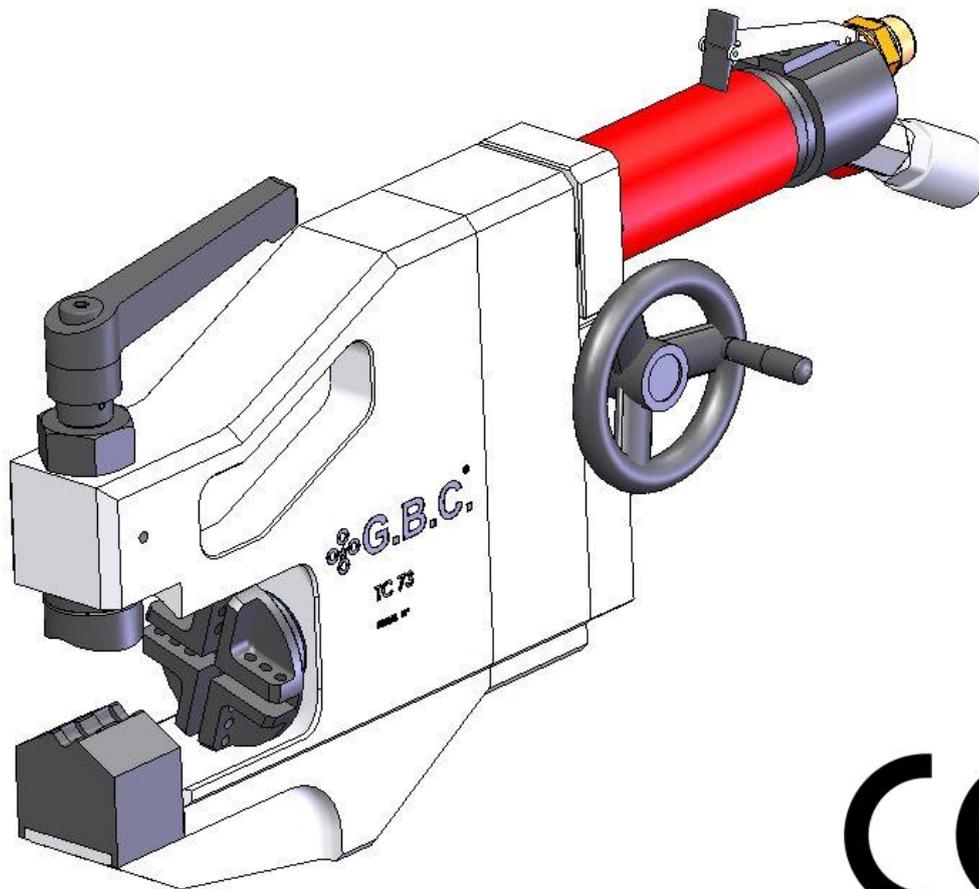




# INSTRUCTION MANUAL



CE

# TC 73



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# TC 73

Original Instructions - rev.01 - 2016—in compliance with 1.7.4 Machine Directive 2006/42/CE



## **PRESENTATION OF THE COMPANY AND INTRODUCTION TO THE INSTRUCTION MANUAL**

G.B.C. Industrial Tools S.p.A. is known worldwide for the quality of its machines and accessories for pipe cutting and bevelling procedures of any sort and plate bevelling machines..

The Headquarters are located in Cazzago San Martino (BS) where are currently operating the General Management, the sales de-department, as well as the main workshop and the shipping department.

**QUALITY STANDARD**—All our machines are assembled according to the highest quality standard. Since 1996 G.B.C. Industrial Tool S.p.a. has implemented management procedures in compliance with the quality system regulations UNI EN ISO 9001 (SGS ITALIA S.R.L. N° IT 96.088 / 1996).

This Manual is supplied together with the machine it makes reference to. The customer may apply for further copies to G.B.C. Industrial Tools S.p.a. Our company owns the copyright of this document and any partial or complete copy or distribution to natural persons or to corporate bodies is strictly forbid-den unless our prior approval to do so is obtained.

G.B.C. Industrial Tools S.p.a. informs its customers that any operation carried out on the machines which is not prescribed in this manual entails the automatic invalidation of the warranty. G.B.C. Industrial Tools S.p.a.

recommends to contact the Maintenance Service in Cazzago San Martino – Italy prior to proceed with any modification on the machine.

You are invited to scrupulously adhere to the information written on the identification tag.

For any further information you are invited to contact us at these numbers:

**Tel. +39 - 030 -7451154**  
**Fax +39 - 030 – 7356629**

**G.B.C. Industrial Tools S.p.A.**

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## **WARRANTY GENERAL CLAUSES**

**G.B.C.** Industrial Tools S.p.a. guarantees the reliability of the machine and its conformity to the specifications herewith reported. The warranty covers the machine in its whole for a time period of one year from the shipment date (ref. Delivery Note) for any flaw not imputable to the user.

The parts subject to wear are excluded from the warranty at sole discretion of **G.B.C.** Industrial Tools S.p.a.

In case of any operational malfunction arising during the warranty period, **G.B.C.** Industrial Tools S.p.a.

And its Maintenance Service, hereinafter called **MSS**, will remedy this inconvenient free of charge, both for handwork and for eventual replaced parts, except when the malfunction is directly or indirectly imputable to misuse or alteration. In any case the machine must not be disassembled or altered before the shipment. The warranty is valid only when the warranty document is duly signed by **G.B.C.** Industrial Tools S.p.a. and by a **G.B.C.** official distributor connected with the **MSS** maintenance service.

The shipment of the defective material must be performed within 8 (eight) days from the notification of the defect and/or the claim and/or the request of technical assistance. On the contrary the warranty will be void. **G.B.C.** Industrial Tools S.p.A. and **MSS** obligations will cover the defect resolution, the general maintenance and the inspection of the parts subject of the claim only. The component replacement is at **G.B.C.** Industrial Tools S.p.A. discretion only. The shipment to costs from and to the **MSS** as well as the direct and indirect costs rising from repair of the product are at user's charge. Any warranty repair or extraordinary repair must be executed by **G.B.C.** Industrial Tools S.p.A. and **MSS**, otherwise the warranty will be void.

Any ordinary maintenance performed by the customer/user or by any service centre non recognized or approved by **G.B.C.** Industrial Tools S.p.A. will not be refunded and will make the warranty void. The warranty is not valid for cases not listed in this certificate or for damage caused by a misuse of materials, power supply, negligence, unauthorized modifications, atmospheric events, acts of vandalism, incautious handling and/or transport, use of non original **G.B.C.** Industrial Tools S.p.A. parts and damage for causes not specified by **G.B.C.** Industrial Tools S.p.A. and for which **G.B.C.** Industrial Tools S.p.A. declines any responsibility. **G.B.C.** Industrial Tools S.p.A. reserves the right to modify and to improve its products without any obligation to modify equipment and components already supplied. Nobody is authorized to modify the conditions herewith contained or to issue any on behalf of **G.B.C.** Industrial Tools S.p.A. The claim terms for defects and/or damages in the material or of the ordered quantities, are those pre-scribed by the Civil Code; the goods acceptance entails the buyer to automatically accept the above mentioned warranty clauses.

## **G.B.C. Industrial Tools S.p.A.**

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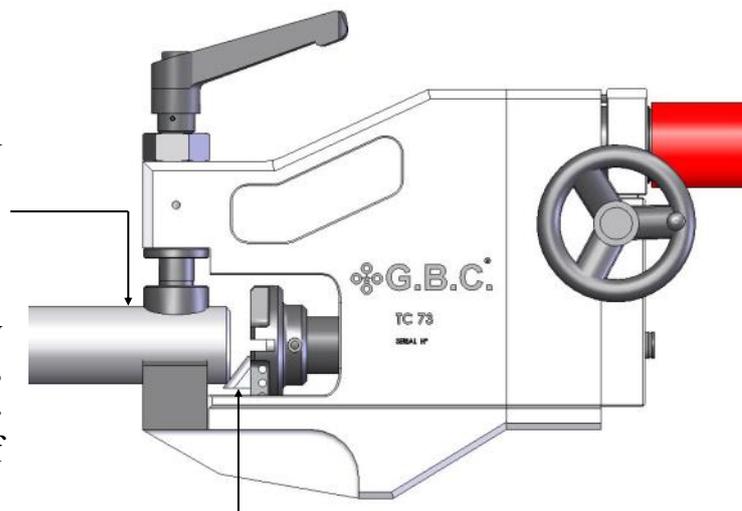


## **INTENDED USE OF THE MACHINE**

The machine shown in the drawing is intended to be used for prepping pipes for the welding.

It operates while locked in the OD of the pipe.

The bevel is obtained by bevelling tools of various shape and materials, depending by the nature of the material to be bevelled.



THE MACHINE SHOULD BE OPERATED ONLY BY SPECIALIZED OPERATORS WHO HAVE BEEN DULY TRAINED ON THE UNIT.

FOLLOWING TO A SPECIFIC FORMATION WE DO NOT ENVISAGE ANY REASONABLY PREDICTALBE MISUSE OF THE UNIT

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## TECHNICAL DATA

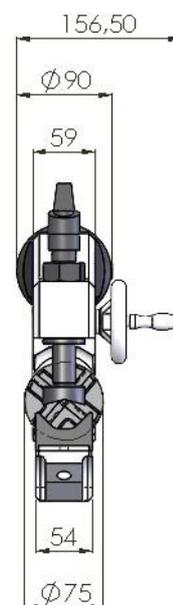
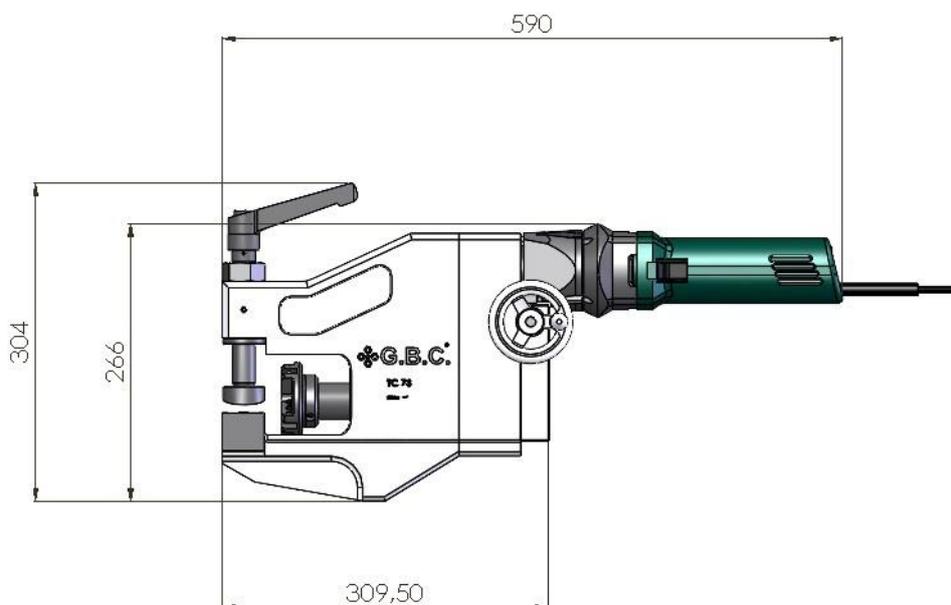
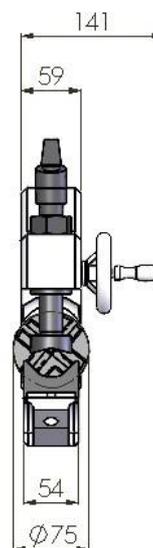
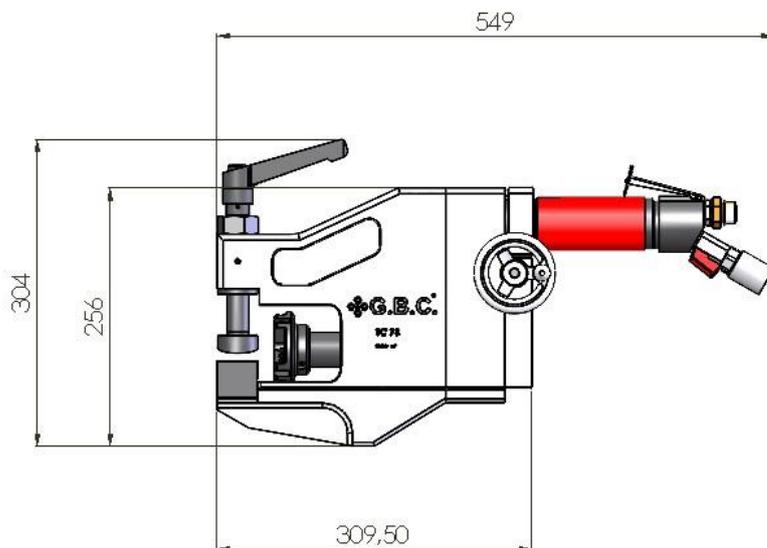
		PNEUMATICA	ELETTRICA
OD Locking range	mm (inches)	10.3 - 73.0 (0.40 –2.87)	10.3 - 73.0 (0.40 –2.87)
Idle Speed	gg/min (Rpm)	133	113
Axial feeding	mm (inches)	30 (1.18)	30 (1.18)
Max Chuck Torque	Nm	153 (6 bar) 199 (8 bar)	56
Pneumatic Motor power	Hp (W)	1.09 (800)	-
Air Consumption	NI/min (cfm)	1000 (35)	-
Air Pressure	Bar (psi)	6 ÷ 8 (87 ÷ 116)	-
Air Hose Connection	Pollici (inches)	1/2" (1/2")	-
Electric Motor Power	W	-	900
Tension	Volt	-	110 / 230
Frequency	Hz	-	50/60
Max Acoustic emission	Db	75	75
Machine Weight	Kg	15	16

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## MACHINE DIMENSION



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## **TC 73 MODELS**

### **TC 73**



### **TC 73 “E”**



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## **MACHINE STANDARD EQUIPMENT**

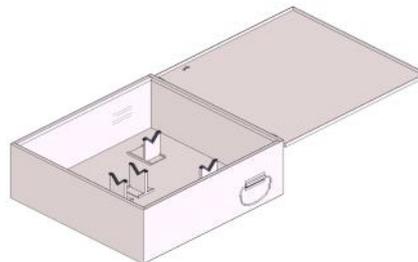
The machine is supplied equipped with:

- A series of 10 locking jaws from 10.3 to 73mm (each jaw is engraved with the locking diameter so that it can be easily selected in relation to the external diameter of the pipe you want to bevel)..
- 3mm Allen Key
- 6mm Allen Key
- Metal Case
- Instruction Manual.
- Exploded drawings of the machine .

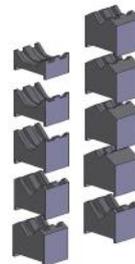
### **TC73**



### **Metal Case**



### **Locking Jaws**



### **Service Tools**



### **Instruction Manual and Drawings**



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## **SAFETY PRESCRIPTIONS**

G.B.C. Industrial Tools S.p.A. designs and assembles its machines in strict compliance with the safety regulations provided by the applicable EC directives and by the Italian laws regulating this matter.

G.B.C. Industrial Tools S.p.A. declines any responsibility for misuse of its machines and their use when in contrast with the regulation listed hereinafter and with the use and maintenance instructions hereto.

- Carefully read ALL the following regulations and the instructions herewith attached before starting any operation.
- Carefully ensure that the operator and the foreman using the machine are fully aware of all the regulations and all the instructions and that they are qualified to operate the unit.
- Strictly attain to the indications given by the international symbols applies on the machine and/or on its case.
- Do not perform any maintenance operation when the machine is plugged to the power supply.
- Before every use, ensure the power supply connections to be conform to the specs given by our manual.

The authorized operator in any case will not have to disregard the basic safety rules such as:

- Using gloves and goggles (safety gear supplied by the company responsible for the site or for the building)
- To properly illuminate the working area
- Ensure you are operating in an area which grants free movements (at least 1,5 metres around the operator)
- Do not replace the control system and do not replace parts with non original spare parts, and do not project violent water squirts on the machine
- Keep the hands away from hot and sharpened parts.
- 
- G.B.C. Industrial Tools S.p.A. remarks that for any non specified circumstances it is necessary to obtain the authorization of the manufacturer.

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Using properly the safety gear entails the only risks to be generated by the user's system and not by inborn defects of our machines.

1. Always wear gloves and goggles during every operation
2. Any adjustment or inspection of the machine shall be done with the unit unplugged from the power source.
3. During the operations the hands shall be kept on the security valve and on the hand wheel.
4. The Use and Maintenance Manual as well as the drawings will always supply quick and adequate explanations.



## **TRANSPORT RECOMMENDATIONS**

Weight of the Machine	kg	<b>16</b>
Shipping Dimensions	mm	850x450x350
Shipping Weight	kg	<b>34</b>

Under 25 Kgs no lifting machines are required.

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## **MACHINE STABILITY**

Considering the mass of the machine no particular problem has been detected in regard to the operator safety.

## **WORKPLACE**

By always using both hands for operating the machine, the operator is unable to reach the bevelling tools as the unit would suddenly stop – motor brake –

## **EMERGENCY STOP INSTALLATION**

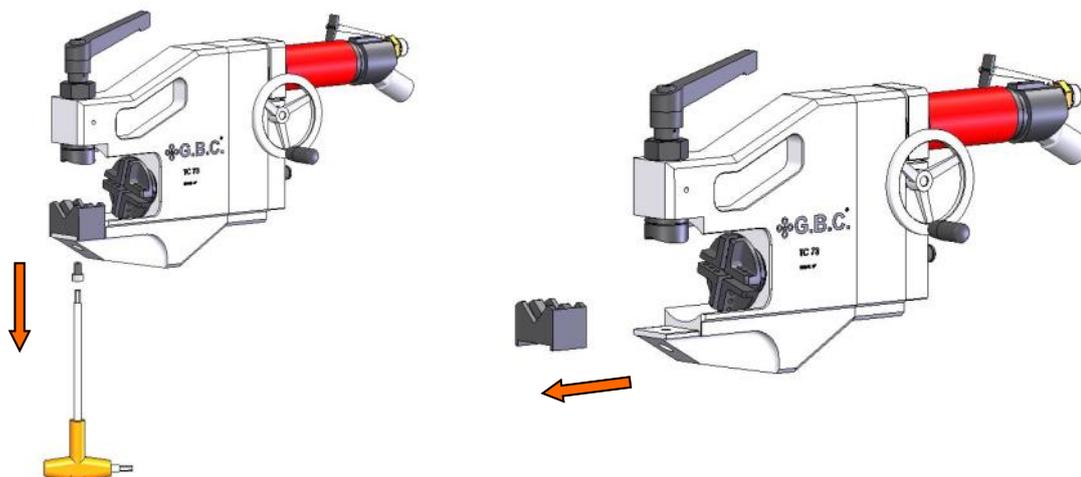
As provided for the paragraph 1.2.4.3. of the attachment 1 of the Machinery Directive, portable machines are exempt to have this feature.

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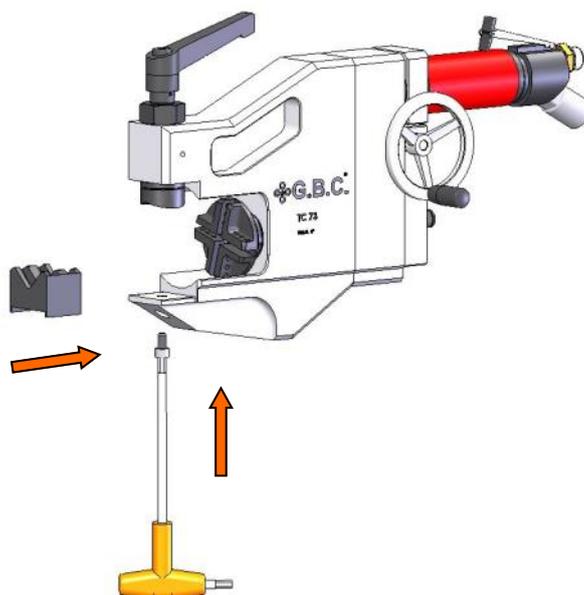
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## **MACHINE SETUP FOR BEVELLING**



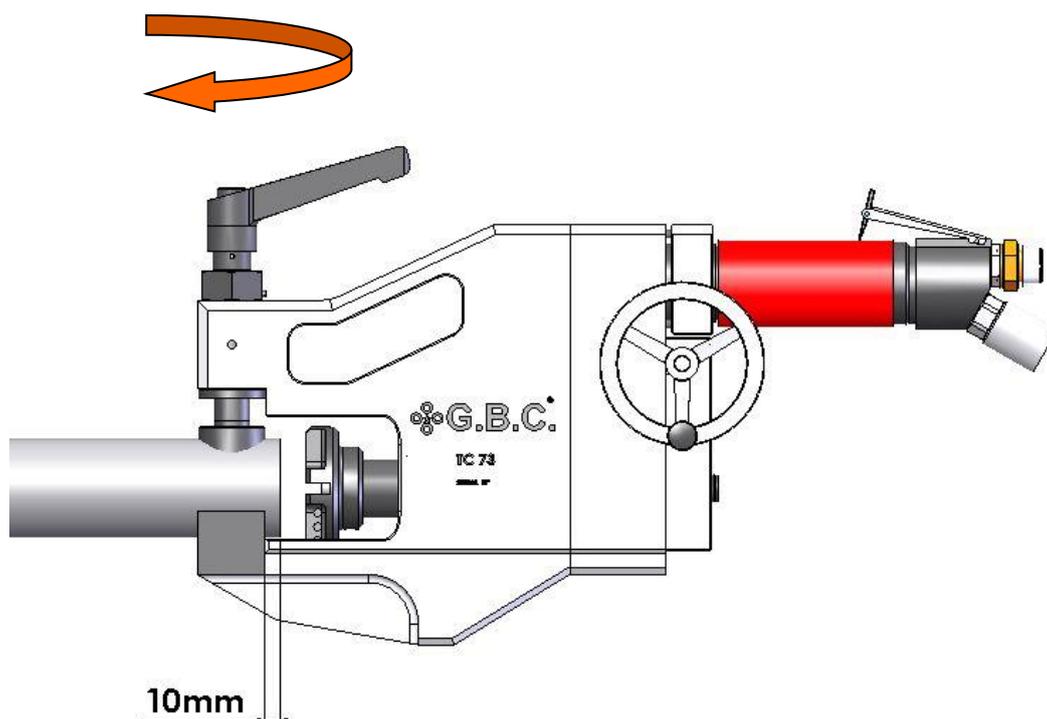
Remove the fixing screw using the 6mm Allen key to remove the **LOCKING JAW** from its seat as shown in the above picture.



Select the **LOCKING JAW** in function of the OD of the pipe you want to bevel and install it following the removal procedure backwards.

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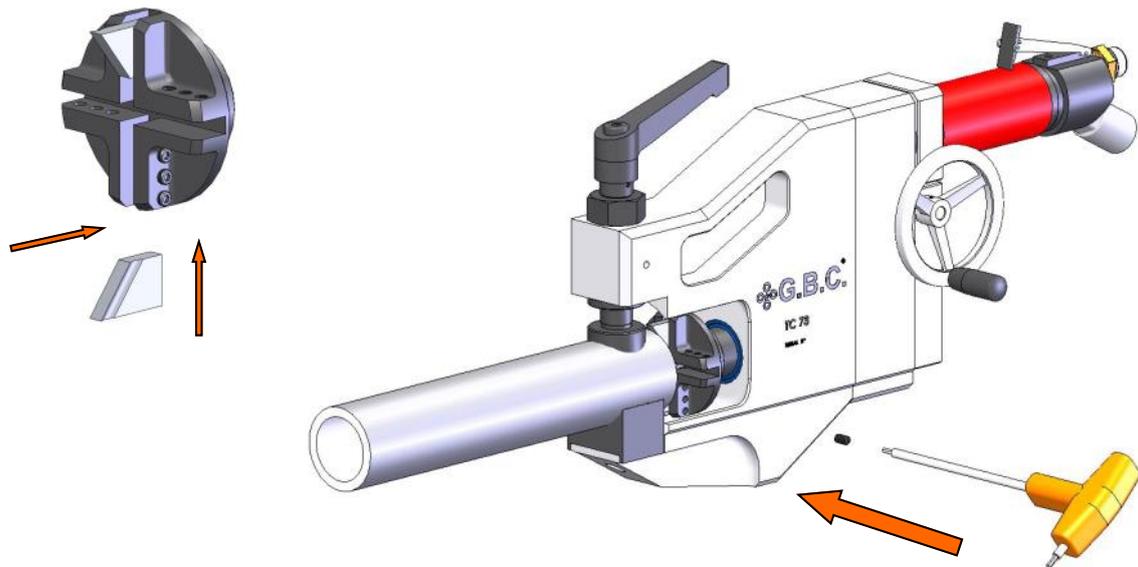


### **Locking the machine on the pipe:**

- 1– Place the machine so that the tip of the pipe protrudes from the **LOCKING JAW** 10mm at least as for the above picture.
- 2– Rotate the handle in a clockwise movement until the machine is firmly locked.

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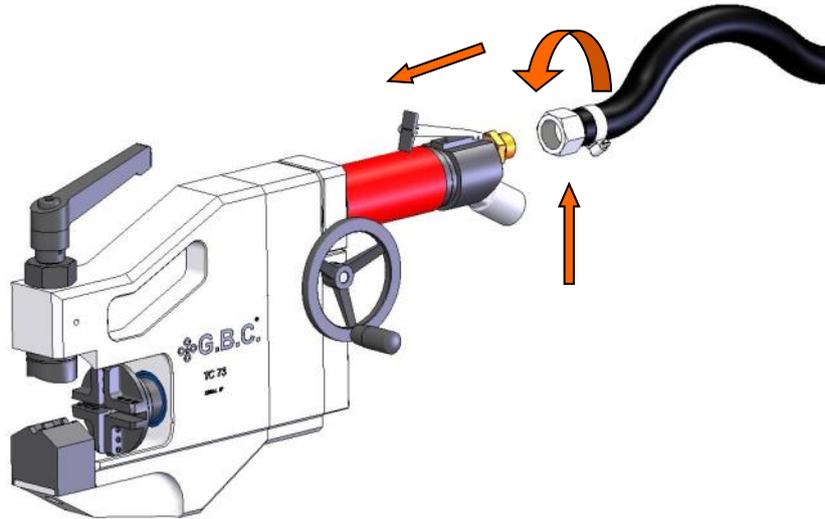
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**YES****NO**

Select the **BEVELLING TOOL** in relation to the bevel required and slide it into the **CHUCK** seats. Lock it in position with the grub screws using the 3mm Allen key.  
N.B. The tool blade profile should always face outwards and we warmly suggest to use two opposed beveling tools and eventually, when required a third one for facing.

**G.B.C. Industrial Tools S.p.A.**

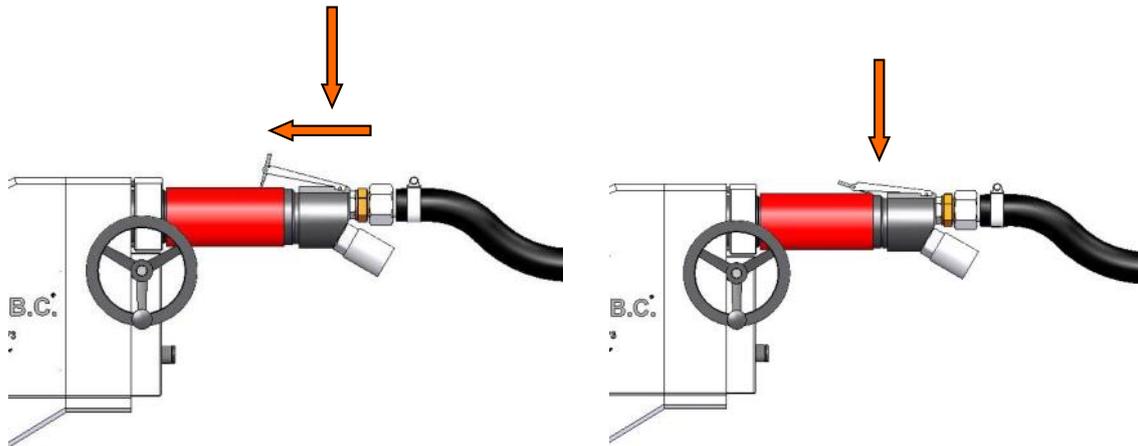
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Connect the machine to the air hose.

**N.B.:ALWAYS MAKE SURE THAT THE AIR PRESSURE OF THE SYSTEM HAS AT  
LEAST 6 BAR WITH AN AIR FLOW OF 1600 l/m.**

Hold the machine by keeping one hand on the security switch and the other hand on the hand wheel.



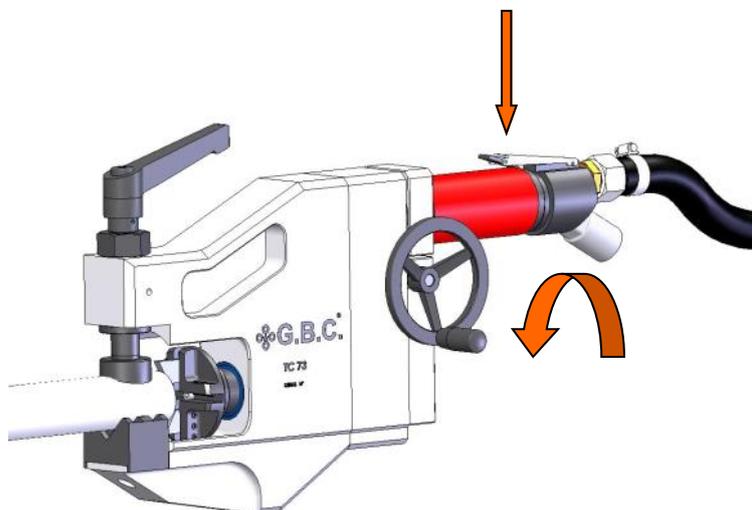
Press the lever as shown in the picture to start the machine.

**WARNING!**

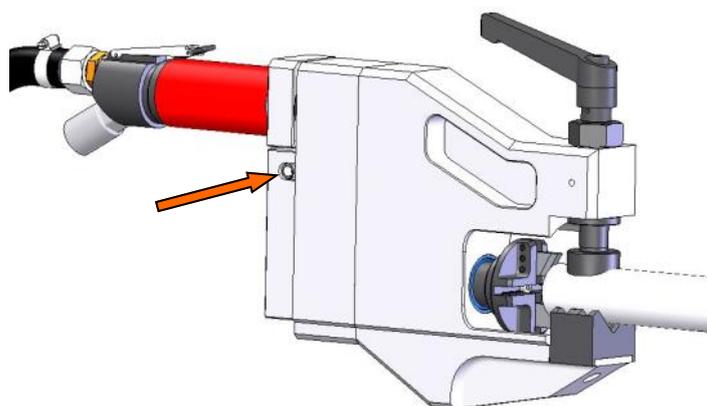
You will need to apply a constant pressure on the lever to keep the machine running.

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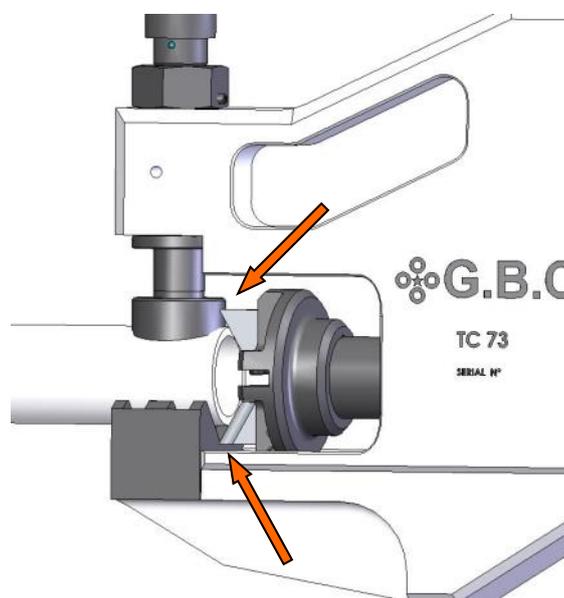
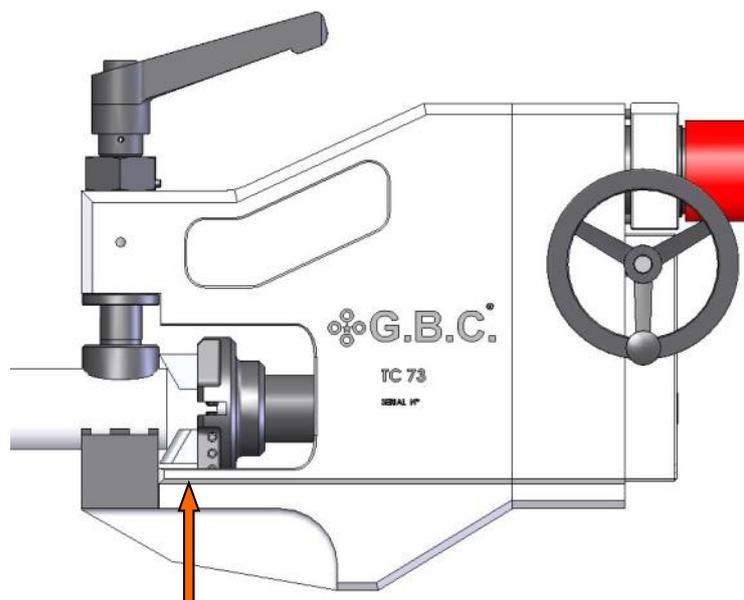
The machine feeding is actuated by turning the hand wheel clockwise as shown in the above picture. You will want to maintain a constant and continuous pace to obtain a uniform feeding and bevel.



**N.B.:THE HAND WHEEL CAN ALSO BE MOUNTED ON THE OPPOSITE SIDE OF THE MACHINE**

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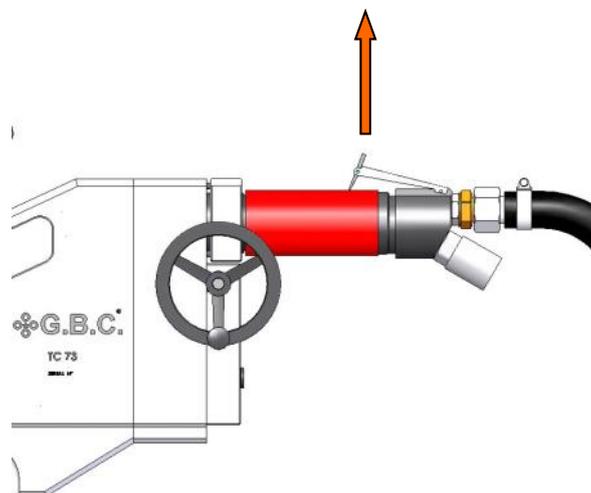
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**WARNING!**  
**DO NOT LET THE TOOLS TO TOUCH THE LOCKING JAWS**

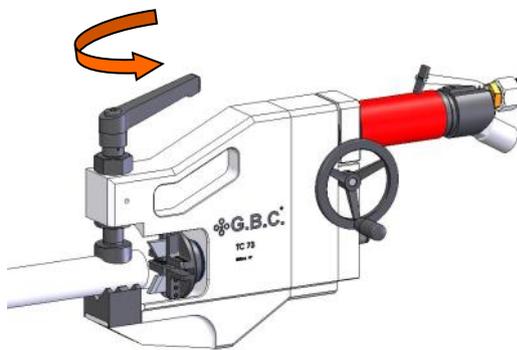
**G.B.C. Industrial Tools S.p.A.**

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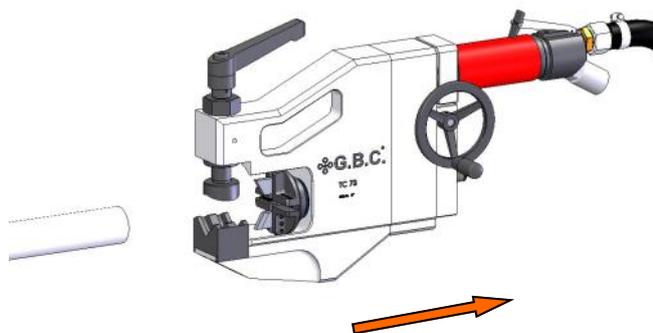


The machine will stop automatically as soon as the security lever is released.

**Picture 1**



**Picture 2**



Removing the machine from the pipe:

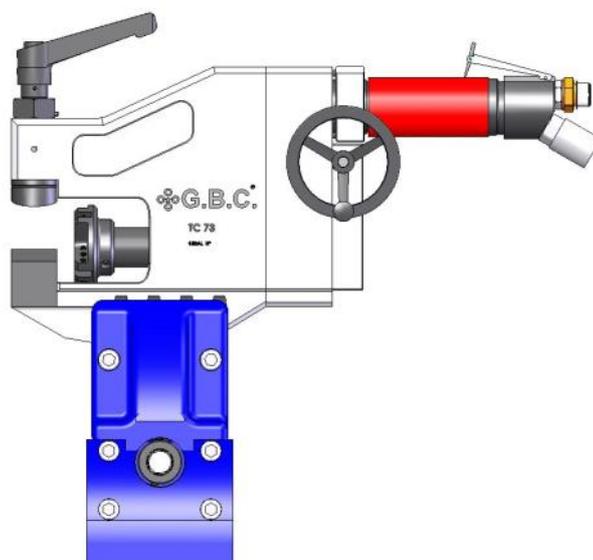
1. Rotate the handle counter-clockwise as shown in the Picture 1.
2. Remove the machine from the pipe.

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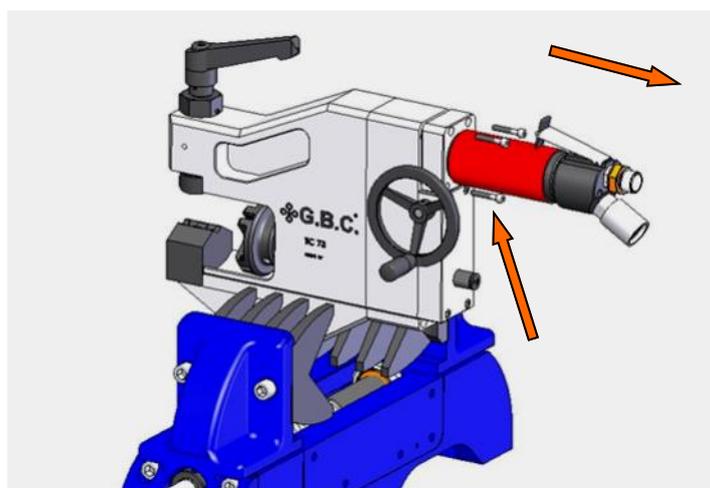
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## **CONVERTING THE MACHINE FROM PNEUMATIC TO ELECTRIC**



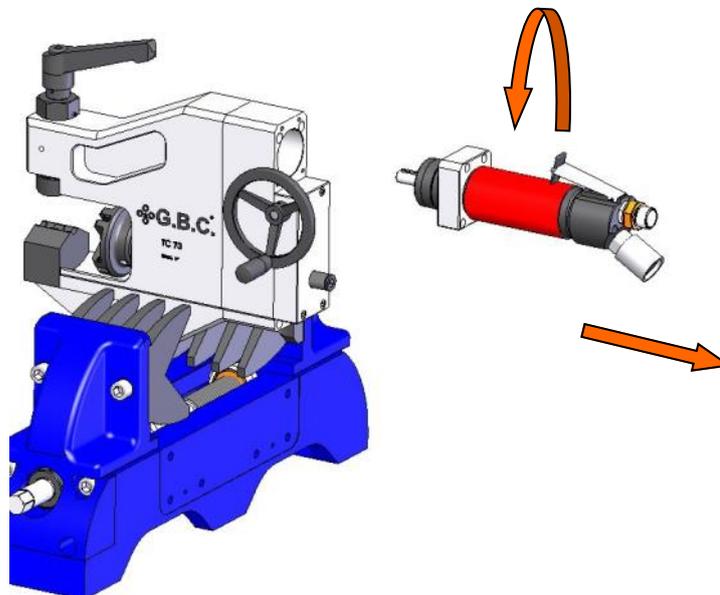
Clamp the machine by housing with a vice equipped with aluminium jaws.



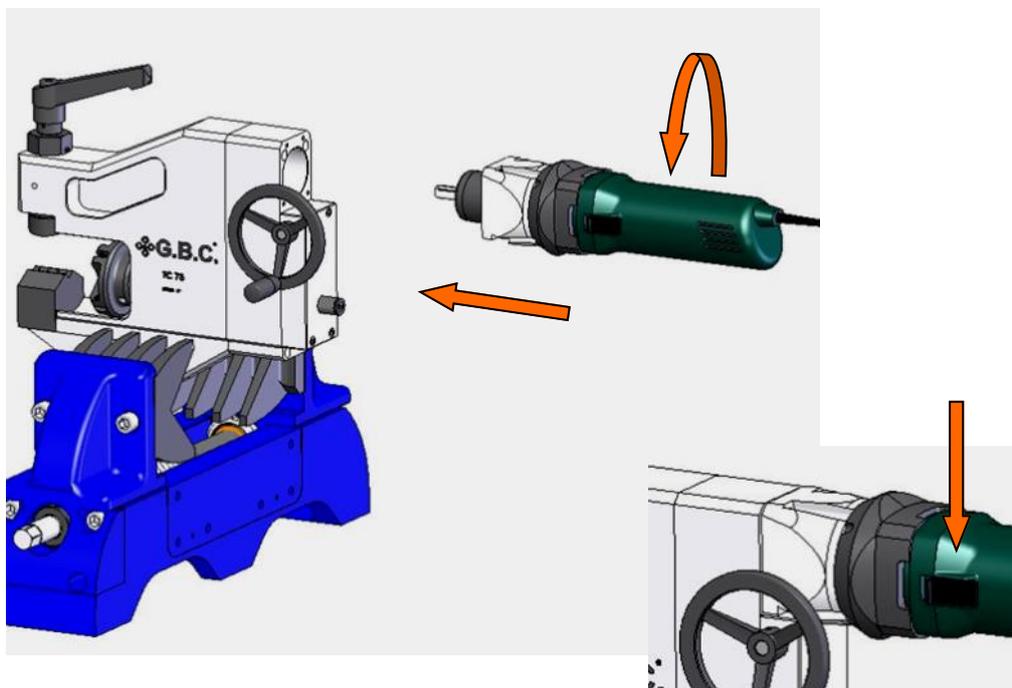
Unscrew and remove the 4 screws and the washer.

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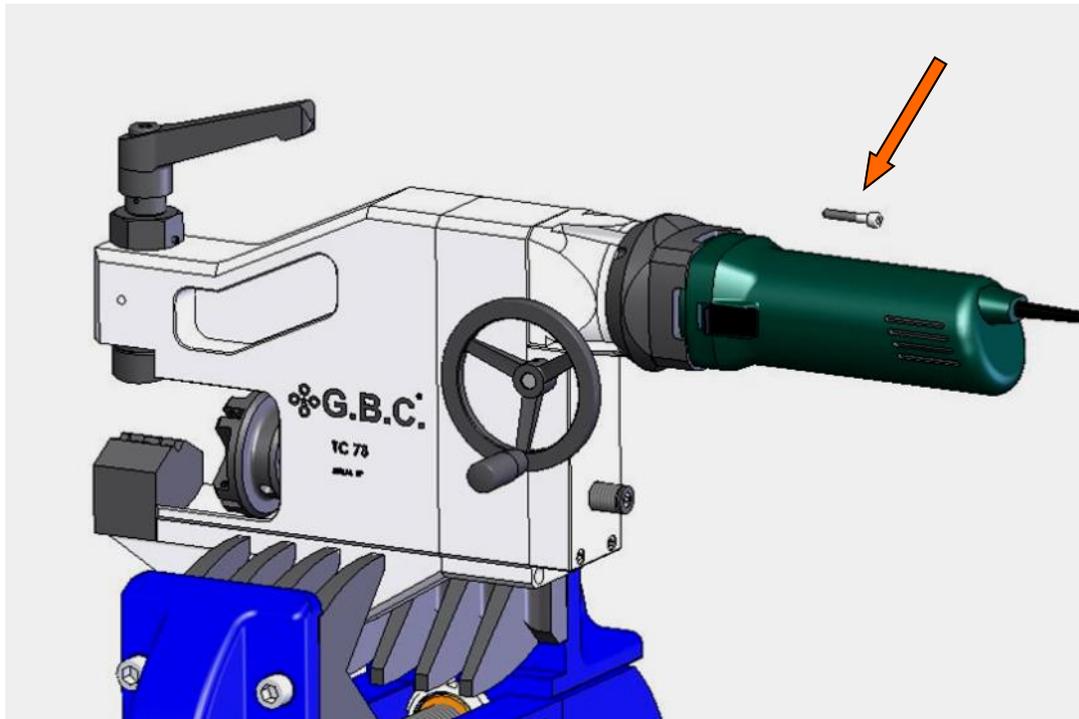
Grab the motor and pull it out with a rotatory motion until it comes out.



Insert the ELECTRIC DRIVE UNIT in the housing all the way down making sure the key located on the pinion is engaging the seat of the gear.

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Fix in place the ELECTRIC DRIVE UNIT by fastening the 4 screws.



## **ORDINARY MAINTENANCE**

We suggest to perform a service c/o G.B.C. Industrial Tools S.p.A. premises every 400 hours working cycles.

## **PERIODICAL CHECKS**

- Verify the general conditions of the machine;
- Always use the filter + lubricator when using pneumatic machines
- Ensure the filter + lubricator is mounted the nearest possible to the machine and that the lubricant contained is supplied by G.B.C. Industrial Tools S.p.A. only.
- Perform a compressed air periodical cleaning on the threaded part of the guiding shaft and in the rear part of the machine.
- Always ensure that the seats of the tools on the chuck are clean
- Every 20 – 30 hours ensure the security valve has no air leaks
- Ensure no air leaks are present on the air supply system nearby the connection between the machine and the hose.
- Introduce some drops of gasoline or similar oily solvent in the air intake nipple of the pneumatic motor and start the machine in idle.
- Always use well sharpened tools to obtain the maximum result.

G.B.C. Industrial Tools is at your disposal for any information you may require about the above mentioned procedures and for any general clarification you may need.

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## **TROUBLESHOOTING AND ACOUSTIC EMISSION**

**The machine does not run :** Check the power supply is connected and suitable in regard to the motor power consumption.

**The machine does not run properly :** Check the condition of the shaft and verify it to perfectly spins around its axis of rotation.

**The machine does not bevel :** Check the beveling tools condition and ensure that the pipe you are working does not require special beveling tools due to its composition. Always ask suggestions to your referent in G.B.C. as we are at your complete disposal.

The acoustic emissions are within the maximum limits provided by the current Machinery Directive.

The tests are performed on every single machine and the results are stored in our archives.