

INSTRUCTION MANUAL



MINI AUTO COMPACT

Range Ø 20 / 42 mm (0,78"- 1,78")





Original Instructions - rev.01 - 2016 - in compliance with \S 1.7.4 of the Machine Directive 2006/42/CE

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PRESENTATION OF THE COMPANY AND INTOR-DUCTION 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 beveling procedures of any sort and plate beveling machines..

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

QUALITY STANDARD—All our machines are assembled acording to the highest quality standard. Since 1996 G.B.C. In-dustrial 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.**

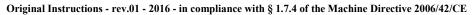
recommends to contact the Maintenance Service in Cazzago San Martino – Italy prior to proceed with any modification on the machine.

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







WARRANTY GENERAL CLAUSES

G.B.C. 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.**.

In case of any operational malfunction arising during the warranty period, **G.B.C** 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.** 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.** 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.** discretion only. The shipmen 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.** and **MSS**, otherwise the warranty will be void.

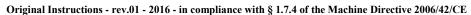
Any ordinary maintenance performed by the customer/user or by any service centre non recognized or approved by **G.B.C.** will not be refunded and will make the warranty void. The warranty is not valid for cases not listed in this certificate or for damage caused by a misuse of materials, power supply, negligence, unauthorized modifications, atmospheric events, acts of vandalism, incautious handling and/or transport, use of non original **G.B.C.** parts and damage for causes not specified by **G.B.C.** and for which **G.B.C.** declines any responsibility. **G.B.C.** 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.** 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.

N.B.: "Filter lubricator units are necessary accommodations for all pneumatic tools in an industrial environment in order to ensure maximum machine performance and to prevent premature motor breakdown. Failure to use a filter lubricator calibrated to this unit will void certain warranty claims"

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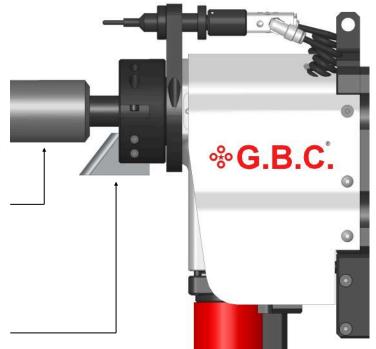


INTENDED USE OF THE MACHINE

The machine shown in the Drawing is conceived welding preparation of pipes.

It operates while gripping in the ID of the pipe.

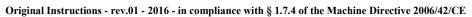
The bevel is obtained by bevelling tools of various shape and materials, depending by the nature of the material to be bevelled.



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

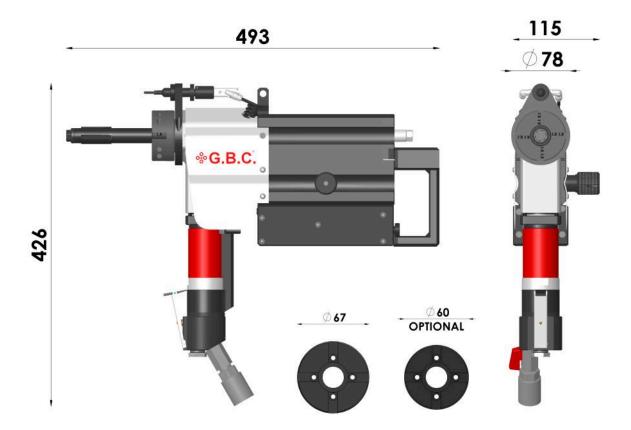
FOLLOWING TO A SPECIFIC FORMATION WE DO NOT ENVISAGE ANY REASONABLY PREDICTALBE MISUSE OF THE UNIT







TECHNICAL FEATURES				
		PNEUMATIC		
ID Locking Range	mm (inches)	20 - 42 (0.78 –1.65)		
Idle Speed	gg/min (Rpm)	180		
Torque	Nm (Nm)	35 (6 bar) 46 (8 bar)		
Feeding Stroke	mm (inches)	40 (1.57)		
Pneumatic Motor Power	Hp (W)	0.59 (435)		
Air Consumption	L/min (cfm) 615 (21.7)			
Ari Pressure Required	Bar (psi)	7 ÷ 8 (101 ÷ 116)		
Air Hose Connection	Pollici (inches) 1/2" (1/2")			
Maximum Acoustic Emission	Db	75		
Machine weight	kG	11.2		





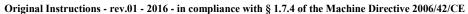
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MINI AUTOMATICA COMPACT









MACHINE STANDARD EQUIPMENT

The machine is supplied with:

- Series of Locking Jaws from 20 to 42 mm (one set of which is already mounted)
- 3 mm Allen Key.
- Double open end Wrench 14-17
- Filter Lubricator FR+L 1/2"
- Machine Case
- Instruction Manual and Drawings

Mini Auto Compact

Service Tools

Instruction Manual and Drawings







Filter Lubricator



Filter lubricator units are necessary accommodations for all pneumatic tools in an industrial environment in order to ensure maximum machine performance and to prevent premature motor breakdown. Failure to use a filter lubricator calibrated to

this unit will void certain warranty claims.



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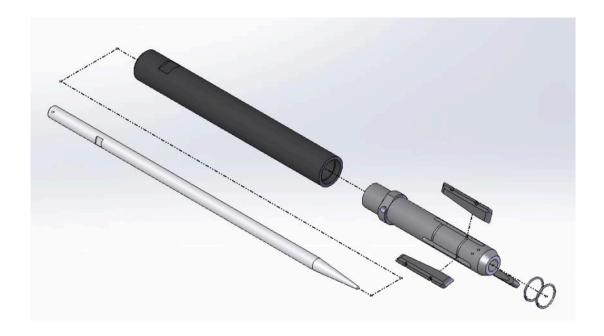


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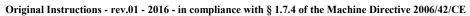


OPTIONAL EQUIPMENT

INTERCHANGEABLE REDUCED SHAFTD FOR ID PIPES FROM 12.5mm TO 21mm ID









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)

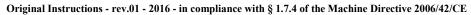
Do not replace the control system and do not replace parts with non original spare parts, and do not project violent water squirts on the machine

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

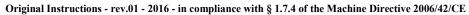
Weight of the Machine	kg	10	
Shipping Dimensions	mm	800x600x300	
Shipping Weight	kg	20	

Al di sotto dei 25 Kg non sono richiesti mezzi di sollevamento diversi dalla forza umana di un unico operatore

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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 –

<u>EMERGENCY STOP INSTALLATION EXEMPTION</u>

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.

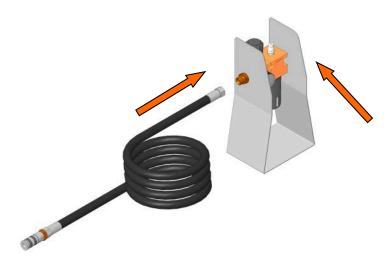


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PRELIMINARY SETUP

Connection to the air system

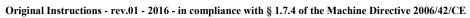


Connect the hose to the Filter Lubricator as shown in the above picture. At the other end of the Filter you will have to connect the hose that goes into the air system.



Connect the air hose to the machine.

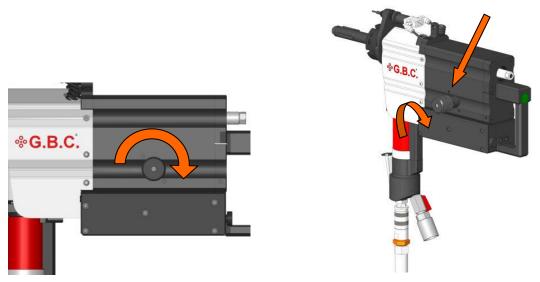




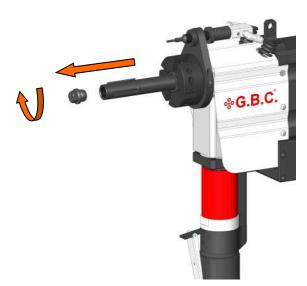


MACHINE SETUP

- Locking Jaws Replacement -



Turn the Feeding Adjustment Valve clockwise as shown above.



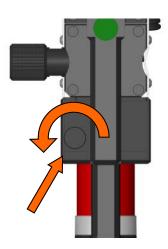
Unscrew the Vane Abutment Nut with a counter-clockwise movement using the appropriate wrench.



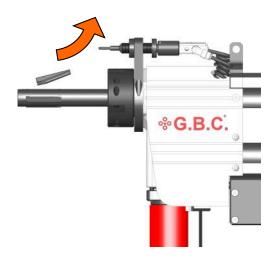


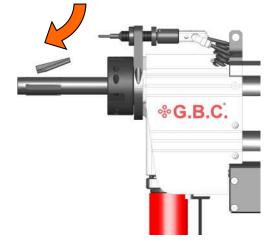






Unscrew the Manual/Auto knob with a counter-clockwise rotation. NB Max 2 full turns.





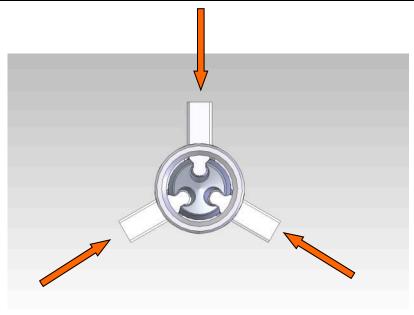
Remove the jaws.

Select the required jaws and insert them in the vacant seats of the jaws you have just removed.

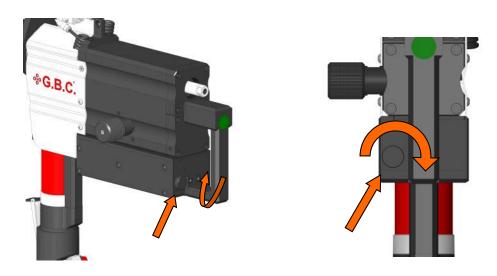


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Apply a small pressure on the jaws with your hand.

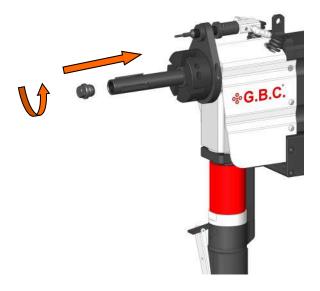


Screw the Manual/Auto know rotating it clockwise until it stops.



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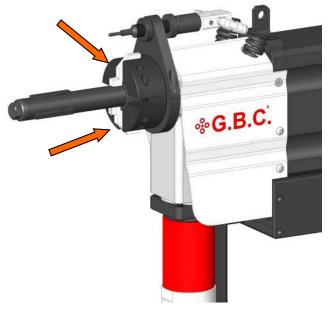
Screw back in place the Vane Abutment Nut.



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- TOOLS SETUP -

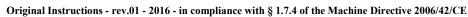


Select the required tools according to the actual job to do and also according to the shaft mounted on the machine and place them in the seats of the chuck.

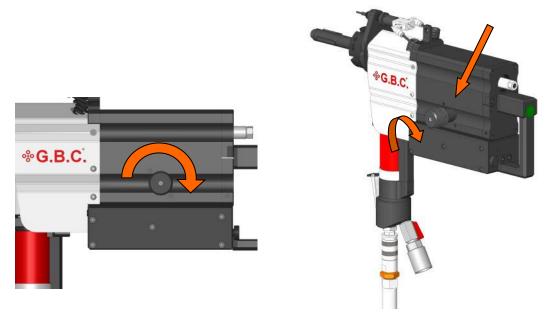


CORRECT POSITION







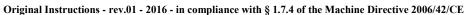


Close firmly the Feeding Adjustment Valve with a clockwise rotation.

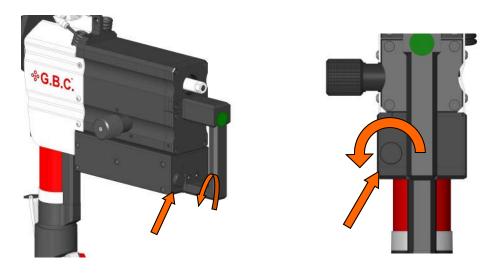


Slide the shaft inside the pipe to be bevelled.









Unscrew the Manual/Auto knob with a counter-clockwise rotation. NB Max 2 full turns. The machine is now firmly locked into the pipe.

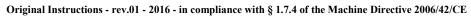


Start the machine by pressing the lever as shown in the above picture.

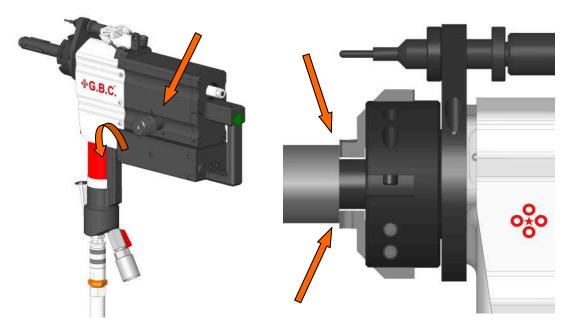


WARNING: It is necessary to exercise a constant pression.

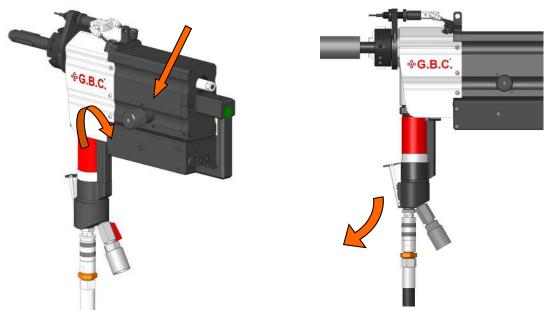






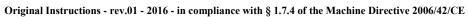


Start the feeding by turning the Feeding Adjustment Valve counter-clockwise and bevel the pipe for about 1-

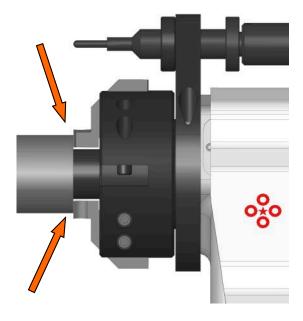


Stop the feeding by rotating the Valve in the opposite direction until it stops. Release the motor lever to stop the rotation of the chuck.

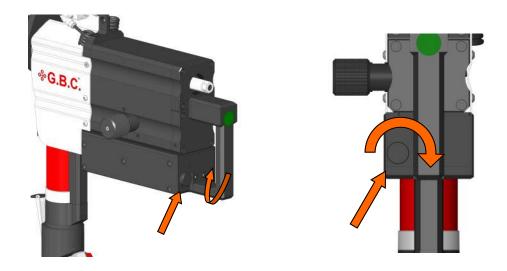






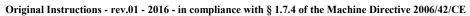


Adjust the tools so that they both perfectly touch the pipe end you have just bevelled.



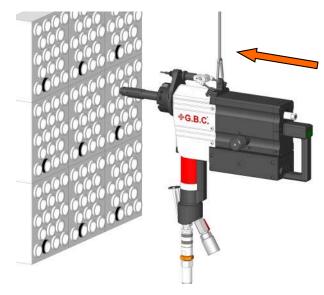
Hold up the machine and turn the Manual/Auto knob clockwise until it stops. Now the AUTO mode is activated.



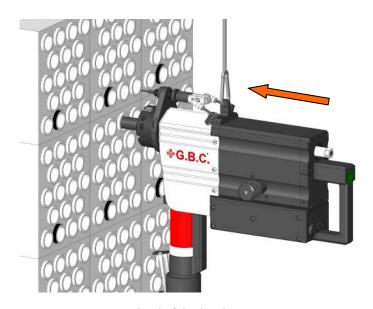




USE OF THE MACHINE

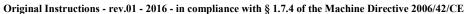


If possible use a balancer (GBC optional) to sustain the machine perpendicular to the pipes as shown above.

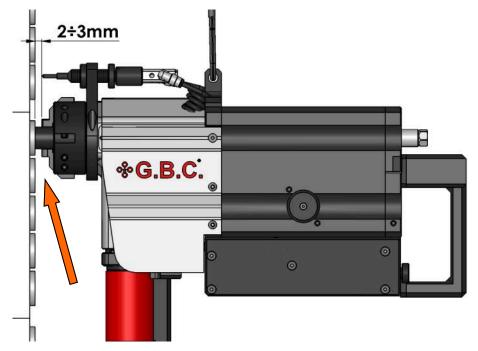


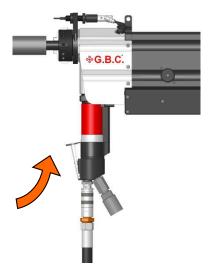
Insert the shaft in the pipe.











Hold up the machine and center it with the pipe bringing the tools to a distance of about 2-3mm from the pipe itself

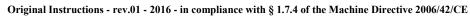
Start the machine by pressing the lever as shown in the picture.

N.B.: REMEBER TO ADJUST THE MACHINE FEEDING BY ACTING ON THE REGULATOR.

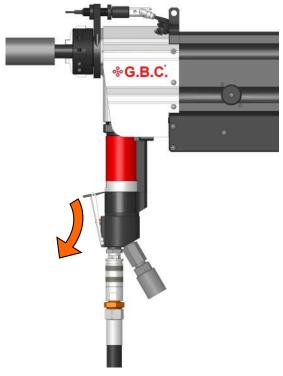
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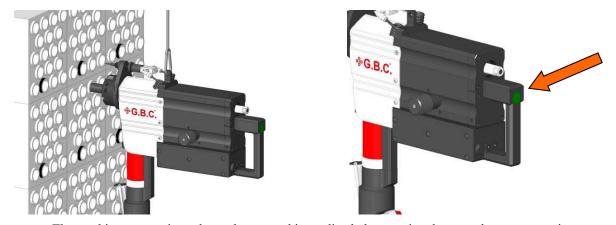






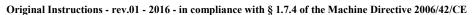


When the desired result is achieved release the security lever to stop the machine feeding and the chuck rotation. The Mini Auto Compact will return to the start position.



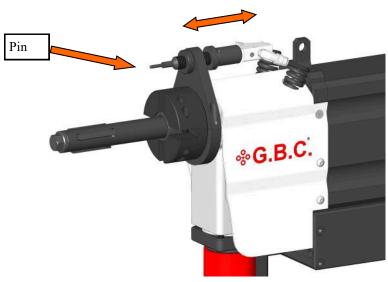
The machine automatic cycle can be stopped immediately by pressing the green button at any time.







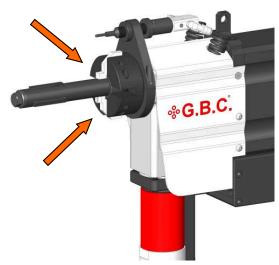
END-STOP SETUP



The machine is equipped with a pneumatic End-Stop (Pin) through which you can determine the length of the pipe protruding from a fixed point that could be either a tubesheet or the pipe itself.

This length can be adjusted by sliding the Pin on the support.

The Pin can be replaced with longer pins so that you can reach any specific length.

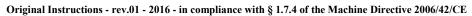


Select the required tools according to the actual job to do and also according to the shaft mounted on the machine and place them in the seats of the chuck.

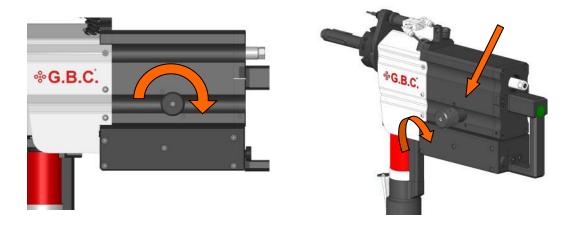
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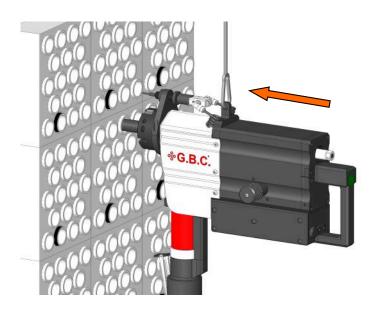






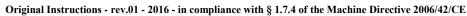


Close firmly the Feeding Adjustment Valve with a clockwise rotation.

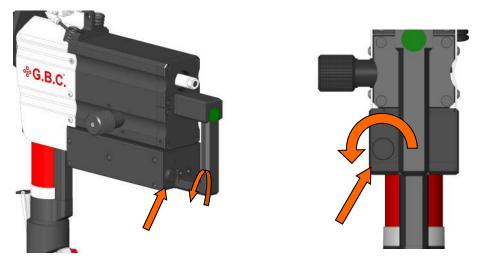


Insert the shaft inside the pipe to be bevelled.









Unscrew the Manual/Auto knob with a counter-clockwise rotation. NB Max 2 full turns. The machine is now firmly locked into the pipe.

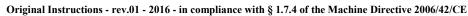


Start the machine by pressing the lever as shown in the above picture.

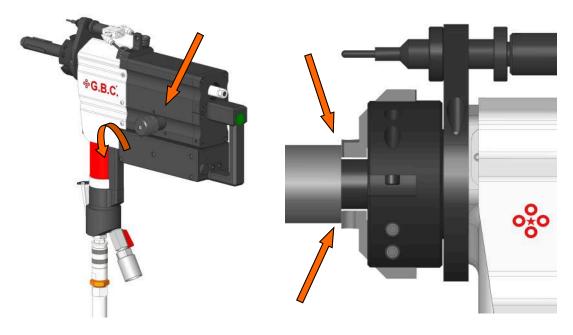


NB: The switch requires a constant pression applied.

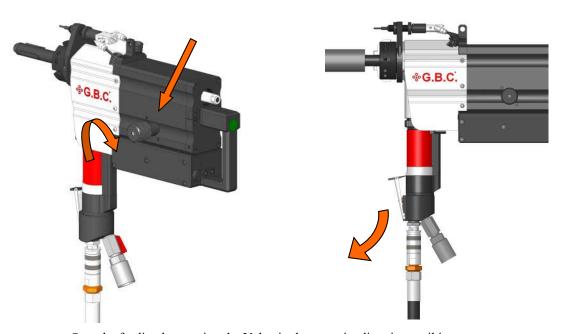








Start the feeding by turning the Feeding Adjustment Valve and execute the bevel until you reach the desired finishing.

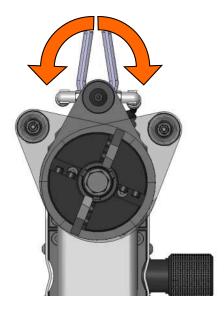


Stop the feeding by rotating the Valve in the opposite direction until it stops. Release the motor lever to stop the rotation of the chuck.

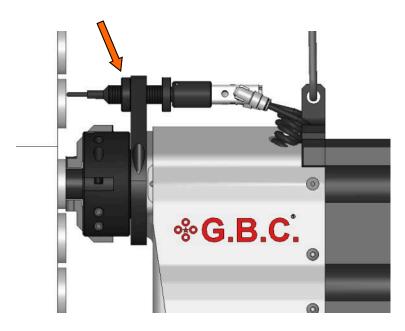






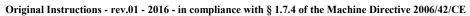


The Pin position can be shifted in order to overcome eventual encumbrances preventing it to touch the required

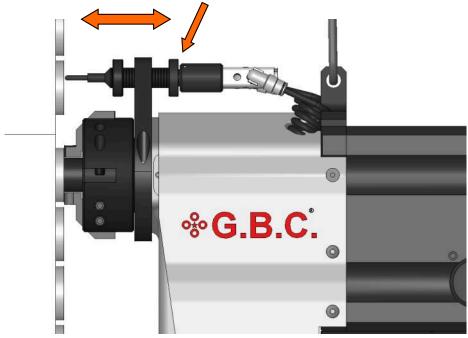


Loosen the end.-stop ferrule.



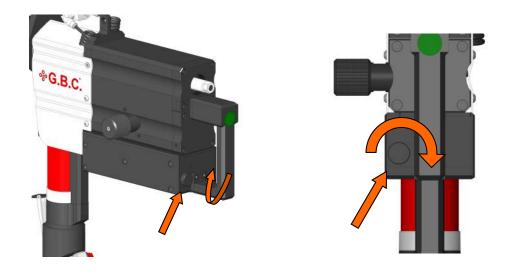






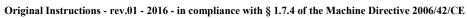
Act on the screw by turning it in a clockwise or counter-clockwise direction until the end-stop activates the machine automatic stop.

Now you can secure the ferrule.



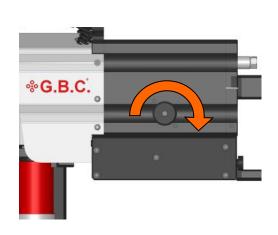
Hold up the machine and screw the Manual/Auto knob until it stops. The AUTO mode is now active.







- REDUCED SHAFTS ASSEMBLY -





Close the feeding valve tightly by turning it clockwise.

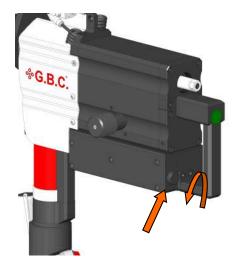


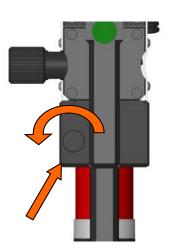
Unscrew the vane abutment nut by turning it in a counter-clockwise direction using the specific wrench supplied with the machine.









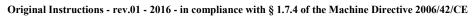


Unscrew the Manual/Auto knob with a counter-clockwise rotation. NB Max 2 full turns.

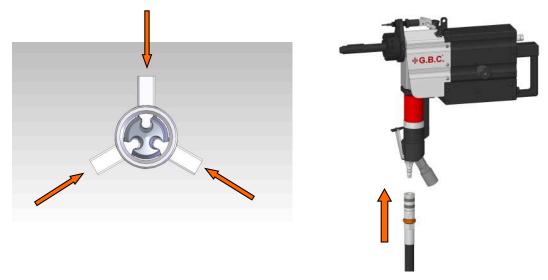


Remove the protection from both sides as shown in the above picture.

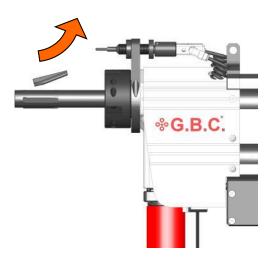








Connect the air hose as shown in the above picture holding your hand on the three locking jaws keeping them pressed and steady in position. Now let the machine to feed until the end of the stroke.

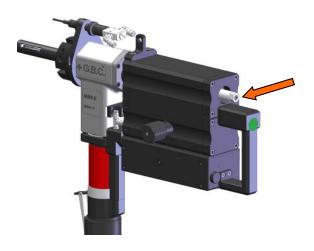


Remove the jaws as shown above.

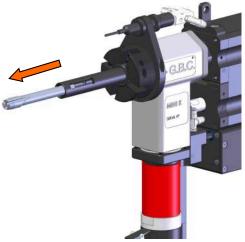


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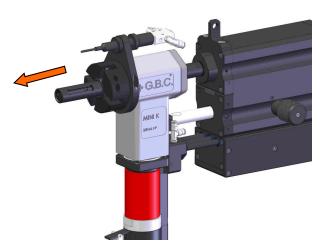


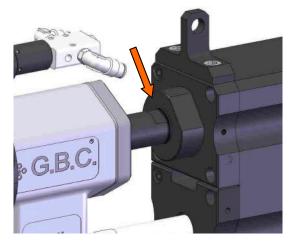


Loose the set screw indicated in the above picture



Rotate the expansion shaft in a counterclockwise direction using a long beak pliers until it can be removed from the machine.



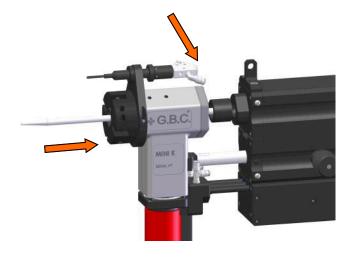


Turn the guiding shaft clockwise using the appropriate tool and keep turning until you can remove it from the machine.



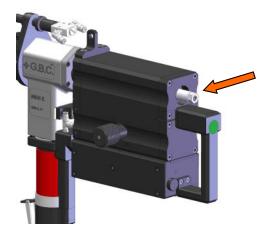
 $Original\ Instructions - rev. 01 - 2016 - in\ compliance\ with\ \S\ 1.7.4\ of\ the\ Machine\ Directive\ 2006/42/CE$





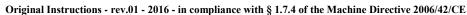


Insert the reduced shaft in the hole and the spacer as shown in the above picture. Turn the reduced shaft clockwise until it protrudes 58mm from the chuck as shown in the above picture



Screw back in position the set screw previously loosen

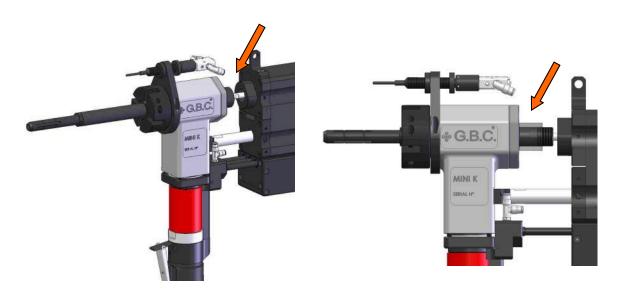






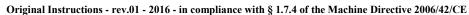


Assemble the reduced shaft extension and the reduced shaft top as shown in the above pictures.

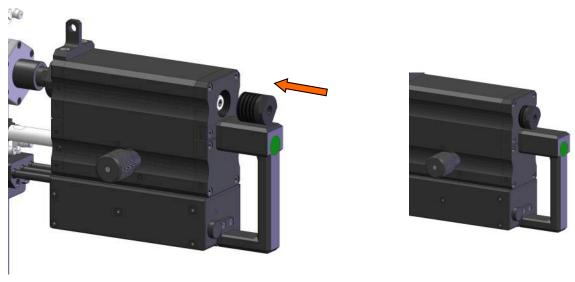


Insert the guiding shaft previously assembled in the machine, making sure to match the spacer in the back as shown in the above picture. Now screw the shaft all the way down turning it in a counter-clockwise direction.









Assemble the stroke end-stop screwing it in a clockwise rotation.



Install the 3 locking jaws suitable for pipe ID to be worked and secure them in place using the specific rings supplied with the reduced shaft assembly. The ring will achieve a steady position thanks to the grooves present both in the jaws and on the shaft top.

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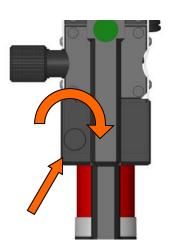
Via Sandro Pertini 41/43 – 25046 Cazzago San Martino (Bs) – Italia – Tel. + 39 030 7451154 – Fax. + 39 030 73 56 629



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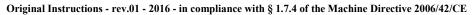


Turn the Manual/Auto knob in a clockwise direction until the end of the stroke. The AUTO function is now active.



Screw the protections removed back in place on both sides.







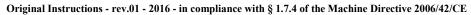
<u>MAINTENANCE</u>

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

- 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.
- From time to time check the oil presence in the filter and in the lubricator (shown in the pictu-re) located in the control box

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







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 bevelling 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.