |
| DRD.B200EMA | 6 x 21      | 200    | 160    |
| DRD.B250EMA | 7 x 25      | 250    | 280    |

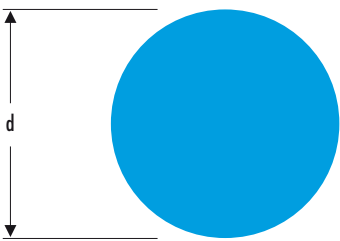
RD.MDA - Second-cut round files



- NFE 75-001, NFE 75-002
- Round files with handle.
  - Double square.
  - Designed for steel, cast iron, brass, and hard plastics.

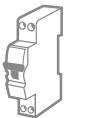
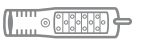
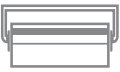
|           | d [mm] | L [mm] | ΔΔ [g] |
|-----------|--------|--------|--------|
| RD.MD150A | 6      | 150    | 50     |
| RD.MD200A | 8      | 200    | 75     |
| RD.MD250A | 10     | 250    | 135    |

RD.MDEMA - Second-cut round files with handle

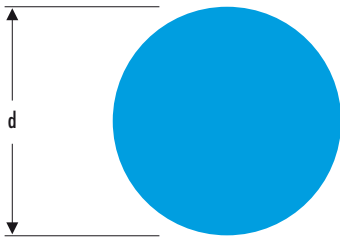


- NFE 75-001, NFE 75-002
- Round files with handle.
  - Double square.
  - Finish: ergonomic handle in plastic resistant to workshop solvents.
  - Designed for steel, cast iron, brass, and hard plastics.

|             | d [mm] | L [mm] | ΔΔ [g] |
|-------------|--------|--------|--------|
| RD.MD150EMA | 6      | 150    | 100    |
| RD.MD200EMA | 8      | 200    | 140    |
| RD.MD250EMA | 10     | 250    | 208    |



RD.BA - Round bastard files

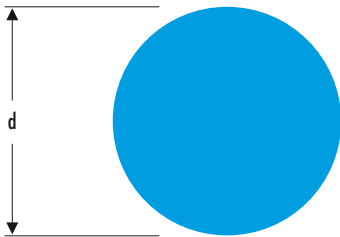


NFE 75-001, NFE 75-002

- Round files with handle.
- Double square.
- Designed for roughing steel, cast iron, brass, and hard plastics.

|  | d [mm] | L [mm] | ΔΔ [g] |
|-------------------------------------------------------------------------------------|--------|--------|--------|
| RD.B150A                                                                            | 6      | 150    | 50     |
| RD.B200A                                                                            | 8      | 200    | 75     |
| RD.B250A                                                                            | 10     | 250    | 135    |

RD.BEMA - Round bastard files with handle

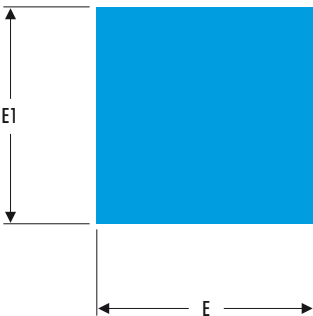


NFE 75-001, NFE 75-002

- Round files with handle.
- Double square.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for roughing steel, cast iron, brass, and hard plastics.

|  | d [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|--------|--------|--------|
| RD.B150EMA                                                                            | 6      | 150    | 100    |
| RD.B200EMA                                                                            | 8      | 200    | 140    |
| RD.B250EMA                                                                            | 10     | 250    | 200    |

CAR.MDA - Second-cut square files

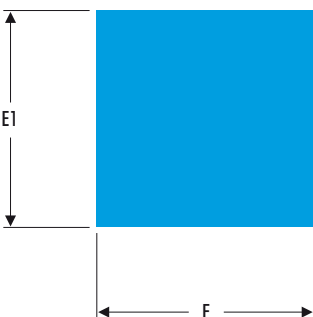


NFE 75-001, NFE 75-002

- Square files with handle.
- Double square on 4 cuts.
- Designed for steel, cast iron, brass, and hard plastics.

|  | E x E1 [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|-------------|--------|--------|
| CAR.MD150A                                                                            | 6 x 6       | 150    | 60     |
| CAR.MD200A                                                                            | 8 x 8       | 200    | 80     |
| CAR.MD250A                                                                            | 10 x 10     | 250    | 140    |

CAR.MDEMA - Second-cut square files with handle

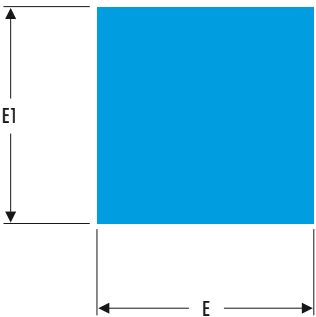


NFE 75-001, NFE 75-002

- Square files with handle.
- Double square on 4 cuts.
- Finish: ergonomic handle in plastic resistant to workshop solvents.
- Designed for steel, cast iron, brass, and hard plastics.

|  | E x E1 [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|-------------|--------|--------|
| CAR.MD150EMA                                                                          | 6 x 6       | 150    | 100    |
| CAR.MD200EMA                                                                          | 8 x 8       | 200    | 120    |
| CAR.MD250EMA                                                                          | 10 x 10     | 250    | 190    |

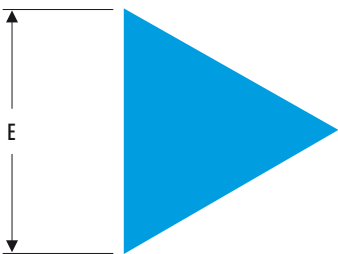
CAR.BEMA - Square bastard files with handle



- NFE 75-001, NFE 75-002
- Square files with handle.
  - Double square on 4 cuts.
  - Finish: ergonomic handle in plastic resistant to workshop solvents.
  - Designed for roughing steel, cast iron, brass, and hard plastics.

|  | E x E1 [mm] | L [mm] | ΔΔ [g] |
|-------------------------------------------------------------------------------------|-------------|--------|--------|
| CAR.B150EMA                                                                         | 6 x 6       | 150    | 100    |
| CAR.B200EMA                                                                         | 8 x 8       | 200    | 120    |
| CAR.B250EMA                                                                         | 10 x 10     | 250    | 190    |

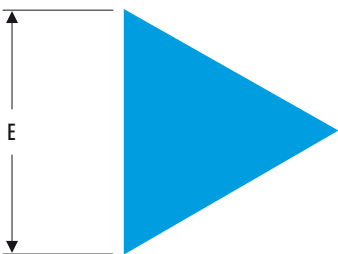
TRI.MDA - Second-cut triangle files



- NFE 75-001, NFE 75-002
- Triangle files with handle.
  - Double square on 3 cuts.
  - Designed for steel, cast iron, brass, and hard plastics.

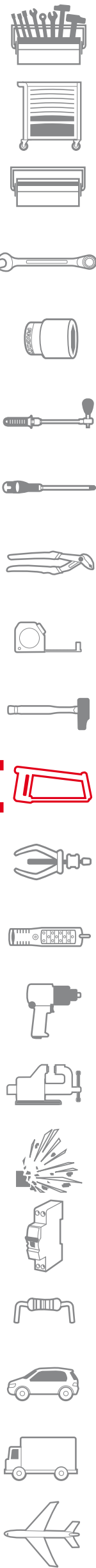
|  | E [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|--------|--------|--------|
| TRI.MD150A                                                                            | 11     | 150    | 90     |
| TRI.MD200A                                                                            | 15     | 200    | 170    |
| TRI.MD250A                                                                            | 19     | 250    | 270    |

TRI.MDEMA - Second-cut triangle files with handle



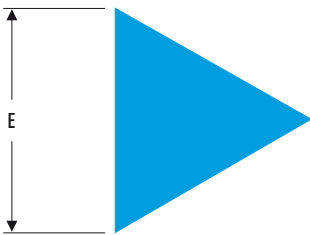
- NFE 75-001, NFE 75-002
- Triangle files with handle.
  - Double square on 3 cuts.
  - Finish: ergonomic handle in plastic resistant to workshop solvents.
  - Designed for steel, cast iron, brass, and hard plastics.

|  | E [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|--------|--------|--------|
| TRI.MD150EMA                                                                          | 11     | 150    | 130    |
| TRI.MD200EMA                                                                          | 15     | 200    | 210    |
| TRI.MD250EMA                                                                          | 19     | 250    | 330    |





TRI.BEMA - Triangle bastard files with handle

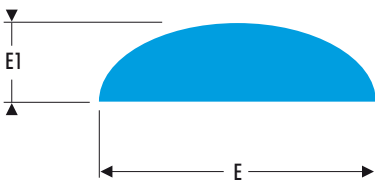
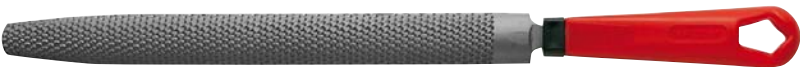


- NFE 75-001, NFE 75-002
- Triangle files with handle.
  - Double square on 3 cuts.
  - Ergonomic handle in plastic resistant to workshop solvents.
  - Designed for roughing steel, cast iron, brass, and hard plastics.

|             | E [mm] | L [mm] | ΔΔ [g] |
|-------------|--------|--------|--------|
| TRI.B150EMA | 11     | 150    | 130    |
| TRI.B200EMA | 15     | 200    | 210    |
| TRI.B250EMA | 19     | 250    | 330    |

Wood rasps

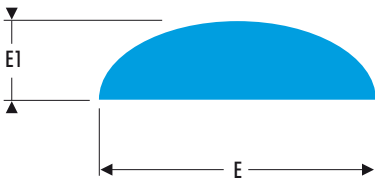
RAB.DRDMDA - Half-round second-cut rasps medium cut



- NFE 75-001, NFE 75-002
- Second-cut rasps with handle.
  - RAB.DRDB250EMA - RAB.DRDMD300EMA: Rasp with handle.
  - Finish: ergonomic handle in plastic resistant to workshop solvents.
  - Designed for soft materials, aluminium, lead, plastic or wood.

|                 | E x E1 [mm] | L [mm] | ΔΔ [g] |
|-----------------|-------------|--------|--------|
| RAB.DRDMD250A   | 25 x 7      | 250    | 260    |
| RAB.DRDMD300A   | 30,0 x 8,5  | 300    | 420    |
| RAB.DRDMD250EMA | 25 x 7      | 250    | 300    |
| RAB.DRDMD300EMA | 30,0 x 8,5  | 300    | 380    |

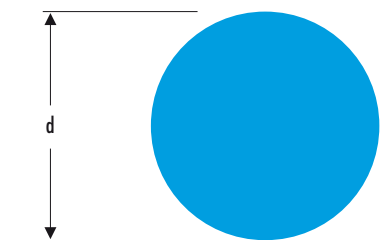
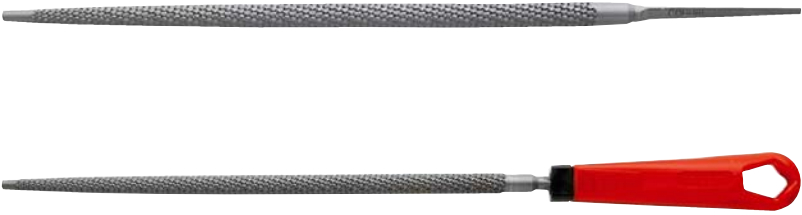
RAB.DRDBA - Half-round bastard rasps large cut



- NFE 75-001, NFE 75-002
- Second-cut rasps with handle.
  - RAB.DRDB300EMA: Rasp with handle.
  - Finish: ergonomic handle in plastic resistant to workshop solvents.
  - Designed for roughing work, soft materials, aluminium, lead, plastic or wood.

|                | E x E1 [mm] | L [mm] | ΔΔ [g] |
|----------------|-------------|--------|--------|
| RAB.DRDB250A   | 25 x 7      | 250    | 260    |
| RAB.DRDB300EMA | 30,0 x 8,5  | 300    | 480    |

RAB.RDA - Round second-cut rasps medium cut



RAB.P - Flat rasps medium cut



- NFE 75-001, NFE 75-002
- Round rasps with handle.
  - RAB.RD250EMA: Rasp with handle.
  - Finish: ergonomic handle in plastic resistant to workshop solvents.
  - Designed for soft materials, aluminium, lead, plastic or wood.

|              | d [mm] | L [mm] | ΔΔ [g] |
|--------------|--------|--------|--------|
| RAB.RD250A   | 10     | 250    | 140    |
| RAB.RD250EMA | 10     | 250    | 180    |

- NFE 75-001, NFE 75-002
- Flat rasps with handle.
  - Bastard finish: recommended for roughing work.
  - Second cut finish recommended for current work.
  - Designed for current work, for soft materials, aluminium, lead, plastic or wood.

|             | E x E1 [mm] | L [mm] | Files             | ΔΔ [g] |
|-------------|-------------|--------|-------------------|--------|
| RAB.PB250A  | 25 x 6      | 250    | Bastard           | 320    |
| RAB.PMD250A | 25 x 6      | 250    | Second cut finish | 320    |

Precision files

AS - Selections of 6 and 12 needle files



- AS.6L: Selection of 6 needle files: round (RD), half-round (DRD), flat entry (DPE), square (CAR), triangular (TRI), tile (PAM).
- AS.12L: Selection of 12 needle files: round (RD), half-round (DRD), flat entry (PDE), crossing file (FS), knife (CT), square (CAR), triangular (TRI), file (PAM), strip (BAR), BR tile (PAMBR), hook (CRO), oval (OV).
- T0 for rough filing.
- T2 for precise filing.

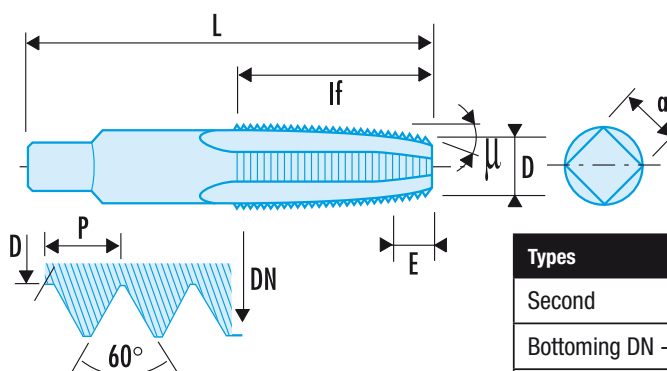
|                | L [mm] | Files | Contents       | Content set | ΔΔ [g] |
|----------------|--------|-------|----------------|-------------|--------|
| AS.6L140T0A    | 140    | T0    | Plastic wallet | 6           | 115    |
| AS.6L140T2A    | 140    | T2    | Plastic wallet | 6           | 115    |
| AS.6L160T0A    | 160    | T0    | Plastic wallet | 6           | 140    |
| AS.6L160T2A    | 160    | T2    | Plastic wallet | 6           | 140    |
| AS.12LBC100T0A | 100    | T0    | Cardboard box  | 12          | 55     |
| AS.12LBC100T2A | 100    | T2    | Cardboard box  | 12          | 55     |
| AS.12LBP140T0A | 140    | T0    | Plastic box    | 12          | 115    |
| AS.12LBP140T2A | 140    | T2    | Plastic box    | 12          | 115    |
| AS.12LBP160T0A | 160    | T0    | Plastic box    | 12          | 140    |
| AS.12LBP160T2A | 160    | T2    | Plastic box    | 12          | 140    |
| AS.12LTP180T0A | 180    | T0    | Plastic wallet | 12          | 175    |
| AS.12LTP180T2A | 180    | T2    | Plastic wallet | 12          | 175    |

## Taps

## TAP SELECTION GUIDE

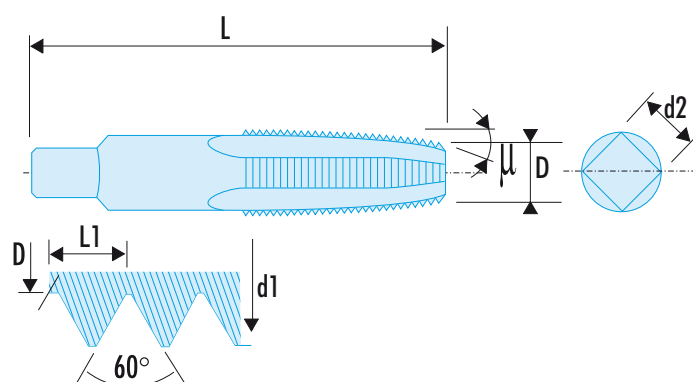
- Ground-thread backed-off taps.
- ISO metric RH thread.6H machining.
- Set of 2 (ref. T2) for soft metals: 1 taper tap, 1 bottoming tap.
- Set of 3 (ref. T3) for hard metals: 1 taper tap, 1 second tap, 1 bottoming tap.

Max. hardness: 70 daN/mm<sup>2</sup>:  
 - for taps 227 and 80 daN/mm<sup>2</sup>  
 - for taps 227.S.



| Types                | D       | E   |
|----------------------|---------|-----|
| Second               | = 6 P   | 6°  |
| Bottoming DN - 1.2p. | = 3.5 P | 9°  |
| Bottoming 18°        | = 2 P   | 18° |

## 227 - Standard taps



**NF ISO 529, NFEN 22857, ISO 529, ISO 2857**

- HSS steel.
- 227.T3: Set of 3 taps (taper, second and bottoming).
- 227.T2: Set of 2 taps (taper and bottoming).

|  | d1<br>[mm] | d2<br>[mm] | L [mm] | L1<br>[mm] | Content set | $\Delta \Delta$ [g] |
|---------------------------------------------------------------------------------------|------------|------------|--------|------------|-------------|---------------------|
| <b>227.3X50T3</b>                                                                     | 3          | 2,50       | 48     | 0,50       | x 3         | 20                  |
| <b>227.4X70T3</b>                                                                     | 4          | 3,15       | 53     | 0,70       | x 3         | 25                  |
| <b>227.5X80T3</b>                                                                     | 5          | 4,00       | 58     | 0,80       | x 3         | 40                  |
| <b>227.6X100T3</b>                                                                    | 6          | 5,00       | 66     | 1,00       | x 3         | 50                  |
| <b>227.7X100T3</b>                                                                    | 7          | 5,60       | 66     | 1,00       | x 3         | 60                  |
| <b>227.8X125T3</b>                                                                    | 8          | 6,30       | 72     | 1,25       | x 3         | 85                  |
| <b>227.9X125T3</b>                                                                    | 9          | 7,10       | 72     | 1,25       | x 3         | 100                 |
| <b>227.10X150T3</b>                                                                   | 10         | 8,00       | 80     | 1,50       | x 3         | 140                 |
| <b>227.12X175T3</b>                                                                   | 12         | 7,10       | 89     | 1,75       | x 3         | 150                 |
| <b>227.14X200T3</b>                                                                   | 14         | 9,00       | 95     | 2,00       | x 3         | 240                 |
| <b>227.16X200T3</b>                                                                   | 16         | 10,00      | 102    | 2,00       | x 3         | 305                 |
| <b>227.18X250T3</b>                                                                   | 18         | 11,20      | 112    | 2,50       | x 3         | 460                 |
| <b>227.20X250T3</b>                                                                   | 20         | 11,20      | 112    | 2,50       | x 3         | 490                 |
| <b>227.3X50T2</b>                                                                     | 3          | 2,50       | 48     | 0,50       | x 2         | 10                  |
| <b>227.4X70T2</b>                                                                     | 4          | 3,15       | 53     | 0,70       | x 2         | 10                  |
| <b>227.5X80T2</b>                                                                     | 5          | 4,00       | 58     | 0,80       | x 2         | 15                  |
| <b>227.6X100T2</b>                                                                    | 6          | 5,00       | 66     | 1,00       | x 2         | 25                  |
| <b>227.7X100T2</b>                                                                    | 7          | 5,60       | 66     | 1,00       | x 2         | 45                  |
| <b>227.8X125T2</b>                                                                    | 8          | 6,30       | 72     | 1,25       | x 2         | 60                  |
| <b>227.10X150T2</b>                                                                   | 10         | 8,00       | 80     | 1,50       | x 2         | 70                  |
| <b>227.12X175T2</b>                                                                   | 12         | 7,10       | 89     | 1,75       | x 2         | 80                  |



227.S - «High performance» cobalt taps



- NF ISO 529, NFEN 22857, ISO 529, ISO 2857
- Molybdenum and cobalt steel.
  - The hardness of cobalt increases torque resistance and wear compared with standard taps.
  - 227.ST3: Set of 3 taps (taper, second and bottoming).
  - 227.ST2: Set of 2 taps (taper and bottoming).

|               | d1<br>[mm] | d2<br>[mm] | L [mm] | L1<br>[mm] | Content<br>set | ΔΔ [g] |
|---------------|------------|------------|--------|------------|----------------|--------|
| 227.S3X50T3   | 3          | 2,50       | 48     | 0,50       | x 3            | 15     |
| 227.S4X70T3   | 4          | 3,15       | 53     | 0,70       | x 3            | 25     |
| 227.S5X80T3   | 5          | 4,00       | 58     | 0,80       | x 3            | 40     |
| 227.S6X100T3  | 6          | 5,00       | 66     | 1,00       | x 3            | 50     |
| 227.S8X125T3  | 8          | 6,30       | 72     | 1,25       | x 3            | 85     |
| 227.S10X150T3 | 10         | 7,10       | 80     | 1,50       | x 3            | 140    |
| 227.S12X175T3 | 12         | 8,00       | 89     | 1,75       | x 3            | 150    |
| 227.S3X50T2   | 3          | 2,50       | 48     | 0,50       | x 2            | 5      |
| 227.S4X70T2   | 4          | 3,15       | 53     | 0,70       | x 2            | 10     |
| 227.S5X80T2   | 5          | 4,00       | 58     | 0,80       | x 2            | 15     |
| 227.S6X100T2  | 6          | 5,00       | 66     | 1,00       | x 2            | 25     |
| 227.S7X100T2  | 7          | 5,60       | 66     | 1,00       | x 2            | 45     |
| 227.S8X125T2  | 8          | 6,30       | 72     | 1,25       | x 2            | 50     |
| 227.S9X125T2  | 9          | 7,10       | 72     | 1,25       | x 2            | 50     |
| 227.S10X150T2 | 10         | 8,00       | 80     | 1,50       | x 2            | 70     |
| 227.S12X175T2 | 12         | 7,10       | 89     | 1,75       | x 2            | 80     |
| 227.S14X200T2 | 14         | 9,00       | 95     | 2,00       | x 2            | 160    |
| 227.S16X200T2 | 16         | 10,00      | 102    | 2,00       | x 2            | 200    |
| 227.S18X250T2 | 18         | 11,20      | 112    | 2,50       | x 2            | 290    |

Dies

221 - Split dies



- NF ISO 261, ISO 261, DIN ISO 261
- ISO metric RH thread.
  - Chrome-vanadium HSS hardened to 62/64 HRC (234 daN/mm²).
  - Tapered adjusting screw.

|            | d [mm] | d1 [mm] | d2 [mm] | E [mm] | E1 [mm] | ΔΔ [g] |
|------------|--------|---------|---------|--------|---------|--------|
| 221.3X50   | 25,4   | 3       | 0,50    | 8      | 3,5     | 25     |
| 221.4X70   | 25,4   | 4       | 0,70    | 8      | 3,5     | 25     |
| 221.5X80   | 25,4   | 5       | 0,80    | 8      | 3,5     | 30     |
| 221.6X100  | 25,4   | 6       | 1,00    | 9      | 3,5     | 30     |
| 221.7X100  | 25,4   | 7       | 1,00    | 9      | 3,5     | 30     |
| 221.8X125  | 25,4   | 8       | 1,25    | 9      | 3,5     | 30     |
| 221.9X125  | 25,4   | 9       | 1,25    | 9      | 3,5     | 30     |
| 221.10X150 | 38,1   | 10      | 1,50    | 13     | 6,0     | 80     |
| 221.12X175 | 38,1   | 12      | 1,75    | 13     | 6,0     | 90     |
| 221.14X200 | 38,1   | 14      | 2,00    | 13     | 6,0     | 80     |
| 221.16X200 | 38,1   | 16      | 2,00    | 13     | 6,0     | 75     |
| 221.18X250 | 38,1   | 18      | 2,50    | 15     | 8,0     | 75     |

Threading and tapping tool sets

221 - Tap and die sets



- Each selection includes sets of two taps per dimension: taper and bottoming.
- Selections Ref 227.SJ1 and 227.SJ2 include cobalt taps (Ref 227.S).
- Tray PL.47 and box BT.109G: for selection Ref 224.227J1 and 221.227SJ1.
- Tray PL.46 and box BT.105: for selection Ref 224.227J2 and 221.227SJ2.

|            | d [mm]                                                         | Dimension [mm] | Content set                   | ΔΔ [kg] |
|------------|----------------------------------------------------------------|----------------|-------------------------------|---------|
| 221.227J1  | M3 - M4 - M5 - M6 - M7 - M8 - M9 - M10 - M12                   | 470 x 195 x 53 | 18 taps - 9 threads - 4 dies  | 3,100   |
| 221.227SJ1 | M3 - M4 - M5 - M6 - M7 - M8 - M9 - M10 - M12                   | 470 x 195 x 53 | 18 taps - 9 threads - 4 dies  | 3,100   |
| 221.227J2  | M3 - M4 - M5 - M6 - M7 - M8 - M9 - M10 - M12 - M14 - M16 - M18 | 540 x 284 x 58 | 24 taps - 12 threads - 5 dies | 5,700   |
| 221.227SJ2 | M3 - M4 - M5 - M6 - M7 - M8 - M9 - M10 - M12 - M14 - M16 - M18 | 540 x 284 x 58 | 24 taps - 12 threads - 5 dies | 5,700   |

227.A - Tap and drill-bit sets



- Each selection includes sets of 3 taps per dimension: taper, second and bottoming.
- Selection Ref 227.SJ2A includes cobalt taps (Ref 227.S).
- Supplied in metal box BT.228J2.

|          | d [mm]                             | Drill Bits                                  | Dimension [mm] | Content set                   | ΔΔ [kg] |
|----------|------------------------------------|---------------------------------------------|----------------|-------------------------------|---------|
| 227.J2A  | M3 - M4 - M5 - M6 - M8 - M10 - M12 | 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2 mm | 172 x 105 x 57 | 21 taps - 7 drill bits        | 1,100   |
| 227.SJ2A | M3 - M4 - M5 - M6 - M8 - M10 - M12 | 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2 mm | 172 x 105 x 57 | 21 cobalt taps - 7 drill bits | 1,100   |

227 - Tap set



- Each selection includes sets of 3 taps per dimension: taper, second and bottoming.
- Selection Ref 227.SJ1 includes cobalt taps (Ref 227.S).
- Supplied in metal box BT.228J1.

|         | d [mm]                             | Dimension [mm] | Content set    | ΔΔ [g] |
|---------|------------------------------------|----------------|----------------|--------|
| 227.J1  | M3 - M4 - M5 - M6 - M8 - M10 - M12 | 118 x 118 x 31 | 21 taps        | 720    |
| 227.SJ1 | M3 - M4 - M5 - M6 - M8 - M10 - M12 | 118 x 118 x 31 | 21 cobalt taps | 720    |

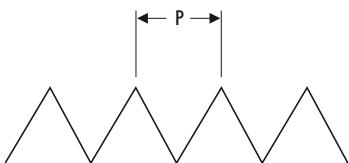
Thread restoring tools

237 - Thread restoring tool



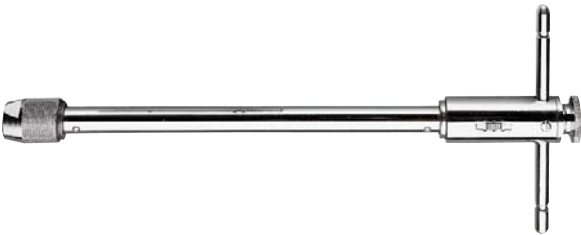
- To restore male and female screw threads.

|       | L [mm] | P [mm]                                        | ΔΔ [g] |
|-------|--------|-----------------------------------------------|--------|
| 237.A | 230    | 75 - 100 - 125 - 150 - 175 - 200 - 250 - 300  | 120    |
| 237.B | 230    | 80 - 100 - 125 - 150 - 175 - 200 - 250 - 300  | 125    |
| 237.C | 230    | 10F - 11F - 12F - 14F - 16F - 18F - 20F - 24F | 125    |



Tools for taps and dies

830A.L - Long ratcheting tap wrenches



- Ideal for cutting threads in tight recesses.
- Two-way ratchet.
- Ratchet lock.
- Finish: polished chromed.

|          | d [mm] | L [mm] | Open Position O maxi [mm] | For Tapp | ΔΔ [g] |
|----------|--------|--------|---------------------------|----------|--------|
| 830A.5L  | 20,5   | 250    | 5                         | M6       | 230    |
| 830A.10L | 25,5   | 300    | 8                         | M12      | 415    |

830A - Short ratcheting tap wrenches



- Two-way ratchet.
- Ratchet lock.
- Finish: polished chromed.

|         | d [mm] | L [mm] | Open Position O maxi [mm] | ΔΔ [g] |
|---------|--------|--------|---------------------------|--------|
| 830A.5  | 20,5   | 85     | 5                         | 165    |
| 830A.10 | 25,5   | 105    | 8                         | 312    |

830A.RN - Repair kits



- Comprising chuck and spring.
  - 830A.5RN, for 830A.5 and 830A.5L.
  - 830A.10RN, for 830A.10 and 830A.10L.
- Weight: 15 g.

831 - Adjustable tap wrenches



- NF E 66-130
- Pressure-cast Zamak body. Machined and hardened clamp.
  - Finish: grey hammered finish.

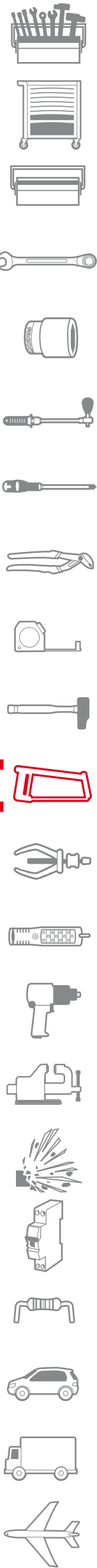
|       | L [mm] | Open Position O maxi [mm] | ΔΔ [g] |
|-------|--------|---------------------------|--------|
| 831.1 | 180    | 2-8                       | 100    |
| 831.2 | 300    | 4-11                      | 300    |
| 831.3 | 385    | 5-16                      | 705    |

832 - Die stocks



- Pressure-cast Zamak body for accurate centring of the die.
- Finish: grey hammered finish.

|           | d [mm] | d ["]  | L [mm] | Organiser for             | ΔΔ [g] |
|-----------|--------|--------|--------|---------------------------|--------|
| 832.1'    | 25,4   | 1      | 220    | 221.3x50 --> 221.9x125    | 115    |
| 832.1'1/2 | 38,1   | 1"-1/2 | 325    | 221.10x150 --> 221.18x250 | 410    |





Workshop drill bits

222A.T - Ground twist drills



- For steel up to 800 MPA, stainless steel, grey cast-iron and aluminium alloy.

|  | d [mm] | L [mm] | ΔΔ [g] |
|-------------------------------------------------------------------------------------|--------|--------|--------|
| 222A.T1                                                                             | 1,0    | 35     | 5      |
| 222A.T1,5                                                                           | 1,5    | 40     | 5      |
| 222A.T2                                                                             | 2,0    | 50     | 5      |
| 222A.T2,5                                                                           | 2,5    | 57     | 5      |
| 222A.T3                                                                             | 3,0    | 62     | 5      |
| 222A.T3,3                                                                           | 3,3    | 65     | 5      |
| 222A.T3,5                                                                           | 3,5    | 70     | 5      |
| 222A.T4                                                                             | 4,0    | 75     | 10     |
| 222A.T4,2                                                                           | 4,2    | 75     | 10     |
| 222A.T4,5                                                                           | 4,5    | 80     | 10     |
| 222A.T5                                                                             | 5,0    | 85     | 10     |
| 222A.T5,5                                                                           | 5,5    | 92     | 15     |
| 222A.T6                                                                             | 6,0    | 92     | 15     |
| 222A.T6,5                                                                           | 6,5    | 102    | 20     |
| 222A.T6,8                                                                           | 6,8    | 105    | 25     |
| 222A.T7                                                                             | 7,0    | 107    | 25     |
| 222A.T7,5                                                                           | 7,5    | 110    | 30     |
| 222A.T8                                                                             | 8,0    | 117    | 35     |
| 222A.T8,5                                                                           | 8,5    | 117    | 40     |
| 222A.T9                                                                             | 9,0    | 127    | 50     |
| 222A.T9,5                                                                           | 9,5    | 127    | 55     |
| 222A.T10                                                                            | 10,0   | 132    | 60     |
| 222A.T10,2                                                                          | 10,2   | 132    | 65     |
| 222A.T10,5                                                                          | 10,5   | 132    | 70     |
| 222A.T11                                                                            | 11,0   | 142    | 80     |
| 222A.T11,5                                                                          | 11,5   | 142    | 90     |
| 222A.T12                                                                            | 12,0   | 152    | 100    |
| 222A.T12,5                                                                          | 12,5   | 152    | 110    |
| 222A.T13                                                                            | 13,0   | 152    | 115    |

222A.TJ - Sets of ground twist drills



NF ISO 235, ISO 235, DIN 338

- For steel up to 800 MPA, stainless steel, grey cast-iron and aluminium alloy.
- Sets 222A.TJ19 and 222A.TJ25: Bits with 5/10 mm increments.
- Sets 222A.TJ50 and 222A.TJ81: Bits with 1/10 mm increments.

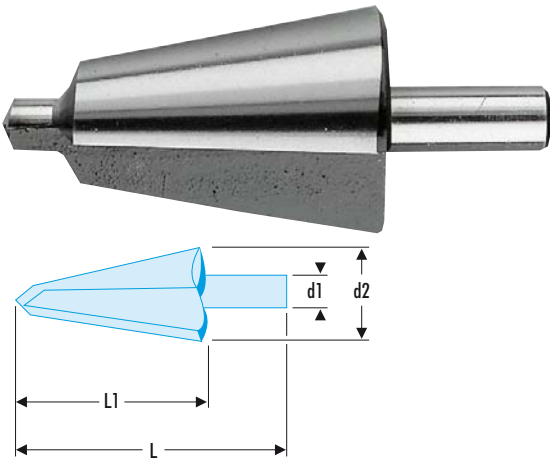
|  | d maxi [mm] | Dimension [mm]  | Content set | ΔΔ [kg] |
|---------------------------------------------------------------------------------------|-------------|-----------------|-------------|---------|
| 222A.TJ19                                                                             | 1 - 10      | 165 x 110 x 35  | 19          | 0,730   |
| 222A.TJ25                                                                             | 1 - 13      | 190 x 110 x 54  | 25          | 1,390   |
| 222A.TJ50                                                                             | 1 - 5,9     | 135 x 120 x 35  | 50          | 0,760   |
| 222A.TJ81                                                                             | 2 - 10      | 235 x 210 x 145 | 81          | 3,700   |

222A.TJ32 Set of 32 ground twist drills



- NF ISO 235, ISO 235, DIN 338
- For steel up to 800 MPA, stainless steel, grey cast-iron and aluminium alloy.
  - 20 drill bits Ref 222A.T, diam.: 1 --> 10.5 mm (in 5/10 increments).
  - 12 drill bits for riveting and tapping dimension diam.: 1.9 - 2.1 - 2.6 - 2.9 - 3.2 - 3.3 - 3.8 - 4.2 - 5.1 - 6.8 - 7.9 - 10.2 mm.
  - Dimensions (L. x W. x H.): 170 x 110 x 50 mm.
  - Weight: 1.170 kg.

229A - Boring bits



- For drilling, deburring, boring thin materials: press sheet, non ferrous metals.
- HSS steel.
- Max. thickness recommended: 4 mm.
- Does not require a tapping hole.

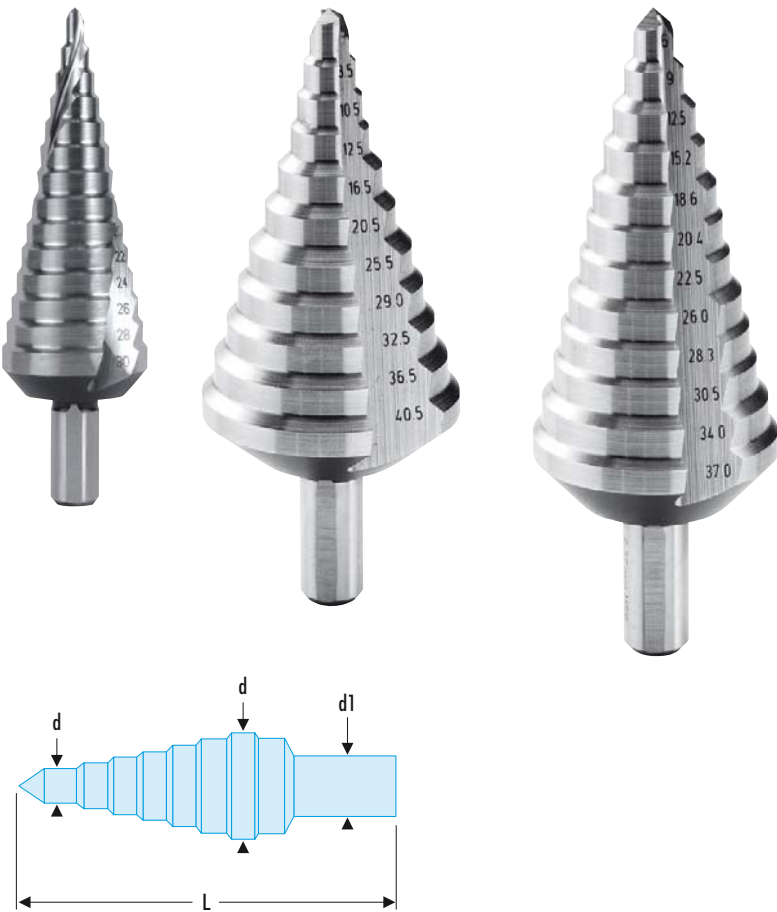
|        | d1 [mm] | d2 [mm]     | L [mm] | L1 [mm] | ΔΔ [g] |
|--------|---------|-------------|--------|---------|--------|
| 229A.1 | 6       | 3 - 14      | 59     | 37      | 25     |
| 229A.2 | 8       | 5 - 20      | 71     | 41      | 45     |
| 229A.3 | 9       | 16,0 - 30,5 | 76     | 48      | 130    |

229A.J3 Set of 3 tapered bits



- Capacity: 3 to 30.5 mm.
- Supplied with a bottle of lubricant.
- Supplied in a pressed sheet box, dim. (L. x W. x H.): 120 x 100 x 38 mm.
- Weight: 555 g.

Stepped bits



- For precision-drilling straight bores in all materials.
- No pilot hole required.
- Cross-sharpening: self-centering.
- More aggressive cut for easier drilling and no burs.
- Better shaving removal.
- Less vibration, quieter operation.
- Parallel shank with 3 flats for positive rotation.
- Laser-engraved diameter marking in a groove.
- 678006: Special ISO gland.
- 678014: PG size step drill.

|          | d mini - maxi [mm]                                                              | d1 [mm] | L [mm] | ΔΔ [g] |
|----------|---------------------------------------------------------------------------------|---------|--------|--------|
| 229A.ST0 | 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12                                            | 6       | 65     | 25     |
| 229A.ST1 | 4 - 6 - 8 - 10 - 12 - 14 - 16 - 18 - 20                                         | 8       | 75     | 65     |
| 229A.ST2 | 4 - 6 - 9 - 12 - 15 - 18 - 21 - 24 - 27 - 30 - 33 - 36 - 39                     | 10      | 107    | 315    |
| 229A.ST3 | 6 - 9 - 13 - 16 - 19 - 21 - 23 - 26 - 29 - 32 - 35 - 38                         | 10      | 100    | 320    |
| 678006   | 6,5 - 8,5 - 10,5 - 12,5 - 16,5 - 20,5 - 25,5 - 29,0 - 32,5 - 36,5 - 40,5        | 10      | 96     | 310    |
| 678014   | 6,0 - 9,0 - 12,5 - 15,2 - 18,6 - 20,4 - 22,5 - 26,0 - 28,3 - 30,5 - 34,0 - 37,0 | 10      | 100    | 300    |

Bits for impact machinery

223.SJ7 Set of 7 short drill bits for straight chucks



- Sharpened carbide tip inserts.
- Ground from stock with L-groove.
- Diameters: 4 - 5 - 6 - 7 - 8 - 10 - 12 mm.
- In a steel case, dim. (L. x W. x H.): 155 x 100 x 30 mm.
- Weight: 355 g.

Variable pitch holesaws

BIMETAL HSS HOLESAW

FOR CUTTING HOLES THROUGH STANDARD MATERIALS AND METALS USED IN MECHANICAL ENGINEERING, SHEET-METALWORKING AND PLUMBING.

- High-speed steel teeth, hardness > 63 HRc.
- Holesaw back in thick sheet steel to minimise vibration.
- Side slots and holes for chip removal.



Quick assembly : chuck, pilot drill, spring, blade.

609A - Variable pitch holesaws



- Variable pitch holesaws 4 to 6 mm.
- Softer cut and reduced vibration.
- Cutting depth 34 mm.
- Chuck and drill for holesaws 19 to 29 mm 609A.M1.
- Chuck and drill for holesaws 35 to 68 mm 609A.M2.
- Set of 2 spare bits + chuck screws: 609.M-ACC.

|         | d [mm] | L [mm] | ΔΔ [g] |
|---------|--------|--------|--------|
| 609A.19 | 19     | 51     | 30     |
| 609A.22 | 22     | 51     | 45     |
| 609A.25 | 25     | 51     | 65     |
| 609A.29 | 29     | 51     | 80     |
| 609A.35 | 35     | 51     | 100    |
| 609A.38 | 38     | 51     | 110    |
| 609A.40 | 40     | 45     | 140    |
| 609A.44 | 44     | 45     | 145    |
| 609A.51 | 51     | 45     | 150    |
| 609A.57 | 57     | 45     | 165    |
| 609A.64 | 64     | 45     | 185    |
| 609A.65 | 65     | 45     | 200    |
| 609A.67 | 67     | 45     | 230    |
| 609A.68 | 68     | 45     | 285    |



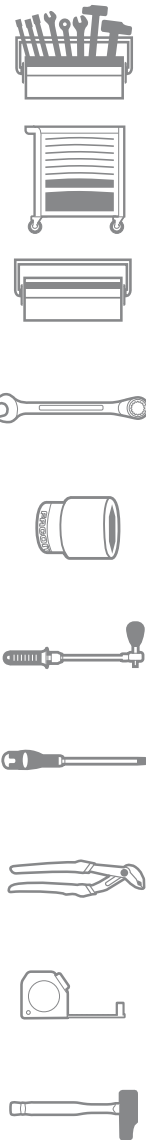
Holesaw sets

609A.J - Set of variable-pitch holesaws with chucks



- Comprising:
  - 609A.M1: 1 chuck and drill for holesaws 19 to 29 mm.
  - 609A.M2: 1 chuck for holesaws 35 to 64 mm.
  - 609A.M-ACC: Set of 2 spare bits + chuck screws.
- Supplied in a plastic case, dim. (L. x W. x H.): 245 x 185 x 75 mm.

|         | d [mm]                                     | ΔΔ [kg] |
|---------|--------------------------------------------|---------|
| 609A.J1 | 22 - 29 - 35 - 44 - 51 - 64                | 1,800   |
| 609A.J3 | 19 - 22 - 29 - 35 - 38 - 44 - 51 - 57 - 64 | 2,100   |



793898 Case set of 5 variable-pitch holesaws with «electrician» chuck

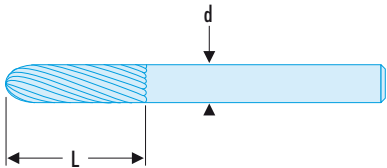


- Special electricians set: recess boxes.
- Comprising:
  - 5 holesaws, diam.: 38 - 40 - 65 - 67 - 68 mm.
  - 609A.M2: 1 chuck for holesaws 35 to 68 mm.
  - 609A.M2: Set of 2 spare bits + chuck screws.
  - Tray PL.643.
- Supplied in metal case, dim.(L. x D. x H.): 245 x 185 x 75 mm.
- Weight: 1.680 kg.



Mills

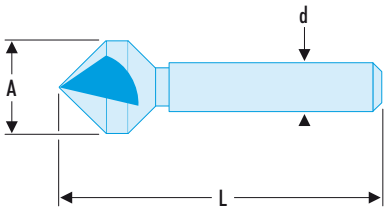
VFA Cutters



- Tungsten carbide.
- Right-hand spiral.
- Cutter shank diameter 6 mm.

|          | No. | d [mm] | L [mm] | tr/min | ΔΔ [g] |
|----------|-----|--------|--------|--------|--------|
| VFA.600  | 1   | 6      | 18     | 50000  | 25     |
| VFA.602  | 2   | 6      | 18     | 50000  | 25     |
| VFA.604  | 3   | 6      | 18     | 50000  | 25     |
| VFA.606  | 4   | 6      | 18     | 50000  | 20     |
| VFA.608  | 5   | 6      | 18     | 50000  | 20     |
| VFA.610  | 6   | 6      | 15     | 50000  | 20     |
| VFA.1200 | 1   | 12     | 25     | 20000  | 55     |
| VFA.1202 | 2   | 12     | 25     | 20000  | 55     |
| VFA.1204 | 3   | 12     | 25     | 20000  | 50     |
| VFA.1206 | 4   | 12     | 25     | 20000  | 30     |
| VFA.1208 | 5   | 12     | 25     | 20000  | 35     |
| VFA.1210 | 6   | 12     | 20     | 20000  | 40     |

229.TT - 90° cone bits



- 3 HSS cutting edges for countersunk screw holes.
- Requires a pilot hole with a cylindrical bit ref 222A.T.

|         | A [mm] | d [mm] | L [mm] | ΔΔ [g] |
|---------|--------|--------|--------|--------|
| 229.TT2 | 10,4   | 6      | 50     | 10     |
| 229.TT3 | 16,5   | 10     | 60     | 30     |
| 229.TT4 | 20,5   | 10     | 63     | 50     |
| 229.TT5 | 25,0   | 10     | 67     | 70     |

229.TTJ4 90° cone bits



- Comprising:
  - 4 bits: 229.TT2 --> 229.TT5 (and lubricant).
- In a steel case, dim. (L. x W. x H.): 120 x 100 x 38 mm.
- Weight: 450 g.

Scrapers

231 Three-square scraper



- Finish: high quality steel blade, polished chrome finish and varnished wood handle.
- Shank length: 200 mm.
- Weight: 180 g.

### 232 Half-round curved scraper



- Finish: high quality steel blade, polished chrome finish and varnished wood handle.
- Shank length: 200 mm.
- Weight: 180 g.

### 329 Flat scraper



- Finish: high quality steel blade, polished chrome finish and varnished wood handle.
- Shank length: 200 mm.
- Weight: 185 g.

### 235.J1 Set of 3 stainless steel scrapers

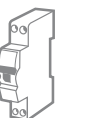
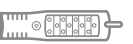
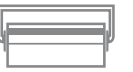


- Stainless steel blade, thickness: 0.8 mm.
- Reinforced striking zone.
- 3 shapes:
  - Straight, width: 32 mm.
  - Straight, width: 50 mm.
  - Angled, width: 32 mm.
- Length: 215 mm.
- Weight: 430 g.

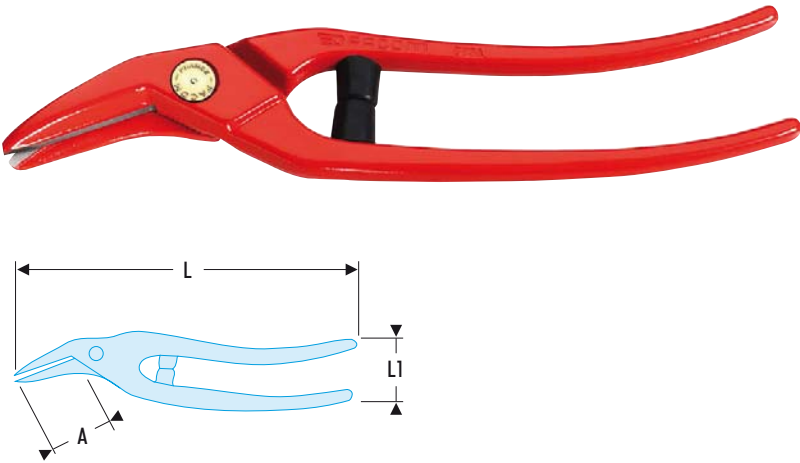
### 237.J1 Set of 3 flexible spatulas



- Stainless steel blade, thickness: 0.5 mm.
- 3 shapes:
  - Straight, width: 32 mm.
  - Straight, width: 50 mm.
  - Angled, width: 32 mm.
- Width: 32 - 50 - 75 mm.
- Length: 215 mm.
- Weight: 275 g.



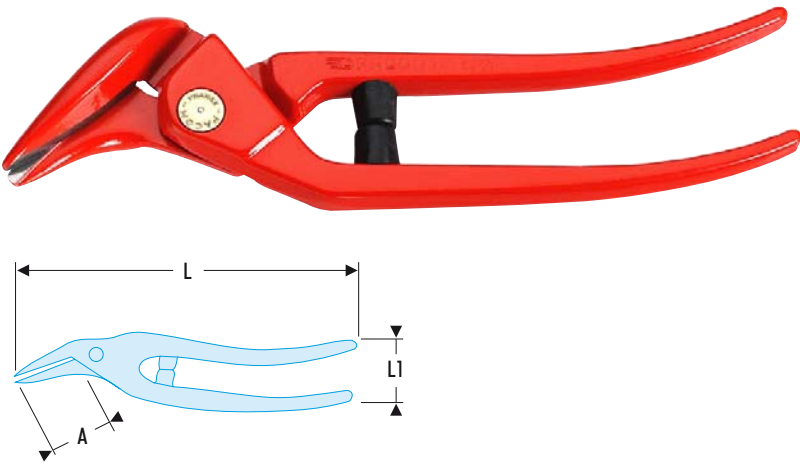
883 - Scroll shears



- Specially-shaped nose for accurately following detailed patterns.
- Steel end stops.
- Left-cut scroll shears: 883B.G.
- Right-cut scroll shears: 883B.
- Right cut large-capacity scroll shears: 883.32.
- Finish: Epoxy paint.

|        | A [mm] | L [mm] | L1 [mm]  | Capacity Stainless [80 kg/mm²] | Capacity Semi-hard steel [mm] | ΔΔ [g] |
|--------|--------|--------|----------|--------------------------------|-------------------------------|--------|
| 883B.G | 46     | 260    | 43 - 170 | 0,8                            | 1,0                           | 535    |
| 883B   | 50     | 260    | 43 - 170 | 0,8                            | 1,0                           | 530    |
| 883.32 | 73     | 320    | 47 - 170 | 0,9                            | 1,2                           | 765    |

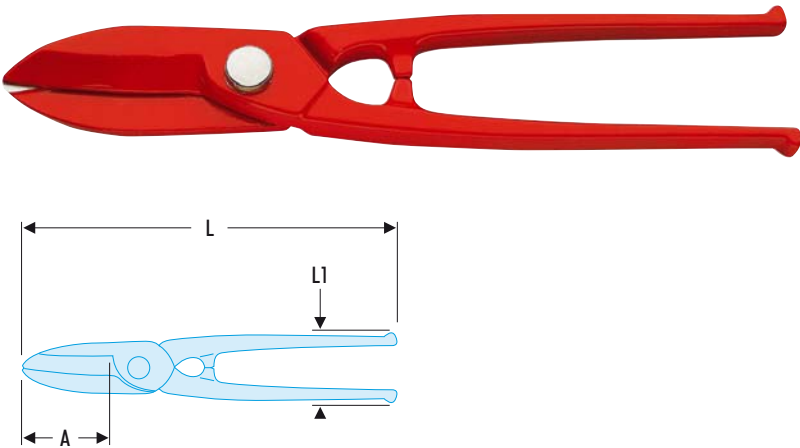
884 Panel shears



- The bottom-blade clearance makes these shears ideal for continuous straight cuts in large panels, leaving clean edges.
- Steel end stop.
- Right-hand panel shears: 884B.
- Right-hand high capacity panel shears: 884.30.
- Finish: Epoxy paint.

|        | A [mm] | L [mm] | L1 [mm]  | Capacity Stainless [80 kg/mm²] | Capacity Semi-hard steel [mm] | ΔΔ [g] |
|--------|--------|--------|----------|--------------------------------|-------------------------------|--------|
| 884B   | 40     | 260    | 43 - 130 | 0,8                            | 1,0                           | 670    |
| 884.30 | 52     | 300    | 45 - 150 | 0,9                            | 1,2                           | 840    |

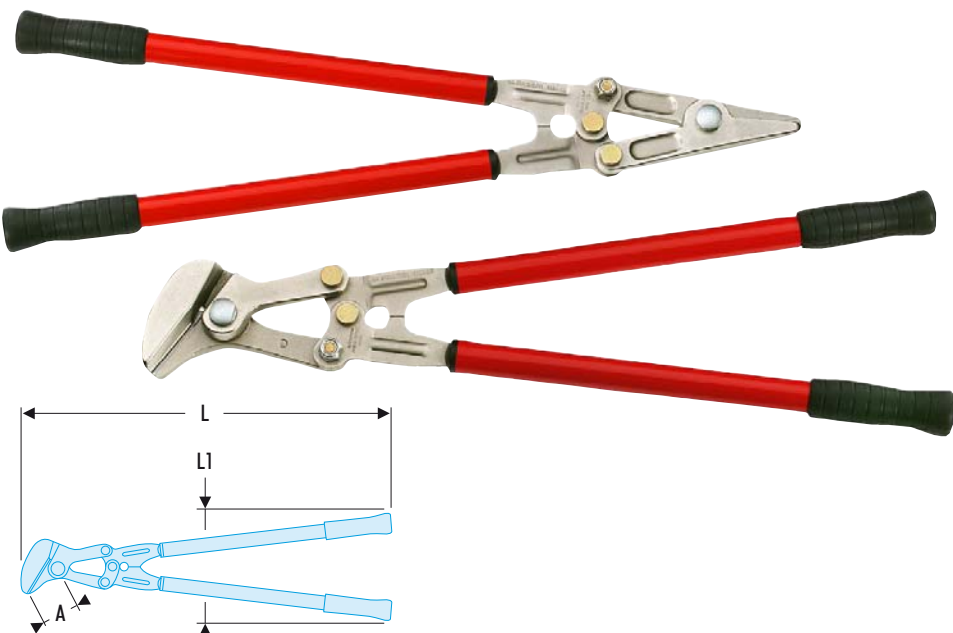
General-purpose shears



- 2 wide blades.
- Capacity:
  - Stainless 80 kg/mm²: 0.5 mm.
  - Semi-hard steel: 0.8 mm.
- Forged steel end stop.
- Finish: Epoxy paint.

|     | A [mm] | L [mm] | L1 [mm]    | ΔΔ [g] |
|-----|--------|--------|------------|--------|
| 880 | 55     | 260    | 45 --> 130 | 520    |

882A-884A Two-hand shears

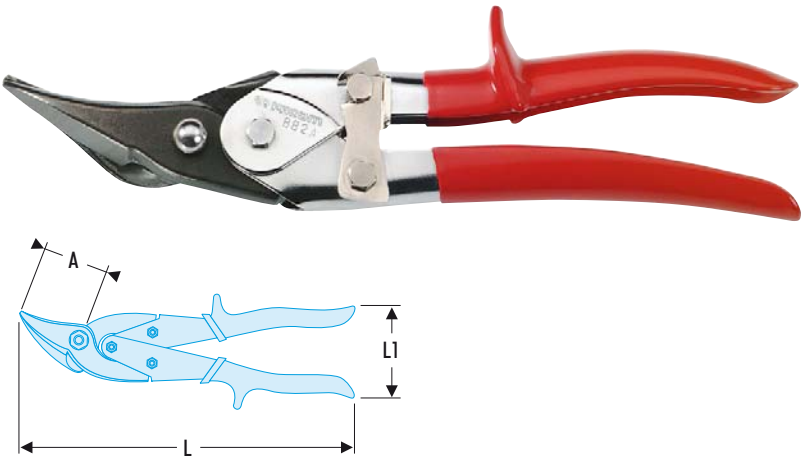


- Very high demultiplication.
- Forged steel end stop.
- Cutting capacity for blued sheet 120 kg/mm²: 2.0 mm (882A.65) and 2.5 mm (884A.65).
- Finish: Zinc-coated blades, tubular handles with neoprene grips.
- Spare blades:
  - 882A.L65 for 882A.65.
  - 884A.L65 for 884A.65.

|         | A [mm] | L [mm] | L1 [mm]     | ΔΔ [kg] |
|---------|--------|--------|-------------|---------|
| 882A.65 | 50     | 665    | 210 --> 820 | 2,130   |
| 884A.65 | 48     | 660    | 200 --> 790 | 2,400   |



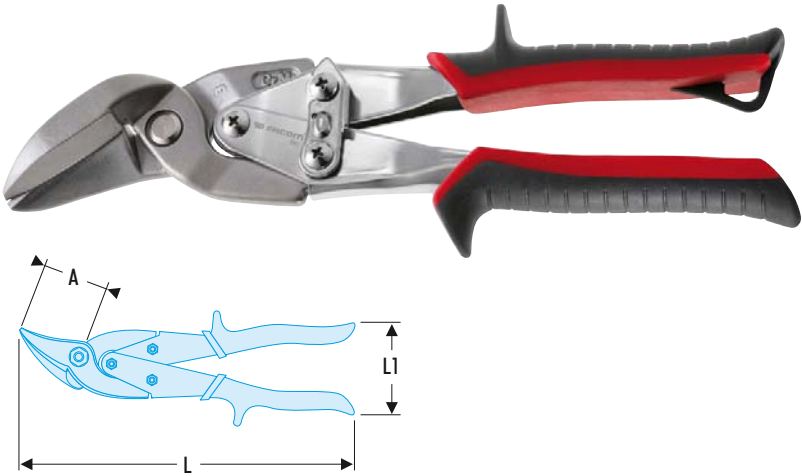
Right-cut universal scroll shears



- ASME B107.500**
- Demultiplication reducing efforts.
  - Forged, hardened and burnished blades.
  - Red sheathed grips with guard.
  - Inset opening spring.
  - Lock-closed catch.
  - Cutting capacity.
  - Stainless 80 kg/mm²: 0.8 mm.
  - Semi-hard steel: 0.8 mm.

|             | A [mm] | L [mm] | L1 [mm]  | ΔΔ [g] |
|-------------|--------|--------|----------|--------|
| <b>882A</b> | 32     | 250    | 45 - 130 | 475    |

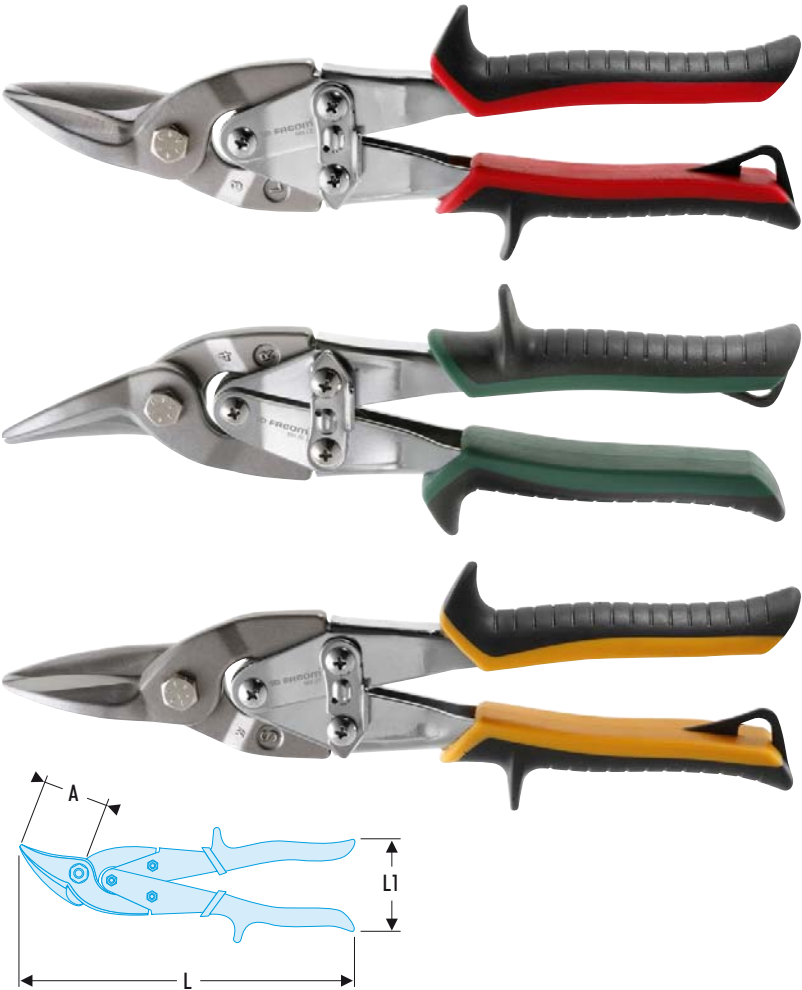
982 - Compound scroll shears



- ASME B107.500**
- Panel-type shears with slightly serrated cutting edges to prevent workpiece slip.
  - Good demultiplication and inset opening spring.
  - Forged chrome molybdenum blades.
  - Ergonomic non-slip bi-material grips.
  - Colour-coded according to direction of cut.
  - Red: left cut (Ref 982.G).
  - Green: right cut (Ref 982).
  - Jaw lock catch.
  - Cutting capacity.
  - Stainless 80 kg/mm²: 0.8 mm.
  - Semi-hard steel: 1.2 mm.

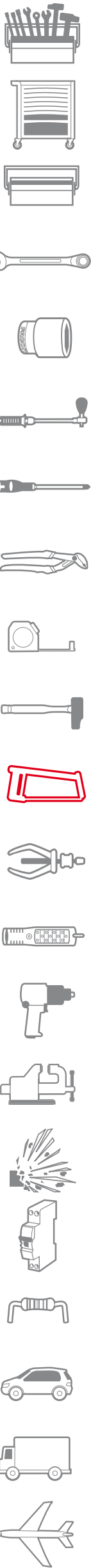
|              | A [mm] | L [mm] | L1 [mm]  | ΔΔ [g] |
|--------------|--------|--------|----------|--------|
| <b>982</b>   | 45     | 245    | 65 - 190 | 380    |
| <b>982.G</b> | 45     | 245    | 65 - 190 | 380    |

985 - «Aircraft» shears

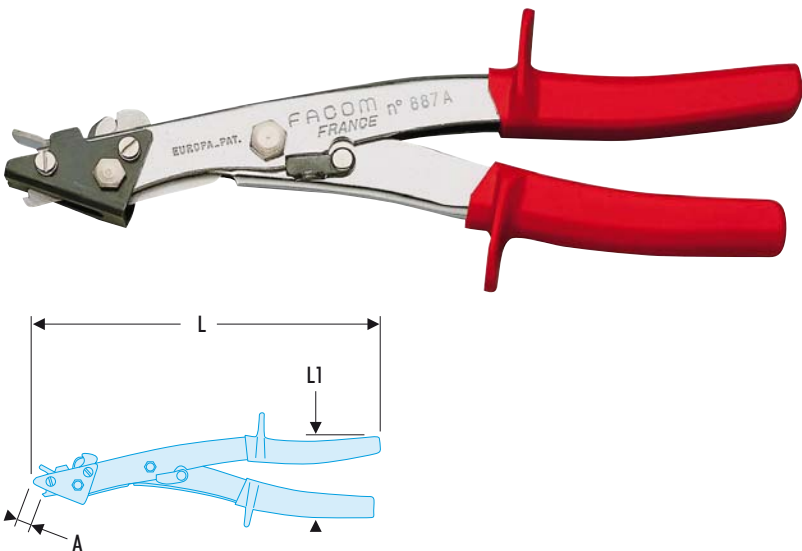


- ASME B107.500**
- High demultiplication allows long runs without effort.
  - Good demultiplication and inset opening spring.
  - Slightly serrated cutting edges prevent workpiece slip.
  - Forged chrome molybdenum blades.
  - Ergonomic non-slip bi-material grips.
  - Colour-coded according to direction of cut.
  - Red: left cut (Ref 985.LE).
  - Green: right cut (Ref 985.RI).
  - Yellow: straight cut (Ref 985.ST).
  - Jaw lock catch.
  - Cutting capacity:
  - Stainless 80 kg/mm²: 0.8 mm.
  - Semi-hard steel: 1.2 mm.

|               | A [mm] | L [mm] | L1 [mm]  | ΔΔ [g] |
|---------------|--------|--------|----------|--------|
| <b>985.LE</b> | 55     | 255    | 60 - 150 | 400    |
| <b>985.RI</b> | 55     | 255    | 60 - 150 | 400    |
| <b>985.ST</b> | 55     | 255    | 65 - 165 | 390    |



Nibblers



- Inset opening spring and high demultiplication allow effortless cutting along intricate patterns, removing a strip 2.8 mm wide.
- Die and blade system severs the strip at end of run.
- Top blades cut wire up to 2 mm in semi-hard steel and 2.5 mm in mild steel.
- Lock-closed catch.
- Cutting capacity.
  - Stainless 80 kg/mm<sup>2</sup>: 0,8 mm.
  - Semi-hard steel: 1 mm.
- Spare blade: 887A.L1.

|      | A [mm] | L [mm] | L1 [mm]  | ΔΔ [g] |
|------|--------|--------|----------|--------|
| 887A | 7      | 260    | 45 - 110 | 520    |

990.B BOLT CROPPERS

Powerful

- Increased steel-cutting capacity up to 160 kg/mm<sup>2</sup>.
- Available with forged arms.

Durable

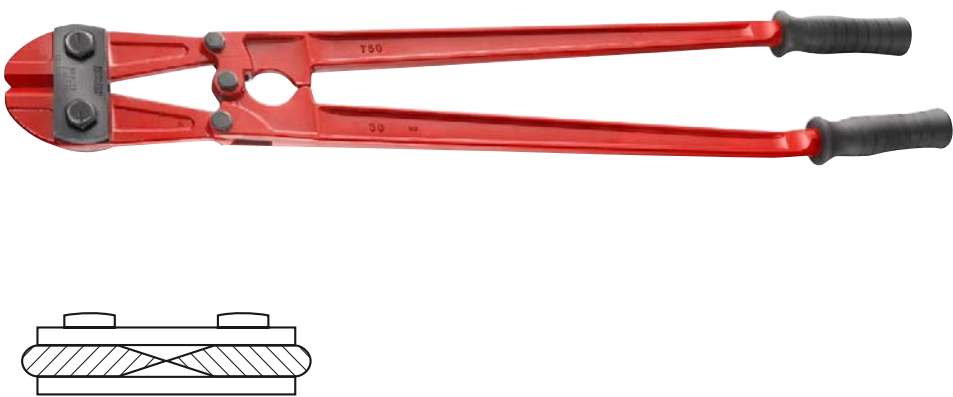
- Harder blades for a more durable cut.
- Body specially treated to reduce play to a minimum.
- High performance chrome blades.
- Eccentric screw adjustment of play between blades.

Efficient

- Minimum cutting effort.
- Handgrip with guard for greater comfort



990.BF - Axial cut bolt croppers



- Forged arms = less cutting flexion.
- High performance chrome blades.
- Harder blades for a more durable cut.
- Eccentric screw adjustment of play between blades.
- Hand grip with guard for greater comfort.

|         | L ["] | L [mm] | Ø [mm]: 60 - 140 - 160<br>kg/mm <sup>2</sup> | Blade   | ΔΔ [kg] |
|---------|-------|--------|----------------------------------------------|---------|---------|
| 990.BF0 | 18    | 450    | 7,0 - 6,0 - 5,5                              | 990.LB0 | 1,700   |
| 990.BF1 | 24    | 600    | 10 - 8 - 7                                   | 990.LB1 | 2,800   |
| 990.BF2 | 30    | 750    | 13 - 9 - 8                                   | 990.LB2 | 4,200   |
| 990.BF3 | 35    | 900    | 16 - 10 - 9                                  | 990.LB3 | 6,400   |
| 990.BF4 | 41    | 1050   | 18 - 11 - 10                                 | 990.LB4 | 8,600   |

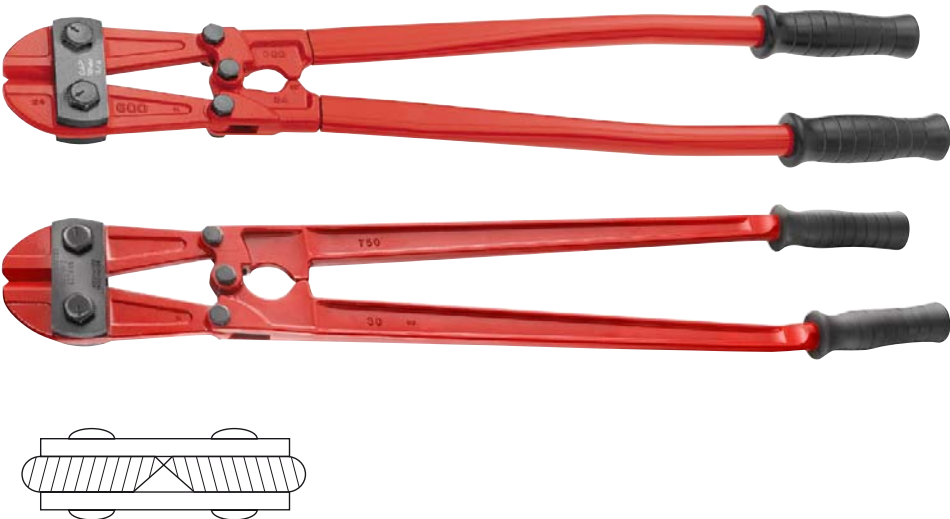
990.BF - Axial cut tubular arm bolt croppers



- High performance chrome steel blades.
- Harder blades for a more durable cut.
- Eccentric screw adjustment of play between blades.
- Hand grip with guard for greater comfort.

|        | L ["] | L [mm] | Ø [mm]: 60 - 140 - 160<br>kg/mm² | Blade   | ΔΔ [kg] |
|--------|-------|--------|----------------------------------|---------|---------|
| 990.B0 | 18    | 450    | 7,0 - 6,0 - 5,5                  | 990.LB0 | 1,700   |
| 990.B1 | 24    | 600    | 10 - 8 - 7                       | 990.LB1 | 2,800   |
| 990.B2 | 30    | 750    | 13 - 9 - 8                       | 990.LB2 | 4,200   |
| 990.B3 | 35    | 900    | 16 - 10 - 9                      | 990.LB3 | 6,400   |
| 990.B4 | 41    | 1050   | 18 - 11 - 10                     | 990.LB4 | 8,600   |

990.RB0 - Flush-cut bolt croppers



- Specific blades for high performance chrome steel flush cutting.
- Harder blades for a more durable cut.
- Eccentric screw adjustment of play between blades.
- Hand grip with guard for greater comfort.
- 990.BRF0: Forged arms.
- 990.R00 - 990.R0: Tubular arms.

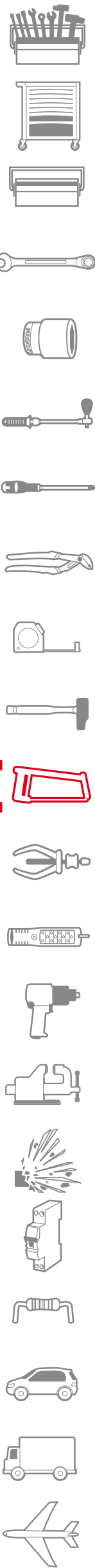
|          | L ["] | L [mm] | Ø [mm]: 60 - 140 - 160<br>kg/mm² | Blade     | ΔΔ [kg] |
|----------|-------|--------|----------------------------------|-----------|---------|
| 990.RB00 | 12    | 350    | 6 - 5 - 5                        | 990.LRB00 | 1,000   |
| 990.RB0  | 18    | 450    | 7,0 - 6,0 - 5,5                  | 990.LRB0  | 1,700   |
| 990.BRF0 | 18    | 450    | 7,0 - 6,0 - 5,5                  | 990.LRB0  | 1,700   |

990.LB Replacement blades for series 990.B (with screws)



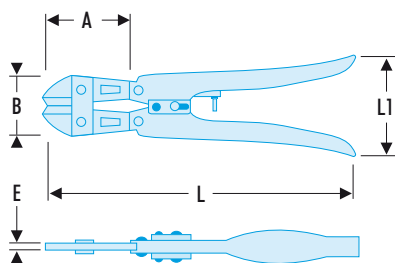
- Bolt-cropper blades are consumables and subject to normal wear. Facom guarantees their conformity to dimensional standards and suitability for recommended applications.
- Actual service life is dependent on conditions of use.
- Supplied with fasteners.

|           | For                | ΔΔ [kg] |
|-----------|--------------------|---------|
| 990.LB0   | 990.BF0 - 990.B0   | 0,650   |
| 990.LB1   | 990.BF1 - 990.B1   | 1,050   |
| 990.LB2   | 990.BF2 - 990.B2   | 1,650   |
| 990.LB3   | 990.BF3 - 990.B3   | 2,400   |
| 990.LB4   | 990.BF4 - 990.B4   | 3,400   |
| 990.LRB00 | 990.RB00           | 0,450   |
| 990.LRB0  | 990.BRF0 - 990.RB0 | 0,650   |





Mini croppers

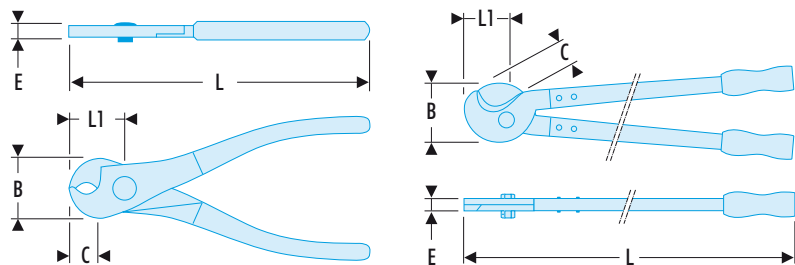


- Compact, lightweight tool with demultiplication system designed to cut hard and semi-hard wire: piano wire, bolts, rivets, pins and nails, etc.
- Forged, hardened blades.
- Cutting capacity:
  - Piano wire: max. diameter 2 mm to 200 kg/mm².
  - Soft wire: max. diameter 4 mm to 60 kg/mm².
- Ergonomic hardened pressed-steel handles with adjustable, shock-absorbing end stop.
- Spring-assisted opening.
- Blades lock in closed position.
- Finish: bronzed blades, painted grips.

|         | A [mm] | B [mm] | E [mm] | L [mm] | L1 [mm] | ΔΔ [g] |
|---------|--------|--------|--------|--------|---------|--------|
| 997A.20 | 54,5   | 40     | 4,5    | 210    | 57      | 275    |

Copper and aluminium cable cutters

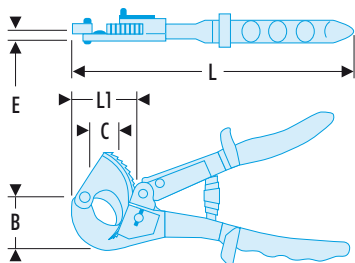
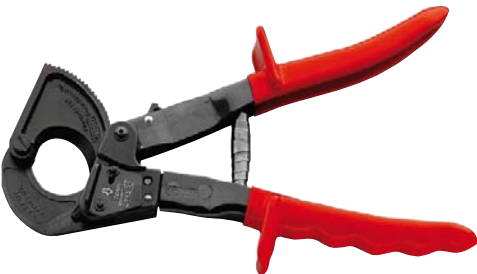
412 - Cable cutters



- 412B.10 “Compact” cable cutters:
  - Capacity: diameter 10 mm.
  - Integral opening spring.
  - Lock closed catch.
  - Cross proof design.
- 412.16 “Standard” cable cutters:
  - Capacity: diameter 16 mm.
  - Heavy-duty head, cross proof design.
  - Safety stop.
- 412.30 - 412.42 “Heavy-duty” cable cutters:
  - Capacity: 32 mm (Ref. 412.30) and 42 mm (Ref. 412.42).
  - Powerful action, cuts without crushing electric cables..
  - Safety stop.
  - Set of blades for 412.30: 412.L30.
  - Set of blades for 412.42: 412.L42.

|         | B [mm] | C [mm] | d mini - maxi [mm] | d [mm] | E [mm] | L [mm] | L1 [mm] | ΔΔ [kg] |
|---------|--------|--------|--------------------|--------|--------|--------|---------|---------|
| 412B.10 | 28     | 21     | 53 - 190           | 10     | 10     | 170    | 40      | 0,225   |
| 412.16  | 54     | 28     | 80 - 370           | 16     | 14     | 290    | 45      | 0,670   |
| 412.30  | 70     | 40     | 155 - 1000         | 32     | 16     | 600    | 60      | 2,460   |
| 412.42  | 115    | 70     | 200 - 1300         | 42     | 16     | 800    | 90      | 3,695   |

Ratchet cable cutters



- Ratchet-blade system for easy cut through thick gauge cables.
- Particularly useful in confined spaces.
- Non-slip grips with guards.
- Capacities: 32 - 52 mm.
- Spare blade for 413A.32: 413A.L32.

|         | B [mm] | C [mm] | d maxi [mm] | E [mm] | L [mm] | L1 [mm] | ΔΔ [g] |
|---------|--------|--------|-------------|--------|--------|---------|--------|
| 413A.32 | 58     | 34     | 32          | 7,8    | 255    | 65      | 385    |
| 413.52  | 80     | 53     | 52          | 8,0    | 275    | 75      | 800    |

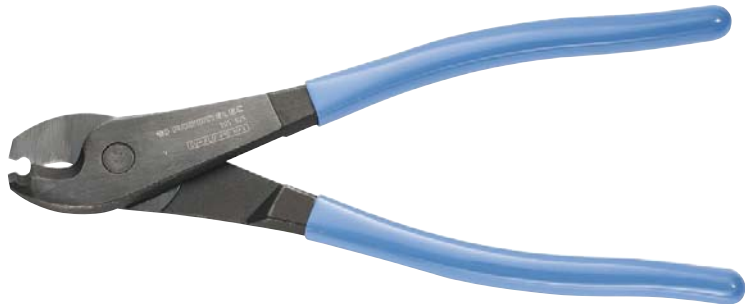


985912 Manual 10 mm dia. copper/aluminium cable cutters



- Notched end for stripping wires.
- For single and multi-strand cables.
- Capacity:
  - Multi-strand cable: diameter 10 mm.
  - Single strand copper: diameter 8 mm.
  - Almelec: diameter 6 mm.
- Length: 165 mm.
- Weight: 225 g.

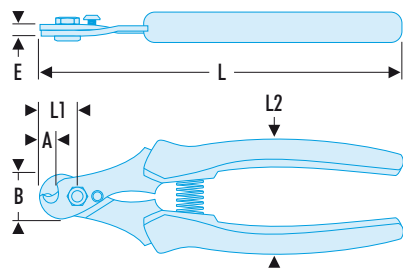
985925 Manual 18 mm dia. copper/aluminium cable cutters



- Notched end for stripping wires.
- For single and multi-strand cables.
- Capacity:
  - Multi-strand cable: diameter 18 mm.
  - Single strand copper: diameter 15 mm.
  - Almelec: diameter 10 mm.
- Length: 231 mm.
- Weight: 350 g.

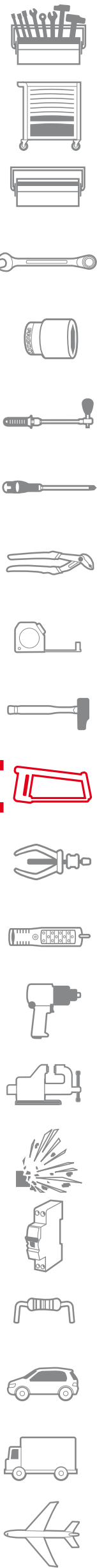
Steel cable cutters

«Compact» steel cable cutters

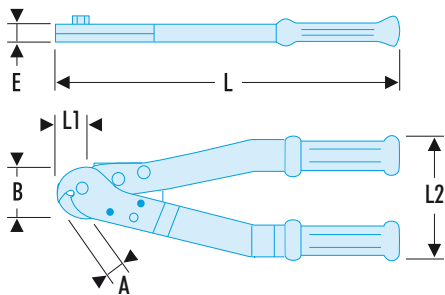


- Lightweight tool with blades and cutting angle designed for cutting solid materials and multi-strand cables.
- Push catch to lock closed, simply squeeze handles to release.
- Blades hardened to 60-62 HRc.
- Capacity:
  - 5 mm for 60 - 100 kg/mm<sup>2</sup> soft steel cable.
  - 4 mm for 130 - 160 kg/mm<sup>2</sup> hard steel cable.
  - 3 mm for 60 kg/mm<sup>2</sup> round cable.

|       | A [mm] | B [mm] | E [mm] | L [mm] | L1 [mm] | L2 [mm]  | ΔΔ [g] |
|-------|--------|--------|--------|--------|---------|----------|--------|
| 996.5 | 7      | 21     | 8      | 165    | 12      | 50 - 125 | 165    |



«Standard» steel cable cutters



- Blade inserts in high-performance steel.
- Compact and powerful with ergonomic grips.
- Capacity:
  - 8 mm for 60 - 100 kg/mm<sup>2</sup> soft steel cable.
  - 7 mm for 130 - 160 kg/mm<sup>2</sup> hard steel cable.
  - 6 mm for 60 kg/mm<sup>2</sup> round cable.
- Spare blades: 996.L8.

|       | A [mm] | B [mm] | E [mm] | L [mm] | L1 [mm] | L2 [mm]   | ΔΔ [g] |
|-------|--------|--------|--------|--------|---------|-----------|--------|
| 996.8 | 12     | 42     | 16     | 340    | 21      | 115 - 470 | 890    |

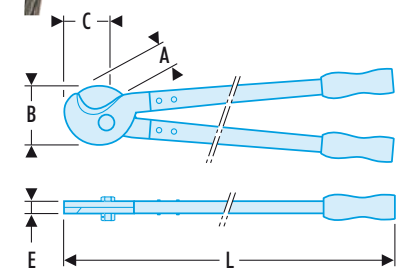
Steel cable cutters



- Compact and powerful model.
- Blade inserts in high-performance steel.
- Cross proof design.
- Capacity:
  - 12 mm for 60 - 100 kg/mm<sup>2</sup> soft steel cable.
  - 10 mm for 120 - 150 kg/mm<sup>2</sup> hard steel cable.
  - 8 mm for 60 - 80 kg/mm<sup>2</sup> round cable.
- Spare blades: 996.L12.

|         | A [mm] | B [mm] | E [mm] | L [mm] | L1 [mm] | ΔΔ [kg] |
|---------|--------|--------|--------|--------|---------|---------|
| 996A.12 | 20     | 73     | 16     | 600    | 50      | 2,730   |

«Power» steel cable cutters



- Maximum power model.
- Forged blades in high-performance steel.
- Cross proof design.
- Ergonomic handles.
- Capacity:
  - 16 mm for 60 - 100 kg/mm<sup>2</sup> soft steel cable.
  - 13 mm for 120 - 150 kg/mm<sup>2</sup> hard steel cable.
  - 10 mm for 60 - 80 kg/mm<sup>2</sup> round cable.
- Spare blades: 996.L16.

|        | A [mm] | B [mm] | E [mm] | L [mm] | L1 [mm] | ΔΔ [kg] |
|--------|--------|--------|--------|--------|---------|---------|
| 996.16 | 28     | 115    | 16     | 800    | 55      | 4,950   |

## THE NEW UTILITY KNIFE RANGE

## CUTTING TOOLS DESIGNED FOR PROFESSIONALS

## Uncompromising safety for professional applications.

- Recommended by the Health and Safety Committees (CHSCT).
- Avoids the risk of cuts as a result of handling the blade, or blade slippage.



- Automatic reload model.
- Blade lock feature.



## Productivity and efficiency.

- In-handle blade storage allows easy blade changes.
- Time-saving and safe.

**Especially designed for intensive and daily use.**

- Stainless steel blade guide providing perfect torsion resistance.
- Ergonomic handle for a more comfortable grip.
- Soft finish to avoid slippage.



## Rigorous quality.

- Dynamic endurance tested for mechanism lifetime.
- Load tested for blade-locking.
- Torsion tested to ensure blade retention.
- Tested for resistance to workshop chemicals.



**☐ Safety knife with retractable blade**

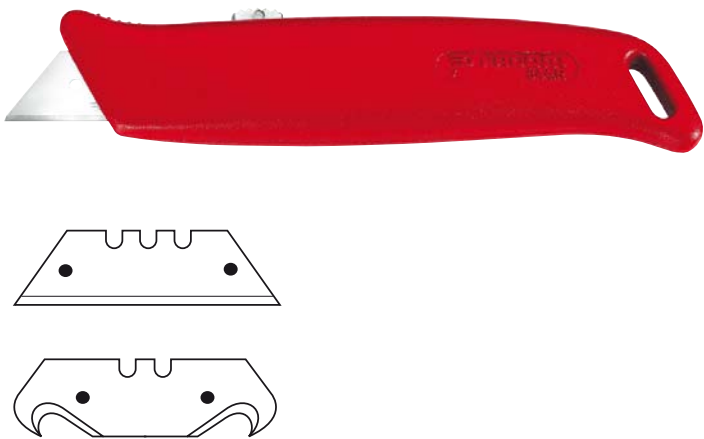


- Safety knife.
- Blade automatically retracts after use.
- Zamak body.
- ABS cursor, front or side thumb control.
- Supplied with 3 blades (1 factory-mounted and 2 in the body).

|  | E maxi [mm] | H mini - maxi [mm] | L [mm] | $\Delta\Delta$ [g] |
|---------------------------------------------------------------------------------------|-------------|--------------------|--------|--------------------|
| <b>844.D</b>                                                                          | 27          | 40,5 - 44,0        | 176    | 185                |



844.R Retractable utility knife with interchangeable blades



- Choice of 3 blade settings.
  - Moulded handle housing 5 blades.
  - Zamak body.
  - Zinc alloy slide-button.
- Weight: 190 g.

18 mm automatically reloading utility knife



- Productivity, accessibility, safety.
- Automatically reloading snap-off blades.
- Ergonomic soft ABS handle.
- Stainless steel blade guide.
- Blade lock knob.
- 6-blade cartridge.
- Integral blade snapper.

|  | E maxi [mm] | H [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|-------------|--------|--------|--------|
| 844.S18                                                                               | 24          | 47     | 172    | 160    |

Cutter with 18 mm snap-off blades



- Cutter with snap-off blades.
- Ergonomic soft ABS handle.
- Stainless steel blade guide.
- Automatic blade lock.
- 2-blade cartridge.
- Integral blade snapper.

|  | E [mm] | H [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|--------|--------|--------|--------|
| 844.SE18                                                                              | 24     | 43     | 172    | 90     |

Cutter with 9 mm snap-off blades



- Cutter with snap-off blades.
- Ergonomic soft ABS handle.
- Stainless steel blade guide.
- Automatic blade lock.
- 2-blade cartridge.
- Integral blade snapper.

|  | E [mm] | H [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|--------|--------|--------|--------|
| 844.S9                                                                                | 17     | 30     | 149    | 47     |

## BLADE SELECTION GUIDE

## Our cutting tool experience at the service of professionals

**A perfectly cut blade guarantees your safety.**

- A neat, clean cut.
- Does not damage the material to be cut.
- Effortless cutting without the risk of blade slippage or pull-out.
- Saves time.



## A choice of packaging

- 10 blade dispenser always handy.

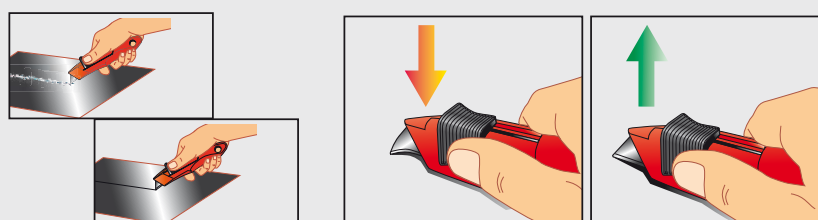


## Choosing the right blade.

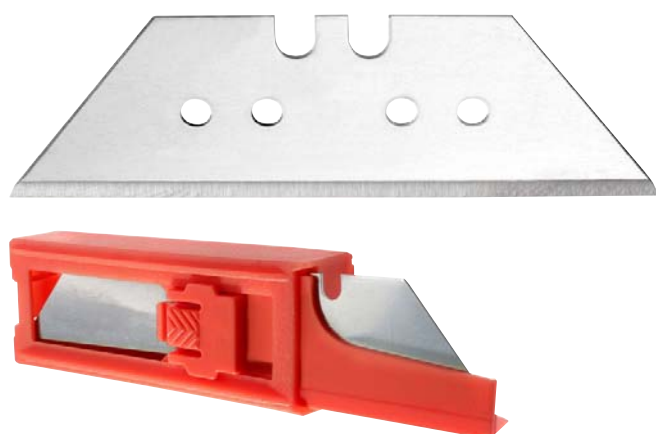
- What material is being cut ? Material, thickness.
- On what backing surface will cutting be performed ?  
(Does it need protecting ? )
- Is there a risk of slipping ? (uneven surface)
- What is the work environment ?
- What is the frequency of use ? What is the desired durability ?

## A blade is a compromise between :

- **Hardness** : For a strong cutting section and good stress resistance.
- **Flexibility** : For stress resistance as well as allowing the blade to twist without deforming for a neat cut.
- **Cutting angle** : to guarantee an optimum cut according to the material.



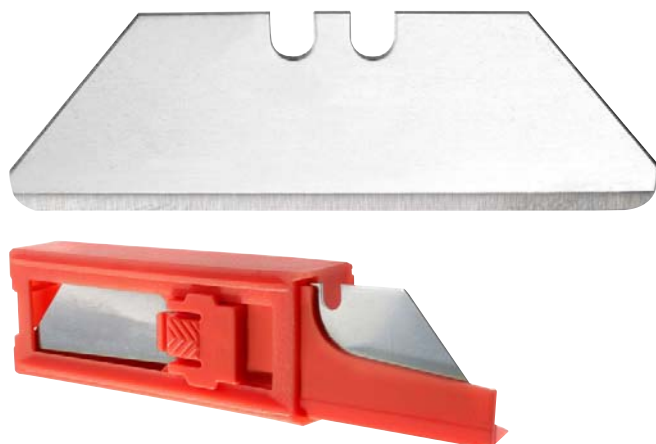
**High strength perforated trapezoidal blade**



- High strength trapezoidal blade.
- Designed to produce a perfect cut in intensive applications.
- Ideal for cutting:
  - Thick cardboard.
  - Hose.
  - Plastic.
  - Resilient foam.
  - Heat-shrinkable tubing.
  - Nylon strip.
  - Plastic tubes.
  - Seals.
- Supplied in a 10 blade dispenser.

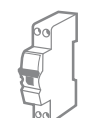
|  | E [mm] | H [mm] | L [mm] | $\Delta\Delta$ [g] |
|---------------------------------------------------------------------------------------|--------|--------|--------|--------------------|
| <b>844.TTL10</b>                                                                      | 0,65   | 19     | 60     | 50                 |

**High performance safety trapezoidal blade**

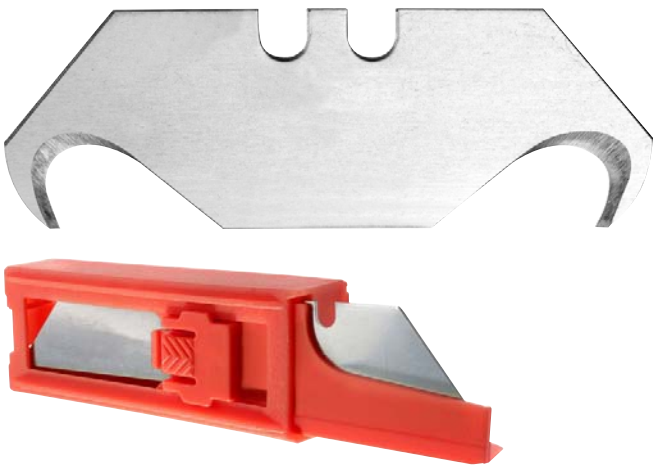


- High performance trapezoidal blade.
- Rounded corner to avoid risk of accidental cutting.
- Designed to produce a perfect cut in intensive applications.
- Ideal for cutting:
  - Thick cardboard.
  - Hoses.
  - Plastic.
  - Resilient foam.
  - Heat-shrinkable tubing.
  - Nylon strip.
  - Plastic tubes.
  - Seals.
- Supplied in a 10 blade dispenser.

|  | E [mm] | H [mm] | L [mm] | $\Delta\Delta$ [g] |
|---------------------------------------------------------------------------------------|--------|--------|--------|--------------------|
| <b>844.TRL10</b>                                                                      | 0,65   | 19     | 60     | 50                 |



High strength hook blade



- High strength hook blade.
- Specially designed to protect the backing during cutting.
- Ideal for cutting:
  - Floor finishes, e.g. carpet, lino, PVC or other laid material.
  - Straps and thick fabric.
- Supplied in a 10 blade dispenser.

|  | E [mm] | H [mm] | L [mm] | ΔΔ [g] |
|-------------------------------------------------------------------------------------|--------|--------|--------|--------|
| 844.TCL10                                                                           | 0,65   | 19     | 50     | 50     |

18 mm snap-off blades



- 7-segment 18 mm snap-off blade:
- Ideal for all everyday cutting applications.
  - Thick cardboard.
  - Hose.
  - Plastic.
  - Resilient foam.
  - Heat-shrinkable tubing.
  - Nylon strip.
  - Plastic tubes.
  - Seals.
- Warning, snap-off blades are not designed to withstand excessive torsion forces.
- Supplied in a 10 blade dispenser.

|  | E [mm] | H [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|--------|--------|--------|--------|
| 844.S18L10                                                                            | 0,53   | 18     | 110    | 90     |

9 mm snap-off blades



- 7-segment 18 mm snap-off blade:
- Ideal for all everyday cutting applications.
  - Thick cardboard.
  - Hose.
  - Plastic.
  - Resilient foam.
  - Heat-shrinkable tubing.
  - Nylon strip.
  - Plastic tubes.
  - Seals.
- Warning, snap-off blades are not designed to withstand excessive torsion forces.
- Supplied in a 10 blade dispenser.

|  | E [mm] | H [mm] | L [mm] | ΔΔ [g] |
|---------------------------------------------------------------------------------------|--------|--------|--------|--------|
| 844.S9L10                                                                             | 0,43   | 9,5    | 84     | 30     |

"CUT ALL" GENERAL-PURPOSE SHEARS

AN EFFORTLESS CLEAN CUT EVERY TIME

Aluminium sheet (up to 1 mm thick), hard metal sheet (up to 0.5 mm), PVC, cardboard, rubber, floor coverings up to 5 mm thick. Hoses, plastic ties, small diameter pipes, electric cables (up to d 2.5 mm), insulating foam, wrapping paper... and many other applications.

- 1-Precise  
serrated blades, no risk of slipping.
- 2-Smart  
2 opening positions, adapts to your hand. (26 mm / 36 mm).
- 3-Safe  
Locks in closed position.
- 4-Comfortable  
Non-slip bi-material grips.

980 - Straight serrated shears

980C - Angled serrated shears

- Ideal for cutting long lengths.
- Keeps the hand away from the cutting operation.



Multi purpose shears



980



980C

- 980: straight blade version.
- 980C: angled blade version.
- Blade opening 29 to 36 mm.
- Handle opening 77 to 102 mm.
- Comfortable: non-slip bi-material grips.
- Safe: locks in closed position.
- Accurate: slightly serrated blade prevents any risk of slippage.
- Ideal for all everyday cutting applications:
  - Cardboard, rubber, PVC, leather 5 mm thick.
  - Thin sheet steel 0.5 mm thick, aluminium sheet up to 1 mm thick.
  - Electric cables up to 2.5 mm diameter.
  - Hoses, tubes, insulating foam, etc.

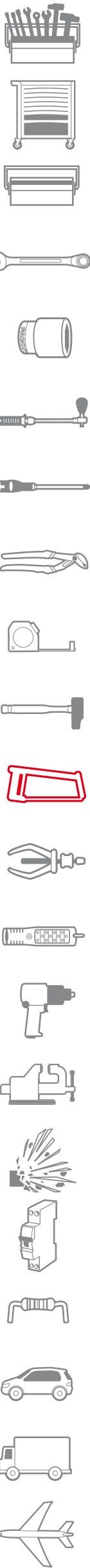
|      | B [mm] | C [mm] | L [mm] | ΔΔ [g] |
|------|--------|--------|--------|--------|
| 980  | 67     | 49     | 205    | 200    |
| 980C | 67     | 49     | 205    | 200    |

Sheathed electricians scissors



- Ergonomic plastic moulded sheathing, left/right hand.
- Long blades, with wire cutter.
- Finish: bi-material grips, burnished blades.

|        | L [mm] | Blade | ΔΔ [g] |
|--------|--------|-------|--------|
| 841A.4 | 143    | 45 mm | 80     |





Scissors - knives

Electricians scissors



- 100% metal handles, left/right hand.
- Short reinforced blades, with wire cutter.
- Finish: polished chromed.

|  | L [mm] | Blade | ΔΔ [g] |
|-------------------------------------------------------------------------------------|--------|-------|--------|
| 841                                                                                 | 150    | 33    | 95     |

Heavy-duty scissors



- Industrial model, very strong and high capacity.
- Ideal to cut leather, rubber, carpet, fabric, etc.
- 100% metal right-handed handles.
- Finish: polished chromed.

|  | L [mm] | Blade  | ΔΔ [g] |
|-------------------------------------------------------------------------------------|--------|--------|--------|
| 841.7                                                                               | 255    | 115 mm | 490    |

Multi-purpose scissors

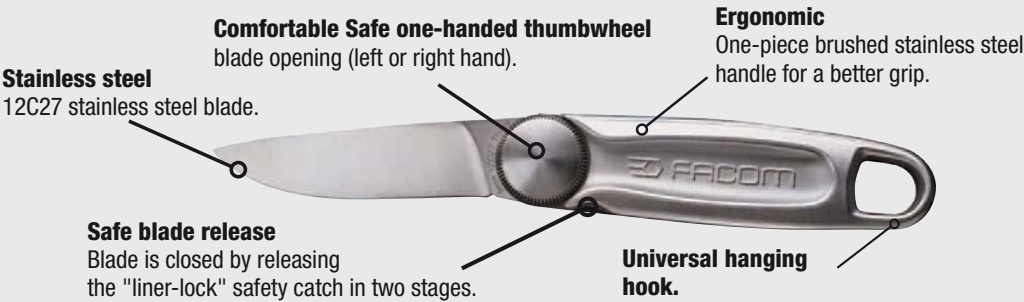


- Multiple use, highly versatile and maximum comfort.
- Exclusive FACOM ergonomic grip for right-handers for better comfort.
- Ideal for cutting thick cardboard, aluminium (thickness 0.2 mm), rubber (thickness 3mm), leather (thickness: 5 mm), rope, etc.
- Stainless steel blades: precision and better durability of the cutting edge.
- Finish: bi-material grips, burnished blades.

|  | L [mm] | Blade  | ΔΔ [g] |
|---------------------------------------------------------------------------------------|--------|--------|--------|
| 841A.9                                                                                | 255    | 107 mm | 210    |

840 THE 100% STAINLESS STEEL KNIFE

THE KNIFE DESIGNED AS A TOOL



  
**Comes with horizontal leather case** for complete freedom of movement and compliance with the safety regulations.

840LE Thumbwheel knife



- 12C27 stainless steel construction: very high corrosion resistance. Ideal in marine environments.
  - Quick one-handed opening.
  - Right/left hand.
  - Safe: Liner lock safety catch and 2 stage release.
  - Universal hanging hook.
  - Blade length 73.5 mm; closed length: 115.5 mm.
  - Total length: 189 mm.
  - Comes with horizontal leather case.
- Weight: 250 g.

### 840.4A Lock-back knife



- Polished stainless blade.
- Safe: lock-back.
- Rosewood handle and nickel silver bolster.
- Blade length 78 mm; closed length: 105 mm.
- Total length: 183 mm.
- Weight: 160 g.

### 840.F Lock-back knife with bi-material handle



- Blade in polished stainless steel. Blade partially smooth for accurate cutting and another serrated for powerful cutting.
- Quick one-handed opening.
- Knife at the tip of the knife: window breaker function.
- Safe: lock-back.
- Universal hanging hook.
- Clip at the back of the knife for direct hanging to the belt.
- Blade length 77 mm; closed length: 115 mm.
- Total length: 186 mm.
- Supplied in vertical nylon case which fastens to the belt.
- Weight: 170 g.

### 640180 Twin-blade electricians knife with plastic handle

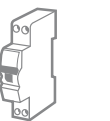
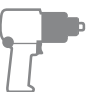
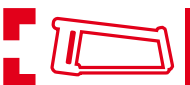
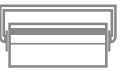


- Electricians knife with blades suitable for cable work:
  - 1 straight hollow ground general-purpose blade (length: 65 mm).
  - 1 short curved blade, specially designed for cable work (length: 35 mm).
- Safe: lock-back for each blade.
- Length closed: 104 mm.
- Total length: 131/169 mm.
- Weight: 100g.

### 840B Electricians knife with wire stripper



- Blade in polished stainless steel.
- Billhook blade.
- Wood handle.
- Blade length 60 mm; closed length: 100 mm.
- Total length: 160 mm.
- Weight: 85 g.



## 843 Twin-blade electricians knife with wood handle



- Blades in polished stainless steel.
- Billhook blade, length 65 mm.
- Straight blade, length: 80 mm.
- Wood handle.
- Length closed: 100 mm.
- Total length: 165/180 mm.
- Weight: 115 g.

## 840.1 Electricians knife with wire stripper with wood handle



- Blade in polished stainless steel.
- Blade with 2 notches:
  - 1 half-moon notch for stripping.
  - 1 vee for cutting.
- Rosewood handle.
- Blade length 77 mm; closed length: 103 mm.
- Total length: 180 mm.
- Weight: 75 g.

## PUNCH KIT

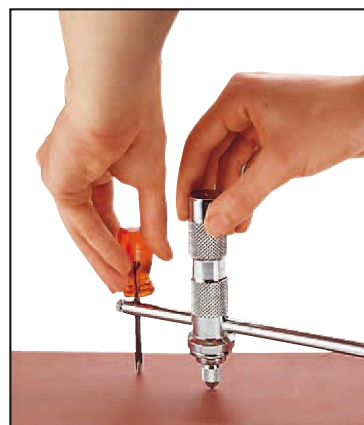
### THE SOLUTION TO EASILY PRODUCE ALL YOUR GASKETS

These kits are used to cut out clean and accurate circular gaskets in a variety of materials including cardboard, leather, rubber and fabric.

To cut holes Ø 3 to 50 mm, use a punch 245A.T with a shank 245A. M.

To cut holes Ø 44 to 420 mm, use calipers with centre-point and cutter.

All components are available either separately or in kits.



## 245.J1 «Standard» kit



- For making round gaskets.
- Cutting capacity.
  - Punch diameter: 3 to 30 mm.
  - Compass diameter: 56 to 330 mm.
- Supplied in a plastic case BP.115 with tray PL.100A.
- Dimensions (L. x W. x H.): 332 x 143 x 67 mm.
- Weight: 1.800 kg.



245.J2 «Maintenance» kit



- For making round gaskets.
- Cutting capacity:
  - Punch diameter: 3 to 50 mm.
  - Compass diameter: 44 to 420 mm.
- Supplied in a plastic case BP.109 with tray PL.99A.
- Dimensions (L. x W. x H.): 478 x 234 x 72 mm.
- Weight: 3.700 kg.

245A.C Scriber



- For making round gaskets.
- Cutting capacity: diam. 44 to 420 mm.
- Supplied in plastic case, dim.(L. x W. x H.): 260 x 90 x 40 mm.
- Weight: 590 g.

245A.T - Punches



|          | Capacity Cubic<br>Ø maxi [mm] | d [mm] | For             | ΔΔ [g] |
|----------|-------------------------------|--------|-----------------|--------|
| 245A.T3  | M13 x 100                     | 3      | 245.J1 - 245.J2 | 10     |
| 245A.T4  | M13 x 100                     | 4      | 245.J1 - 245.J2 | 10     |
| 245A.T6  | M13 x 100                     | 6      | 245.J1 - 245.J2 | 15     |
| 245A.T8  | M13 x 100                     | 8      | 245.J1 - 245.J2 | 15     |
| 245A.T10 | M13 x 100                     | 10     | 245.J1 - 245.J2 | 15     |
| 245A.T12 | 21                            | 12     | 245.J1 - 245.J2 | 20     |
| 245A.T14 | 28                            | 14     | 245.J1 - 245.J2 | 20     |
| 245A.T16 | 21                            | 16     | 245.J1 - 245.J2 | 20     |
| 245A.T18 | 21                            | 18     | 245.J1 - 245.J2 | 25     |
| 245A.T20 | 21                            | 20     | 245.J1 - 245.J2 | 25     |
| 245A.T22 | 31                            | 22     | 245.J1 - 245.J2 | 40     |
| 245A.T24 | 31                            | 24     | 245.J1 - 245.J2 | 40     |
| 245A.T26 | 31                            | 26     | 245.J1 - 245.J2 | 45     |
| 245A.T28 | 31                            | 28     | 245.J1 - 245.J2 | 50     |
| 245A.T30 | 31                            | 30     | 245.J1 - 245.J2 | 60     |
| 245A.T32 | 41                            | 32     | 245.J2          | 75     |
| 245A.T34 | 41                            | 34     | 245.J2          | 80     |
| 245A.T36 | 41                            | 36     | 245.J2          | 80     |
| 245A.T38 | 41                            | 38     | 245.J2          | 75     |
| 245A.T40 | 41                            | 40     | 245.J2          | 75     |
| 245A.T42 | 52                            | 42     | 245.J2          | 100    |
| 245A.T44 | 52                            | 44     | 245.J2          | 105    |
| 245A.T46 | 52                            | 46     | 245.J2          | 105    |
| 245A.T48 | 52                            | 48     | 245.J2          | 100    |
| 245A.T50 | 52                            | 50     | 245.J2          | 100    |

Accessories for punches and calipers



|         | No. | For                      | ΔΔ [g] |
|---------|-----|--------------------------|--------|
| 245A.M1 | 1   | 245.J1                   | 450    |
| 245A.M2 | 2   | 245.J1                   | 530    |
| 245A.M3 | 3   | 245.J1                   | 310    |
| 245A.M4 | 4   | 245.J1 - 245.J2          | 150    |
| 245A.P1 | 5   | 245.J1 - 245.J2 - 245.AC | 40     |
| 245A.C1 | 6   | 245.J1 - 245.J2 - 245.AC | 40     |
| 245A.B1 | 7   | 245.J1                   | 130    |
| 245A.B2 | 8   | 245.J1 - 245.J2          | 160    |