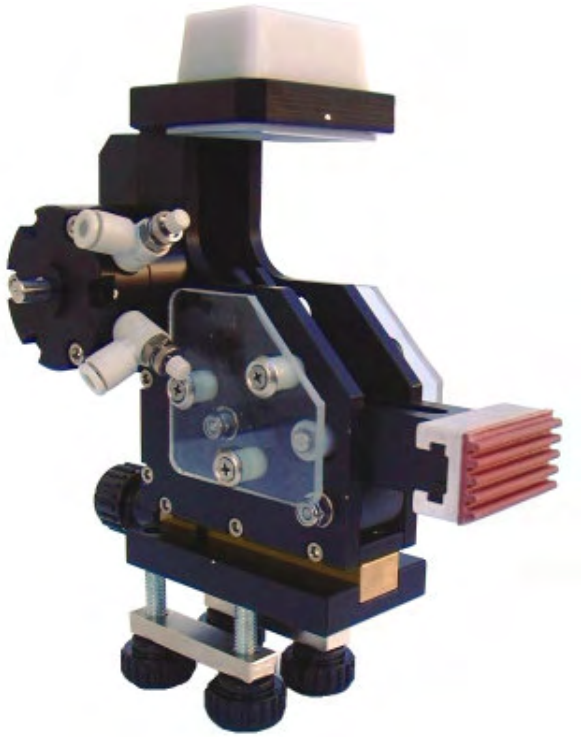
giugni s.r.l.

USE AND MAINTENANCE MANUAL
SPARE PARTS CATALOGUE

CE



CODER
Mod. 289/20 - Mod. 289/40

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CE

USE AND MAINTENANCE MANUAL

CODER Mod.“289”

MACHINE:	**CODER**
MANUAL CODE:	**M/289/01**
MODEL:	**289**
SERIAL NUMBER:	**See identification nameplate**
YEAR OF CONSTRUCTION:	**See identification nameplate**

Publication issued by: GIUGNI s.r.l.
Via F. Bellotti , 53 - 41100 Modena - Italy

Issue: 10/05
Revision: 00

The descriptions and illustrations provided herewith are not binding. The manufacturer reserves the right to make any modifications to components, details or to the supply of spare parts considered necessary at any time.

This manual:
– is integral part of the equipment supplied and must be carefully read to obtain a correct use, according to the essential safety requirements;
– elaborated according to directive machine 98/37/CE, gives technical information necessary to carry out all the proceedings in safety conditions;
– must be kept with care (protected in a transparent water-proof envelop to avoid its decay) and must accompany the machine during all its lifespan, included eventual property transfers.

In case of lost or decay, it is possible to get another copy by requesting it messrs. GIUGNI S.r.l. by giving the data written on the identification number plate.

The firm GIUGNI S.r.l. declines every liability for damages cased by operations not described by this handbook.

SUMMARY

1 INFORMAZIONI GENERALI

1.1 Structure of the manual

This publication contains the necessary information for the knowledge of parts, assembling, use and maintenance of the **PRINTER** mod. **289**.
We give moreover the indications about how to get rid of imperfections and advises about adjustments and necessary checking for a correct work.
In the chapter regarding spare parts catalogue, you will find the lists with all machine components.

The printer mod. 289 can be supplied in the following versions:
- 289/20.
- 289/40.

The complete supply is composed by following parts:
- printing body concerning one of models above listed;
- electric control panel;
- pneumatic circuit components.

IMPORTANT !
The electric control panel and the pneumatic circuit components are supplied on request.

Hereafter the **PRINTER** Mod. **289** will be called shortly **PRINTER** or **MACHINE**.
To make it easy, the illustrations of this handbook concern mainly the model 289/20, however they will be integrated by pictures concerning other models whenever needed to give better explanations.

To this publishing is enclosed the documentation listed in the paragraph 1.1.2.

1.1.1 Handbook's purpose

This publishing:

- is an integrative part of the machine and must be carefully read for a correct use, according to essential safety requirements.
- is elaborated according to the rules of the Machine Directive 98/37/CE, gives the technical needed information to carry out correctly all procedures with the greatest safety;
- it must be carefully retained (protected in a transparent waterproof envelope to avoid deterioration) and must be kept with the machine during its whole lifespan , including eventual property changes. In case you loose or you spoil it you have to ask the producer for a supplementary copy by giving data written on the identification little plate.

- ***Before making whatsoever operation on the machine it is compulsory reading the handbook with care and the enclosed documentation, to avoid eventual damaging of the machine itself, of people or things.***

- ***Operations are not allowed in case you have doubts about the instruction correct interpretation.***

- ***It's important retaining the handbook and the enclosed documentation , in an easy place, next to the machine and known by all users (operators and maintenance staff).Operators and maintenance staff should be able to find it and consult quickly, in any case.***

1.1.2 List of documentation supplied with the machine

- **Installing Lay-out**

1.1.3 Symbology

Symbols indicating dangerous situations or very important information.

ATTENTION!
It shows risks situations for people, recalls safety rules, suggests behaviour proceedings.

WARNINGS!
It shows dangerous situations for the machine and/or for the product under processing.

NOTICE!
It indicates the useful information for consulting the handbook and for the machine correct working.

Symbols indicating information concerning specialized operators

MAINTENANCE OPERATOR
It indicates the normally scheduled maintenance proceedings which must be done by a mechanical or electrical maintenance operator.

QUALIFIED TECHNICIAN
It indicates the installation proceeding, work set-up and/or unscheduled maintenance (of electric or mechanical nature) which must be done by an assistance technician employed or authorized by Giugni s.r.l.

1.1.4 Operators to whom the handbook is addressed

Operators and/or users. Instructed and authorized operators for machine using (operations to be done on the general control panel and visual controlling of correct working).

Mechanical maintenance workers. Instructed and authorized technicians for normal maintenance (as called in the handbook) of mechanical and pneumatic parts.

Electrical maintenance workers. Instructed and authorized technicians for normal maintenance (as called in the handbook) of electrical and/or electronic parts.

Qualified technicians. Assistance centre technicians (C.A.T.) employees or authorized by the firm GIUGNI s.r.l. to carry out repairs or difficult operations.

Operators must not carry out operations exclusively reserved to the maintenance staff or to qualified technicians 1.2.

1.2 Warranty and liabilities exclusion

Complete clauses regarding warranty are described on the sale contract.

Warranty is tied to following conditions:

- machine must be used within limits declared by the contract and described in the paragraph “Technical data” of this handbook;
- machine must be used according the handbook instructions;
- maintenance must be carried out according to times and ways given by the handbook, by mounting only original spare parts and by committing itself only to qualified staff.

GIUGNI s.r.l. declines every liability deriving from :

- improper use;
- use by not authorized and/or untrained staff;
- total or partial inobservance of instructions;
- power supply faults (electric, compressed air);
- lack of maintenance;
- outside pollution of the machine;
- alterations and repairs not authorized;
- replacement of not original spare parts;
- not allowed printing ink use (see par. Technical data);
- extraordinary events such as earthquakes, over floods or firing.

1.3 Standard use and not allowed work

This machine must be exclusively employed for printing a stamp on a flat surface (vertical or horizontal according to different wished applications).

he whole machine is composed not only by the printing unit but also by the electric panel control and by pneumatic circuit components; however the electric panel and the pneumatic unit as well are supplied on a **clear client's request** (agreement to be set when ordering).

To use the machine for printing on materials not allowed by this hand book, to use products or accessories unsuitable for printing (types, clichés, type holders and / or inks), or in order to obtain production performances higher than prescribed limits, is considered "IMPROPER USE", therefore the firm Giugni srl is excluded by liabilities deriving by the inobservance of those recommendations.

The use limits are described on paragraph "Technical data".

The machine working cycle is described on paragraph " Working description".

1.4 Technical assistance request

Assistance service is available for explanations, for visits at the client's site by sending qualified staff or for spare parts supplying.
Please specify always:
- Name of client and identifying data;
- Machine identifying data such as: type of machine; series n.°, year of construction.

In case of help address yourself to:

GIUGNI s.r.l.
Via F. Bellotti, 53
41100 Modena - Italy
Tel. +39/059/330060 - Fax +39/059/828208

We remind you that the client is requested to buy always original spare parts (or equivalents authorised in writing by the firm Giugni s.rl. or by C.A.T.).

1.5 Data little plate

Identification data of the single machine are written on the little plate depicted by pict.1.

Removing, damaging or modifying the plate data is forbidden.

Fig. 1

2 DESCRIPTION AND GENERAL FEATURES

2.1 Description of the supplying

The machine, when complete delivered, is composed of the following main components:

A Coder;
B Electric control panel;
C Reducing filter unit with pressure gauge and solenoid valve;
D Cable and connector for the connection to the origin of the signal that points out the product. By request the reading-device can be delivered with the cable (photocell or sensor).

It is however possible to request, after previous agreement with the manufacturer, the best configuration to the necessary requirements (For example only coding part, or coding parts and electric control panel, or the complete configuration).

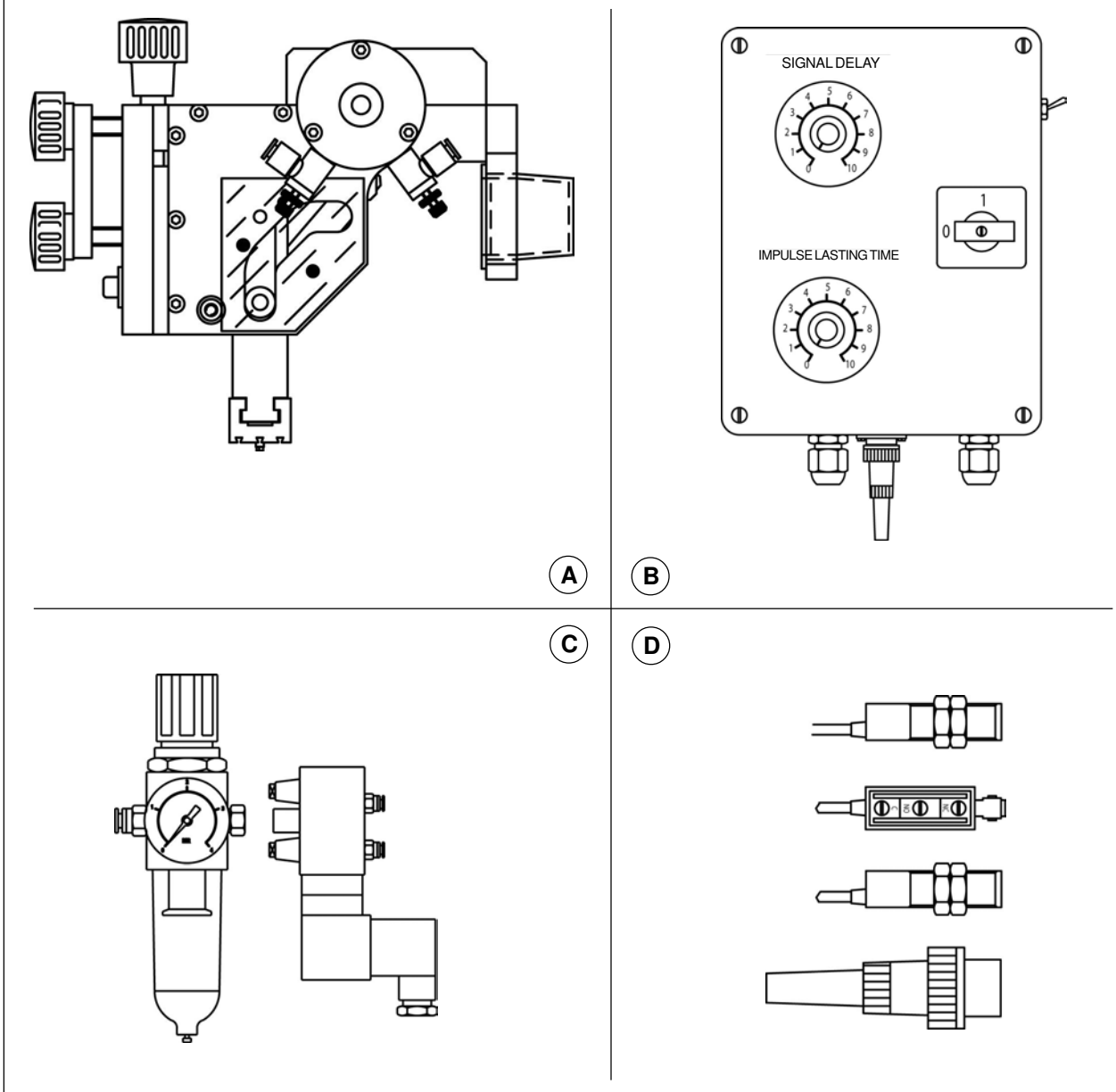


Fig. 2

2.1.1 Description of the coder

Mod. 289/20

1) Rotating actuator.
2) Cartridge support.
3) Type-holder support.
4) Type-holder.
5) Fixing screw.
6) Plexiglas protection.
7) Supporting frame fixing knob.
8) Pressure printing adjustment knob.
9) Coding-part.

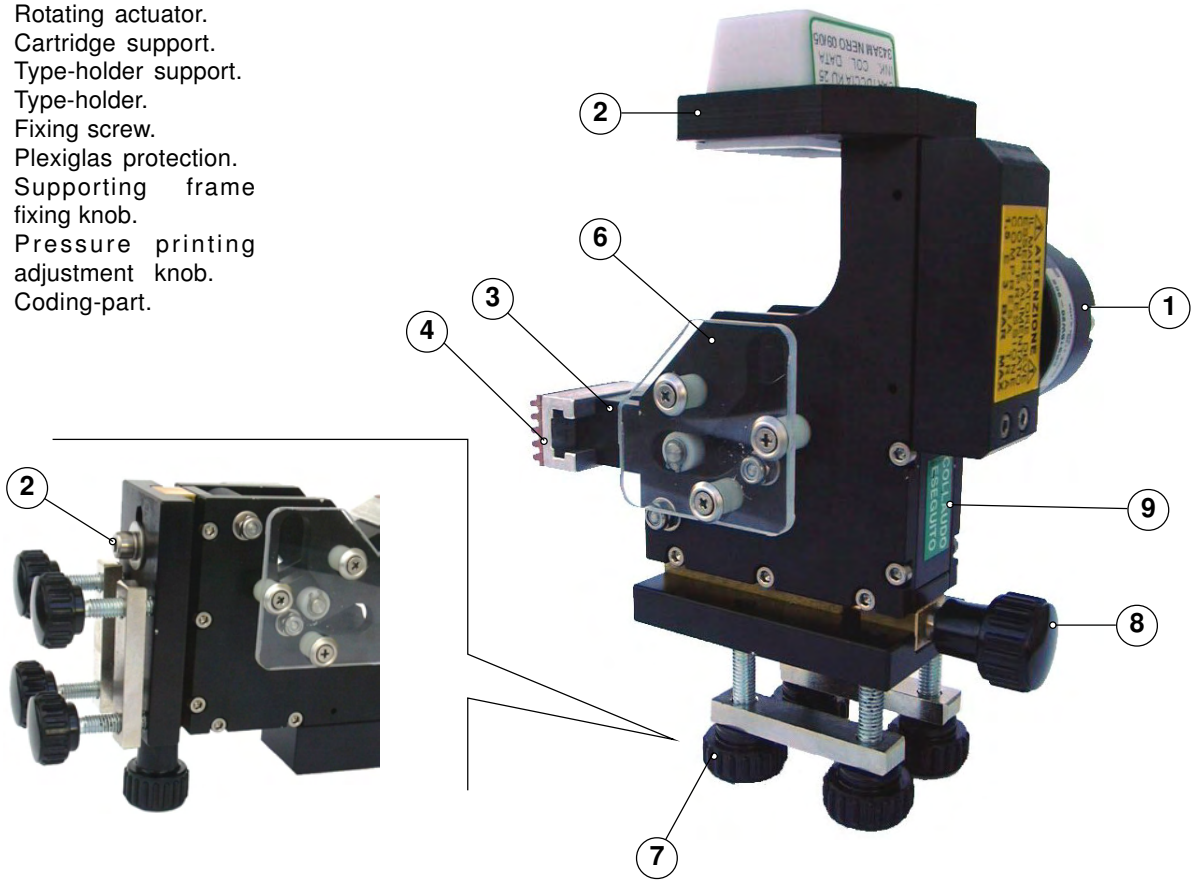
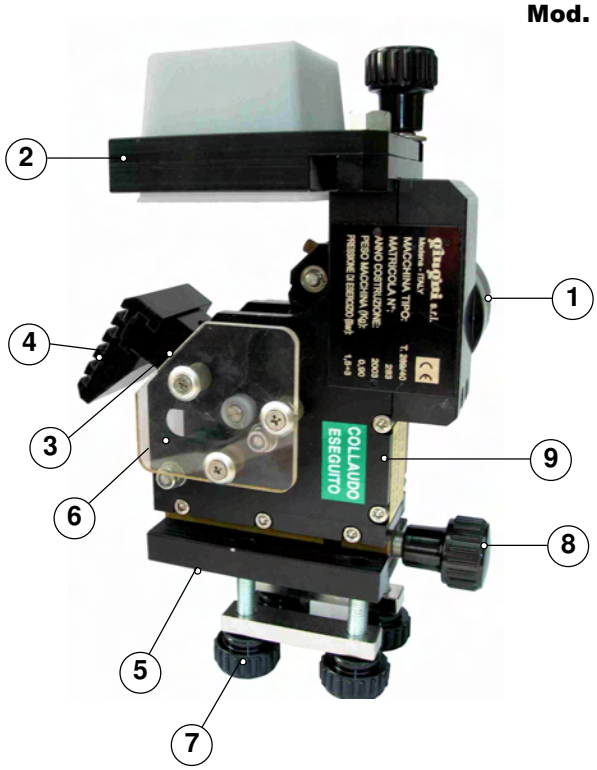


Fig. 3

Mod. 289/40



1) Rotating actuator.
2) Cartridge support.
3) Type-holder support.
4) Type-holder.
5) Fixing screw.
6) Plexiglas protection.
7) Supporting frame fixing knob.
8) Pressure printing adjustment knob.
9) Coding-part.

Fig. 4

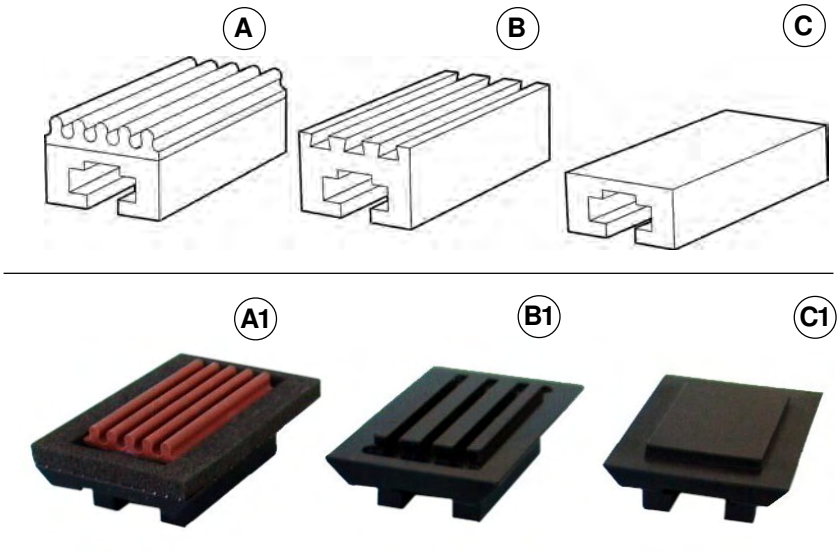
2.1.2 Type-holders which can be mounted on the coder

The coder can use three different kinds of type-holders.

Type-holder **A**: this model is covered by grooved rubber type GIUGNI or TELOS. It can use single types or cliché with type fixing with omega's profile.

Type-holder **B**: model PRINT, arranged for using single types or cliché to be put in the suitable dovepile grooves.

Type-holder **C**: model FLAT.
It can use clichè fixed with double-sided adhesive.



The type-holders can be supplied with sealing border (A1-B1-C1).

Fig. 4

2.1.3 Cartridges which can be mounted on the coder

According to the coder's model, we supply the respective ink-cartridges.

Cartridge type **D**: suitable for coder Mod. 289/20.

Cartridge type **E**: suitable for coder Mod. 289/40.

The cartridge have a length which depends on the ink they have in ,and on the frequency of the coding cycles (a higher frequency of the use increases the number of the stampings which can be made with the same cartridge).
These cartridges are suitable for intensive uses with short and restricted stops.
The solvent-basis quick ink is suitable for coding products not much absorbent, while the water-basis ink is suitable for coding absorbent products.

Fig. 5

2.1.4 Accessories supplied

With the machine we supply a kit of accessories.

Caps (**DT** and **ET**) for cartridge type D and E. They seal and are useful for life maintaining of the cartridge in case of long unuse of the machine.
Press-cartridge device **G**: it has to be moderately pressed against the cartridge-pad, to obtain its uniform ink-soaking.

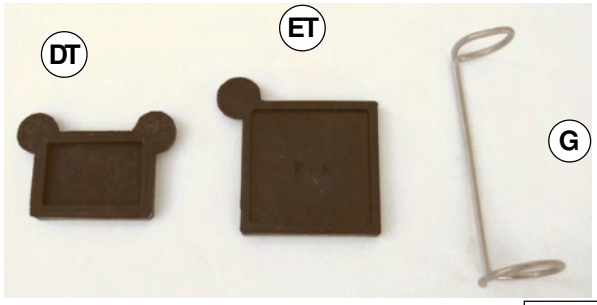


Fig. 6

2.2 Wiring

The electric components are in a panel, made according to current laws and suitable to safeguard against the external agents (protection degree IP 55).
All components in the panel are described in the enclosed wire diagram.

2.3 Pneumatic system

The components of the pneumatic system are the same as described in the enclosed pneumatic diagram.
It is important to remember that the compressed air needed for the good working of all pneumatic groups must be clean and enough lubricated.
Eventual impurities suspended in the air coming from the compressor and the condensed humidity enhance the gaskets wear and of the related flow surfaces, jeopardizing the functionality and the lasting time of the pneumatic parts.
The air connection to the outsource must be done by a fast connection rubber pipe .

2.4 Technical data

MAIN CHARACTERISTICS

- Weight of the equipment: ..... 1 kg
- Min. stock temperature: ..... + 2°C
- Min. working temperature: ..... + 5°C
- Max working temperature: ..... + 45°C
- Relative humidity (without condensation): 70%
- Vibrations: ..... no risks

WIRING

- Voltage: ..... 230 V monophase
- Frequency: ..... 50 Hz
- Auxiliary voltage: ..... 24V DC
- Connection type ..... Monophase+earth+neutral
- Total power absorbed ..... max 20 VA
- Solenoid valves voltage ..... 24V DC

PNEUMATIC SYSTEM

- Fluid type: ..... Compressed air
- Supply pressure: ..... MIN 5 - MAX 8 Bar
- Working pressure: ..... MIN 1.5 - MAX 3 Bar
- Supply hose ..... Di=6 mm
- Air consumption: ..... 5 Nl/min
- Max. number of pump cycles ..... 120 strokes/min
- Compressed air quality according to ISO 8573-1regulations
  1. Solid parts: class 5
  Max. dimensions of the particles ..... 40 micron
  Max. concentration ..... 10 mg/m^3
  2. Water content: class 4
  Max. condensation on working pressure ..... +3° C
  3. Oil content: class 3
  Max. oil concentration ..... 1 mg/m

PERFORMANCE AND USE LIMITS

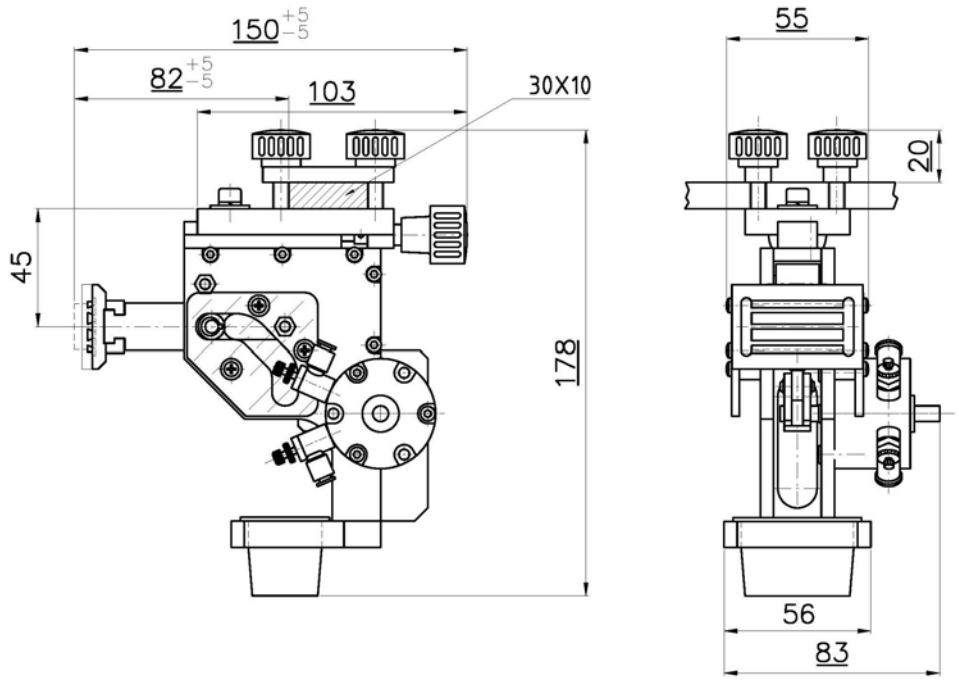
- Max number of cycles per minute 200
- 20 type-holder printing area: ..... 20x35 mm
- 40 type-holder printing area: ..... 40x35 mm

Never exceed the operational values or limits described in the Technical Data of this manual or on the enclosures. Any other use that is not described is to be considered as IMPROPER USE (NOT ADMITTED USE not according to the technical and planning instructions).

2.4.1 Overall dimensions

The dimensions are indicated in mm.

Mod. 289/20



Mod. 289/40

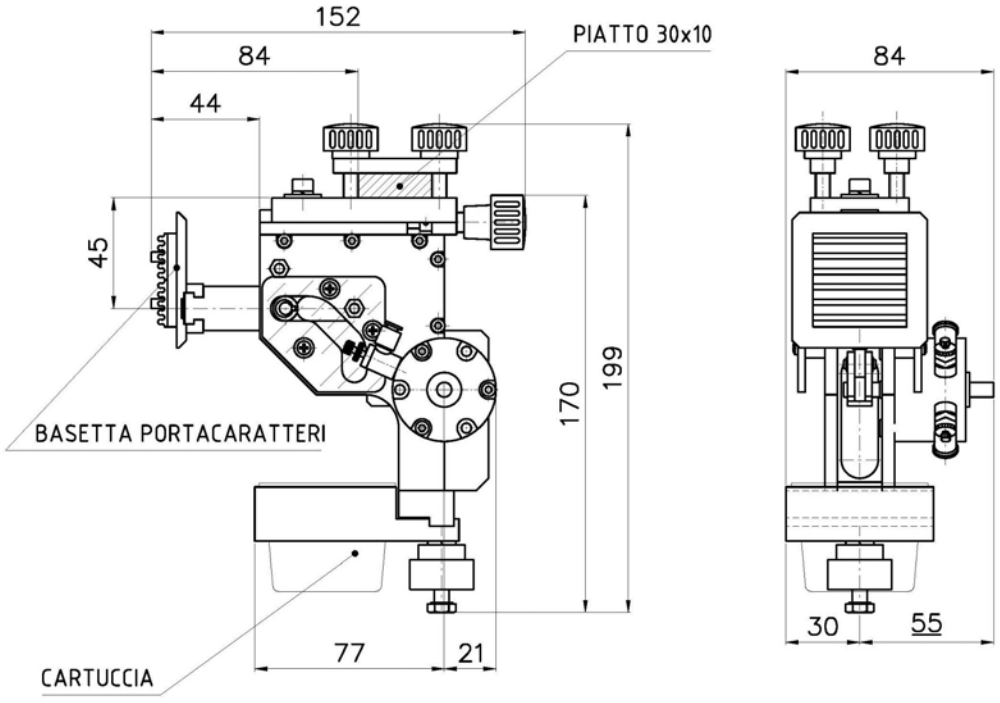


Fig. 7

2.4.2 Noise level

The machine has an acoustic pressure level (noise emission) lower than 70 dbA, that is not dangerous for the operator or for the people exposed to risk. However the finally valuation of the noise level must be made by the final customer in the installation place of the machine, as the manufacturer can only establish the noise level during the test in his own seat (without any other machines).

We advice to analyze carefully the possibility of keeping far from the very noisy areas the operators who can make their work in different rooms and those who after a medical checking have resulted being partially weakened.

2.4.3 Admitted operational area

The machine must operate exclusively indoors in a closed area, sheltered against the atmospheric agents, where there is no risk of explosion or fire.
Do not place or install the machine where there are risk of explosion.

The work site where the machine is placed must avail of sufficient natural lighting and must be equipped with devices that ensure adequate artificial lighting to safeguard the operator' s health and safety.
The minimum lighting in the room must ensure the perfect visibility of all points of the machine while the maximum lighting must be such to avoid dazzling to the operator (normally 250 - 300 lux of artificial or natural lighting; during maintenance jobs 500 lux of lighting localized in the intervention point).

The supporting frame to which the machine will be fixed must ensure the needed tightness to carry out all working functions correctly.

2.4.4 Materials used for the manufacture of the machine

None of the materials used for the manufacture of the equipment is dangerous for the operator (and/or for the product), both for contact both for exposure.

All materials used are according to the current laws regarding the safety and health in work sides.

2.4.5 Toxic vapours

EMISSION OF INK SOLVENT VAPOURS

The ink supplied by *GIUGNI s.r.l.* is certified as non-toxic.
We recommend in any case to avoid its inhalation or extended contact without the use of safety protections.

Always wear safety protections (gloves, goggles, and protective face guard) in case of long standing near the machine.

Anyway, the final customer of the machine will arrange adequate aspiration devices.

3 SAFETY AND ACCIDENT PREVENTION

3.1 GENERAL WARNINGS

It is of utmost importance to carefully and thoroughly read this section, as it provides crucial information concerning the hazards with which the operator may be faced if the machine is used incorrectly.

- ***Always check the compliance of the compressed air, electrical mains supplies and earthling using specific instruments before connecting the coder.***
- ***Never use the coder for purposes different to those described in the sales contract.***
- ***Never allow to unauthorised staff to repair or perform any jobs on the coder.***
- ***Do not use the coder in case of its failure.***
- ***Never leave the coder when the safety guards are removed (Plexiglas protections).***
- ***Never put your hands or any other parts of the body near moving components and inside connected parts.***
- ***Always check and adjust moving components when the safety guards are correctly fitted .***
- ***Always perform the "preparing for maintenance" (Point 6.2) before starting any jobs or adjustments.***
- ***Do not lubricate, repair or adjust parts of the coder while its running.***
- ***Do not use matches, lighters or torches as lighting instruments.***
- ***Do not touch anything inside the electrical panel before its disconnection from the power mains.***
- ***All mechanical or electrical adjustments must be done by trained and authorised personnel (maintenance staff).***
- ***Always use instruments and wear protective garments as described by safety rules.***
- ***The manufacturer declines every liability for damages to people or things deriving by the inobservance of the safety rules.***
- ***The keys for entering the electrical panel must be kept by the department manager.***
- ***Clean immediately areas and floor in case they are smeared by spilling of lubricants products to avoid falling and sliding.***

3.2 RESIDUE RISKS

For residue risk we mean a potential danger partially removed which may cause damages to the operator if the intervention is made incorrectly or wrong.

In case of this machine, it does not present residue risks as the simplicity of its working and of its components, even if in movement, are not cause of danger .

It is however necessary to observe the following warnings:

- ***around the working space of the type-holder there can be crushed hazards;***
- ***it is forbidden to carry out any maintenance and/or adjustments while the coder is running;***
- ***it is forbidden to operate inside the electrical panel without the disconnection from the power mains;***
- ***avoid inhalating and touching for long period of time without wearing the proper individual garments (gloves, goggles and face protection).***

If the coder is supplied without support frame, the assembler must shelter accurately the dangerous area.

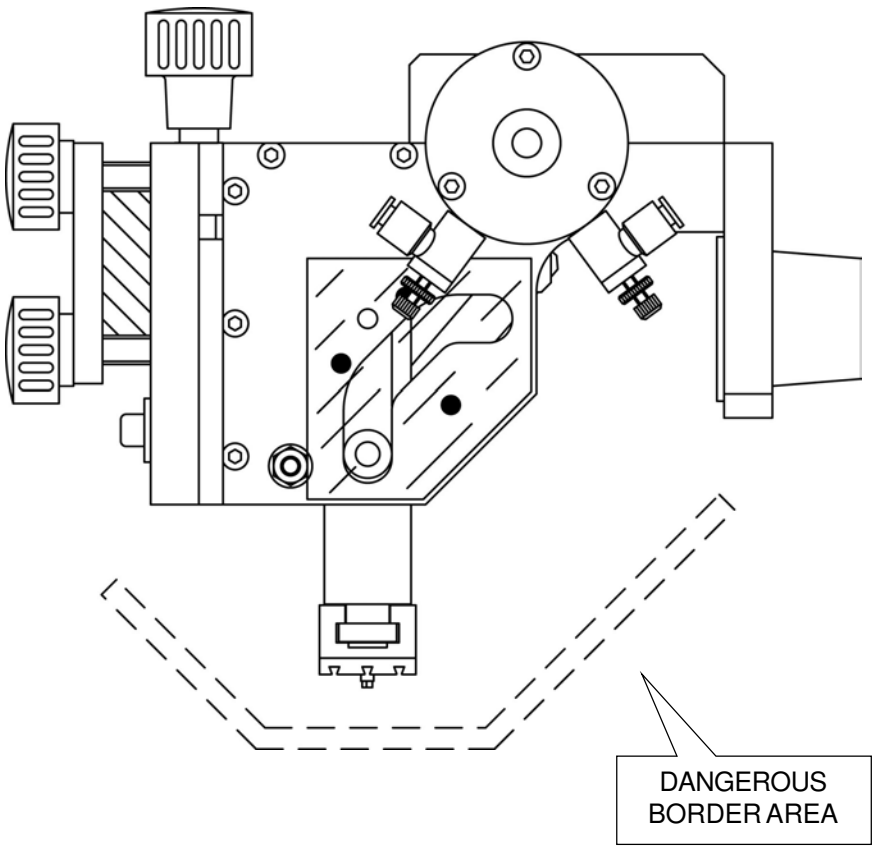


Fig. 9

3.3 Sticking warning little plates

On the machine it is placed a little plate to point out some warnings to be observed to obtain a good working.

In case of wear of the plate or if removed it is necessary to replace it with another one on the same position.

Fig. 10

4 TRANSPORT AND INSTALLATION

4.1 Transport and unpacking

After the test, the coder is shipped completely assembled and stored inside a cardbox. In case of complete supply with the coder inside the cardbox also the electric panel, the pneumatic circuit components, ink cartridges and relevant accessories will be put in.
The weight and the small dimensions allow an easy handling of the box (see point 2.4 “TECHNICAL DATA”).

When you receive the delivery, make sure that it was not damages during transport and that it is perfectly untouched , without any opening attempt which might indicate some parts steeling.
The vertical position and the opening side are marked on the cardbox.

4.2 Storage

If the machine is not installed in a short time, but it must be stored for a long period, the storage must be done in a sheltered area suitable for protecting adequately the components installed.

In particular:

– check if the surface on which the machine is stored can bear the weight in absolute safety;

– if the packing is removed, cover the machine with a plastic sheet to protect it from dust and damp.

Do not place other equipments or objects neither on the coder, nor on the box containing it. The liability for every accident occurred after the delivery of the coder to the shipper , must not be consider on manufacturer’s charge.

4.3 Installation

The machine must be assembled and installed exclusively by qualified staff, explicitly authorised by the manufacturer or by his representative (qualified technicians).

The user of the coder must have arranged at the installation side a transversal fixing bar according to what has been agreed with the manufacturer when confirming the order, in conformity with the Lay Out drawing indications given by the manufacturer.

Picture n. 11 shows the different positions of the possible installation of the coder, with reference to the object that has to be marked and with reference to the floor (this drawing is valid for the version

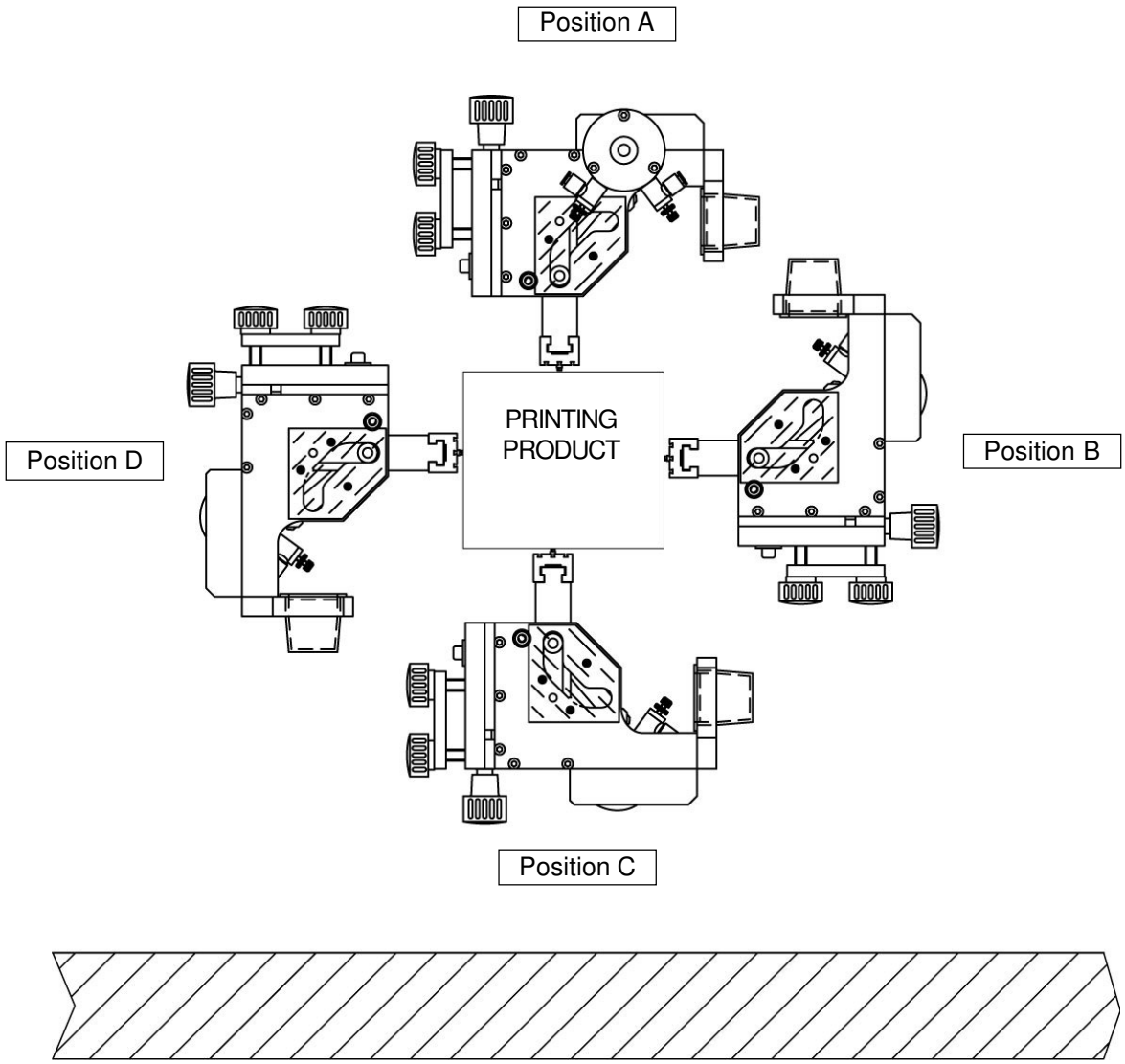


Fig. 11

4.3.1 Connections

Connections to pneumatic and electric feeding network must be carried out as described by drawing picture no. 12.

Connection way:

- Fix the electric panel G, the filtering group I and the solenoid valve L to their proper supports maid on purpose according to what indicated by Lay-Out installation.
- Make sure that feeding tension corresponds to that of the machine (see point 2.4 TECHNICAL DATA) after that connect a cable from the general feeding network to the planpboard of the electric panel.
- Make the pneumatic connection by placing a pipe from the general distribution network to the connections which is on the filtering group and by linking the two connections on the cylinder to those of the solenoid valve.
- Regulate the air pressure by the knob of the filtering group (working pressure must be between 1.5 and 3 bar).
- Connect the cable normally supplied to the source of the signal detecting the product (photocell or sensor), and plug in the connector H into the socket on the panel.

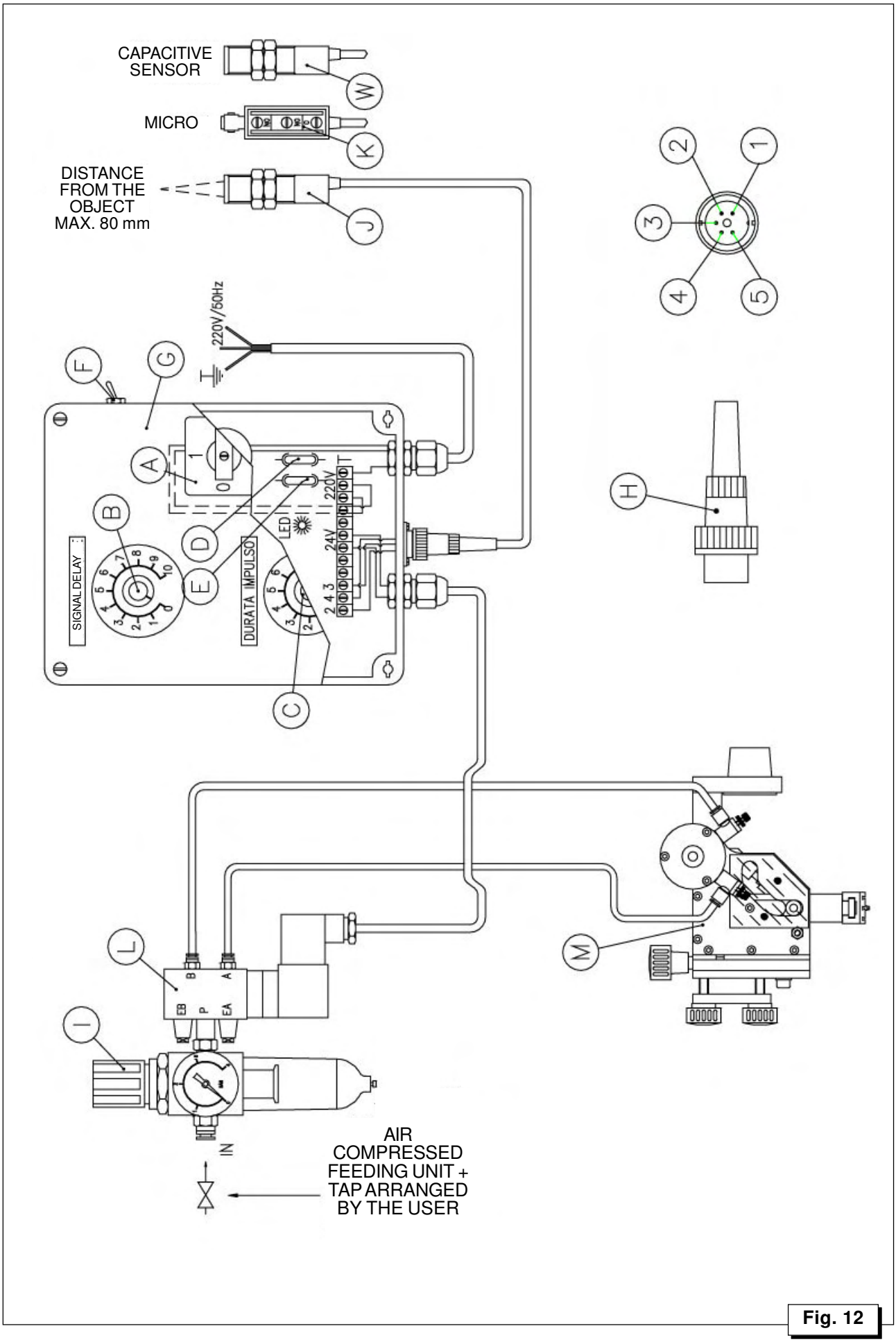

CAPACITIVE SENSOR
W
MICRO
K
DISTANCE FROM THE OBJECT MAX. 80 mm
J
2
1
3
4
5
220V/50Hz
F
G
A
B
D
E
C
H
SIGNAL DELAY
DURATA IMPULSO
LED
220V
24V
2 4 3
L
M
I
EB
P
EA
IN
AIR COMPRESSED FEEDING UNIT + TAP ARRANGED BY THE USER

Fig. 12

CONNECTIONS BETWEEN THE 5 POLES CONNECTOR PREH
AND DETECTING SENSOR (Pict. 7)

No. ON CONNECTOR	PHOTOCELL CABLES COLOUR	MICRO CABLES COLOUR	SENSOR CAP. CABLES COLOUR
1	EMPTY	EMPTY	EMPTY
2	BROWN DARK	LIGHT BLUE	LIGHT BLUE
3	LIGHT BLUE	EMPTY	BROWN
4	WHITE	BROWN	DARK
5	EMPTY	EMPTY	EMPTY

4.4 Regulations and checking before use

The coder is supplied already equipped with the right regulations to carry out its own functions since it is submitted to internal trials to verify the correct working of every part.

However during pre-starting phase it is necessary making following checks:

– make sure that all fixing nuts are well tightened;

– make sure about the position and the correct fixing of Plexiglas protections;

– make sure that the general switch of the electric panel is on the position “OFF” and make sure that the network voltage corresponds to 220 Volt;

– make sure that the air compressed tap is open (feeding pressure MAX 8 bar);

– regulate the working pressure value on the pressure regulator (2 bar);

– inspect the electrical and pneumatic connections;

– make sure that the supporting frame of the coder is fairly rigid (in order to not transmit vibrations) when the machine is working.

The coder is supplied with the cartridge not assembled.
Insert the cartridge in its own site (see point 6.4) before starting printing operations.

5 USER INSTRUCTIONS

5.1 Working description

The CODER Mod 289 was planned to code flat surfaces of still products or rotating round surfaces. It can be used on every machine or automatic line working step-by-step.
In particular, the inking system allows to use in addition to normal printing inks also ink with very rapid drying time with very good lasting also on materials with very low absorbing capacity (glass, polyethylene, nylon, steel).
The movement of the type-holder, that can do a vertical stroke of about 7 mm, allows to code packing with irregular surfaces and with different highs (boxes with small dimensions, packed products, little pots, little tray).

The complete coding cycle takes place AUTOMATICALLY.
The type-holder is driven by a pneumatic cylinder that receives the impulse from the product passage reader. From the stand-by position, it carries out a roto-translation of about 90° and it goes in contact with the surfaces to be coded.

Using the regulators on the electric panel (if present), it is possible to modify the dwell time of the type-holder on the product and the time that has to elapse between the moment in which the impulse is sent and the moment in which the coding cycle starts.

Coding cycle

1 Phase
The machine is in stand-by position, with the type-holder in contact with the cartridge.
The types or the cliché fitted on the type-holder are inked.

2 Phase
The product flowing along the line is detected by the product passage reader (photocell, sensor or others), that sends a signal to control the cylinder powering.
The type-holder is brought in contact with the surface to be coded.
After having coded, the type-holder goes back in the stand-by position.

In case the unit is equipped with an electric panel supplied by the manufacturer, using the potentiometers on the panel, it is possible to delay the code starting signal and to adjust the contact time of the types or of the cliché with the product to be coded (see point 5.2).

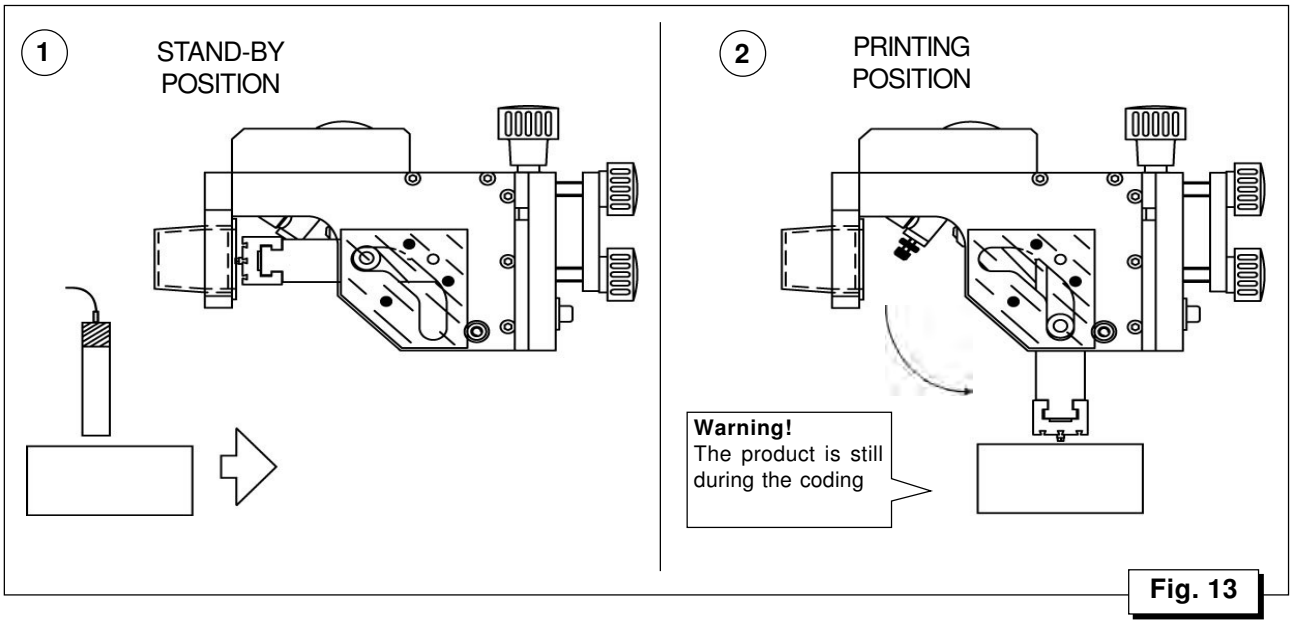


Fig. 13

Any other USE of the equipment or of the product utilised that is not described in this manual, even if it is not clearly deductible, is to be considered as IMPROPER USE (NOT ADMITTED USE).

GIUGNI s.r.l. declines all liabilities regarding possible damages and/or injuries to persons or properties caused by operations not described in this manual.

5.2 Electric control panel

1 - Electric panel.

2 - Manual impulse button.
Using this button, the cylinder carries out manually a stroke, simulating a semi-cycle (the coder goes in coding position and stops).
If the little level is brought to the starting position, the coder reaches the stand-by position.

3 - Main switch selector.
Pos.0 it turns off the power to the panel components (machine off).
Pos.1 it turns on the power to the panel components (machine on).

4 - Potentiometer “SIGNAL DELAY”. It is used to set the value regarding the time that has to elapse between the moment in which the product passage is detected and the moment in which the coding cycle starts.

5 - Potentiometer “IMPULSE LASTING”.
It is used to set the value regarding the contact time between the type-holder and the product.

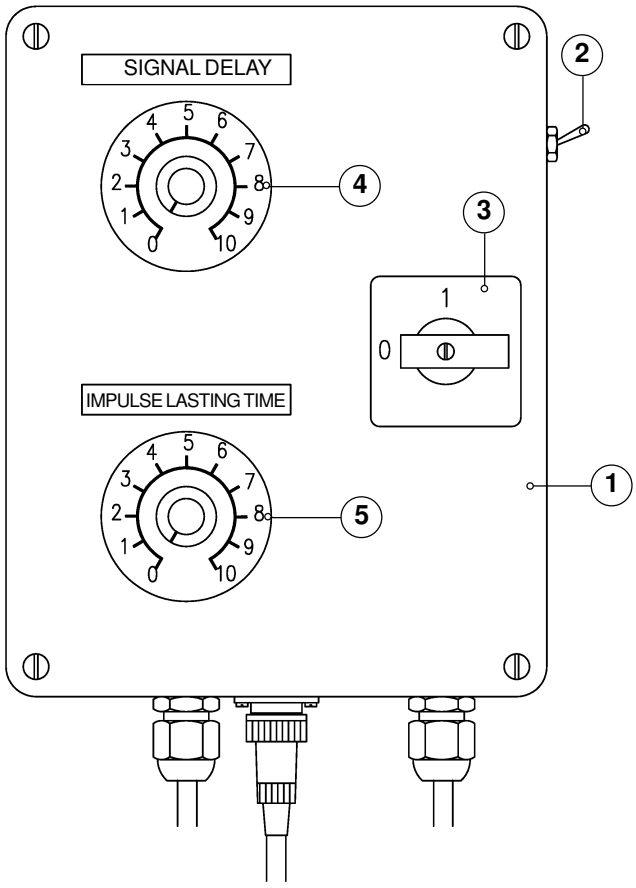


Fig. 14

5.3 Starting

Before starting the working cycle of this coder, it is necessary to read carefully all the instructions contained in this manual.

- Check that the air tap upstream of the pressure regulator is open and that the working pressure is 2 bars.
- Turn the main switch selector on position “1” (ON).

5.4 Stop

- Turn the main switch selector on position “0” (OFF).

6 CLEANING MAINTENANCE, ADJUSTMENTS AND REGULATIONS

6.1 6.1 Precautions

Maintenance operations must be performed exclusively by expert staff who have a perfect knowledge of the equipment (electrical or mechanical maintenance staff, everybody for his own knowledge).

- ***Before proceeding, you must carry out the preparing for maintenance procedure described in paragraph 6.2. It is forbidden to carry out maintenance, lubrication, or reparation operations while the machine is working or is under power.***
- ***After each operation, you must reassemble the protections that have been eventually removed, to bring the machine in the starting conditions.***
  Do not lubricate, repair or adjust moving parts.

A good maintenance is necessary to keep the functionality and the productivity of the machine. To carry out properly the maintenance procedures, you must pay particularly attention to the following points:

- ***while removing parts from the machine, you should avoid they get dusty;***
- ***do not use water to clean the machine, in particular on motors and electrical parts;***
- ***do not use compressed air to clean electrical parts and/or photocells. The dust must be removed with suitable instruments (brush, duster, and exhauster);***
- ***use only original spare parts.***

6.2 Preparing for maintenance

The procedure must be completed before each routine maintenance operation, cleaning and extraordinary maintenance operations, **and entails the disconnection of the equipment from all power supply sources.**
If you have a machine equipped with electric panel and pneumatic logic supplied by the manufacturer firm, proceed in the following way:

- ***wait for the machine stopping when a working cycle ends, then turn the main switch selector Pos. 3 - Pict. 14 on position 0 (zero);***
- ***close the tap of the filter unit to disconnect the machine from the air compressed feeding net and discharge the circuit.***

6.3 Routine and scheduled maintenance

Routine maintenance operations are to be carried out exclusively by authorised staff, trained to do mechanical and/or electrical adjustments or repairs, everybody according to his own specific skills. It includes all periodical operations needed for a good performance of the machine and to keep the best conditions of the function and control equipments.

ROUTINE MAINTENANCE PLAN

Every day
Clean the type-holder and the types (or cliché) with a cloth wet with solvent. Contact the manufacturer or the producer of the ink used to know the suitable solvent type.
Every week
Clean the coder with a gauze soaked with Vaseline oil.
Lubricate the friction surfaces and the guide slots.
Every 5000 cycles
Check the humidity of the cartridge.
Max every 25000 cycles
Replace or refill the cartridge.
NOTE: The useful lasting time of the cartridge varies according to ink type used.

6.4 Cartridge replacement

Mod. 289/20 with disposable cartridge

- Bring the machine to coding position.
  If the machine is equipped with the electronic panel supplied by the manufacturer, use the switch (2 - Pict. 14).

- Remove with a slight pressure in the back side (Fig. 15).

- Insert in the support a new cartridge and reassemble it in working position (Fig. 15).

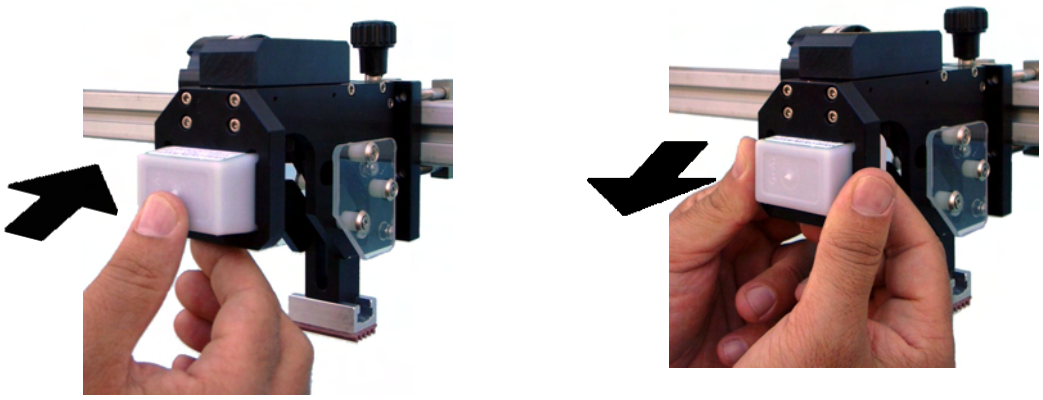


Fig. 15

Mod. 289/40 with disposable cartridge

- Bring the machine to coding position.
  If the machine is equipped with the electronic panel supplied by the manufacturer, turn the switch (2 - Pict. 14).

- Unscrew the knob that blocks the support, then turn it until the cartridge is completely free (Pict. 16).

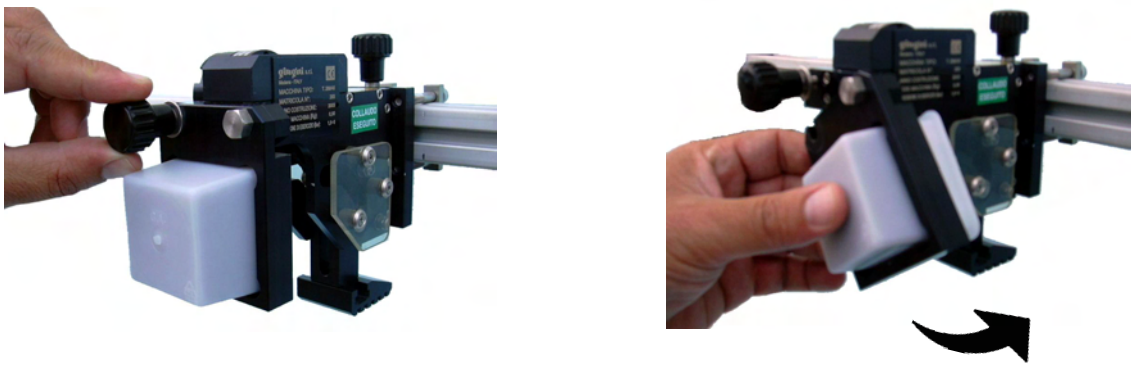


Fig. 16

- remove with a slight pressure in the back side (Pict. 17).

- insert in the support a new cartridge and reassemble it in working position.

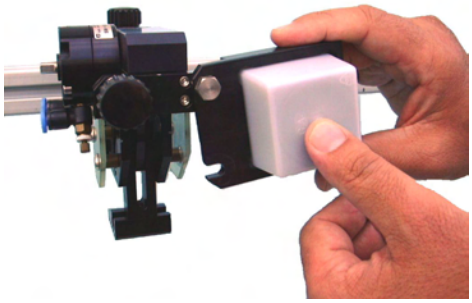


Fig. 17

6.5 Printing types replacement

The printing types replacement must always be carried out removing the type-holder on which they are fitted from the coder.
This operation must be carried out when the coder is in printing position to have free access to the type-holder.

- Take away the type-holder from the support, pulling it sideways (Fig. 18).

- To replace the types from the TELOS type-holder, a slight pressure with the fingers is enough to remove them from the joints.

  To replace the types from the PRINT type type-holder, take away the types from the dovetail joint taking them with the tweezers you find in the type box.

  To replace flat clichés from the type-holder, get off eventual residuals of adhesive tape, then fix new be-adhesive tape and the new cliché.

- Reassemble type-holder and the cartridge support.

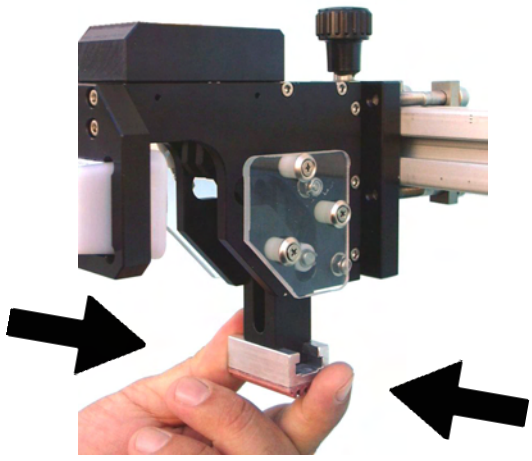


Fig. 18

6.6 Adjustments

The standard coder is provided with adjustments that allow to optimize the printing performances.
- Printing pressure adjustment.
- Coding times adjustment.

6.6.1 Printing pressure adjustment

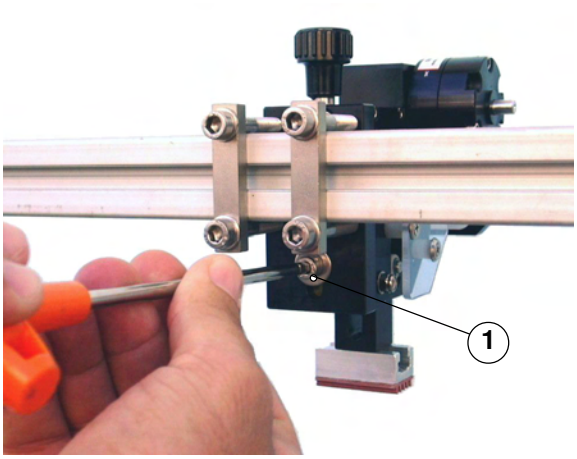
Before adjusting the printing pressure, it is necessary to bring the machine to the coding position.
If the machine is equipped with the electric panel supplied by the manufacturer, turn the switch (2 - Pict. 14).

Only models with vertical slide:

- Loose the Allen screw that blocks the vertical slide (1 - Fig.19).

- Use the knob (2 - Fig.19) per variare la pressione.
  to modify the pressure.
  Turning clockwise (in order to screw), you increase the pressure developed by the stamp on the product. Turning anticlockwise, you decrease the pressure.

- After the adjustment, tight the Allen screw that has been loosen.



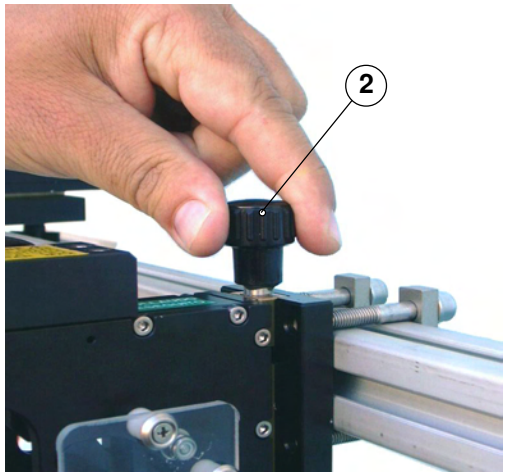


Fig. 19

6.6.2 Coding times adjustment

The adjustment of the coding time is carried out according to the founding signal sent by the product survey device to the electric panel.
If you have the electronic panel supplied by the builder, this adjustment can be carried out by means of the two potentiometer (Fig. 20) on the panel itself (see paragraph 5.2).

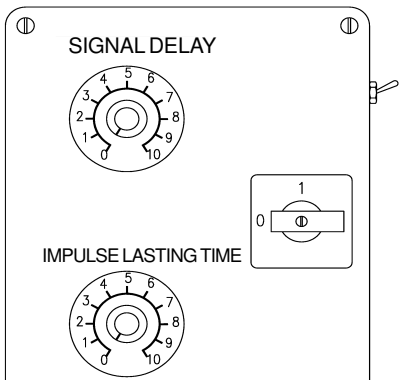


Fig. 20

6.7 Problems and solutions

The cause of a problem can be mechanical, electrical and/or electronical or their combination, therefore a good knowledge of all these parts can be useful for an expert operator.

Some advice in looking for the problems
- It is always better to analyze the problems beginning from the electrical and electronic part.
- Take note of every problem, the causes and the solutions.

6.7.1 Blurred print

- Decrease the printing pressure (see paragraph 6.6.1).

6.7.2 Incomplete print

- Check the humidification of the cartridge pushing the pad with the instrument supplied: if the cartridge is already charged, the liquid ink is visible, if the ink is not visible, it means that the cartridge must be replaced.
- If the print is incomplete with a charged cartridge, you should increase the printing pressure (see paragraph 6.6.1)..

6.8 Extraordinary maintenance

The ordinary maintenance staff can remove or repair important parts, if he has been authorized from the manufacturer and if he has been instructed by the manufacturer or by the C.A.T..

If the problem has not been solved, contact the C.A.T..

All the warnings described before are valid also for the extraordinary maintenance operations.

The use of non-original spare-parts beside causing problems to the right machine working excludes the firm from every liabilities.

6.9 Disassembly, demolition, and working residuals disposal

The disassembling operations for the demolition must be entrusted to qualified staff with the electrical and mechanical needed knowledge to work safety conditions. We advise to inform about this operations the manufacturer.
Please, follow strictly the safety norms described by the handbook, particularly in chapters 3, 4. About handling, see instructions given by chapter 4.

Disassembly proceeding

Arrange a working area wide and roomy and proceed in the following way:
- disconnect the machine from the electrical supply power by removing wires from the clamp board of the electric panel, only after having disconnected the unit and adopted the safety rules given by EN 60204-1 for these operations;
- disconnect on the electrical panel the connectors of the machine;
- discharge the circuits under pressure (pneumatic);
- discharge the air feeding net;
- discharge the lubricating oils in the proper container;
- disassemble all the parts of the machine and components to scrap or to reuse.

Working residuals disposal

The materials of construction of the machine can produce any dangers or risks for the operators.
Instead, they can be dangerous for the environment, if they are not disposed correctly.
Oils and greases used extracted from the cylinders and from the tanks, belts, rubber or plastic components, electrical motors, electrical wires and electrical components of the panels must be sent the differential collecting centres for the separation and treatment of polluting parts.
Every waste must be treated, disposed or recycled according to the classification and proceedings provided by the law in force by the installation country.

SPARE PARTS CATALOGUE

Coder Mod. 289

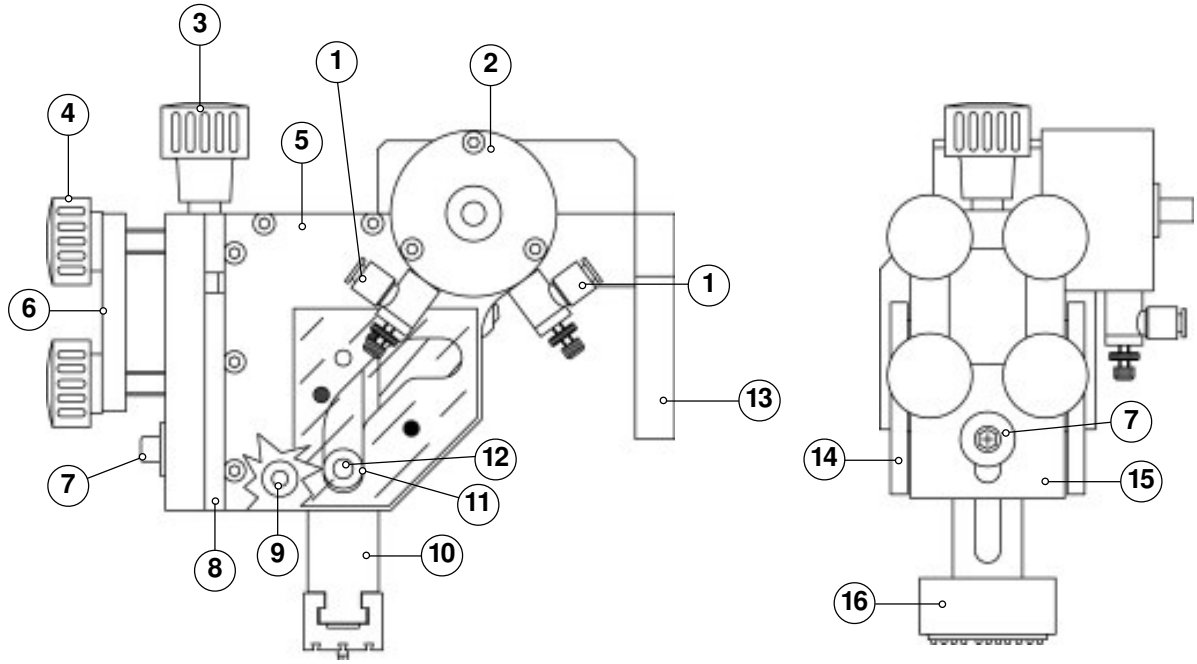
MOD. 289/20

Pos.	Q.ty	DENOMINATION
1	2	Flow regulator
2	1	Rotating actuator
3	1	Knob with adjusting screw and mobile block
4	4	Fastening knob
5	2	Side
6	2	Fastening plate
7	1	Allen screw
8	1	Fixed block
9	1	Rubber roll
10	1	Type-holder slide
11	2	Sliding bush
12	1	Pin
13	1	Cartridge support
14	2	Side protection
15	1	Adjusting slide
16	1	Type-holder

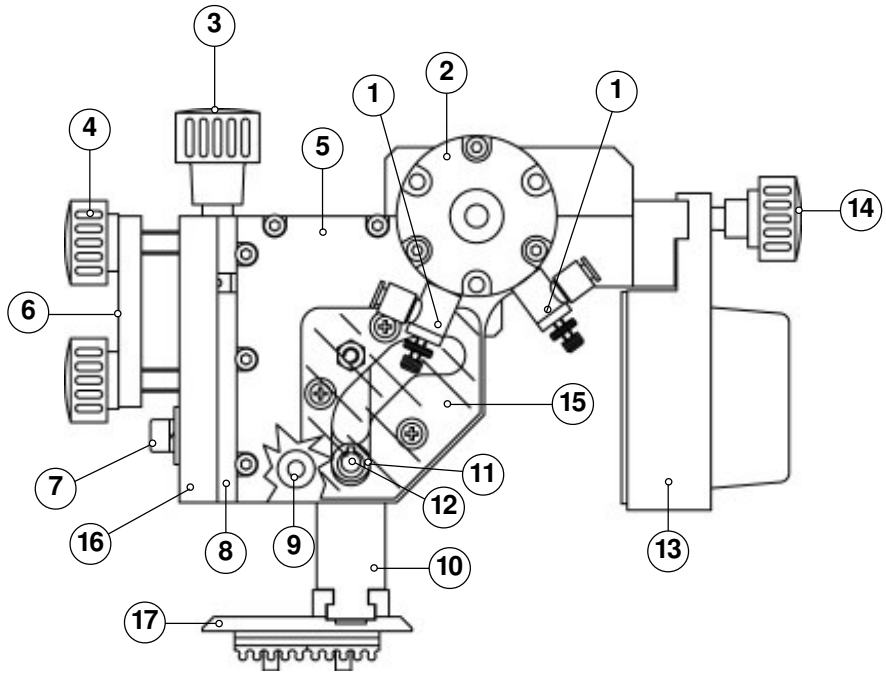
MOD. 289/40

Pos.	Q.ty	DENOMINATION
1	2	Flow regulator
2	1	Rotating actuator
3	1	Knob with adjusting screw and mobile block
4	4	Fastening knob
5	2	Side
6	2	Fastening plate
7	1	Allen screw
8	1	Fixed block
9	1	Rubber roll
10	1	Type-holder slide
11	2	Sliding bush
12	1	Pin
13	1	Cartridge support
14	1	Cartridge support knob
15	2	Side protection
16	1	Adjusting slide
17	1	Type-holder

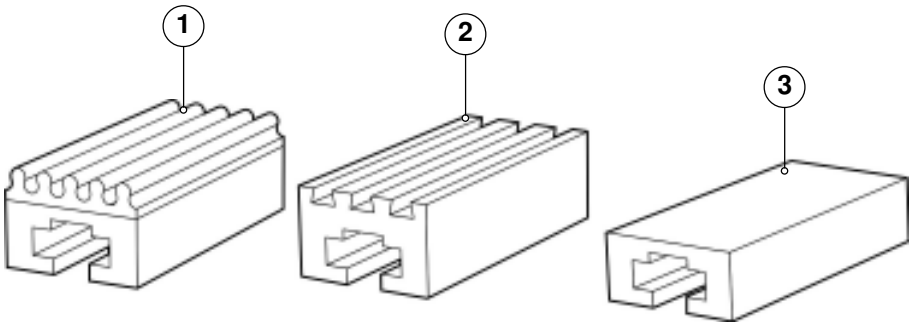
MOD. 289/20



MOD. 289/40



Pos.	Q.ty	DENOMINATION
1	1	Telos type-holder
2	1	Print type-holder
3	1	Flat type-holder
4	1	Telos sealing type-holder
5	1	Print sealing type-holder
6	1	Flat sealing type-holder
7	1	Cartridge KU 25
8	1	Cartridge KU 40
9	1	Cap KU 25
10	1	Cap KU 40
11	1	Cartridge pusher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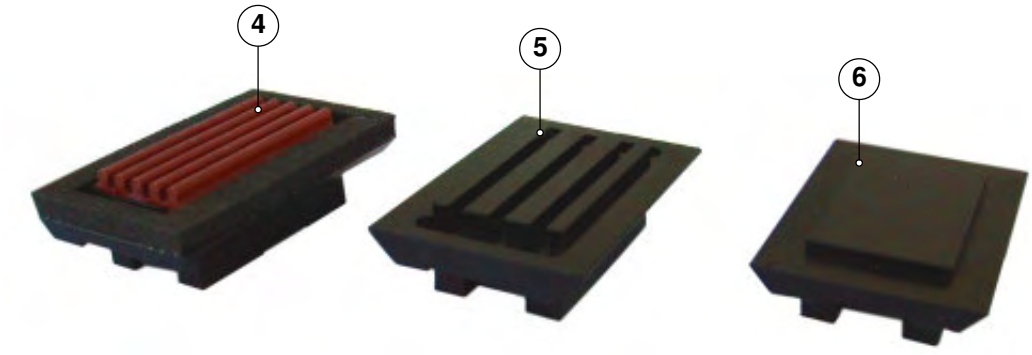
2
3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7
gingni
CARTUCCIA KU 25
INK COL. DATA
343AM NERO 09/05
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CARTUCCIA KU 40
INK COL. DATA
344A VERDE 09/05
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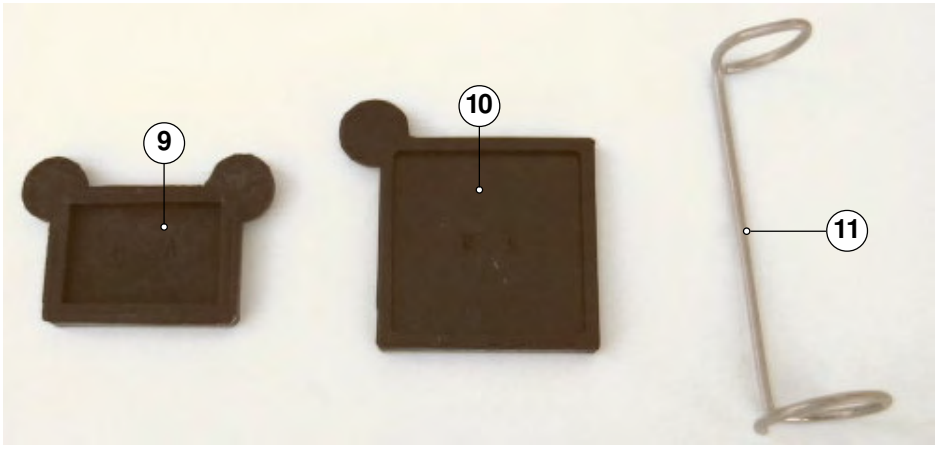
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