

# Speed

## Operating Manual

Original Instructions

D441955XA

vers. 1.0



EN



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*The information has been drawn up by the manufacturer in his own language (Italian) to provide users with the necessary indications to use the key-cutting machine independently, economically and safely.*

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*Said trade-marks or trade names are nominated only for the purposes of information so that any lock for which our keys are made can be rapidly identified.*

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## USE OF THE MANUAL

This manual has been drawn up by the Manufacturer and is an integral part of the machine literature. The manual gives information it is obligatory for the operator to know and which makes it possible to use the machine safely.

### User's Manual

This user's manual is provided because it is essential for proper use and maintenance of the machine. The manual must be kept carefully throughout the life of the machine, including the decommissioning stage. Keep in a dry place close to the machine where it is always to hand for the operator.



**ATTENTION: IT IS OBLIGATORY to read the manual carefully before using the machine.**

### Readers' characteristics

This manual must be read and its contents acquired by those who will use it.

### Manufacturer's ID

SPEED has an ID plate located on the back of the machine, showing the serial number.

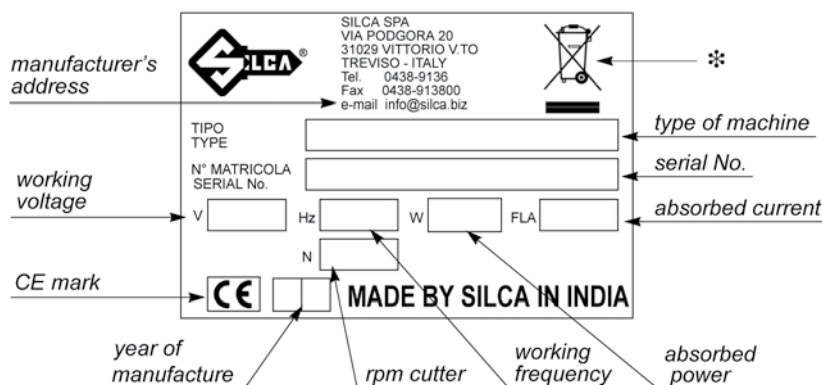


Fig.1

(\*) see chap.7 DISPOSING OF MACHINE.

### How to apply for after-sales service

Silca provides purchasers of SPEED with After-Sales Service. For the total safety of the operator and machine, any operation not described in the manual must be carried out by the manufacturer or in the special Service Centres recommended by Silca.

At the end of the manual there is a list of manufacturers' and authorized Service Centre addresses.

The warranty card attached to the machine covers free repairs or replacement of faulty parts for 24 months from the date of purchase\*.

All operations must be agreed by the user with Silca or the Service Centre.

\* Damage caused by negligence or wrong use of the machine by the user will null the warranty.

TERMINOLOGY

For those inexperienced in the subject of keys and key cutting, below is an illustration of the most frequently used terms:

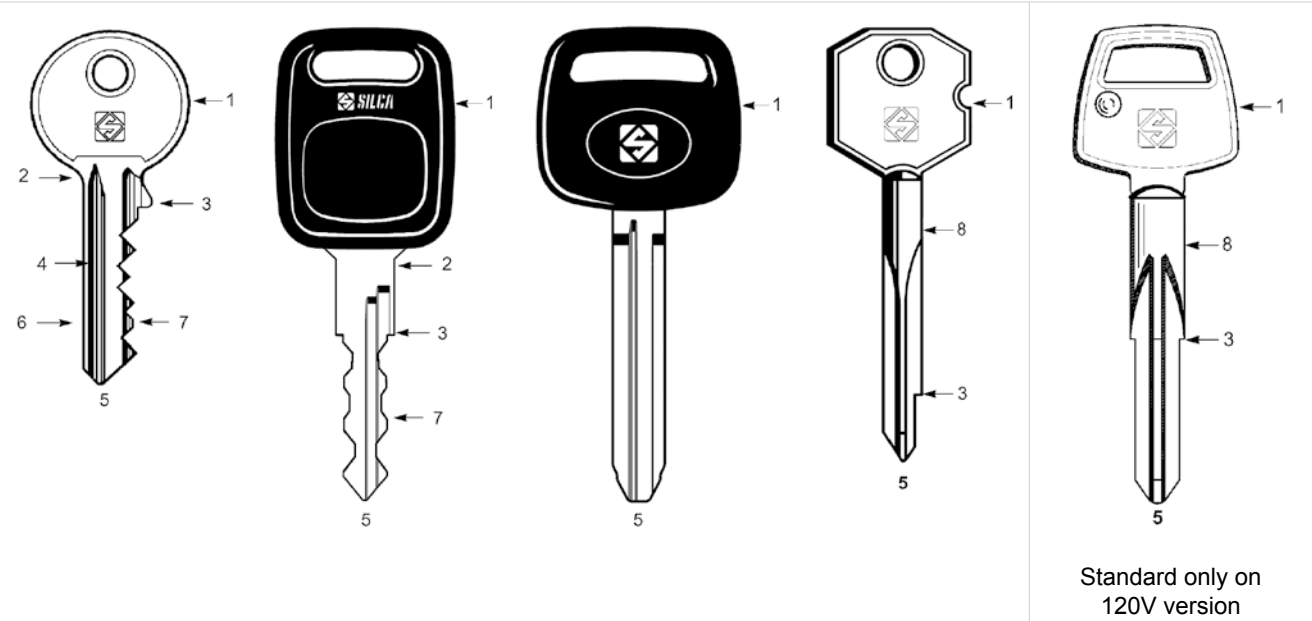


Fig.2

1) Head	3) Stop	5) Tip	7) Cuts
2) Neck	4) Blade	6) Back	8) Stem

GRAPHICS IN THE USER’S MANUAL

Pay attention	Obligation to read the manual

GRAPHICS ON THE SPEED MACHINE

Obligatory use of safety goggles	Read instructions before use	WARNING! cutting tool in motion
WARNING! presence of electric power	Earth connection	Cutter rotation direction

## GENERAL WARNINGS

SPEED is designed to the principles of European Standards (CE). Right from the design stage solutions have been adopted to eliminate hazards for the operator in all the stages of use: handling, regulation, use and maintenance. The materials used in manufacture and the components employed in using SPEED are not dangerous and ensure that the machine complies to current standards.

Silca S.p.A. has also experimented and applied numerous technical solutions that allow the key-cutting machine to optimize the quality of the cut keys.

To guarantee maintaining these results over time, please follow the instructions below:

- **Observe the procedures described in this manual;**
- **Always use Original Silca Tools as they are designed to make the best of SPEED and provide quality key-cutting;**
- **Use Silca key blanks, made with top quality materials;**
- **Have the key-cutting machine checked periodically by an authorized Silca After-Sales Service Centre (list at the end of this manual);**
- **Always use Silca Original Spare Parts. Beware of imitations!**

## NORMAL USE

SPEED is a key-cutting machine and must be installed and used according to the rules and specifications established by the manufacturer.

Any other use different from that indicated in this manual will cause the forfeiture of all customers' rights to make claims on Silca S.p.A. and may be an unknown source of hazard for the operator or third parties.



**ATTENTION: negligent use or failure by the operator to observe the instructions in this manual are not covered by the warranty and the manufacturer declines any responsibility in such cases.**

## SAFETY

The key-cutting machine is built entirely to standards. The operations for which it has been designed are easily carried out at no risk to the operator.

The adoption of general safety precautions (wearing protective goggles) and observation of the instructions provided by the manufacturer in this manual eliminate all human error, unless deliberate.

The key-cutting machine is designed with features which make it completely safe in all its parts.

- **Cutter motor protection**



**ATTENTION: the cutter motor is protected from overheating by a device (inside the motor) that stops it when it reaches a dangerous temperature.**

This condition can occur when the machine motor is left on continuously, with high ambient temperatures or in severe working conditions. If the cutter motor overheats it cuts out automatically. In such cases proceed as follows:

- a) turn off the master switch (H).
- b) let the motor cool for at least 2 hours then use the machine normally.

## RESIDUAL RISKS

There are no further risks arising from the use of the machine.

## SAFETY REGULATIONS

- Always disconnect the machine when it is not in use or when performing maintenance operations.
- Check the electrical wiring periodically; replace any wires that show signs of wear.
- Always work with dry hands free of grease or oil.
- Never pull hard on the power lead and make sure it does not come into contact with oil, sharp objects or heat. Never remove the earth wire from the plug. Make sure the earth wire connection is sound.
- Do not use the machine in dangerous environments (wet or damp).
- All visitors, especially children, must stay at a safe distance from the machine and must never come into contact with the electric wiring.

## 1 MACHINE DESCRIPTION

SPEED is a professional cutting machine for flat keys used with cylinder, car locks and cruciform.

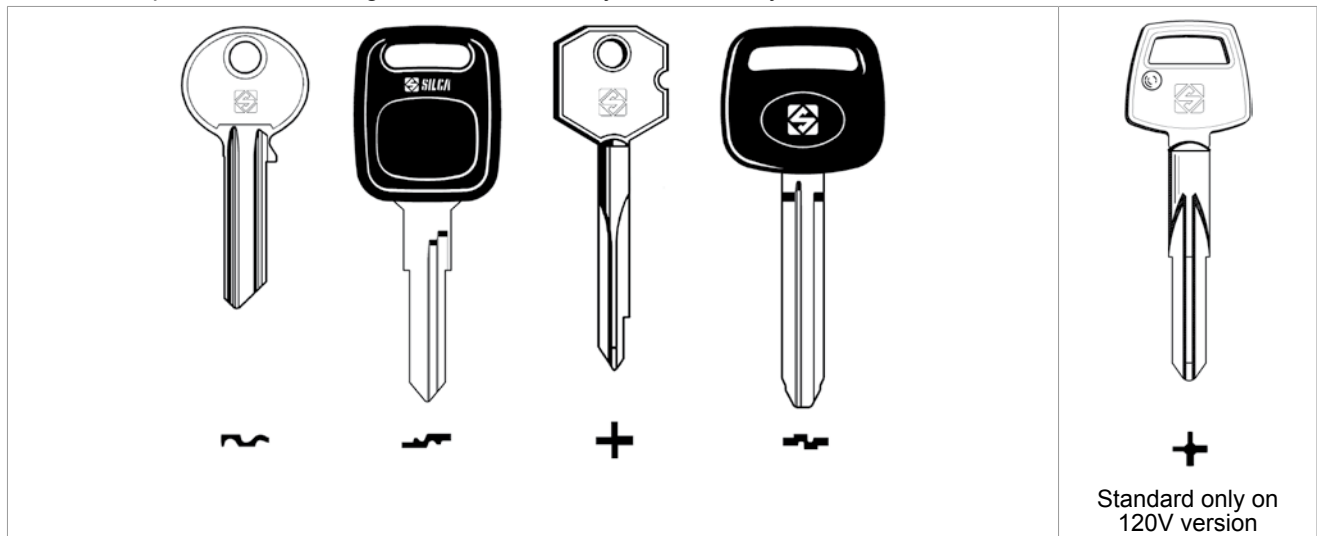


Fig.3

The main parts of the machine are described below:

- **Main switch**

The key-cutting machine is connected to a power socket provided with a differential switch; when the machine is turned on by means of the switch (H) located on its right-hand side, the warning light (H1) comes on to show that the machine is live.



**ATTENTION:** switch (H) is electromagnetic, in the event of a power failure it goes out automatically. When electricity is restored it must be reset manually to power the machine again by means of the plug.

- **Motor start-up switch**

On the left-hand side of the motor there is the motor start switch (K).



**ATTENTION:** the illuminated switch remains on to indicate that the key-cutting machine has been started (cutter in motion).

- **Motor and transmission unit**

Motor transmission takes place by belt. On the right-hand side of the motor there is the transmission shaft which moves the cutting tool (F) and the brush (S) (see Fig.5). These components are protected by:

- cutting tool cover (N)
- brush cover (P)

- **Clamp carriages**

The horizontal carriage (C) controlled by lever (A) has a handle (B) for front movement and holds 2 clamps (D).

The carriage is so designed as to avoid accumulation of dust or cutting swarf.

The machine is designed with a ramp along which chippings can fall into the special chippings tray (L) placed under the carriage and easily removable for emptying and cleaning.

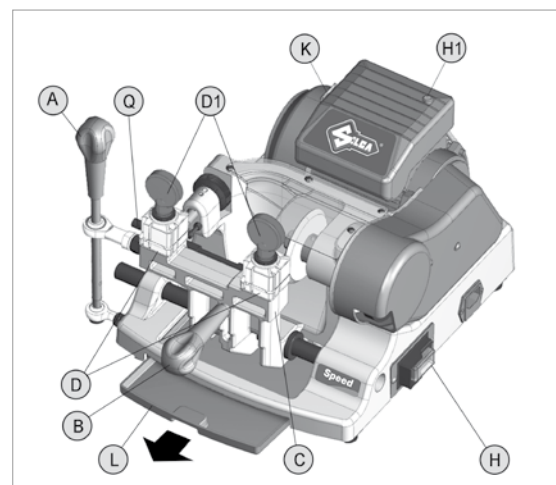


Fig.4



- **Cutting unit**

The cutting unit contains the actual working parts of the SPEED key-cutting machine, which operate together to cut and finish keys “read” from the originals. The working parts are described below:

- **Cutting Tool**

The cutting tool (F) is the part of the SPEED used for cutting key blanks. The cutting tool is in HSS super rapid steel and is protected by a special cover (N) to ensure safe operation.

- **Tracer point**

The tracer point (E) dedicated to reading the cuts on keys to be copied is housed on the left-hand side of the machine. Depth is easily regulated by means of the relevant centesimal ring nut (G).

- **Clamps**

The clamps (H) are rotating and four-sided to allow perfect closure of the key placed on its back or profile in the case of keys with symmetrical cuts (chap.5.1).

- **Clamp knobs**

The clamps are locked by two anatomical knobs (D1), which ensure perfect grip on the keys with only slight locking pressure.

- **Gauges**

Next to the clamps there is a rod with two gauge tabs to control key alignment.

- **Brush**

The brush (S) is used to eliminate burrs from the cuts and is made of non-abrasive material.

## 1.1 Main working parts

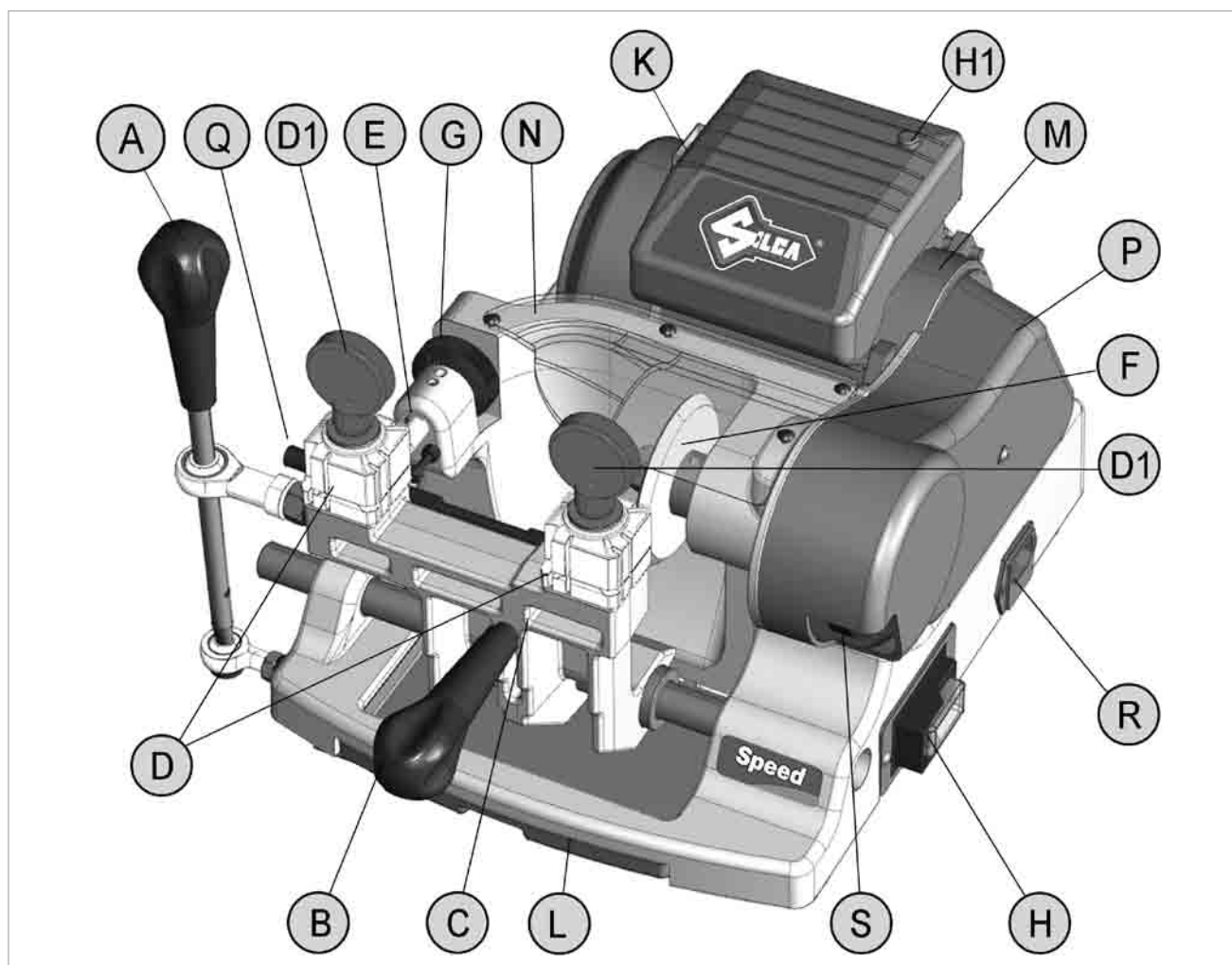


Fig.5

- |                             |                            |
|-----------------------------|----------------------------|
| A - carriage movement lever | H1 - warning light (power) |
| B - carriage handle lever   | K - motor start switch     |
| C - clamp carriage          | L - swarf tray             |
| D - clamps                  | M - motor                  |
| D1 - clamp knobs            | N - cutting tool cover     |
| E - tracer point            | Q - gauges knob            |
| F - cutting tool            | P - brush/belt cover       |
| G - tracer point ring nut   | R - power supply socket    |
| H - main switch             | S - brush                  |

## 1.2 Technical Data

<b>Power supply:</b>	230V - 50/60Hz 120V - 60Hz
<b>Maximum absorbed power:</b>	230V: 2 Amp. 180 Watt 120V: 4,3 Amp. 180 Watt
<b>Cutter motor:</b>	single phase and speed
<b>Movements:</b>	by ball joint on rectified carriage
<b>Cutter:</b>	HSS Super Rapid Steel
<b>Tool speed:</b>	50Hz: 600 rpm 60Hz: 720 rpm
<b>Runs (maximum length of cuts):</b>	42 mm
<b>Dimensions:</b>	width: 400 mm - depth: 460 mm - height: 300 mm
<b>Mass:</b>	Kg. 14
<b>Noise level:</b>	sound pressure Lp(A) = less than 70 dB(A)

## 1.3 Electric circuit

The main parts of the electric circuit on the key-cutting machine are listed below:

- 1) Power supply socket
- 2) Fuses 4 Amp rapid (230V) - 8 Amp rapid (120V)
- 3) Master switch
- 4) LED
- 5) Motor start switch
- 6) Motor with collector: 230V-50/60Hz (120V-60Hz)
- 7) Condenser

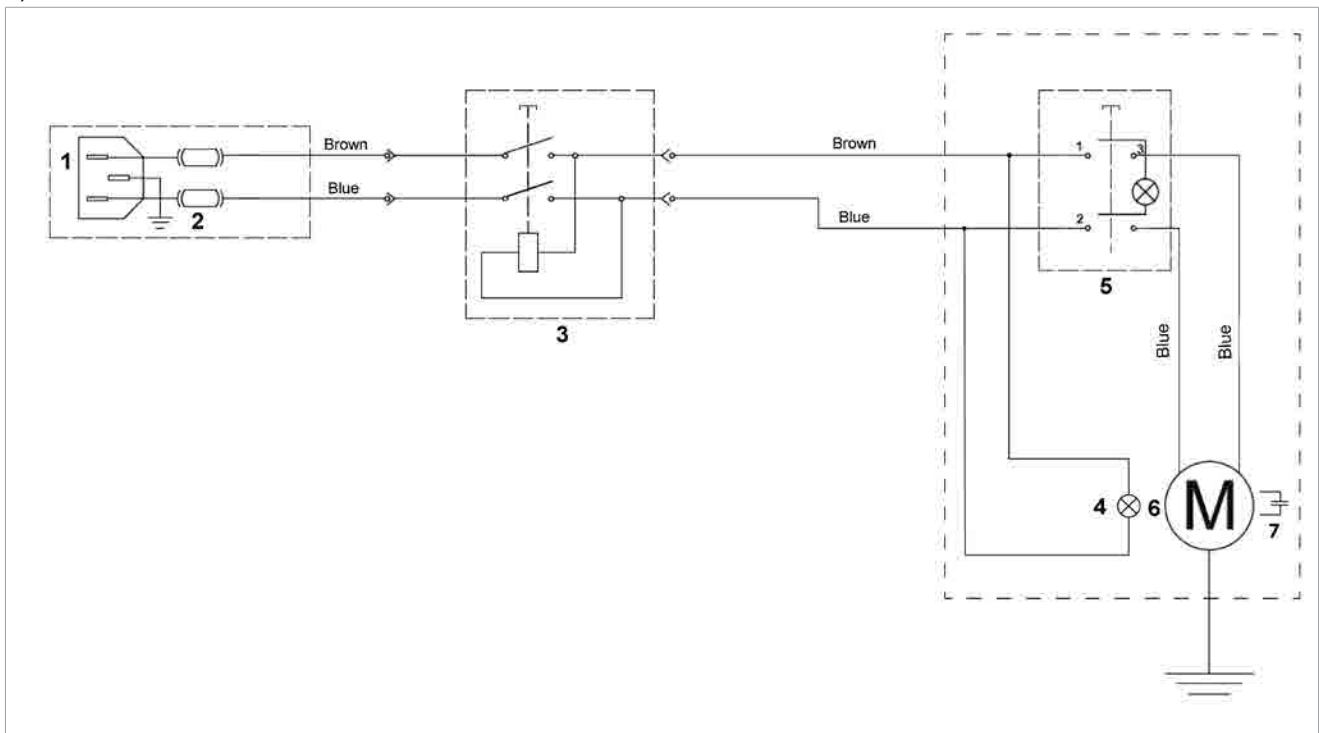
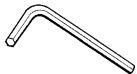
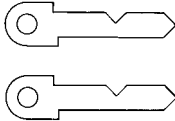

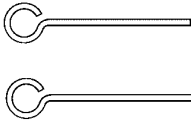

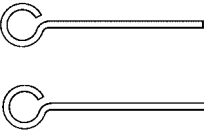


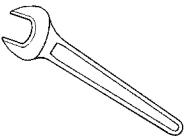


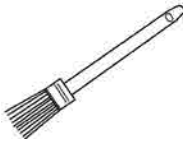


Fig.6

### 1.4 Accessories provided

SPEED comes with a set of accessories for its operation and maintenance (tools, hex wrenches, fuses) supplied in a special tool kit comprising:

allen key 2,5 mm 	adjusting keys (2 pcs) 
allen key 3 mm 	steel pin Ø 1,20 mm 
allen key 4 mm 	steel pin Ø 1,70 mm 
allen key 5 mm 	steel bars (2 pcs) 
spanner 19 mm 	fuse 4 Amp rapid (230V) fuse 8 Amp rapid (120V) 
Cutter release rod 	cleaning brush 

## 2 TRANSPORT

The SPEED key-cutting machine is easily transported and is not dangerous to handle. The packed machine can be carried by one person.

### 2.1 Packing

The SPEED is packed in a strong cardboard box, the dimensions of which are shown in Fig.7, sufficiently robust to be used for storing the machine for long periods.

Inside the box the machine is enclosed in two expanded polymer shells. The shells and cardboard box ensure safe transportation and protect the machine and all its parts.

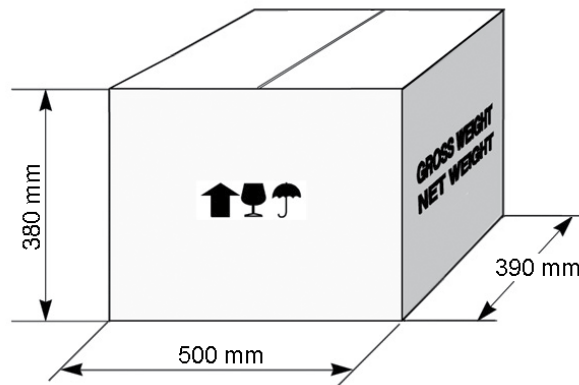


Fig.7



Keep dry



Handle with care



This side up

---

**NOTE:** to avoid damaging the key-cutting machine it must always be transported in its packing case. This will prevent sudden movements or rough handling from damaging the machine, persons or things.

---

### 2.2 Unpacking

To remove the machine from the packing box:

- 1) Cut the straps with scissors and remove.
- 2) Open the box without damaging it as it may be used again (e.g. removals, dispatch to the manufacturers for repairs or servicing).
- 3) Check the contents of the box, which should comprise:
  - 1 SPEED key-cutting machine packed in a protective shell;
  - 1 set of documents, including: operating manual, spare parts list and guarantee;
  - 1 carriage lever handle;
  - 1 power cable
  - 1 tool set;
- 4) Remove the key-cutting machine from the protective shell.

### 2.3 Handling the machine

When the SPEED has been unpacked, place it directly on its workbench. This operation can be carried out by one person.



**ATTENTION:** firmly holding the base, and no other part, to lift and carry the machine.

### 3 MACHINE INSTALLATION AND PREPARATION

The SPEED key-cutting machine can be installed by the purchaser and does not require any special skills. However, some checks and preparation for use need to be carried out by the operator.

#### 3.1 Checking for damage

The SPEED key-cutting machine is solid and compact and will not normally damage if transport, unpacking and installation have all been carried out according to the instructions in this manual.

However, it is always advisable to check that the machine has not suffered any damage.

#### 3.2 Environmental conditions

To ensure that the best use is made of the SPEED key-cutting machine, certain parameters must be borne in mind: damp, badly ventilated sites should be avoided.

The ideal conditions for the machine are:

- temperature: between 10°C and 40°C;
- relative humidity: 60% circa;
- room illumination: approximately 500 Lux.

#### 3.3 Positioning

- 1) Place the key-cutting machine on a horizontal surface, solid enough to take the weight (14 Kg).
  - to work with ease, we suggest that the workbench be approximately the height of the operator's hip.
  - it is important to leave clearance of at least 30 cm behind the machine and on each side to ensure proper ventilation (Fig.8).
- 2) Ensure that the machine's voltage is the same as that of the mains power supply, which must be properly earthed and provided with a differential switch.
- 3) Connect the power supply cable to the power supply socket.



Fig.8

#### 3.4 Description of work station

The key-cutting machine needs only one operator, who has the following controls at his/her disposal:

- Main switch (H)
- Motor start switch (K)
- Carriage movement lever (A)
- Carriage handle lever (B)
- Gauge knob (Q)
- Clamps (D)
- Clamps knobs (D1)

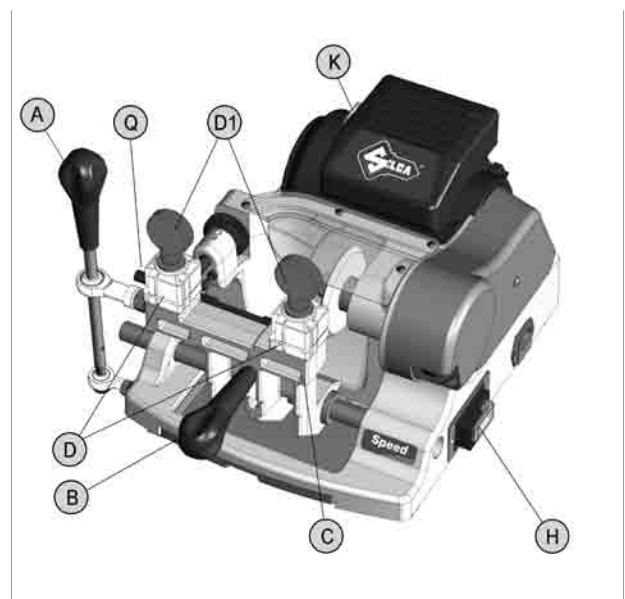


Fig.9

### 3.5 Separate parts

The separately packed parts must be installed on the SPEED key-cutting machine by the purchaser, as follows:

#### Carriage lever handle

Screw the handle (B) onto the carriage lever (Fig.10).

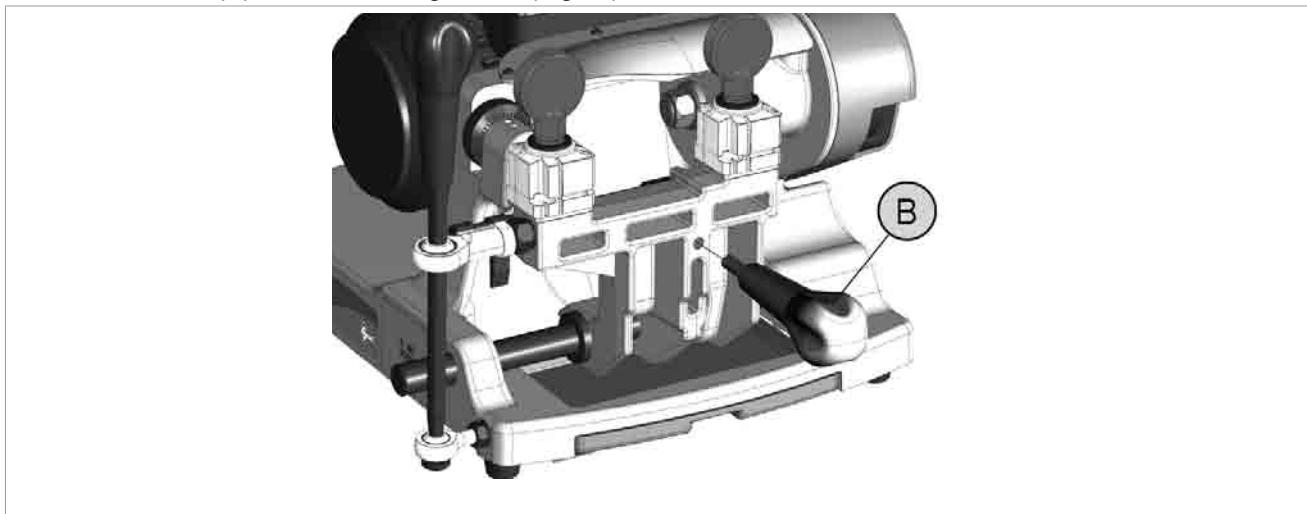


Fig.10

#### Power cable

Connect the key-cutting machine power cable to the electricity mains (Fig.11).

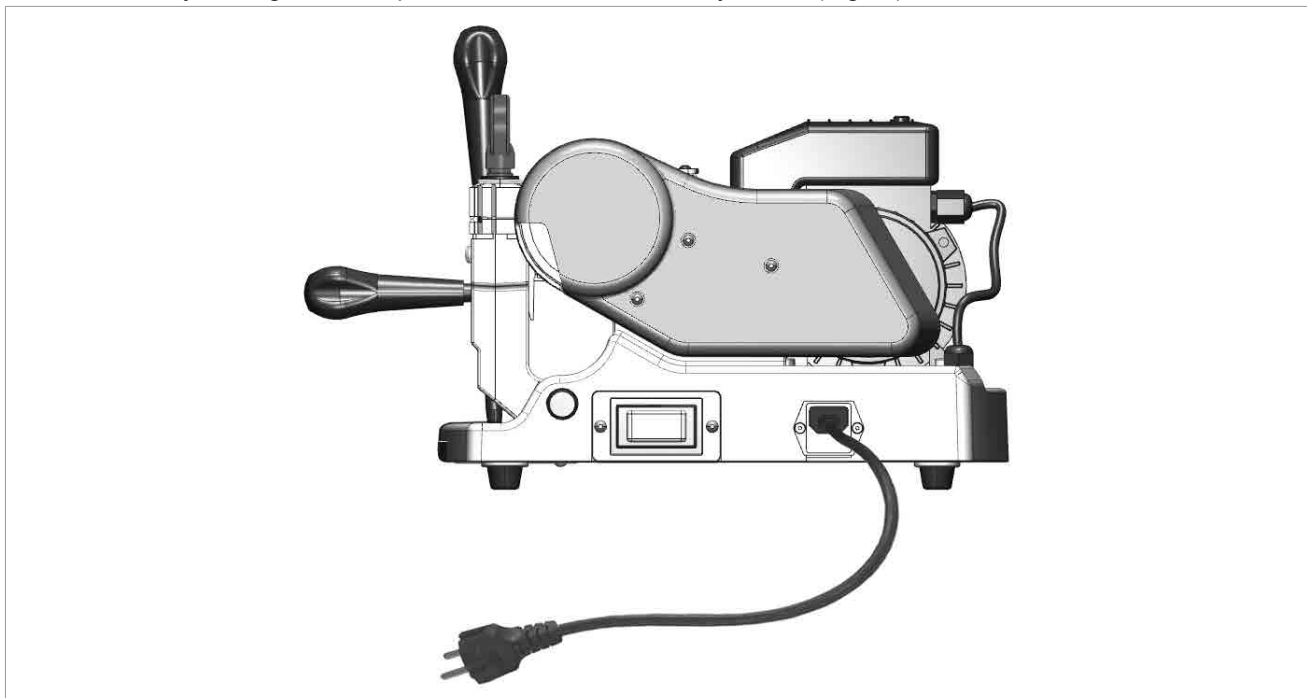


Fig.11

### 3.6 Connection to the mains

For the safety of the operator and the machine it is important to ensure that the machine is connected to the proper mains voltage by means of an earthed differential switch.

## 4 MACHINE REGULATION AND UTILIZATION

### 4.1 Checking and calibration

The cutting tool on the machine is the part used to cut the key blanks and should be periodically checked and replaced, if necessary.

Every time the cutting tool is changed, and during periodical operational tests, check calibration.

### 4.2 Calibration

The SPEED key-cutting machine requires two types of calibration: **axis** and **depth**.

#### Axis calibration:

Axis calibration is regulation of the space between cutting and the stop (Fig.12 and Fig.13).

The axis setting for the SPEED is fixed and is established on assembly in our workshops.

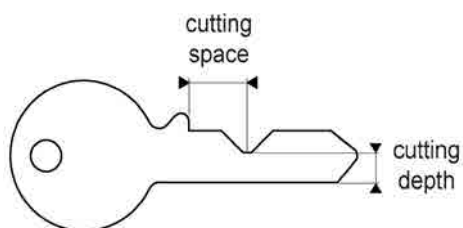


Fig.12

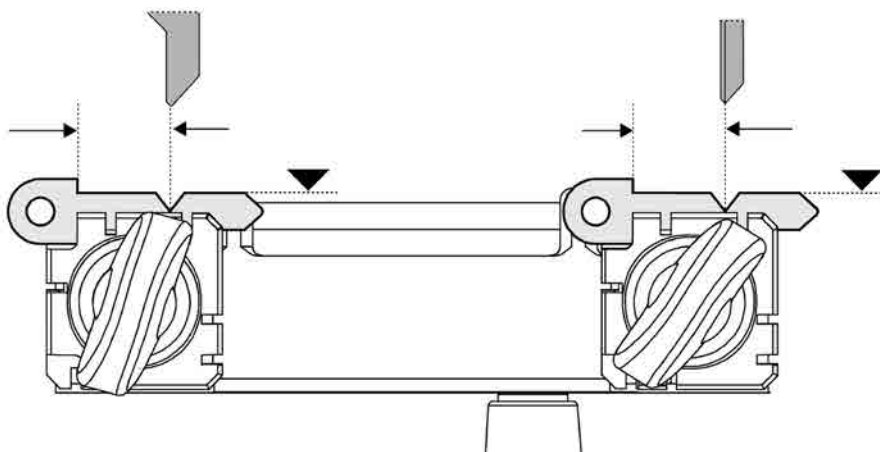


Fig.13



**Depth calibration:**

Depth calibration is regulation of the cutting depth (Fig.12). Proceed as follows:

- 1) Ensure that the key-cutting machine is off by unplugging the power cable.
- 2) Place the adjustment keys (provided) on the clamps (Fig.14).
- 3) Check that the adjustment plates adhere properly to the clamps.
- 4) Turn the calibration rod towards the operator so that the gauges (Q1) into contact with the adjusting plates (Fig.14).
- 5) Lower the gauge rod.

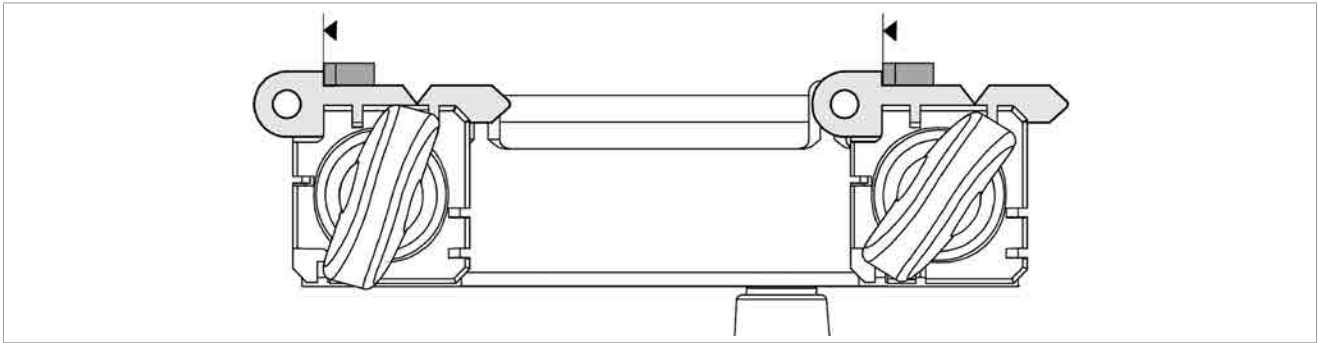


Fig.14

- 6) Raise the carriage and take up to the cutting tool.
- 7) Take the keys into contact with the cutting tool and tracer point (Fig.15).
- 8) Turn the cutting tool anticlockwise manually and check that it skims the adjusting keys in several places
- 9) If necessary, regulate the depth of the cut with the micrometric tracer point, as follows:
  - a) loosen the screw (E1) holding the tracer point.
  - b) turn the ring nut (G) clockwise to advance the tracer point (Fig.16).
  - c) turn the ring nut (G) anticlockwise to return (Fig.17).

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**NOTE:** each notch on the centesimal ring corresponds to 0,025 mm (Fig.15).

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- 10) Repeat these operations until regulation is complete, then tighten the tracer point locking grub screw (E1).

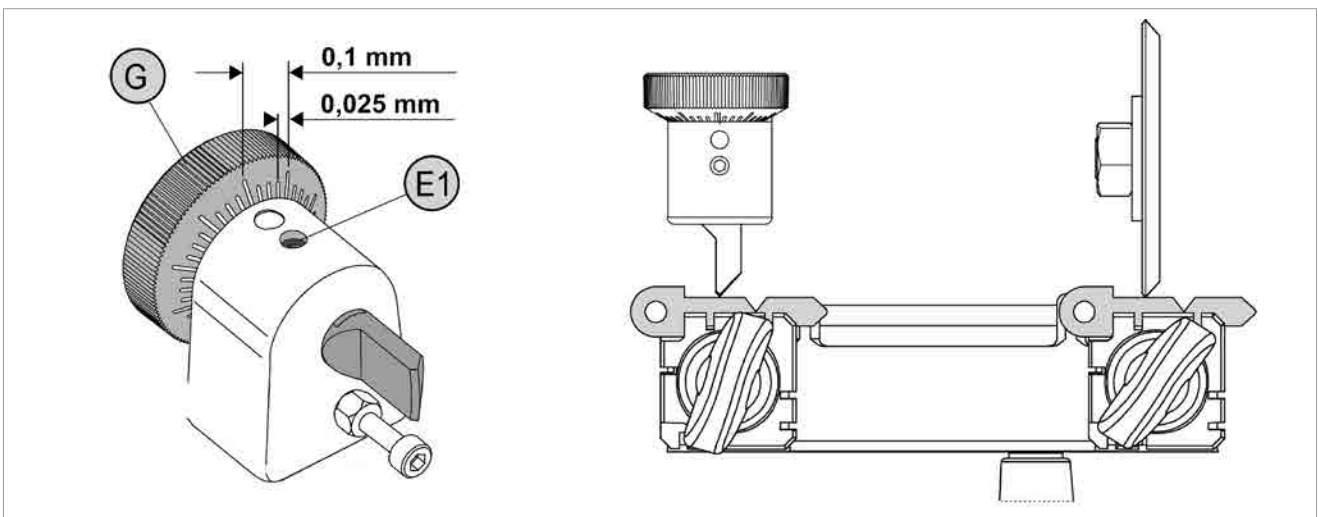


Fig.15

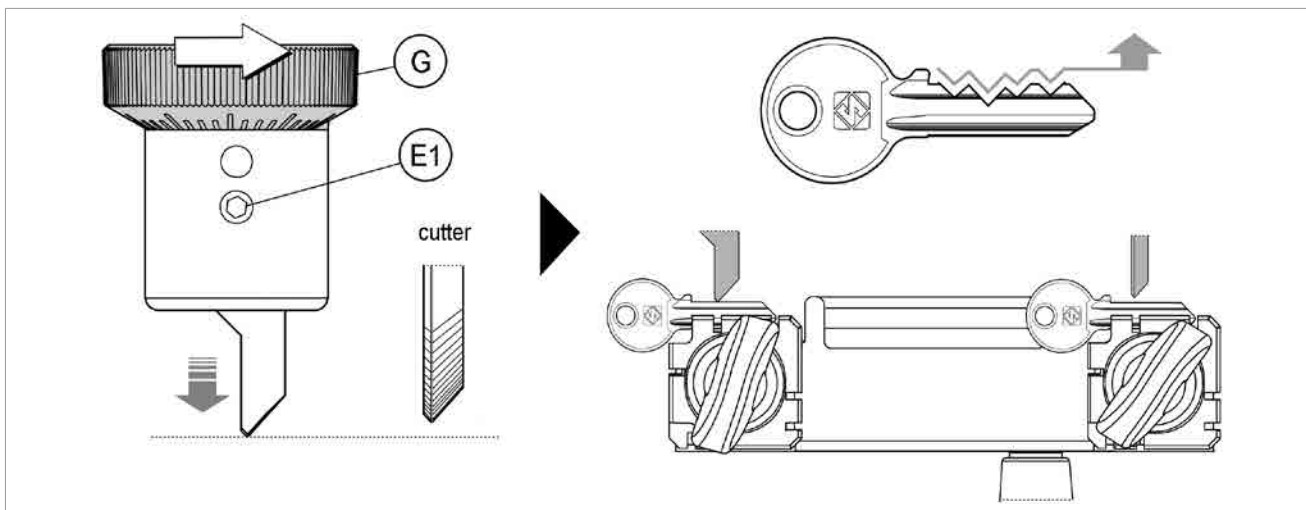


Fig.16

- Turn the nut to the RIGHT (clockwise) to take the tracer point down. Result: LESS DEEP CUTS.

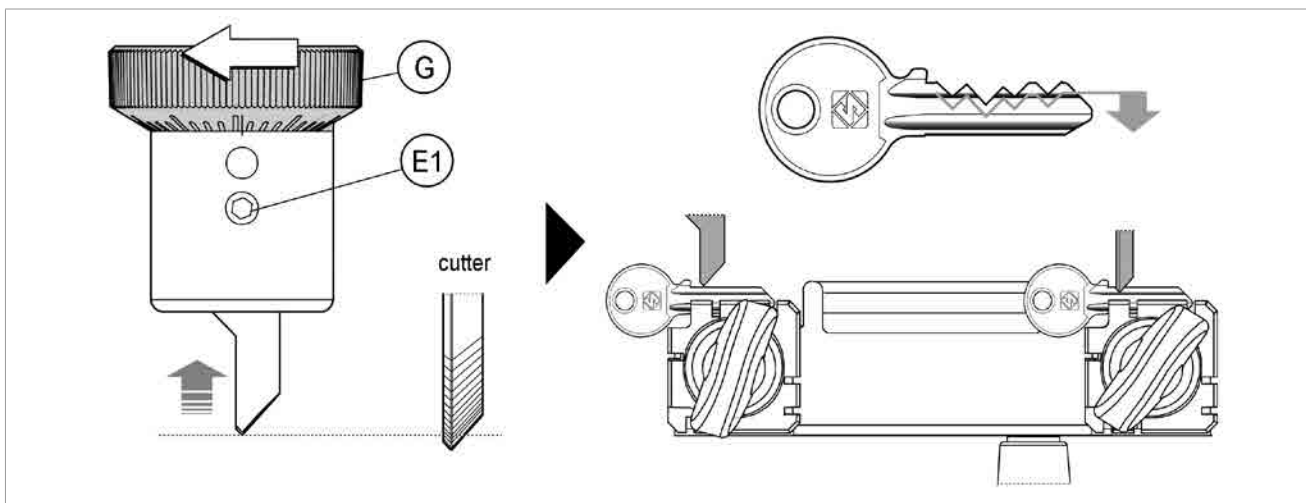


Fig.17

- Turn the nut to the LEFT (anticlockwise) to take the tracer point up. Result: DEEPER CUTS.

## 5 CUTTING OPERATIONS



**ATTENTION:** for complete safety during the cutting operations, take the following precautions:

- Always work with dry hands.
- Check that the machine is properly earthed.
- Wear protective goggles even if the machine has a protective shield over the cutting tool.
- Start the motor (switch K) only after completing the operations on the carriage (securing the keys, etc..).
- Keep hands away from the cutting tool in motion.
- Before duplicating, remove the gauges.

### 5.1 Key cutting



Fig.18

Place the clamps on the required side (see chap.5.1.1):

- **Side A** of the clamp: for keys to be fitted on their backs, keys with double cuts without groove and cruciform keys (Fig.19 - Fig.20);
- **Side B** of the clamp: for keys placed on their backs and having cuts with a depth of less than 3,9 mm (Fig.19 - Fig.20);
- **Side C and D** of the clamp: for keys to be cut on both sides and locked on the groove (Fig.19 - Fig.20).

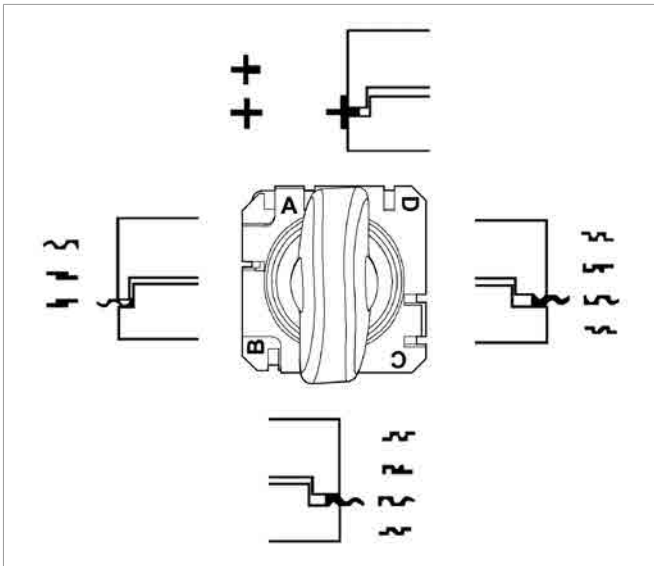


Fig. 19 - 230V version

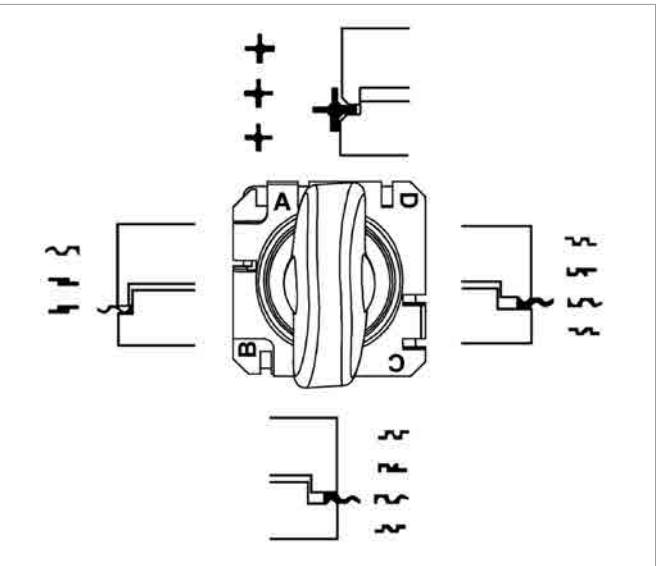


Fig. 20 - 120V version

### 5.1.1 Clamp rotation

- 1) Loosen the clamp closing knob by a few turns.
- 2) Raise the clamp (both jaws) and turn so that the required side is facing the tracer point and cutter.

**NOTE:** carry out the operation for both clamps.

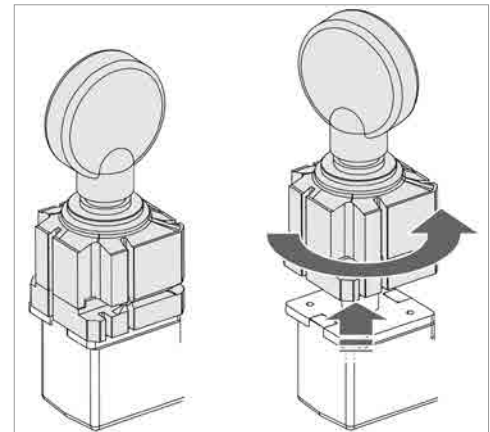


Fig. 21

### 5.1.2 Securing the keys in the clamps

- 1) Position the original key (left-hand jaw) and key blank (right-hand jaw), ensuring that:
  - a) the keys are well positioned and secured in the clamp;
  - b) the key stop is resting against the calibration tab (Q1) (Fig. 22);
- 2) Secure the keys by closing the clamps with the knobs.
- 3) Lower the gauge rod by turning knob (Q).

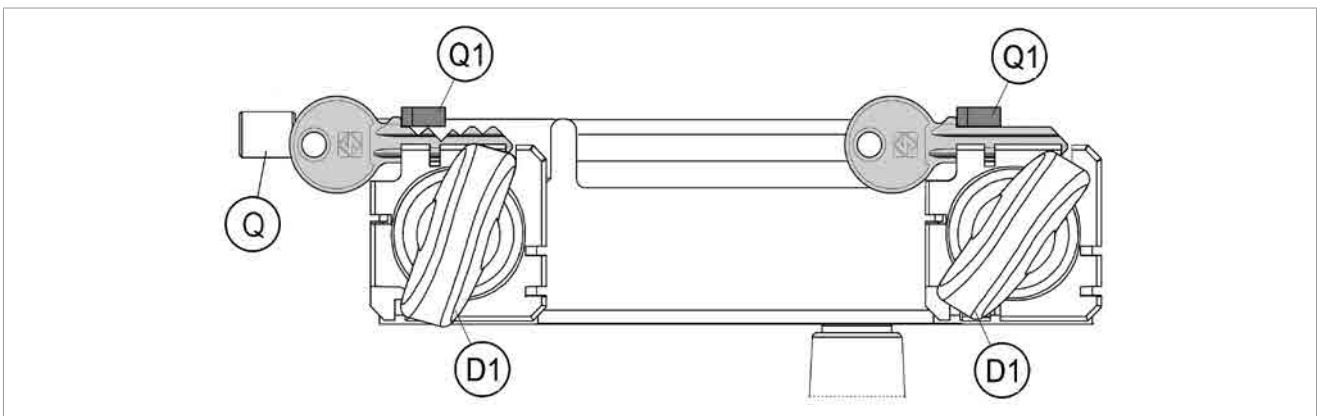


Fig. 22

### 5.1.3 Key cutting



**ATTENTION: make sure the gauges (Q1) have been lowered.**

When the key-cutting machine has been turned on by means of motor start switch (K) it is ready for cutting:

- 1) Take the carriage up to the tracer point/cutter and keep the tracer point on the cut (Fig.23).
- 2) Move the carriage from right to left to cut the key. In case of double cuts repeat the operation in the second side of the key.
- 3) Turn off the machine with switch (K) before removing the duplicated key.
- 4) Remove the keys from the clamps.
- 5) Turn on the machine with switch (K) and smooth off the key edges by means of the brush (S).

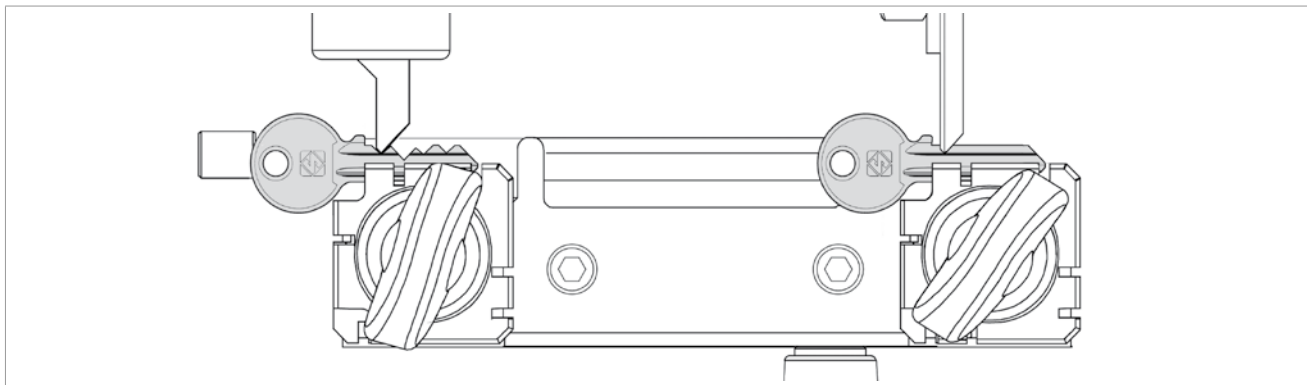


Fig. 23

## 5.2 Using the accessories

The accessories provided with machine to assist key-cutting are:

- pins
- bars

### Using the pins

The pins must be inserted between the bottom of the jaw and the back of the key for keys with narrow stems, and their purpose is to ensure that the key protrudes sufficiently to be cut properly (Fig.24-B, Fig.24-C).

For keys with narrow, thin stems, two pins must be used (Fig.24- B) the second one to give a secure grip on the key.

If the key thickness is too fine to guarantee a good grip in the clamps, a pin must be used (Fig.24-A).



**ATTENTION: the pins provided have two different diameters: 1,20 mm and 1,70 mm; It is essential to use pins with the same diameters for locking both the original and the key blank.**

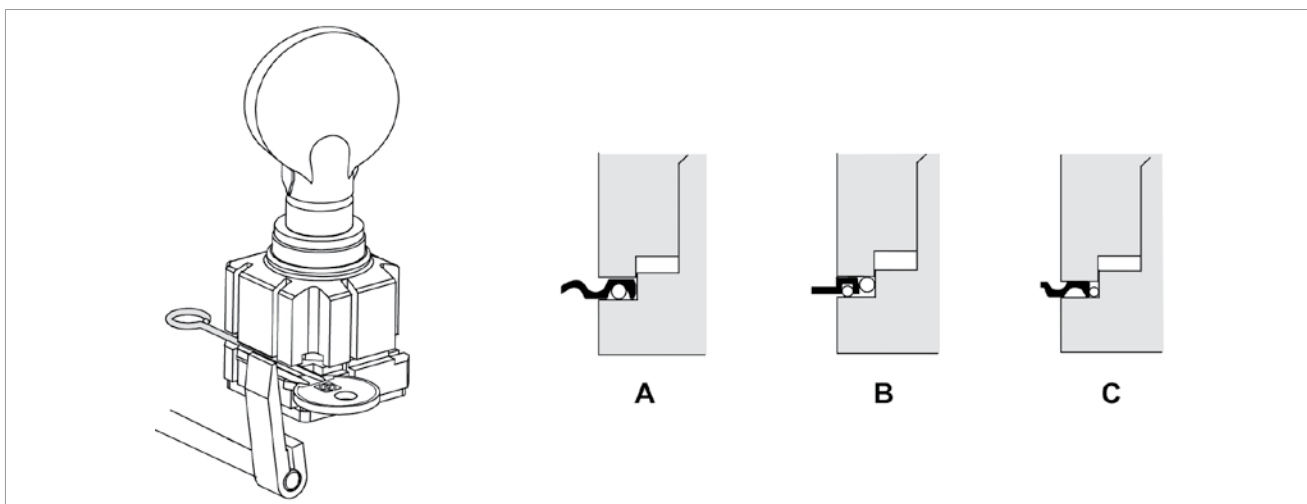


Fig. 24

## Using the bars

The bars provided are used for cutting cruciform keys (Fig.25) and as a tip rest for locking keys with no stop (Fig.26).

### Cutting cruciform keys using bars

The cruciform keys (90°) can be cut with the clamps and the aid of the bars.

#### Positioning cruciform keys:

- 1) Leave the gauges (Q1) in the idle position.
- 2) Insert the bars into the slot in the clamps.
- 3) Butt the key stop against the bars.
- 4) Secure the keys in the clamps.
- 5) Remove the bars from the clamp grooves to prevent it being touched by the tracer point or cutting tool.
- 6) Cut the first side.
- 7) Repeat the operation, turning both keys in the same direction for the other positions.

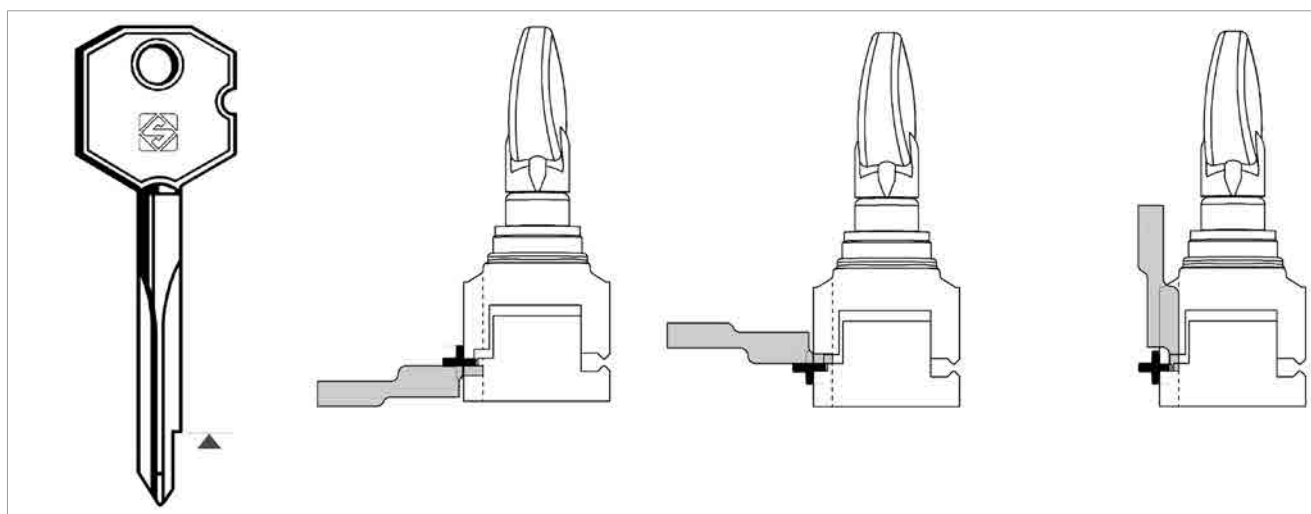


Fig.25

### Tip stop with a bar

The bars can be used with keys which have no stop (Fig.26). Proceed as follows:

- 1) Leave the gauges (Q1) in the idle position.
- 2) Insert the bars into the slot in the clamps.
- 3) Rest the tip of the key against the bar.
- 4) Secure the key and remove the bar.

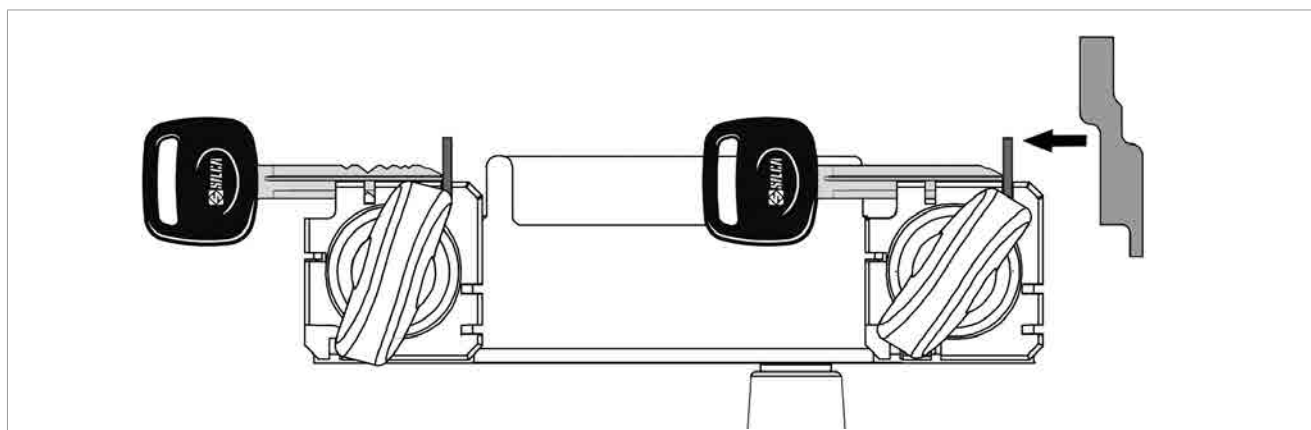


Fig.26

## 6 MAINTENANCE



**ATTENTION:** for repairs or replacement of parts for maintenance, the 'CE' mark is guaranteed only if original spare parts provided by the manufacturer are used.

Although the key-cutting machine does not require special maintenance, it is advisable to check and, if necessary, replace the parts subject to wear, such as: the belt, cutting tool, brush, tracer point. Replacement is simple and can be carried out by the operator.

### CLEANING

Keep the carriage and clamps free of chippings from the cutting operations by cleaning with a dry brush.



**ATTENTION:** do not use compressed air!

**ATTENTION:** to keep the machine well maintained we recommend using protective oil, e.g. WD40 or similar, applied to the burnished mechanical parts. This prevents oxidation of the parts in question (clamps, guides, carriages...).

Before starting any type of maintenance (checks or replacements), read the instructions below:

- **Never carry out maintenance or servicing with the machine switched on.**
- **Always remove the mains plug.**
- **Follow all the instructions in the manual to the letter.**
- **Use original spare parts.**
- **Always check that any screws or nuts removed when replacing a piece are properly tightened.**

### 6.1 Replacing the brush

When the brush no longer cleans off the burrs it must be replaced as follows:



**ATTENTION:** remove the mains plug.

- 1) Remove the cover (P) by loosening the screws (P1) (Fig.27).
- 2) Slot the locking rod (provided) into the hole (F1) of the cutting tool shaft (Fig.28).
- 3) Use the Allen wrench to loosen the screw holding the brush in place (Fig.28).
- 4) Replace the brush and tighten the screw with the Allen key.
- 5) Remove the locking rod from the cutting tool shaft.
- 6) Place the cover (P).

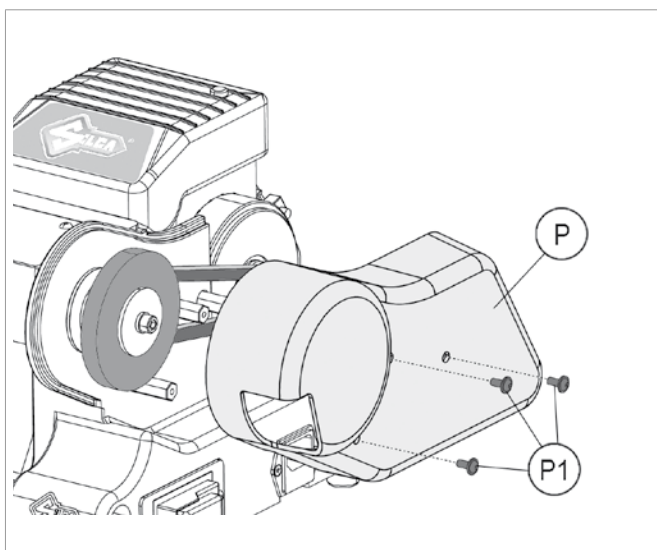


Fig.27

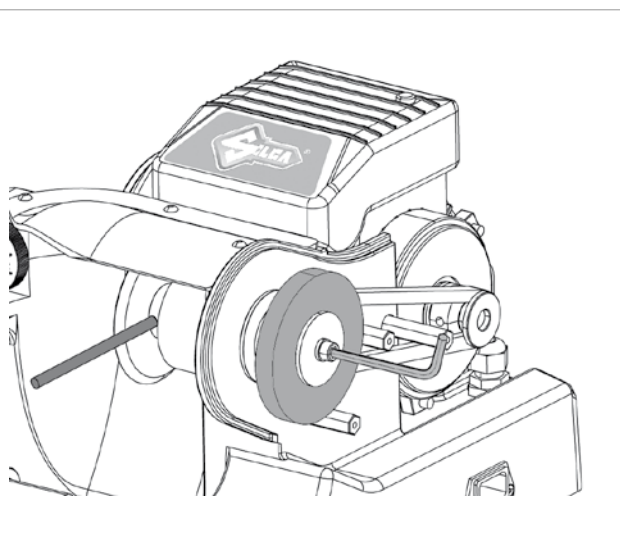


Fig.28

## 6.2 Replacing the cutting tool

In order to substitute the cutting tool you need to remove the cutting tool protective shield. To replace a worn cutting tool, proceed as follows:



**ATTENTION: remove the mains plug.**

- 1) Remove the cutter locking screw (N1) and remove the cutter protective shield (N) (Fig.29).
- 2) Slot the locking rod (provided) into the hole (F1) of the cutting tool shaft (Fig.29 and Fig.30).
- 3) Use the spanner provided to loosen the cutting tool locking nut.



**ATTENTION: the thread is left-handed.**

- 1) Remove the worn cutting tool.
- 2) Carefully clean the new cutting tool and its seat.
- 3) Install the new cutting tool (pay attention to the rotation direction) and tighten the nut.
- 4) Remove the locking rod.
- 5) Re-place the protective shield (N).
- 6) Check calibration (see chap.4.1)

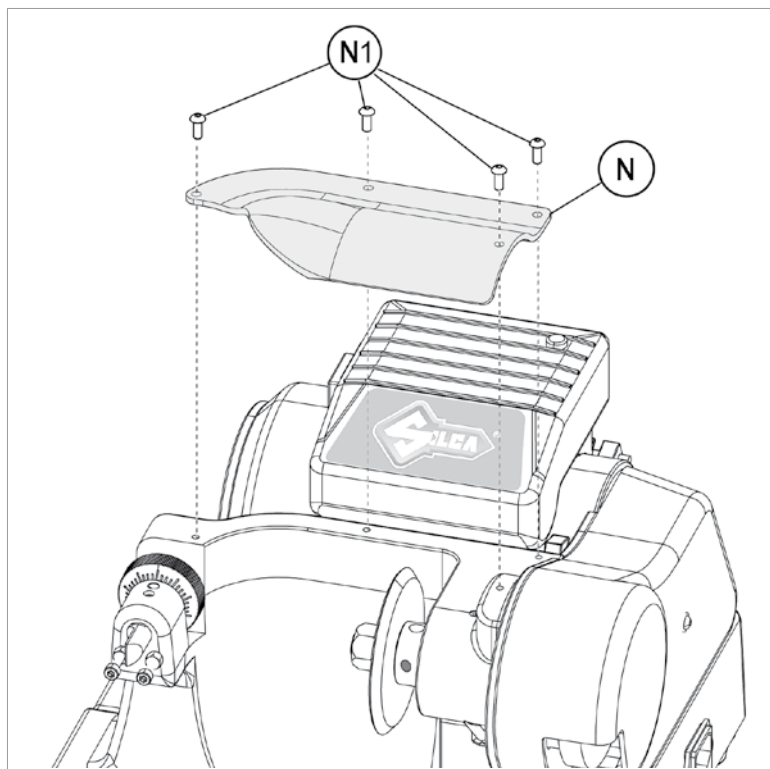


Fig. 29

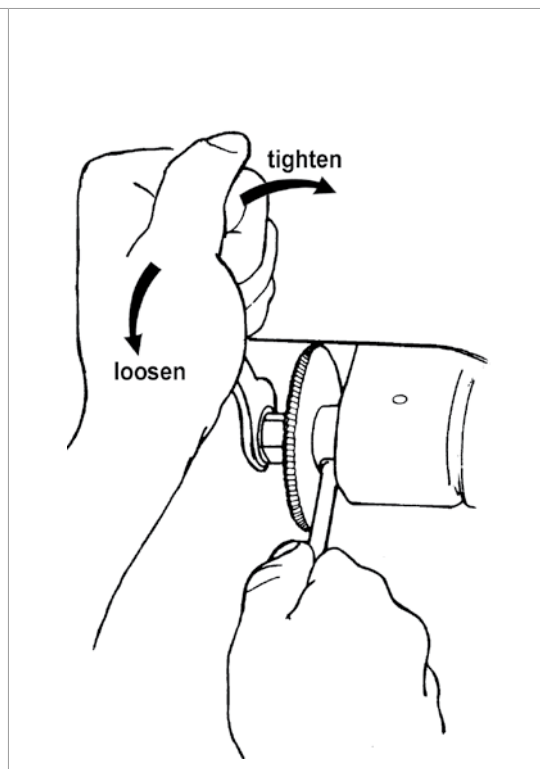


Fig. 30



### 6.3 Replacing the tracer point



**ATTENTION:** remove the mains plug.

- 1) Loosen the screw (E2) (Fig.31).
- 2) Loosen the grub screw (E1).
- 3) Hold screw (E2) still, unscrew the tracer point (E) anticlockwise and remove.
- 4) Fit the new tracer point and screw down to the end of run.
- 5) Tighten the grub screw (E1).
- 6) Tighten the screw (E2).
- 7) Re-set the machine as described in chap. 4.2.

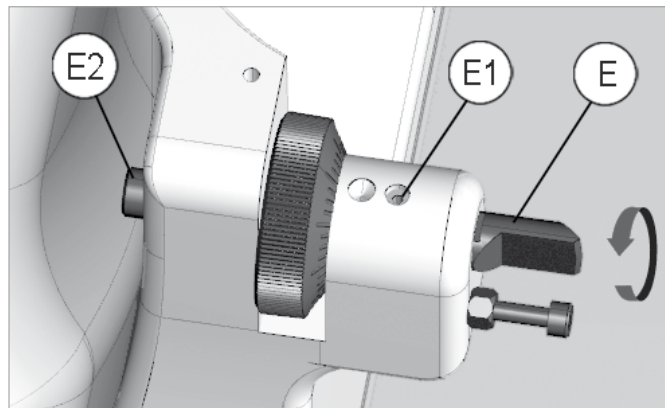


Fig.31

### 6.4 Depth regulation (clamp protection)

SPEED incorporates regulation to safeguard the clamps from the possibility of scraping against the tracer point and cutter.



**ATTENTION:** the play between cutting tool/tracer point and clamps must be 0.2 mm.

Should it be different from this, proceed as follows:



**ATTENTION:** remove the mains plug.

- 1) Raise the carriage against the cutting tool and take to the end of its run (Fig.32)
- 2) Release the nut (X1) with the spanner.
- 3) Use the Allen wrench to screw or unscrew the screw (X2) in order to move the carriage away from or towards the tracer point and cutting tool.
- 4) Tighten the nut (X1).

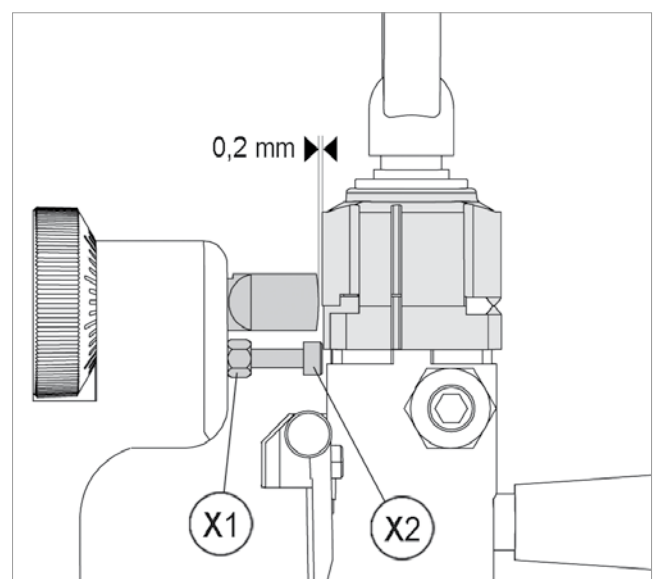


Fig.32

## 6.5 Replacing the fuses



**ATTENTION:** disconnect the power lead from the mains and machine.

- 1) Remove the fuses box from the key-cutting machine socket (R) (Fig.33).
- 2) Replace the fuses (R1).
- 3) Close the fuses box and connect the power cable.



**ATTENTION:** fuses must always be replaced with others of the same type and with the same Amps (4 Amp rapid for 230V - 8 Amp rapid for 120V).

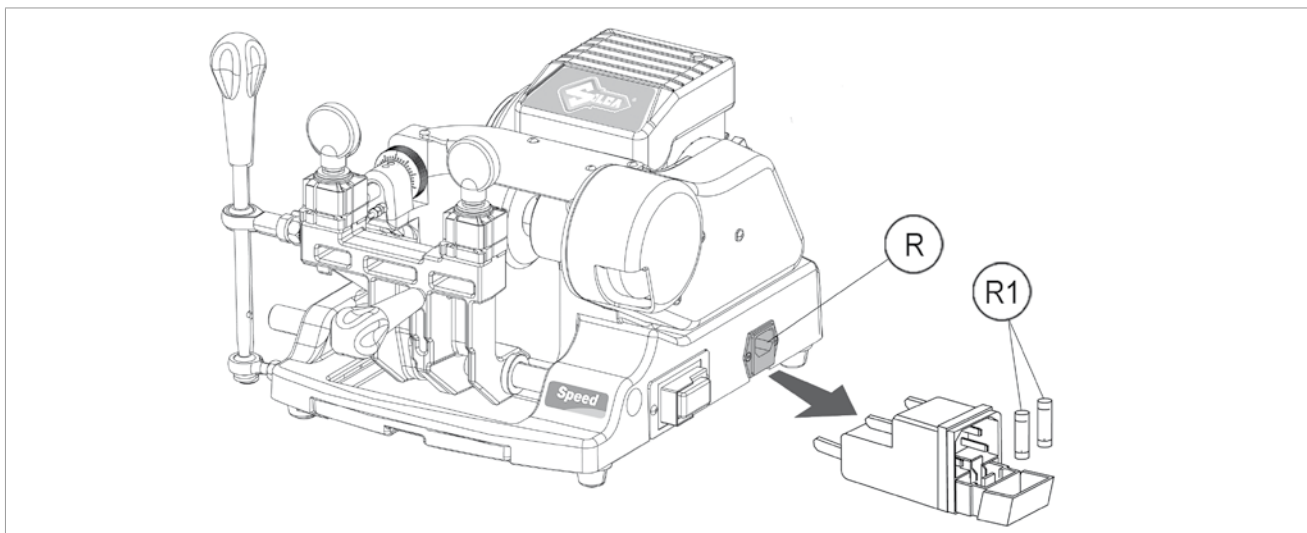


Fig.33

## 6.6 Access to the lower compartment



**ATTENTION:** remove the mains plug.

- 1) Detach the wire from the key-cutting machine socket.
- 2) Remove the swarf tray (L) (Fig.34).
- 3) Paying attention turn the machine slowly onto its back.
- 4) Loosen the 3 screws (W1) and remove the plate (W) (Fig.35).

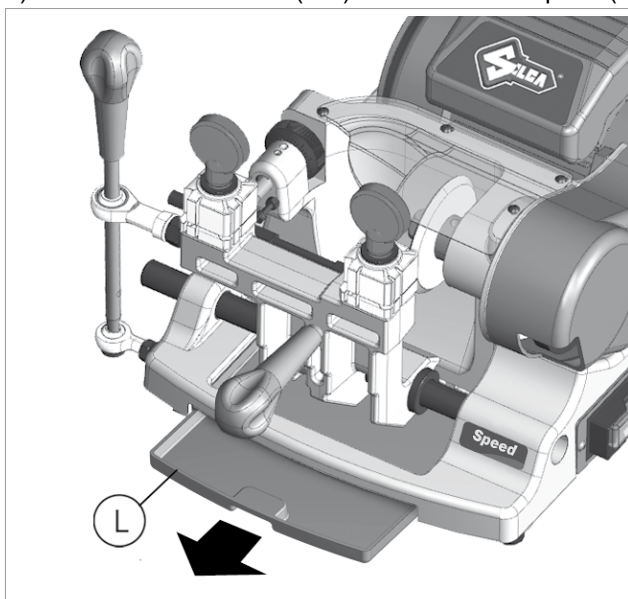


Fig.34

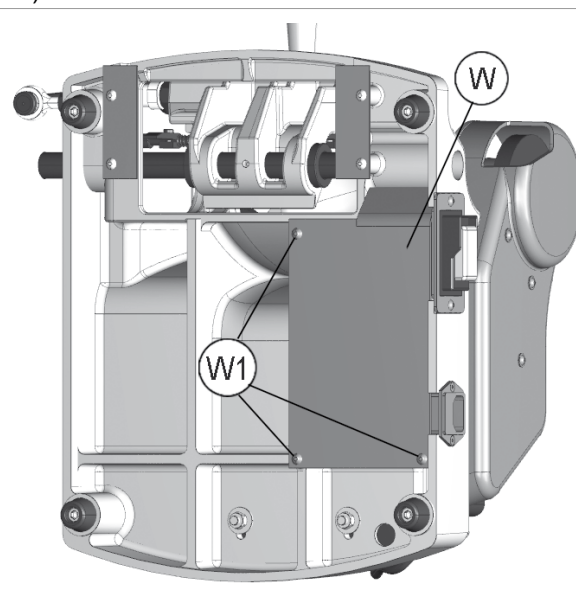


Fig.35

## 6.7 Replacing the main switch



**ATTENTION:** remove the mains plug.

- 1) Access the lower compartment (see chap.6.6).
- 2) Detach the 4 connectors (H2) and (H3) paying special attention to their position (Fig.36).
- 3) Remove the switch making pressure on the tabs with a screwdriver (Fig.37).
- 4) Fit the new main switch.
- 5) Reconnect the 4 connectors (H2) and (H3).

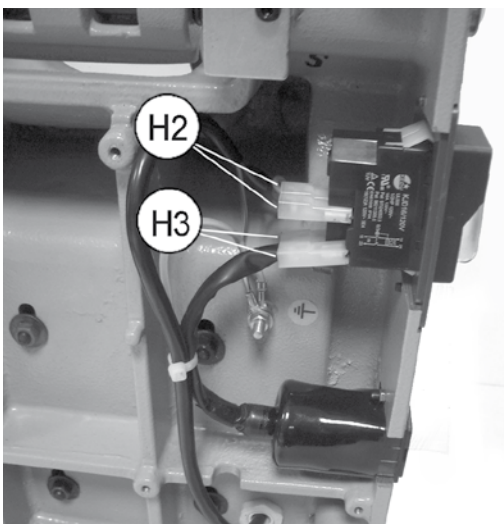


Fig.36

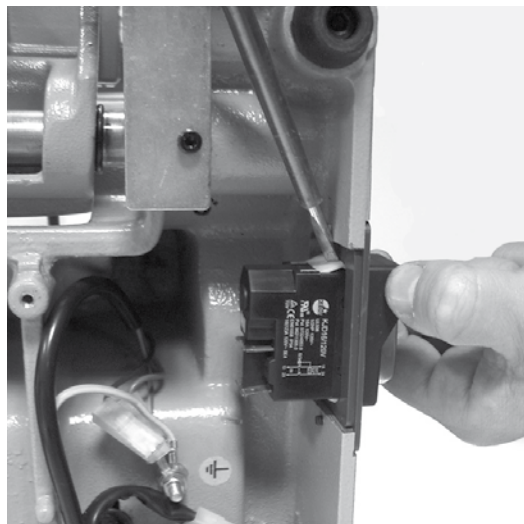


Fig.37

## 6.8 Replacing the motor



**ATTENTION:** remove the mains plug.

- 1) Access the lower compartment (see chap.6.6).
- 2) Disconnect the 2 connectors (H2). Loosen the nut (T1) and disconnect the earthing wire (Fig.38).
- 3) Remove the wire tie.
- 4) Loosen and remove the 4 motor fixing nuts (Fig.39).
- 5) Re-position the machine on the workbench.
- 6) Remove the screws (P1), then the protective cover (P) (Fig.40).
- 7) Unscrew the wire grommet (M3) (Fig.41).
- 8) Remove the 4 motor fixing screws (M1) and pull off the belt.
- 9) Loosen the grub screw (S1) and remove the drive pulley (Fig.42).
- 10) Pull out the motor cable and remove the motor (Fig.43).
- 11) Fit the new motor, the 4 screws (M1) and 4 nuts (M4).
- 12) Fit the drive pulley onto the new motor and secure with the grub screw (S1).
- 13) Fit the belt and adjust tension, tighten the 4 screws (M1) and 4 motor fixing nuts (M4).

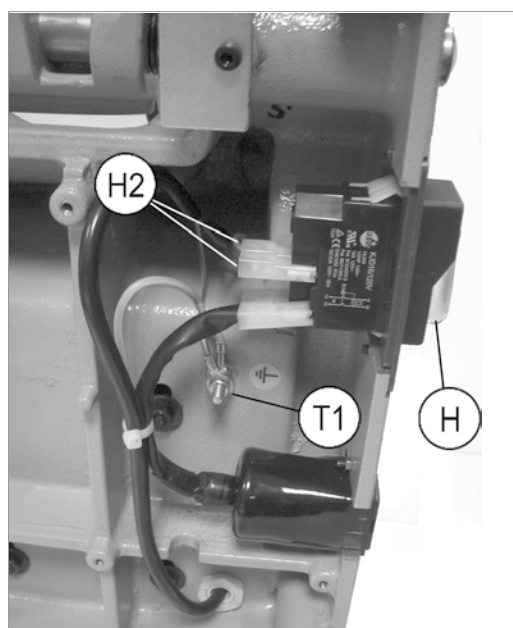


Fig.38

- 14) Pass the motor cable through the grommet (M3).
- 15) Connect the 2 connectors (H2) to the switch (H) and secure the earthing wire to its screw with a nut (T1).
- 16) Replace and secure the metal bottom (W) (chap.6.6).
- 17) Replace the protective cover (P) and secure with the 3 screws (P1).

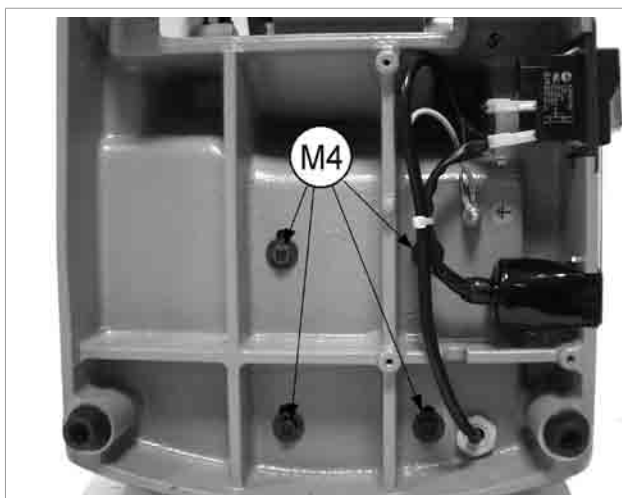


Fig.39

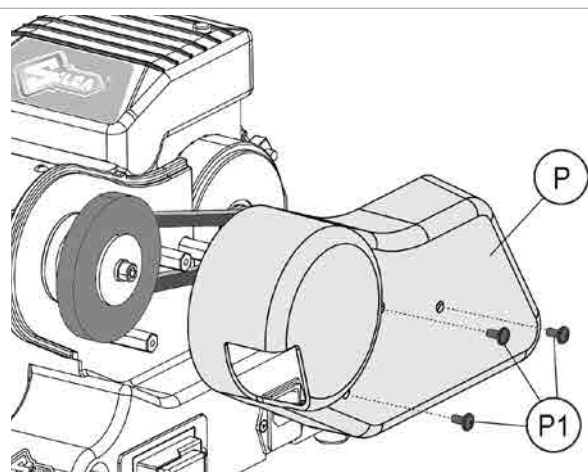


Fig.40

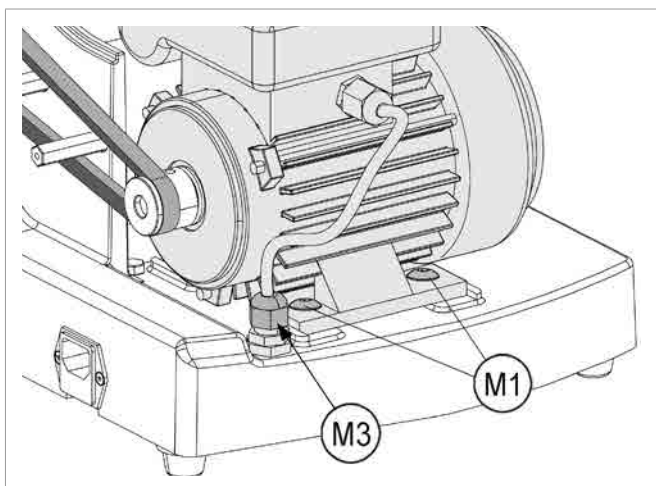


Fig.41

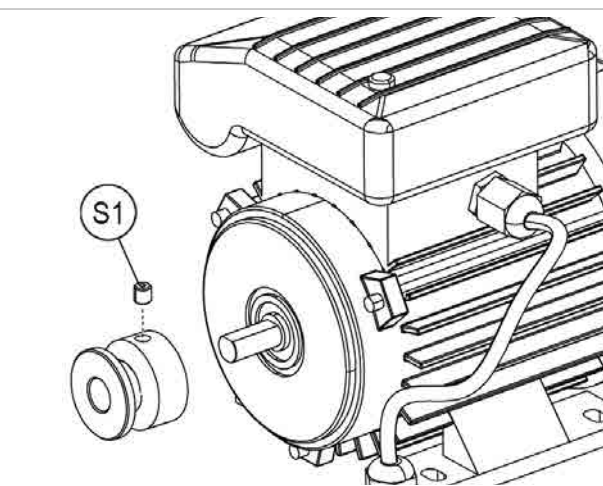


Fig.42

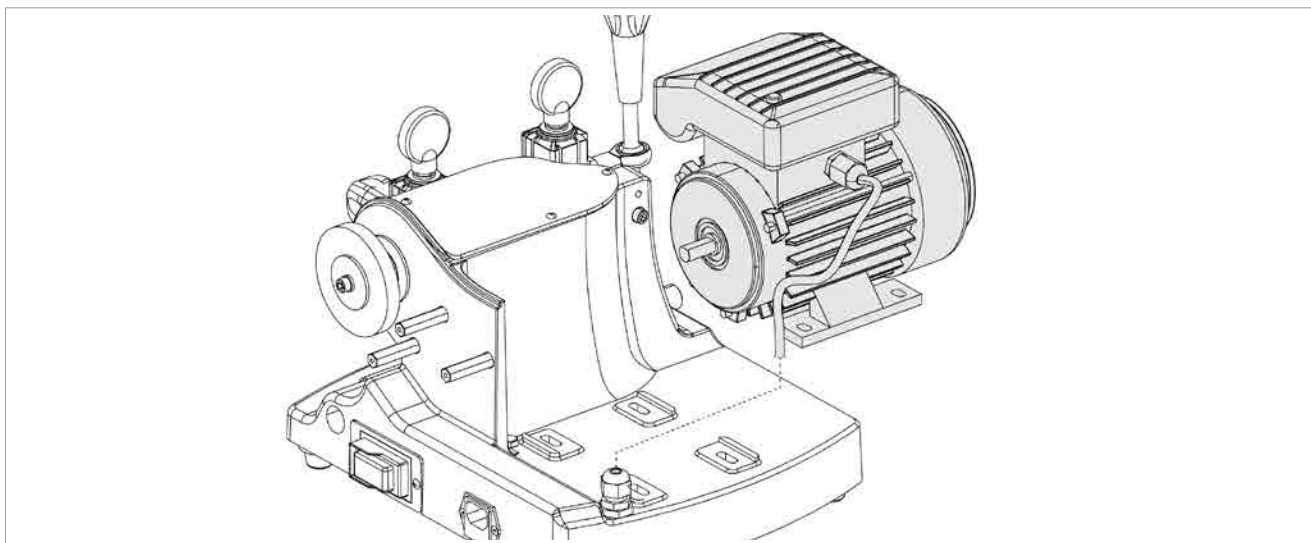


Fig.43



## 6.9 Replacing and/or adjusting tension on the belt

Worn or loose belts must be replaced or adjusted so as to ensure safe and proper operation of the cutting tool/brush.



**ATTENTION: remove the mains plug.**

- 1) Turn the machine onto its back and loosen the 4 nuts (M4) (chap.6.8).
- 2) Re-position the machine on the workbench.
- 3) Remove the cover (P) by loosening the screws (P1) (Fig.40).
- 4) Move the motor towards the cutter and remove the worn belt.
- 5) Fit the new belt.
- 6) Push the motor to the back until the belt has the right tension.
- 7) Tighten the four screws (M1) and the 4 nuts (M4).
- 8) Place the motor cover (P).

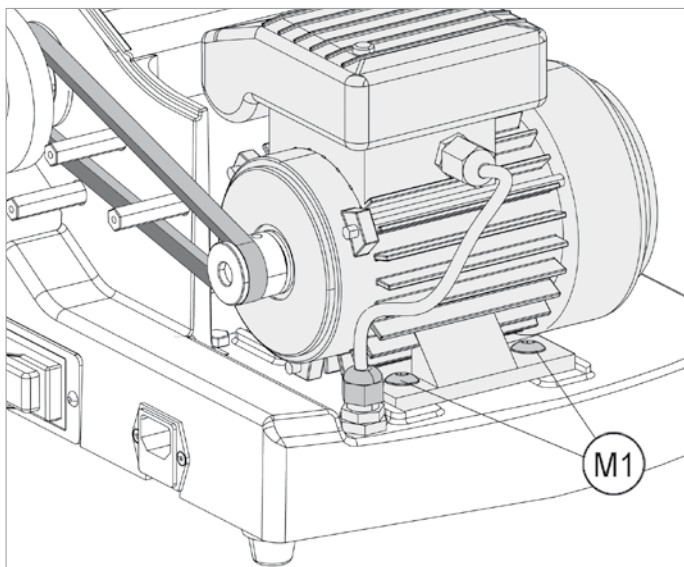


Fig.44

## 6.10 Replacing the motor on switch



**ATTENTION: remove the mains plug.**

- 1) Loosen the 2 screws (M2) and remove the motor cover (Fig.45).
- 2) Detach the 4 connectors (K2) paying special attention to their position.
- 3) Remove the switch (K) making pressure on the tabs with a screwdriver.
- 4) Fit the new switch in its seat and reconnect the 4 connectors (K2) paying special attention to their position.
- 5) Re-place the motor cover and secure with the 2 screws (M2).



Fig.45

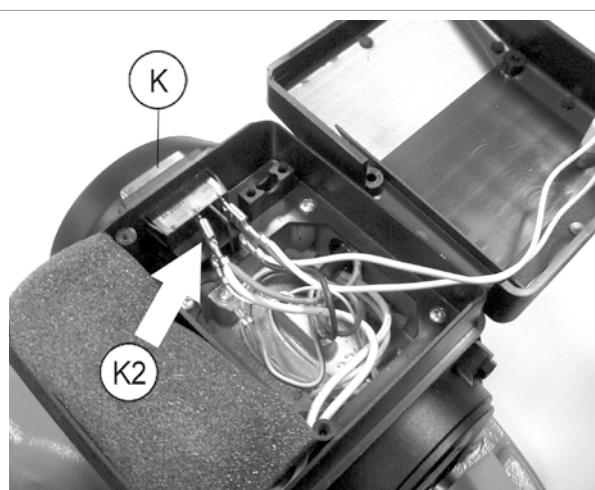


Fig.46

## 6.11 Replacing the condenser



**ATTENTION:** remove the mains plug.

- 1) Loosen the 2 screws (M2) and remove the motor cover (Fig.45).
- 2) Detach the connectors (Z) paying special attention to their position.
- 3) Remove the condenser (Y).
- 4) Fit the new condenser.
- 5) Re-place the motor cover and secure with the 2 screws (M2).



Fig.47

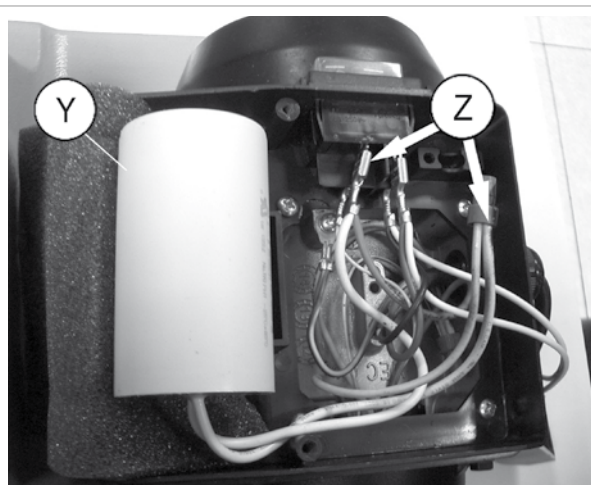


Fig.48

## 7 DISPOSING OF MACHINE

EU regulations establish special arrangements for the disposal of waste (\*\*)

### Waste deriving from cutting operations

Although residue coming from the key-cutting operations is classified as special waste, it is included in solid urban waste (SUW) as metal wool. Such waste is sorted according to its classification under current Italian and EU law and consigned to the proper disposal units.

Cases where waste can be considered contaminated or containing toxic/harmful substances sufficient to transform it from SUW to toxic/harmful waste, are listed in the enclosures to current Italian and EU waste disposal regulations. Re-cycling is a recommended ecological practice.

### Packing

The key-cutting machine is consigned in a cardboard packing box which can be re-used if undamaged.

When it is to be thrown away it is classified as solid urban waste and should be placed in the special paper collecting bins.

The protective shell containing the machine is in polymer, classified as SUW, and can therefore be placed in an ordinary waste bin.



### INFORMATION FOR USERS

*as per art. 10 of Directive 2002/96/CE of 27/01/2003  
regarding waste from electric and electronic appliances (RAEE),*

- The symbol illustrated above, also found on the machine, indicates that it has been placed on the market and must be included in separate rubbish collection when the user wishes to dispose of it (including all components, sub-assemblies and consumables that are integrated in the product).
- For information about the collection system for such appliances please contact SILCA S.p.A. or another subject registered in the various National Rolls for other countries in the European Union. Household waste (or of similar origin) can be included in the separate collection system for urban waste.
- On purchasing a new appliance of equivalent type, the old one can be consigned to the dealer. The dealer will then contact whoever is responsible for collecting the appliance.
- Suitable separate collection of the unused appliance and its dispatch for treatment, recovery and environmentally compatible disposal, makes it possible to avoid potential negative effects on the environment and human health, and aids recycling and the recovery of the materials used.
- Unauthorised disposal of the product by users involves the application of the sanctions provided for in received Directives 91/156/CE and 91/689/CE.

(\*\*) Waste is any substance or object deriving from human activity or natural cycles, disposed off or to be disposed off.

## **ASSISTANCE**

Silca provides full assistance to purchasers of the key-cutting machine. To ensure complete safety for the operator, any job not specified in this manual should be carried out by the manufacturer or in the special Service Centres recommended by Silca.

On the back cover of this manual is a list of the manufacturer's addresses; listed below are the addresses of specialised Service Centres.

### **7.1 How to request service**

The guarantee attached to the key-cutting machines ensures free repairs or replacements of faulty parts within 24 months of purchase. All other service calls must be arranged by the customer with Silca or with a Silca service centre.





VITTORIO VENETO 02/04/2013

## CE DECLARATION OF MACHINE COMPLIANCE

**SILCA S.p.A. - VIA PODGORA 20 ( Z.I.)**  
**31029 VITTORIO VENETO (TV) - (ITALY)**  
**TEL. 0438 9136 - FAX. 0438 913800**

Declares under its own responsibility that the **Key-cutting machine** model

### SPEED

complies with the requirements of the following European Directives:

European Union **DIRECTIVE 2006/42/CE** (Machines)  
and with the ENISO 12100 : 2010 Standards

European Union **DIRECTIVE 2004/108/CE** (Electromagnetic Compatibility)  
and with the IEC 61000 – 6 – 3 :2006 , IEC 61000 – 6 – 1 :2005  
CISPR14 – 1 : 2009 / EN 55014 – 1 :2009  
IEC/EN 61000 – 3 – 2 : 2005 , IEC/EN 61000 - 3 – 3 .2005 Standards

European Union **DIRECTIVE 2006/95/CE** (Low Voltage) | **13** |  
and with the IEC/EN 60204 – 1 : 2009 Standards

Claudio Tomasella of the Silca S.p.A. Research & Development Division is authorized to create a Technical File.

Operations Director

**Stefano Setti**

**SILCA S.p.A.**  
Via Podgora, 20 (Z.I.)  
31029 Vittorio Veneto (TV) Italy

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Cap. Soc. € 10.000.000 i.v. Export TV 038851

Società soggetta a direzione e coordinamento di Kaba Holding AG, con sede in Rümlang (Svizzera),  
Hofwisenstrasse 24, ai sensi e per gli effetti degli articoli 2497 - 2497sexies del Codice Civile.





**SERVICE CENTERS - CENTRI DI ASSISTENZA - KUNDENDIENSTZENTREN - CENTRES D'ASSISTANCE  
CENTROS DE ASISTENCIA - CENTROS DE ASSISTÊNCIA - BIJSTANDSCENTRA**

COUNTRY	COMPANY	ADDRESS	CITY	AREA CODE	PHONE	FAX e-mail
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<b>Argentina</b>	Distribuidora Frappampino S.r.l.	La Rioja, 483	Cordoba	5000	+54-351-4216368	+54-351-4229003 frappampino@arnet.com.ar
<b>Australia</b>	Locksmiths' Supply Co. Pty Ltd.	140/158 Dryburgh St.	North Melbourne	VIC 3051	+61-39-3297222	+61-39-3281731 lsc@lsc.com.au
<b>Austria</b>	Erwe Gmbh	Feldgasse, 16	Feldkirchen	A-9560	+43-42762816	+43-42765054 firma@erwe.at
<b>Belgium</b>	Duitman Bvba	Zinkstraat 13	Halle	1500	+32-2-3831620	+32-2-3831622 info@duitman.be
<b>Brazil</b>	Kaba Do Brasil Ltda.	Rua Guilherme Asbahr Neto 510	São Paulo	04646- 001	+55-11-5545-4510	+55-11-5545-4515 kaba@kabadobrasil.com.br
<b>Bulgaria</b>	Intesa S.r.l.	1, Kukush	Sofia	01309	+359-2-8211425	+359-2-8211347 info@intesa.bg
<b>Burkina Faso</b>	Diallo Mamoudou	Av.Houari Boumedienne Porte N. 1651	01BP / 2957 Ouagadougou 01		+226-710448	+226-710002 dialloebauchedecles@yahoo.fr
<b>China</b>	Silca China	Xinhua Industrial Zone	Guanghai County, Taishan, Canton		+86-750-5325698	+86-750-5315655 alan@tswahyat.com
<b>Colombia</b>	Flexon Llaves S.A.	Av.Carrera 70 No.99 - 55 Entrada 1	Bogotá		+571-2538300	+571-5331842
<b>Croatia</b>	Ferrotechna d.o.o.	Japodska, 66c	Pula	52100	+385-52-503-529 +385-52-502-609	+385-52-503-529 ferrotechna@pu.t-com.hr
<b>Cyprus</b>	G.H. Yacoubian Ltd.	74/B, Regaena Street	Nicosia		+357-22-663525	+357-22-669009 ghycy@spidernet.com.cy
<b>Czech Republic</b>	H&B Plus. s.r.o.	Zatecká, 8	Plzen	30148	+420-377-225903	+420-377-225904 plzen@klice-hb.cz
<b>Denmark</b>	Agenturcentret A.S	Brydehusvej 20	Ballerup	2750	+45-70111211	+45-70111221 agentur@agenturcentret.dk
<b>Egypt</b>	Gam Transworld	23 Omer Ibn El-Khatar Street	Heliopolis El Cairo		+20-2-22404705 +20-2-26441401	+20-2-22404705 gam@intouch.com
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<b>Germany</b>	SILCA GmbH	Siemensstrasse, 33	Velbert	42551	+49-2051-2710	+49-2051-271172 info@silca.de
<b>Greece</b>	Chrisikos K. Ioannhs	7 Pipsou St.	Thessalonik	TK 54627	+30-2310-510336	+30-2310-521651 info@chrisikos.gr
<b>Greece</b>	F. Sotiropoulos & Son O.E.	Patission Str., 110	Athens	11257	+30-210-8234009	+30-210-8238480 roulasot@otenet.gr
<b>Greece</b>	GEMKA-Karidis G. & Sons OE	Lykoirgoy St. 14-16	Athens	10552	+30-210-3243000	+30-210-3249571 g_karidis@yahoo.com
<b>Greece</b>	Fr.Ili Raptakis	Pili Iisou 10	Iraklion - Crete		+30-2810-285000	+30-2810-280165 raptakis_keys@her.forthnet.gr
<b>Guinea</b>	Soguintec S.A.	Calle Abilio Baloboa	Malabo - Provincia del Bioko Norte		+240-556618	
<b>Holland</b>	Duitman B.V.	Aquamarijnstraat 5	7554 NM - Hengelo		+31-74-2452520	+31-74-2452522 info@duitman.nl
<b>Holland</b>	H. Cillekens & Zn. B.V.	Metaalweg, 4	JB Roermond	6045	+31-475-325147	+31-475-325148 info@hcillekens.nl
<b>Holland</b>	Steenhauer B.V.	Oude Raadhuisstraat 1	Ap Leidschendam	2266	+31-70-3177262	+31-70-3177333 info@steenbauer.nl
<b>Hong Kong</b>	Professional Lock Centre Co. Ltd.	Unit A-D, 9/F. Gemstar Tower, 23 Man Lock Street	Hunghom, Kowloon, Hong Kong		+852-23302268	+852-23302082 plc@plc.com.hk
<b>Hungary</b>	Kaba Elzett	Megyeri út 51	Budapest	1044	+36-1-3501011	+36-1-3290692 info@elzett.hu
<b>India</b>	Minda Silca Engineering Ltd.	Plot No. 37, Toy City	Greater Noida	201308	+91-987-397630 +91-987-397631	+91-120-2351301 info@mindasilca.in
<b>Iran</b>	Klidavarshayan Co.	No.73 Stakhr. St - Emam Khomeini Ave.	Tehran		+98-216-6702757	+98-216-735649 klidavar@yahoo.com
<b>Israel</b>	A.M.C.I. Locksmith Supply Ltd.	22 Efal Street Kiryat Aryeh P.O.Box 3667	Petah Tikva	49130	+972-3-9230331	+972-3-9230332 amci@bezeqint.net
<b>Italy</b>	SILCA S.p.A.	Via Podgora, 20 (Z.I.)	Vittorio Veneto - TV	31029	+39-0438-9136	+39-0438-913800 silca@silca.it
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